

A G E N D A

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1542 | FAX 503 797 1793



METRO

Agenda

MEETING: METRO COUNCIL REGULAR MEETING
DATE: December 1, 2005
DAY: Thursday
TIME: 2:00 PM
PLACE: Metro Council Chamber

CALL TO ORDER AND ROLL CALL

1. INTRODUCTIONS

2. CITIZEN COMMUNICATIONS

3. ECONOMIC DEVELOPMENT RESEARCH GROUP Brandman

4. CONSENT AGENDA

4.1 Consideration of Minutes for the November 17, 2005 Metro Council Regular Meeting.

4.2 **Resolution No. 05-3634**, For the Purpose of Declaring Certain Property Surplus and Authorizing the Execution of Metro Contract 926883 For a Lease.

5. RESOLUTIONS

5.1 **Resolution No. 05-3631**, For the Purpose of Confirming the Appointment Of George Forbes to a Four-Year Term on the Metropolitan Exposition-Recreation Commission Park

5.2 **Resolution No. 05-3632**, For the Purpose of Confirming the Appointment Of Sheryl Manning to a Four-Year Term on the Metropolitan Exposition-Recreation Commission Park

5.3 **Resolution No. 05-3633**, For the Purpose of Confirming the Appointment Of Don Trotter to a Four-Year Term on the Metropolitan Exposition-Recreation Commission Park

5.4 **Resolution No. 05-3592**, For the Purpose of Council Approval of the Smith and Bybee Wetlands Natural Area Trail Feasibility Study and recommendation of a Preferred Trail Alignment (*Public Hearing – Time Certain 3:30pm*). Burkholder

5.5 **Resolution No. 05-3643**, For the Purpose of Council Approval of the Cooper McLain
Mountain Master Plan and Management Recommendations.

5.6 **Resolution No. 05-3644**, For the Purpose of Establishing a Brown FieldsBurkholder
Program and a Brown Fields Task Force.

6. CONTRACT REVIEW BOARD

6.1 **Resolution No. 05-3645** For the Purpose of Authorizing an Exemption from Park
Competitive Bidding requirements and Authorizing the Chief Operating
Officer to Issue a Design/Build Request for Proposals (RFP), For the Design,
Engineering and Construction of a Water Play Facility for Blue Lake
Regional Park and Enter into a Contract with the Selected Contractor.

7. CHIEF OPERATING OFFICER COMMUNICATION

8. COUNCILOR COMMUNICATION

ADJOURN

Television schedule for Dec. 1, 2005 Metro Council meeting

Clackamas, Multnomah and Washington counties, and Vancouver, Wash. Channel 11 -- Community Access Network www.yourtv.org -- (503) 629-8534 2 p.m. Thursday, Dec. 1 (live)	Portland Channel 30 (CityNet 30) -- Portland Community Media www.pcmtv.org -- (503) 288-1515 8:30 p.m. Sunday, Dec. 4 2 p.m. Monday, Dec. 5
Gresham Channel 30 -- MCTV www.mctv.org -- (503) 491-7636 2 p.m. Monday, Dec. 5	Washington County Channel 30 -- TVC-TV www.tvctv.org -- (503) 629-8534 11 p.m. Saturday, Dec. 3 11 p.m. Sunday, Dec. 4 6 a.m. Tuesday, Dec. 6 4 p.m. Wednesday, Dec. 7
Oregon City, Gladstone Channel 28 -- Willamette Falls Television www.wftvaccess.com -- (503) 650-0275 Call or visit website for program times.	West Linn Channel 30 -- Willamette Falls Television www.wftvaccess.com -- (503) 650-0275 Call or visit website for program times.

PLEASE NOTE: Show times are tentative and in some cases the entire meeting may not be shown due to length. Call or check your community access station web site to confirm program times.

Agenda items may not be considered in the exact order. For questions about the agenda, call Clerk of the Council, Chris Billington, (503) 797-1542. Public hearings are held on all ordinances second read and on resolutions upon request of the public. Documents for the record must be submitted to the Clerk of the Council to be considered included in the decision record. Documents can be submitted by e-mail, fax or mail or in person to the Clerk of the Council. For additional information about testifying before the Metro Council please go to the Metro website www.metro-region.org and click on public comment opportunities. For assistance per the American Disabilities Act (ADA), dial TDD 797-1804 or 797-1540 (Council Office).

MINUTES OF THE METRO COUNCIL MEETING

Thursday, November 17, 2005
Metro Council Chamber

Councilors Present: David Bragdon (Council President), Susan McLain, Robert Liberty, Rex Burkholder, Carl Hosticka, Rod Park, Brian Newman

Councilors Absent:

Council President Bragdon convened the Regular Council Meeting at 2:01 p.m.

1. INTRODUCTIONS

There were none.

2. CITIZEN COMMUNICATIONS

There were none.

3. METRO AUDITOR'S UPDATE

Alexis Dow, Metro Auditor, provided an overview of areas that her department had been working on. She noted that she had regular meetings with the Council President and the Chief Operating Officer. She noted recent changing in staffing for policy and public relations. She spoke to the charge of her office, which was to focus on operations. Were efforts being carried out efficiently and results being achieved? She talked about her role in evaluating various operations of Metro and making recommendations for better performance with fewer resources. She apprised Council of the Auditor Office current activities, which included several projects that were outsourced. There were 8 audit projects in process as well as monitoring the financial statement audit. She provided details on those audits, which were almost done, were at mid point and were just getting started as well as one, which was planned for the first of the year.

Almost done:

1. Analysis of MERC maintenance efforts and reserves
2. Evaluation of Planning Dept service contract management
3. Evaluation of Zoo contract with ARAMARK for management of zoo retail store
4. Preparation of upcoming audit plan
Midway
5. Annual update on the status of audit recommendations
6. Oversight of BPI effort
7. Study of the 2040 performance measures report by the planning Dept
Just starting
8. Study of cash collection internal controls
Planned around 1st of year
9. Evaluation of Workers Comp claims

She also noted other areas of interest including MERC's use of Central Services, the Parks proposed Bond Measure, the Aramark contract and other human resource issues at the Zoo and the ongoing changes in Central services. She asked Council if they had any feedback or questions. There were none.

4. CONSENT AGENDA

4.1 Consideration of minutes of the November 10, 2005 Regular Council Meetings.

Motion:	Councilor Liberty moved to adopt the meeting minutes of the November 10, 2005 Regular Metro Council.
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Vote:	Councilors McLain, Liberty, Park, Newman, Hosticka and Council President Bragdon voted in support of the motion. The vote was 6 aye, the motion passed with Councilor Burkholder abstaining from the vote.
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5 ORDINANCES – FIRST READING

5.1 Ordinance No. 05-1097, Amending the Metro Habitat Conservation Areas Map and Other Maps Related to Title 13 of the Urban Growth Management Functional Plan, and Declaring an Emergency.

Council President Bragdon assigned Ordinance No. 05-1097 to Council.

6. ORDINANCES - SECOND READING

6.1 Ordinance No. 05-1089A, For the Purpose of Amending Chapter 3.01 of the Metro Code (Urban Growth Boundary and Urban Reserve Procedures) and Title 11 (Planning for New Urban Areas) of the Urban Growth Management Functional Plan to Comply With Changes in State Planning Laws, and Declaring an Emergency.

Motion:	Councilor McLain moved to adopt Ordinance No. 1089A.
Seconded:	Councilor Newman seconded the motion

Councilor McLain introduced the ordinance and explained the changes in the Code and Title 11 to comply with the State Planning laws.

Dick Benner, Metro Senior Attorney, provided specific details of the changes, which included the findings (provided in the meeting record).

Councilor Liberty asked Mr. Benner about best practices. Mr. Benner responded to his question and suggested choosing the areas that best achieved the goal. Councilor Liberty asked about picking the area that was better, was this implicit in the Code? Mr. Benner said he felt it was implicit, you must chose the area that was better or best. Councilor Liberty suggested a language change to clarify Exhibit A, pages 84 and 85. Councilor Hosticka provided his comments on the language change. He did not think it was a good idea to say what a Council must do. Councilor Liberty said when Council set rules forth, they were bound by those rules. Councilor McLain said on page 4 of Exhibit A, it said exactly what Councilor Liberty was suggesting. Mr. Benner concurred with Councilor McLain's comment. She said they had two things to deal with: State law and local jurisdictions criteria that regional partners had determined were important. Councilor Newman agreed with Councilor McLain's comments. Councilor Liberty said his revision was primarily housekeeping.

Council President Bragdon opened a public hearing on Ordinance No. 05-1089A.

Meg Fernekes, Division of Land Conservation and Development (DLCD) staff, thanked Council for their changes to the ordinance. She spoke to the minor Urban Growth Boundary (UGB) amendment process. She suggested removal of a sentence to satisfy DLCD's concerns. Section 035A, page 10, Exhibit A.

Council President Bragdon closed the public hearing.

Motion to amend:	Councilor Liberty moved to amend Ordinance No. 1089A.
Seconded:	Councilor Park seconded the motion

Councilor Liberty explained his amendment and felt that Forest Park was an example of why he was bringing forward the amendment. Councilor McLain suggested the need for balance between being too restrictive and partner's requests. She felt the language in front of Council provided that balance and that she did not support the amendment. Councilor Newman said he would not support the amendment and explained his vote.

Vote to amend:	Councilors Park, Hosticka, Burkholder, McLain, Newman, and Council President Bragdon voted against of the motion. The vote was 6 nay, the motion failed with Councilor Liberty voting in support of the motion.
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Vote on the main motion:	Councilors Park, Hosticka, Burkholder, McLain, Newman, Liberty and Council President Bragdon voted in support of the motion. The vote was 7 aye, the motion passed.
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6.2 **Ordinance No. 05-1070A**, For the Purpose of Amending the Urban Growth Boundary To increase Capacity to Accommodate Growth in Industrial Employment and to respond to Remand Orders from the Land Conservation and Development Commission.

Council President Bragdon indicated that the motion had already been moved and was on the floor.

Council President Bragdon opened a public hearing on Ordinance No. 05-1070A.

Amy Scheckla-Cox, City of Cornelius Council Chair, 1355 N Barlow St. Cornelius, OR 97113 said she was shocked about the Council's amendment last Thursday concerning Cornelius. They needed to have dependable intergovernmental trust. She counted on policies to be followed and the process had not been followed. She urged reconsideration of the Council's amendment. She noted a letter from Council President Bragdon. She summarized her letter of response (a copy of which is included in the record). She also spoke to rules for amendments called out by Council President Bragdon. She said every indication was that the Metro Council supported the Cornelius expansion. The verbal amendment gutting the Cornelius amendment was contrary to staff finding and was offered after public testimony with no allowance for rebuttal. She urged reconsideration of the amendment.

Brad Coffey, Cornelius City Council, 946 S. Oleander, Cornelius, OR 97113 said he had also signed the letter from the City of Cornelius. He had lived in Cornelius for seven years. He was excited about the opportunity for new business and industry. He urged reconsideration of the amendment. He was curious about the reason for the amendment.

Richard Kidd, Mayor of Forest Grove 3022 Watercrest Forest Grove 97116 said he represented all of the small cities in his area. He spoke to the 4th and 7th whereas in Ordinance No. 05-1070A. He then talked about Metro Policy Advisory Committee (MPAC) meeting minutes, which spoke to the industrial land remand from Land Conservation and Development Commission (LCDC). He talked about the staff presentation at MPAC. He noted that Mayor Hughes had made a motion, and John Hartsock seconded to motion to adopt and forward the Chief Operating Officer's (COOs) recommendation to the Metro Council. He had not attended last Thursday's meeting. He said his Council talked about this the following week. His Council wanted him to relay their support to include Cornelius in the industrial land UGB decision. He asked Council to reconsider the amendment from last week and reinstate the industrial land in Cornelius. Councilors Liberty and Newman talked about Councilor Park's amendment to delete Evergreen and keep Cornelius. Mayor Kidd also said the Cornelius amendment had not been distributed to MPAC.

Jack Hoffman, MPAC Chair, 851 SW 6th Portland OR 97201 continued the theme that Council Chair Scheckla-Cox had started about process. He talked about the decisions in 2005. He noted what worked and what had not worked. He talked about the history of the UGB from 2002 to present. He noted that Metro Technical Advisory Committee (MTAC) reviewed the COO's industrial land recommendation in September 2005. MPAC had also reviewed the recommendation. They had approved the COO's recommendation October 5, 2005. He explained the reason why MPAC approved the recommendation. He had looked forward in 2006 to working with regional partners. He debated the process that was used last week.

Councilor Hosticka talked about the MPAC process and that there had been no public hearing. The first public hearing had been November 10, 2005. The public needed input as well. Mr. Hoffman said there were a citizen public and a local jurisdiction public. Councilor Hosticka suggested that there might be a better way. Councilor Liberty echoed Councilor Hosticka's concern. The testimony on November 10th was important to him. He suggested an opportunity for public participation at an earlier stage in the process. Councilor Hosticka said these decision involved citizens who lived outside the UGB. The only chance Council had to hear from them was at the public hearing. Councilor McLain said the Council had tried hard to listen to all of the public. It was important to make sure that the decision would not be remanded again. Mayor Kidd felt that there had been a lot of public input prior to the last public hearing. Councilor Newman said only two parties testified in relation to Cornelius, the Farm Bureau and 1000 Friends of Oregon. These two entities had participated over the past two years.

Mayor Hughes urged Council to adopt the COO's recommendation. He acknowledged his letter of November 10th. He said the State of Oregon had determined that the Metro Council had not brought in enough land. The COO had reviewed the DLCD decision and made a recommendation, which included adding the Evergreen site. He noted MTAC and MPAC acknowledged adding the Evergreen site. He was agreeing with his partners. Councilor Burkholder spoke to the amendment to add housing capacity in Hillsboro due to the additional employee acreage. He wanted to have Mayor Hughes address the amendment, which has failed at last week's Council meeting. Mayor Hughes said the previous expansion was balanced except that there needed to be more industrial land. Second, the two areas in Hillsboro where they would add capacity would be in Hillsboro Downtown Center and Tanasborne Town Center. The Tanasborne area was already fairly impacted. The downtown area was evolving but they had planned for an educational campus, which would include student housing. In order to reach additional capacity they had hired staff to review this suggestion. They were attempting to organize the downtown area in a positive way. He suspected that if they added more capacity in the downtown area it would probably be beyond the next 20-year plan. He said Council was asking them to rezone the downtown area to accommodate growth at the edge.

Councilor Park talked about the 2002 decision on Shute/Evergreen site on additional capacity. He wondered what the difference was between 2002 and 2005. Mayor Hughes said he did not recall the need to add additional housing. Councilor Park explained his reasoning for asking the question. He wondered if Mayor Hughes would be opposed to adding housing conditions. Mayor Hughes responded to his comment. Councilor Hosticka agreed with Mayor Hughes about the fact that there was a lot of employment in Hillsboro but many individuals came from other parts of the region. These issues were not confined to one geographical city. If Council was adding to the industrial land of Hillsboro, was he open to sharing the revenue and impacts on residential and city services that were created by the increase in industrial land? Mayor Hughes said he had had many asked if the increase in industrial land would generate a lot more revenue. It was hard to assess the financial benefit of the size of the industrial land increase. He thought it was possible to overrate the financial benefit. He felt that Cornelius wanted a complete community. He wasn't sure the addition of the land had made Hillsboro wealthier. If this expansion went through, that would be the last industrial land available in Hillsboro. He spoke to future industrial land areas. In his area there had always been a need for smaller sites. He felt that the Cornelius site would accommodate this need. Councilor Hosticka added his comment. Mayor Hughes said he felt that every expansion created its own set of challenges.

Councilor Hosticka asked about removal of the Sunset Acres housing area. He wondered if we should be adding housing in another area near Hillsboro. Mayor Hughes responded to his question. Councilor Liberty said at the hearing on November 10th they were trading off one kind of land for another. Mayor Hughes said they were all looking for assurances. He had championed the beginning of that discussion. He believed that they needed to move in the direction of rural preserves. Most of his colleagues believed they needed to find those lines as to what would be the maximum of their growth capacity. He also talked about the morphing of the industry. He noted Intel expansions for manufacturing. Councilor Park asked about industrial land assurances. Mayor Hughes said they pioneered large lot overlay. Second, he had no objection to site-specific conditions as long as they could accommodate the industry. What they wanted to avoid particularly on the 100 acres site was the appearance that a company had to deal with too many layers of government. Councilor Park said he would be proposing that the sites remained industrial. Mayor Hughes said that could be a problem but he had great hope with the current partnerships.

Keith Fishback, Washington County Farm Bureau, 11375 NW Roy Rd Banks OR 97106 said he appreciated that the Council listened to the farmers to not go north of Council Creek. He urged reconsideration of the amendment of Evergreen.

Henry Oberhelman, 26185 NW Evergreen Hillsboro OR 97124 provided a letter for the record and summarized his comments.

Rockford Regula, 5010 NW Sewell Hillsboro OR 97124 said he was putting a face on one of the individuals effected by the UGB expansion. The language in the ordinance seemed to ignore the individuals. Nowhere did it mention the number of individuals impacted by the decision. He noted negative impacts on agriculture. He owned a nursery, which would be impacted by this decision. He was concerned about those individuals whose property may be devalued. Councilor Liberty asked if he was opposing the expansion? Mr. Regula said he did not know because he couldn't make a decision on how this expansion would affect him. He wasn't sure how this would affect him economically. Councilor Hosticka said by changing the UGB they didn't require him to change the size of his lot. Mr. Regula said he understood this.

Catherine Sidman, Cornelius Chamber of Commerce Vice President, 947 S. Beach Cornelius OR 97113 provided a letter for the record and summarized her letter. She also addressed the issue of financial growth.

Robert Ferrie, Cornelius Planning Commission, 2601 S Dogwood St Cornelius OR 97113 said they were talking about 42 acres of Exclusive Farm-Use (EFU) land. There was no intrusion into the valuable farmland by adding this acreage.

Harry Jacobsmuhlen 1395 NW Susbauer Cornelius OR 97113 said they owned Jacob's Meats. They had 22 acres that was north of Council Creek, which they wanted to put into industrial. He was opposed to the amendment.

Letha Jacobsmuhlen 1395 NW Susbauer Cornelius OR 97113 concurred with her husband's testimony. She was disappointed that the land had been taken out. She was for the original recommendation.

Jim Johnson, Oregon Department of Agriculture, 653 Capitol St NE Salem OR 97301 said he was getting many calls. He thanked the Council for their action at the last hearing. He felt the Council listened to the Farm Bureau and the farmers. He reminded the Council that exception lands were only designated if they were found to be compatible with adjacent agriculture land. He spoke to irrigation and its role in the agriculture land. There were a lot of crops that did not require irrigation. He said agriculture related business could locate on farmland. He pointed out that the Evergreen site was ranked 11th out of 15th sites. They had not ranked it high for inclusion. He felt a good edge or buffer was as important as locating the line on a lot line. Councilor Liberty asked what was the ranking of the Cornelius site? Mr. Johnson said it was ranking 14th out of 15. Councilor Liberty asked about the Department's position on exception land zoning. Mr. Johnson said it was not uncommon to have exception land used for agricultural uses. Councilor McLain said there was a suggestion made that there might be more appropriate acres in Cornelius for manufacturing. She asked if the Department of Agriculture had studied lands south. Mr. Johnson said they were told to focus on land suited for warehousing. Councilor McLain explained why she had asked the question. Councilor Hosticka said he had looked at some aerial maps. It was almost impossible to determine where exception land started and EFU land started. Councilor Park asked if the Department had taken a stand on a "time out". Mr. Johnson said he was not sure the Department had a position. Councilor Park wondered if the Department would have looked at other sites related to Hillsboro. Mr. Johnson said he wasn't aware of any lands that they hadn't taken a look at for industrial purposes.

Gregory Manning, representing NAIOP and CREEC, 7238 SW Capitol Hwy Portland OR 97219 provided his testimony for the record and summarized his comments. He spoke on behalf of NAIOP and CREEC. He had submitted CREEC's testimony separately.

Christine Dean 4700 NW Sewell Rd Hillsboro OR 97124, said she had email her input to Council. She raised several questions concerning livability (a copy of her email is included in the meeting record).

Bruce Dean 4700 NW Sewell Rd Hillsboro OR 97124 talked about the variety of acreage available in the area. He talked about the windfall tax amendment. The Council voted unanimously to windfall tax property once brought into the UGB. Third, his family wanted a large piece of land so children could play. He talked about vacancy on already designated land. He felt they didn't need this industrial land now. Finally, he said his neighbors' felt Council had already made up their mind. Why hold a public hearing if Council had already made up their

mind. He felt there was a lot of industrial land available and a lot of it was vacant. He questioned if there was a need for additional industrial land.

Mary Kyle McCurdy, 1000 Friends of Oregon 534 SW 3rd Portland OR 97204, said she testified at the last hearing. She addressed previous testimony. The idea that Council had to decide on amendments prior to the public hearing offended her. Last week's public hearing was the first opportunity for them to respond to the staff report. Testimony provided new information. She noted additional lands that had been identified south of Council Creek that could be considered. Council would have opportunity to revisit the site north of Council Creek. There was still approximately 50 acres available for development in Cornelius. She talked about impacting the farming industry.

Walter Duyck Farming 1640 Cornelius-Schefflin Rd Cornelius OR 97113 said he farmed in the Cornelius area. Most of the areas including his were 2 to 5 acres. They couldn't afford to move equipment. He noted testimony last week representing large growers. They did not represent the small growers. Councilor Burkholder asked if his land was part of the exception areas. Mr. Duyck said yes. They had farms without water.

Tim Duyck, 4760 NW Marsh Rd Forest Grove OR 97116, said he was a full-time farmer. He managed the land his family owned inside the UGB. There was no indication that Cornelius expansion was an issue. He was surprised by the Council's amendment. He noted Farm Bureau representation and felt that they did not represent the farmer. He said it was not fun or profitable to farm small pieces of land. He felt industry was coming to Cornelius soon. Cornelius needed land for expansion for industrial purposes. He urged reconsideration of last Thursday's amendment.

Jennifer Finegan, 3775 NW Cornelius-Schefflin Rd Cornelius OR 97113, said her family made their livelihood as farmers. They owned property south and north of Council Creek. They had not received notice. They needed land for industrial purposes. She believed they should expand north of Council Creek. She wanted choices.

Bill Bash, City of Cornelius Planning Commission 1490 S Alpine Cornelius OR 97113, addressed the issue of the longest commute in the region. Expansion in Cornelius would allow them to work in the area rather than commute a distance to work. He spoke to costs of transportation. He urged a variety of work opportunities in his community. He wanted to see the UGB moved back to original position.

Richard Meyer, City of Cornelius, 1355 N. Barlow Cornelius OR 97113, reiterated some of things Council had learned from the testimony. He spoke to the need to balance the needs. There was a need for choices to accommodate industry. The landowners that were part of the exception land spoke to the fact that their land was not profitable for farming. He urged allowing Cornelius to develop into a healthy sustainable place. He felt a delay in the decision was costly to their city. He urged reconsideration of the amendment.

James Burns, 5840 NE Sewell Road, Hillsboro, OR 97124 talked about his land. He wanted the Council to take all of his land. It was currently half in and half out. Councilor Burkholder asked Mr. Burns about his land and where it fell. He responded that he was on the second ninety-degree corner on Sewell Road.

Jonathan Schlueter, Westside Economic Alliance, 10220 SW Nimbus Ave Portland OR 97223, provided written testimony and summarized it for the record. Councilor Burkholder talked about

his amendment for increased capacity for housing. He wanted to know their position on that amendment. Mr. Schlueter said they would always value living closer to where they work. Councilor Liberty asked about long-term rural reserves. Mr. Schlueter said he had worked for agriculture. He valued the American farmer but at the end of the day, you had to ask where were they going to put the growth. Councilor Park asked about protection of the land for industrial purposes. Mr. Schlueter said he had not seen the poaching of land.

Jim Long PO Box 33 North Plain OR 97133 applauded citizen participation and public hearings. He hoped Council listened to the public. He thought it was important to protect farmland. He encouraged more public input. Councilor Burkholder said this was actually the final piece of a very long process. They had many hours of public outreach and public hearings on this decision.

Councilor McLain said they all wanted citizen participation. One of the other items brought up was the need for other agricultural industry, like processors. Her understanding was that the agricultural related business could build on the EFU land and the exception land outside of the UGB. Mr. Benner commented that was correct in large measure. It was not any agricultural industry that could locate outside the UGB. In order to answer the question specifically you had to look at the industry. Councilor McLain provided examples. Mr. Benner said they were usually conditional uses.

Council President Bragdon closed the public hearing.

Council President Bragdon spoke to the history of the UGB expansion starting in 2002. They had spent the last three years working on the industrial piece. He spoke to the remand issues before Council today and detailed the two issues the Council needed to respond to.

Councilor Liberty asked if they could have a review of where they stood at the moment. Council President Bragdon said there were amendments last week to remove a portion north of Council Creek as well as adjusting some of the lines in the Evergreen area.

Councilor Burkholder wanted to reconsider his amendment.

Motion to reconsider:	Councilor Park moved to reconsider the Burkholder amendment because Councilor Burkholder was absent from the meeting.
Seconded:	Councilor Burkholder seconded the motion

Councilor Burkholder indicated he had not been at the meeting last week and would like to vote on his amendment. There was no objection to reconsidering the amendment. Councilor Newman said he would be voting against the amendment and explained his reasoning. Councilor Park said he would support the amendment and explained his reasoning. Councilor Hosticka said he had voted for this amendment last week but would not be supporting the amendment this week. He explained his vote. He felt these were regional issues, which couldn't be localized in any one city. Council President Bragdon said he would be voting no again and explained his vote. Councilor McLain agreed that she would vote the same way she had last week. She felt the City of Hillsboro testimony today supported her vote against the amendment. Councilor Burkholder thanked the Council for the opportunity to reconsider the amendment.

Vote to amend:	Councilors Park, Burkholder, Liberty voted in support of the motion, Councilors McLain, Hosticka, Newman and Council President Bragdon vote against the motion. The vote was 3 aye/4 nay, the motion failed.
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Council President Bragdon talked about issues that had been raised during the testimony, which needed to be addressed in the future. The issue today was trying to deal with the last decision on expansion. They had just begun the conversation about redevelopment, sub-regional issues, etc. He urged closing the chapter and supporting the ordinance.

Councilor Liberty said he would be voting yes despite reservation on Evergreen. Every part of the region had to succeed. Cornelius had had some challenges but he wasn't sure adding land ensured economic development. In the future when they looked for stability for agriculture land, rural reserves could perhaps lead to some certainty. They needed to focus on the future. He spoke to current financial constraints

Councilor Hosticka addressed some of the questions raised by Mr. Schlueter. He spoke to how the system worked currently and the need to change this system.

Councilor Burkholder said this process was long. The value of what Council did was to make a conscious deliberate decision about how we grow. He provided examples of cities that didn't do this. He expressed his appreciation for the public that participated as well as the local elected officials.

Councilor McLain said she lived in this area. She was affected personally. She cared about the decision she made. She considered every kind of input. This was the first time in 15 years that she had seen urban and rural partners acknowledge the need that both agricultural and other industries needed to work together. She said there would be an inventory of agricultural lands. Second, the residential issue was integrated with this evening's decision. Lastly, there will always be edge properties. Those edge properties didn't have a release valve. This issue also needed to be considered in the future. Cornelius still had an opportunity to grow because there had been a commitment by the agricultural industrial.

Councilor Park said he felt they were close enough. He expressed some concerns about the process. He was a farmer who farmed inside the UGB. He spoke to the need for balance. He also noted the need to interact with cities outside the UGB such as North Plains. He talked about notices to the public. He suggested a regional vote on these issues. He also acknowledged the need to engage the citizens.

Councilor McLain talked about the findings and that she would support the ordinance as amended. She noted the Cornelius findings. She wasn't sure that the findings answered all of the questions the State raised.

Councilor Hosticka raised a point of order about aerial maps, which he requested be part of the record.

Councilor Newman thanked the Council for their efforts. He spoke to the Cornelius vote and his past votes. They had talked about the situation that Cornelius was in. He acknowledged that there were challenges and trade-offs. He also spoke to the rural urban conflict. Their job was to find balance. He acknowledged staff's efforts. He valued Council's working relationship

Vote on the Main
Motion:

Councilors Park, Hosticka, Burkholder, McLain, Newman, Liberty and Council President Bragdon voted in support of the motion. The vote was 7 aye, the motion passed.

7. RESOLUTIONS

7.1 **Resolution No. 05-3628**, Designating Council Projects and Confirming Lead Councilors and Council Liaisons.

Motion:	Councilor Burkholder moved to adopt Resolution No. 05-3628
Seconded:	Councilor Liberty seconded the motion

Councilor Burkholder talked about the resolution and detailed the Council Projects. Council President Bragdon noted that there additional projects in the works. Councilor Liberty asked for clarification on the fairness, farmland project. He wasn't sure if this project would be completed in January and asked that it be set for the end of the fiscal year. Councilor Burkholder asked Councilors Liberty and Hosticka about resources required. He felt that the work plans should be laid out more specifically. He then talked about options available. He encouraged that they be more opened ended, he recommended striking language so they could have a more open-ended conversation. Councilor Liberty responded to Councilor Burkholder's concerns and recommendations. He felt Councilor Burkholder's points raised would be considered. Councilor Park asked about flexibility in half of the money being spent inside and outside the boundary. Councilor Liberty responded to his question. Councilor Hosticka said voting on the work plan did not commit them to any policy. He felt the questions that Councilor Burkholder raised were legitimate. The distribution of money was illustrative. Council President Bragdon acknowledged the projects that had been completed. Councilor Newman said there were additional projects that would be considered in the future.

Vote:

Councilors Park, Hosticka, Burkholder, McLain, Newman, Liberty and Council President Bragdon voted in support of the motion. The vote was 7 aye, the motion passed.

8. **EXECUTIVE SESSION HELD PURSUANT TO ORS 192.660(1)(e).
DELIBERATIONS WITH PERSONS DESIGNATED TO NEGOTIATE
REAL PROPERTY TRANSACTIONS.**

8.1 **Resolution No. 05-3630**, For the Purpose of Approving an Application For Easement/Right of Way/Lease to the City of Wilsonville for the Construction of the Boeckman Road Extension Project.

Time Began: 5:49 pm

Members Present: Jim Desmond, Alison Kean Campbell

Time Ended: 6:04 pm

Motion:	Councilor Hosticka moved to adopt Resolution No. 05-3630
Seconded:	Councilor Liberty seconded the motion

Councilor Hosticka explained the resolution.

Council President Bragdon opened a public hearing.

Charlotte Lehan, Mayor of Wilsonville, supported the resolution. This easement was an important link in the project. She provided a letter, which iterated her comments (a copy of which is included in the record). She thanked the Council for this important partnership.

Councilor Hosticka talked about the possibility of a new bond measure. He said one property under consideration was the Tonkin Trail. Did City of Wilsonville have any thoughts on this property? Mayor Lehan said they had a task force working on bike-pedestrian trails. She knew that the Tonkin Trail was part of their transportation planning.

Councilor Park asked about whom this road would serve? He asked about capacity of Villaboiss with or without this facility. Mayor Lehan said without Barbur and Boeckman you couldn't develop at all. It had close to zero capacity without one or the other. Councilor Park said build out was about 7000 dwelling units. Mayor Lehan concurred.

Council President Bragdon closed the public hearing.

Councilor Newman said he would be supporting the resolution. He felt this particular facility was important. Council President Bragdon said he would also be supporting the resolution. He appreciated how the City juggled all of its issues. Councilor Liberty said he would support the motion as well. He was impressed with Villaboiss.

Councilor Hosticka said the easement was to grant the right to put a road across our property. The construction had a number of potential impacts on the environment of the property. Staff had examined the impacts. The judgment of the COO was to recommend the easement

Vote:

Councilors Park, Hosticka, Burkholder, McLain, Newman, Liberty and Council President Bragdon voted in support of the motion. The vote was 7 aye, the motion passed.

9. CHIEF OPERATING OFFICER COMMUNICATION

Michael Jordon, COO, had nothing to add.

10. COUNCILOR COMMUNICATION

Council President Bragdon said the Council would not meet next Thursday, as it was Thanksgiving.

Councilor Newman noted that the Oregon Zoo would have an all day retreat tomorrow.

11. ADJOURN

There being no further business to come before the Metro Council, Council President Bragdon adjourned the meeting at 6:18 p.m.

Prepared by

Chris Billington
Clerk of the Council

ATTACHMENTS TO THE PUBLIC RECORD FOR THE MEETING OF NOVEMBER 17, 2005

Item	Topic	Doc Date	Document Description	Doc. Number
4.1	Minutes	11/10/05	Minutes of the Metro Council Meeting of November 10, 2005	111705c-01
6.2	Letter	11/15/05	To: Metro Council From: Mayor Hughes, City of Hillsboro Re: Letter concerning Industrial Lands Ordinance No. 05-1070A	111705c-02
6.2	Letter	11/16/05	To: Metro Council From: Don Schellenberg, Associate Director of Gov't Affairs for the Oregon Farm Bureau Re: agrees with County Farm Bureau's comments about UGB expansion in Evergreen Study area and acreage north of Council Creek	111705c-03
6.2	Letter and attachments	11/16/05	To: Metro Council From: Mayor and Council of City of Cornelius Re: requesting reconsideration of vote on Cornelius as well as attached letter to Dick Benner from Richard Meyer concerning findings on Cornelius UGB expansion for industrial use	111705c-04
6.2	Letter	11/17/05	To: Metro Council From: Dale Erickson Re: Council Creek property owner requesting inclusion in UGB, industrial lands	111705c-05
6.2	Email	11/16/05	To: Metro Council From: Chi-Hwa Tsang Re: Property owner in Evergreen who wants northern corner of property included in industrial lands	111705c-06
6.2	Letter	11/17/05	To: Metro Council From: Marjorie LaFollett Smith Re: supports Dairy Creek as the appropriate boundary for the UGB in the Cornelius area	111705c-07
6.2	Letter	11/15/05	To: Metro Council From: Dave Armstrong Re: support staff recommendation UGB expansion North of Cornelius including exception areas connected by 42 acres of EFU	111705c-08
6.2	Maps	11/7/5	To: Metro Council From: Lydia Neill, Planning Department Re: Three maps reflecting Council amendments of 11/10/05 in Evergreen and Cornelius	111705-09

6.2	Letter	11/16/05	To: Metro Council From: Francine Waagneester Re: disappointed in Cornelius amendment	111705c-10
6.2	Letter	11/16/05	To: Metro Council From: City of Cornelius Mayer and City Councilors Re: Cornelius UGB Expansion	111705c-11
6.2	Letter	11/17/05	To: Metro Council From: Henry and Anita Oberhelman Re: Additional industrial lands – Evergreen Study Area	111705c-12
6.2	Aerial Photographs	11/17/05	To: Metro Council From: Councilor Hosticka Re: 2 Aerial Photos of Evergreen and Industrial Remand areas under consideration	111705c-13
6.2	Letter and attachment	11/17/05	To: Metro Council From: Catherine Sidman, Product Manager, Sheldon Manufacturing Re: Letter and attached letter from Dave Daniels re: land north of Council Creek in Cornelius	111705c-14
6.2	Testimony	11/17/05	To: Metro Council From: Tim Duyck, Farmer Re: farmland north of Cornelius	111705c-15
6.2	Testimony	11/17/05	To: Metro Council From: Jonathan Schlueter, Westside Economic Alliance Re: supporting COOs recommendation on industrial land	111705c-16
6.2	Email	11/16/05	To: Metro Council From: Christine Dean Re: Doesn't want to live next to industrial land	111705c-17
6.2	Testimony	11/17/05	To: Metro Council From: Greg Manning, NAIOP and CREEC representative Re: process for industrial land selection	111705c-18
6.2	Letter	11/17/05	To: Metro Council From: Mike Tharp, CREEC Chair Re: Letter opposing exclusion of Cornelius land north of Council Creek	111705c-19
6.1	Findings	11/17/05	To: Metro Council From: Dick Benner, Metro Senior Attorney Re: Findings for Ordinance No. 05-1089A – Exhibit C	111705c-20
8.1	Letter	11/17/05	To: Metro Council From: Mayor Charlotte Lehan, City of Wilsonville Re: Supporting Resolution No. 05-3630	111705c-21

BEFORE THE METRO CONTRACT REVIEW BOARD

FOR THE PURPOSE OF DECLARING	)	RESOLUTION NO. 05-3634
CERTAIN PROPERTY SURPLUS AND)	
AUTHORIZING THE EXECUTION OF METRO	)	Introduced by Michael Jordan, Chief
CONTRACT NO. 926883 FOR A LEASE	)	Operating Officer, with the concurrence of
	)	David Bragdon, Council President

WHEREAS, Metro owns an office building located on the same property as the Metro Central Transfer Station at 6161 NW 61st Avenue, Portland, Oregon 97232; and

WHEREAS, Pursuant to ORS 271.310(3) it has been determined that 175 sq. feet of office space in the building is not immediately needed for public use and will not be needed for public use for at least the next four years; and

WHEREAS, Pursuant to ORS 271.360 a lease has been proposed with CSU Transport, Inc. for 175 sq. feet of office space, attached hereto as Exhibit "A" and incorporated herein; and

WHEREAS, The resolution was submitted to the Chief Operating Officer for consideration and was forwarded to the Metro Council for their approval; now, therefore,

BE IT RESOLVED:

1. That the portion of the property at 6161 NW 61st Avenue described in the attached Exhibit "A" is declared to be surplus property that is not immediately needed for public use and will not be needed for public use for at least the next four years; and
2. That the Metro Council, sitting as the Metro Contract Review Board, authorizes the Chief Operating Officer to execute the attached Contract with CSU Transport, Inc. for lease of the surplus property.

ADOPTED by the Metro Council this _____ day of _____, 2005

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

RB:sm
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EXHIBIT A TO RESOLUTION NO. 05-3634

Metro Contract No. 926883

OFFICE LEASE

This Lease is between METRO, a metropolitan service district organized under the laws of the State of Oregon and the Metro Charter, referred to herein as "OWNER," and CSU Transport, Inc., referred to herein as "LESSEE."

In exchange for the promises and other valuable consideration set forth below, the parties agreed as follows:

1. Premises Leased. LESSEE hereby leases from OWNER a portion of an office building located at 6161 N. W. 61st Avenue, Portland, Oregon. OWNER's building in which the premises are located is a single-story, 1,178 square foot building. The "Premises" leased herein is a 175 square foot office (approximately 9' 2" x 19' 1 ") in the northwest corner of the above-described building, identified as "Room Number One." LESSEE shall also have use of certain common areas in the building, to the extent such use does not conflict with the use of such areas by the OWNER, or third parties using such common areas with the consent of OWNER. The leased premises and common areas are shown in the diagram attached as Attachment "A" and made part of this Lease by reference.
2. Term of Lease. The term of this Lease shall commence on January 15, 2006, and shall end on December 31, 2009, unless terminated sooner or extended in accordance with the provisions of this Lease. LESSEE shall have the option to renew this lease for two (2) terms of one year. The renewal term shall commence on the day following expiration of the original term. The terms and conditions of the lease for the renewal term shall be identical with the original term.
3. Rent. LESSEE shall pay to OWNER as gross rent, without deduction, set off, notice, or demand, at 600 NE Grand Avenue, Portland, Oregon 97232-2736, or at such Place as the OWNER designate from time to time by notice to LESSEE, the following sums:
 - (a) During the first through third year of the term the sum of \$266.00 per month in advance on the first day of each month of the term. (The rental amount is based upon a rate of \$18.24 per square foot per year on a 175 square foot of leased space. Leased floor space in subparagraph 3-B includes a 10 percent load factor for use of common areas.)
 - (b) LESSEE shall pay to OWNER upon execution of this Lease all rent that has accrued under this Lease since January 15, 2006, plus the sum of \$266.00 for the last month of the term. If LESSEE fails to pay rent or other charges when due under this Lease, or fails to perform any of its obligations thereunder, OWNER may use or apply all or any portion of the last month rent for the payment of any rent or other amount when due and unpaid, for the payment of any other sum for which OWNER may become obligated by reason of LESSEE's default or breach, or for any loss or damages sustained by OWNER as a result of LESSEE's default or breach. If OWNER so uses any portion of the last month rent, LESSEE shall, within ten (10) days after written demand by OWNER, restore the last month rent to the full amount originally deposited, and LESSEE's failure to do so shall

constitute a default under this Lease. OWNER shall not be required to keep the last month rent separate from its general accounts, and shall have no obligation or liability for payment of interest on the last month rent. In the event the OWNER assigns its interests in this Lease, OWNER shall deliver to its assignee so much of the last month rent as is then held by OWNER.

- (c) LESSEE shall have the right to lease up to two parking spaces and hereby leases the two spaces as of January 15, 2006, the rate for each space shall be \$42.00 per month for the first year, with all amounts accruing for the use of the spaces since January 15, 2006, due upon execution of this Lease. OWNER may increase the rent per space by written notice, thirty (30) days in advance, but the rate shall not be increased more than ten percent of each year after the first year. Rent for each space leased shall be due and payable on the fifteenth day of the month. LESSEE may terminate lease of either of the parking spaces by giving OWNER written notice thirty (30) days in advance of LESSEE's intent to terminate.
4. Use of Premises. The premises shall be used by LESSEE as office space to facilitate its operations at the Metro Central Transfer Station and for no other purpose. Smoking shall not be allowed in the building, and LESSEE shall take reasonable steps to ensure that its invitees, employees, agents, and others under LESSEE's control do not smoke in the building. Use of the common areas of the building shall be limited to the office staff and shuttle drivers of LESSEE employed on site, and shall not extend to other employees of LESSEE. In all other respects, LESSEE shall ensure that its activities in the premises are in compliance with all applicable laws and regulations.
5. Repairs and Maintenance.
- 5.1 OWNER shall be responsible for all costs of repair and maintenance of the leased premises, except to the extent that repairs or maintenance are not necessitated by ordinary wear and tear and are necessitated by an act of LESSEE, its employees, invitees, agents, contractors, or other persons operating under LESSEE's control. It shall be LESSEE's responsibility to exercise due diligence in reporting to OWNER conditions, which if not remedied, will exacerbate OWNER's repair or maintenance expenses.
- 5.2 Any repairs, replacements, alterations, or other work performed on or around the leased premises by OWNER shall be done in such a way as to interfere as little as reasonably possible with the use of the premises by LESSEE. LESSEE shall have no right to an abatement of rent nor any claim against OWNER for any inconvenience or disturbance resulting from OWNER's activities performed in conformance with the requirement of this provision.
- 5.3 OWNER shall have the right to inspect the premises at any reasonable time or times to determine the necessity of repair. Whether or not such inspection is made, the duty of OWNER to make repairs shall not mature until a reasonable time after OWNER has received from LESSEE notice in writing of the repairs that are required.
6. Alterations. LESSEE shall make no improvements or alterations on the leased premises of any kind without first obtaining OWNER's written consent. All improvements and alterations performed on the leased premises by either OWNER or LESSEE shall be the property of OWNER when installed unless otherwise specified between the parties in writing.

7. Assignment and Subletting. LESSEE shall not assign this Lease or sublet all or any part of the premises without the prior written consent of OWNER.

8. Insurance.

8.1 LESSEE shall maintain for the term of this Lease insurance coverage for bodily injury and property damage liability for a minimum amount of \$500,000.00. LESSEE shall have OWNER named as an additional insured on any liability insurance coverage LESSEE carries for activities conducted on the premises. LESSEE shall deliver proof of this insurance to OWNER.

8.2 Neither party shall be liable to the other (or to the other's successors or assigns) for any loss or damage caused by fire or any of the risks enumerated in an all risk fire insurance policy and in the event of insured loss neither party's insurance company shall have a subrogated claim against the other. LESSEE shall be responsible for any of the OWNER's deductibles if loss or fire damage results from the LESSEE's actions.

9. Indemnification. Throughout the term of this Lease, LESSEE shall indemnify and save harmless OWNER, its officers, elected officials, agents, employees and assigns from and against all claims and actions, and all expenses reasonably and necessarily incurred as a party to an action or claim, whether or not suit is filed, to the extent arising out of or based upon damage or injuries to persons or property caused by any act, omission or fault of LESSEE.

10. Attorney's Fees. In the event of any suit or action by either party to enforce any provision of this Lease, or in any other suit or action arising out of or in connection with this Lease, the prevailing party shall be entitled to recover its cost of suit or action and reasonable attorney fees whether at trial or on appeal.

11. Damage or Destruction.

11.1 If the leased premises are partly damaged and 11.2 below does not apply, the property shall be repaired by OWNER at OWNER's expense. Repairs shall be accomplished with all reasonable dispatch subject to interruptions and delays from labor disputes and matters beyond the control of OWNER.

11.2 If the leased premises are destroyed or damaged such that the cost of repair exceeds 40 percent of the value of the structure before the damage, either party may elect to terminate the Lease as of the date of the damage or destruction by notice given to the other in writing not more than 45 days following the date of damage. In such event all rights and obligations of the parties shall cease as of the date of termination, and LESSEE shall be entitled to the reimbursement of any amounts prepaid by LESSEE and attributable to the anticipated term. If neither party elects to terminate, OWNER shall proceed to restore the leased premises to substantially the same form as prior to the damage or destruction. Work shall be commenced as soon as reasonably possible and thereafter shall proceed without interruption except for work stoppages on account of labor disputes and matters not under the control of OWNER.

11.3 Rent shall be abated during the repair of any damage to the extent the premises are untenable, except that there shall be no rent abatement when the damage occurred as a result of the fault of LESSEE. .

12. Liens. Except with respect to activities for which OWNER is responsible, LESSEE shall pay as due all claims for work done on and for services rendered or materials furnished to the leased premises and shall keep the premises free from any liens. If LESSEE fails to pay any such claims or to discharge any lien, OWNER may do so and collect the cost as additional rent. Any amount so added shall bear interest at the rate of nine percent per annum from the date expended by OWNER and shall be payable on demand. Such action by OWNER shall not constitute a waiver of any right or remedy which OWNER may have on account of LESSEE's default.

13. Default. The following shall be events of default:

- (a) Failure of LESSEE to pay any rent or other charge within ten days after it is due.
- (b) Failure of LESSEE to comply with any term or condition or fulfill any obligation of the Lease (other than the payment of rent or other charges) within twenty (20) days after written notice by OWNER specifying the nature of the default with reasonable particularity. If the default is of such a nature that it cannot be completely remedied within the twenty (20) day period, this provision shall be complied with if LESSEE begins correction of the default within the twenty (20) day period and thereafter proceeds with reasonable diligence and in good faith to effect the remedy as soon as practicable.
- (c) Insolvency of LESSEE; an assignment by LESSEE for the benefit of creditors; the filing by LESSEE of a voluntary petition in bankruptcy; an adjudication that LESSEE is bankrupt or the appointment of a receiver of the properties of LESSEE; the filing of any involuntary petition of bankruptcy and failure of LESSEE to secure a dismissal of the petition within thirty (30) days after filing attachment of the levying of execution on the leasehold interest and failure of LESSEE to secure discharge of the attachment or release of the levy of execution within ten (10) days. If the Lease has been assigned, the events of default so specified shall apply only with respect to the one then exercising the rights of LESSEE under the Lease.
- (d) Sublet or assignment of this lease without OWNER's advance permission not to be unreasonably withheld.
- (e) Failure of LESSEE for thirty (30) days or more to occupy the property for one or more of the purposes permitted under this Lease, unless such failure is excused under other provisions of this Lease, shall be an abandonment of the property and default under this lease.

14. Remedies on Default.

14.1 In the event of a default, the Lease may be terminated at the option of OWNER by notice in writing to LESSEE. If the Lease is not terminated by election of OWNER or otherwise, OWNER shall be entitled to recover damages from LESSEE for the default. If the Lease is terminated, LESSEE's liability to OWNER for damages shall survive such termination, and OWNER may re-enter, take possession of the premises, and remove any persons or property by legal action or by self help with the use of reasonable force and without liability for damages.

14.2 Following re-entry or abandonment, OWNER may re-let the premises and in that connection may make any suitable alterations or refurbish the premises, or both, or change the character or use of the premises, but OWNER shall not be required to re-let for any use or purpose other than that specified in the Lease or which. OWNER may reasonably consider injurious to the premises, or to any tenant that OWNER may reasonably consider objectionable OWNER may re-let all or part of the premises, alone or in conjunction with other properties, for a term longer or shorter than the term of this Lease, upon any reasonable terms and conditions, including the granting of some rent free occupancy or other rent concession.

14.3 In the event of termination on default, OWNER shall be entitled to recover immediately, without waiting until the due date of any future rent or until the date fixed for expiration of the lease term, the following amounts as damages:

- (a) The loss of reasonable rental value from the date of default until a new tenant has been, or with the exercise of reasonable efforts could have been, secured.
- (b) The reasonable costs of re-entry and reletting including without limitation the costs of any clean up, refurbishing, removal of LESSEE's property and fixtures, and any other expense occasion by LESSEE's failure to quit the premises upon termination and to leave them in the required condition, any remodeling costs, attorneys' fees, court costs, broker commissions, and advertising costs.
- (c) Any excess of the value of the rent and all of LESSEE's other obligations under this Lease over the reasonable expected return of the premises for the period commencing on the earlier of the date of trial or the date the premises or reletting continued through the end of the term. The present value of fixture amounts will be computed using a discount rate equal to the prime loan rate of major Oregon banks in effect on the date of trial.

14.4 OWNER may sue periodically to recover damages during the period corresponding to the remainder of the Lease term, and no action for damages shall bar a later action for damages subsequently accruing.

14.5 The foregoing remedies shall be in addition to and shall not exclude any other remedy available to OWNER under applicable law.

15. Surrender at expiration

15.1 Upon expiration of the lease term or earlier termination on account of default, LESSEE shall deliver all keys to OWNER and surrender the leased premises in good condition and broom clean. Alterations constructed by LESSEE with permission from OWNER shall not be removed or restored to the original condition unless the terms of permission for the alteration so require. LESSEE's obligations under this paragraph shall be subordinate to the provisions of this Lease related to destruction of the premises.

15.2(a) All fixtures placed upon the leased premises during the term, other than LESSEE's trade fixtures, shall, at OWNER's option, become the property of OWNER. If OWNER so elects, LESSEE shall remove any or all fixtures which would otherwise

remain the property of OWNER, and shall repair any physical damage resulting from the removal. If LESSEE fails to remove such fixtures, OWNER may do so and charge the costs to LESSEE with interest at the legal rate from the date of expenditure.

- (b) Prior to expiration or termination of the lease term, LESSEE shall remove all furnishings, furniture and trade fixtures which remain its property. If LESSEE fails to do so, this shall be an abandonment of the property, and OWNER may retain the property and all rights of LESSEE with respect to it shall cease or, by notice in writing given to LESSEE within twenty (20) days after removal was required, OWNER may elect to hold LESSEE to its obligation of removal. If OWNER elects to require LESSEE to remove, OWNER may effect a removal and place the property in public storage for LESSEE's account. LESSEE shall be liable to OWNER for the cost of removal, transportation to storage, and storage, with interest at the legal rate on all such expenses from the date of expenditure by OWNER.

15.3(a) If LESSEE does not vacate the leased premises at the time required, OWNER shall have the option to treat LESSEE as a tenant from month to month, subject to all of the provisions of this Lease except for the provisions for term and renewal, and at a rental rate equal to 150 percent of the rent last paid by LESSEE during the original term. Failure of LESSEE to remove fixtures, furniture, furnishings, or trade fixtures which LESSEE is required to remove under this Lease shall constitute a failure to vacate to which this paragraph shall apply if the property not removed would substantially interfere with occupancy of the premises by another tenant or with occupancy by OWNER for any purpose including preparation for a new tenant.

- (b) If a month to month tenancy results from a holdover by LESSEE under this paragraph 15.3, the tenancy shall be terminable at the end of any monthly rental period on written notice from OWNER given not less than ten (10) days prior to the termination date which shall be specified in the notice LESSEE waives any notice which would otherwise be provided by law with respect to a month-to-month tenancy

16. Nonwaiver. Waiver by either party of strict performance of any provision of this Lease shall not be a waiver of or prejudice the parties right to require strict performance of the same provision in the future or of any other provision.

17. Notices. Any notice required or permitted under this Lease shall be given when actually delivered or forty-eight (48) hours after deposited in the United States mail as certified mail addressed to the address listed with each party's name below, or such other address as may be specified from time to time by either of the parties in writing.

18. Succession. Subject to the above-stated limitations on transfer of LESSEE's interest, this Lease shall be binding upon and inure to the benefit of the parties, their respective successors and assigns.

19. Right to Cure Defaults If LESSEE fails to perform any obligation under this Lease, OWNER shall have the option to do so after thirty (30) days written notice to LESSEE and without prior notice in case of an emergency. All of OWNER's expenditures to correct the default shall be

reimbursed by LESSEE on demand with interest at the rate of nine percent per annum from the date of expenditure by OWNER.

20. Inspection. OWNER shall the right to enter upon the premises at any time to determine LESSEE's compliance with this Lease, to make necessary repairs to the building or to the premises, or to show the premises to any prospective tenant or purchaser, and in addition shall have the right, at any time during the last two months of the term of this Lease, to place and maintain upon the premises notices for leasing or selling of the premises.
21. Interest on Rent and Other Charges. Any rent or other payment required of LESSEE by this Lease, shall, if not paid within ten (10) days alter it is due, bear interest at the maximum legal rate of 18% per annum from the due date until paid (but not in any event at a rate greater than the maximum rate of interest permitted by law).
22. Proration of Rent. In the event of commencement or termination of this Lease at a time other than the beginning or end of one of the specified rental periods, the rent shall be prorated as of the date of commencement or termination and in the event of termination or reasons other than default, all prepaid rent shall be refunded to LESSEE or paid on its account.

The parties agree, as specified above, this _____ day of _____, 2005.

CSU TRANSPORT, INC.

METRO

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Address (for notice purposes):

Address (for notice purposes)

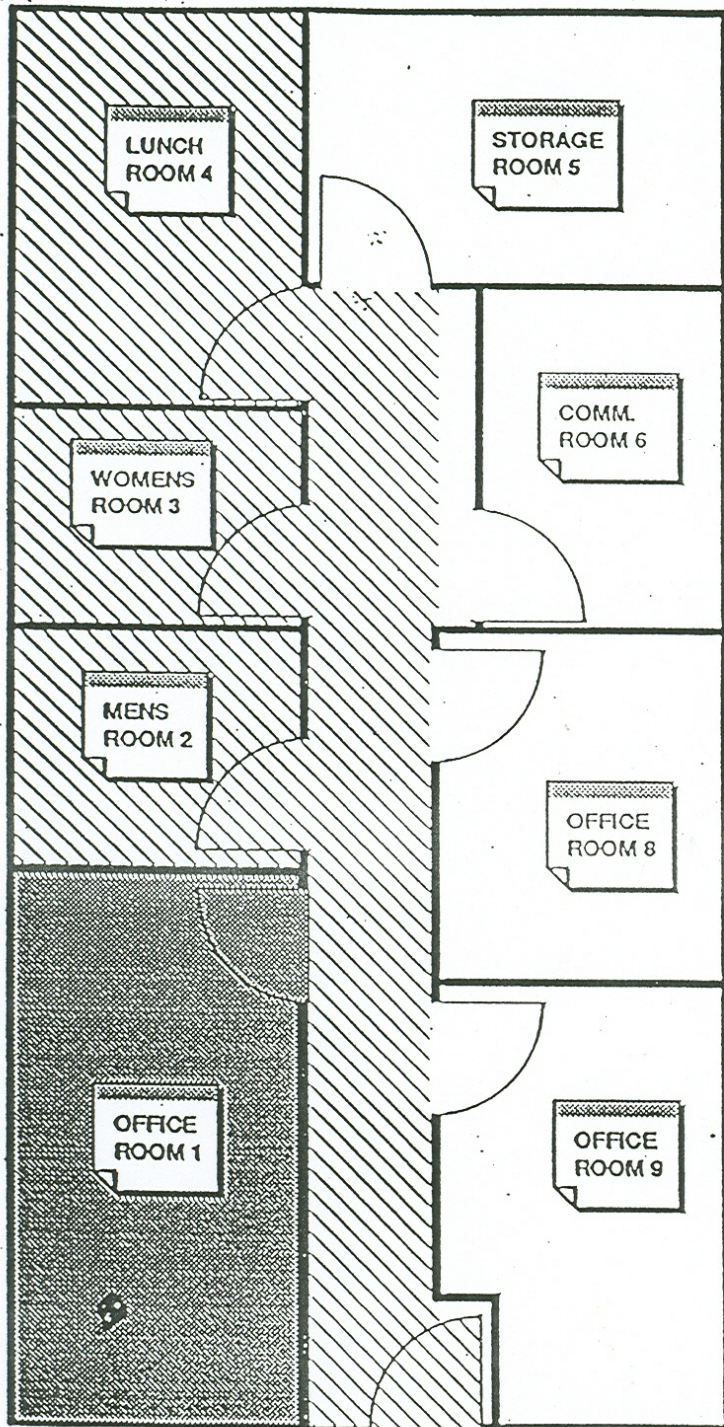
CSU Transport, Inc.
5965 McCasland Avenue
Portage, IN 46368

Metro
600 NE Grand Avenue
Portland, OR 97232-2736

Attention: Gary Goldberg

RB:sm
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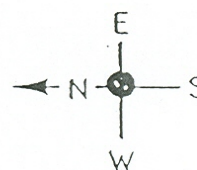
ATTACHMENT A



 LEASED OFFICE
 COMMON AREA

91170

METRO BUILDING



STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 05-3634 FOR THE PURPOSE OF DECLARING CERTAIN PROPERTY SURPLUS AND AUTHORIZING THE EXECUTION OF METRO CONTRACT NO. 926883 FOR A LEASE

November 3, 2005

Prepared by: Ray Barker

BACKGROUND

Metro owns an office building on the site of the Metro Central Transfer Station located at 6161 NW 61st Avenue, Portland. The building was constructed in 1990 to provide office space for Metro's site supervisor and other personnel necessary to transfer station operations. The building has approximately 1,178 square feet of space, and is located in an area zoned "heavy industry."

For the past 15 years, Metro has leased 175 sq. feet of office space to Metro's solid waste transport contractor. The current contractor, CSU Transport, Inc. (CSU), uses the space to facilitate shuttle operations and solid waste transport from the Metro Central Station. The current lease expires January 14, 2006.

It has been determined by Metro's Environmental & Engineering Services Division that 175 sq. feet of office space in Metro's building is not immediately needed for public use and will not be needed for public use for at least the next four years. It is proposed that Metro lease this office space to CSU.

A comparative market search was made, and a commercial real estate company was contacted to determine the current market rate for office space in the "heavy industry" area where Metro's office building is located.

The highlights of the proposed lease are as follows:

* Office size:	9'2" x 19'1" (175 square feet)
* Rate per sq. foot:	\$18.24 per year (\$1.52 per month)
* Rent:	\$266.00 per month
* Parking spaces:	Two spaces; \$42.00 each per month
* Term of Lease:	January 15, 2006 to December 31, 2009 (option to extend)

The monthly rent includes reasonably anticipated adjustments over the next four years, and is an average. This method was used to avoid administrative costs for annual market reviews.

ANALYSIS/INFORMATION

1. Known Opposition

None

2. Legal Antecedents

ORS 271.310 (3) provides that property not immediately needed for public use may be leased if, in the discretion of the governing body having control of the property, it will not be needed for public use within the period of the lease.

ORS 271.360 requires that every lease entered into pursuant to ORS 271.310 shall be authorized by ordinance or order of the body executing the same and shall provide terms and conditions as may be fixed and determined by the governing body executing the lease.

Section 2.04.026 (a) (3) of the Metro Code requires Council approval of any contract for the purchase, sale, lease or transfer of real property owned by Metro.

3. Anticipated Effects

Adoption of Resolution No. 05-3634 would authorize Metro to lease 175 sq. feet of office space to CSU Transport, Inc. (CSU) at Metro's office building located next to the Metro Central Transfer Station.

4. Budget Impacts

Annual revenue from the proposed office lease would be \$4,200 (\$3,192 for rent and \$1,008 for parking). Metro pays property taxes on the leased office space. The most recent tax bill was \$329.76. The taxes due were taken into consideration in fixing the rental charge.

RECOMMENDED ACTION

The Chief Operating Officer recommends approval of Resolution No. 05-3634.

RRB:sm

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BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF CONFIRMING THE)	Resolution No. 05-3631
APPOINTMENT OF GEORGE FORBES TO A FOUR-)	
YEAR TERM ON THE METROPOLITAN	)	Introduced by Council President David
EXPOSITION-RECREATION COMMISSION	)	Bragdon

WHEREAS, Metro Code Section 6.01.030 provides that the Council confirms members of the Metropolitan Exposition-Recreation Commission; and

WHEREAS, Metro Resolution No. 01-3117 appointed George Forbes to serve the remainder of the unexpired term created by the resignation of Ben Middleton, effective November 15, 2001;

WHEREAS, Metro Resolution No. 01-3119 appointed George Forbes as a member of the Metropolitan Exposition-Recreation Commission for a four-year term beginning January 1, 2002; and

WHEREAS, Mr. Forbes is serving as Secretary-Treasurer of the Commission for fiscal year 2005-06; and

WHEREAS, Mr. Forbes' term on the Commission expires on December 31, 2005; and

WHEREAS, the Council president has nominated Mr. Forbes for a second four-year term on the Commission; and

WHEREAS, the Council finds that George Forbes has served as a valuable member of the Commission, has made substantial contributions to the Commission by serving on its Executive Committee, and has the experience and expertise to make a substantial contribution to the critical work ahead of the Commission; now, therefore,

BE IT RESOLVED that the Metro Council hereby confirms George Forbes for appointment to a second four-year term as a member of the Metropolitan Exposition-Recreation Commission, effective January 1, 2006.

ADOPTED by the Metro Council this 1st day of December, 2005.

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 05-3631 FOR THE PURPOSE OF CONFIRMING THE APPOINTMENT OF GEORGE FORBES TO A FOUR YEAR TERM ON THE METROPOLITAN EXPOSITION-RECREATION COMMISSION

Date: December 1, 2005

Prepared by: Jeff Miller

EXISTING LAW

Metro Code Section 6.01.030(a) gives the Metro Council President sole authority to appoint all members of the Metropolitan Exposition-Recreation Commission, subject to confirmation by the Council. Section 6.01.030(d)(3) of the Code allows the Council President to appoint two candidates to the Metropolitan Exposition-Recreation Commission and to submit the nominees to the Council for confirmation.

BACKGROUND

Mr. Forbes has served as a member of the Metropolitan Exposition-Recreation Commission, as a representative of Metro, since November 15, 2001. Metro Council President Bragdon has appointed George Forbes to serve a second membership term on the Commission. If confirmed, Mr. Forbes would serve from January 1, 2006 through December 31, 2009.

Forbes brings valuable experience and expertise to the Commission and has made substantial contributions as a member of its Executive Committee. Mr. Forbes is currently the Secretary-Treasurer of the Commission for fiscal year 2005-06 and Chair of the Commission Budget Committee. Forbes serves as Commission liaison to the Oregon Convention Center.

Forbes has more than 40 years of hospitality leadership and management experience, and his professional skills and practical knowledge help MERC accomplish its business goals. As a member of the Commission, Forbes lent his hospitality expertise to Portland Development Commission's convention headquarters hotel project by serving on the developer selection advisory committee. Mr. Forbes was also a member of the team that negotiated an innovative performance-based agreement for national sales, marketing and convention services with the Portland Oregon Visitors Association.

Mr. Forbes has been an ardent promoter of tourism and the hospitality services through his work with convention and visitors bureaus and hospitality associations. He serves in leadership roles with Oregon Lodging Association, Portland Oregon Visitors Association, Oregon Travel Information Council, Lewis & Clark Bicentennial 2005 Commission, and Washington State University's Hotel and Restaurant Advisory Board. Previous recipients of his hospitality expertise include Tri-County Lodging Association, Regional Arts & Cultural Council, and Portland Highland Games.

Analysis and Information

1. *Known Opposition* – None
2. *Legal Antecedents* – Metro Code, as referenced above.
3. *Anticipated Effects*: Reappointment of Mr. Forbes in the manner provided by Metro Code.
4. *Budget Impacts* – None.

RECOMMENDATION

The Metro Council President recommends approval of Resolution No. 05-3631 to confirm the appointment of George Forbes to a four-year term on the Metropolitan Exposition-Recreation Commission effective January 1, 2006.

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF CONFIRMING THE	)	Resolution No. 05-3632
APPOINTMENT OF SHERYL MANNING TO A FOUR-)	
YEAR TERM ON THE METROPOLITAN	)	Introduced by Council President David
EXPOSITION-RECREATION COMMISSION	)	Bragdon

WHEREAS, Metro Code Section 6.01.030 provides that the Council confirms members of the Metropolitan Exposition-Recreation Commission; and

WHEREAS, Metro Resolution No. 01-3130 appointed Sheryl Manning as a member of the Metropolitan Exposition-Recreation Commission for a four-year term beginning January 1, 2002; and

WHEREAS, Ms. Manning is serving as Chair of the Commission for fiscal year 2005-06; and

WHEREAS, Ms. Manning's term on the Commission expires on December 31, 2005; and

WHEREAS, the Council President has nominated Ms. Manning for a second four-year term on the Commission; and

WHEREAS, the Council finds that Sheryl Manning has served as a valuable member of the Commission, has made substantial contributions to the Commission by serving as its Chair and as its Acting General Manager, and has the experience and expertise to make a substantial contribution to the critical work ahead of the Commission; now, therefore,

BE IT RESOLVED that the Metro Council hereby confirms Sheryl Manning for appointment to a second four-year term as a member of the Metropolitan Exposition-Recreation Commission, effective January 1, 2006.

ADOPTED by the Metro Council this 1st day of December, 2005.

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF CONFIRMING THE	)	Resolution No. 05-3633
APPOINTMENT OF DON TROTTER TO A FOUR-)	
YEAR TERM ON THE METROPOLITAN	)	Introduced by Council President David
EXPOSITION-RECREATION COMMISSION	)	Bragdon

WHEREAS, Metro Code Section 6.01.030 provides that the Council confirms members to the Metropolitan Exposition-Recreation Commission; and

WHEREAS, Clackamas County has a representative on the Commission; and

WHEREAS, Metro Resolution No. 01-3118 confirmed the nomination of Don Trotter to a four-year term on the Commission, effective January 1, 2002; and

WHEREAS, Mr. Trotter is serving as the Vice-Chair of the Commission for fiscal year 2005-06; and

WHEREAS, Mr. Trotter's term on the Commission expires on December 31, 2005; and

WHEREAS, Clackamas County has nominated Mr. Trotter for a second four-year term on the Commission; and

WHEREAS, the Council President concurs in the nomination; and

WHEREAS, the Council finds that Don Trotter has served as a valuable member of the Commission, has made substantial contributions to the Commission by serving as its Chair and by serving on its Executive Committee, and has the experience and expertise to make a substantial contribution to the critical work ahead of the Commission; now, therefore,

BE IT RESOLVED that the Metro Council hereby confirms Don Trotter for appointment to a second four-year term as a member of the Metropolitan Exposition-Recreation Commission, effective January 1, 2006.

ADOPTED by the Metro Council this 1st day of December, 2005.

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF COUNCIL APPROVAL)	RESOLUTION NO. 05-3592
OF THE SMITH AND BYBEE WETLANDS)	
NATURAL AREA TRAIL FEASIBILITY STUDY)	Introduced by Council
AND RECOMMENDATION OF A PREFERRED)	President David Bragdon and
TRAIL ALIGNMENT)	Councilor Rex Burkholder

WHEREAS, in the spring of 1983 the 40-Mile Loop Master Plan was completed and identifies a desired trail network in the vicinity of the Smith and Bybee Wetlands Natural Area; and

WHEREAS, on July 23, 1992, the Metro Council adopted Resolution No. 92-1637 (“For the Purpose of Considering Adoption of the Metropolitan Greenspaces Master Plan”), including the Regional Trails and Greenways Map (amended December 1993 and July 2002); and

WHEREAS, the Regional Trails and Greenways Map identifies a desired trail network in the vicinity of the Smith and Bybee Wetlands Natural Area; and

WHEREAS, in November 1990, the City of Portland adopted by Ordinance 163610 the Smith and Bybee Lakes Natural Resources Management Plan (NRMP); which guides natural resource management and development within the Smith and Bybee Wetlands Natural Area (Natural Area); and

WHEREAS, on November 8, 1990, the Metro Council adopted Ordinance No. 90-367 (“Approval of Natural Resources Management Plan for Smith and Bybee Lakes”) the NRMP; and

WHEREAS, the NRMP required the establishment of the Smith and Bybee Wetlands Management Committee (Management Committee) to implement the NRMP and provide ongoing policy guidance; and

WHEREAS, the NRMP identified a conceptual trail alignment through the Natural Area, and

WHEREAS, since the NRMP alignment was identified, several changes have occurred in and around the alignment to cause great concern and opposing views amongst members of the Management Committee as to the best location for a trail alignment; and

WHEREAS, on April 11, 2003, the Management Committee sent a letter (Exhibit A) to David Bragdon, Metro Council President, recommending that Metro Council and the City of Portland conduct a trail feasibility study; and

WHEREAS, on September 29, 2005, Metro Council and the City of Portland entered into an Intergovernmental Agreement (No. 925992) (Exhibit B) where by Metro Council agreed to 1) jointly fund and solely manage a contract with independent consultants to perform a trail feasibility study, 2) pay for design, permitting and construction of trails recommended for development on the St. Johns landfill and within the Natural Area boundary, 3) collaborate with City of Portland to implement recommended alignments outside the Natural Area boundary; and

WHEREAS, Metro Council retained MacLeod Reckord consultants in June 2004, to perform trail feasibility study services in the vicinity of the Natural Area; and

WHEREAS, the components of the trail feasibility study were presented to the Metro Council in April 2005 in a work session, and again in October 2005 in an informal briefing, and Councilors have been given guided technical tours; and

WHEREAS, the trail feasibility study has been successfully completed and meets the intent of the IGA between Metro Council and the City of Portland; and

WHEREAS, in July 2005, the Technical Working Group for the study reached consensus that the content and analysis presented in the trail feasibility study fairly represented the study data; and

WHEREAS, none of the comment letters received during the public comment period for the trail feasibility study took issue with the accuracy of the content of the trail feasibility study; and

WHEREAS, the purpose of the feasibility study was to present the facts and an objective analysis of the trail alignments, and to leave the decision for a preferred alignment to the Metro Council; now therefore

BE IT RESOLVED that the Metro Council hereby accepts the Smith and Bybee Wetlands Trail Feasibility Study and appended hereto as Exhibit C; and directs staff to implement the following recommendation:

- A. Remove the South Lake Shore segment from further study.
- B. The South Slough Alignment is the preferred alignment but further analysis is required to determine feasibility including:
 - Perform feasibility study for a slough bridge.
 - If slough bridge infeasible, determine impact to developing Ash Grove segment.
 - If Ash Grove segment infeasible, consider no build option.
 - Explore extending South Slough segment beneath the North Portland Road Bridge, and continuing the trail through the Columbia Blvd. Waste Water Treatment Plant (WWTP) to cross the Columbia Slough at the existing pedestrian bridge within the WWTP.

- Begin negotiations with private property owners along South Slough, on a “willing seller” basis.
 - Evaluate the South Slough alignment as a regional project for the 2006 bond measure.
- C. Take immediate action to implement the neighborhood connection between the landfill and Peninsula Crossing trail, including improvements to the landfill perimeter roads.

ADOPTED by the Metro Council this _____ day of December, 2005

David Lincoln Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

Coordinated by:

**Smith & Bybee Lakes Wildlife Area
Management Committee**

Metro

600 NE Grand Ave.
Portland, OR 97232
(503) 797-1515

April 11, 2003

David Bragdon
President, Metro Council
Metro
600 NE Grand Avenue
Portland, Oregon 97232-2736

Dear President Bragdon,

The Smith and Bybee Lakes Management Committee (SBLMC) has been interested in the issues surrounding public trails and their alignment, construction and management for some time. Metro, the City of Portland, and the Port of Portland have discussed the trail issue for many years without resolution. In order to assist in finding a solution, the SBLMC designated a trail subcommittee, which met four times between October 2002 and February 2003. The subcommittee forwarded its unanimous recommendations to the SBLMC, which adopted them unanimously on February 25, 2003.

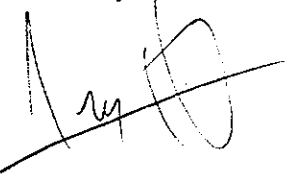
The recommendations include:

- A suggested alignment onto and around the St. Johns Landfill, connecting to the community of St. Johns,
- A feasibility study to determine whether a trail segment is necessary between the landfill and North Portland Road, and what alignment it should follow,
- Best management practices and performance standards to be followed in aligning, building and managing trails.

Our recommendations are the result of considerable time, effort and compromise by people on all sides of the trail issue. We hope that these recommendations can provide Metro with a framework within which to find the solution. The SBLMC encourages Metro to work with the City of Portland on the feasibility study as soon as possible – this issue has languished for many years and a resolution is needed.

Please do not hesitate to contact me at (503) 249-0482 if you would like to discuss this further.

Sincerely,



Troy Clark
Vice Chair

Trail Subcommittee Recommendations to Management Committee

February 25, 2003

Trail subcommittee members (attending at least 1 of 4 meetings):

Pam Arden	40-mile Loop Trust
Troy Clark	Audubon Society of Portland
Nancy Hendrickson	Portland Bureau of Environmental Services
Holly Michael	Oregon Dept. Fish and Wildlife
Emily Roth	The Wetlands Conservancy
Denise Rennis	Port of Portland
Jim Sjulín	Portland Parks and Recreation

1. Alignment – segment from the confluence of North and Columbia sloughs to the landfill bridge

Subcommittee members reached consensus regarding alignment of the trail segment from the confluence of North and Columbia sloughs to the landfill bridge. This segment would pass over the North Slough and along the west side of the St. Johns Landfill, on the landfill perimeter road. A loop or spur could be used to take trail users a short distance onto the landfill dome in the northwest corner, using another existing road on the landfill. This consensus alignment has several important positive points:

- Minimizes habitat fragmentation (leaving most of the landfill untouched)
- Avoids sensitive habitat on the south side of Bybee Lake
- Provides a good view opportunity from the landfill dome
- Provides a good experience for trail users
- Has connectivity to St. Johns and a trail to be routed in that community.

The aerial photo used in the meeting shows the trail alignment around the west side of the landfill, with a zone outlined where the trail could go one of three ways in the northwest corner:

1. Spur trail up onto the dome
2. Main trail up onto the dome
3. Trail stays on perimeter road and does not go up onto the dome.

2. Alignment – segment from the landfill bridge to North Portland Road

The group did not reach consensus regarding this segment, or even the need for it. The discussion began with a question whether this trail segment was necessary. On the “pro” side, it would provide a quality experience for trail users and take them along the slough as it does for much of the rest of the route in the Columbia Slough watershed. On the “con” side, it would cause fragmentation of important riparian habitat, taking trail users right through the riparian zone of the slough.

A route along the south side of the Columbia Slough was discussed, with questions regarding its viability. For example, there are many property owners involved. The group agreed that this route would need more investigation.

The group saw four options for this trail segment:

1. No trail segment in this area
2. Mode split, with the south side of Smith Lake pedestrian-only (bicycles go over the landfill bridge to another alignment)
3. Mode split, pedestrian trail follows south side of Columbia Slough (bicycles go to another alignment)
4. No mode split, pedestrians and bicyclists follow trail on south side of Columbia Slough.

Issues identified for the alignment on the south side of Smith Lake included the grade change from the landfill to the natural area (how to make it ADA-accessible), questions regarding the cooperation of property owners, and potential issues of wetland fill. Other issues included what standards would be appropriate for this segment (width, surface type) and what ADA requirements might be. The group also discussed whether this trail alignment could be different than the route taken by maintenance vehicles, and whether this segment could be open seasonally.

Some of the same issues were identified for siting a trail on the south side of the Columbia Slough, including questions regarding the cooperation of property owners. The bridge at North Portland Road was seen as a potential major obstacle to a trail alignment in this area. The group was unsure whether it would be logistically possible to locate the trail on the south side of the slough. Allowing bicycles on the south side remains an open question also.

The trail subcommittee recommended that additional work be done to evaluate four alternatives:

1. No trail connection from the landfill to North Portland Road (allow another trail alignment through the community of St. Johns to provide connectivity),
2. Trail alignment on the south side of Smith Lake (north side of Columbia Slough),
3. Trail alignment on the south side of the Columbia Slough,
4. Trail alignment along Columbia Boulevard.

The group acknowledged that evaluating the feasibility of these four options is more work than could be done by staff and the subcommittee. They recommended that Metro work with the City of Portland, via the IGA under discussion or some other manner, to perform this feasibility study.

3. Best Management Practices and Performance Standards

The subcommittee began a list of BMPs at its meeting on November 20, 2002. All of the concepts discussed at that meeting are important, and the subcommittee agreed that they require careful balancing of sometimes-conflicting needs.

Below is the list from November 20, 2002, with new concepts added from the February 6, 2003, meeting. The practices (or sometimes concepts) are arranged by relevant area – general principles, alignment, design, construction and management.

General principles

- From the Colorado trail planning guide*:
 - Any trail will have at least some negative impacts on wildlife, which must be weighed with the benefits of the trail.
 - Don't focus solely on the narrow width of the trail's treadway – also consider the wider area it may influence.
 - Trail corridors may encourage edge-loving generalists, but these species are already increasing across the landscape and may not need encouraging.
 - Trails may negatively affect species that need conditions that are altered in trail construction.
 - It is easier to balance competing wildlife and recreation needs across a landscape or region than it is on a specific trail project within a smaller area.
 - Plan a trail consistent with a regional or landscape-wide plan that identifies where trails should go and which areas should be conserved for wildlife.
 - Enlist the help of conservation advocates in planning trails, and find opportunities to integrate trails and open space planning.
 - Determine which species of interest actually occur in the area you are studying.
 - Use public support of trails to protect riparian corridors.
 - Because there isn't much detailed knowledge about the effects of human disturbance on wildlife, be cautious in planning a trail, carefully weighing the alternatives.
 - Use the best wildlife information available, even if it is scarce.
 - Generally, it is better to concentrate recreational use rather than disperse it.
 - Don't assume all wildlife impacts can be resolved through management.
 - In discussing trails and wildlife, avoid sweeping generalities about wildlife impacts that may not be possible to substantiate or even be true in a specific situation.
 - Scientific study doesn't reveal how the public values wildlife.
 - Invite broad public participation on every trail project.

Alignment

- Site trails along habitat edges – don't create new edges and fragment the habitat.
- Site trails where the area is already receiving disturbance from recreation.
- Trails need to have connectivity.
- Use spurs where you want lower traffic.
- Minimize impacts to riparian habitat.
- No net fill of wetlands.
- Consider what you want users to get out of the trail experience – e.g., take them through different habitats and educate them.
- Consider what people are coming to S&B for – e.g., bicycling for health and passing through, or coming to see the site itself.
- Keep education focused at one place.
- Alignments have to be truly viable.
- Look at the broad area – where else do trails go, where is the riparian area.
- For alignments on or near the landfill, minimize health and safety risks to the public.
- Minimize risks to the landfill infrastructure.

- Locate trails in a way that minimizes interference to landfill staff performing their duties.
- Incorporate the City of Portland's comprehensive plan objectives regarding wildlife and trails. These are:
 - Conserve significant areas and encourage the creation of new areas which increase the variety and quantity of fish and wildlife throughout the urban area in a manner compatible with other urban development and activities [overall goal].
 - Regulate activities in natural resource areas which are deemed to be detrimental to the provision of food, water, and cover for fish and wildlife [natural resource areas].
 - Encourage the creation or enhancement of fish and wildlife habitat throughout the city [city-wide].
 - Protect existing habitat and, where appropriate, incorporate new fish and wildlife habitat elements into park plans and landscaping [city parks].
- Incorporate the objectives in the 40-mile Loop master plan. These are:
 - Provide a trail and open space system that connects existing parks and future parks into a visually and mentally comprehensible park system for the region's citizens and visitors.
 - Plan and encourage neighborhood and community access to the 40 Mile Loop.
 - Serve as a "hub" for long distance regional and state trails including the Lower Elevation Columbia River Gorge Trail, the Portland to the Coast Trail and the Sandy River Gorge Trail.
 - Help protect and utilize the natural resources and physically attractive aspects of the urban environment.
- From the Colorado trail planning guide:
 - Seek out degraded areas that have the potential to be restored when aligning a trail, rather than creating another disturbed area.
 - Site a trail where there are already human-created disturbances or in areas of less sensitive habitat.
 - Align a trail along or near an existing human-created ecological edge, rather than bisecting undisturbed areas.
 - When possible, leave untouched large, undisturbed areas of wildlife habitat.
 - Keep a trail – and its zone of influence – away from specific areas of known sensitive species, populations, or communities.
 - Even within a single type of habitat, some elements may be of greater importance to wildlife than others.
 - Locate trails and supporting facilities in areas where they can be screened and separated from sensitive wildlife by vegetation or topography.
 - Provide trail experiences that are diverse and interesting enough that recreationists are less inclined to create their own trails and thereby expand the zone of influence.
 - Keep the density of trails lower within and near pristine or other high quality areas to reduce the contribution of trails to fragmentation.
 - Avoid small patches of high quality habitat in routing a trail.
 - Avoid smaller, isolated patches when laying out a trail, but do give users an experience of the varied landscape.
 - Avoid patches that are habitat for threatened, endangered, or other species of concern.
 - Analyze the landscape noting the patches, corridors, and matrix – the landscape structure – as they might be used by species of special interest.

- Minimize the number of times prominent landscape corridors – such as riparian zones – are crossed by a trail.
- For both habitat and maintenance reasons, it is better to run a trail just outside the riparian area (perhaps on a topographic bench) and bring it in at strategic places, than to keep it continuously close to a riparian area.
- In routing a trail near a pond or lake, don't run it completely around the body of water.
- Avoid crossings where two or more streams come together.
- In riparian areas of variable habitat quality, route a trail closer to a stream where habitat quality is poorer.
- Give trail users the opportunity to be near water or they will find ways themselves.
- When it is appropriate to provide access to a more sensitive area, use a spur trail instead of a through trail because spur trails tend to have lower volumes of traffic.
- In urban landscapes there are often few options for routing trails other than streetside (where there are not many ecological implications) and along streams.

Design

- Minimize the impact of impervious surface.
- Locate trails away from the water.
- Preserve the existing hydrology (shallow water), via French drains, boardwalks or other methods.
- From the Colorado trail planning guide:
 - To maintain natural processes along a stream corridor, maintain an interior or upland buffer on both sides of a stream.
 - In areas with sensitive vegetation, provide a well-designed trail to encourage users to stay on the trail.
 - Provide toilets at trailheads and other key locations to reduce damage to surrounding vegetation.
 - Design trails with proper drainage and sustainable gradients so users are less likely to trample vegetation along alternate routes.
 - Route a trail around meadows and other wet areas and build up a dry trail in areas where seasonal water creates boggy soil.
 - To minimize ground disturbance and possible spread of weedy species, reconstruct an existing trail instead of rerouting it.
 - Provide facilities, such as blinds, viewing areas, and boardwalks, for visitors to see wildlife with minimal disturbance.

Construction

- Avoid removing trees.
- Minimize construction impacts, including permanent impacts from temporary activities (e.g., soil compaction from movement of heavy equipment).
- Work within the final trail footprint to the extent possible.
- Build during the appropriate season.
- From the Colorado trail planning guide:
 - In constructing or upgrading a trail, disturb as narrow an area as possible to help minimize the zone of influence.

Management

- Do not allow dogs or other pets on trails within the wildlife area.
- Allow bicycle use only on perimeter trails designed for multi-modal transportation; this does not include the south side of Smith Lake.
- From the Colorado trail planning guide:
 - Either avoid wildlife breeding areas or close trails through them at the times such wildlife are most sensitive to human disturbance.
 - If there won't be sufficient resources to enforce a trail closure during wildlife-sensitive seasons, consider rerouting the trail through another area.
 - Educate trail users about the results of direct impacts to vegetation and indirect impacts to wildlife.
 - To prevent weed spread, control aggressive weeds along trails.
 - Plan how to manage a trail's wildlife issues before its alignment is set.
 - Don't depend on management to resolve wildlife conflicts that can be avoided by careful alignment in the first place.
 - More careful management of resources will be required when a trail passes through or near sensitive habitat.
 - Wildlife accept the more predictable disturbances of people on trails more readily than off trails.
 - Encourage visitors not to leave food or garbage around to further support generalist species.
 - Use a combination of management techniques to facilitate the coexistence of recreationists and wildlife.
 - Enlist the help of trail users in monitoring wildlife use of the trail corridor and other activities.
 - To protect wildlife, when describing points of sensitive, ecological interest near a trail – sites you want people to know about, but not visit – don't indicate the direction or distance to the spot.
 - Interpretation and environmental education are very important management tools.

* Planning Trails with Wildlife in Mind: A Handbook for Trail Planners. Colorado State Parks, Trails and Wildlife Task Force. Available online at:
<http://www.coloradoparks.org/home/publications.asp#Trails%20Publications>

INTERGOVERNMENTAL AGREEMENT

925992

Smith and Bybee Lakes Trails Feasibility Study

This Intergovernmental Agreement ("Agreement") dated this 9/29/04, is by and between the City of Portland, Parks and Recreation Department, (the "City") and Metro, a metropolitan service district organized under the laws of the state of Oregon and Metro Charter ("Metro"). (The City and Metro shall be individually referred to herein as a "Party" or collectively as the "Parties.") The Parties acknowledge that they have authority to enter into this Agreement pursuant to the powers contained in their respective charters and in ORS 190.010.

The Parties agree as follows:

1. Project Declaration.

- a. The activities and funding described in this Agreement are for the feasibility study and design services of trails in the vicinity of the Smith and Bybee Lakes Wildlife Area (the "Wildlife Area"), including St. Johns Landfill or SJLF. The feasibility study and design services, (the "Project"), are described in the attached Request for Proposals ("RFP"; Exhibit A). A schedule for completing the project is provided in Exhibit B.

The Smith & Bybee Lakes Management Committee (the "Management Committee") was established by the *Natural Resources Management Plan for Smith and Bybee Lakes* ("Management Plan") to advise Metro on implementation of the Management Plan and to advise Metro on the Smith & Bybee Lakes Wildlife Area. The Management Committee includes representatives of Metro, the City, the 40-Mile Loop Land Trust, neighborhood citizens' groups and the Port of Portland.

The 40-Mile Loop Land Trust advocates for public trails in the Portland area and assists in the acquisition of lands, along with conservation and recreation easements, along the 40-Mile Loop Trail corridor.

The Friends of Smith and Bybee Lakes ("Friends") advocates for the conservation, restoration and enhancement of the Wildlife Area, and supports passive recreational activities within the Wildlife Area.

Metro will create a technical working group ("Technical Group") to assist in the project. Membership of the Technical Group will include a representative from each of the following: Metro Parks and Greenspaces Department ("Metro Parks"), Metro Solid Waste and Recycling Department ("Metro Solid Waste"), Portland Parks and Recreation ("Portland Parks"), the Management Committee, the 40 Mile Loop Land Trust, St. Johns Neighborhood Association and the Friends. Additional representatives may be appointed by mutual agreement between Metro and the City. The Technical Group will serve to ensure transparency in the feasibility study, see that the information used by the consultant is unbiased, and make sure that important information is not overlooked.

Information on the alignment planning and decision process is attached as Exhibit C. Metro will forward the alternatives resulting from this study to the Metro Council and to other authorities for guidance as appropriate.

- b. To assure an outcome that is consistent with efforts to protect natural resources at Smith and Bybee Lakes, efforts to complete the 40 Mile Loop Trail, and efforts to maintain public safety at the St. Johns Landfill site, the Project will be managed by Metro Parks in collaboration with Portland Parks and Metro Solid Waste. Metro and the City will collaborate to ensure key goals and objectives of each agency are addressed in the planning process and a suitable public involvement process is implemented. Both agencies are committed to resolving long-standing issues surrounding these trail alignments and will work together to achieve a mutually satisfactory outcome. Metro will implement final trail alignments located on property under Metro's management as provided in Paragraph 2. Metro and the City will collaborate on implementing final alignments located outside the Wildlife Area.

2. Feasibility Study and Design Services.

- a. Metro will hire a consultant to research and evaluate conceptual alignments for recreational trails within the project area, including limited design services, as described in the RFP. The Technical Group will participate in consultant selection.
- b. Metro Parks will manage the consultant's contract. In addition, acting through both its Solid Waste and Parks departments, Metro will perform the following tasks:
 - i. Provide topographic surveys as available and other relevant maps and data for the Wildlife Area, including the SJLF;
 - ii. Report to the Management Committee and 40 Mile Loop Land Trust on the Project's progress and on the final results;
 - iii. Present the results of the Project to the Metro Council for a decision regarding the preferred trail alignment(s);
 - iv. Pay for design, permitting, and construction of any trail segment on the SJLF and complete construction of any such trail segment according to the timeline determined by the Project as adopted by the Metro Council;
 - v. Secure funding and implement design, permitting and construction of any other final trail alignments that are selected through this feasibility study and located within the Wildlife Area.
 - vi. If the recreational trail plan adopted by the Metro Council requires the construction of a bridge across the North Slough to the SJLF, allocation of the costs shall be based on a method acceptable to both Metro and the City.
- c. The City will perform the following tasks:
 - i. Participate on the Technical Group;
 - ii. Provide existing information when available and needed for evaluation of alignments located outside of the Wildlife Area.

3. Design, Construction, Management, Maintenance, and Operations. Except as specifically provided in Paragraph 2, responsibility for design, construction, management, maintenance, and operations of any portion of a recreational trail will be determined by separate intergovernmental agreement(s) to be developed following final determination of alignment(s).
4. Project Budget. The City agrees to pay up to \$15,000 for costs incurred for the feasibility study; Metro will bill the City as work is completed and the City will reimburse Metro within 30 days of date of invoice. Metro agrees to pay the balance of costs incurred for the study, anticipated to be at least \$15,000 but not more than \$35,000.
5. Termination of Funding Obligation. The obligation of Metro to provide up to \$35,000 and the City to provide \$15,000 in funding shall terminate June 30, 2005 unless extended by mutual agreement between Metro and the City.
6. Indemnification.
 - a. To the extent permitted by Oregon law, and subject to the limitations of the Oregon Tort Claims Act, ORS 30.260 to 30.300, as may be amended from time to time, the City shall defend, indemnify, and hold harmless Metro and its respective officers, employees, and agents, against any and all liabilities, damages, claims, demands, judgments, losses, costs, expenses, fines, suits, and actions, whether arising in tort, contract, or by operation of any statute, including but not limited to attorneys' fees and expenses at trial and on appeal, arising out of the City's obligations as set forth in this Agreement.
 - b. To the extent permitted by Oregon law, and subject to the limitations of the Oregon Tort Claims Act, ORS 30.260 to 30.300, as may be amended from time to time, Metro shall defend, indemnify, and hold harmless the City, and its respective officers, employees, and agents, against any and all liabilities, damages, claims, demands, judgments, losses, costs, expenses, fines, suits, and actions, whether arising in tort, contract, or by operation of any statute, including but not limited to attorneys' fees and expenses at trial and on appeal, arising out of Metro's obligations as set forth in this Agreement.
7. Notices. All notices or other communications required or permitted under this Agreement shall be in writing, and shall be sent by personal delivery (including by means of professional messenger service), facsimile, electronic mail, or regular mail to the other Party's designee. The City and Metro may change their respective designee by providing written notice of such a change to the other Party. Unless changed as provided in this paragraph, the Parties' respective designees are:

For the City: Deborah Lev
City of Portland Parks and Recreation
1120 SW Fifth Ave, Rm. 1302
Portland, Oregon, 97204
503-823-6009 office
503-823-5570 FAX

For Metro: Elaine Stewart
Metro Regional Parks and Greenspaces
600 NE Grand Avenue
Portland, Oregon, 97232
503-797-1515 office
503-797-1849 FAX

8. General Provisions.

- a. Funding Declarations. The Parties will document in any publication, media presentation, or other presentations, the sources of funds for the project. If signs are placed in the project areas, such signs shall include the logos of the Parties to this Agreement, and shall recognize the Parties' respective contributions to the project.
- b. Oregon Law and Forum. This Agreement shall be construed according to the laws of the State of Oregon. Any litigation among the Parties arising out of this Agreement or out of work performed under this Agreement shall be brought, if in the state courts, in Multnomah County, and, if in the federal courts, in the United States District Court for the District of Oregon.
- c. Assignment. No Party shall assign this Agreement, in whole or in part, without the prior written consent of the other Party, except that a Party may delegate or subcontract for performance of any of its respective responsibilities under this Agreement.
- d. Severability. If any non-material provision in this Agreement is found to be illegal or unenforceable, all other provisions of this Agreement shall nevertheless remain in full force and effect and the illegal or unenforceable provision shall be stricken.
- e. Integration. This Agreement contains the entire agreement among the Parties regarding the subject matter set forth herein, and supersedes all prior written or oral discussions or agreements. No waiver, consent, modification or change of the terms of this Agreement shall bind any Party unless it is in writing and signed by both Parties.

IN WITNESS WHEREOF, the Parties hereto have set their hands on the day and year set forth above.

CITY OF PORTLAND:

By: *Zari Smith*

Title: Director

Date: 9/29/04

Approved as to Form:

Andy Gunkel
Andy Deputy City Attorney

METRO:

By: *Janice Wheeler*

Title: Director

Date: August 31, 2004

Approved as to Form:

Paul E. Egan
Metro General Counsel Attorney

Metro Regional Parks and Greenspaces



METRO

Request for Proposals (RFP # 04-1100-PKS)

Trails Feasibility and Design Services

for the

Smith and Bybee Lakes Wildlife Area Portland, Oregon

Proposals Due: **March 31, 2004 by 5:00 p.m.**

Submit seven paper copies to: Metro Parks and Greenspaces Receptionist
600 NE Grand Avenue
Portland, OR 97232-2736

Project Manager: Jane Hart, Environmental Planner
(503) 797-1585 hartj@metro.dst.or.us

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Trails Feasibility and Design Study for the Smith and Bybee Lakes Wildlife Area

I. Project Objective

Several alignments that would connect Smith and Bybee Lakes Wildlife Area with nearby existing trails, parks and neighborhoods have been identified and need further evaluation. This work will provide an objective and factual analysis of potential trail alignments and trail design parameters/features to provide future connections between the Smith and Bybee Lakes Wildlife Area and nearby existing trails, parks and neighborhoods.

The study will determine buildable trail alignments taking into consideration existing land uses, ownership and topography; connectivity to neighborhoods and other trails; protection of sensitive wildlife habitat and species; appropriate level of trail use; land use and environmental permitting requirements (including Americans with Disabilities Act requirements) cost to construct and maintain trail routes; and project phasing.

A primary goal of this work is to get consensus from project partners on the criteria used to evaluate potential alignments and the factual results of the feasibility analysis. A secondary goal is to achieve consensus on which alignment(s) to recommend for development. Based on the facts and input from consultants, project partners and the public, the Metro Council will make an informed decision on which alignment(s) to pursue.

It should be understood that all being equal, the preferred alignment, if feasible, would be the one already shown in the 1990 Natural Resources Management Plan (NRMP) for Smith and Bybee Lakes, adopted by Metro and the City of Portland.

II. Site Location

Smith and Bybee lakes and their associated sloughs and wetlands are remnants of formerly extensive river bottomlands located near the confluence of the Willamette and Columbia rivers. Part of the Columbia Slough watershed, these large shallow lakes and wetlands are part of the 1,928-acre Smith and Bybee Lakes Wildlife Area. The wildlife area also includes the St. Johns Landfill, a 238-acre closed landfill. The wildlife area is managed primarily for wildlife habitat protection and enhancement while providing passive recreational opportunities for the Portland metropolitan area. Nearby neighborhoods include St. Johns, Kenton and Portsmouth.

The planning area (see Figures 1 and 2) is bounded by the Columbia Slough to the west, the St. Johns neighborhood to the south, North Portland Road to the east and the two lakes (Bybee Lake and Smith Lake) to the north.

III. Project Background and Key Partners

Existing policy, planning and regulatory documents and land use decisions provide important context for this feasibility study. An important outcome of this feasibility study is to resolve a long standing challenge to identify a feasible alignment, or alignments, that meet multiple, and sometimes conflicting objectives. These objectives include, but are not limited to, connecting nearby neighborhoods and existing local and regional trails with the wildlife area, closing gaps in the regional trail system, protecting natural resources within the wildlife area, and maintaining public safety and security of trail users. The feasibility study process needs to be transparent, build trust amongst partners who have not been able to agree, and result in the best compromise given the multiple objectives. A list of background documents and information related to this project is attached and can be viewed at Metro by calling Patricia Sullivan at 503-797-1870.

Key partners include:

- The Smith and Bybee Lakes Management Committee
- Friends of Smith and Bybee Lakes
- 40 Mile Loop Land Trust
- The City of Portland Parks and Recreation
- Metro Parks and Greenspaces
- Metro Solid Waste and Recycling
- St. John's Neighborhood Association

Other Stakeholders

- Nearby Neighborhood Associations
- The Columbia Slough Watershed Council
- The Bicycle Transportation Alliance
- The Port of Portland
- Local businesses

IV. Proposed Scope of Work

Project work to be performed by Consultant

A. Trail Alignment Analysis

1. Assess identified trail alignments and recommend any other potential trail alignments within the planning area.
2. Conduct a land inventory of the natural and man-made features in the potential alignments including land ownership, presence of natural, cultural and scenic resources, facilities and structures, and topography. Incorporate inventory information into tables and aerial and plan maps. If necessary, conduct a right-of-way analysis to determine if public or private lands may be needed to accommodate the potential alignment(s).
3. Conduct analysis of various alignments including opportunities and constraints of environmentally sensitive trail design, regulatory requirements [e.g. fill-removal law, Endangered Species Act (ESA)],

proximity to the landfill, construction, long term management/maintenance, user safety, aesthetic enjoyment, appropriate uses and level of accessibility and policy implications (e.g. dogs, bikes, access on landfill). Conduct survey work as needed at points where exact topography is critical (e.g. for possible bridge crossings, wetland fill). Identify potential wetland fill that will require mitigation.

4. Review, assess and coordinate with existing and future trail planning projects in the vicinity. Projects may include public and private developments including residential, commercial and industrial areas. Recommend and illustrate potential connections to:
 - existing regional trails, trailheads, access points, neighborhoods
 - existing and future developments
5. Work in coordination with Metro Data Resource Center (DRC) staff on computer mapping analysis and final products to ensure compatibility of work products.

B. Identify Feasible Trail Alignment(s)

1. Establish criteria for ranking feasible trail alignment(s) [e.g. functionality, trail standards and guidelines, additional costs for required bridges or other significant additional infrastructure, regulatory and political implications].
2. Complete a comparison of alignments and designate which are feasible.

C. Trail design

Provide recommendations for the following:

1. Options for type and level of use on proposed trails (e.g. ped only, multi-use) and associated impacts.
2. Environmentally sensitive areas / drainage and buffer areas
3. Amenities and support facilities, including fences and bridges
4. Width of trails
5. Trail and shoulder surface treatments
6. Typical cross section
7. Road and/or water crossings
8. Phasing priorities (acquisition, easements, development)

D. Identify Land Use Approvals and Permitting Requirements for Recommended Alignments

1. Identify all land use approvals, permits and other regulatory requirements (e.g. ADA) and governmental reviews needed in order to design, build and maintain the trails within the feasible alignments.

E. Provide Cost estimates for:

1. Design, engineering and contingency

2. Trail construction
3. Trail amenities and infrastructure
4. Permits
5. Ongoing operations and trail maintenance
6. Land and ROW acquisition and/or easements and dedications if needed

F. Public Involvement

1. Facilitate approximately 4 Technical Working Group (TWG) meetings and one public meeting.
2. Prepare display graphics for TWG and public meeting.
3. Prepare a Public Information / Involvement Plan(s) for each of the feasible alignment(s) to ensure successful implementation. This task is necessary to evaluate costs and timelines for public involvement related to various alignments.

G. Project Deliverables

1. Final Report will describe feasible trail alignments and trail design features (e.g. width, surface, slope, amenities, types and level of use, connectivity, environmentally sensitive design), incorporating illustrations, maps and aerial photography. Appendices may include technical research, and other information used in making trail alignment and design recommendations. Two camera ready paper copies in color and an electronic copy of the report on a CD.
2. Digital photographs on a CD-ROM of the feasible trail alignments. Location of images must be described. Metro DRC may provide original data.
3. Spreadsheet detailing actions and cost necessary to build feasible alignments.
4. Representative drawing(s) of typical trail cross section(s).
5. Recommend the optimum alignment if a clear choice is apparent.
6. Public Involvement Plan(s) for feasible alignment(s).

Project deliverable due dates will be determined prior to entering into a contract with the successful proposer.

Project Work to be performed by Metro

H. Provide Existing Site Information

1. Provide Metro GIS mapping data for zoning, topography, hydrology, water features, goal 5 resources on a CD
2. Provide Metro DRC staff assistance to coordinate GIS mapping and aerial photography needs.

3. Provide historic and ongoing natural resource data (e.g. wildlife surveys, plant surveys)
4. Document local, regional and state plans, policies and programs that support trails.
5. Identify upcoming trail construction, bike lane striping, sidewalk construction, signal projects, etc. within the planning area.
6. Provide 11 x 17 maps of landfill gas collection system and groundwater monitoring wells.

I. Identify Project Goals

1. Propose draft project goals for discussion with Technical Working Group and consultants. Finalize project goals.

J. Project Management

1. Metro Regional Parks and Greenspaces staff will serve as project manager and liaison to a Technical Working Group. Metro project manager will coordinate with consultant and project partners on all aspects of the study.
2. Provide timely feedback on review material.
3. Conduct final printing and distribution of the Feasibility and Design Study.
4. Coordinate work with other trails, bike/ped and sidewalk improvement projects within one mile of the planning area in the jurisdiction of the City of Portland.
5. Prepare meeting agendas and minutes.

K. Public Involvement

1. Prepare public involvement and information plan for the feasibility study process.
2. Establish Technical Working Group (TWG). The purpose of the TWG is to help compile existing factual information about the project area and provide expert review of the technical information presented by the consultants. Metro's goal in convening this TWG is to achieve consensus on the facts and criteria which the consultants will use to determine alignment feasibility. The working group will consist of a representative from each of the following partners:
 - Smith and Bybee Lakes Management Committee
 - Friends of Smith and Bybee Lakes
 - 40-Mile Loop Land Trust
 - The City of Portland Parks and Recreation
 - Metro Parks & Greenspaces
 - Metro Solid Waste & Recycling
 - St. John's Neighborhood Association

3. Present project updates to Metro Council and City of Portland.
4. Present final draft feasibility study to Metro Council and City of Portland.
5. Perform public outreach to stakeholders as necessary.

L. Identify potential funding sources

1. Federal or state transportation and trails funds
2. Regional / Local funding (e.g. bonds, SDCs)

V. Budget

This project and solicitation process envisions consulting services costing between \$40,000 and \$45,000.

VI. Project Timeline

A.	Pre-Proposal Conference	March 16, 2004
B.	Proposals Due	March 31, 2004
C.	Approximate Start Date	April 2004
D.	Completion Date	October 2004

VII. Pre-Proposal Conference

A non-mandatory pre-proposal conference will be held on Tuesday, March 16th, from 9:00 a.m. to noon. The pre-proposal conference will begin with a site tour of the project area from 9 a.m. - 10:15 a.m., followed by a question and answer session from 10:30 a.m. - noon. The site tour will commence at the St. John's Landfill at 9387 N. Columbia Blvd. Following the tour, the group will proceed to the nearby Columbia Blvd. Wastewater Treatment Plant at 5001 N. Columbia Blvd., Mt. Hood Room, for the question and answer session.

Directions to the St. John's Landfill: I-5 North to the Columbia Blvd. exit, west on Columbia Blvd; turn right at the sign that says Metro St. John's Facility; cross the railroad tracks; park on the side of the road leading to the slough bridge; meet at the south side of the bridge. Metro will provide two 15 passenger vans for the tour. It is advised that participants wear clothing for inclement weather.

Directions to the Columbia Blvd. Wastewater Treatment (from St. John's Landfill): East on N. Columbia Blvd. for approximately 1 mile ; turn left at yellow sign at plant entrance; guest parking in front of the plant.

VIII. Proposal Submittal Requirements

- A. Transmittal Letter: A letter that indicates the name, title, address, telephone number, FAX number and e-mail address of the lead contact person(s) authorized to sign any contract which may result. State the firm's interest in the project. A statement must be provided establishing that the proposal will be valid for sixty (60) days after receipt by Metro.
- B. Approach/ Work Plan / Schedule: Describe how the work will be done within the given timeframe and budget. Include a proposed work plan and schedule. Provide a spreadsheet showing the number of hours to be worked by each staff by task, and their hourly rates. Metro will not reimburse for out of pocket expenses or overhead expenses. Work hours shall not include travel time.

Proposers may include suggested revisions to the scope of work, associated impact on the project budget and completion time frames and rationale for suggestions.

- C. Project Deliverables: Describe project deliverables Metro would receive.
- D. Background and Qualifications: Provide information about the experience of the firm and any subconsultant(s), particularly experience of individual team members, that qualifies the firm and individuals to successfully carry out the work identified in the Proposed Scope of Work. Include resumes and three references for each team member included in this RFP.

Please include detailed information about three recent projects (involving services similar to the services required in this RFP) the firm and team members have been involved in. For each of these projects Include client contact person, his/her title, role on the project, and telephone number. Identify persons on the proposed team for this RFP who worked on each of the projects listed, and their respective roles. Please submit 3 trail feasibility studies conducted by your firm. Metro will return work samples if requested.

Indicate if the firm and any subconsultant(s) is/are a State of Oregon certified Emerging Small Business (ESB), Minority Business Enterprise (MBE), or Women-Owned Business (WBE).

The proposal should be submitted on recyclable, double-sided recycled paper (post consumer content). No waxed page dividers or non-recyclable materials should be included in the proposal. Proposals should be bound by staples or reusable clips only. In addition, vendors shall use recycled and recyclable materials and products to the maximum extent

economically feasible in the performance of contract work set forth in this document.

IX. Evaluation of Proposals

- A. Evaluation Procedure: Proposals received that conform to the proposal instructions will be evaluated. The evaluation will take place using the evaluation criteria identified in the following section. A committee of Metro and project partners will select the most qualified firm with the most responsive proposal. Interviews may be requested prior to final selection of one firm.
- B. Evaluation Criteria: This section provides a description of the criteria that will be used in the evaluation of the proposals submitted to accomplish the work defined in the RFP.

40% Approach/Project Work Plan

1. Demonstration of understanding of the project objectives
2. Comprehensiveness and efficiency of approach
3. Allocation of staff to tasks
4. Project schedule, including deliverables.

35% Project Staffing Experience

1. Familiarity and proven track record of identifying relevant land use and regulatory permits from city, State and federal agencies. This project will include city of Portland land use review (including transportation issues), state fill/removal law, and federal ESA)
2. Experience successfully facilitating consensus with groups who have strongly held and passionate opinions.
3. Expertise using current science to evaluate impacts on natural resources.
4. Experience designing trails in sensitive areas.
5. Ability to maintain project priority and assigned staff given other work demands.

25% Budget/Cost Proposal

1. Projected cost/benefit of proposed work plan/approach
2. Ability to adhere to budget and schedule parameters

X. Method of Selection

Members of the Selection Committee for this project will individually evaluate each submitted Proposal to determine those individuals/firms best qualified to perform the services required. Committee member ratings will not be revealed prior to the selection.

Proposers selected for final evaluation *may* be required to present an oral interview of their proposal to Metro's Selection Committee. Such presentations provide an opportunity for the firm to clarify its proposal and ensure mutual understanding. Metro will schedule the time and location for these presentations.

Consultant selection will be based upon the proposal submitted and oral interviews, if conducted. Upon completion of the oral interviews, the Committee will advise all proposers of its selection. Metro reserves the right to request and require submission of technical, managerial, financial, or other evidence of abilities prior to selection.

XI. Project Contact

Jane Hart, Metro Project Manger
Metro Regional Parks and Greenspaces
(503) 797-1585

XII. General Proposal/Contract Conditions

- A. Limitation and Award: This RFP does not commit Metro to the award of a contract, nor to pay any costs incurred in the preparation and submission of proposals in anticipation of a contract. Metro reserves the right to waive minor irregularities, accept or reject any or all proposals received as the result of this request, negotiate with all qualified sources, or to cancel all or part of this RFP.
- B. Billing Procedures: Proposers are informed that the billing procedures of the selected firm are subject to the review and prior approval of Metro before reimbursement of services can occur. Contractor's invoices shall include an itemized statement of the work done during the billing period, and will not be submitted more frequently than once a month. Metro shall pay Contractor within 30 days of receipt of an approved invoice.
- C. Validity Period and Authority: The proposal shall be considered valid for a period of at least sixty (60) days and shall contain a statement to that effect. The proposal shall contain the name, title, address, and telephone number of an individual or individuals with authority to bind any company contacted during the period in which Metro is evaluating the proposal.
- D. Conflict of Interest. A Proposer filing a proposal thereby certifies that no officer, agent, or employee of Metro or Metro has a pecuniary interest in this proposal or has participated in contract negotiations on behalf of Metro; that the proposal is made in good faith without fraud, collusion, or connection of any kind with any other Proposer for the same call for proposals; the Proposer is competing solely in its own behalf without connection with, or obligation to, any undisclosed person or firm.
- E. Ownership of Documents. All documents of any nature including, but not limited to, reports, drawings, and works of art and photography, submitted by the proposer as part of this proposal shall become the property of Metro and are subject to public review and request according to the laws of the State of Oregon and Metro Code.

XIII. Notice to all Proposers -- Standard Agreement

The attached personal services agreement (Attachment A) is a standard agreement approved for use by the Office of the Metro Attorney. This is the contract the successful proposer will enter into with Metro; it is included for your review prior to submitting a proposal.

Attachment A

STANDARD PERSONAL SERVICES AGREEMENT

THIS AGREEMENT is between Metro, a metropolitan service district organized under the laws of the State of Oregon and the Metro Charter, located at 600 NE Grand Avenue, Portland, OR 97232-2736, and _____ referred to herein as "Contractor," located at _____.

In exchange for the promises and other consideration set forth below, the parties agree as follows:

1. Duration. This personal services agreement shall be effective _____ and shall remain in effect until and including _____, unless terminated or extended as provided in this Agreement.
2. Scope of Work. Contractor shall provide all services and materials specified in the attached "Exhibit A — Scope of Work," which is incorporated into this Agreement by reference. All services and materials shall be provided by Contractor in accordance with the Scope of Work, in a competent and professional manner. To the extent that the Scope of Work contains additional contract provisions or waives any provision in the body of this Agreement, the Scope of Work shall control.
3. Payment. Metro shall pay Contractor for services performed and materials delivered in the amount(s), manner and at the time(s) specified in the Scope of Work for a maximum sum not to exceed _____ AND _____/100THS DOLLARS (\$_____).
4. Insurance.
 - a. Contractor shall purchase and maintain at the Contractor's expense, the following types of insurance, covering the Contractor, its employees, and agents:
 - (1) Broad form comprehensive general liability insurance covering bodily injury and property damage, with automatic coverage for premises, operations, and product liability shall be a minimum of \$1,000,000 per occurrence. The policy must be endorsed with contractual liability coverage; and
 - (2) Contractor shall maintain for the duration of this Agreement professional liability insurance covering personal injury and property damage arising from errors, omissions, or malpractice. Coverage shall be in the minimum amount of \$1,000,000. Contractor shall provide to Metro a certificate of

this insurance, and 30 days' advance notice of material change or cancellation.

b. **Metro, its elected officials, departments, employees, and agents shall be named as ADDITIONAL INSUREDS.** Notice of any material change or policy cancellation shall be provided to Metro 30 days prior to the change or cancellation.

c. Contractor, its subcontractors, if any, and all employers working under this Agreement that are subject employers under the Oregon Workers' Compensation Law shall comply with ORS 656.017, which requires them to provide Workers' Compensation coverage for all their subject workers. Contractor shall provide Metro with certification of Workers' Compensation insurance including employer's liability. If Contractor has no employees and will perform the work without the assistance of others, a certificate to that effect may be attached, as Exhibit B, in lieu of the certificate showing current Workers' Compensation.

d. Contractor shall provide Metro with a certificate of insurance complying with this article and naming Metro as an additional insured within fifteen (15) days of execution of this Contract or twenty-four (24) hours before services under this Contract commence, whichever date is earlier.

5. **Indemnification.** Contractor shall indemnify and hold Metro, its agents, employees and elected officials harmless from any and all claims, demands, damages, actions, losses and expenses, including attorney's fees, arising out of or in any way connected with its performance of this Agreement, or with any patent infringement or copyright claims arising out of the use of Contractor's designs or other materials by Metro and for any claims or disputes involving subcontractors.

6. **Maintenance of Records.** Contractor shall maintain all of its records relating to the Scope of Work on a generally recognized accounting basis and allow Metro the opportunity to inspect and/or copy such records at a convenient place during normal business hours. All required records shall be maintained by Contractor for three years after Metro makes final payment and all other pending matters are closed.

7. **Ownership of Documents.** All documents of any nature including, but not limited to, reports, drawings, works of art and photographs, produced by Contractor pursuant to this Agreement are the property of Metro, and it is agreed by the parties that such documents are works made for hire. Contractor hereby conveys, transfers, and grants to Metro all rights of reproduction and the copyright to all such documents.

8. **Project Information.** Contractor shall share all project information and fully cooperate with Metro, informing Metro of all aspects of the project including actual or potential problems or defects. Contractor shall abstain from releasing any information or project news without the prior and specific written approval of Metro.

9. Independent Contractor Status. Contractor shall be an independent contractor for all purposes and shall be entitled only to the compensation provided for in this Agreement. Under no circumstances shall Contractor be considered an employee of Metro. Contractor shall provide all tools or equipment necessary to carry out this Agreement, and shall exercise complete control in achieving the results specified in the Scope of Work. Contractor is solely responsible for its performance under this Agreement and the quality of its work; for obtaining and maintaining all licenses and certifications necessary to carry out this Agreement; for payment of any fees, taxes, royalties, or other expenses necessary to complete the work except as otherwise specified in the Scope of Work; and for meeting all other requirements of law in carrying out this Agreement. Contractor shall identify and certify tax status and identification number through execution of IRS form W-9 prior to submitting any request for payment to Metro.

10. Right to Withhold Payments. Metro shall have the right to withhold from payments due to Contractor such sums as necessary, in Metro's sole opinion, to protect Metro against any loss, damage, or claim which may result from Contractor's performance or failure to perform under this Agreement or the failure of Contractor to make proper payment to any suppliers or subcontractors.

11. State and Federal Law Constraints. Both parties shall comply with the public contracting provisions of ORS chapter 279, and the recycling provisions of ORS 279.545 - 279.650, to the extent those provisions apply to this Agreement. All such provisions required to be included in this Agreement are incorporated herein by reference. Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations including those of the Americans with Disabilities Act.

12. Situs. The situs of this Agreement is Portland, Oregon. Any litigation over this agreement shall be governed by the laws of the State of Oregon and shall be conducted in the Circuit Court of the state of Oregon for Multnomah County, or, if jurisdiction is proper, in the U.S. District Court for the District of Oregon.

13. Assignment. This Agreement is binding on each party, its successors, assigns, and legal representatives and may not, under any circumstance, be assigned or transferred by either party.

14. Termination. This Agreement may be terminated by mutual consent of the parties. In addition, Metro may terminate this Agreement by giving Contractor seven days prior written notice of intent to terminate, without waiving any claims or remedies it may have against Contractor. Termination shall not excuse payment for expenses properly incurred prior to notice of termination, but neither party shall be liable for indirect or consequential damages arising from termination under this section.

15. No Waiver of Claims. The failure to enforce any provision of this Agreement shall not constitute a waiver by Metro of that or any other provision.

16. Modification. Notwithstanding and succeeding any and all prior agreement(s) or practice(s), this Agreement constitutes the entire Agreement between the parties, and may only be expressly modified in writing(s), signed by both parties.

_____	METRO
By _____	By _____
Title _____	Title _____
Date _____	Date _____

Metro Contract No. _____

Exhibit A

SCOPE OF WORK

1. Description of the Work.

(Description of the Work will be based on the enclosed RFP and finalized prior to entering into a contract with the successful proposer.)

2. Payment and Billing.

Contractor shall perform the above work for a maximum price not to exceed
_____ THOUSAND _____
_____ HUNDRED AND _____ DOLLARS (\$_____).

The maximum price includes all fees, costs and expenses of whatever nature. Each of Metro's payments to Contractor shall equal the percentage of the work Contractor accomplished during the billing period. Contractor's billing statements will include an itemized statement of work done and expenses incurred during the billing period, will not be submitted more frequently than once a month, and will be sent to Metro. Metro will pay Contractor within 30 days of receipt of an approved billing statement.

Attachment B

Background Information

Smith and Bybee Lakes Trails Feasibility and Design Study

1. Excerpts from the 1983 40-mile Loop Master Plan, prepared for the 40-mile Loop Trust by David Evans and Associates.
2. The City of Portland's comprehensive plan map of proposed trail alignment in the vicinity of the Smith and Bybee Lakes Wildlife Area.
3. The 1990 Natural Resources Management Plan for Smith and Bybee Lakes, adopted by the city and Metro.
4. The 1992 Recreation Master Plan, prepared for Metro by Portland Parks and Recreation.
5. The 4/11/03 recommendations to Metro from the Smith and Bybee Lakes Management Committee.
6. Opportunities & Constraints Matrix for Potential Trail Alignments (by segment). (February 2004)
7. Smith and Bybee Lakes Wildlife Area Recreation Facilities Plan -Trailhead Concept Plan Map Oct. 1999.
8. The June 10, 1999 North Portland Trails Summit (meeting packet), sponsored by North Portland Neighborhood Services.
9. Revised Closure and Financial Assurance Plan, St. Johns Landfill, September 1989
10. Two City of Portland Notice of Decisions for Metro improvement projects in the Smith and Bybee Lakes Wildlife Area.
11. Regional Trails & Greenways Brochure and Concept Map (Metro 2003).
12. 2000 Regional Transportation Plan (Metro, Updated 2004). Available on Metro's website at www.metro-region.org
13. Transportation System Plan (City of Portland, 2002). Available on the city's website at www.trans.ci.portland.or.us

To arrange an appointment to view items 1 through 11, please contact Patricia Sullivan at Metro at 503-797-1870.

EXHIBIT B

Smith and Bybee Lakes Wildlife Area - Trails Feasibility Study Schedule 2004-05

Planning Activity	04							05						
	J	F	M	A	M	J	J	A	S	O	N	D	J	F
1. Draft IGA with City of Portland														
2. Develop and finalize RFP														
3. Receive Metro/City Approvals for IGA														
4. Release RFP														
5. Hire Consultant / Kick Off Work														
6. Establish Technical Working Group														
7. Conduct Trails Feasibility Study														
8. Periodic Updates to Stakeholders														
9. Prepare draft Feasibility Report														
10. Release draft Report for Public Review														
11. Metro Council Consideration and Decision														
12. Release Final Feasibility Report														

Trail Alignment Decision Process

Task	Details	Involved groups	Public outreach	Timeline
1. Smith and Bybee Lakes Management Committee recommends alignments for further study	SBLMC forwarded several alignments to Metro for study.	More than 10 agencies and citizen groups.	Standard meeting notices for SBLMC meetings, no directed outreach.	Recommendations were given to Metro in spring 2003.
2. Metro and City of Portland partner on feasibility study of SBLMC alignments	Focused technical study to evaluate benefits, costs and risks of each alignment, and to identify "fatal flaws" if they exist.	40-mile Loop group, St. Johns NA, Friends of S&B, SBMC, Portland Parks, Metro Solid Waste, Metro Parks.	Informational briefings to interested groups (Friends, SBLMC, 40-mile Loop group, watershed council, etc.)	2004
3. Short list of feasible alignments forwarded to Metro Council for decision on routes to pursue.	Policy decision on appropriate alignment(s) to build.	Interest groups and general public.	Informational briefings with interested groups, public comment at Metro Council meeting.	Late 2004
4. Fundraise, design, permit and build.	Metro and partners take on appropriate segments and tasks.	Primarily Metro and City of Portland.	Public information and comment as appropriate through design and permit process.	2005 →
4a. Permit process: final alignment proceeds to City of Portland (BDS) for planning review	Review process depends on alignments and will probably be either Type 2 land use review or legislative process (see next page).	Interest groups and general public.	Informational briefings prior to submissions for BDS. (a) Type 2 review allows written public comment. (b) Legislative review includes planning commission and city council decisions, with public comment opportunities throughout.	2005 – 2006.

City of Portland review processes

This is the current understanding between Metro and Portland Bureau of Development Services staff as of April 2004. All of the following information is preliminary – the final decisions regarding process and criteria will be made when applications are submitted to the city.

To build alignments within the Smith and Bybee Lakes Wildlife Area boundary

A Type 2 Land Use Review applies when:

1. Building any of the alignments shown within the wildlife area on the Natural Resources Management Plan (NRMP). This is regarded as development in conformance with the NRMP. Approval criteria are listed on page 67 of the NRMP.
2. Replacing an alignment shown in the NRMP with another alignment within the wildlife area. This would be a minor exception to the NRMP, stated on page 68, item i:
“Modification in the 40 Mile Loop Trail location where trail, purpose, and continuity are maintained and important natural resource values are not significantly impacted.”
Approval criteria are shown on the same page.

No city review process is required if an alignment shown in the NRMP is not built. However, if an applicant proposed to *remove* an alignment from the NRMP, it would require a legislative process.

Regarding the segment along the south side of Smith Lake, shown as recreation project #3 in the NRMP. Changing the type of trail at this location from soft-surface hiking trail to paved multi-modal trail would not meet the purpose of the trail (hiking only). This change would not be regarded as a minor exception to the plan and it would require a legislative process.

To build alignments outside the boundary

The NRMP does not address trail alignments outside the wildlife area boundary. The permit requirements will be found in the relevant base zones (residential, industrial) and overlays and corresponding city code. Depending on trail locations, it may be necessary to secure rights of way from the city.

FINAL DRAFT
Smith and Bybee Wetlands Natural Area Trail Feasibility Study



August 2005



Smith and Bybee Wetlands Natural Area Trail Feasibility Study Portland, Oregon

Prepared for:

Metro Regional Parks and Greenspaces Department
Metro Solid Waste and Recycling Department
Portland Parks and Recreation Department

Prepared by:

MacLeod Reckord
Terry Reckord, Principal
Marianne Zarkin, Landscape Architect

In Association with:

Dean Apostol, Landscape Architect

Pacific Habitat Services
John Van Staveren
Fred Small

DKS, Associates
Dana Beckwith

Metro Regional Parks and Greenspaces Department
600 NE Grand Avenue
Portland, Oregon 97212
(503) 797-1700
www.metro-region.org

Portland Parks and Recreation
1120 SW Fifth Ave, Suite 1302
Portland, Oregon 97204
(503) 823-PLAY
www.portlandparks.org

MacLeod Reckord
5500 SE Belmont Street
Portland, Oregon 97215
(503) 223-1171

For more information or copies of this report contact:

Jane Hart, Project Manager, (503) 797-1585, hartj@metro.dst.or.us

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Metro Regional Parks and Greenspaces Department

Jim Desmond, Director
Chris Carlson, Parks and Natural Area Planning Manager
William Eadie, Property Acquisition Specialist
Jane Hart, Project Manager
Heather Neslon Kent, Community and Media Relations Manager
Dan Kromer, Willamette District Manager
Lia Waiwaiole, Project Website Designer

Metro Council

David Bragdon, Council President
Rod Park, Council District 1
Brian Newman, Council District 2
Carl Hosticka, Council District 3
Susan McLain, Council District 4
Rex Burkholder, Council District 5
Robert Liberty, Council District 6

Metro Solid Waste and Recycling Department

Mike Hogland, Director
Paul Ehinger, Senior Engineer
St. Johns Landfill Staff

Portland Parks and Recreation

Janet Bebb, Planning Supervisor

Technical Working Group

Joe Adamski, St. Johns Neighborhood Association
Pam Arden, 40-Mile Loop Land Trust
Troy Clark, Smith and Bybee Wetlands Management Committee
Deborah Lev, Portland Parks and Recreation
Emily Roth, Friends of Smith and Bybee Lakes
Elaine Stewart, Metro Regional Parks and Greenspaces Department
Paul Vandenberg, Metro Solid Waste and Recycling Department

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I. EXECUTIVE SUMMARY

Purpose

The Metro Council is being asked to select a trail alignment, in order to complete a missing link in the 40-Mile Loop and regional trail system in the vicinity of the Smith and Bybee Wetlands Natural Area (Natural Area). The four alternative alignments presented in this report were developed after many months of effort by a number of interested stakeholders. Key stakeholders that participated on a Technical Working Group for this study include: Metro Regional Parks and Greenspaces Department; Metro Solid Waste and Recycling Department; Portland Parks and Recreation; Smith and Bybee Wetlands Management Committee; the 40-Mile Loop Land Trust; the Friends of Smith and Bybee Lakes; and the St. Johns Neighborhood Association.

Years of previous effort have failed to produce a consensus on a single alignment. Conflicts between the desire for a user experience that interacts with a natural landscape and the desire to protect wildlife and habitat from further human encroachment have not been reconciled. However, there is agreement among key stakeholders who have engaged in this effort that the four alternative alignments under consideration represent an appropriate range of options, and that the facts and conclusions of this analysis are correct.

Overview

Each of the four alternatives has distinct advantages and disadvantages. Each has supporters and opponents. Any alignment selected for development would require further assurances prior to implementation (i.e. funding identified, property and ROW negotiations, permit approvals).

All four alternative alignments provide some level of aesthetic benefits, and make important connections between the Smith and Bybee Wetlands Natural Area and nearby parks, neighborhoods, and regional trails. Impacts to habitat vary from low to very high potential depending on the alignment. Railroad and Slough crossings contribute significantly to the cost of some of the alignments. The key variables for

Metro Council consideration are:

1. The trail user experience. Much research supports the intuitive assumption that people prefer to visit trails within or with views of natural scenery, including water, trees, wetlands, and green vegetation. This is not merely a matter of visual delight. Research shows that recreation and views of natural landscapes lower stress and blood pressure, and help urban residents lead more physically and psychologically healthy lives.
2. Impacts to fish/wildlife and their habitat. Research also supports the intuition that trails located within natural areas have demonstrated negative impacts and risks to wildlife. Nests may be abandoned, foraging disrupted, and habitat lost as a consequence of trail construction and regular use. These outcomes are not certain, but there is risk of one or more of them occurring with certain trail alignments.
3. Trail construction cost. The four options range from \$4 to \$7 million dollars to develop, exclusive of land acquisition.
4. Public sentiment. There is no clear consensus alternative alignment available. Those advocating one alignment or another have very good and sensible arguments in their favor based on their core values.

Elements Common to All Alternative Alignments

Each of the four alternative alignments links the east end of the Port of Portland Trail¹ through the Natural Area to neighborhoods, parks, and other regional trails. Each alignment has the potential to provide access for multiple trail users, including hikers, cyclists, and those with disabilities, although trail surface (hard vs. soft) has not been determined for some portions of some alignments. Each alignment includes

¹ The Port of Portland Trail (also known as the Rivergate Trail) refers to a 1.3-mile segment of the Columbia Slough Trail built by the Port of Portland in 2002.



Water control structure between Bybee Lake and North Slough



North Portland Road bridge over Columbia Slough



Wapato Wetland along the south side of the Columbia Slough

traveling the east side of the St. Johns landfill, and connecting the landfill to the St. Johns neighborhood through Chimney and Pier Parks.



View of the Columbia Slough from the south shore of Smith Lake

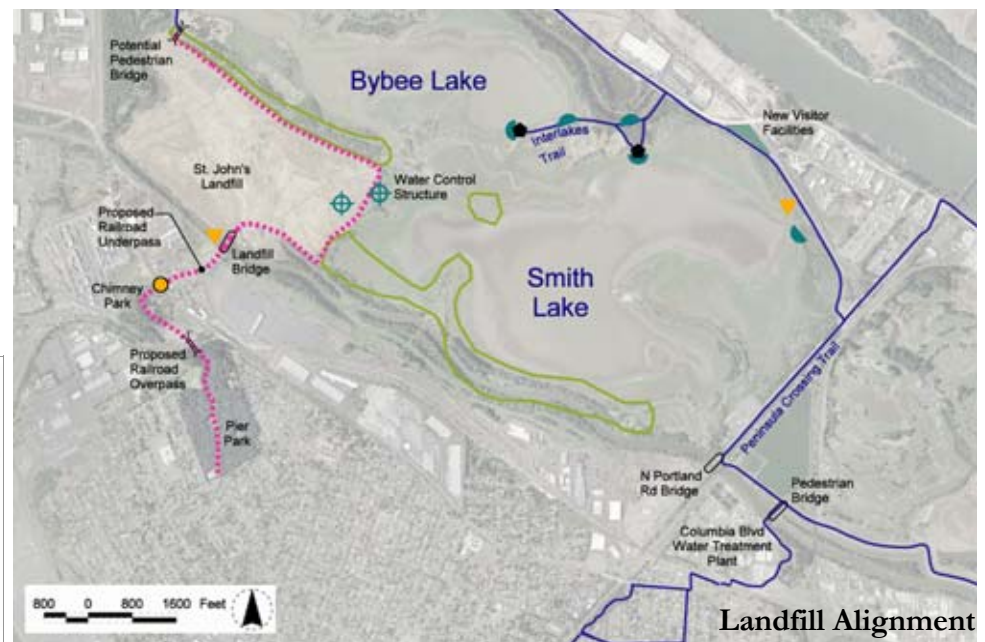
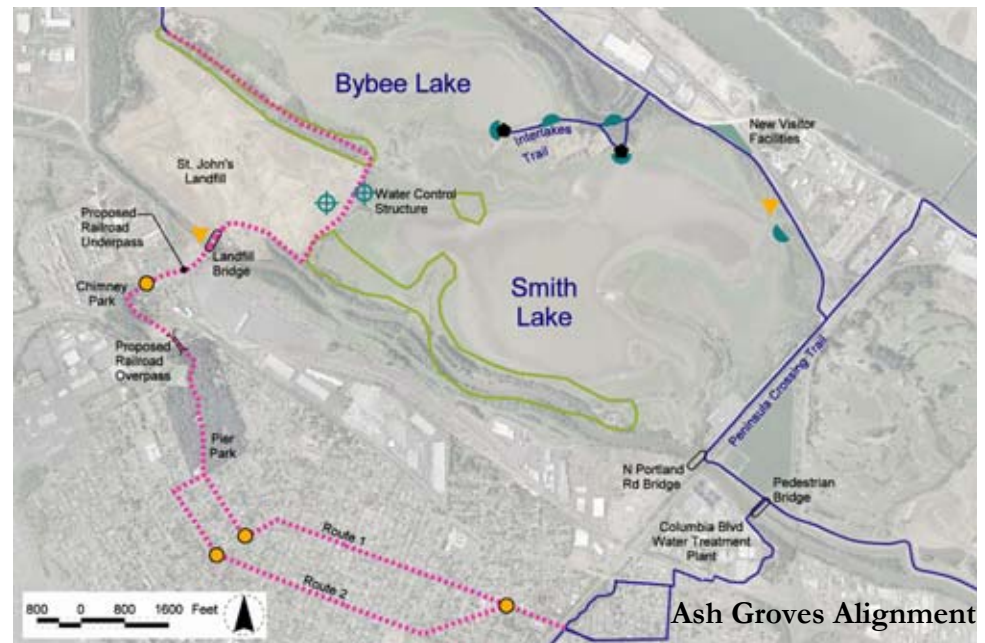
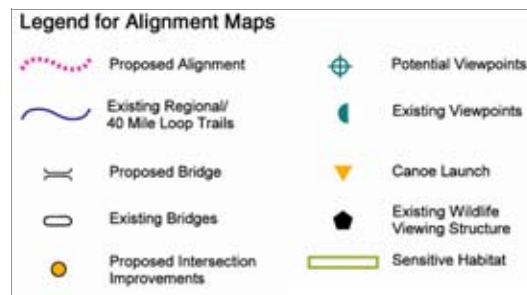
SUMMARY OF ALTERNATIVE TRAIL ALIGNMENTS

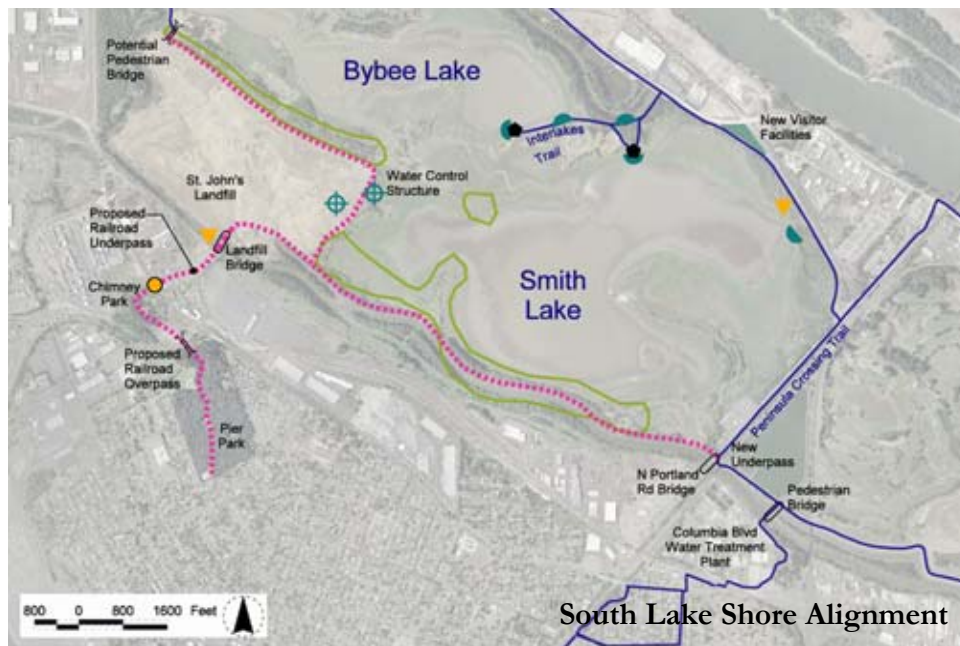
Ash Groves Alignment **\$4.6 million**

- Sensitive wildlife habitat will be impacted.
- No new bridge needed to cross Columbia Slough.
- High quality user experience through ash groves woodland.
- Crosses through western painted turtle nesting area yet avoids impacts to heron and Bald Eagles.
- Provides improved route through neighborhood to Peninsula Crossing Trail.
- May require crossing wetlands.
- Careful route selection can reduce impacts to old growth ash trees.
- Does not provide direct link to 40-Mile Loop trails along Columbia Slough east of the Natural Area.
- No land acquisition needed to complete.

Landfill Alignment **\$6.2 million**

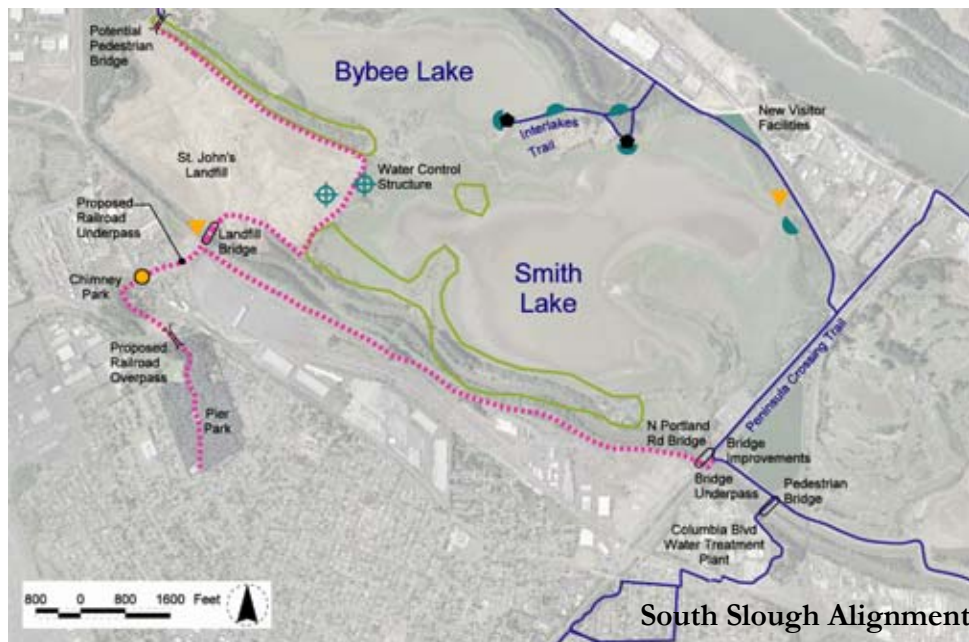
- Requires new bridge to cross Columbia Slough, bridge engineering studies required.
- ESA listed fish in Columbia Slough.
- Lowest environmental impact.
- User experience not as high as Ash Groves or South Lake Shore alignments.
- Does not provide direct link to 40-Mile Loop trails along Columbia Slough east of the Natural Area.
- No land acquisition needed to complete.





South Lake Shore Alignment **\$7.1 million**

- Trail would run close to a 70 nest heron rookery and four Bald Eagle (ESA listed species) nesting sites.
- Wetlands may be impacted.
- Requires new bridge to cross Columbia Slough, bridge engineering studies required.
- ESA listed fish found in Slough.
- Trail route used as a wildlife crossing between Slough and Smith Lake.
- High quality user experience.
- Provides a direct link to the 40-Mile Loop trails east of Natural Area.
- Route crosses two small parcels in private ownership – acquisition or purchase required.
- This alignment shown in 1990 Management Plan adopted by the City of Portland.



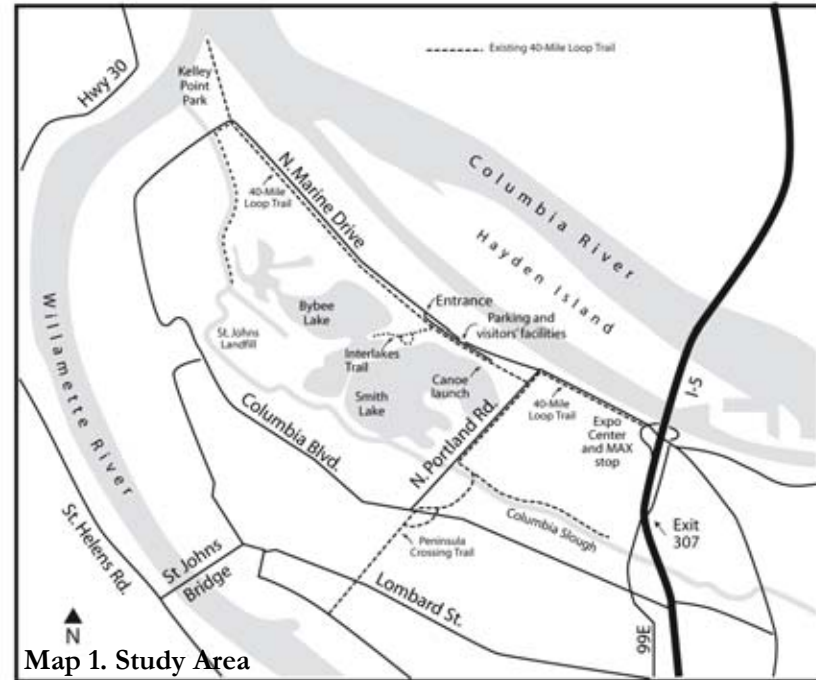
South Slough Alignment **\$7.6 million**

- Requires new bridge to cross Columbia Slough, bridge engineering studies required.
- Need major improvements to North Portland Road bridge to accommodate widened sidewalk.
- Provides direct link to 40-Mile Loop trails east of Natural Area.
- Wetlands may be impacted.
- User experience lower than South Lake Shore and Ash Groves, yet 'Wapato Wetland' provides high quality wildlife viewing opportunities.
- Most of the South Slough segment of trail in private or other agency ownership. Easements or acquisition required.

II. BACKGROUND

Study Area

This project involves examining alternative trail alignments on the North Portland Peninsula, generally in the southern portion of the Smith and Bybee Wetlands Natural Area, including the St. Johns landfill (landfill).



Map 1. Study Area

The project study area is bounded by the Columbia Slough to the west, the St. Johns neighborhood to the south, North Portland Road to the east and the Smith and Bybee wetlands to the north (Map 1). Nearby neighborhoods include St. Johns, Kenton and Portsmouth.

Project Purpose

The purpose of this study is to provide an objective and factual analysis of potential trail alignments to connect the Smith and Bybee Wetlands Natural Area with nearby neighborhoods, parks, and local and

regional trails. A number of options for completing this missing link in the 40-Mile Loop and Regional Trail System have been discussed over the years without reaching a consensus among the various trail, neighborhood, and Natural Area advocates.

Project Partners

Metro's Regional Parks and Greenspaces Department managed this feasibility study in collaboration with Portland Parks and Recreation and Metro's Solid Waste and Recycling Department. An Intergovernmental Agreement (IGA) was signed by both agencies to work together to hire a consulting team to resolve the long-standing issues surrounding the siting of this important section of trail. The IGA also mandated that a technical working group be established to insure that the process was unbiased and provide the technical expertise necessary to insure that all pertinent information was included and considered.

Technical Working Group

A seven-member Technical Working Group comprised of representatives of major stakeholder groups met at project milestones to provide feedback and approval of evaluation criteria, criteria measurements, trail segment analysis, and alternative trail alignments. This advisory group also attended the public workshop to assist in presenting the study process and recommendations. Notes from each Technical Working Group meeting are included in Appendix A. The Technical Working Group includes the individuals listed below including the group they represent:

- Joe Adamski—St. Johns Neighborhood Association
- Pam Arden—40-Mile Loop Land Trust
- Troy Clark—Smith and Bybee Wetlands Management Committee
- Deborah Lev—City of Portland Parks and Recreation
- Emily Roth—Friends of Smith and Bybee Lakes
- Elaine Stewart—Metro Regional Parks and Greenspaces Department
- Paul Vandenberg—Metro Solid Waste and Recycling Department

Project Goals

Goals for this study were developed by the project partners through the review of previous planning efforts and documents relating to the siting of trails at Smith and Bybee Wetlands Natural Area.

The *Natural Resource Management Plan for Smith and Bybee Lakes (NRMP)*, adopted by Metro and the City of Portland in 1990, currently guides site management and development within the Natural Area. The goal of the *NRMP* is:

... to protect and manage the Smith and Bybee Lake area as an environmental and recreational resource for the Portland region. The lakes will be preserved as historical remnants of the Columbia River riparian and wetlands system. They will be maintained and enhanced, to the extent possible, in a manner that is faithful to their original natural condition. Only those recreational uses that are compatible with environmental objectives of the Management Plan will be encouraged. Smith Lake and adjacent uplands will be the principal location for recreational activities. Bybee Lakes will be less accessible. Its primary use will be as an environmental preserve.

The *NRMP* identified a trail alignment within the Natural Area. Since the *NRMP* was adopted there is new information and greater understanding of natural resources; many changes have occurred within the Natural Area and along the identified alignment. This feasibility study looks at a larger context beyond the Smith and Bybee Wetlands Natural Areas to include nearby parks, industrial properties and neighborhoods.

Project goals for the Trail Feasibility Study include:

- Re-evaluate the *NRMP* alignment in light of new information and changes that have occurred within the Natural Area.

- Achieve consensus among project partners on the criteria used to evaluate trail segments, and on the factual results of the evaluation of alternative alignments.
- If possible, find a consensus alignment to recommend for development.
- Provide the Metro Council with enough information to assist them in making an informed decision on a trail alignment.
- Make this study and analysis transparent, inclusive, and open to input from project stakeholders and the wider public.

Trail Goals

The goals listed below were developed by the project partners with input from the Technical Working Group. The trail goals are as follows:

- Connect nearby neighborhoods, parks, and existing local and regional trails with the Natural Area.
- Close gaps in the 40-Mile Loop and regional trail system.
- Protect sensitive wildlife habitat and species.
- Maintain public safety and security of trail users.
- Protect the infrastructure of the landfill.
- Provide a positive trail user experience.
- Design trails to avoid/minimize/mitigate negative impacts to sensitive wildlife habitat wherever possible.

III. SITE CONTEXT

Project Site

Smith and Bybee Lakes and their associated sloughs and wetlands are remnants of formerly extensive river bottomlands located near the confluence of the Willamette and Columbia rivers. Part of the Columbia Slough watershed, these large shallow lakes and wetlands are part of the 1,928-acre Smith and Bybee Wetlands Natural Area. The Natural Area also includes the St. Johns landfill, a 238-acre closed landfill. The Natural Area is managed primarily for wildlife habitat protection and enhancement while providing passive recreational opportunities for the Portland metropolitan area. As a regionally significant urban natural resource area, Smith and Bybee Wetlands Natural Area provides productive habitat for large and small mammals, waterfowl, birds of prey and numerous other species.

Adjacent industrial land uses include the Union Pacific auto distribution center, Port of Portland storage facilities, Columbia Steel Casting facilities, and numerous automobile-wrecking yards.

During the last fifteen years several portions of the 40-Mile Loop and the regional trail system have been completed adjacent to and near the Natural Area. These routes are found along North Marine Drive to the north, the Port of Portland Trail providing connections to Marine Drive and Kelley Point Park to the west, the Peninsula Crossing and Columbia Slough Trails to the east and an on-street route through the St. Johns neighborhood connecting to the St. Johns Bridge to the south.

Recreational facilities available at the Natural Area include a canoe launch, ADA-accessible paved trails with viewing platforms, interpretive art and signage, picnic shelter, restrooms, and parking. All of these facilities are accessible off of North Marine Drive.

Project History

This site, tucked away in North Portland, has been studied and altered for decades. Early settlers from Native Americans to farmers benefited

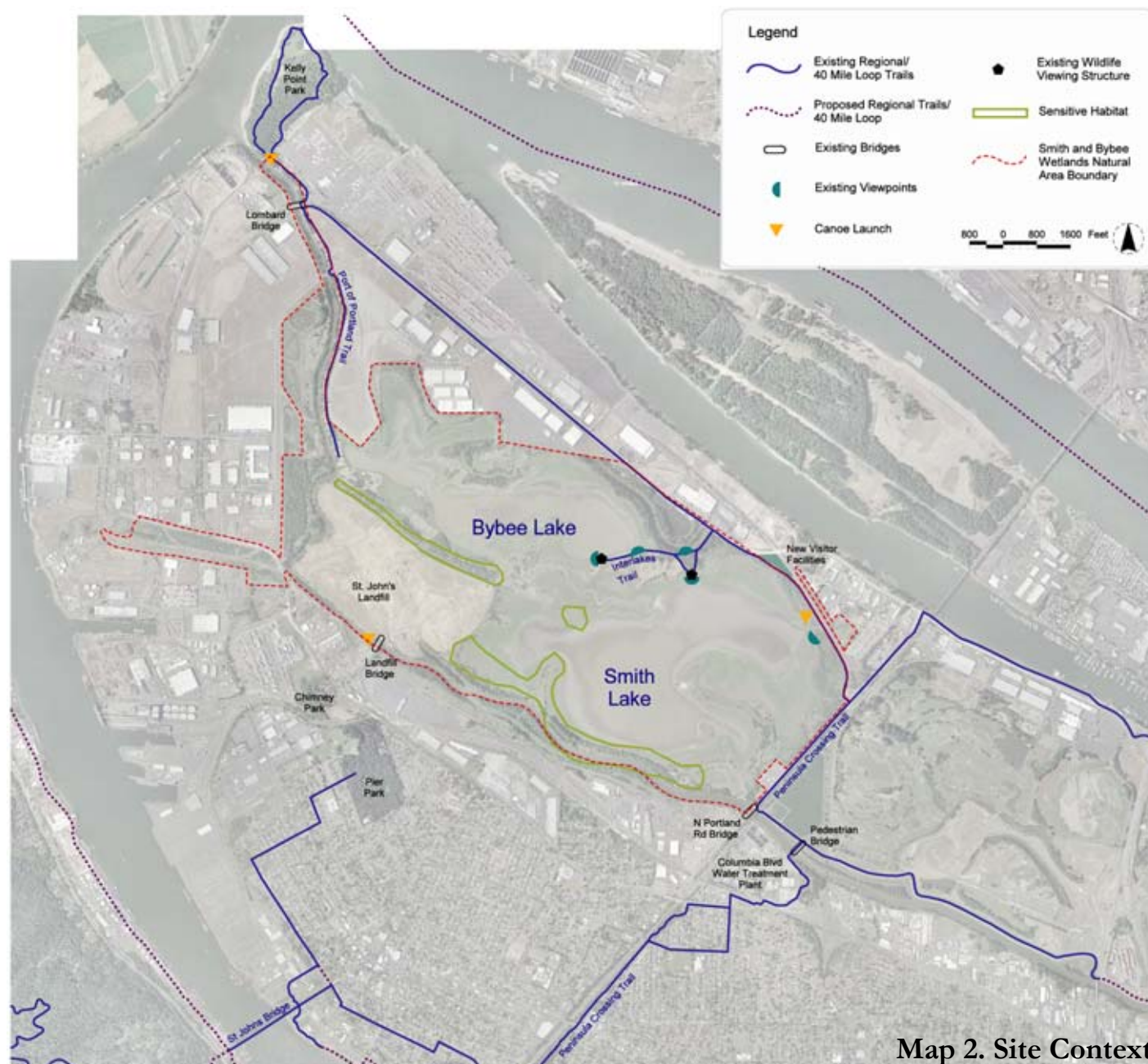
from the rich diversity of plant and animal life. Physical changes to the waterways include dredging, diking, filling and land clearing since the 1800s. Garbage was deposited at the St. Johns landfill from 1932 until 1991, when it was closed to waste disposal. Landfill closure activities are regulated pursuant to a 10-year closure permit renewed by DEQ in 2003.

Numerous natural resource and recreational planning documents were also prepared for this site (see Table 1). The 1972 *North Portland Peninsula Plan* was an early look at balancing preservation with development. In 1983, the *40-Mile Loop Master Plan* showed the potential layout of trails in North Portland. Setting the tone for future development, preservation and restoration in the Natural Area, the 1990 *NRMP* was completed by the City of Portland and the Port of Portland. This plan, adopted by the Portland City Council and Metro Council, continues to direct management and guide projects in the Natural Area. The establishment of the Smith and Bybee Wetlands Management Committee (Management Committee) was a requirement of the *NRMP*. Subsequently, the *1999 Recreation Facilities Plan* was completed which created the concept for the newly improved visitor facilities accessed from North Marine Drive.

In 2003, following considerable discussion and work, the Management Committee recommended an alignment along the landfill's southwest perimeter road and a feasibility study to explore alignments between the landfill and the Peninsula Crossing Trail. The Management Committee's recommendation is documented in a letter included in Appendix B.

Table 1. Related Planning Documents

1972	<i>North Portland Peninsula Plan</i>
1983	<i>40-Mile Loop Master Plan</i>
1987	<i>Smith and Bybee Lakes Environmental Studies</i>
1990	<i>Natural Resource Management Plan for Smith and Bybee Lakes (NRMP)</i>
1999	<i>Smith and Bybee Lakes Recreation Facilities Plan</i>
1999	North Portland Trails Summit
1999	<i>Recreation Facilities Plan</i>
2003	Smith and Bybee Lakes Management Committee Recommends Trail Feasibility Study
2005	<i>Smith and Bybee Wetlands Natural Area Trail Feasibility Study</i>



Map 2. Site Context

IV. EVALUATION CRITERIA

The consultant team recommended, and the Technical Working Group accepted, a number of evaluation criteria to be applied to nine possible trail segments. Eight categories of criteria were developed, with more specific items within each category. Listed below are all of the evaluation criteria and a brief explanation. More detailed explanations are included in Appendix B. Each evaluation criterion also received a measurement – a means for evaluating and measuring that criterion. Measurements for each criterion are also found in Appendix B.

Safety:

- Number of collector or arterial road crossings.
- Number of railroad crossings
- Proximity to landfill facilities that are vulnerable to vandalism, such as standing pipes, valves, monitoring stations.
- On-road distance, where trail is located adjacent to roadways with no separation between trail users and motor vehicles.

Environmental:

- Habitat fragmentation, including the need to cut through and divide important natural habitats.
- Loss of riparian area, including estimated direct loss of native riparian vegetation.
- Proximity to known Bald Eagle nesting sites and associated risk of abandonment.
- Proximity to known great blue heron rookery, and risk of abandonment.
- Proximity to known western painted turtles basking or nesting areas and risk of abandonment or damage due to disturbance.
- Impacts to wetlands.

Cost Considerations:

- Number of new bridges and/or improvements to existing bridges over the Columbia Slough.
- Amount of fencing need to protect facilities or users.

- Amount of grading required to meet accessibility requirements.
- Acquisition needs for private land easement or purchase.
- Need for new pedestrian road crossings.
- Number of new railroad crossings – underpass and/or overpass.
- Estimated cost of maintaining trail.
- Eligibility of route for grants and other funding.
- Costs associated with mitigation required for permits.

Multi-Use Potential:

- Opportunity for locating an 8' wide paved multi-use path – dependent on size of area, topography.

User Experience:

- Naturalness of foreground views (within 1/8 mile).
- Opportunities for distant views, including Portland, west hills, Cascade mountains.
- Sounds, including positive (birdsong) and negative (highway, industry).
- Extent that trail user shares space with automobiles and trucks.
- Potential for trail closures due to landfill activities.
- Opportunities for wildlife viewing.
- Opportunities for interpretive signage.
- Potential for trail closures due to flooding, including areas expected to be under water for part of most years.

Permitting:

- ODOT: permits needed for railroad crossings or for underpass beneath Portland Road bridge.
- Union Pacific Railroad: permit required for crossing tracks.
- DEQ: permits required for changes to use of St. Johns landfill.
- NOAA Fisheries and USFWS: Consultation required for potential impacts to species protected under the Endangered Species Act (e.g. salmonids, Bald Eagle).

- Oregon Department of State Lands (DSL): State of Oregon law strictly limits fills within Smith and Bybee Lakes, also regulates fill in wetlands. DSL does not allow more than 50 cubic yards of fill to be placed below 11 feet mean sea level within Smith Lake and Bybee Lake. The text of this regulation is found in Appendix B.
- US Army Corps of Engineers (ACOE): regulates fills in wetlands.
- City of Portland: Environmental zone permitting (E-Zone) applies in many areas, also Portland Department of Transportation (PDOT) approval needed for pedestrian improvements to roadways. Enforces Natural Resource Management Plan policy and development activities.

Management:

- Potential for disruptions to landfill staff.
- Amount of time required for staff to patrol trails.
- Ability of emergency services to reach trail users.

Trail Connectivity:

- Linkage of Natural Area directly to neighborhoods and parks.
- Linkage to existing local and regional trails in the vicinity.

V. TRAIL SEGMENTS

The evaluation criteria were used as a means to review trail segments. These segments are logical sections of trail that were part of larger trail alignments identified in previous documents such as the *Natural Resource Management Plan* and by the Smith and Bybee Wetlands Management Committee or the consulting team.

The criteria were applied to each of the following nine trail segments, and a qualitative rating was given for each. The detailed scoring of the segments by criteria is shown in Appendix B.

The segments are shown in Map 3 and their locations are described below:

Ash Groves: located near the north bank of the North Slough following for much of the route along an existing social trail used infrequently by maintenance vehicles that travels through an old-growth Oregon ash forest. This segment also crosses the water control structure. Some grading would be required to maintain ADA accessibility as the trail travels up the hill from the water control structure to the landfill segments.

Southwest Landfill: travels along the landfill perimeter road between the northwest corner of the landfill and the south side of the existing landfill bridge. This segment would require a new bridge over the North Slough.

North Landfill: follows landfill perimeter road on the north side of the landfill, connecting to the East Landfill segment. This segment would require a new bridge to cross the North Slough.

East Landfill: travels along the east side of the landfill along the existing perimeter road. This segment terminates at the south side of the existing landfill bridge crossing the Slough.

South Lake Shore: heads down a steep bank from the East Landfill segment, past the south edge of wetlands bordering Smith Lake, and continues on top of an existing social trail used infrequently by maintenance vehicles along the bank of the Columbia Slough. The route

then travels beneath the North Portland Road bridge to connect with the Peninsula Crossing Trail.

Landfill Connector: after crossing the existing landfill bridge over the Columbia Slough this route travels on the north and west sides of the landfill offices and then underneath the Union Pacific tracks in a proposed new pedestrian underpass. At Columbia Boulevard, this segment would cross the roadway with an at-grade crossing with median and a standard pedestrian crossing signing. User-activated flashing beacons mounted on a pole would mark this crossing.

South Slough: veers east from the end of the existing landfill bridge, and loosely parallels the Slough through industrial lands owned by the Union Pacific Railroad, Columbia Steel and the City of Portland Columbia Slough Waste Water Treatment Plant. This segment would require major improvements to the North Portland Road bridge to provide for safe pedestrian and bicycle travel.

Pier Park: from Columbia Boulevard, this route travels through Chimney Park, skirting the dog park. A new pedestrian bridge is needed to cross the Union Pacific railroad tracks that divide Chimney and Pier Parks. The route then follows existing trails in Pier Park. From the south end of Pier Park, two neighborhood alternative routes are possible utilizing existing bike lanes and sidewalks along either North Fessenden or North Smith Streets. Minor arterial improvements would be needed to create safer crossings for bicyclists.

Columbia Boulevard: this segment travels along the south side of Columbia Boulevard between Chimney Park and North Portsmouth Avenue at the intersection with the Peninsula Crossing Trail.

Following the segment analysis the Technical Working Group dropped the Columbia Boulevard and Southwest Landfill segments from further study. The Columbia Boulevard segment was eliminated due to high safety risks due to volume of truck traffic and insufficient right-of-way for bike lanes or an off-street path. The Southwest Landfill segment scored low on the user experience and would be difficult

to meet ADA standards due to steep grade in one narrow area adjacent to the Slough and the existing landfill bridge.



Map 3. Trail Segments

VI. ALTERNATIVE ALIGNMENTS

Four draft trail alternative alignments were developed by the consulting team and were presented to the Technical Working Group for review and comment. These draft trail alignments represent a range of options of experience and impacts to habitat. These four draft alignments were discussed, some changes were made, and the Technical Working Group recommended the final four alternative alignments that would be forwarded for further analysis and presentation to the public. Table 2 shows the segments that are included in each of the four alternative alignments.

The following section includes a detailed description of each of the four trail alternatives studied. Appendix C contains detailed cost estimates for all of the trail segments studied. A map and photos accompany each alternative alignment.

Elements Common to All Trail Alternative Alignments

There are many issues and costs that are found in all of the alignments. These commonalities are summarized below.

Safety

- A safety concern to all routes is the at-grade crossing of Columbia Boulevard. The crossing will be designed to meet all traffic standards but the fact remains that this is a very busy truck route.

Environmental

- The East Landfill segment is common to all alignments. Fencing along the landfill side of the East Landfill perimeter road will keep trail users off of the landfill but there is some risk that trail users may wander off the perimeter road and into the wetland area east of the road.

Table 2. Alternative Trail Alignments

Alignment	Segment							
	Ash Groves	North Landfill	East Landfill	South Lake Shore	South Slough	Landfill Connector	Pier Park	
							with NR	without NR
Ash Groves	X		X			X	X	
Landfill		X	X			X		X
South Lake Shore		X	X	X		X		X
South Slough		X	X		X	X		X

NR= Neighborhood Routes

Capital Costs

• East Landfill segment	\$493,737
• Landfill Connector segment	\$2,333,555
• Pier Park segment (excludes neighborhood routes)	<u>\$1,413,836</u>
• Total Common costs shared by all routes	\$4,241,128

The cost of the East Landfill segment includes grading, surfacing of trails, and fencing. The cost of Landfill Connector segment includes minor improvements to the existing landfill bridge, grading and surfacing of the trail, a proposed pedestrian/bicycle railroad underpass, and a proposed at-grade crossing of Columbia Boulevard into Chimney Park. The cost of the Pier Park segment includes a proposed pedestrian/bicycle bridge over the Union Pacific railroad tracks that currently separate Pier Park from Chimney Park.

Multi-Use Potential

- All routes have the potential to provide access to multiple trail uses, including hikers, cyclists, and those with disabilities, although trail surface (hard versus soft) has not been determined for some portions of some routes.
- Trail design will consider many variables in determining the appropriate trail width for a particular route, but it is expected that the trail widths may range between 8' to 12' given the specific location and setting. Settings range from landfill roads to sensitive wildlife habitat to local park trails to neighborhood bike lanes and sidewalks.

User Experience

- Two proposed viewpoints are recommended near the northeast corner of the landfill. One would be located on the slope of the landfill that would offer 360-degree spectacular views of Forest Park to the south and west and Bybee and Smith Lakes and the Cascade Mountains to the north and east. The landfill viewpoint would be part of a later phase of development, when landfill closure activities no longer occur in that area. The other

viewpoint would be on the east side of the landfill road, providing a view of Smith Lake.

- There can be seasonal flooding of parts of the Port of Portland trail and the four alternative routes, all of which will require periodic closures. During flooding episodes, access to the alignments would only be available from the landfill side, since the Port of Portland trail is at a lower elevation and floods first.
- There are existing trail heads and public parking provided in the vicinity of the Natural Area at the following locations:
 - Kelley Point Park
 - Smith and Bybee Wetlands Natural Area on the north side of Smith Lake off of Marine Drive
 - Chimney Park
 - Pier Park
 - Columbia Slough Waste Water Treatment Plant
 - There is also the potential for a small trailhead at the existing canoe launch on the south side of the Slough near the landfill offices. This potential trailhead needs to be further explored in future phases of this project.

Permitting

- Right-of-way easements will be required from the Union Pacific for the proposed railroad underpass and overpass needed to link the landfill to the neighborhood.

Management

- Management issues are alignment specific and described in detail beneath each alignment subheading later in this chapter.

Trail Connectivity

- All routes connect to the southern end of the Port of Portland Trail near the northwest corner of the landfill.
- All routes connect to Peninsula Crossing trail.
- All routes provide a connection between the landfill and the St. Johns Neighborhood via the Landfill Connector segment.

Alternative 1: Ash Groves Alignment

The Ash Groves alignment begins at the end of the Port of Portland trail in the west, and extends east between Bybee Lake and the North Slough. The trail then crosses the water control structure, and heads south along the east side of the St. Johns landfill on an existing landfill access road. It crosses the existing landfill bridge, goes through a proposed pedestrian underpass under the Union Pacific railroad tracks, and crosses Columbia Boulevard with an at-grade crossing before entering Chimney Park. A proposed pedestrian overpass would take trail users across the railroad tracks between Chimney and Pier Parks. This is the only alignment that includes improvements to existing bike lanes, intersections and sidewalks between Pier Park and the Peninsula Crossing trail along either North Fessenden Street or North Smith Street.

Safety

The route through the Ash Groves and landfill is safe from vehicular traffic although trail users may occasionally encounter a landfill maintenance vehicle on the landfill road. The Ash Groves portion of this alignment is isolated with little visibility and patrols will be important to monitor unauthorized uses. Proposed on-street improvements through the neighborhood will improve safety for trail users. The risk to the landfill infrastructure is the least of any alternatives, as this alignment minimizes the distance traveled on or around the landfill.

Environmental

This trail poses high potential impacts to habitat and wildlife. The Ash Groves contains the only remnant stands of Oregon ash in the Natural Area, many of which are 200 years old. There are very few of these stands left in the region, and their gnarled bark provides rare habitat for wildlife such as songbirds and bats. Existing groundcovers are, for the most part, non-native grasses and forbs with limited habitat value. There are direct habitat connections between Bybee Lake, the associated wetlands, and the North Slough through this area. Several turtle basking sites are found in the vicinity. There are wetlands throughout

the area and while the trail may encroach upon wetlands in a few areas, a route that avoids crossing wetlands directly is feasible. Constructing the trail would likely not require removal of any of the mature ash trees, though there may be a few willows that would need removal. Trail design, mitigation and management can play a role in keeping trail users from leaving the trail in this sensitive area.

Capital Costs

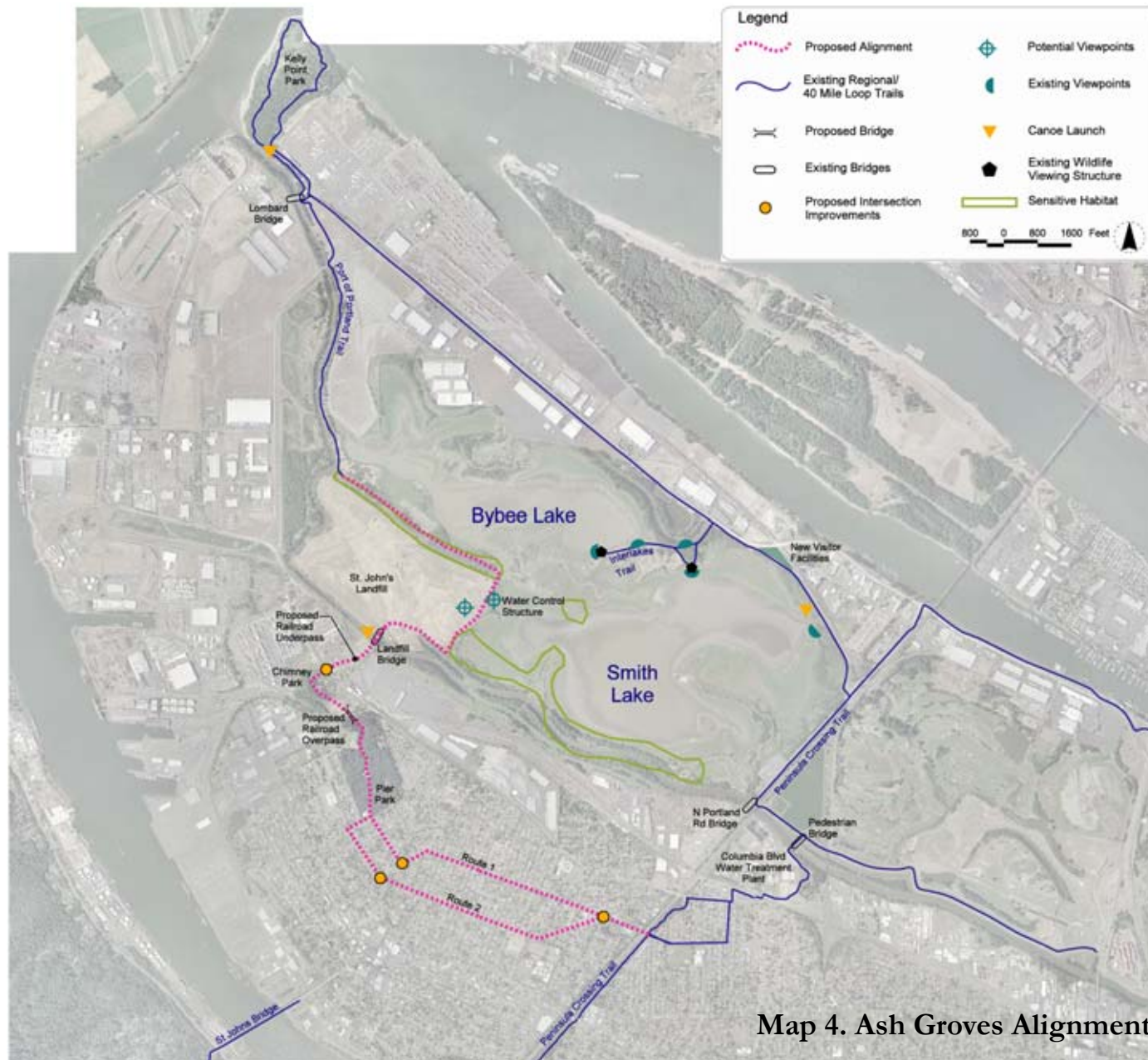
This alignment is the lowest cost of the four alternatives. By going through the Ash Groves and using the existing water control structure, the expense of a new pedestrian bridge over the North Slough is avoided. Grading or rerouting will be required to connect the trail to the landfill perimeter road from the water control structure to meet accessibility standards.

Multi-Use Potential

This route has good multi-use potential between the southern end of the Port of Portland trail and south side of Pier Park. From this point to the Peninsula Crossing Trail, trail users would use multi-modal on-street bike lanes and sidewalks along either North Fessenden Street or North Smith Street. Further study will be necessary to determine which of these streets should be improved for trail users.

User Experience

This alignment ties with the South Lake Shore alignment for highest-ranked user experience. The route in the Ash Grove travels through an attractive woodland. There are several opportunities for capturing views of the North Slough and Bybee Lake. Over time some of these views will be obscured by plant growth from revegetation projects. The Ash Grove area is far from highway and industrial noise. A trail here opens an area up to use that is presently remote and seldom visited. Interpretive and environmental education opportunities are good – especially surrounding the ash forest.



Permitting

Multiple permits would be required for this and all route alternatives. The permits specific to this route could be related to wetland encroachment, and concerns from NOAA Fisheries due to the trail's proximity to salmonid habitat in the North Slough. There is enough higher ground through the Ash Groves segment to meet the DSL regulation on fill below 11 feet elevation.

Management

As this alignment has the shortest distance of travel on the landfill, it thus would impact daily operations at the landfill the least. Vehicular access for the Ash Groves segment is available from the Port of Portland trail or landfill side. Patrolling and maintaining the isolated Ash Groves segment will require more time than the other segments in this alignment.

Trail Connectivity

The route through the Ash Groves links the Port of Portland trail to the water control structure. From there the route crosses the east end of the landfill and connects to the St. Johns neighborhood, but does not offer a direct connection to the Peninsula Crossing or Columbia Slough Trails near the North Portland Road bridge. Users would traverse improved neighborhood sidewalks and bike lanes to complete the connection.

Advantages:

- The route through the Ash Groves and along the east side of the landfill is very scenic, quiet, and opens new environmental interpretation opportunities.
- Crossing the North Slough at the existing water control structure avoids environmental impacts and the expense associated with building a new pedestrian bridge.
- There are no expected expenses associated with new land acquisition.

- This is the least costly alternative.
- By going through the neighborhood, potential impacts to Bald Eagle nests, the heron rookery, and other sensitive wildlife areas along the south shore of Smith Lake are avoided.
- Improved on-street bike lanes, intersections, and sidewalks between Pier Park and Peninsula Crossing Trail will result in a safer and more enjoyable experience for trail users.

Disadvantages:

- Building a new trail through the undeveloped Ash Groves may disturb wildlife in this area, including western painted turtles and nesting songbirds (e.g. willow flycatcher) and river otter, and may negatively impact the roots of ash trees.
- There could be encroachment and impacts to wetlands in the Ash Groves.
- There is the potential for vandalism at the water control structure.
- This alternative fails to provide a direct link to the Peninsula Crossing Trail or Columbia Slough Trail near the North Portland Road bridge. It relies instead on existing sidewalk and street improvements through the neighborhood.

Cost Estimate*

Ash Groves segment	\$357,500
East Landfill segment	493,737
Landfill Connector segment	2,333,555
<u>Pier Park segment</u>	<u>1,475,539**</u>
Total Cost Estimate:	\$4.6 million

*Cost estimate for 8' wide asphalt trail with 2' gravel shoulders.

**Includes Neighborhood Route 2 providing improvements to existing on-street bike lanes, sidewalks and intersections from Pier Park to Peninsula Crossing Trail.



1. Southern end of Port of Portland Trail where Ash Groves trail would begin.



2. Looking east into Ash Groves route from southern end of Port of Portland trail.



3. View across north slough to landfill.



4. View of Smith Lake from viewpoint along east perimeter road on landfill.



5. Heading west toward landfill entrance on southern perimeter landfill road.



6. Looking south towards Forest Park from north side of landfill bridge.



7. Looking south towards Chimney Park near landfill office.



8. Columbia Blvd. crossing location at Chimney Park driveway.



9. Columbia Blvd.



10. In Chimney Park looking across railroad tracks to Pier Park.



11. Pier Park entry at N. Seneca Street.



12. Existing bike lanes on N. Smith Street.



13. Existing bike lanes on N. Fessenden Street.



14. Connection to Peninsula Crossing trail at N. Fessenden Street

Alternative 2: Landfill Alignment

The Landfill trail alignment begins at the end of the Port of Portland Trail, and immediately crosses over the North Slough to the St. Johns landfill on a proposed pedestrian bridge. It then follows an existing maintenance road along the south bank of the North Slough, heading east. It loops around the east end of the landfill, in the same alignment as described in the text for Alternative 1 - Ash Groves. It crosses the existing landfill bridge and makes its way to through Chimney and Pier Parks. The trail continues through the St. Johns neighborhood along existing (unimproved) bike lanes and sidewalks on either North Fessenden or North Smith Streets to Peninsula Crossing Trail.

Two significant differences between the Landfill and Ash Groves trail alignments are the construction of a new pedestrian bridge across the North Slough (to avoid impacts to habitat and wildlife in the Ash Groves area) and no improvements to neighborhood streets between Pier Park and the Peninsula Crossing Trail.

Safety

The route using landfill roads is felt to be quite safe from vehicles. Occasional use of these roads by Metro staff may interfere with trail users, but does not pose much risk. Additional time spent on the landfill could expose trail users to more hazards associated with landfill operations.

Environmental

This trail poses the least risks of impact to habitat and wildlife. However, placement of the bridge over the North Slough will need to take an existing turtle basking site into consideration and may have impacts to fish in the crossing area. There will be soil disturbance and loss of riparian vegetation at the points where the bridge footings are built. In addition, constructing footings in this location could alter groundwater flow and movement of potential contaminants in the groundwater in this vicinity.

Capital Costs

This alignment is the second lowest cost of the four alternatives. The estimated cost of this alternative is greater than the Ash Groves alignment largely due to the proposed North Slough bridge. Other expenses are in paving the surface of the existing gravel landfill perimeter roads, and fencing to protect landfill infrastructure from vandalism.

Multi-Use Potential

Good multi-use potential from the end of Port of Portland trail through Pier Park. Existing bike lanes and sidewalks provide for multiple uses between Pier Park and Peninsula Crossing trail.

User Experience

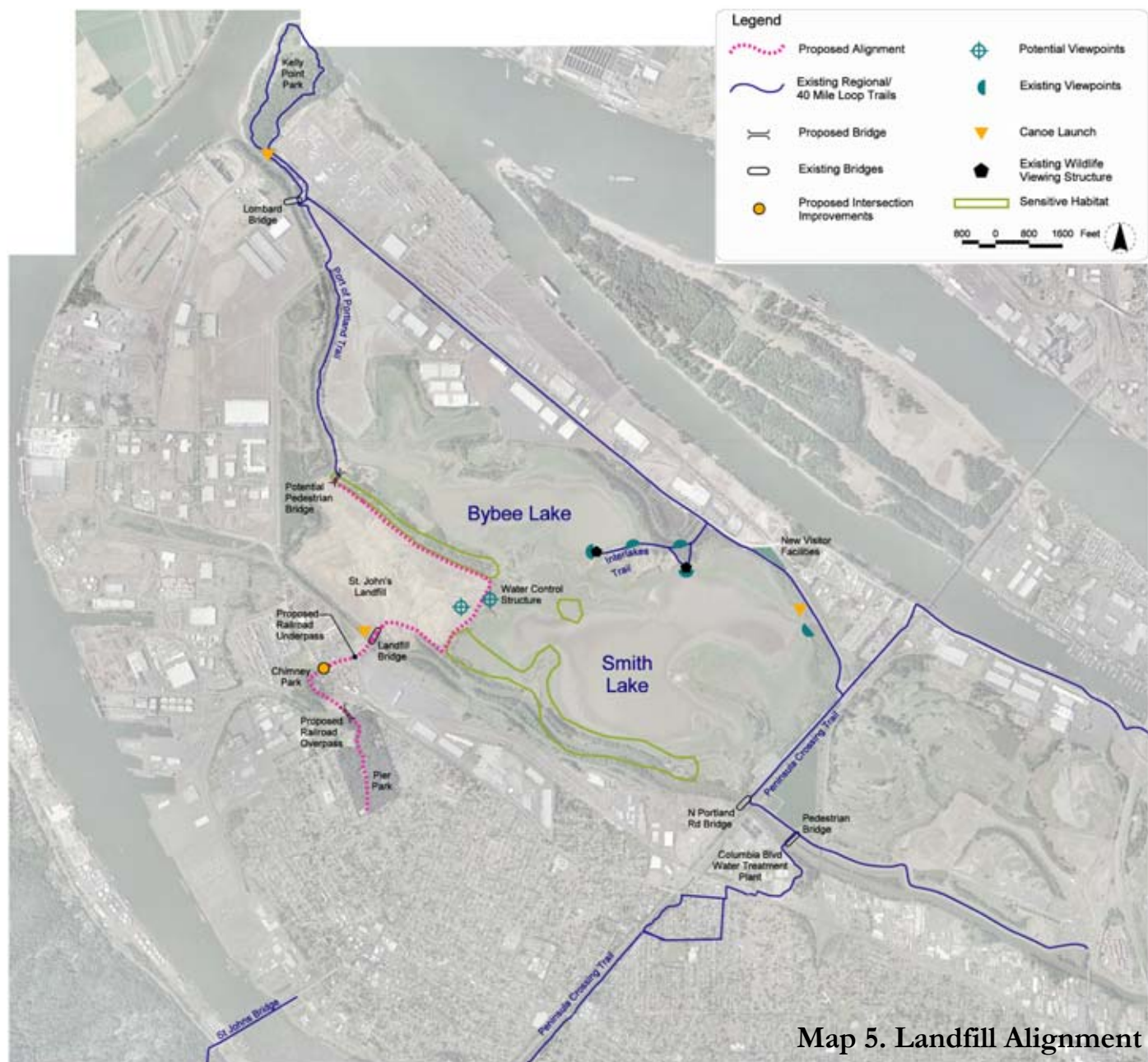
The North Slough bridge will offer exceptional views and interpretive opportunities. The route across the landfill is fairly attractive, with views of water and the Natural Area to the north and east. On the negative side, the trail user would have a fence and landfill infrastructure on one side, with natural landscapes on the other. Overall, this alternative ranks lowest of the four with regard to user experience.

Permitting

Multiple permits would be required for this and the other two routes that include the North Landfill segment. The main issues for permitting agencies will be related to the North Slough bridge design and construction. National Marine Fisheries Service consultation is likely due to the presence of federally listed juvenile salmonids in the North Slough.

Management

The main management concerns are the greater length of trail on the landfill, as compared with the Ash Groves alternative. This raises the risk of vandalism to landfill infrastructure, a risk common to Alternatives 3 and 4 as well. This trail could be easily maintained, as there is easy vehicular access to all segments.



Trail Connectivity

This route links the Port of Portland trail to the landfill and on to Pier Park. This alignment does not offer a direct link to the Peninsula Crossing and Columbia Slough trails as Alternatives 3 and 4 do. Users would traverse existing (unimproved) neighborhood sidewalks and bike lanes from Pier Park to complete the connection to the Peninsula Crossing Trail.

Advantages:

- Crossing the North Slough and use of the existing landfill perimeter roads avoids impacts to wildlife and habitat that would occur with development in the Ash Groves and South Lake Shore routes.
- The new bridge could be an attractive feature, and opens new views over the water at the confluence of the North and Columbia Sloughs.
- The north end of the landfill has good views of water and the Natural Area.
- This alternative has the lowest overall impacts to wildlife of the four being considered.

Disadvantages:

- Trail users will be on the landfill perimeter road versus a more pleasing forested setting provided in other alignments.
- The new bridge over the North Slough adds considerable expense to this alignment. There may be impacts to fish and wildlife in the crossing area, particularly to federally listed juvenile salmonids. Further engineering/hydrological analysis will be required to address the potential for the bridge footings to exacerbate the movement of contaminants in groundwater in the vicinity.
- Periodic trail closures may occur if the landfill bank requires major repair work.

- Additional length of trail on the landfill raises the risk of vandalism and other management problems associated with protecting landfill infrastructure.
- This alignment does not provide a direct link to the Peninsula Crossing or Columbia Slough Trails near the North Portland Road bridge.

Cost Estimate*

North Landfill segment	\$1,941,123**
East Landfill segment	493,737
Landfill Connector segment	2,333,555
<u>Pier Park segment</u>	<u>1,413,836***</u>
Total Cost Estimate:	\$6.2 million

*Cost estimate for 8' wide asphalt trail with 2' gravel shoulders.

**Includes new North Slough bridge.

***Includes crossing Union Pacific rail lines between Chimney and Pier Park, does **not** include neighborhood on-street bike lanes and sidewalks.



1. Looking north from landfill towards southern end of Port of Portland trail.



2. Looking east on north landfill perimeter road.



3. View of north slough from landfill perimeter road.



4. View of Smith Lake from viewpoint along east perimeter road on landfill.



5. Heading west toward landfill entrance on southern perimeter landfill road.



6. Looking south towards Forest Park from north side of landfill bridge.



7. Looking south towards Chimney Park near landfill office.



8. Columbia Blvd. crossing location at Chimney Park driveway.



9. Columbia Blvd.



10. In Chimney Park looking across railroad tracks to Pier Park.



11. Pier Park entry at N. Seneca Street.

Alternative 3: South Lake Shore Alignment

The South Lake Shore alignment crosses the North Slough, and follows the same route as the landfill alignment until it reaches the point where the landfill road curves west towards the bridge. Here there would be a junction, with one leg heading out of the landfill to Pier Park with connection to the Peninsula Crossing trail along unimproved bike lanes and sidewalks on either North Fessenden or Smith Streets. The other leg would head directly east, following the southern edge of Smith Lake before passing under the North Portland Road bridge and connecting with the Peninsula Crossing and Columbia Slough Trails on the other side of the bridge.

The main difference between this and previous routes is the new trail along the south shore of Smith Lake. This trail would require new clearing and ground disturbance. The eastern half of this segment would likely be located on an existing social trail used that serves as maintenance access for power lines.

Safety

The South Lake Shore segment is considered to be quite safe, given its location away from vehicle traffic. There is an easy grade route under the north side of the North Portland Road bridge, and a ready connection to the existing Peninsula Crossing and Columbia Slough Trails on the east side. The route is very isolated, with little visibility. Patrols will be important to monitor unauthorized uses.

Environmental

This trail poses high potential impacts to habitat and wildlife. These impacts relate to the trail passing through riparian woodland that includes a heron rookery, Bald Eagle nesting sites, encroachment on wetlands, and closeness to the Columbia Slough. The degree of risk of rookery and/or nest abandonment is uncertain. Disruption to wildlife that use the area to travel between the wetlands and Slough would be likely. Trail design, mitigation and management can play a vital role in keeping trail users on the pathway and out of sensitive areas.

The eastern half of this new trail would be placed along an existing social trail currently used by maintenance access for transmission lines; the other part of the trail may have portions that skirt the edge of wetlands. Some young trees would likely have to be removed to make way for this trail. This route also includes the impacts related to the new bridge crossing the North Slough as discussed in Alternative 2.

Capital Costs

This alignment is the second highest cost of the four alternatives. This alternative includes the development of new trail south of Smith Lake and an underpass beneath the North Portland Road bridge.

Multi-Use Potential

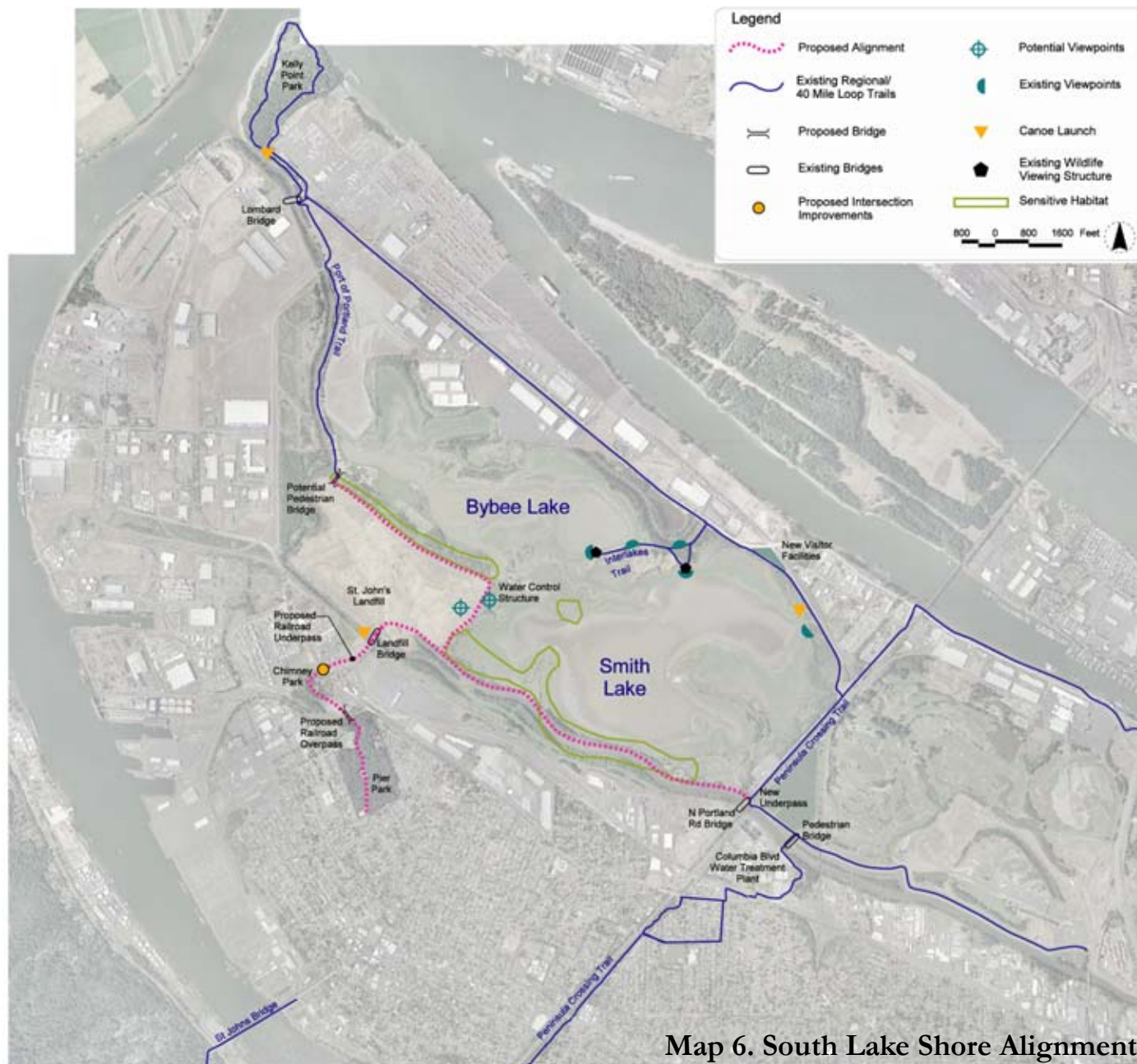
There is good multi-use potential for this trail between the end of the Port of Portland trail and Pier Park. It is not possible to determine trail surface (hard vs. soft) for the south lake shore portion of this alignment until formal consultation with regulatory agencies regarding trail design in the vicinity of nesting eagles. The *NRMP* originally suggested a soft surface pedestrian only trail along the South Lake Shore segment.

User experience

This alignment is primarily natural in character and aesthetically pleasing. It ties with Ash Groves for highest ranking of user experience. Good views of the Columbia Slough and the Natural Area are available the South Lake Shore segment, and a trail here would open a new area not presently accessible to the public. The partial view of the lake is becoming obscured as the forest regenerates and creates a dense woodland. New interpretive and environmental education opportunities are good based on the natural setting and off-road character.

Permitting

Multiple permits would be associated with this route. The biggest issues include wetland encroachment and the close proximity of much



Map 6. South Lake Shore Alignment

of the trail to the Columbia Slough. Consultation with NOAA Fisheries will be needed to address federally listed juvenile salmonids in the Columbia Slough. Consultation with the US Fish and Wildlife Service (USFWS) required under Section 7 of the Endangered Species Act would be needed to address potential impacts to nesting Bald Eagles. There is a high potential that the USFWS will require construction of a trail through this area be at least 1/4-mile from the eagle nests, which may involve a boardwalk over a portion of Smith Lake.

Management

Patrolling and maintaining the isolated segment along the South Lake Shore will be more time consuming than patrolling the portions of the trail on landfill perimeter roads.

Trail Connectivity

Of the four alternatives, this route provides the most direct link between the Port of Portland trail and the Peninsula Crossing and Columbia Slough Trails east of the North Portland Road bridge.

Advantages:

- This route offers the most direct regional connection to the Peninsula Crossing and Columbia Slough Trails east of the North Portland Road bridge.
- It provides a high quality user experience along scenic parts of the landfill, and then through riparian woodlands, with excellent short-range views of the Columbia Slough.
- The route under the north end of the North Portland Road bridge is simple to engineer and connect to the existing Peninsula Crossing and Columbia Slough Trails.
- The replanted and naturally regenerating riparian woodland provides opportunities for mitigating some wildlife impacts by taking advantage of dense vegetation screening between the trail and Smith Lake.
- Half of the route along the south shore of the lake could be located on an existing social trail used infrequently for maintenance

of transmission lines.

Disadvantages

- Of the four alternatives, this route has the most federally listed endangered species (eagles and salmonids) at present.
- There is potential that federal agencies will require construction of a trail be at least 1/4-mile from nesting eagles or require seasonal closure of the trail for more than six months (generally between January and August).
- The South Lake Shore route crosses through three small parcels of private ownership, and will require some negotiation and possible expense of land or easement acquisition.
- Much of the trail is in a riparian zone, is very close to the Columbia Slough and could impact wildlife that crosses between the Slough and Smith Lake, as well as Endangered Species Act listed salmonids.
- There are probable encroachments and/or impacts to wetlands in some areas.
- The new bridge over the North Slough adds considerable expense to this alignment. There may be impacts to fish and wildlife in the crossing area, particularly to federally listed juvenile salmonids. Further engineering/hydrological analysis will be required to address the potential for the bridge footings to exacerbate the movement of contaminants in groundwater in the vicinity.
- Periodic trail closures may occur if the landfill bank requires major repair work.

Cost Estimate*

South Lake Shore segment:	\$ 987,345**
North Landfill segment	1,941,123***
East Landfill segment	493,737
Landfill Connector segment	2,333,555
<u>Pier Park segment</u>	<u>1,413,836****</u>
Total Cost Estimate:	\$7.1 million

*Cost estimate for 8' wide asphalt trail with 2' gravel shoulders. Does not include property or easement acquisitions.

**Does not include possible boardwalk to avoid eagle's nest.

***Includes new Slough bridge.

****Includes crossing Union Pacific rail lines between Chimney and Pier Park, does **not** include improvements to existing neighborhood on-street bike lanes, sidewalks and intersections.



1. Looking north from landfill towards southern end of Port of Portland trail.



3. View of north slough from landfill perimeter road.



5. Near southeast corner of landfill looking east along south shore of Smith Lake.



2. Looking east on north landfill perimeter road.



4. View of Smith Lake from viewpoint along east perimeter road on landfill.



6. Looking west toward landfill along cleared area between the lake and the slough.



7. View towards Columbia Slough.



8. Heading west toward landfill entrance on southern perimeter landfill road.



9. Looking south towards Forest Park from north side of landfill bridge.



10. Looking south towards Chimney Park near landfill office.



11. Columbia Blvd. crossing location at Chimney Park driveway.



12. Columbia Blvd.



13. In Chimney Park looking across railroad tracks to Pier Park.



14. Pier Park entry at N. Seneca Street.

Alternative 4: South Slough Alignment

The South Slough alignment follows the same route as the Landfill alignment for its first half, or up to the point where it crosses the existing landfill bridge. Once on the south side of the bridge this alignment splits in two directions. One leg travels due east along the south side of the Columbia Slough to the North Portland Road bridge. It crosses under and then over the bridge to tie into the existing Peninsula Crossing and Columbia Slough Trails. The other leg is the same as in Alternatives 2 and 3, traveling south from the landfill bridge, going under the railroad tracks, crossing Columbia Boulevard into Chimney and Pier Parks and through St. Johns neighborhood on unimproved bike lanes, intersections and sidewalks along North Fessenden or North Smith Streets to connect with the Peninsula Crossing Trail.

The distinguishing feature of this alignment is the development of a new trail route along the south side of the Columbia Slough, north of the Union Pacific railroad tracks and the Columbia Steel Castings complex.

Safety

The route along the south side of the Columbia Slough introduces some safety issues due to its close proximity to industrial traffic. Trail design will need to address security concerns of adjacent private property owners should this route be developed. The design of the trail crossing under and over the North Portland Road bridge requires further study and engineering. The narrow bridge sidewalks create a safety issue that may require a new wider sidewalk be added to the existing bridge.

Environmental

This trail poses the second fewest impacts or risks to habitat and wildlife of the four alternatives. These impacts include those associated with the new bridge over the North Slough, discussed in the previous two alternatives. In addition, the trail along the south side of the Co-

lumbia Slough may encroach on riparian habitat and the Wapato Wetlands.

Capital Costs

This alignment is the highest cost of the four alternatives. New trail development south of the Columbia Slough will require fencing along adjacent privately and publicly owned industrial properties, and an underpass beneath and a new sidewalk on top of the North Portland Road bridge. Further design and engineering will be needed to determine the structural requirements and associated costs for sidewalk improvements to the bridge. In addition, there are unknown land or easement purchase costs associated with two privately owned parcels that occupy approximately $\frac{3}{4}$ of the route along the south side of the Columbia Slough.

Multi-Use Potential

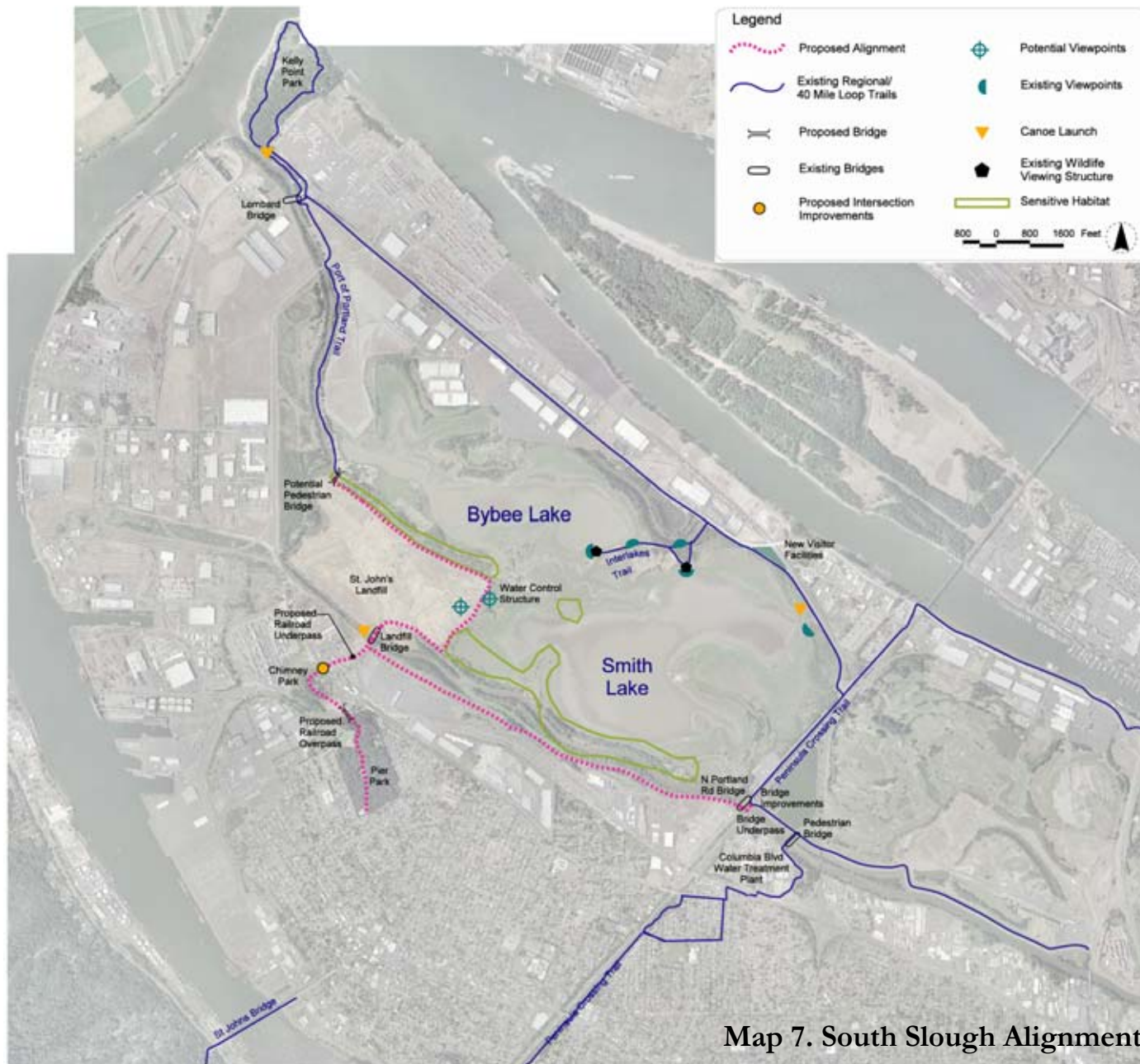
The potential here is very good, with mitigating factors. Improvements are necessary to the North Portland Road bridge to make the bicycle and pedestrian crossing safe.

User Experience

The route along the south of the Columbia Slough is primarily industrial in character. However, it does offer good views of the Slough, the Natural Area, and provides visual connection to the Wapato Wetlands, a unique and attractive feature not presently accessible to the public. New interpretive and environmental education opportunities are also possible, especially at the Wapato Wetlands. The crossing of the North Portland Road bridge, with its extensive truck traffic, may not be a very pleasant experience. Overall, this alternative ranks third of the four with regard to user experience.

Permitting

Multiple permits would be associated with the South Slough route. The biggest challenges are likely to be trail easement or ROW agreements



with the Union Pacific Railroad and Columbia Steel Castings. Some US Fish and Wildlife Service consultation is needed as well as NOAA Fisheries.

Management

Patrolling and maintaining the segment along the south bank of the Columbia Slough will be more time consuming than patrolling the portions of the trail on landfill perimeter roads.

Trail Connectivity

This route provides an improved direct link to the Peninsula Crossing and Columbia Slough Trails near the North Portland Road bridge.

Advantages:

- This route has low impacts to wildlife relative to two of the other alternatives. It avoids entering the Natural Area, including the Ash Groves and the south shore of Smith Lake, with its eagle nests and heron rookery, thus avoiding habitat fragmentation in those areas.
- The new South Slough route would provide a direct regional connection to the Peninsula Crossing and Columbia Slough Trails east of the North Portland Road bridge.
- This route, while largely industrial in character, does include views of the North and Columbia Sloughs, the Natural Area, and opens a view and interpretive opportunities at the “Wapato Wetland,” one of the most striking wetlands in the region.
- Federal Endangered Species Act permits are not likely to due this route’s distance back from the Columbia Slough.
- The City of Portland owns the parcel of land adjacent to the west side of the North Portland Road bridge and are willing partners in the development of a trail.

Disadvantages:

- This is the most expensive of all alternatives, requiring a new bridge to cross the Columbia Slough, land or easement pur-

chases south of the Columbia Slough, and potentially costly improvements to the North Portland Road Slough bridge.

- Engineering the trail under and then over the North Portland Road bridge is challenging and requires additional feasibility analysis.
- The south Slough portion of this alignment crosses two large private industrial properties, and will require negotiations and possible expense of land/easement acquisition.
- The user experience along the south side of the Columbia Slough would be more industrial and less natural than the portions of the South Lake Shore and Ash Groves alternatives through the Natural Area.
- The new bridge over the North Slough adds considerable expense to this alignment. There may be impacts to fish and wildlife in the crossing area, particularly to federally listed juvenile salmonids. Further engineering/hydrological analysis will be required to address the potential for the bridge footings to exacerbate the movement of contaminants in groundwater in the vicinity.
- Periodic trail closures may occur if the landfill bank requires major repair work.

Cost Estimate*

South Slough segment	\$1,486,635
North Landfill segment	1,941,123**
East Landfill segment	493,737
Landfill Connector segment	2,333,555
<u>Pier Park segment</u>	<u>1,413,836***</u>
Total Cost Estimate:	\$7.6 million

* Cost estimate for 8’ wide asphalt trail with 2’ gravel shoulders. Does not include property or easement acquisitions.

** Includes new Slough bridge

*** Includes crossing Union Pacific rail lines between Chimney and Pier Parks, does **not** include neighborhood on-street bike lanes and sidewalks.



1. Looking north from landfill towards southern end of Port of Portland trail.



2. Looking east on north landfill perimeter road.



3. View of north slough from landfill perimeter road.



4. View of Smith Lake from viewpoint along east perimeter road on landfill.



5. Heading west toward landfill entrance on southern perimeter landfill road.



6. Looking south towards Forest Park from north side of landfill bridge.



7. Looking east from south side of landfill bridge.



8. Looking east at Wapato Wetland; midway between landfill and N. Portland Road bridge.



9. Approaching end of alignment at N. Portland Road bridge.



10. Looking north from southern end of N. Portland Road Bridge.



11. Looking south towards Chimney Park near landfill office.



12. Columbia Blvd. crossing location at Chimney Park driveway.



13. Columbia Blvd.



14. In Chimney Park looking across railroad tracks to Pier Park.



15. Pier Park entry at N. Seneca Street.

Summary of Alignments

Table 3. summarizes and compares the development considerations unique to each alternative trail alignment. A similar table comparing the same development considerations for each individual segment is found in Appendix B.

Table 3: Alternative Alignment Comparison Table

Alignment	Segments* Included	Major Improvements	Length (miles)	Acquisition/ Easement/ Right-of-Way	Agency Approvals Needed	Capital Cost ¹	
						Hard Surface	Soft Surface
Ash Groves	AG, EL, LC, PP, NR2	Fencing, Modify Landfill Bridge, RR underpass & overpass, Col. Blvd. crossing On-street improvements	4.5	RR Easements PDOT	NOAA DSL/ACOE (if wetland fill) USFWS DEQ City of Portland – PDOT, Planning, Parks	\$4.3 million \$.96 million per mile	\$3.6 million \$.8 million per mile
Landfill	NL, EL, LC, PP	Slough Bridge, Fencing, modify Landfill Bridge, RR underpass & overpass, Col. Blvd. Crossing	2.8	RR Easements PDOT	DEQ City of Portland – PDOT, Planning	\$6.2 million \$2.2 million per mile	\$5.1 million \$1.8 million per mile
South Lake Shore	NL, EL, SL, LC, PP	Slough Bridge, Fencing, Modify Landfill Bridge, RR underpass & overpass, Col. Blvd. crossing	4.4	RR Easements PDOT SL segment crosses 2 private parcels	NOAA, DSL/ACOE (if wetland fill) USFWS DEQ ODOT City of Portland – PDOT, Planning	\$7.1 million \$1.6 million per mile	\$5.7 million \$1.3 million per mile
South Slough	NL, EL, SS, LC, PP	Slough Bridge, Fencing, Modify N. Portland Road Bridge, RR underpass & overpass, Col. Blvd. crossing	4.8	RR Easements PDOT SS Segment crosses 2 private & 1 public parcels	NOAA DSL/ACOE (if wetland fill) USFWS DEQ ODOT City of Portland – PDOT, Planning	\$7.6 million \$1.6 million per mile	\$6.1 million \$1.3 million per mile

* Segment Abbreviations:

AG = Ash Groves
NL = North Landfill
EL = East Landfill
SL = South Lake Shore
SS = South Slough
LC = Landfill Connector
PP = Pier Park
NR1 = Neighborhood Route 1
NR2 = Neighborhood Route 2

1. Excludes Property Acquisition, Includes Design/Engineering/Permits

VII. TRAIL DESIGN

Factors that are considered in the design and placement of trails include the type of use, the setting and the expected volume of use. The trails in the Smith and Bybee Wetlands Natural Area would be designed to accommodate a typical mix of regional trail users including bicyclists and pedestrians.

To assure a safe and convenient recreational experience there are specific requirements for each user group. In addition, there are design elements that can help minimize impacts of trail development within sensitive areas.

Pedestrian Trail

Narrow soft surface trails are designed primarily for pedestrian use. The advantage of these gravel or earthen trails is that they require less clearing and grading to construct. They can tolerate a greater range of slopes, unless specifically designed for ADA accessibility. Overhead clearance heights of 7 feet mean that fewer low hanging branches need to be cleared. With no shoulder and a narrower width, these trails provide greater flexibility in terms of siting and route selection. Disturbance to the existing terrain is minimized and new planting can hug the pathway. Standard widths for soft-surface pedestrian-only trails range from four to eight feet. Figure 1 illustrates how a 4 foot soft-surface trail would fit into the Natural Area.

Multi-Use Trail

Providing trail access for both pedestrians and bicyclists, multi-use trails are generally wider asphalt paved trails. A variety of specific design requirements due to higher travel speeds, maximum grade limitations and surfacing determine the route options for bicyclists. Longer sight and stopping distances are mandatory for safety. Multi-use trails range in width from 8 to 14 feet wide in the Portland metropolitan region. These trails have a higher clearance of 8 feet overhead and generally have a 2-foot shoulder on either side. The shoulder provides additional space for passing or moving aside, and is especially needed with an 8-foot wide path with two-way travel. The reinforced gravel

shoulder also provides structural support for the edge of the asphalt. Lower grades of 2% to 3% are desired, with grades not exceeding 4% to 5%. Sight distance requirements are longer than in pedestrian trails at a distance of 150' each way. With the broader width and shoulders, and requirement for lower slopes, the clearing and grading needs for constructing a multi-use pathway are far greater than those for building a pedestrian pathway. How a multi-use pathway would fit on the landfill perimeter roads is illustrated in Figures 4 and 5.

Landscape Mitigation

There has been much discussion about how to fit a trail into a sensitive area and avoid, minimize or mitigate any disturbance. There are ways to insert a trail into a landscape and minimize the amount of construction disturbance. Provided below are some specific options for the alternative alignments, as well as best practices for trail design construction and use:

Ash Groves

- Field locate trail to avoid removal of large ash trees, as well as to keep construction from disturbing root zones. This will preserve the trees and habitat they provide for bats and other wildlife.
- Identify turtle nesting areas prior to design phase and maintain recommended buffers.
- Locate trail on or adjacent to existing social trail in Ash Groves segment.
- Elevate trail or provide boardwalks where needed to maintain access to North Slough for turtles and other small wildlife. See Figure 3.
- Provide erosion control measures where needed including where trail connects with water control structure.
- Design trail to keep users on pathway and out of sensitive areas.

Landfill

- Provide a low vegetated barrier along east side of landfill to discourage off-trail wandering into Natural Area.
- Install fencing and gates to keep trail users on landfill perimeter roads and off landfill.

South Lakeshore

- Maintain recommended buffers (per consultation with permitting agencies) for heron and Bald Eagle nest sites.
- Keep trail above wetland zone along lake shore using boardwalks (as required per consultation with permitting agencies).
- Avoid removal of ash trees.
- Locate trail on or adjacent to existing social trail.
- Design trail to keep users on pathway and out of sensitive areas.

South Slough

- Design trail to discourage off-trail travel into Wapato Wetlands.
- Provide spur trail and viewing platform to provide visual access to wetlands.

Best Practices for Trails

- Work to avoid and minimize impacts to sensitive areas where practicable.
- Avoid tree removal with careful trail routing.
- Avoid impacts to water bodies, wetlands and seeps; maintain or establish recommended buffers; and use boardwalks or bog bridges (where appropriate) to cross wet areas.
- Modify design to provide wildlife passage at wildlife crossings.
- Prohibit bicycle use in sensitive areas. Enforce this design with gates or other structures to physically restrict their use.
- Keep trails to a minimum and narrower in sensitive areas.
- Site trails along already disturbed areas including social trails

and maintenance vehicle paths.

- Locate thorny plant material or boulders to reinforce trail boundary, close inappropriate social trails and discourage off-trail travel.
- Remove weedy non-native plants within 10 feet on either side of the trail, revegetate with native plants and restore disturbed areas with native plants.
- Plant taller native shrubs to create buffers to screen the trail from sensitive habitat areas.
- Provide spur trails and viewing blinds to provide visual access at specified locations to minimize impacts to wildlife.
- Use appropriate trail construction techniques and materials to minimize impact to habitat.
- Use Metro's Green Trails recommendations for preventing erosion, providing bioswales.



Figure 1. Soft Surface Pedestrian Trail in Natural Area

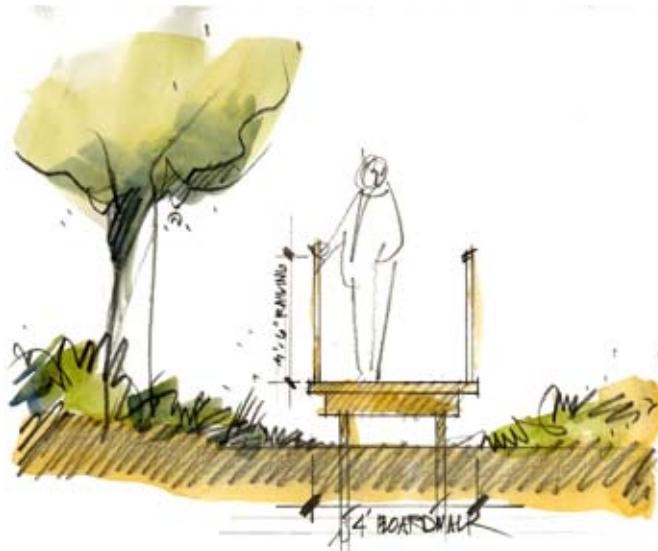


Figure 2. Boardwalk in Wildlife/Sensitive/Wet Areas



Figure 3. Paved Multi-Use Trail in Natural Area

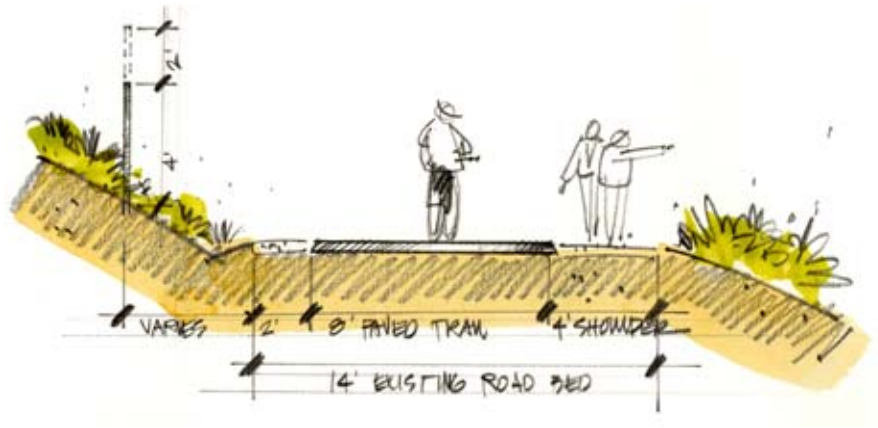


Figure 4. Paved Multi-Use Trail in Landfill on 14' Road Bed

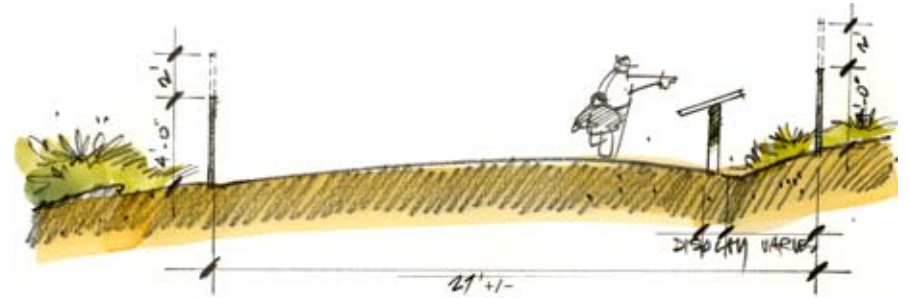


Figure 6. Viewpoint on Landfill Cap

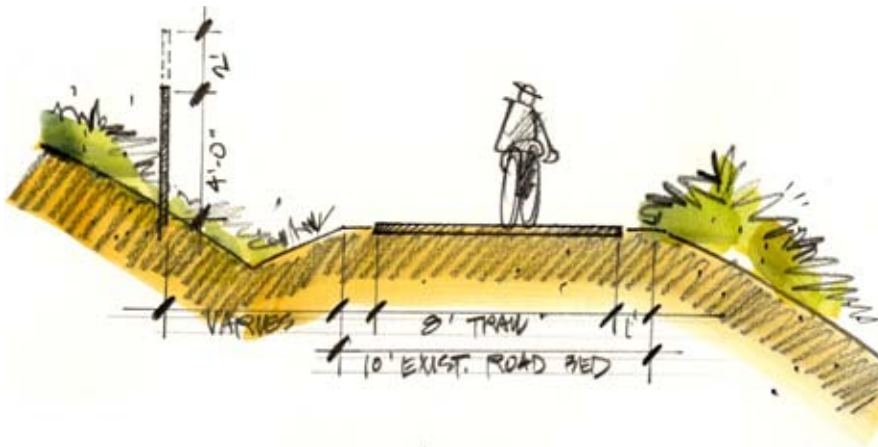


Figure 5. Paved Multi-Use Trail in Landfill on 10' Road Bed

The existing landfill perimeter road varies in width between 8' and 14'—Figures 4 and 5 show the trail set into the road in the widest and narrowest circumstances.

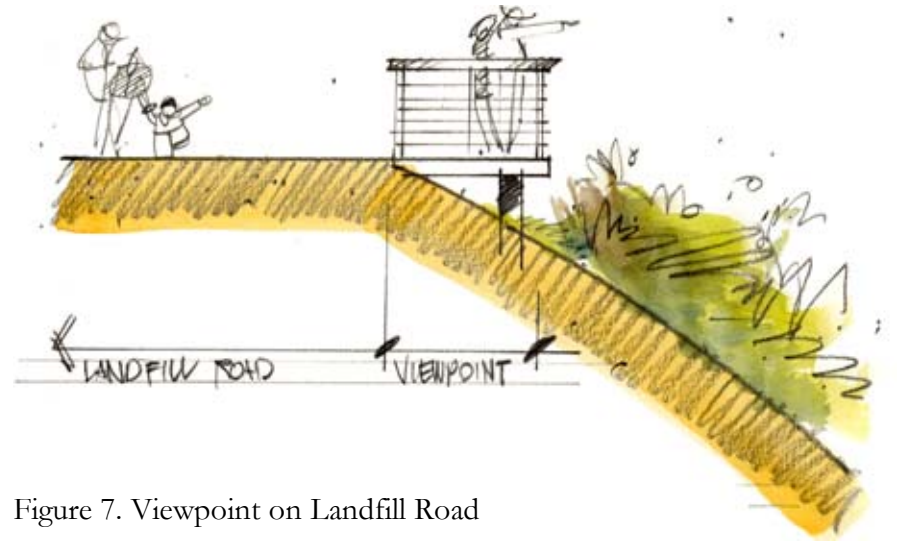


Figure 7. Viewpoint on Landfill Road

VIII. STAKEHOLDER/PUBLIC INPUT

There is a well-documented history of citizen interest and public policy favoring the linkage of nearby neighborhoods, parks and trails with the Smith and Bybee Wetlands Natural Area. While there has been a common interest of trail advocates and trail providers to complete this missing link in the regional trail system, the parties have not been able to reach an agreement on a specific alignment.

An important goal of this trails study has been to achieve consensus among key stakeholder groups on the facts and findings. Metro sought public input throughout the study process by convening a Technical Working Group, conducting a public workshop and tour, meeting with stakeholders and providing a project website. Appendix D contains public involvement materials produced during the project.

Technical Working Group

Representatives from key stakeholder groups were invited to participate on a Technical Working Group. The group included representatives from the St. Johns Neighborhood Association, 40-Mile Loop Land Trust, Smith and Bybee Wetlands Management Committee, Friends of Smith and Bybee Lakes, Portland Parks and Recreation Department, Metro Solid Waste and Recycling Department and Metro Regional Parks and Greenspaces Department. The group met five times over a 12-month period to discuss and seek consensus on project information developed by the project consultants.

Public Workshop and Tour

Approximately 50 citizens attended a public workshop to review alternative alignments and provide their input on the study findings.

Following public release of the feasibility study a public tour was offered to view the proposed alignments.

Stakeholder Meetings

Project staff made presentations on the study findings to the groups and committees listed below:

- Columbia Slough Watershed Council
- North Portland Neighborhood Chairs
- St. John's Neighborhood Association
- Metro Council Work Session
- 40-Mile Loop Land Trust
- Friends of Smith and Bybee Lakes
- Smith and Bybee Wetlands Management Committee

Project Outreach

Metro's web site was an effective tool in engaging citizens in the project as well. Many citizens visited the website to learn about the project and approximately a dozen provided comment for the public record through the project website. Metro also participated in an event for the grand opening of the New Columbia housing development near the Natural Area to inform new residents about the trail options. Approximately 30 citizens stopped by to view the exhibits.

This chapter to be completed when Council makes their final decision.

IX. NEXT STEPS

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STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 05-3592: FOR THE PURPOSE OF COUNCIL APPROVAL OF THE SMITH AND BYBEE WETLANDS NATURAL AREA TRAIL FEASIBILITY STUDY AND RECOMMENDATION OF A PREFERRED TRAIL ALIGNMENT

Date: December 1, 2005

Prepared by: Jane Hart

BACKGROUND

The Smith and Bybee Wetlands Natural Area encompasses approximately 2000 acres of wildlife habitat and is located near the confluence of the Columbia and Willamette Rivers in North Portland. The former St. Johns landfill occupies approximately 240 acres within the Natural Area boundary and is being transitioned to a natural meadow habitat. This regionally significant Natural Area is home to beavers, otters, osprey, bald eagles, herons, songbirds, turtles and other wildlife. The Natural Area is managed primarily for wildlife habitat protection and enhancement while providing appropriate passive recreational opportunities. Metro Council, the Port of Portland and the City of Portland own the majority of the Natural Area. Metro Council manages the Natural Area as well as landfill closure and monitoring operations.

For more than twenty years there has been a strong desire on the part of trail advocates, Metro Council and the City of Portland to connect the Smith and Bybee Wetlands Natural Area to nearby neighborhoods, parks and regional trails. This connection would complete a missing link in the regional trail system. The *Natural Resource Management Plan for the Smith and Bybee Lakes* (NMRP), adopted by Metro Council and incorporated into the City of Portland's Comprehensive Plan in 1990, identified a conceptual trail alignment through the Natural Area. The NMRP alignment would travel through the Ash Grove forest, along the east landfill perimeter road, and along the south shore of Smith Lake.

Since the NRMP was approved 15 years ago, a lot of changes have occurred within and around the Natural Area and along the NRMP trail alignment. Federally-listed endangered bald eagles and salmonid species and state-listed sensitive western painted turtles now reside along sections of the NRMP trail alignment and within the Natural Area; portions of the 40-Mile Loop trail have been completed in close proximity to the Natural Area; and new visitor facilities have been developed near the north shore of Smith Lake, including a canoe launch, trailhead and restrooms, and picnic shelter.

Years of discussion have not produced consensus among project partners on the best way to achieve access to and within key sectors of the Natural Area. Given the changes in existing conditions in and around the Natural Area, and the strongly held views among project partners, a trail feasibility study was requested by the Smith and Bybee Wetlands Management Committee, an initiative endorsed by the City of Portland and Metro Council President.

In September 2004, the Metro Council entered into an Intergovernmental Agreement (IGA) with the City of Portland. The IGA authorized activities related to funding and conducting a trail feasibility study and implementing trail improvements to be recommended by the Metro Council.

In June 2004, Metro Council and the City of Portland retained a professional planning firm, MacLeod Reckord, to conduct the trail feasibility study. The purpose of the trail feasibility study

was to present factual information and conduct an objective analysis of the trail alignments, and provide data for the decision on a recommend alignment to be made by the Metro Council.

The final draft of the Smith and Bybee Wetlands Natural Area Trail Feasibility Study represents the culmination of a 15-month study that included many public involvement opportunities. During the study process a Technical Working Group provided ongoing review of project information prepared by the consultant team. Project partners represented on the Technical Working Group included Portland Parks and Recreation, Smith and Bybee Wetlands Management Committee, Friends of Smith and Bybee Lakes, 40-Mile Loop Land Trust, the St. Johns Neighborhood Association and Metro. Interested citizens participated in the study process by attending a public meeting, a public tour, and stakeholder meetings; visiting the project website; and by submitting comment letters and e-mail.

ANALYSIS/INFORMATION

1. Known Opposition

There is no known opposition to the technical accuracy of the Trail Feasibility Study. The Technical Working Group reached consensus that the content and analysis presented in the Trail Feasibility Study fairly represented the study process. Approximately 25 comment letters and e-mails were received during the public comment period for the draft Trail Feasibility Study and none of those letters took issue with the content or analysis presented in the draft Trail Feasibility Study.

However, members of the Technical Working Group and public did differ in their opinion regarding which trail alignment(s) should be developed. Opposition will exist to some of the “resolved” items in proposed Resolution 05-3592. A majority of the Technical Working Group (Smith and Bybee Wetlands Management Committee, Portland Parks and Recreation, Friends of Smith and Bybee Lakes and Metro) supported the South Slough trail alignment. A minority (the 40-Mile Loop Land Trust and St. Johns Neighborhood Association) preferred the South Lake Shore alignment. Overall, the public input closely mirrored the majority opinion of the Technical Working Group, in favor of the South Slough alignment. The differing opinions focused primarily on the importance of the quality of the user experience versus protection of the Natural Area habitat. This is the trade-off which Council will have to make in its consideration of Resolution 05-3592.

2. Legal Antecedents

The Metro Council is party to two land use review decisions (LUR) with the City of Portland’s Bureau of Development Services that relate to future trail development on the landfill and within the Natural Area. A January 27, 2000 Notice of Decision for Case File No. LUR 99-00579 EN pertains to dike repairs on the St. Johns landfill and includes a condition that Metro Council will pay for design, permitting and construction of trail segments that cross the landfill area, including a fair share of any landfill bridge across the slough. A January 10, 2003 Notice of Decision for Case File No. LU 02-113706 EN pertains to construction of the water control structure between Bybee and Smith Lakes and includes a condition that requires Metro Council to file appropriate documentation with the City after a decision is made about a trail alignment.

Metro Council entered into an Intergovernmental Agreement (No. 925992) with the City of Portland on September 29, 2004 regarding funding and conducting a trail feasibility study, and implementing Metro Council recommendations regarding trail development. The IGA states:

- 1) Metro Council will manage the consultant contract for the trail feasibility study.
- 2) Metro Council will pay for design, permitting and construction of any trail segment on the St. Johns landfill or within the Natural Area boundary.
- 3) If a new slough bridge is recommended, allocation of costs will be based on a method acceptable to both Metro Council and the City.
- 4) Metro Council and City will collaborate on implementing recommended alignments located outside the Natural Area boundary.

The following historic legislation also pertains to Resolution No. 05-3592:

- Ordinance No. 90-367 “Approval of Natural Resources Management Plan for Smith and Bybee Lakes” adopted November 8, 1990
- Resolution No. 92-1637 “For the Purpose of Considering Adoption of the Metropolitan Greenspaces Master Plan” adopted July 23, 1992.

3. Anticipated Effects

The Trail Feasibility Study provides an objective analysis of the trail alignments based on evaluation criteria that the Technical Working Group unanimously supported. The study describes the pros and cons related to the various trail segments and alignments vis a vis environmental impacts, safety, security and maintenance considerations, user experience, connectivity to nearby trails and neighborhoods, cost to design and build, and permit and approval requirements. The study intentionally does not recommend a preferred trail alignment for development, because that decision is one that the Metro Council must make.

Resolution 05-3592 as introduced by Councilors Bragdon and Burkholder would:

- 1) Accept / approve the technical accuracy of the Trail Feasibility Study.
- 2) Remove the South Lake Shore segment from further study.
- 3) Recommend South Slough Alignment as preferred alignment, while recognizing financial and practical obstacles, and request further analysis including:
 - Perform feasibility study for slough bridge.
 - If slough bridge determined too costly or infeasible, determine impact to development of Ash Grove segment.
 - If Ash Grove development would cause irreversible damage to old growth Ash trees consider ‘no build’ option.
 - Explore possibility of extending the South Slough segment beneath the North Portland Road bridge, through the Columbia Boulevard Waste Water Treatment Plant, to cross the Columbia Slough at the existing pedestrian bridge.
 - Begin negotiations with private property owners along South Slough segment.
 - Evaluate the South Slough alignment as a ‘signature project’ (capital project allowing access to existing publicly-owned natural area) for 2006 bond measure
- 4) Take immediate actions to develop neighborhood connection. These improvements would include improvements to the existing landfill bridge and perimeter roads, a railroad under crossing, Columbia Boulevard crossing, railroad overpass between Chimney and Pier Parks, improvements to existing bike lanes and intersections between Pier Park and Peninsula Crossing trail along either N. Smith St. or N. Fessenden St. (This

step might have to be reevaluated if staff finds that slough bridge, Ash Groves and South Slough segments are infeasible)

4. Budget Impacts

Resolution 05-3592, as a document which is limited to designation of alignments for study (or, in the case of South Lake, not for study) and directs staff to do further assessment of alternatives, including cost, does not provide for funding for the project itself. Estimating the budgetary impacts is one of the things staff is directed to do by the resolution.

Meantime, as a rough forecast, the development of the South Slough alignment would be estimated to cost approximately \$7.6 million, not including private property easement acquisition costs (unavailable at time of the study) if willing sellers agree. Approximately \$280,000 was identified for North Portland Road bridge improvements, which may not be required if it is possible to run the trail through the Columbia Blvd. Waste Water Treatment Plant.

If the neighborhood connection and improvements to the existing landfill bridge and landfill perimeter roads were developed as a first phase, the cost would be approximately \$5.9 million. \$4.2 million of the \$5.9 million covers the cost to make improvements from Peninsula Crossing trail through the neighborhood, through Pier and Chimney Parks, across Columbia Boulevard and up to the south side of the existing landfill bridge.

It is assumed that Metro Council and project partners will seek funding for trail development. Possible funding sources to explore include Federal Transportation funding (MTIP), Oregon Parks and Recreation trails funding and a 2006 bond measure. Following Council's decision on a recommended alignment(s), the estimated annual maintenance of that alignment can be determined.

RECOMMENDED ACTION

Councilors Bragdon and Burkholder recommend passage of Resolution 05-3592. Options open to the Council on December 1 are:

Adoption of the resolution

Amendment of the resolution and then adoption

Rejection of the resolution

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING THE	)	RESOLUTION NO. 05-3643
COOPER MOUNTAIN MASTER PLAN AND)	
MANAGEMENT RECOMMENDATIONS	)	Introduced by Michael Jordan, Chief
	)	Operation Officer, with the concurrence of
	)	David Bragdon, Metro Council President

WHEREAS, on July 23, 1992, via Resolution No. 92-1637, ("For the Purpose of Considering Adoption of the Metropolitan Greenspaces Master Plan"), Metro Council adopted the Metropolitan Greenspaces Master Plan which identified a desired system of natural areas interconnected with greenways and trails; and

WHEREAS, the Cooper Mountain Area was identified as a regionally significant natural area by the Metro Greenspaces Master Plan; and

WHEREAS, in May 1995 the Metro electors approved ballot measure 26-26, authorizing Metro to issue \$135.6 million for bonds for Open Spaces, Parks and Streams ("the 1995 Metro Open Spaces Bond Measure"); and

WHEREAS, on February 15, 1996, via Resolution No. 96-2275A, ("For the Purpose of Approving a Refinement Plan for the Cooper Mountain Target Area as Outlined in the Open Space Implementation Work Plan"), Metro Council adopted a refinement plan for the Cooper Mountain Target Area which identified acquisition of 428 acres to protect Cooper Mountain's unique woodlands, scenic vistas and the tributary headwaters of the Tualatin River as a Tier 1 objective, and

WHEREAS, between February 1997 and December 1999, Metro Parks and Greenspaces acquired ten priority parcels on Cooper Mountain identified by the Refinement Plan; and

WHEREAS, on July 19, 2001, Metro Resolution 01-3088, (" For the Purpose of Creating a Green Ribbon Committee to Examine and Nominate Certain Metro Greenspaces Sites to Open and Operate for the Public"), was adopted which directed the formation of a working citizen task force, The Green Ribbon Committee, to address Regional Parks and Greenspaces project priorities and funding needs; and

WHEREAS, the Green Ribbon Committee identified Cooper Mountain as a "recommended site" for development and as an "anchor site" deserving a higher funding level; and

WHEREAS, on May 20, 2004, Ordinance No 04-1048A, (" For The Purpose of Amending Metro Code Chapter 7.01.023 to Increase the Amount of Additional Excise Tax Dedicated to Funding Metro's Regional Parks and Greenspaces Programs"), was approved by Metro Council. The ordinance added \$1.50 per ton excise tax on solid waste dedicated to Regional Parks to provide the resources necessary to develop the highest priority projects in the Green Ribbon Committee's report, including Cooper Mountain; and

WHEREAS, in January 2004 Metro Parks planning team initiated a 20-month public master planning process for the Cooper Mountain Natural Area, working closely with Tualatin Hills Park and Recreation District, the City of Beaverton (both financial partners on the Master Plan), Washington County Planning Department, a 16 member Project Advisory Committee, adjacent landowners and interested citizens; and

WHEREAS, the Cooper Mountain Master Plan and Management Recommendations has been completed and meets the intent of the 1995 Metro Open Spaces Bond Measure and the Cooper Mountain Target Area Refinement Plan; and

WHEREAS, on June 30, 2005, the draft of the Cooper Mountain Master Plan and Management Recommendations was reviewed and supported by the Project Advisory Committee; and

WHEREAS, on October 7, 2005 and October 11, 2005, Metro staff presented a summary of the Cooper Mountain Master Plan and Management Recommendations to Metro Council and Washington County Board of Commissioners respectively; and provided a four week period for public review for which there was no known opposition to the plan; now therefore,

BE IT RESOLVED that the Metro Council hereby approves the Cooper Mountain Master Plan and Management Recommendations appended hereto as Exhibit A.

ADOPTED by the Metro Council this _____ day of _____, 2005

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

Cooper Mountain

Master Plan & Management Recommendations - November 2005



METRO
PEOPLE PLACES • OPEN SPACES

Cooper Mountain

Master Plan & Management Recommendations

NOVEMBER 2005

Prepared by:

Metro Regional Parks & Greenspaces

600 NE Grand Avenue

Portland, Oregon 97232

Project Team:

Jim Desmond, Department Director

Heather Nelson Kent, Planning and Education Manager

Lora Price, Project Lead/Landscape Architect

Jane Hart, Project Coordinator

Jennifer Budhabhatti, Environmental Planner

Ron Klein, Public Affairs Specialist

Ilene Moss, Document Editor

Glenn Taylor, Construction Manager

Lia Waiwaiiole, Information Management

For more information or copies of this report, contact:

Lora Price, Project Lead

(503) 797-1846, pricel@metro.dst.or.us

Acknowledgements

This master plan is the result of the commitment, support and involvement of many people who dedicated time and resources to produce a vision for Cooper Mountain Natural Area. The master plan was funded by Metro, City of Beaverton, Tualatin Hills Park and Recreation District and the Home Builders Association. Facilities for public meetings were provided by Metro, Tualatin Hills Park and Recreation District, Tualatin Valley Fire and Rescue and the Beaverton School District. The project team would like to thank the following individuals for their interest and involvement in developing a vision for the Cooper Mountain Natural Area.

Metro Council

David Bragdon, Council President
Rod Park, Council District 1
Brian Newman, Council District 2
Carl Hosticka, Council District 3
Susan McLain, Council District 4
Rex Burkholder, Council District 5
Robert Liberty, Council District 6

Cooper Mountain Project Advisory Committee

Eric Aldinger, Portland United Mountain Pedalers
Joan Andersen-Wells, Tualatin Hills Park and Recreation District
Mark Charleston, Tualatin Valley Fire and Rescue
Debbie Chin, Cooper Mountain neighborhood representative
Judy Fox, Cooper Mountain neighborhood representative
Larry Fox, Cooper Mountain neighborhood representative
Barbara Fryer, City of Beaverton
Megan Garvey, Beaverton High School student
David Green, Kemmer View Estates Homeowners Association
Steve Gulgren, Tualatin Hills Park and Recreation District
Brian Harney, Convention & Visitors Bureau of Washington County

David McClain, Kemmer View Estates Homeowners Association
Tim Morgan, Convention and Visitors Bureau of Washington County
Doug Myers, Tualatin Valley Fire and Rescue
Jody Newberry, Valley View Riders
April Olbrich, Tualatin River Watershed Council
Bryan Pasternak, Portland United Mountain Pedalers
Joe Reeves, Oregon Equestrian Trails
Lori Smith, Cooper Mountain neighborhood representative
Kyle Spinks, Tualatin River Watershed Council
Andrea Vannelli, Washington County
Aisha Willits, Washington County

Design Workshop Teams

Dean Apostol, Landscape Architect Consultant
Ric Balfour, Trails Consultant
Bruce Barbarasch, Tualatin Hills Park and Recreation District
Steve Bricker, Portland Parks and Recreation
Nancy Chase, Metro
James Davis, Metro
Steve Engle, Environmental Education Consultant
Janelle Geddes, Metro
Steve Gulgren, Tualatin Hills Park and Recreation District
Lori Hennings, Metro
Mel Huie, Metro
Gery Keck, Tualatin Hills Park and Recreation District
Angela Kimpo, Portland Bureau of Environmental Services
Dan Kromer, Metro
David Lewis, Landscape Architect Consultant
Jim Morgan, Metro
Ellena Ochoa, Intern
Mary Ordal, Hillsboro Parks and Recreation

Design Workshop Teams (continued)

Julie Reilly, Tualatin Hills Park and Recreation District

Deb Scrivens, Metro

Cathy Sherick, Metro

Adam Stellmacher, Metro

Elaine Stewart, Metro

Phil Underwood, Metro

Dawn Uchiyama, Portland Bureau of Environmental Services

Marianne Zarkin, Landscape Architect Consultant

Curt Zonick, Metro

Photography

Ron Klein

James Davis

Lora Price

Lia Waiwaiole

Curt Zonick

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Executive Summary

Process and Goals

Recommendations

Conclusion



Executive Summary

Cooper Mountain, located on the southwest edge of Beaverton, was formed by the Columbia River basalt flows millions of years ago. Rising nearly 800 feet, it is a prominent feature in the landscape of the Tualatin River Valley. The mountain has been part of the forest and farm fabric typical of the region; it has historically been used for timber production, and more recently, for recreation. In recent years, as the urban growth boundary has expanded, the north and east slopes of the mountain have become fully developed residential neighborhoods.

With 1995 bond measure funds, Metro purchased 256 acres in the Cooper Mountain Target Area, including 231 contiguous acres near the crest on the southwest slope of the mountain. Cooper Mountain Natural Area is a mosaic of oak and madrone woodlands, native prairies, and mixed conifer forest. These habitats provide



Conifer forest, oak woodland & native prairie

homes for nine plant and wildlife species that have been identified at the state and federal level as “sensitive species” or “species of concern” – species at risk of being listed as threatened or endangered. The site also contains the headwaters of Lindow Creek (a major tributary of the Tualatin River), and offers commanding views of the valley.

Process and Goals

The Cooper Mountain Natural Area Master Plan is the result of a public involvement process that engaged neighbors, local governments, recreation groups, and natural resource specialists in creating a viable long-term vision for the site. This input, combined with assessments of the site’s resources, opportunities and constraints, shaped six broad goals for the natural area:

1. Protect and enhance Cooper Mountain’s unique natural and scenic resources and create a place for wildlife to thrive.
2. Encourage community access and recreational use that is compatible with natural resource protection.
3. Interpret the unique natural, cultural and scenic resources of Cooper Mountain.
4. Maximize operational efficiencies and protect the public’s investment.
5. Minimize impacts to surrounding neighborhoods and farmlands from site development and public use of Cooper Mountain.
6. Work with our partners to seek appropriate public and private funding for master plan implementation and ongoing management.

Recommendations

The master plan recommendations are an attempt to balance the need for protection and enhancement of the unique natural resources present on the site, with the public's use and enjoyment of nature-based recreational activities. The preferred site design concept includes the following elements:

- A 3.5-mile trail system, marked by interpretive signs, to accommodate hikers, wheelchair users, and equestrians.
- A nature house that will provide environmental education classrooms for school groups and meeting space for community groups.
- Two parking areas and trailheads – one on the north edge of the site at Kemmer Road and the other at the southeast corner of the site at Grabhorn Road. Trailhead facilities will include restrooms, shelter, picnic tables, drinking fountain, interpretive signs and other facilities.
- A children's play area designed with natural elements of sand, rock, water and plants to accommodate educational activities and neighborhood use.
- A caretaker residence and maintenance yard to provide a management presence and to oversee facilities.

In addition, a Natural Resource Management Strategy and an Interpretive Program Concept are being developed to help guide the habitat management and educational programming that will occur on site. A phased implementation plan is recommended for the development of the facilities in order to consider visitor needs and minimize construction costs and operational impacts.

This Master Plan represents today's vision for an important regional natural area that provides an exciting opportunity for habitat enhancement and compatible public use within a neighborhood context. In addition to providing a framework for future

development and management, the plan also identifies long-term opportunities. For example, if adjacent properties come up for sale in the future by willing sellers, consideration will be given to purchasing these parcels in order to expand habitat protection goals, recreation uses (including regional trail connections), and buffers between the natural area and surrounding neighbors.

Conclusion

In 1995, voters approved a bond measure to acquire regionally significant natural areas, parks and other greenspaces throughout the metropolitan area. Cooper Mountain Natural Area is one of these regional treasures – a place where nature is flourishing in the midst of our neighborhoods. In 2004, the Metro Council dedicated resources to develop Cooper Mountain Natural Area for public use. This master plan is a key step toward responsible management of this resource, while providing the public with a safe enjoyable experience of one of our region's great resources.

Introduction

Project Background

Project Setting & Study Area

Master Plan Purpose

Public Involvement



Introduction

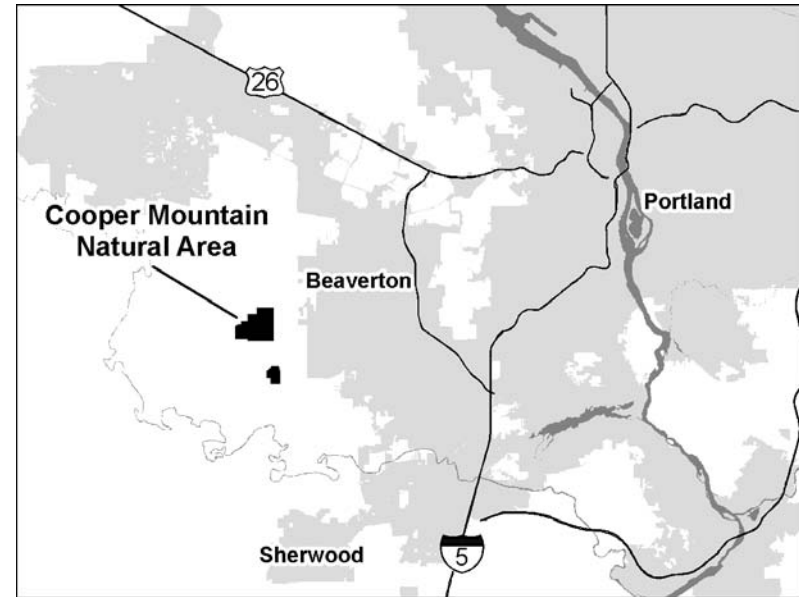
Project Background

A primary mission of Metro's Regional Parks and Greenspaces Department is to work cooperatively with the public to maintain the quality of life for the region by protecting natural areas, trails and greenways for wildlife and people. The Metropolitan Greenspaces Master Plan of 1992 identified Cooper Mountain in Washington County as a regionally significant natural area.

The 1995 passage of Metro's Open Space, Parks and Streams Bond Measure provided funding for the acquisition of land in the Cooper Mountain Target Area. The bond measure and the Cooper Mountain Target Area Refinement Plan included the following acquisition goals:

- Acquire between 400-700 acres to protect and enhance Cooper Mountain's unique biological diversity
- Protect water quality of Tualatin River by protecting headwaters of tributaries including Lindow Creek
- Protect spectacular scenic vistas "out from and in to" Cooper Mountain.
- Provide linkages from Cooper Mountain to other trails, greenways, parks and community facilities (e.g., schools)

At the time of the printing of this document, 256 acres of land have been purchased by Metro in the Cooper Mountain Target Area. This includes 231 contiguous acres that constitute the bulk of Cooper Mountain Natural Area, a 16-acre parcel to the south along Scholls Ferry Road, and a 9-acre parcel on the northeast slope of the mountain. All Metro parcels were acquired on a "willing seller" basis.



Location map

Project Setting and Study Area

Cooper Mountain, located on the southwest edge of Beaverton, rises to an elevation of 795 feet. Traditionally, this mountain has been part of the rural farm and forest fabric that typifies the Tualatin Valley. However in recent years, the north and east slopes of the mountain have been brought into the urban growth boundary, and they have become, for the most part, fully developed residential neighborhoods. The southern and western slopes of the mountain remain a mosaic of farm and forest land that meets the Tualatin River, valuable for both watershed and habitat protection.

Cooper Mountain Natural Area is located in Township 1S, Range 2W, Section 25 on the southwest slope of Cooper Mountain. The site offers a commanding view of the Tualatin River Valley and the Chehalem Mountains. It also contains the headwaters to Lindow Creek, a major tributary of the Tualatin River. The site features shallow, rocky soils; small, seasonally-perched seeps; oak and madrone woodlands; and a diverse prairie community of wildflowers - habitats that are primarily defined by the site's geomorphic origins and southern exposure.

The project study area includes the Metro-owned property and the lands immediately surrounding it in order to identify the opportunities and constraints represented by the Natural Area.



View from the meadow overlooks the Tualatin River Valley

Master Plan Purpose

The purpose of this master plan is to provide a long term collective vision and implementation strategy to guide future public use and enjoyment, development and natural resource management of Cooper Mountain Natural Area. This master plan establishes goals, and provides recommendations and a site concept for future trail design, facility development and vegetation management.

It also lays out a framework for addressing natural resource management and future maintenance and operations needs; and for implementing future development by identifying required project permits and approvals, cost estimates, phasing and potential funding sources. Most importantly, this master plan is a guiding vision that reflects the community's desires. The completed plan can also serve as a useful tool in obtaining future funding.

Public Involvement

Over the course of 20 months, from December 2003 to July 2005, the Cooper Mountain Natural Area planning process involved interested citizens, neighbors, natural resource and recreation groups, businesses and local governments. The purpose of such broad involvement was to:

- Draw upon local knowledge, interest and experience to provide a variety of perspectives on the use of Cooper Mountain;
- Build a public understanding of the issues related to natural resource management of publicly-owned land on Cooper Mountain;
- Build a public understanding of the final plan recommendations; and
- Produce a master plan that best serves the entire community.

At the onset of the planning process, a Cooper Mountain Project Advisory Committee was established to assist Metro in the development of the master plan. This committee represented a diverse set of key community interests and included representatives from the City of Beaverton, Washington County, Tualatin Valley Fire and Rescue, Tualatin Hills Park and Recreation District, Beaverton High School, Cooper Mountain neighbors, Tualatin River Watershed Council, Oregon Equestrian Trails, Portland United Mountain Pedalers, Kemmer View Estates Homeowners Association, Valley View Riders, and the Convention and Visitors Bureau of Washington County. The Advisory Committee met six times throughout the planning process.

Outreach to the general public was achieved through a variety of strategies. At the beginning of the process, a public interest survey was mailed out and posted on the Metro website and was completed by 400 citizens. A Cooper Mountain Chronicle newsletter was produced and distributed four times to 2,000 households. The master plan process was featured in five issues of the Metro GreenScene, a regular publication mailed to 15,000 households. Additional outreach included local newspaper stories, speaking engagements and information posted on Metro's web site. Many citizens also used e-mail to submit their comments or ask questions.

Activities in the community included:

- Nine guided public tours of Cooper Mountain Natural Area
- Two public open houses
- One Cooper Mountain neighborhood town hall meeting
- Community briefings with the Highland Neighborhood Association, Beaverton Committee for Citizen Involvement, Washington County Committee for Citizen Involvement, Metro Committee for Citizen Involvement, Kemmer View Estates Neighborhood Association, Oregon Equestrian Trails, Beaverton Optimists, and Washington County Commission



Design teams explore scenarios for future use and management of Cooper Mountain

Finally, a full day “charette” or design workshop was held to explore visitor use, site design and vegetation management scenarios for the Cooper Mountain Natural Area. The design workshop included five multi-disciplinary teams of resource specialists, recreation providers, trail experts, land managers, and landscape architects from other agencies and non-profits, as well as Metro staff. Each team was charged with developing a conceptual plan for the natural area that integrated public use opportunities and habitat conservation. In addition, each team was given a different focus in order to explore the relationship between public use and habitat conservation. Ideas from the five proposals were then consolidated into three alternative design concepts that were presented to the PAC and the public for review and comment. In addition to an open house, over 600 citizens visited the “virtual Cooper Mountain open house” on the Metro web site to view and comment on the concept alternatives.

Metro's web site proved to be an effective tool in engaging interested citizens in the project planning process. Citizens were able to gather information about the project, review documents, be regularly notified and updated, submit comments and complete public opinion surveys. Over 5,000 visits to the Cooper Mountain web pages were made during the planning process.

Copies of the Project Advisory Committee meeting notes and of the Cooper Mountain Chronicle newsletter are included in the appendix of this plan. A complete record of the public involvement process and design refinement process for the Cooper Mountain Master Plan is also available for public review upon request.

Natural & Cultural History

Geology

Presettlement Vegetation

Native Cultures

Early Settlement

Recent History



Natural & Cultural History

Geology

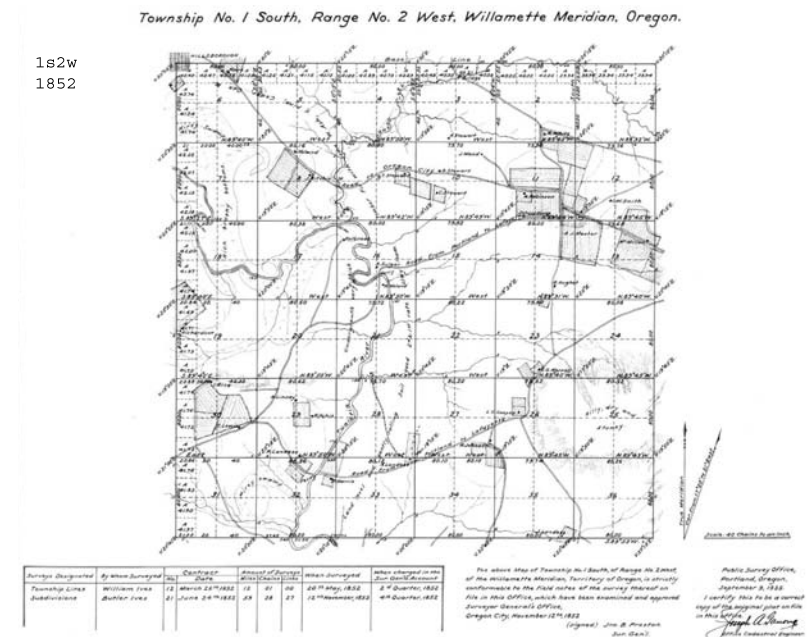
Cooper Mountain was formed by the ancient Columbia River basalt flows that shaped the landscape over millions of years. The fluid lava flows originally covered much of the Northern Willamette Valley with a nearly level surface up to 100 feet thick in places. The subsequent folding, fracturing and uplifts of this lava layer have also formed most of the higher hills in the Portland area.

Multiple layers of the basalt can be observed within the Cooper Mountain Natural Area at two quarry locations. These layers have differing characteristics due to the degree of fracturing, as well as different rates of weathering. The uppermost basalts, which are part of the Grande Ronde sequence of flows, are typically more fractured or cracked than flows at lower elevations. This network of fractures permits surface water to percolate down through the bedrock more quickly in some locations than in others.

Presettlement Vegetation

The oldest record of vegetation cover on Cooper Mountain is from the 1852 General Land Office Land Cover records. This presettlement vegetation was noted in the township and section line surveys conducted by the General Land Office. Vegetation notes from this time are believed to be a close approximation of the vegetation cover prior to widespread changes brought about by European settlement. With the exception of a small, distinguished upland prairie located at the eastern edge of the Cooper Mountain Natural Area site, the remainder of the site was identified in 1852 as a Mesic mixed conifer forest with a mostly deciduous understory. Likely species that were listed for this mixed conifer forest included Douglas fir, western hemlock, red cedar, grand fir, big leaf maple,

yew, dogwood, white oak and red alder. To the immediate northwest of the site, the survey lists a Douglas fir forest with no oak. To the northeast of the site the survey notes a conifer-dominated woodland. To the immediate southwest of the site the survey notes a scattering of thinly timbered Douglas fir-white oak woodland.



1852 Historic Survey of Cooper Mountain

Native Cultures

The Tualatin River Valley, like the other inland valleys of the Willamette River and its tributaries, was a place of abundance for the eight Kalapuyan tribes that once inhabited it. One of these tribes

was the Atfalati, commonly known as the Tualatin or Wapato Lake Indians. The Atfalati lived in about 24 villages on what is now the Tualatin River Valley, in the hills around Forest Grove, along the shores of Wapato Lake, along the north fork of the Yamhill River, in Hillsboro, and in Portland. One of these Atfalati villages was named Cha-kepi, "Place of Beaver," which is the present-day location of Beaverton.

The Atfalati roamed between the Willamette River and the slopes of the Coast Range, and from present day Wilsonville to the Columbia River. These seasonal movements were tied to variations in food sources during different seasons and at different elevations. For instance, the Willamette floodplain provided camas, wapato and marsh birds, while the higher elevation valley margins (which Cooper Mountain represents) provided stands of acorn oaks, abundant mammals, and upland bird species such as grouse and quail. The Atfalati practiced controlled burning, which made it easier to hunt deer and renew the open expanses of land for camas to grow. The 1852 mapped records of vegetation show that the south face of Cooper Mountain overlooking the Tualatin Valley was partially comprised of oak woodlands and open prairie amidst the conifer stands, thus indicating that Native American burning practices may have extended up the southern slope of the mountain.

Warm weather months were used to hunt, gather and store food, and obtain provisions for clothing, shelter and tools. Tribal members camped in smaller family groups and moved to places where plants could be harvested or animals hunted. Important staple foods such as camas (bulb of the wild lily), wapato (Indian potato or arrowhead), acorns, hazelnuts and tarweed seed were usually gathered by women. Cooper Mountain was likely used by tribal members for hunting and gathering.

During the winter months tribal families came together in more permanent large plank houses. The Atfalati used this time to keep their culture alive by story telling, and making and repairing tools for the next season.

The Atfalati lifestyle was greatly altered by the entry of settlers into their lands early in the 19th century. Conflicts arose over the Atfalati migratory hunting-gathering lifestyle and the permanent farms and ranches of the settlers. Armed conflicts broke out after the late 1840s, which resulted in the gradual displacement of the Atfalati population to reservation lands, first at Wapato Lake in 1851 and subsequently to the Grand Ronde Reservation near the Oregon Coast.

Early Settlement

Cooper Mountain lies within the old "Twality District," originally defined by the Oregon Provisional Government in 1843. This large district was named for the Tualatin River.

A 1959 centennial newspaper article on the history of Cooper Mountain states, "It is a common belief among older inhabitants that few early pioneers settled in this area. Their reasons being thus, lack of a ready water supply and the vast stands of timber. More ready farmland was available to them in the valley." However, Perry Cooper, for which Cooper Mountain is named, was one such early pioneer who made his Oregon land claim on the slopes of this mountain in March 1853. He and his wife Nancy had five children. His donation land claim is the present day site of Cooper Mountain Vineyards.

Timber was the first industry on Cooper Mountain as trees were harvested to make room for farmland. The Livermore Saw Mill operated in three different locations on the mountain. Francis Livermore and his family moved to Portland in 1890 and purchased 280 acres on Cooper Mountain near what is now 170th Avenue and Rigert Road. In the winter, logs were slid downhill on Ruesser Road (now 175th), and then dragged along what is now 170th Avenue to the railroad to the north. There they were stockpiled to be shipped to a local sawmill. Many of the roads we see today on

Cooper Mountain are named after early residents of the area. These include Gassner, Ruesser, Rigert, Hart, Weir and Kemmer roads. On the south side of Cooper Mountain at the crossroads of Scholls Ferry Road and Tile Flat Road, a cluster of buildings remains from early settlement days. These include the Kinton Grange (constructed in 1917), a small schoolhouse and the Kindt house (constructed in 1853 and named for Peter Kindt, an early pioneer).



The Livmore Mill 1910, at 170th & Farmington

The Cooper Mountain Catholic Cemetery on Kemmer Road (directly across the street from Cooper Mountain Natural Area) was the site of St. Peters Church and is the resting place of many of the first settlers on Cooper Mountain. The United Brethren Congregational Church and cemetery on Hazeldale Road is located on land that was donated by Perry Cooper in 1899. The church no longer exists, but its cemetery is the resting place of later settlers of the area.



The original Cooper Mountain School circa 1892

Cooper Mountain School District, which covered Cooper Mountain and its north slopes, was established in 1892. The original Cooper Mountain School was located about 2/3 of a mile west of the present school (which is at 170th and Hart Road). It was a one-room schoolhouse with fewer than 20 students attending during its first 20 years of existence. This original building was replaced with a larger one-room schoolhouse in 1912 at the present Cooper Mountain School location.

Recent History

The 231 acres that comprise the Cooper Mountain Natural Area were largely forested up until 1936 when the area was first logged. It was logged again in 1995. Two small quarries were mined for gravel to construct roads for the logging operations. Prior to Metro's ownership, the northern-most portion of the property had been leased to farmers for growing perennial rye grass crops. At the time

Metro acquired the property, most of the land was clear-cut from logging. Slash remained on the ground and invasive non-native vegetation had taken hold. Informal public use (hiking, dog walking, bicycling, and horseback riding) along the site's logging roads and on many social trails was heavy.

Metro's interim management activities on the site over the course of the last eight years have included: access control, slash removal, invasive plant removal, reforestation of clear cut areas with the planting of approximately 60,000 native trees, native seed collection, prescribed burns to keep fuel loads down, plant monitoring and wildlife tracking. In addition, Metro sponsors periodic, naturalist-led walks and volunteer involvement in many of its restoration and monitoring activities.

Existing Conditions

Natural Resources

Scenic & Cultural Resources

Land Use

Regional Context

Recreation Context



Existing Conditions

Natural Resources

Cooper Mountain Natural Area is located on the southwest slopes of Cooper Mountain from 550 to 755 feet elevation. This exposure, in addition to the thin soils, has resulted in a unique mosaic of oak–madrone woodlands, prairies and mixed conifer forests. The site is divided by five intermittent streams that flow from north to south and drain into Lindow Creek, which in turn flows into the Tualatin River. The streams are at the bottom of narrow, steep-sided ravines with broader, flatter ridges between the stream corridors. This mixed topography adds to the diversity of plant and wildlife communities on site.

Plant and Wildlife Communities

Oak Woodland

Once abundant in the Willamette Valley, oak woodland is now a rare habitat in the region. Over 80 percent of the oak woodlands in the Willamette Valley have been lost due to development, agriculture, exclusion of fire, and competition from Douglas fir and invasive non-native shrubs. This is a valuable plant community that supports a wide variety of wildlife, including many rare and sensitive species.

Approximately 44 acres of the site is in open oak habitat. Oak woodland is characterized by a 30 to 60 percent canopy of Oregon white oak and madrone with an open understory dominated by shrubs such as Indian plum, snowberry, and poison oak. Over 200 species of wildlife are associated with this habitat including neotropical birds (migratory birds that overwinter in Central America) such as warblers and vireos, and resident species such as the white-breasted nuthatch. Mammals using this habitat include deer, western gray squirrel, fox and coyote.

A primary challenge to oak woodland management at Cooper Mountain involves control of invasive, non-native shrubs such as Scotch broom and Himalayan blackberry.

Upland Prairie

Only one percent of original upland prairie remains in the Willamette Valley primarily due to urban and rural development and fire suppression.

About six acres of this rare upland prairie occur at Cooper Mountain. These prairies are underlain with thin soils perched above basalt. Although currently dominated by exotic pasture grasses, the Cooper Mountain prairies retain populations of several



Native oaks in upland prairie

native grasses (e.g. California oatgrass, California brome, junegrass) and native wildflowers, including several regionally rare and uncommon species. Healthy populations of white rock larkspur (state endangered, federal species of concern) and meadow sidalcea (state candidate) both occur in the prairies along with many other native wildflowers such as Oregon sunshine, clarkia, Oregon saxifrage, and a large variety of native lilies. The prairies of Cooper Mountain provide their strongest wildflower bloom displays in spring and early summer. Because of the thin soils and southern aspect of the site, the prairies become dry and largely dormant by mid summer.

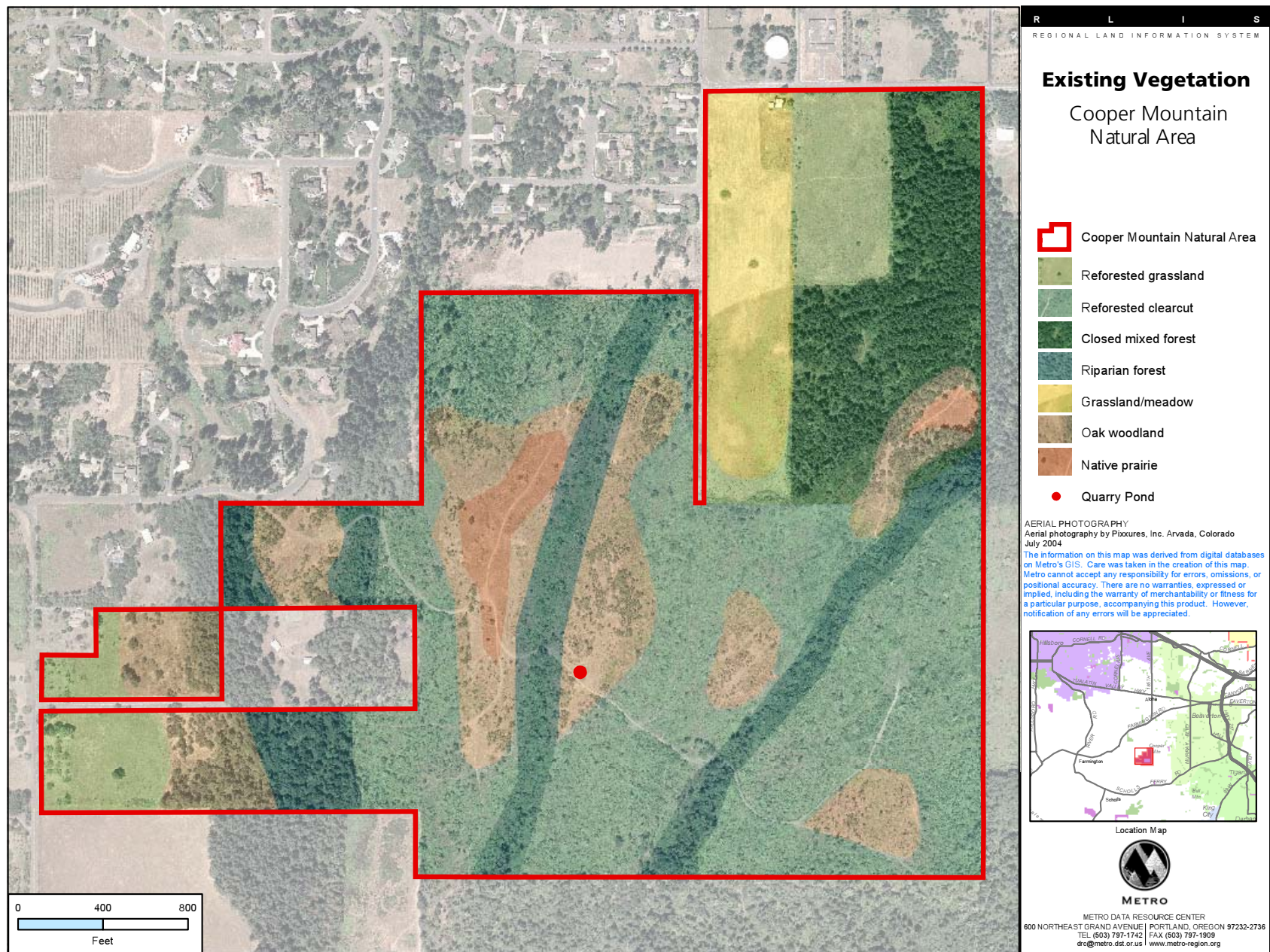
The biggest threats to the prairies are woody shrub encroachment from surrounding oak woodland habitat, competition from non-native plants, and interruptions in the natural disturbance regimes, such as fire and grazing, that maintain the plant communities. Non-native plants include tall oat grass, velvet grass, Scotch broom and a variety of non-native annual grasses. Metro has utilized a variety of practices, including controlled burns, to manage this habitat.

Riparian Areas

Approximately 30 acres of Cooper Mountain are in the riparian corridor. This habitat is dominated by an open canopy of 50 to 100 year old trees such as big leaf maple, black cottonwood, alder, Douglas fir, and western red cedar. Numerous cottonwood and alder trees, most between five and ten years old, can be found along the riparian corridor. The understory includes sword fern, snowberry, Indian plum and Oregon grape. The streams on the site are intermittent and nearly dry up during the summer months. Most wildlife species at Cooper Mountain Natural Area will use riparian areas for breeding, feeding, resting or traveling. Some areas of the riparian corridor are invaded by Himalayan blackberry and Scotch broom.



Riparian understory



Mixed Forest

Approximately 136 acres of mixed forest habitat occur on the property. This forest habitat is distributed in the northeast, central and south sections of the property. Most of this area is reforested clearcut, with the exception of the northeast corner of the property where there is a stand of closed mixed forest consisting of 30- to 40-year old Douglas fir, grand fir, Oregon white oak and western red cedar. Ground cover consists of sword fern and native trailing blackberry. Deer and red fox use this habitat along with birds such as the pileated woodpecker, downy woodpecker and olive sided flycatcher. There is a minimal invasion of exotic species because of the closed forest canopy.

In the remaining mixed forest areas which were previously logged, Metro planted 60,000 trees including Douglas fir, madrone, red alder, western red cedar, ponderosa pine and grand fir. The future forested areas will enhance the valuable wildlife habitat and scenic value of the property. The management challenge to the replanted areas will be to control the invasion of non-native plants such as hawthorn and blackberries until the tree canopy is well established.



Closed mixed forest stand of 30-40 year old trees

Quarry Pond

A small excavated quarry located adjacent to the primary logging road seasonally ponds water providing a refuge for resident wildlife and breeding habitat for northern red-legged frogs and other amphibians. The northern red-legged frog is a state-sensitive species and a federal species of concern.



Quarry pond provides habitat for the red legged frog

Meadow

Approximately 16 acres are in non-native meadow. Some of this grassland has been planted by Metro for reforestation. While not native habitat, the open grasslands give visitors the opportunity to take in views over the Tualatin River Valley and Chehalem Mountains beyond. They are also important habitat for deer, birds of prey and the Western bluebird in particular. Nesting boxes for the Western bluebirds have been placed near the edges of the meadow.

The meadow is mowed annually to reduce potential wildfire fuel, protect views, control non-native vegetation, and maintain grass dominance by preventing the establishment of trees and shrubs.

Sensitive Species

Various types of species inventories, as well as ongoing botanical, avian and herpetological monitoring, have been conducted at Cooper Mountain. Table 1 lists species detected at Cooper Mountain since 1995 that have been recognized by a state or federal program as exhibiting some form of rarity or special concern.

White rock larkspur, a member of the buttercup family, is a regional endemic found only in a few sites in the northern Willamette Valley and southwest Washington. It is a slender perennial growing from a cluster of tubers and blooming from April through June. Although apparently thriving in wet meadow environments, white rock



White rock larkspur

larkspur now generally persists in rocky areas and shallow-soil prairies. Approximately 4,500 plants have been counted in the prairies of Cooper Mountain Natural Area. White rock larkspur appears to have responded well to the prescribed burns conducted by Metro in 1997 and 2001.

Meadow checker-mallow is found in the prairie at Cooper Mountain Natural Area. The plant can grow over six feet tall. The pale-pink flowers are borne on hairy stems and serve as a nectar source for the Fender's blue butterfly. This plant can be found in the Willamette Valley in meadows, fencerows and roadsides, but occurrences are declining due to meadow degradation and destruction.

Northern goshawk is the largest North American "true raptor" that frequents Cooper Mountain to forage and perch in the mixed forest. It maneuvers through dense mature woods, taking prey as small as squirrels and as large as grouse and crows. While most hawks search and dive for their prey over open meadows, goshawks swoop through wooded areas and even pursue their prey by foot. Goshawks prefer mixed habitat for both nesting and foraging. Up to 6,000 acres of forest are needed by a pair of nesting goshawks to rear their young. The Northern goshawk occurs even in fragmented forests, but perhaps less consistently than it does in large contiguous forest areas.

Yellow-breasted chats breed in very dense scrub often along streams and at the edges of swamps or ponds. They are sometimes found in overgrown pastures and in upland thickets along margins of woodlands. They have been sighted near Cooper Mountain's riparian forests.

Olive-sided flycatchers breed mostly in conifer forests, especially around the edges of open areas including bogs, ponds and clearings. They have become less common in recent years because of a loss of habitat on the wintering grounds. They have been sighted in the closed mixed forest (south and central section) near the logging road.

Species	Federal Species of Concern*	State		State			ORNHC Ranking****
		Listed Endangered	Candidate	Critical	Vulnerable	Undetermined	
<i>Delphinium leucophaeum</i> - White rock larkspur	X	X					1
<i>Sidalcea campestris</i> - Meadow checker-mallow			X				4
<i>Accipiter gentiles</i> - Northern goshawk	X			X			4
<i>Icteria virens</i> - Yellow breasted chat	X			X			4
<i>Contopus cooperi</i> - Olive-sided flycatcher	X				X		4
<i>Empidonax traillii brewsteri</i> - Little willow flycatcher					X		4
<i>Sialia mexicana</i> - Western bluebird					X		4
<i>Rana aurora aurora</i> - Northern red-legged frog	X				X		4
<i>Sciurus griseus</i> - Western gray squirrel						X	4

Table 1: Sensitive Species Documented in Cooper Mountain Natural Area

Key:

- * Federal "Species of Concern" are taxa whose conservation status is of concern to the U.S. Fish and Wildlife Service, but for which further information is still needed. They are not recognized/defined/regulated per the Endangered Species Act. Many were previously known as "Category 2 Candidates".
- ** At the state level, the Oregon Department of Agriculture (ODA) lists species as "Endangered" under the Oregon Endangered Species Act of 1987 (OESA). A "Candidate" species is a candidate for listing by the ODA under the OESA.
- *** At the state level, "sensitive species constitute those naturally-reproducing native animals which may become threatened or endangered...in Oregon." They are categorized by the Oregon Department of Fish and Wildlife (ODFW) as follows:
 - Critical: species for which listing as Threatened or Endangered is pending, or those for which listing as Threatened or Endangered may be appropriate if immediate conservation actions are not taken
 - Vulnerable: species for which listing as Threatened or Endangered is not believed to be imminent and can be avoided through continued or expanded use of adequate protective measures and monitoring.
 - Peripheral or Naturally Rare: species whose populations are on the edge of their range or which have had low numbers historically in Oregon.
 - Undetermined Status: species for which status is unclear; may be susceptible to population decline; scientific study is needed.

****Key to Oregon Natural Heritage Information Center (ORNHC) rankings:

- 1 = Critically imperiled because of extreme rarity or because it is somehow especially vulnerable to extinction (5 or fewer occurrences)
- 2 = Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (6-20 occurrences)
- 3 = Rare, uncommon or threatened, but not immediately imperiled (21-100 occurrences)
- 4 = Not rare and apparently secure, but with cause for long-term concern (>100 occurrences)
- 5 = Demonstrably widespread, abundant and secure

SOURCE: Rare, Threatened, and Endangered Species of Oregon, Oregon Natural Heritage Information Center, May 2004

Little willow flycatcher is a neotropical bird that uses Cooper Mountain's riparian areas to nest and feed. It prefers open shrubby areas of willow and alder patches. One of its biggest threats is habitat loss and cowbird parasitism.

Western blue birds are resident birds that are confined to areas above 600 feet in elevation. They prefer open habitat where abundant food and perches are available. The Prescott Western Bluebird Recovery Project identified Cooper Mountain Natural Area as potentially good habitat for these birds and installed 10 to 12 bluebird nest boxes in the upper prairie of the site. At least one pair has bred successfully.

Northern red-legged frog population has been regularly documented to breed in a small excavated quarry located towards the south end of the site on the old logging road. Typically, red-legged frogs breed in seasonal pools during February to April when water temperatures reach 7° C, and disperse during the non-breeding period into forested uplands. From a life history perspective, red-legged frogs live and breed in stream habitats and off-channel pools most often characterized as small, shaded standing pools or ponds. Generally, these breeding pools or ponds must be a meter in depth and provide optimal breeding habitat (e.g., clean water with ample vegetative cover and narrow-stemmed plant material for oviposition).



Western bluebird



Northern red-legged frog

Western gray squirrels are shy squirrels that are dependent upon older mixed forests with a variety of oak and pine or oak and fir trees. These trees provide the squirrel with an interconnected tree canopy for food, cover, nesting sites and arboreal travel. Favorite foods are pine nuts, acorns, nuts, berries, fungi, green vegetation and insects. They have been sighted nesting near oak trees in the closed mixed forest located in the northeast corner of the site.

Hydrology and Wetlands

Cooper Mountain Natural Area contains the headwaters to Lindow Creek which flows into the Tualatin River. Five well-defined seasonal streams collect and convey surface water off site. Drainage is usually rapid due to the sloping terrain. In addition to the seasonal streams, numerous wet zones caused by groundwater seepage over the ground's surface, are especially evident during wetter periods. These seepage areas are found where thin soils combined with more fractured layers of basalt occur. Most of the groundwater discharge zones are found on the site between 480 feet and 690 feet. Some of these seepage areas have formal perched wetlands.

Past land uses surrounding Cooper Mountain have likely affected the locations and rates of groundwater seepage over time at this site. For example, increased pumping of upper elevation wells in the vicinity through the early 1960's likely contributed to lower aquifer levels by the end of that decade. Many of these wells were deepened in the late 1960's and early 1970's to access deeper aquifers. More recent housing developments in the vicinity are now served by public water lines rather than wells, likely contributing to the recharge of the higher aquifer horizons.

Soils

Soils on top of the basalt flows are derived to a large extent from windblown silts deposited over a period of tens of thousands of years during the Pleistocene ice ages. The thickness of these deposits varies greatly depending on the prevailing wind direction during those periods. The site is comprised of three silt types - the

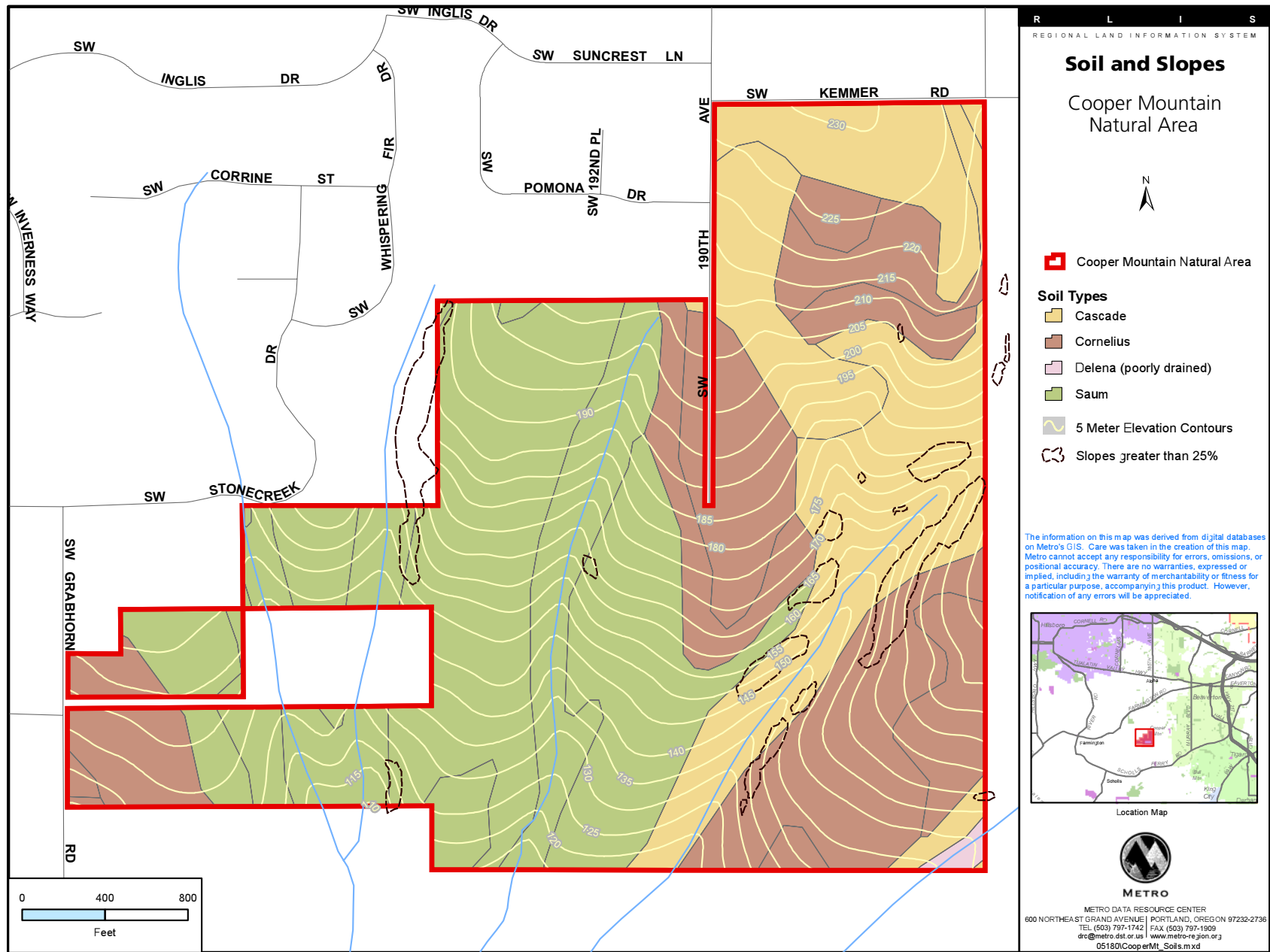
Saum silt loam series, Cascade silt loam series and the Cornelius and Kinton silt loams.

The Saum series occupies most of the western half of the site, most of which falls within the 12 to 20 percent slope range. This series consists of well-drained soils that formed in mixed eolian material, old alluvium, and residuum from basalt on uplands. The top horizon of soil is silt loam to silty clay loam texture; lower horizons have increased clay contents ranging from 30-50%. Slopes vary from 2 to 60 percent and elevations of this soil range from 250 to 1,200 feet. Where these soils are not cultivated, the vegetation is typically a mix of Douglas fir, Oregon white oak, poison oak, grasses and forbs. Permeability is moderately slow. Effective rooting depth is 20 to 40 inches. The depth to bedrock is typically 40 to 60 inches. Runoff is medium to rapid depending upon the slope, with corresponding erosion hazards that are moderate to severe.

The Cascade series exists along the several intermittent streams on site on moderately steep slopes ranging from 12 to 20 percent. This series consists of somewhat poorly drained soils that formed in silty loess and old mixed alluvium on uplands. A fragipan exists at a depth of 24 to 48 inches. Where these soils are not cultivated, the vegetation is typically Douglas fir, western red-cedar, big leaf maple, salal, red huckleberry, vine maple, swordfern, grasses, and forbs. Permeability is slow. Effective rooting depth is 20 to 30 inches. Runoff is medium and erosion hazard is moderate.

The Cornelius and Kinton loams series primarily occurs on the eastern half of the site. Slopes generally range from 5-12 percent. This soil group is generally comprised of about 50 to 65 percent Cornelius soils and 25 to 35 percent Kinton soils occurring in a variable pattern. This soil consists of moderately well drained soils that formed in loess like material over fine-silty, old alluvium of mixed origin on uplands. Permeability is slow. Effective rooting depth is 30 to 40 inches. Depth to bedrock ranges from 40-60 inches. The top horizon ranges in texture from silt loam to silty clay loam. Clay content in the lower horizons ranges from 30-50

percent. Runoff is slow to medium according to slope and erosion hazard is slight to moderate.



Scenic and Cultural Resources

Scenic and cultural resources are addressed by policies in the *Washington County Comprehensive Framework Plan*.

Scenic Resources

Policy 13 of the County's *Rural/Natural Resource Plan*, which is one of a number of support documents that make up the *Comprehensive Plan*, states that it is the general policy of Washington County to protect and enhance its outstanding scenic views, routes and features. No views, routes or features are specifically designated for the Cooper Mountain Natural Area site itself, or for the streets immediately adjacent. However, scenic resources are noted for the neighborhood areas to the immediate north of the site in the *Aloha-Reedville-Cooper Mountain Community Plan*, another support document of the *Comprehensive Plan*.

That plan recognizes the forested slopes on the north side of the mountain as outstanding scenic features as viewed from the valley floor. It also recognizes that "several outstanding scenic views exist at points along roads traversing Cooper Mountain, and that the viewsheds of these points shall be determined through master planning processes. Additionally, road turn out facilities shall be constructed at identified scenic viewpoints in conjunction with improvements to bring roads up to standards."

Although not specifically required, this master plan recommends that vegetation in the natural area be managed in such a way as to protect outstanding views both into the site from Kemmer Road, and from within the site overlooking the Tualatin Valley and Chehalem Mountains to the south. The most significant views on the site are from the existing open meadow and prairie areas. Many of the more detailed scenic features of the site (such as the quarry pond and the two native prairies) are also important interpretive features.

Historic and Cultural Resources

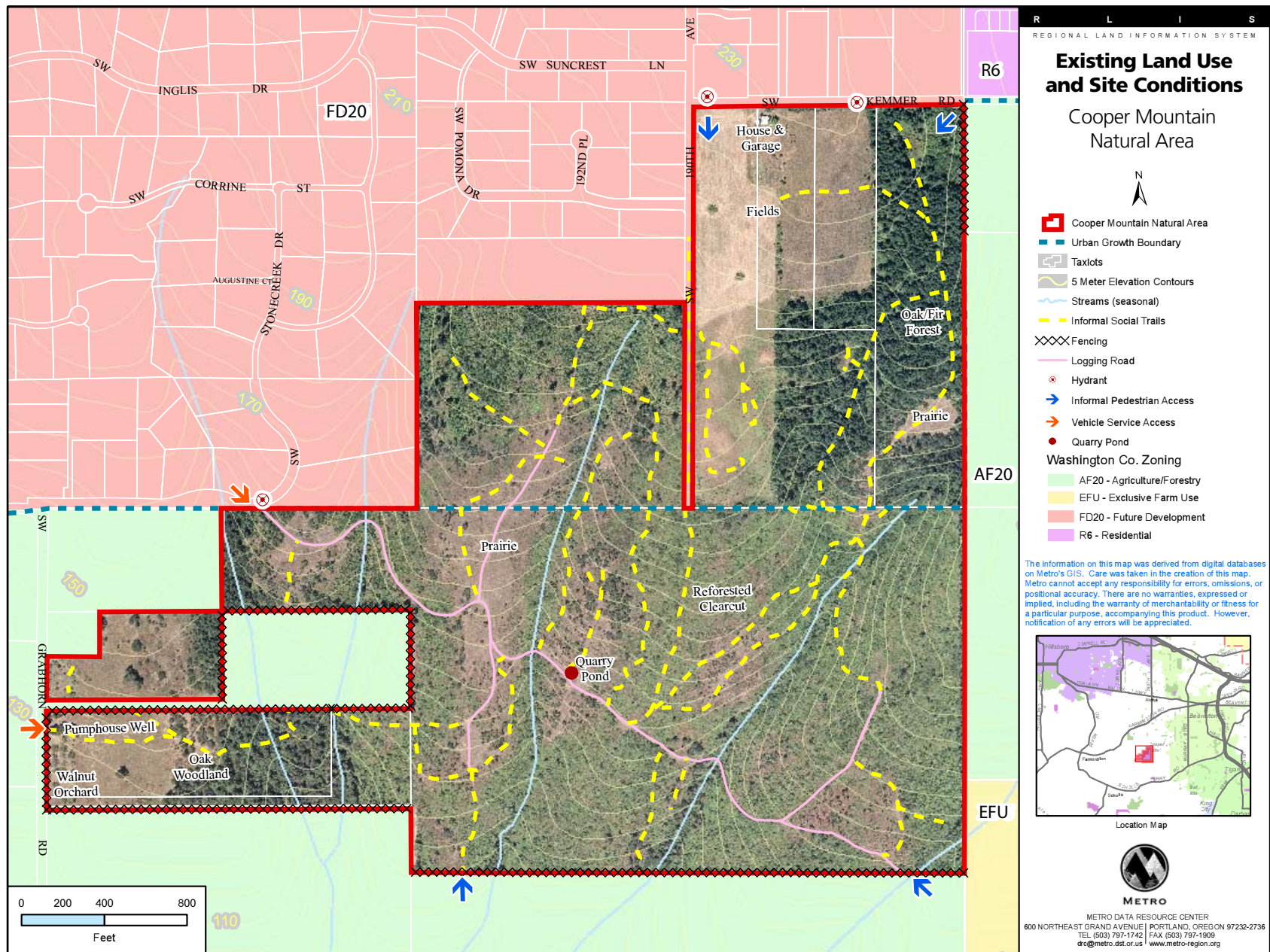
No historic or cultural resources have been designated for this site in the County's *Rural/Resource Plan* or in its immediate vicinity in the *Aloha-Reedville-Cooper Mountain Community Plan*. An inquiry to the State Historic Preservation Office records reveals that there are also no known archaeological sites on this property or in either of the sections it occupies. Dennis Griffin, archaeologist for the State Historic Preservation Office, states, "There have been no previous cultural resource surveys in this area so the potential for sites to exist remains largely an unknown. However, due to the steepness of terrain over much of the sections, and the original forest cover, the likelihood is not high for Native American archaeological resources. The top of Cooper Mountain, however, may have contained rock cairns or other prehistoric objects as it would have provided an excellent view of the surrounding landscape."

While there are no known historic or cultural resources on this site proper, the preservation of the land as a public natural area represents an opportunity to interpret the indigenous cultures and early settlement history of the Cooper Mountain area.

Land Use

Zoning

The northernmost portion of the site, which comprises approximately one-third of the overall site area, lies within the urban growth boundary. This area, zoned Future Development 20 (FD-20), requires a minimum lot size of 20 acres and allows park use. This designation was given to a variety of county lands in 2002 and is an 'interim holding zone' until such lands can be master planned per Metro's Title 11 (Urban Area Planning). Surrounding private parcels immediately adjacent to this portion of the site are zoned FD-20 to the west, and Agriculture/Forest (AF-20) to the east, with a minimum parcel size of 80 acres.



The remaining two thirds of the Cooper Mountain site is located outside the urban growth boundary on land zoned Agriculture/Forest (AF-20). This designation is used for Natural Resource Areas within the county. It generally includes lands above 350-feet in elevation that are somewhat limited for farming and forestry due to steep grades and limited water supply. The surrounding parcels immediately adjacent to this portion of the site are also zoned AF-20. A parcel abutting the site's southeast corner is zoned Exclusive Farm Use (EFU).

Existing Facilities

Existing facilities on the several parcels that comprise the site include former residences, logging roads and informal trails.

Roads and Trails

The gravel logging road is approximately 1.2 miles. At least 5 miles of informal trails have been mapped but this is not exhaustive.



Erosion in the upland prairie caused by informal trails

Some of the existing trail network may be incorporated into a future trail system, but many of the trails are redundant and cause erosion and fragmented habitat due to poor locations.

Access

Currently, there is no established public vehicular access onto the site. There are maintenance and service access gates located at Stone Creek Drive (which accesses the existing logging road), Grabhorn Road, and 190th Ave. Interim informal public access to the site occurs by parking along the shoulder of 190th Street, and along Stone Creek Drive outside the maintenance gate. There are also several informal pedestrian access points from neighboring properties that occur at corners of the property. They pose a potential problem to both Metro and adjacent property owners and will need to be addressed.



Service access at Stonecreek Drive

Fencing

At the time of purchase, the property was largely unfenced and will remain so to maintain wildlife corridors and allow wildlife passage. Partial fencing exists along the southern boundary of the property. New fencing has been installed around the private in-holding and

partially along the eastern boundary as needed to control vehicular access in and out of the site.

Former Residences

A residence that was located along Grabhorn Road at the time of purchase has since been removed. Remaining infrastructure includes a functioning well, pump house, electrical service, a driveway, and a small walnut orchard. Because Cooper Mountain has been identified as a critical groundwater area, the water from the well is restricted to domestic use and stock water purposes.

A small 1,100 SF home with a detached double garage exists along Kemmer Road that is currently rented. A cell tower is located on top of the garage. Metro currently has leases with three companies for use of the tower and one half of the garage is designated for cell tower equipment. Utilities for the home include city water, oil heat and a septic system.

A private mobile home is located on the detached parcel to the south on Scholls Ferry Road and is under a lease agreement with Metro. This property contains a working well and has rights to the private road on its western boundary.



Existing structures along Kemmer Road

Regional Context

The communities of Beaverton, Aloha, Southwest Portland, Tigard, Durham, Tualatin, King City, Sherwood and Hillsboro are all within a 6-mile radius of Cooper Mountain. Transportation, schools and other parks and open spaces in the vicinity are important considerations in understanding its existing context and in determining its future. Both regional access and multi-modal ways to get to the natural area are important. Schools and other parks in the vicinity represent potential linkages and partnerships, as well as constraints since there may be no need to duplicate facilities already provided.

Roads

The site can be reached by several arterial and collector streets. From the south, it can be reached from Scholls Ferry Road to 175th to Kemmer Road. From the north, it can be reached via Tualatin Valley Highway to 185th or 190th to Kemmer Road, and also from Farmington Road to 170th and 175th to Kemmer Road.

Public Transit

Public transit is currently not available to the site nor planned. There is a light rail stop north of the site at SW 185th Ave and Willow Creek (395 SW 185th Ave), which is approximately 4.5 miles from the Kemmer Road entrance. In addition, four bus lines (#88, #52, #62 and #92) run to the north and east of the site along SW 185th Ave, SW Farmington Rd, SW 170th Ave., SW Murray Blvd., and SW Teal Blvd. Each of these lines has at least one stop between 1.5 and 2.5 miles from the Kemmer Road entrance.

Bikeways

In the Washington County Transportation plan, bikeway designations are applied to 185th Ave., Scholls Ferry and Farmington roads. However, bike lanes do not currently exist on these streets. Oregon statute requires that bicycle facilities be

provided on all collector or arterial streets when they are constructed or reconstructed.

Trails

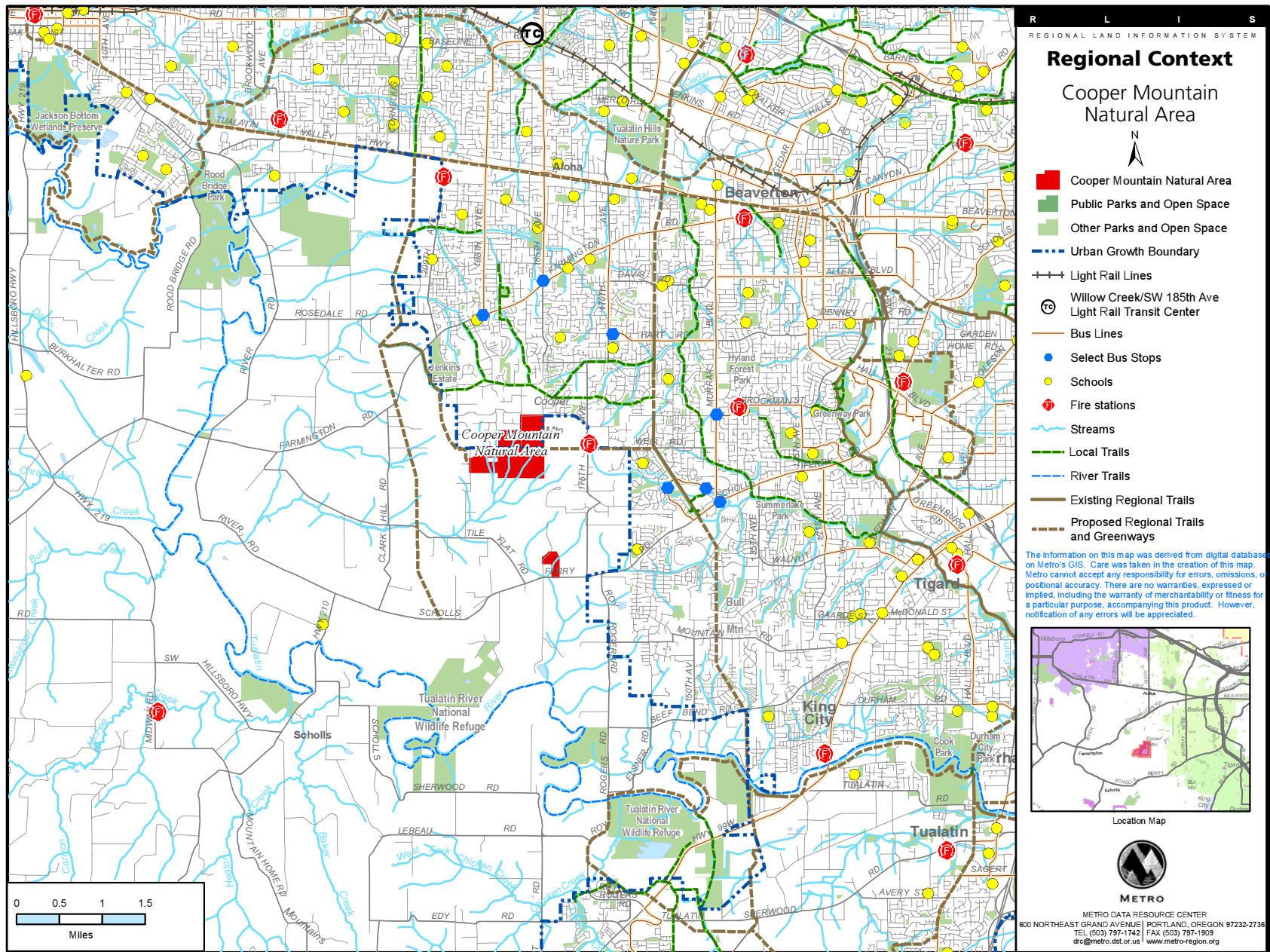
Several off-street trails exist and are planned near the site. One mile east of the natural area, the Beaverton Powerline Trail, a regional north-south trail is planned to connect a number of other natural areas (i.e. Tualatin Hills Nature Park, Bull Mountain and potentially the Tualatin River National Wildlife Refuge). The Burlington Northern Powerline Trail, a north-south corridor approximately one mile to the west of the natural area, has recently been nominated as a regional trail corridor. The Cooper Mountain Trail, an east-west route connecting these two north-south corridors has also been nominated as a regional trail. The specific alignment of this trail is unknown but every effort will be made to link it with Cooper Mountain.

Schools

21 schools are located within a 4-mile radius of the natural area; 14 grade schools, 3 middle schools and 4 high schools. Nine of these schools are located within a 2-mile radius. The proximity of the natural area to so many schools highlights its potential to provide outdoor education and service-learning opportunities to school groups.

Parks and Natural Areas

45 smaller neighborhood parks and open spaces (which provide many traditional park facilities such as playgrounds, ball fields and tennis courts), as well as smaller natural areas are located within a 4-mile radius of the site. Larger parks and natural areas in this vicinity are therefore significant for potential regional and local trail connections. (e.g. Bull Mountain, the Beaverton Powerline Trail, Jenkins Estate and Tualatin Hills Nature Park). A quarry operation located directly south of the Jenkins Estate also represents potential long-term future park land.



Recreation Context

Recreation context of the site was determined from the following sources: regional trends and demands identified by the SCORP (Statewide Comprehensive Outdoor Recreation Plan), existing recreation facilities provided or deficient in the vicinity, and existing use patterns on the site.

Regional Recreation Trends (SCORP)

Oregon's Statewide Comprehensive Outdoor Recreation Plan (SCORP) provides an overall understanding of recreation trends, demands and needs for the state as well as for each of 11 regions within the state. Washington County and Cooper Mountain Natural Area are located in Region 2. The plan, recently updated by Oregon State Parks, tracks demographic trends and includes in-depth recreation surveys that identify recreation patterns, issues and needs for the next 5-10 years.

Demographic Trends

Washington County has experienced the largest growth in the Metro region (43%) over the past decade. Its population is currently about 500,000. Washington County's age distribution is comparatively young: 70% of the total population is 44 or under, and 20% of the total population is school age children. Only 8.8% are retirement age. Washington County overall is approximately 85% Caucasian, although Hillsboro and Beaverton are 80% Caucasian. Hispanic and Asian populations represent the largest percentage of minorities. Washington County has the lowest percentage of population below the poverty level in the state (4.9%). Ninety-four percent of housing in the Cooper Mountain area consists of single-family homes. Homeowners at the top of Cooper Mountain generally reflect the highest per capita income in the county.

Recreation Demands and Issues

The SCORP survey identifies those recreation activities that have the largest participation levels, and those that have experienced the largest growth or loss in participation levels for each region over the past 15 years.

Most notably, of 40 activities surveyed in Region 2, nature study possesses the highest participation levels and has experienced the largest growth (254%) over the past 15 years. Other activities that have experienced significant growth and may have relevance to Cooper Mountain are: playground play (114% increase) and sightseeing (68% increase). Trail walking/running and picnicking have not seen large percentage increases over the past 15 years, but they remain in the top 10 highest participation activities.

Horseback riding has seen a 27% decrease in participation in this region over the past 15 years. However, according to nearby equestrian users, this decrease may reflect the county's transition from rural to more developed lands rather than reflect a decline in interest.

The top recreation issues that have been identified for this region by the SCORP include several that could apply to Cooper Mountain. These are:

- The need to acquire more park lands to keep pace with population growth
- The need for non-motorized recreational trail connectivity
- The need to balance resource protection and recreation through environmental education

Existing Recreation Providers

Metro shares responsibility for providing outdoor recreation opportunities to the public with other providers in Washington County. The following recreation providers are also located within a 6-mile radius of Cooper Mountain.

U.S. Fish and Wildlife Service

The Service manages the Tualatin River National Wildlife Refuge, which is currently about 1,268 acres in size and is located along the Tualatin River directly south of Cooper Mountain. The USFWS has completed a master plan for visitor facilities on a portion of the Refuge. Like Metro, the USFWS provides resource-based recreation and education opportunities that are focused on protecting the resource. Planned facilities include trails, observation decks and shelters, an interpretive kiosk, and a wildlife center, which will be open to the public in 2005 or 2006. While the refuge's wetland habitat setting contrasts substantially from Cooper Mountain's upland habitats, it provides facilities for a visitor experience similar to those envisioned for Cooper Mountain.

Tualatin Hills Park and Recreation District

THPRD provides park and recreation services to 200,000 residents within 55 square miles of eastern Washington County, including the City of Beaverton. Parks and greenspaces total approximately 1500 acres. Half of this acreage is wetland and natural areas, and half is neighborhood and community parks. The district's park facilities include numerous aquatic centers, community recreation centers, specialized recreation facilities, and nearly 30 miles of trails. The district provides over 13,000 recreational programs annually.

Included in the district's facilities is Tualatin Hills Nature Park, a 222-acre wildlife reserve with an interpretive center. The Nature Park is located in the heart of Beaverton, approximately three miles northeast of Cooper Mountain. It is primarily a wetland and riparian habitat (in contrast to Cooper Mountain's upland setting). A variety of classes, programs and activities are offered at the Nature Park to foster environmental education and an appreciation of nature.

Nine other parks, managed by THPRD are located within a 2-mile radius of Cooper Mountain. Jenkins Estate, an historic home site that is rented by groups for special occasions, meetings and retreats, is located just one mile northwest of Cooper Mountain Natural Area.

Tigard Parks

The City of Tigard has 300 acres of parkland, which include 57 neighborhood parks, creek greenways and natural areas. Cook Park, which provides boating access to the Tualatin River, is the largest park in Tigard.

Hillsboro Parks and Recreation

Hillsboro Parks and Recreation facilities include 20 parks, a sports complex and stadium, community centers and aquatic facilities. While most of the parks contain more traditional recreation facilities, five of the city's parks include natural areas ranging from 9 to 60 acres. However, Hillsboro's facilities are primarily designed to provide traditional recreation activities.

Jackson Bottom Wetlands Preserve

Jackson Bottom is a 710-acre wetland co-owned by City of Hillsboro and Clean Water Services, and is located just south of the center of Hillsboro. The preserve is a premier resource center for wetland and aquatic education in the region. An array of school, individual and family programs are offered. Facilities include approximately three miles of trails and observation shelters. A new Wetlands Education Center was recently opened to support the Preserve's programs.

Current and Former Use Patterns

As a prominent feature in the landscape, the natural area has a long established history of informal recreational use. Many of these current and former uses are typical on public properties that are not actively managed which includes a combination of "trail based" use and nuisance activities that have undesirable impacts on neighbors and on the resource.

The site is actively used by neighbors and nearby residents for walking, hiking, biking, horseback riding, and dog walking. Motorized ATV use of the trails was common before Metro's purchase, but has greatly diminished due to fencing and

enforcement of pedestrian use only regulations. The site's high elevation and open views also make it a popular spot for stargazing and viewing fireworks displays. Metro also sponsors guided nature walks for interested citizens.

An array of nuisance activities also occurred on this site prior to Metro's purchase and to a lesser degree still continue. These have included: dogs running off-leash, dog hunting training, target shooting, paint ball gaming, night time activities involving alcohol and campfires, dumping and itinerant camping. The Stone Creek Drive service access tended to be the entry point for this kind of use because it offered a shoulder to park on and a heavily vegetated edge that reduces visibility into the natural area.

Defining a Recreation Role for Cooper Mountain

Because city municipalities and service districts such as THPRD provide many traditional park facilities (ball fields, basketball courts, etc.) relatively close by, such facilities are not needed at Cooper Mountain Natural Area.

While there are a number of nature-based recreation and educational facilities in close proximity (e.g., Jackson Bottom Wetlands Preserve, Tualatin Hills Nature Park and the Tualatin River Wildlife Refuge), facilities and environmental education at Cooper Mountain Natural Area could focus on its distinctive upland habitats and spectacular open views, hence expanding the region's environmental outreach capacity.

Analysis

Land Use Suitability

Survey of Community Desires & Needs

Opportunities & Constraints

Surrounding Areas



Analysis

Recommendations for the future use, design and management of the Cooper Mountain Natural Area resulted from the following analyses:

- 1) an analysis of the landscape's suitability to accommodate recreation uses and development that complement the site's natural resource areas
- 2) a survey of community desires and needs
- 3) an assessment of key site opportunities and constraints, and
- 4) a review of adjacent properties to identify their relationship to habitat connections, potential recreation activities, existing and planned uses, and to assess potential site and/or visitor impacts.

Land Use Suitability

To determine the site's level and location of suitable uses, the design team used the Oregon Department of Parks and Recreation suitability assessment procedure. The method includes mapping of individual natural (plant communities, wildlife habitat, hydrology, wetlands, geologic hazards) and cultural resources and classification of them into one of four levels of resource suitability (RSC) ranging from most to least restrictive use. Resources are classified according to the following criteria:

- Uniqueness (rarity or significance to region)
- Quality of habitat (based on existence of non-native species and amount of human-caused disturbance)
- Presence of state or federally listed threatened and endangered species
- Presence of Oregon Natural Heritage Program listings 1, 2 or 3
- Geologic instability
- Soil constraints

- Cultural and Scenic resources

Once resource categories are mapped and classified, they are overlain to produce a composite suitability map for a given site. The composite typically highlights sub areas of the site that are most restrictive on any one of the layers. Sub areas with a suitability level of RSC 1 or 2 are generally least suitable for accommodating use and development. Areas with a RSC 3 or 4 rating are considered most suitable for development.

Resource Suitability Class (RSC) Descriptions

RSC 1 – Resource Protection/Very Limited Development

Defined by unique and high quality habitats, protected species status, riparian areas, steep slopes and/or geologically unstable areas.

RSC 1 areas at Cooper Mountain Natural Area include the oak woodlands, prairies, riparian forests, and their associated plant and wildlife communities (e.g., white rock larkspur, and Western bluebird). Oak woodland is a unique community that is a disappearing resource in the Willamette Valley. This plant community, which includes Oregon white oak/poison oak and oval leaf viburnum, is ONHP listed as NHP-G1 (vulnerable). The quarry, which is located within an oak habitat unit, is home to the red-legged frog, a state listed species. Riparian corridors are habitat to the yellow-breasted chat and willow flycatcher – both state listed species. Some segments also contain steep slopes (greater than 25%) and unstable, highly erosive soils.

RSC 2 - Limited Development

Defined by habitat of high quality value, areas with limited or no exotic species in the understory, perched water, geologically unstable areas, and moderate slopes.

RSC 2 designated areas include mixed second growth conifers and their associated wildlife such as pileated woodpecker. These areas are mostly free of invasive vegetation in the understory. They have wet soils and moderately steep slopes (12-25%)

RSC3 - Moderate Development

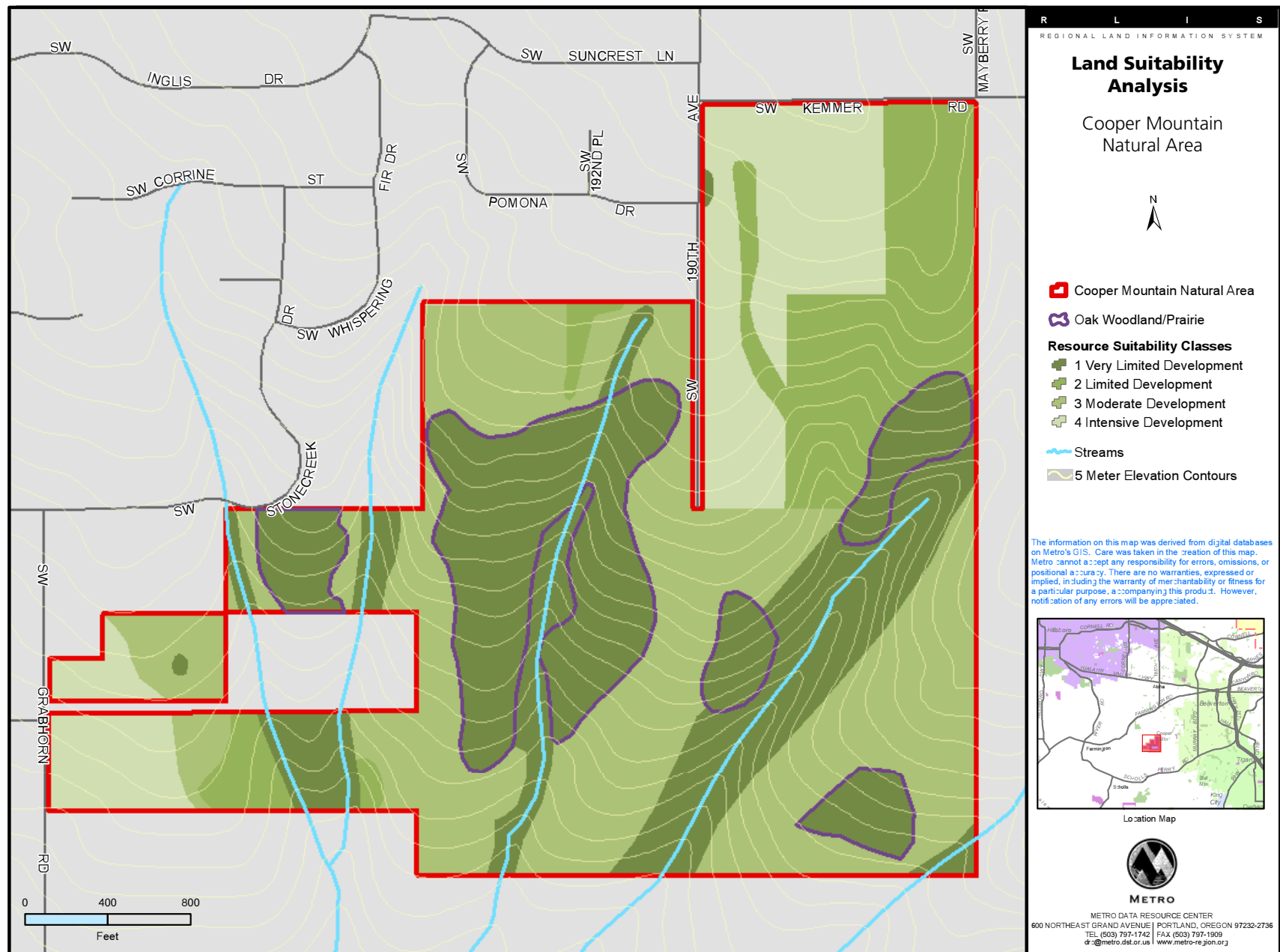
Defined by lower quality habitats, more exotic vegetation in the understory and geologically stable areas.

RSC 3 areas include disturbed mixed oak-conifers areas of lower quality, open canopy with exotics in the understory, gently sloping areas with soils with the least erosive properties, and/or moderate slopes of 6 to 12% in most areas.

RSC4 - Intensive Development

Defined by minimal and low habitat quality, disturbed edge areas, little anticipated restoration activity, and gentle slopes (under 6%).

RSC 4 areas include open areas of non-native grasses that are mowed or restored with little or sparse vegetation. These areas are mostly located at the edges of the property, and have little habitat value. Slopes are less than 6% in these areas. These areas are most appropriate for accommodating development.



Survey of Community Desires and Needs

Public opinion and input was solicited on a variety of issues related to the future of the Cooper Mountain Natural Area. One-on-one interviews, stakeholder meetings, open houses and a general public interest survey (completed by over 400 people) were used to identify existing uses, concerns and desires for the site. The survey results provided below, help provide a picture of local community desires, concerns and values for Cooper Mountain.

Residents unanimously value having a natural open space in their community and provided the following reasons for making improvements at Cooper Mountain Natural Area (in order of most listed reasons to fewest):

- To allow public access and use by residents and visitors
- To preserve the natural beauty and limit development
- To protect and improve habitat
- To manage and restore the ecosystem
- To control invasive vegetation
- To balance recreation opportunities with preserving habitat
- To be able to experience nature close to home
- To provide opportunities to learn about natural systems
- To provide a place to be active outdoors
- To accommodate all trail users
- To provide parking and sidewalks along Kemmer Rd.

People's concerns about public use at Cooper Mountain Natural Area include the following (in order of most listed concern to fewest):

- Increased traffic
- Vandalism and other criminal activity

- Littering
- Noise and partying
- Degradation of natural beauty and habitat because of overuse
- Wildfire
- Overdevelopment, attracting large groups
- Conflicting trail uses
- Dogs chasing wildlife
- Exclusion of mountain bike use
- Conflict with mountain bikes
- ATV use
- Poison oak
- Shooting/target practice

Additional comments and suggestions to help shape the master plan included the following:

- Keep dogs out
- Keep dogs on leash, or provide a restricted dog run area
- Allow dogs - they have less impact than mountain bikes or horses
- Provide an open informal playfield for children
- Provide amenities for children
- Horses have too much impact and require too much parking space
- Improve trails for mountain biking, provide single track trails
- Keep mountain bikes out
- Provide for all trail user groups
- Only provide a minimal network of walking trails
- Provide good interpretive signage
- Provide "leave no trace" signage
- Provide parking and access at multiple locations

- Preserve nature by not bringing large crowds
- More emphasis on nature study, less on recreation
- Provide fitness stations along trail
- Use boardwalks to keep people on trails
- Provide an open structure “outdoor classroom” to deliver outdoor programs
- Minimal development –parking, tables, play structure, restroom and trails
- Do more invasive vegetation removal

Metro has a policy that prohibits dogs from natural areas. The policy is intended to minimize conflicts with wildlife. Survey respondents were asked their opinion of the policy: 38% strongly agreed, 21% somewhat agreed, 18% somewhat disagreed, and 23% strongly disagreed.

The following table illustrates the level of interest in specific features and activities at the future natural area as reported in 400+ public surveys.

	Very important	Somewhat important	Not important
network of walking trails	84%	14%	2%
help improve habitat	78%	18%	4%
loop trail with viewpoint	68%	27%	6%
wildlife viewing	61%	31%	8%
a place to spend time with family and friends	60%	30%	10%
restrooms	58%	31%	11%
resting/viewing benches	52%	36%	12%
interpretive signs	40%	41%	19%
school field trips	30%	50%	19%
individual picnic areas	29%	45%	26%
bike racks	24%	45%	30%
guided nature tours	16%	43%	41%
mountain biking	24%	34%	43%
parking for at least 30 vehicles plus two buses	29%	26%	45%
parking for at least 15 vehicles plus one bus	34%	21%	45%
a group picnic shelter	16%	37%	47%
trails for horses	38%	14%	48%
play structure for young children	16%	29%	56%
Should the park provide for small groups (25-50) and family gatherings?	41% yes		59% no

Table 2: Desired Features & Activities for Cooper Mountain

Opportunities & Constraints

Opportunities and constraints for Cooper Mountain were distilled from the collective information gathered which included public survey results, input from the project advisory committee and resource and site technical information. The opportunities and constraints identified at this stage of the analysis helped shape the goals and objectives for the site, and informed the design concept and recommendations outlined in the following chapters. Opportunities and constraints are organized into the following five categories:

- 1) Natural Resource Protection and Management
- 2) Providing for Recreation Needs
- 3) Interpretation and Education
- 4) Operation and Management
- 5) Transportation and Neighborhood Impacts

Natural Resource Protection and Management

Opportunities

- Preservation/restoration of unique oak/madrone habitat.
- Preservation/restoration of unique meadow habitat.
- Protection/restoration of habitats for sensitive species.
- Restoration of conifer and mixed conifer forest in logged areas.
- Control and removal of invasive vegetation.

Constraints

- Reforestation efforts need to accommodate and protect important views.
- Large areas of natural resources are currently in poor condition as a result of logging and reforestation practices.
- The site's relatively small size, combined with public use, limits

the degree to which resources can be protected and restored.

- Need to balance cost/benefit of resource protection & recreation opportunities.
- Vegetation management is limited by available funding and staff resources.
- Using controlled fires as a habitat management tool may concern some neighbors.

Providing For Recreation Needs

Opportunities

- Site offers the potential to provide for a variety of trails featuring views, loop options, challenge levels, and other nature-based recreation activities.
- Site offers potential for public gathering space (e.g., picnics and other group events).
- The northern third of the property provides gentle grades for universal accessibility.
- Site has high potential to provide nature interpretive experiences.
- Site has outstanding views of the Tualatin River Valley.
- There is sufficient "suitable" land (gently sloped with low habitat value) to provide recreation support facilities.
- Even limited equestrian trails will provide a valuable experience for young, beginning riders and people with disabilities.
- There is good potential for trails within the natural area to connect to regional trails to the east and west of the site.
- Public input revealed broad support for a 3-4 mile trail system.

Constraints

- The site has limited capacity to accommodate public use, with respect to quantities of trails, due to its size, slopes and natural resources.

- Concentrated multiple recreational uses – equestrian, pedestrian, bicyclists, dog walking – can result in conflicts with each other. (For example, mountain bike users typically prefer trails six miles or longer, single-track and steeper slopes; this use tends to conflict with hikers and horses unless there is adequate room for multiple uses and separated trails.)
- Increased recreational use of the site could have additional impacts on neighbors (e.g., noise, traffic, vandalism and litter). Important to limit impacts to neighborhood through design.
- There is limited potential for ADA access beyond the top third of the property due to steep slope gradients.
- Trail design will need to consider presence of any threatened and endangered species, setbacks from streams and slope limitations.
- Organized mountain biking groups have advised that, because



View of the Tualatin River valley

of the site's small size, use will likely be from youth and unorganized riders. These bike users may be difficult to manage, as they tend not to stay on designated trails.

- Trails located too close together will encourage short-cut trails, further fragmenting habitat and causing erosion.
- Dogs on leash and dog waste cleanup rules are frequently ignored and difficult to manage. The presence of dogs will have negative impacts on wildlife and opportunities for wildlife viewing.
- Trail use of the northern parcel along Grabhorn Road will require a trail easement from one of the adjacent property owners to provide access.

Interpretation And Education

Opportunities

- High potential to provide interpretive nature experiences.
- Distinctive and numerous interpretive themes based on site natural resources and geographic setting.
- Spectacular views of Tualatin River Valley.
- Good stargazing conditions.
- High public interest and demand for environmental education and interpretation opportunities.
- Close proximity to schools and other environmental education and natural history interpretation providers.
- Existing house on site can potentially accommodate education classroom, storage and office.

Constraints

- Breadth and scale of programs will be defined and limited by the site infrastructure, by market demands, and by the extent of educational partnerships developed.
- There are concerns about potential illicit use of an education/picnic shelter after hours.

Operations And Management

Opportunities

- Management efficiencies may be optimized by a shared management role between Metro and Tualatin Hills Park and Recreation District.
- Tualatin Valley Fire and Rescue station is in close proximity to the site and equipped to respond to wild land fires.
- Public access to the site can be managed and controlled with the installation of entry gates.
- House and garage on site provide potential for a more constant management presence on site. In addition, they offer a combination of office, storage area, and nature house
- Existing logging roads provide sufficient access for service and emergency vehicles. All trails can serve dual function as fire breaks.
- The former residence site along Grabhorn Road is suitable for accommodating a maintenance yard and caretaker residence.
- Volunteer partnerships can provide valuable assistance in expanding maintenance and operations capacity.
- Providing for public access to the site creates an opportunity for revenue generation to support operations and management.

Constraints

- Metro park rangers do not currently have the authority to enforce park rules in Washington County.
- Need to secure sufficient funding for long-term maintenance and management.

Impacts to Neighborhood

Opportunities

- Preserve the scenic quality of Cooper Mountain.
- Provide access to nature and trails close to home.

- Provide a neighborhood gathering place.
- Facilitate community-building through partnership involvement in the natural area.
- Improve safe bike/pedestrian routes from neighborhoods to the site, in particular from residences of the north side of Kemmer Road.
- Explore traffic calming measures for Kemmer Road and Grabhorn Road (turn lane, median, speed bump, street trees, etc.).

Constraints

- Public concern that increased traffic generation by natural area users will impact already busy local roads. Need to address potential traffic impacts on adjacent roads.
- Scale of public use needs to be limited to minimize impacts to adjacent neighbors (loss of privacy, noise, litter, illegal activities, etc.).
- Neighbors have concerns about wildfire and fire management impacts.
- Neighbors have concerns about street parking by natural area users, and also pedestrian access along Kemmer Road.

Surrounding Areas

A review of surrounding properties identifies their relationship to the natural area with respect to habitat connectivity, potential recreation opportunities, existing and planned uses, and potential impacts from the site. Any area considered for one or more of these reasons is recognized as an “area of concern” in the master plan, with long-term opportunities for solutions identified through design, resource management and zoning strategies.

In addition, Metro may discuss potential management agreements, easements or acquisitions with willing sellers. In the 1995 bond measure’s approved work plan (Cooper Mountain Refinement Plan) for land acquisition in the Cooper Mountain Target area, targeted parcels included those linking the site with other trails and natural areas, supporting biodiversity and protecting unique biological resources, thus facilitating future land transactions in the area.

Landscape/Habitat Connections

To maintain viability of habitat and wildlife movement, it is important to retain connections to natural areas to the north, east and south of the property. Presently, these properties are in private ownership. Habitat values can be maintained on rural private properties as well as public lands if doing so is a goal of the owner. However, as zoning allows, these properties may be developed. It is important to recognize these current habitat links and strive to maintain connectivity from Metro’s site to other natural areas through planning, education stewardship assistance, conservation easements or acquisition from a willing seller.

The most important habitat connection is the linkage to the south and west of the property along Lindow Creek as it drains to the Tualatin River. See Surrounding Conditions Map on page 49. For long-term habitat protection, it makes sense to either purchase the property or purchase conservation easements along Lindow Creek all the way to the Tualatin River. To complete this linkage, design of a wildlife crossing would need to be incorporated in any

improvements made on Scholls Ferry Road. Metro’s deer/elk accident survey (2002) documented substantial deer kills along this highway.

A well-used deer crossing corridor crosses Kemmer Road from the conifer forest at the northeast corner of the site to a pond located north of the road and the forested open space areas on the north slopes of the mountain. It is recommended that either speed bumps or wildlife crossing signs be installed on that section of Kemmer Road to protect wildlife.

Relevant changes to Washington County’s Community Development Plan, Development Code, and Transportation System Plan should also be considered to address these issues.

Trail Connectivity and Recreation Potential

The gravel quarry and undeveloped properties to the northwest of the Cooper Mountain Natural Area site represent a long-term opportunity to provide trail corridor routes between Jenkins Estate and the natural area. In particular, they have the potential to accommodate THPRD’s proposed east-west regional trail, which is envisioned to pass through Cooper Mountain Natural Area and connect both of the north-south regional trails located east and west of the site.

The 300+ acre property to the immediate south of Cooper Mountain Natural Area represents the single largest potential for habitat protection and expanded recreational trails. This larger area could also support other trail uses, including mountain bikers and equestrians. If the property became available for purchase, Metro’s interest in acquiring it would be high. Acquisition of this parcel would also provide potential access to Cooper Mountain Natural Area from a section of Scholls Ferry Road (a major arterial) where Metro currently owns land. Entry to Cooper Mountain from the Metro property on Scholls Ferry Road could reduce traffic on Kemmer and Grabhorn roads (both classified as collector streets).

In-Holding Property

Metro has an interest in acquiring the in-holding property located near the Grabhorn Road entrance, for several reasons. Currently, one parcel of Metro's property is completely cut off from the remainder of the site because of this in-holding. Bringing the in-holding into public ownership would simplify management of Cooper Mountain Natural Area. It would provide the needed facilities and infrastructure for a caretaker residence and maintenance shed without requiring new construction. Finally, it would provide wildlife connections along two creek drainages that are currently fenced off, and additional opportunities for trail loops. If the opportunity for purchasing it came available, it would be a priority acquisition for Metro.

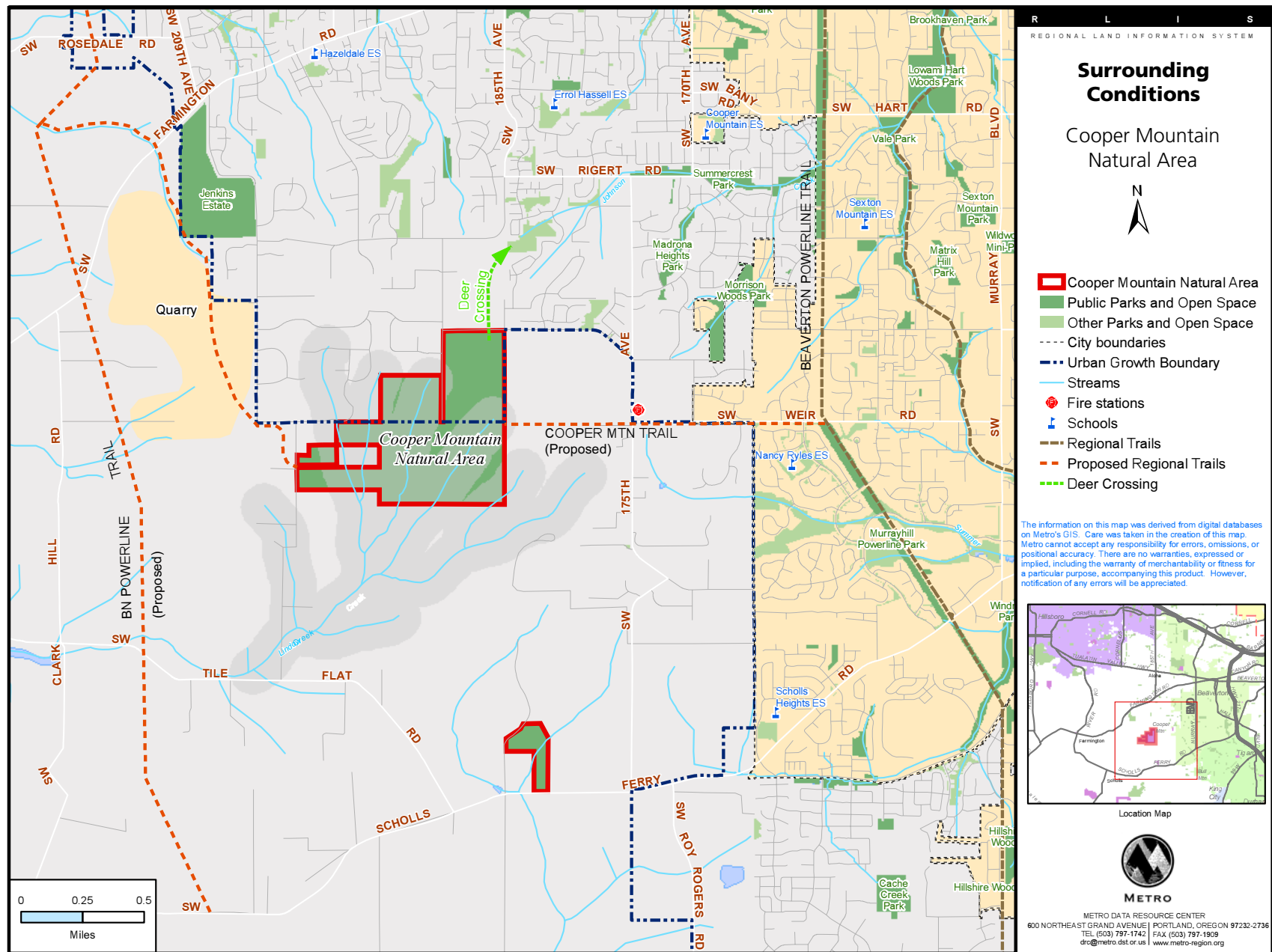
Neighboring Residential Parcels

There are several residential developments adjacent to the Natural Area, in particular on the northwest side. Several of these landowners are concerned that development and public use could impact their quality of life and intrude on their privacy. Impacts to neighbors will be minimized through appropriate siting and design of trailheads, trails and facilities. All trails will be at least a minimum of 50 feet back from property lines and natural vegetation will be used to screen and buffer areas to reduce any impacts. Metro's property boundaries will be clearly marked. If trespassing occurs on private properties once the formal trail network has been established and informal trails have been closed, fencing may be a necessary management action.

Potential Surplus Property

In the acquisition of open space properties in the Cooper Mountain Target Area, Metro purchased a parcel along Scholls Ferry Road in 1999. The acquisition represented also potentially important access to Cooper Mountain provided other parcels could also be purchased. Metro was unsuccessful in purchasing the additional properties needed to create a contiguous, publicly-owned connection down to Scholls Ferry Road. If properties between

Scholls Ferry and the current southern boundary of the natural area ultimately become developed, Metro should consider the Scholls Ferry property as surplus and sell it in order to redirect public funds.



Goals & Objectives

Goal 1: Natural Resource
Protection & Management

Goal 2: Access & Use

Goal 3: Interpretation

Goal 4: Operations

Goal 5: Minimizing Impacts to
Surrounding Neighborhoods



Goals & Objectives

The following goals and objectives for management and design of the Cooper Mountain Natural Area were developed by the Project Advisory Committee and Metro planning team. These goals reflect broadly shared values about public use and natural resource management. The objectives identify specific short- and long-term actions to carry out each goal.

Goal 1: Natural Resource Protection and Management

Protect and enhance Cooper Mountain's unique natural and scenic resources and create a place for wildlife to thrive.

Protecting important riparian areas, plant communities, habitats and views is the number one goal for the management of this natural area.

- Locate and design proposed improvements and public uses to avoid significant impacts to important natural resources
- Maintain ridge-to-ridge view of the Tualatin River watershed
- Restore an oak-prairie habitat at Cooper Mountain
- Manage habitats to increase diversity of native plants and animals including migratory songbirds
- Employ the best practices (such as mechanical and chemical methods and controlled burns) to decrease non-native invasive species and expand oak woodland and prairie habitat
- Incorporate adaptive management practices to achieve natural resource goals
- Improve water quality and habitat value of Cooper Mountain by

expanding the area in public ownership as opportunities arise – in particular, along Lindow Creek to the Tualatin River

- Work with adjacent landowners to protect and enhance the natural resource value of private lands
- Follow Metro's "Green Trails" guidelines for all trail development at Cooper Mountain

Goal 2: Access and Use

Encourage community access and recreational use that is compatible with natural resource protection.

Public natural areas such as Cooper Mountain are rare in Washington County. A variety of recreational activities and amenities will be provided to encourage greater use and enjoyment by the community and regional residents.

- Provide a system of trails that serve appropriate multiple uses including wildlife viewing
- Provide scenic viewpoints
- Provide safe pedestrian and vehicular access to Cooper Mountain Natural Area
- Provide necessary site amenities and infrastructure to serve visitors
- Provide connections to regional trails
- Provide a family-friendly environment with opportunities for people of all ages to enjoy the site.

Goal 3: Interpretation

Interpret the unique natural, cultural and scenic resources of Cooper Mountain

Provide quality environmental education and natural history interpretation that promotes stewardship of natural resources and inspires learners to discover nature for themselves.

Primary interpretive themes will highlight the Tualatin watershed, the cultural and geologic history of the area, and the diverse and rare habitats, plants and animal species.

- Provide effective, durable interpretive signs at appropriate locations
- Provide environmental education programs serving students of all ages
- Provide low cost natural history interpretive programs to the public
- Encourage environmental education partners to use Cooper Mountain in program delivery.

Goal 4: Operations

Protect the public's safety and welfare and maximize operational efficiencies to protect the public's investment.

Metro is committed to ensuring the public's safety and enjoyment of Cooper Mountain and strives to manage the public's investment in the most effective and cost efficient way.

- Coordinate site operations with Washington County Sheriff's office and Tualatin Valley Fire and Rescue to assure efficient response to incidents, emergencies and potential wildfires.
- Provide a sufficient management presence and base of operations on the site to realize maintenance efficiencies
- Evaluate short and long-term operational costs and financial risks associated with proposed improvements
- Leverage limited resources for site operations and maintenance, including the use of volunteers, youth and correction crews.

Goal 5: Minimizing Impacts to Surrounding Neighborhoods

Minimize impacts to surrounding neighborhoods and farmlands from site development and public use of Cooper Mountain.

Metro strives to be a good neighbor by working closely with communities to plan appropriate types and levels of public use and limit unauthorized activities.

- Provide controlled access and on-site parking scaled to the site's capacity
- Work with Washington County to address site-related transportation requirements.
- Assure privacy of neighbors by controlling access and providing setbacks and buffers
- Coordinate with local fire and police service providers to help enforce rules and ensure safety

Goal 6: Funding

Work with partners to seek appropriate public and private funding for master plan implementation and ongoing management.

Both public and private funds are available for restoration, capital development and ongoing maintenance of public parks and natural areas like Cooper Mountain. Creative funding options and partnerships should be explored.

- Work in cooperation with local partners to identify funding sources and potential cooperative management agreements
- Work with the community to provide financial support for the ongoing management of Cooper Mountain
- Apply for available capital improvement and restoration grants for Cooper Mountain
- Explore and implement opportunities for revenue generation at the site
- Encourage volunteer stewardship for site management, restoration and monitoring

Master Plan Recommendations

Concept for the Master Plan

Summary of the Natural
Resources Management Plan

Interpretive Program Concept

Operations & Maintenance



Master Plan Recommendations

This Master Plan attempts to balance protection and restoration of the unique natural resources of Cooper Mountain Natural Area with the public's enjoyment of nature-based recreation. The following master plan concept and recommendations guide the future development, vegetation management and operations of the natural area.

Concept for the Master Plan

It is envisioned that visitors to Cooper Mountain Natural Area will be able to arrive at one of two trailheads. Each offer essential comfort amenities and welcoming signs designed to orient them and highlight the site's unique habitat and wildlife features.

Those entering at Kemmer Road will arrive at an open meadow of tall grasses at the top of the mountain. There they will have expansive views southward to the Tualatin River Valley framed by the Chehalem Mountains in the distance. Next to the trailhead they may see a group of school children engaged with a naturalist in hands-on exploration of "nature finds" at the Nature House. Near by, an open grassy area, some picnic tables and a nature playground facilitate organized education activities and invite casual use by neighborhood families.

The first trail that visitors will find at this high elevation, is a gently sloped easy half-mile paved loop that passes through three distinct habitats: a tall grass meadow, a wetland meadow and a cool dark forest. Here, the sky and field are vast. A Western bluebird, gold finch or hawk may be seen overhead. Mice, grasshoppers or snakes might quickly scamper, jump or slither away into the grass as hikers pass by. This trail connects to other loops that ultimately meander to each corner of the natural area and through all of the changing settings it has to offer: cool shaded riparian woodlands studded

with old growth cedar stumps, open sunny prairies filled with wild flowers, oak woodlands draped in lichen, dark conifer forests, tall grassy meadows filled with butterflies, and a small pond edged with rock outcroppings where a lizard may be sunning itself. In each of these settings, visitors will find interpretive signs to enhance their understanding of each habitat they are experiencing.



Cedar stump in the riparian woodland

At the Grabhorn Road entrance (near the southwest corner of the park), visitors will find a remnant walnut orchard, a reminder of the farmstead that once existed there. This entrance provides parking for horse trailers and cars, and a small equestrian trail loop through the lower elevations of the natural area that passes through oak, riparian and mixed woodlands. A small picnic shelter near this trailhead overlooks the agriculture valley to the south, and offers neighbors, families and community groups a place to picnic and rest after a wonderful ride or hike.

More detailed descriptions of each of the Master Plan Concept components are provided on the following pages.

Vegetation Management

Vegetation management is the single greatest habitat restoration challenge at Cooper Mountain Natural Area. Vegetation management of the natural area will aim to achieve the following results:

- The existing independent oak woodland patches will be consolidated into one contiguous patch. This consolidated area will be slightly expanded for management efficiency and to improve habitat quality.
- Most of the upper, non-native meadow will remain to retain field habitat and provide views from the site.
- Mixed forest habitat will expand in most of the clearcut areas.
- Native prairies will be protected and restored by relocating trails away from their centers.
- A wet meadow in an existing seep area is proposed along the ADA trail for interpretation and to increase habitat diversity.
- Native screening will be established along 190th Avenue to provide a buffer to nearby residents, but still allow views into the natural area.
- Vegetation buffers will be maintained along all property edges to minimize potential user impacts on neighbors.

Trails and Trail Use

Given that nature study has experienced the largest growth of any recreation activity over the past 15 years in the Portland area, a trail system that connects visitors to nature and wildlife will be the primary focus of the natural area. Habitat protection will be compatible with trail use if the quantity and lay out of trails limit fragmentation of habitat.

A proposed 3.5-mile trail system will be designed to preserve views and pass through or by a variety of habitats. The trails will support a variety of uses but emphasize hiking. “Green Trails” guidelines will

be used to minimize trail impacts on the site’s natural resources (e.g. appropriate paving materials and bio-swales to drain stormwater).



The planning team reviews a proposed trail network

Trail layout will include setbacks from private properties, streams, and prairies, and discourage shortcuts. Interpretive points and distance markers will be incorporated throughout the trail system. “You are here” orientation maps and messages to help minimize impacts to the resources will be incorporated into interpretive signage. Trailheads will be located at the Kemmer Road and Grabhorn Road entrances. It will be necessary to obtain a trail easement from one of the adjacent property owners in order to provide a trail connection through the natural area parcel along Grabhorn Road that is not contiguous to the remainder of the site.



Hiking Trails

Public input revealed the strongest support for hiking trails. Hikers will share access to the paved, ADA-accessible trail loops near the top of the site, and the equestrian trail loop at the lower portion of the site. Approximately .75 miles of the 3.5 mile system will be for hiking only. These narrow, earthen trails will offer a more intimate view of habitat areas and will access steeper areas of the site.



A hiking trail leads visitors from the meadow into the forest

ADA Accessible Trails

The northern third of the property provides gentle grades suitable for less challenging hiking. A .5-mile paved interpretive trail loop can be accessed from the Kemmer Road trailhead and will ADA accessibility standards. This loop will connect to a second, .7-mile, higher-challenge ADA trail loop that will take visitors to the native prairie and oak woodland habitats and offer views of the Tualatin River Valley. A portion of trail from the Grabhorn Road trailhead could also be designed to provide higher-challenge ADA access.

Equestrian Trails

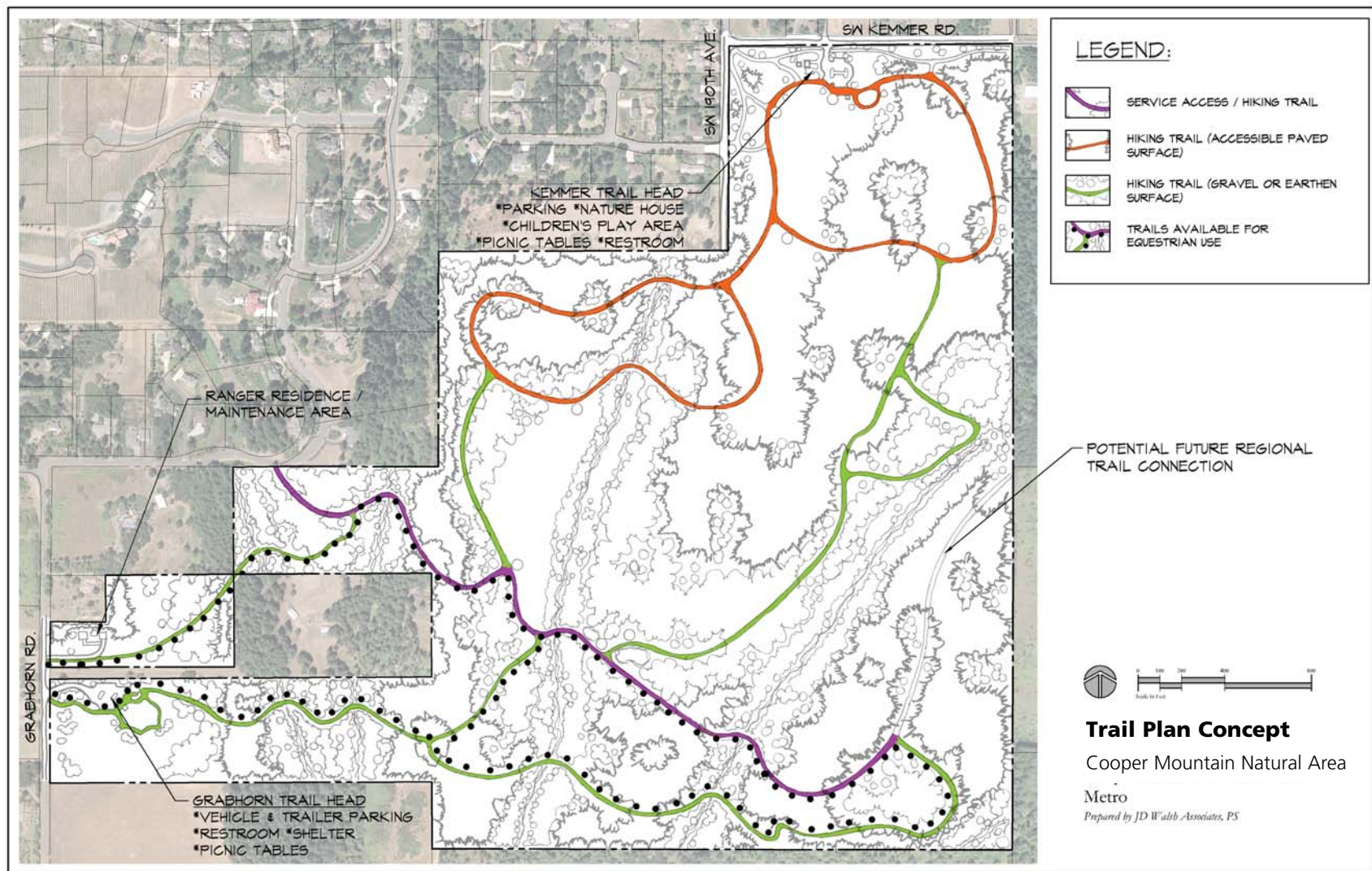
Equestrian trail use is compatible with natural resource protection in the Cooper Mountain Natural Area if trails are sited away from sensitive resource areas, particularly the native prairies. Equestrian trails are designated along the existing gravel service road and the lower portion of the site. This 1.75 mile equestrian trail loop can be reached from the Grabhorn Road trailhead. The trailhead will provide horse trailer parking and a loading ramp for persons with disabilities.

Regional Bike Trail

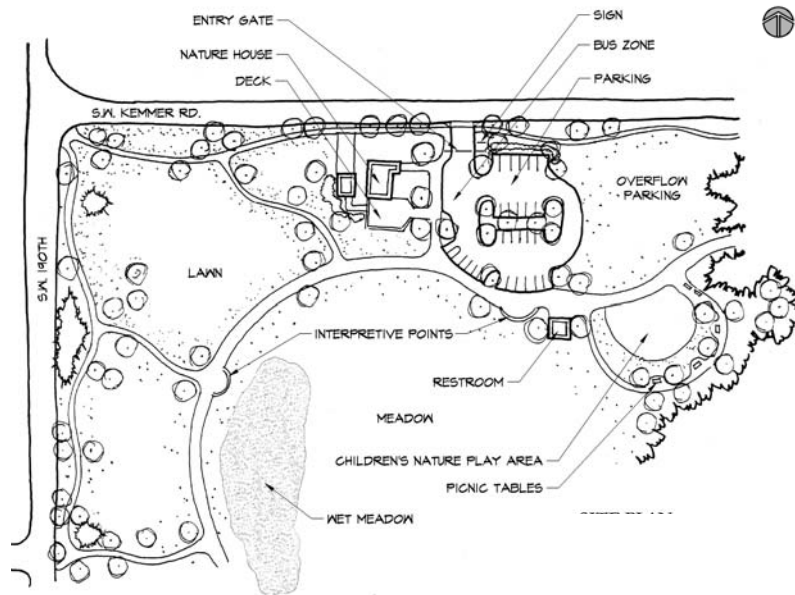
Because of its size, the site does not have the capacity to accommodate mountain biking and other trail uses without creating user conflicts and resulting in resource degradation. The relatively small size of the natural area also does not adequately provide the recreational experience desired by most mountain bikers. However, the existing service road can accommodate the proposed east-west regional trail connection between the two north-south regional trails located east and west of the site. Bicycling will only be permitted if the proposed east-west regional trail alignment is sited inside the natural area.

Access and Parking

Two parking areas will distribute vehicle impacts – one at the Kemmer Road trailhead and the other at the Grabhorn Road trailhead. Both entrances will be controlled with gates that will be closed and locked in the evenings. A completed traffic study indicates that both Grabhorn and Kemmer Road sight distances and road classifications are sufficient to accommodate new entrances to the site.



The Kemmer Road trailhead will provide parking for up to 30 vehicles and a bus drop-off. An overflow parking area is also designated. Sidewalks and landscaping will be provided along Kemmer Road to provide pedestrian access.



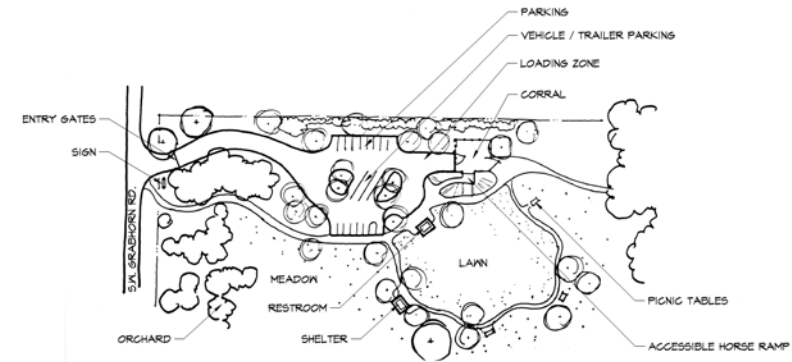
Kemmer Trailhead - Preliminary Concept Sketch

The Grabhorn Road trailhead will provide parking for up to 20 vehicles, including pull-through spaces for horse-trailers. A loading ramp is also proposed to assist riders with disabilities. This entrance will also provide access for emergency vehicles.

The Stone Creek Drive gated entrance, which accesses the existing gravel road, will serve maintenance and emergency access only. Turnarounds will be provided along the existing gravel road for emergency vehicles.

The end of 190th Avenue will remain barricaded and will serve as secondary emergency vehicle access to the site. Formal sidewalk

improvements and landscaping will be provided along 190th only if required by the Washington County Development Code.



Grabhorn Trailhead - Preliminary Concept Sketch

Facilities and Amenities

Nature House

The house and garage near Kemmer Road will be converted to a nature house, which will act as a staging and orientation area for tours and field trips. It will provide indoor meeting/classroom space, a large, covered deck for school programs and community gatherings, and on-site storage of education supplies and operation equipment. The facility is not likely to compete with other education facilities in the vicinity.

Play Area

A "naturalistic" children's play area providing a hands-on, exploratory nature experience for younger children and augmenting education programs is proposed. Such a play area will be designed for durability and low maintenance, and will be located near the Nature House.

Caretaker Residence

A caretaker residence and maintenance storage area is proposed to provide on-site management. It is recommended that it be located on the north side of the Grabhorn Road trailhead to provide privacy and oversight of the trailhead facilities.

Shelter

A small picnic shelter with tables is proposed near the Grabhorn trailhead. This shelter would also be used for organized educational or recreational activities.

Support Facilities

Support facilities are proposed at the trailheads on Kemmer and Grabhorn Roads. These include restrooms, benches, drinking fountain, picnic tables, trash receptacles, bike racks, signs (interpretive and directional) and small grassy areas seeded with eco-lawn to accommodate outdoor activities and “neighborhood park” activities like playing catch or tossing a Frisbee.

Summary of Natural Resources Management Strategy

The Cooper Mountain Natural Area Management Strategy is a companion technical document which will guide natural resource management activities for Cooper Mountain. Following is a summary of the plan’s habitat management priorities.

Metro will prioritize management of habitat at the Cooper Mountain Natural Area to maximize investment of its resources. Management of habitats is prioritized by habitat rarity, intensity of invasive species and amount of resources already invested in habitat restoration activities.

Metro will use various natural resource management techniques, such as prescribed burns¹ in the oak woodland and prairie habitat and thinning in the forest habitats to enhance habitat and increase wildlife species on Cooper Mountain.

Prescribed burning is an important and historic management tool used to maintain and protect oak woodland and prairie habitat in the Willamette Valley. After European settlement, the lack of fire contributed to the loss of oak and prairie habitat and facilitated encroachment by invasive species and conifers. Metro will use prescribed burns and actions that mimic fire - cutting, mowing and/or chemical applications - to return the site to pre settlement conditions, reduce fuel loads and decrease the potential for wildfires. Prescribed burns will be coordinated with Tualatin Valley Fire and Rescue and neighbors will be notified in advance. Contractors involved in application of prescribed burns will possess sufficient liability insurance.



Scotchbroom removal in oak woodland

Thinning is crucial in mixed forests, to recreate old-growth characteristics such as snags, multistory layers and woody debris. These characteristics facilitate the presence of wildlife and possess reduced fuel loads, decreasing the potential for wildfires.

Oak Woodlands

Oak woodlands are a high priority for management and maintenance because 1) Oak woodlands are, in general, a “conservation priority habitat” for the Willamette Valley (Campbell 2004), and 2) Increasing the viability of a rare habitat on Cooper Mountain is one of the Master Plan’s overall goals.

A variety of wildlife use the oak woodland habitat. Twenty-six of the 118 neotropical species are associated with this habitat. Of these, 12 species of neotropical birds have been spotted at Cooper

Mountain. The western gray squirrel also uses this site for foraging. The small artificial quarry within the oak woodland habitat provides breeding habitat for a sensitive species – the red-legged frog.

Metro will use prescribed burns, oak plantings and snags to create and expand a viable oak community. Metro will also use cutting, mowing and chemical applications to control invasive species such as Scotch broom and Himalayan blackberry. Tree canopy and woody structure will be increased in the vicinity of the quarry pond to protect the native red-legged frogs. Finally, social trails will be closed and restored to minimize habitat fragmentation and provide better connections for wildlife.

Upland Prairie

The prairies are a high priority for management because 1) Prairies are a “conservation priority habitat” for the Willamette Valley (Campbell 2004), and 2) Increasing the viability of rare habitat on site (and thereby increasing the white rock larkspur habitat) is one of the Master Plan’s overall goals.



Upland prairie

Many species of wildflowers, birds, amphibians, reptiles and mammals are generally associated with this prairie habitat. However, because of their relative small size at this site (six acres), few wildlife species have been observed. Since the only federally-listed plant species on site is located in the prairies, a major management emphasis will be to enhance these rare plant populations.

Metro will use prescribed burns and cutting, mowing and chemical applications to stimulate and expand populations of native forbs and grasses, such as white rock larkspur, to control invasive species such as Scotch broom, Himalayan blackberry and tall oat grass, and limit the encroachment of Douglas fir. Social trails will be relocated to the edge of the prairies in order to minimize habitat fragmentation but still provide a viewpoint for visitors

Closed Mixed Forest (Central and Southern Sections)

This closed mixed forest is a high priority for management because 1) The forest has been intensively replanted and it is important to manage these areas until the young trees have reached the “free-to-grow” stage, and 2) The forest is covered with invasive species and needs a high level of management to reduce invasive cover.

A variety of wildlife – including the Western gray squirrel, black-throated gray warbler and great horned owl – reside in and use this closed mixed forest habitat.

Metro will use various management techniques such as cutting, mowing and chemical applications to control invasive species such as Scotch broom and Himalayan blackberry. Management techniques including thinning will be focused on attaining old growth characteristics including creating snags and downed logs to increase habitat for a variety of birds and mammals.

Riparian Habitat

The riparian forest is a medium priority for management because 1) The streams are seasonal and not fish bearing, and 2) Invasive species cover only portions of this habitat, and do not require as intensive management as some of the other areas.

A majority of mammals and birds use this habitat. Riparian habitats are critical to small non-game birds such as neotropical birds foraging and breeding. The state-listed yellow-breasted chat and willow flycatcher have been seen using this habitat.

Metro will eradicate invasive species in the understory and manage the riparian habitat as a healthy functioning system providing shade, bank stability, and stream nutrients.

Closed Mixed Forest (Northeast Section)

The closed mixed forest is a low priority for management because 1) It is a 30-40 year old forest with a 60-70% canopy cover, and 2) It has a minimum level of invasive species in its understory.

Birds such as the pileated woodpecker, great horned owls and the western gray squirrel use this habitat to nest and forage. Black bear, black tailed deer, coyote and red fox footprints have been spotted in this habitat.

Metro will use both spot treatments and thinning to enhance habitat. Spot treatments will include using chemical or physical methods to manage invasive species in the understory. Thinning will be used to help create snags, down logs and a multilayered forest canopy layer.

The complete Cooper Mountain Natural Area Management Strategy document is available upon request.

Interpretive Program Concept

Metro's education programs serve two important goals: To provide quality environmental education services and to promote stewardship – care of the land and its natural systems by visitors and the general public. Metro provides environmental education programs that enhance an awareness and understanding of the ecology, resources and values inherent in our regional parks and natural areas, and the natural systems upon which they depend.

Metro provides tools for experiential learning from nature, and focuses on low-impact behavior and sensory awareness skills that help program participants enhance their experiences with wildlife and the natural environment. Metro also strives to reach a diverse audience by providing environmental education opportunities to all the region's residents. Its education programs help to minimize site impacts by providing the information needed to insure appropriate, safe use of an area, and to convey management goals and policies to park visitors. Metro works with both public and non-profit partners to meet education goals and provide education opportunities to the public.

Metro offers programs to the following audiences:

For General Public

- Interpretive signing
- Interpretive walks, talks, demonstrations

For Groups

- Guided group tours

For Students

- Guided school field trips
- Independent on-site studies (by high school students)
- Service learning (by high school students)

There is strong public support for environmental education activities at Cooper Mountain Natural Area. The varied natural resources present on Cooper Mountain and the expansive views of the surrounding landscape offer opportunities for a variety of education and interpretive programs. Programs and self-guided interpretive signs will make the rich multi-faceted qualities of the site come alive for its visitors.

Interpretive topics were developed based on the natural resources present on the site, the expected audience, and the high demand in the region for opportunities to learn about nature. The topics, locations to interpret the topics, and program delivery methods are summarized in the following table.



Hikers identify wildlife tracks near a puddle

Topic	Detail	Location
Tualatin River Watershed	Ridge-to-ridge view of over 700 square miles of watershed	Top of mountain; north side of the site
Diverse habitat	Wet areas next to dry, oak/madrone woodland next to riparian forests	Trails throughout the site
Biodiversity	278 species of plants (including 184 native species). Red-legged frogs.	Trails throughout the site
Wildflowers	Primarily April - June	Closed mixed conifer forest (Northeast section)
Rare Species	White rock larkspur	Closed mixed conifer forest (Northeast section); Upland prairie
Rare habitats	Prairie, elfin oak forest, oak/madrone woodland	Center of site
Geologic history	Basalt shield cone	Quarry
Diverse bird community	Western bluebird; Lazuli Bunting	Quarry
Fire ecology	Prescribed burns integral to ecosystem health	Numerous locations incl. upland prairie
Exotic species management	Control non-native, invasive plants	Numerous locations incl. upland prairie
Reforestation	Helps control invasive species	Closed mixed forest
Forest succession	Large stumps	Closed mixed forest (Northeast section)
Wildlife and animal tracks	Sand/ dirt substrates ("tracking boxes") that clearly register recent animal tracks	Near the Nature House and trails; locations TBD

Table 3: Interpretive Topics / Places on Site to Interpret

Operations & Maintenance

The following recommendations for future operations and maintenance of Cooper Mountain Natural Area are based upon the assumption that Metro will remain the site manager. However, this does not preclude the possibility that management responsibilities could be shared with Tualatin Hills Parks and Recreation District or could be transferred to another agency or organization in order to realize optimum management and operational efficiencies. Metro and THPRD are continuing discussions to determine the most efficient and effective way to manage the Cooper Mountain Natural Area for the public.

Park Regulations

All rules and regulations at Cooper Mountain Natural Area will be consistent with Metro's Title 10, which outlines regulations "governing the use of Metro owned and operated regional parks and greenspaces facilities by members of the public in order to provide for protection of wildlife, plants and property, and to protect the safety and enjoyment of persons visiting these facilities."

For public security and safety, hours of operation and regulatory signs will be installed at each access point. An orientation map of the natural area will be installed at each parking lot to assist visitors and emergency and police response teams with way-finding. Regulatory signs will include public use restrictions on dogs, fires, camping, motorized vehicles, firearms, hunting, smoking, intrusive noise, plant collecting and other uses outlined in Metro's Title 10. Due to conflicts with wildlife, a no-dogs policy will be enforced consistent with all other Metro-managed natural areas.

Safety and Security

Access Control

Vehicle access will be controlled to prevent after hours use. Each of the vehicular entrances to Cooper Mountain Natural Area will be

controlled with gates. These will be locked daily at park closure times by either ranger staff, the park caretaker or other contracted service provider. Boundary markers will be installed along the perimeter of the natural area to clearly delineate the public/private edge. Fencing will be considered and installed only on an as-needed basis to control access in problem locations where other measures are not sufficient.

Incident Response and Enforcement

Currently, the Washington County Sheriff can respond to 911 calls or all other violations of the law that may occur on site. However, Metro's Title 10 regulations currently only apply in Multnomah County, so Metro rangers do not have the ability to issue citations in Washington County. In addition, Washington County Sheriffs do not have the ability to enforce Metro's regulations (unless the violations in question are also illegal in Washington County). To address this concern, Metro is working with Washington County to develop a plan that will allow Metro Park Rangers and Washington County Sheriffs to enforce specific park regulations.



Tualatin Valley Fire & Rescue truck at Cooper Mountain

Wildfire Control and Emergency Response

Wildfire prevention will be addressed as part of the vegetation management of the site, by reducing fire loads and maintaining firebreaks. Proposed trails will serve as both firebreaks and/or service roads that could accommodate emergency response vehicles in the event that a fire occurs. As an additional fire prevention measure, Metro has added a no-smoking policy at Cooper Mountain Natural Area.

The Tualatin Valley Fire and Rescue Station is located at SW 175th and SW Weir, about a mile away from the Kemmer Road entrance. Emergency response time is estimated at five to seven minutes. The department contains keys to the site and has smaller equipment suited to the service roads, terrain and conditions of the site. Fire hoses can reach up to 1000 feet from their trucks or from the street fire hydrants along Kemmer Road and Stone Creek Drive. In the unlikely event of a larger fire, the fire station will dispatch air support. A grid map of the natural area will be prepared and provided to the 911 system in order to aid responders in the event of an emergency.

Facility Use

Nature House

The Nature House will be used to accommodate school and community environmental education programs. It is anticipated that it will not be open and staffed on a full time basis. However, it will also serve as office and supply storage for operations of the natural area, and will likely be staffed part time. The nature house will also serve as a venue for education programs sponsored by other organizations and will be available as a community meeting space on a reservable basis. Ongoing use of the Nature House will provide an added management presence on site.

Caretaker Residence and Maintenance Yard

Assuming Metro has the lead management role, a caretaker

residence with maintenance yard is proposed on site near the Grabhorn entrance. This facility will result in management efficiencies by providing a storage area for equipment and tools on site, and a management presence on site for oversight and efficient response to issues that arise.

Picnic Shelter Use

The proposed small picnic shelter near the Grabhorn entrance will be available for use on a first-come, first-serve basis for small group or family gatherings. It may also be reserved under a special use permit if it is to be part of a community event or educational program.

Special Use Permits

In addition to Metro-sponsored programs, Cooper Mountain Natural Area has the potential to accommodate group activities sponsored by other organizations in the community. Anyone wishing to host or organize activities within the natural area must first obtain a special use permit to ensure that all management issues are addressed and that these activities will have sufficient management support.

Maintenance of Park Facilities and Amenities

Daily maintenance of the park will include the opening and closing of entry gates, cleaning of the restrooms and Nature House when in use, litter pick up and general monitoring. Routine seasonal maintenance of the natural area facilities will include upkeep of the Nature House, restroom buildings, benches and picnic tables, signs, drinking fountain, play area, and mowing of grass areas.

Trail Monitoring and Maintenance

Routine trail maintenance on a year-round basis will not only improve trail safety, but will also prolong the longevity of Cooper Mountain Natural Area's trails. The key to trail maintenance will be to institute regularly scheduled monitoring to identify trail problems

early, and to catch and address “social” or “demand” trails. Monitoring can be a time consuming task. Trail volunteer groups will provide vital assistance in monitoring the site above and beyond what staff can provide.

Both paved and unpaved trails will be developed on site. Unpaved trails will require greater attention than paved trails. During the first year after construction, and after the first heavy rains, close attention should be paid to drainage and erosion patterns. Ongoing trail maintenance activities will typically include vegetation clearing and pruning along trails to keep passages and selected views open, erosion control measures, trail pavement surfacing and stabilization, bridge and culvert clearing and upkeep, litter and illegal dumping clean up, signage replacement, and closing of “social trails” through the use of natural barriers and vegetation. Fifteen foot wide vegetation clearance will be maintained on the trail sections that must accommodate emergency vehicles.

Staffing

As the Cooper Mountain Natural Area opens, additional staff will be required in three distinct areas to ensure successful maintenance and operation of the site:

Rangers

- Manage day-to-day operations of the site; assist with habitat restoration

Scientists & Land Managers

- Oversee monitoring, restoration and enhancement projects

Educators

- Interpret the resource for visitors

Currently, Metro staffs four full time rangers who are responsible for managing Cooper Mountain Natural Area in addition to 5,200 acres of undeveloped natural areas and 2,155 acres of developed

parks. Metro also has a team of scientists and expert land managers who are responsible for overseeing monitoring, restoration and enhancement projects on Metro lands.

When Cooper Mountain Natural Area is open to the public, the estimated increased staffing needs include 0.5 FTE Regional Park Supervisor, 1.0 FTE Park Ranger, and Seasonal Employees (equivalent to approximately .5 FTE). This does not mean that there will be a ranger staffing the site full time throughout the year, or throughout each day. Instead, staffing hours at Cooper Mountain Natural Area will fluctuate according to seasonal use and demands. Summer months will have more hours and staff on site than the projected average, and winter months will have less.

In addition to ranger staffing, a 0.5 FTE naturalist will be devoted to education and interpretive programming at Cooper Mountain Natural Area.

Further detail regarding the estimated costs of these proposed staffing additions can be found in the next chapter on Implementation.

Volunteer Partnerships

Volunteer partnerships have proven valuable in all aspects of park management throughout the region and are essential in leveraging limited public funds. There will be a number of ways that volunteers can become involved at Cooper Mountain Natural Area to enhance habitat quality for wildlife and help ensure a quality experience for the public.

Site Stewardship Program

Site Stewardship provides “eyes and ears” above and beyond what staff can provide. Through routine walking and monitoring of the trails, Volunteer Site Stewards can alert staff early to issues that need addressing. They can also serve as “ambassadors” for Cooper

Mountain Natural Area, answer questions and ensure that visitors are abiding by rules and trail etiquette.

Trail Building, Maintenance and Monitoring

Established trail groups bring volunteers to help build, maintain, and monitor trails on an ongoing basis. Equestrian groups, such as Oregon Equestrian Trails, could also become valuable stewardship partners in helping construct, monitor and/or maintain the equestrian trail segments.

Education & Interpretation

Volunteer naturalists help expand program offerings beyond what staff alone offer. Metro has a well-established volunteer naturalist program in place and relies on these very dedicated and highly trained volunteers to lead nature walks for the general public and



Volunteers remove Scotch broom at Cooper Mountain

civic groups, and to deliver outdoor education programs, such as school field trips.

Vegetation Restoration

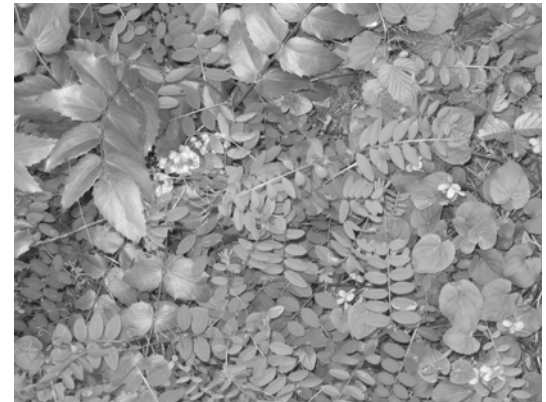
Currently, Metro uses volunteers to assist in restoration efforts. Many of these volunteers perform ongoing monitoring to help assess and evaluate the success of restoration and other management activities. Other volunteer activities will include invasive plant removal and native seed collection. Cooper Mountain restoration and monitoring projects will also provide college and graduate students with research opportunities via case studies and field experience.

Implementation

Site Improvements

Habitat Restoration

Ongoing Operations &
Maintenance



Implementation

Site Improvements

Project Phasing

The primary purpose of a phasing plan is to ensure a logical, efficient sequence of implementation that takes into account visitor needs while minimizing construction costs and operational impacts. Success of the first phase of construction and development will set the stage for implementation of additional master plan elements over time. The first phase must be well received by the public and not create unnecessary operational or management problems.

Metro has identified dedicated capital funding of approximately \$1.5 million to implement the Cooper Mountain Master Plan and Natural Resource Management Plan. Given the current cost estimates for this project, it appears that additional funding will be required to complete all phases of the project. Potential funding sources are discussed at the end of this section.

Certain elements of the plan may not warrant immediate implementation and are dependent on other management and operational decisions. For example, if Metro and the Tualatin Hills Parks and Recreation District enter into a shared management agreement for this area, it may not be necessary to create a caretaker residence on site as this plan recommends. Additionally, a significant in-holding within the publicly owned portion of Cooper Mountain Natural Area includes a home and maintenance building that could be utilized for the caretaker function, if indeed such a residence is needed and if the current resident became a willing seller. Other nearby residences also have the ability to perform this function. Thus Metro may postpone construction of any residence on site until actual needs become clear and various options for meeting those needs have been considered.

The following phased approach is recommended:

Phase I: Northern Entrance (190th and Kemmer Road)

Phase I includes design and construction of the entrance to the Cooper Mountain Natural Area located off of 190th Avenue and Kemmer Road, the area located at the northern edge of the site. This phase would provide a parking area, sidewalks and landscaping along Kemmer Road, gated entrance, bus turnaround for school and other group field trips, trail head, restrooms, interpretive and other signs, renovations to the existing house as a classroom and Nature House, a covered deck and children's "naturalistic" play area.

Phase I improvements will also include implementation of the complete trail network. This includes all of the trails, interpretive signage, distance markers, footbridges, split rail fencing at view points and other elements such as replacement of existing or adding new culverts.

Phase II: Grabhorn Entrance

Phase II includes design and construction of public facilities at the Grabhorn entrance including parking area, horse trailer parking and a handicap accessible equestrian mounting ramp, trail head, restrooms, picnic shelter, interpretive and directional signing, and trail connections from the parking area to the already constructed trail system.

Phase III: Caretaker Residence

Construction of this facility may be included in an earlier phase, depending on management and operational needs.

Cost Estimates

Cost estimates have been developed for the design, engineering, and construction of site improvements. These costs are preliminary estimates and subject to revision during the design and engineering phase of development. They are based on 2005 dollars and are expected to appreciate. The estimates account for all potential required development, some parts of which may not be necessary (i.e., sidewalks on SW 190th Ave. and irrigated landscaped areas). The following table provides a summary of estimated phased costs, and an estimated total for all completed phases.

Cooper Mountain Master Plan Preliminary Development Cost Estimates

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
PHASE I - KEMMER RD TRAILHEAD				
NATURE HOUSE RENOVATION	1150	SF	\$30.00	\$34,500
COVERED DECK (15'X32')	480	SF	\$18.00	\$8,640
PARKING LOT (25 SP + BUS)				\$0
ASPHALT	20,000	SF	\$3.00	\$60,000
LANDSCAPE (10%)	2,000	SF	\$5.00	\$10,000
STORM WATER MANAGEMENT FACILITIES	1	LS	\$20,000.00	\$20,000
ELECTRONIC GATE	1	LS	\$22,000.00	\$22,000
KEMMER RD SIDEWALK (1240'X8')	9,920	SF	\$5.00	\$49,600
KEMMER RD LANDSCAPE (TREES @30')	42	EA	\$150.00	\$6,300
190TH ST SIDEWALK (900'X8')	7200	SF	\$5.00	\$36,000
190TH ST LANDSCAPE (900 LF)	7200	SF	\$5.00	\$36,000
TREES @ 30' O/C	30	EA	\$150.00	\$4,500
SHRUBS @ 10' O/C	90	EA	\$25.00	\$2,250
CONCRETE WALKWAY (400'x5')	2,000	SF	\$5.00	\$10,000
STORM WATER COLLECTION SYSTEM FOR KEMMER & 190TH	2,140	LF	\$18.70	\$40,018
CHILDREN' NATURE PLAY AREA (25'X35')	1250	SF	\$10.00	\$12,500
RESTROOM (2 UNIT FLUSH)	1	LS	\$40,000.00	\$40,000
FURNISHINGS (DRINK FTN, BENCHES, ETC)	1	LS	\$8,000.00	\$8,000
ENTRY SIGN	1	EA	\$15,000.00	\$15,000
SUBTOTAL				\$415,308

Cooper Mountain Master Plan Preliminary Development Cost Estimates (continued)

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
TRAILS				
UPPER ADA TRAIL LOOP (2650'X8' ASPHALT)	21,200	SF	\$3.00	\$63,600
LOWER ADA TRAIL LOOP (3500'X8' ASPHALT)	28,000	SF	\$3.00	\$84,000
NEW MAINTENANCE ROAD/SERVICE TRAIL (1100'X10' ASPHALT)	11,000	SF	\$3.00	\$33,000
EARTHEN HIKING TRAILS (3650'X6')	21,900	SF	\$0.50	\$10,950
EARTHEN EQUESTRIAN TRAILS (4400'X6')	26,400	SF	\$0.50	\$13,200
EARTHEN EQUESTRIAN SHOULDER (2'X1900')	3,800	SF	\$0.50	\$1,900
FOOT BRIDGES/CULVERTS				
ADA LOOP WOODEN BRIDGE (15L'X6'W)	90	SF	\$90.00	\$8,100
ADA LOOP WOODEN BRIDGE (20L'X6'W)	120	SF	\$90.00	\$10,800
GRABHORN TRAIL WOODEN BRIDGE (20'L'X6'W)	120	SF	\$90.00	\$10,800
GRABHORN TRAIL WOODEN BRIDGE (35'L'X6'W)	210	SF	\$90.00	\$18,900
LOWER EQUESTRIAN TRAIL WOODEN BRIDGE (60L'X6'W)	360	SF	\$90.00	\$32,400
LOWER EQUESTRIAN TRAIL WOODEN BRIDGE (60L'X6'W)	360	SF	\$90.00	\$32,400
MITIGATION FOR CWS REQUIREMENTS (RIPARIAN AREAS)	1,260	SF	\$15.00	\$18,900
SUBTOTAL				\$338,950
INTERPRETIVE STATIONS & INFORMAL AMPHITHEATRE SEAT	12	EA	\$5,000.00	\$60,000
MISC SIGNAGE & MILE MARKERS	15	EA	\$150.00	\$2,250
PHASE I CONSTRUCTION COSTS				\$816,508
CONTINGENCY @ 25%				\$204,127
DESIGN & PERMIT COSTS @15%				\$122,476
PHASE I TOTAL COST				\$1,143,111

Cooper Mountain Master Plan Preliminary Development Cost Estimates (continued)

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
PHASE II - GRABHORN RD TRAILHEAD				
ASPHALT PARKING LOT (16 SP + 4 TRAILER)	18,000	SF	\$3.00	\$54,000
LANDSCAPE (10%)	1,800	SF	\$5.00	\$9,000
STORM WATER MANAGEMENT FACILITIES	1	LS	\$20,000.00	\$20,000
ELECTRONIC GATE	1	LS	\$22,000.00	\$22,000
RESTROOM (2 UNIT VAULT)	1	LS	\$26,000.00	\$26,000
FURNISHINGS (DRINK FTN, BENCHES, ETC)	1	LS	\$8,000.00	\$8,000
PICNIC SHELTER	1	LS	\$35,000.00	\$35,000
ENTRY SIGN	1	EA	\$10,000.00	\$10,000
ADA EQUESTRIAN RAMP	1	EA	\$10,000.00	\$10,000
PHASE II CONSTRUCTION COSTS				\$194,000
CONTINGENCY @ 25%				\$48,500
DESIGN & PERMIT COSTS @15%				\$29,100
PHASE II TOTAL COST				\$271,600
PHASE III				
RANGERS RESIDENCE & STORAGE SHED	1200	SF	\$200.00	\$240,000
CONTINGENCY @ 25%				\$60,000
DESIGN & PERMITS @15%				\$36,000
PHASE III TOTAL COST				\$336,000
GRAND TOTAL COST				\$1,750,711

Approvals and Permits

The Cooper Mountain site contains lands both inside (urban) and outside (rural) of the urban growth boundary (UGB). While some state and county land use requirements apply equally to both urban and rural lands, some requirements are specific only to urban or rural lands. For purposes of this discussion, land use approvals and permits needed to implement the master plan will be categorized as follows:

- Approvals/requirements that pertain to the portion of the site within the UGB
- Approvals/requirements that pertain to the portion of the site outside of the UGB
- Approvals/requirements that pertain to the entire site

Based on preliminary consultation with the Washington County Department of Land Use and Transportation, the following state and county land use approvals will be required to implement the Cooper Mountain Master Plan:

Approvals and Permits Required for Lands within the Urban Growth Boundary

Type I or Type II Administrative Review:

Type I or Type II administrative review can provide for the proposed park uses on the top third of the site within the UGB, zoned Future Development 20 Acre District (FD-20).

Approvals and Permits Required for Lands outside of the Urban Growth Boundary

Washington County Comprehensive Plan Amendment to adopt a State and Regional Park Overlay District:

The Washington County Board of Commissioners (Board) approved the creation of a State Park Overlay District (Section 383 of the

County's Development Code) for Washington County in 2001. The creation of this district defines the types of uses and facilities that will be allowed on county lands outside the UGB developed for State Park use. On October 5, 2004, the Board approved Ordinance 628 which amended the State Park Overlay District to include Regional Parks. This ordinance enables regional park planners to use a master planning process that meets the provisions of Oregon Administrative Rule 660, Division 34 for State and Local Park Master Planning.

The State and Regional Park Overlay District will be applied on the appropriate Plan map (for the portion of the site outside the Urban growth boundary) and the Cooper Mountain Master Plan will be adopted into the County's Comprehensive Plan once the Board of County Commissioners gives their final approval to the Cooper Mountain Master Plan.

Type I or Type II Administrative Review

Following the Comprehensive Plan amendment to adopt the overlay district and the master plan, each phase of development must be reviewed through the land development process, which requires a Type I or Type II administrative review. The overlay district allows for minor revisions to the master plan. Major revisions would require an amendment to the Master Plan, and likely require an additional amendment to the Comprehensive Plan.

Approvals and Permits Required for the Entire Site

Oregon Transportation Planning Rule – (OAR 660-012-0060)

Proposed master plan improvements must be consistent with Oregon Transportation Planning Rule 660-012-0060. The rule requires an analysis of the impact of a proposed plan amendment on the planned transportation system to determine whether the proposal will “significantly affect” the planned transportation system in the area. This analysis will be prepared for the entire site when the Comprehensive Plan amendment is filed for the State and Regional Park Overlay.

Impacts to Surrounding Farm or Forest Practices – (ORS 215.296)

Proposed master plan improvements will need to be consistent with ORS 215.296 which requires an analysis of the impact of a proposed plan amendment on the surrounding farm and forest practices to determine whether the proposal will “force a significant change” in accepted farm and forest practices. This analysis will be prepared for the entire site when the Comprehensive Plan amendment is filed for the Master Plan approval.

Both a Traffic Impact Statement and Transportation Analysis have been conducted in anticipation of development review and master plan approval by Washington County.

Funding Sources

In 2003, the Metro Council approved raising some fees in order to provide funding for the development and operation of new natural area sites around the region. These funds will be expended at Cooper Mountain Natural Area, Mt. Talbert Natural Area, Graham Oaks Natural Area and Willamette Cove. It is anticipated that this funding will not be adequate to implement all projects at these four sites and that additional funding will be needed. Additional funding will be sought by Metro and partner agencies from a variety of sources, including but not limited to the following:

Land and Water Conservation Fund Grants

(National Park Service funding administered by Oregon Parks and Recreation Department)

www.prd.state.or.us/grants_lwcf.php

U.S. Department of Interior Fish and Wildlife Service

North America Wetlands Conservation Act Grants (NAWCA)

www.tgci.com/fedrgrtxt/o4-2717.txt

Oregon Parks and Recreation Department Certified Local Government Grant Program

www.prd.state.or.us/grants-localgov.php

Oregon Watershed Enhancement Board Small Grant Program

http://egov.oregon.gov/OWEB/GRANTS/smgrant_main.shtml

Recreation Trails Program Grants

(SAFETEA-LU funding administered by Oregon Parks and Recreation Department)

http://egov.oregon.gov/OPRD/GRANTS/about_us.shtml

Habitat Restoration

Restoration by habitat type is described in the Natural Resources Management Plan Summary (see Chapter 6). Considerable vegetation management activities were initiated prior to development of the Cooper Mountain Master Plan and will continue for several years after adoption of the Plan. For example, the first phase of reforestation efforts in the mixed deciduous/conifer forest area is approaching completion toward the “free-to-grow” stage.

Once completed, annual maintenance will be relatively minimal and primarily focused on invasive plant removal, with periodic activities such as thinning of the developing forest. It is anticipated that active restoration of the forested areas will continue up to 2011. Costs of these improvements range considerably, depending on availability of native plant material, success of controlling exotic and noxious weeds, annual weather variations, and availability of personnel and other resources. The maximum cost anticipated for implementing habitat restoration is \$375,000, approximately.

Annual Operations and Maintenance

Based upon the maintenance and operations staffing needs determined in the previous chapter, annual costs for personnel additions and associated materials and services costs are estimated below. These costs are estimated in fiscal year 08-09 dollars.

Position		Estimated Annual Cost
Regional Park Supervisor (.5FTE)		\$48,545
Park Ranger (1 FTE)		\$67,815
Seasonal Employee (.5FTE)		\$22,383
Naturalist (.5FTE)		\$34,587
SUBTOTAL		\$173,330.00
Category	Detail	Estimated Annual Cost
Materials and Services for Maintenance	annual vehicle charges, fuel, equipment rental, landscape supplies, uniform supplies, staff development, maintenance supplies and services, utilities, etc.	\$38,245
Renewal and Replacement	an annual amount placed in reserve for major maintenance needs and costs related to facility improvements	\$56,825
Materials for Education and Programming	supplies, equipment, uniform allowance, staff development, etc.	\$7,000
SUBTOTAL		\$102,070.00
Total Estimated Annual Staffing and Operational Costs		\$275,400.00

Table 5: Estimated Annual Staffing and Operational Costs

Appendices

Project Advisory Committee
Meeting Notes

Cooper Mountain Chronicle
Newsletters



Cooper Mountain Project Advisory Committee Meeting Notes

Date: Wednesday, February 4, 2004

Time: 6:00 – 8:00 p.m.

Place: Tualatin Hills Nature Center, Robin's Nest Room, 15655 SW Millikan Way, Beaverton

Attending:

Barbara Fryer, Aisha Willits, Mark Charleston, Joan Andersen-Wells, Steve Gulgren, Megan Garvey, Judy Fox, Larry Fox, David Green, Ryan Durocher, Brian Harney, Lori Smith, Debbie Chin, John Chin, Heather Kent, Lora Price, Jennifer Budhabhatti, Ron Klein

Metro staff presented the following overview and site information in the first hour of the meeting:

- Background and overview of the planning process
 - Existing conditions and recreation context
 - Natural resource features
 - Public involvement process and preliminary results of the Cooper Mt. opinion survey
- Written summaries and accompanying resource maps of the above site information will be provided to PAC members.*

The second hour was devoted to questions, comments and discussion by committee members to address overall concerns, values and desires for the site:

- Lori Smith indicated a strong interest in serving on the Cooper PAC, representing Teal Ridge/Cairn Heights neighborhoods.
- Members requested interest in receiving reduced copies of the natural resource maps for their notebooks.
- Joan Andersen-Wells said that the Tualatin Hills Nature Park does not have locked gates at the entrance and most of the illicit activities/problems have significantly diminished over the years with ongoing use and management of the park.
- Because preliminary public opinion survey results show a fairly strong lack of support for park facility features that would attract or accommodate groups, Megan Garvey expressed concern that the park needs amenities such as a shelter and bus turn around to accommodate school groups on field trips. The survey does, however, indicate support for using the site for school field trips.
- Larry Fox and David Green stated they thought most of the concern around accommodating groups to the site is about the associated traffic.
- Joan Anderson-Wells indicated that THPRD has used Metro's Cooper Mountain property for some group programs. She also noted that at the Tualatin Hills Nature Park there are designated off-trail areas for environmental education activities and should be considered when planning for Cooper Mt.
- David Green said that a small natural greenspace exists in the Kemmer View Estates neighborhood. A majority of residents support maintaining the area as a natural space with minimal amenities. Green expects these values would also hold true for Metro's Cooper Mt. property.
- Larry Fox said that one of the most valued attributes of the Cooper Mt. property is its quiet ambiance. A quiet, outdoor environment for visitors should be recognized as one of the distinct qualities to protect in planning for the park. His observation of the site's use to date is that it is predominantly one or two people having a quiet experience. However, the site also been used by Volkswalk groups.
- Lori Smith said that maintaining a feeling of being in the country is important. Street lights, for

example, don't contribute to that quality. Another concern is that infrastructure such as off-street parking should properly accommodate and manage public use and not to rely on street parking capacity.

- In consideration of how existing gravel road and trails might be removed or changed, several committee members stressed the importance of keeping the existing gravel roads (i.e. logging roads) for continued fire management access and other park maintenance activities.
- David Green asked whether it was possible to consider the nearby public water reservoir property to accommodate parking. Barbara Fryer indicated that because of increased security requirements around public facilities, it may be difficult to accommodate public parking adjacent to a water tank. However, Fryer said she would look into the feasibility of the idea. Larry Fox supported the idea of moving access to the park in that direction (away from 190th) because of improved traffic sight lines along Kemmer Rd. It would improve the safety of people getting in and out of the park. There are a lot of accidents at the corner of SW Kemmer Rd. and 190th.
- Committee members suggested that Metro staff look at other relevant natural area models (e.g. Tom McCall Nature Preserve in the Columbia Gorge, Powell Butte Nature Park, Tualatin Hills Nature Park, Mt. Pisgah in Eugene) to help determine the appropriate mix and balance of recreation amenities and natural resource protection.
- Steve Gulgren explained that at his former agency, the policy for providing minimum support facilities in conservation districts included a 20-car parking lot, restroom(s), drinking fountain and trails.
- Tentative dates for future meetings were presented and discussed. Wednesday evenings seemed to be the best time to hold Cooper Mt. PAC and other related public meetings. Ryan Durocher, however, had an ongoing conflict with Wednesday evenings.

Cooper Mountain Project Advisory Committee Meeting Notes

Date: Wednesday, March 31, 2004

Time: 6:00 - 8:00 p.m.

Place: Tualatin Hills Nature Center, Robin's Nest Room, 15655 SW Millikan Way, Beaverton

Attending:

Cooper PAC members: Joe Reeves, Jody Newberry, Mark Charleston, Doug Myers, Joan Andersen-Wells, Steve Gulgren, Kyle Spinks, Larry Fox, David Green, David McClain, Tim Morgan, Lori Smith, Debbie Chin, Bryan Pasternak, Eric Meckel. Metro staff: Heather Kent, Jennifer Budhabhatti, Ron Klein. Citizens: Boyce Smith, Eric Squires, Ed Bartholemy, Kathy Bartholemy.

No corrections or additions were suggested to the February 4, 2004 meeting notes of the Cooper Mt. PAC.

J. Budhabhatti presented an assessment of the Cooper Mt property for recreational use. Metro used the Oregon Parks and Recreation Department's method of land assessment that recognizes four levels of suitability for recreational use. The resource inventories that were assessed for suitability analyses included habitat for wildlife, protected species, water and geologic hazards (slope and soil) and cultural resources. No significant cultural resource was found on site. Each resource category was mapped and classified with respect to the four suitability levels, based on the following criteria:

- Uniqueness and quality of habitat
- Federal/state listed threatened, endangered or sensitive wildlife species
- Oregon Natural Heritage Program listings 1,2 or 3
- Riparian and wetland areas
- Geologic instability

B. Pasternak asked what other planning projects used the Oregon State assessment method. Oregon State Parks used the model for the proposed Hares Canyon State Park in Washington County. Washington County also requested that Metro use this model for the Cooper Mt planning process. K. Spinks asked if Oregon Land Use Goal 5 would affect the suitability results. Metro staff noted the Goal 5 findings would likely be consistent with the suitability assessment results.

R. Klein presented a summary of 385 public opinion survey returns for Cooper Mt. Klein noted that the survey was not a scientific poll or was meant to convey the types of public facilities that would be developed in the natural area. The survey was one of many tools Metro used to help identify issues, concerns and natural area facilities and experiences to consider in the planning process. Survey returns mostly came from residents of zipcode 97007. Equestrian use and mountain bike use were considered important uses. Representatives of these recreational uses were invited to serve on the Cooper Mt. PAC. Consideration of equestrian and mountain bike use will be carried through the master planning process. Trails and improved habitat for wildlife were highly-demanded natural area features.

The survey also asked if people agreed with Metro's 'no dog policy' in its parks and natural areas. About 59% of the respondents strongly or somewhat agreed with Metro's policy. Klein distributed a handout explaining the Metro 'no dogs allowed' policy and noted that such a policy is important to assure the

protection of wildlife habitat. Such a policy also helps provide visitors a quality experience in nature.

The top three concerns expressed in the survey were: 1) illicit activities, vandalism and loitering, 2) litter and 3) traffic or parking issues. Many thought a group shelter would become an attractive nuisance for these problem activities. Metro staff noted that the existing house on Kemmer Rd. could possibly serve as a shelter with more controlled access for appropriate activities. H. Kent said there would be a transportation analysis when the planning process gets closer to a preferred facility concept design.

H. Kent reviewed the draft Planning Goals and Objectives for Cooper Mountain Natural Area. The eight goals are direction-setters and intended to reflect Metro's general natural area management policies against which decisions about public use and natural resource management can be assessed. The planning objectives listed under each goal are specific short and long-term tasks. Generally, the Cooper Mountain PAC supported the draft Planning Goals and Objectives with the following additional comments:

D. Green recommended that the first goal should be worded stronger to better reflect Metro's role to protect, enhance and manage habitat for wildlife. Adding the phrase such as " ...a place for wildlife to thrive." was suggested. Being more clear in the first goal may help in better understanding Metro's policy relative to no dogs in its parks and natural areas.

D. McClain explained to achieve the habitat management objectives, Cooper Mt. will need to be actively managed, including selective removal of trees (i.e. logging). A long-term management plan (60-year cycle) could also be a possible revenue source for the natural area. An April 1, 2004 memo from D. McClain provides details of a forest management approach to the Cooper Mountain Natural Area. H. Kent acknowledged that the site will require active management to achieve the desired habitat objectives and that natural resource management will be a component of the master plan.

Goal 2 relates to public access and recreational use. K. Spinks asked if Metro's "green street guidelines will be a planning reference. H. Kent said yes along with recently developed "green trail" guidelines. Poorly planned trails can do a lot of natural resource damage and as well as increase maintenance costs if not carefully considered for placement, materials and maintenance. J. Reeves said that ADA access should be considered in a broader sense to accommodate a variety of people with limited mobility (e.g. disabled horse riders, strollers, wheelchairs, walkers, canes).

M. Charleston emphasized the need to have good orientation signs (e.g. trail mileposts, you are here maps, etc.). It is important for visitors to have a reasonable sense of where they are in the natural area as it relates to safety and rescue. D. Meyer pointed out that emergency access was important, but if TVFR cannot gain access the regular way, they will make a way that will likely cause habitat damage. J. Reeves said that a volunteer trail patrol is effective in Tillamook State Forest. J. Anderson-Wells said the Tualatin Hills Nature Park is mapped with a grid for emergency purposes and they also have a volunteer "park watch" team that patrols the park.

Signs, trail location and vegetation barriers should be used to help assure that visitors remain on public property.

B. Pasternak suggested that an objective be added to Goal 3 engaging volunteer in stewardship activities. Environmental education and interpretation of the natural area should lead to a growing number of people who want to volunteer at Cooper Mountain and other places.

Related to Goal 6 and minimizing impacts to surrounding neighborhoods, L. Fox said that any communication tower leases should be limited and not to turn the top of Cooper Mountain into a "cell tower farm". D. McLain added that any revenue generated from a communication tower lease should be dedicated to Cooper Mt. Natural Area.

Other comments included a recommendation from L. Fox that Metro should be clear about what facilities and activities that will not be considered in the planning process (e.g. motorized vehicles, dogs, field sports) to avoid public misunderstanding of the expected use of the natural area. In addition, T. Morgan supported quality, on-site interpretive features (e.g. interpretive signs, well-designed trails that highlight natural area attributes) as visitor attraction. Morgan asked how people were going to be directed to the natural area. H. Kent said Metro will work with Washington County and ODOT to determine what is possible for directional road signs.

R. Klein said he would look into using Southridge High School in Beaverton for the remaining Cooper Mountain PAC meetings and public open houses.

MEMORANDUM

Date: April 1, 2004
To: Ron Klein, Metro
From: Dave McClain, Kemmer View Estates
RE: Cooper Mountain Natural Area Planning Goals

One of the goals and objectives for Cooper Mountain should be to reestablish the fir forest ecosystem. The majority of the property area once was a western Oregon fir and cedar mix conifer forest ecosystem with riparian areas that included a mix of alder, vine maple and other deciduous trees and riparian shrubs.

Go and look at a mix conifer old growth stand and picture what this area may have looked like in 1860. To get this area to start to progress toward this objective will require a long range ecosystem recover plan that is generational in scope (200 years).

To understand how to plan for this objective, one must first understand the dynamics of the mix conifer fir forest system in this area. The site has been logged multiple times over the past 100 years. It is not a pristine area that needs to be preserved. It is a forest plantation that needs to be replanted, managed and nurtured along so that in 20 to 60 years it will be a unique complex fir forest ecosystem that is rapidly approaching a natural function condition that will result in a significant old growth stand of trees in about 100 years.

The area is currently in various stages of stand (forest) replacement and the site has various potential for regeneration of the forest based on soil, moisture and nutrient availability. To understand these conditions and to prepare a plan the following steps need to be taken:

- Map/assess the size, basal area requirements, density of the existing plantations. The Oregon Department of Parks classification system does not provide Metro with the level of detail that is needed. A more detailed map of the existing forest conditions is needed.
- Estimate the regeneration rate for the fir forest areas and open areas that have been converted to grass (pasture areas). A great deal of the "open grass areas" could be replanted and would support healthy stands of fir.
- Understand the basal area requirements and site classification of the area with regard to the potential of the site to grow trees through time.
- Estimate the thinning program needed to keep the forest moving toward a healthy climax forest condition.

This last point is very critical to the basic planning process. A qualified forester needs to make a site classification of the area based on Oregon Department of Forestry Site Classification system. Site class is a way to classify forest according to how well trees grow. Trees grow fast in forest with fertile soils and plenty of moisture and this forest have higher "site classifications". Trees grow slowly in rock soils and dryer climates where the site class is lower. Oregon Department of Forestry can provide this information based on a site review. Usually at no cost or you can hire a consulting forester.

You need to know the basal area of the reforestation areas and any riparian management areas. Because of higher moisture content, riparian area will have different site classifications than the rest of the park. These riparian forest areas will need a different plan for ecosystem recovery and in general the width of these areas will be 250 feet or greater depending upon slope and soil moisture content.

The Basal Area is the cross sectional area of a tree stem at 4.5 feet above ground. If you know the basal area of the existing trees and the site class, you can generally calculate the number of trees per acre that the site is capable of producing. Basal area in a reforestation unit can be determined by sampling stands with plots spaced evenly over the area along compass lines. There are standard methods for doing this.

The survey will tell you the basal area and this will tell you how many trees per acre are growing on the site (or could grow on the site) and what the general spacing should be between trees.

As the trees grow over a 100 to 200 year cycle, the number of trees that a given acre can sustain reduces with increased basal area. For example a typical fir forest acre covered with 6 inch trees would grow about 400 trees per acre. The same area with 24 inch trees would grow 25 to 50 trees per acre. This density difference reflects productivity over approximately 20 year period to grow trees from 6 inches to 24 inches. This simple example also illustrates the planning problem in that 375 trees per acre may need to be removed from every acre of the fir forest area over the next twenty years.

This information then takes the planner to the next level of planning. If the objective is to manage the forest to recreate a functioning old growth stand in 100 year, then numerous trees will have to be removed at various stages of growth.

To accomplish this activity, adequate maintenance and harvest roads must be built into the plan to accommodate the removal of the trees cut to make room for the remaining trees to grow. The roads need to be stable, have adequate drainage control and stream crossings (bridges, fords, culverts). I prefer fords in intermittent stream areas. These roads can double as walking trails, emergency access, fire breaks, equestrian area, and mountain bike areas.

The need to thin can be easily modeled and the cycle of thinning predicted based on the existing stand density and size of the stand. The plan should allow for the use of the full range of silviculture activities to achieve the ecosystem recovery goal. If the fir forest ecosystem is not managed for occasional removal of overstocked trees, then disease, root rot, stress and insects will flourish and this will result in dead and dying trees and considerable higher wild fire potential.

Also the trees that are removed will have value. The volume of trees can be modeled with some standard Oregon Department of Forestry models and the economic value can also be estimated in present value terms. The ability of this park to generate revenue from ecosystem management thinning programs should be discussed in the management plan.

Public perception of this concept is another planning issue. The concept must be explained as biomass recovery from ecosystem restoration work. The plan is not intended to treat this site as a forest plantation with a rotational cut every 20 to 35 years. Regular thinning will be required to achieve the ecosystem recovery goals and the material that is thinned will have economic value. Good public policy would require that economic recovery of thinned material is an established goal of the management plan. Also the plan should provide for a program that will re-invest the revenue from biomass recover back into the park improvements and ecosystem recovery.

The basic planning approach must first consider the dynamics of this site as a forest ecosystem which will be growing trees. These trees will, if left alone, create an overstocked condition. Such conditions will result in marginalized ecosystems, and increased risk for stand replacement fire. Prudent planning must design a

recreation management plan based on the site requirements for a 20 to 100 year recovery program for the forest ecosystem. This changes the paradigm regarding how to plan this park. Roads, trails, riparian areas, habitat areas and recreation improvements must be designed around the basic requirements of the forest recovery program.

I recommend that Metro call the Oregon Department of Forestry and ask for a consultation. You may want to consider asking Oregon State University, College of Forestry if they would like to take on this site as a field laboratory for their forestry program. The park site is in reality an arboretum in the early stages of development and the basic recreation management plan must be based on the forest recovery plan.

Thank you for your consideration.

Cooper Mountain Project Advisory Committee Meeting Notes

Date: Wednesday, May 12, 2004

Time: 6:00 - 8:00 p.m.

Place: Southridge High School, Community Room, 9625 SW 125th Ave., Beaverton

Attending: Cooper PAC members: Joe Reeves, Jody Newberry, Leigh Crabtree, Mark Charleston, Joan Andersen-Wells, Steve Gulgren, Kyle Spinks, Larry Fox, Judy Fox, David Green, Megan Garvey, Tim Morgan, Lori Smith, Debbie Chin, Bryan Pasternak. Metro staff: Heather Nelson Kent, Lora Price, Ron Klein. Citizens: Beth Webber, Debbi Bethel, Boyce Smith, Carol Robillard, Ray Wold, Diana Hammer, Ed Bartholemy, Kathy Bartholemy.

No corrections or additions were suggested to the March 31, 2004 meeting notes of the Cooper Mt. PAC.

H.N. Kent introduced the process that led to drafting three design concepts for Cooper Mt. After Metro staff and the Cooper PAC established planning goals for the project, a design workshop was held on April 14, 2004 to develop a variety of design concepts for Cooper Mt. Natural Area. Workshop attendees included landscape architects, planners, natural resource/land managers, environmental educators and trail experts. Design concepts were based on five scenarios:

- Minimal Development / Maximum Conservation
- Maximum Environmental Education and Interpretation / Maximum Habitat Diversity
- Maximum Recreation and Trail Opportunities / Minimum Habitat Conservation
- Focus on Very Important Features and Activities Identified in the Public Survey
- Fully Integrated Recreation / Interpretation and Habitat Conservation

Metro staff developed three design concepts from the workshop results for public review. Lora Price presented these concepts (see concept summaries) to the Cooper PAC for discussion and refinement before presentation at the open house on May 19, 2004. The Cooper PAC was asked to fill out an evaluation and comment form (see evaluation summary). The following are notes from the Cooper PAC meeting discussion.

Concept 1- B. Smith noted the limited access to the upper meadow for emergency vehicles. J. Reeves said natural area expansion to the south should be noted (missing in Concept 1).

Concept 2- D. Green said that maintenance and emergency roads in the natural area should be better indicated. Even though equestrian use is not indicated for Concept 2, J. Reeves pointed out that the Grabhorn Rd. parking location would be best for horses as this is the primary rural interface with the property.

Concept 3- K. Spinks noted that because Concept 3 indicates the most visitor use, one can expect the most bad or inappropriate use on the property. An on-site ranger is most important to monitor and correct park use in a timely fashion. J. Reeves said a volunteer trail patrol could be an effective management partner. D. Green said to locate the ranger residence where the most anticipated problems would occur.

Other comments-S. Gulgren said trail surfaces can vary depending on anticipated user and location (i.e. ADA hard surface or compact gravel; regional trail 8' to 12' wide hard surface or combo to accommodate horses; smaller soft surface trails for more sensitive areas). H.N. Kent said that specific trail design and surfaces will be identified during the construction design phase of the project. L. Crabtree said that Goal 5 results may limit development on the property. The city of Beaverton's adjacent water tower property is not "off the table" for associated planning considerations. M. Charleston said, in general, the fire/safety infrastructure needs to be improved (e.g. lower east spur needs upgrading; better access at Kemmer Rd., accommodate emergency vehicle access). Residential areas are the top priority; natural areas are secondary for emergency response. J. Anderson-Wells suggested a 5-ft minimum width on any trail. Bikes and pedestrians can be a dangerous use mix if the trail are not designed properly. B. Pasternak said trail surfaces can be on site, natural based if it is hard surface like clay or rock. R. Wold suggested consideration of one-way trails to reduce safety risk among different trail uses.

Summary of committee members evaluation sheet responses to alternative design concepts presented Wednesday, May 12, 2004

Trail Features

Of the four design components evaluated (i.e.habitat types, trail features, facilities & amenities and site management), the preponderance of comments addressed the issue of trails, specifically trail uses and lengths.

A significant number of respondents supported trails for all three user types (hikers, bikers and equestrians), with most of those preferring separate single-use trails, expressing a concern for safety on combination trails. Although multi-user inclusiveness was frequently referred to as desirable, that was not consistently matched by respondents' ratings of importance in those categories.

An even larger number of respondents, however, preferred single-use, hiking-only trails in the park. Reasons listed for this preference included:

- 1) Better supports planning goals for the Cooper Mountain Natural Area, particularly goals 1 and 2:
Goal 1 - Protect and enhance Cooper Mountain's unique natural and scenic resources and create a place for wildlife to thrive.
Goal 2 - Encourage community access and recreational use that is compatible with natural resource protection.
- 2) The site is not large enough to accommodate exclusive trails for all three types of activities.
- 3) Appropriate trails for bikers and equestrians likely would not be long enough for a satisfying experience.

Loop trails and distance markers received positive responses from most survey participants. The numbers favoring increased trail lengths were nearly matched by those preferring no increase or shortening trail lengths fearing increases in site degradation.

The need for ADA trails was uniformly agreed upon, although the gradient of the site was seen as a possible impediment. Other comments related to ADA trails included the hope they could include areas of

multiple park features to provide users with a more varied nature experience.

Interpretive stations were considered desirable by most, although not given high ratings of importance by all.

Other comments related to trails included the introduction of invasive weeds with trail usage. Those supportive of equestrian trails were consistent in their opinion that horses are not major seed carriers; bikers and hikers are more likely a seed source.

Facilities and Amenities

The largest number of comments in this category pertained to parking areas and restrooms.

Respondents overwhelming preferred both parking areas/trailheads and restrooms at Kemmer and Grabhorn roads as described in Design Concept 3.

Other suggestions included a drinking fountain in the larger parking area and lighting in both lots.

Assuring space enough for trucks and horse trailers also was mentioned by the equestrian trail supporters as very important.

Some respondents rated picnic shelters and/or tables as important amenities. Ratings also were high for a nature-based children's play feature.

The concept of a mowed grass/informal play field received mixed reviews. Some considered it unnecessary; some suggested a meadow area sufficient for such use and others saw no adequate flat area for that purpose.

A terraced seating area also rated high by some for group presentations or scenic viewing and as undesirable by some because of its appeal for illicit activities.

An education center was rated an asset for environmental education activities and public outreach by several respondents. Others thought an education/picnic shelter could serve a similar purpose.

Site Operation

Less than half of those completing the evaluation sheets commented on this design component. The section on providing access within the site for service vehicles drew multiple comments of concern that there be adequate access for fire and rescue vehicles.

Vegetation buffers were considered by some to be beneficial for defining natural area boundaries while others expressed a concern that maturing vegetation might obstruct views.

The value of a ranger/caretaker residence was described as required for security purposes and to monitor park usage, and by an equal number of survey participants as unnecessary.

Habitat Types

Very few respondents offered comments on this design component, but those that did were very specific. For example, one reported “Prairies and oak savannahs have decreased significantly in the Willamette Valley making preservation of those remaining very important.”

High importance also was given to stream corridors and wetlands for healthy wildlife habitat.

Another respondent stated, “All headwater streams in the Metro region are in great need of preservation due to existing and historic impacts.” Fewer stream crossings were suggested for better water quality.

Cooper Mountain Project Advisory Committee Meeting Notes

Date: Wednesday, July 14, 2004

Time: 6:00 - 8:00 p.m.

Place: Jenkins Estate, 8005 SW Grabhorn Rd. in Aloha

Attending:

Cooper PAC members: Joe Reeves, Jody Newberry, Barbara Fryer, Mark Charleston, Joan Andersen-Wells, Gery Keck, Kyle Spinks, David Green, Tim Morgan, Lori Smith, Debbie Chin, Bryan Pasternak. Metro staff: Heather Nelson Kent, Lora Price, Ron Klein. Citizens: Sally Rask, Chris Girard, Boyce Smith, Carol Robillard, Ray Wold, Ruth Ann Mask, Ed Bartholemy, Kathy Bartholemy.

No corrections or additions were suggested to the May 12, 2004 meeting notes of the Cooper Mt. PAC.

Before the staff presentation of the Cooper Mt. Natural Area draft preferred design concept, attendees had an opportunity to view the large design concept drawing. L Price presented the elements of the proposal including local access and parking, trails and trail uses, habitat features and other amenities such as the nature house, ranger residence, children's nature-oriented play area and picnic facilities (see summary sheet).

HN Kent reviewed the rationale that led to the draft design concept based on public review and comment, planning goals and objectives, management implications, potential recreation conflicts and quality of visitor experience (see decision matrix). The identified planning goals and objectives, physical and policy constraints helped determine the scale and level of proposed use on the property. HN Kent also introduced the concept of a dog corral on adjacent city of Beaverton property to meet the recreational needs of dog owners as well as maintain the need to protect habitat areas on Cooper Mt.

K Spinks asked about water resources for the development. HN Kent noted that there were water rights for residential use, but not park use. The restrooms for the natural area will likely be vault toilets and not require water. Metro will explore the possibility of water fountains, but it may not be feasible.

B Smith noted that the design should clearly indicate fire and safety access to the property.

K Spinks noted that brush removal would likely encourage oak habitat and reduce wildfire risk. He asked if Metro has investigated how changes of habitat patterns would affect the hydrology of the area. HN Kent said changes in hydrology from habitat management applications has not yet been considered.

C Robillard noted that smoke from poison oak burning is toxic and should be considered in controlled burning activities.

G Keck asked about the nature of the horse trail. HN Kent said that the equestrian trail along the existing logging road would remain until the regional trail is established through the natural area. At that time the trail surface would likely change to better accommodate other uses. The regional trail might be eligible for federal transportation funding, but a case needs to be made that it is a commuter trail. THPRD is working

on a community trail update that may speed up the regional trail process.

B Pasternak noted that “extreme” mt bikers require 6 to 20 miles for their activity, sometimes more. Cooper Mt. can not accommodate this kind of use, but some mt biking could perhaps be accommodated along the equestrian trail or other low impact areas for beginners and young families.

D Chin asked for clarification of bike use in the natural area. She emphasized the importance of making it clear to the general public that bike use is a future use and that it may be several years before it is allowed.

M Charleston said that fire trucks are 10-feet wide with a 40,000-pound load. The brush rigs are 8-feet wide. The existing logging road needs to be improved for adequate fire and safety response in the natural area. With the improvements made to the main service road (i.e. logging road), M. Charleston said the draft preferred design concept would provide the infrastructure necessary to adequately provide for the fire and safety response of the Tualatin Fire and Rescue District. The road spurs off the main service road are adequate for getting to different portions of the natural area with brush rigs and equipment such as 1,000-ft. hoses.

Cooper Mountain Project Advisory Committee Meeting Notes

Date: Wednesday, January 20, 2005

Time: 6:00 - 8:00 p.m.

Place: Tualatin Hills Nature Center, 15655 SW Millikan Way, Beaverton

Attending:

Cooper Mountain PAC members: Joe Reeves, Barbara Fryer, Joan Andersen-Wells, Judy Fox, Kyle Spinks, April Obrich, David Green, Tim Morgan, Lori Smith, Debbie Chin. Metro staff: Heather Nelson Kent, Jennifer Budhabhatti, Ron Klein. Citizens: Gery Keck, Boyce Smith, Ed Bartholemy, Kathy Bartholemy.

The Cooper Mountain PAC meeting notes of July 14, 2004 were accepted as amended (i.e. clarification of comments made by Bryan Pasternak and Mark Charleston).

J. Budhabhatti presented an overview of the Natural Resource Management Plan for Cooper Mountain Natural Area including historic cover types and land use and habitat management strategies. Neighboring habitats will be important to establish wildlife corridors. Metro will work closely with adjacent property owners. Oak woodland, prairie and mixed forest will be the primary habitats managed. Controlled burns, mowing, invasive species removal and select herbicide application will be among the management techniques for oak woodland. Small controlled burns, mowing and select herbicide application with be the primary management applications for prairie habitat. The mixed forest will be managed to old growth and the replanted areas will be managed as 2nd growth forest.

D. Green asked what contingency plans does Metro have in the event that recreation produces adverse impacts to habitat and wildlife populations. J. Budhabhatti said that Metro would employ adaptive management to the natural area and conduct periodic reviews of the compatibility of recreation and habitat condition.

HN Kent noted that DKS (a transportation planning firm) was contracted to do a transportation study for Cooper Mountain. Metro also met with Washington County to discuss transportation requirements for public facilities at Cooper Mountain Natural Area. The county will issue a traffic impact statement and may require modifications including site constraints, sight distance requirements at Kemmer and Grabhorn roads, mitigation measures, refuge turning lane, etc. At this time, Metro does not anticipate a large transportation issue related to building public visitor facilities.

HN Kent discussed operations of public visitor facilities. The master plan will assume Metro will be the manager of the property. However, Metro will discuss partnership possibilities with THPRD. Metro is discussing with Washington and Clackamas counties the possibility of adopting Metro's Title X rules for parks and natural areas. Natural area rules will be posted at the public access points.

L. Smith recommended that "no smoking" be included in the rules, at least for the summer months. JA Wells noted that the Tualatin Hills Nature Park has a no smoking policy.

J. Reeves noted that well-placed signs can go a long way to help people do the right thing.

HN Kent also noted that there will be lockable gates (manual or automatic) at the natural area entrances. Wildfire prevention will be addressed through vegetation management and assuring adequate emergency access to the site. The nature house will be used as an office, classroom and storage. The nature house also could be reserved for community activities. The shelter at Grabhorn will be available on a first come, first served basis, but could be reserved for community activities through Metro's Special Use Permit process. There are no plans for a BBQ at the shelter. There will be no visitor fee at the natural area.

Trail maintenance will be conducted on a seasonal and as needed basis. Staff and volunteers will be involved in trail maintenance.

Metro plans to allocate 2.5 FTE for the operation and management of Cooper Mountain Natural Area including 0.5 Supervisor, 1.0 Park Ranger, 0.5 Seasonal Ranger and 0.5 Naturalist. For FY 08-09, Metro estimates \$260,000 will be needed to cover the cost of staff, materials and capital reserve.

J. Reeves suggested an "adopt-a-trail" program may work well at Cooper Mountain.

HN Kent reviewed the draft cost estimates for the project. The total cost of the Cooper Mountain Natural Area project construction is estimated to be \$1.5 to \$2 million.

B. Fryer asked if alternative parking surfaces were considered. Stormwater management requirements will change depending on the porosity of the parking area. HN Kent said that different surfaces have been reviewed, an asphalt surface costs about the same as maintaining a gravel surface, for example.

The Cooper Mountain facilities may need to be phased in over time, depending on final cost estimates and availability of funds. Opening the Kemmer Road parking area first may be necessary. It also seems prudent to wait to establish a ranger residence to consider a variety of opportunities such as other housing adjacent to the site as a rental or existing housing for sale.

E. Bartholemey pointed out that Grabhorn Road property adjacent to Metro property was for sale.

K. Spinks asked if Metro could build outside the UGB. HN Kent stated that one house could be built on Metro-owned property.

J. Fox said that the proposed children's play yard seemed out of character to a natural environment.

K. Spinks asked about water use on the site. HN Kent summarized that existing water is from a well. There will be a drinking fountain, but the drain water will be captured as gray water. Any irrigation would be limited to the proposed small turf area on Kemmer Road. Final restroom use of water has to be finalized. K. Spinks noted that there is technology available that can use stored gray water first in restrooms. Compost toilets also are a possibility.

HN Kent also said that Metro will pursue grant funds where applicable (especially state grants). The master plan will only depict trails on Metro property; the regional trail connection will be presented conceptually.

One final meeting (TBA) of the Cooper Mountain PAC will involve the review of the draft master plan before being published for citizen comment.

Cooper Mountain Project Advisory Committee Meeting Notes

Date: June 30, 2005
Time: 6:00 - 8:00 p.m.
Place: Tualatin Hills Nature Center, 15655 SW Millikan Way, Beaverton
Re: Review Comments on Draft Master Plan

Comments on TVF&R issues:

Good idea to use trails as dual fire break/service

Access looks adequate (with the N and SW access points).

Minimum trail width of 15' is needed for rigs (this includes vegetation clearance and shoulders in addition to pavement width). Rock quarry road has adequate base as is.

Provide turn-arounds for ambulance, pull off or other 3 point turn-around area. 500 ft. is limit of backup.

Most likely that emergency vehicle access will be for medical emergency problems.

General response 5 minutes if in area – 6-7 minutes if out of area.

Provide grid map for to help emergency response locate where accidents are. THPRD Nature Park uses this.

Provide neighborhood notification for controlled burn – if/when used.

Include sufficient liability requirements for operators/contractors during controlled burns.

Coordinate with Tualatin Valley Fire and Water/Fire Marshal's office.

Hydrants in vicinity should provide sufficient access to water supply for fire suppression.

Additional comments:

Correction – the Nature Park is 222 acres.

Instead of referring to pale larkspur specifically, it may be better to generalize the reference to sensitive species so as not to become a tool used against access and development of the natural area.

Check document text to clarify future vs. today's vision (in particular with references to bicycling).

Kemmer View Estates Board is universally positive about the plan. However, pedestrian crossing on Kemmer Road is an issue. 182nd is a problem spot. Strongly advocate for a bike trail or sidewalk along Kemmer Road connecting to the natural area.

There is a sidewalk on the north side of the road along Kemmer View frontage. A safe road crossing point will need to be determined to connect to sidewalks fronting the natural area. It was asked if city of Beaverton could provide a sidewalk along the water tower property? A sidewalk is also needed along one private property to complete the connection.

It was also asked if speed bumps or other traffic calming devices could be implemented on Kemmer Road. There is a lot of concern about kids crossing this busy street. David Green can provide more info on where existing pedestrian crossing points are.

Turn lane would be useful for both entrances to the natural area in both directions. Should be considered.

Street trees are effective as traffic calmers and should be incorporated even if not required by the county.

A sidewalk along 190th is not desired by 190th Street residents. It is out of character with the neighborhood and not deemed necessary by the PAC. Furthermore there is a large ditch along 190th that is full when the water tower is drained. If necessary, Metro should appeal this county requirement.

The irrigated grassy area shown on the Kemmer Road edge seems out of character with the rest of the natural area. It should not be turf. Lora clarified that it was not intended that it be managed as turf. The character would be more like a back yard or school yard that gets mowed but is not regularly irrigated. It will be an eco-lawn. (It was included in the cost estimate for purposes of noting all potential construction requirements and costs.)

Consensus agreed on keeping unirrigated grassy areas as they support programming with school groups. It was also felt that the grassy area location should be shifted away from the 190th/Kemmer Road corner and traffic edge.

Find ways to ensure meadow access is secure (riders).

It was asked where would irrigation water will come from and how sewer will be handled? Also asked where existing septic field was. We are assuming water will be from the City water line. There is a _ acre limit for irrigation. Not sure at this point if septic or sewer will be used.

Distances in the regional context section should be clarified. "As the crow flies" distances are misleading to real travel distances. Double check light rail distance and add other bus stops nearby.

Correction – Cooper Mountain is not really used that much to watch the Hillsboro Air Show but it is used for star/astronomy events and fireworks watching.

Check Pg. 89, referencing the 2 small acreages.

On pg. 8, Background, clarify where acquisition goals came from for Cooper – bond measure, target areas, refinement plan?

Would like to see a bibliography for the history section.

In Natural Resource Section: Clarify status of Oak Woodland – “rare, threatened” may not be best terminology since it has regulatory meaning.

Be clear that the Acorn Woodpecker is a potential future resident of the habitat. It is not there now.

Explain Neo-tropical

Double check if Elk have been present on site. P.16.

Check vocabulary in hydro wetlands.

Correction – It is Stonecreek Drive - not Road

On surrounding areas map show regional trail entering and exiting park in the likely locations and do not show alignment within property boundaries.

Check that we have made it clear that the current policy is no bikes until a regional trail is designated through the park. The regional trail will also accommodate equestrian use.
Will dogs be allowed on the regional trail? Clarify how Metro's "no pets" policy will be enforced on regional trail.

Include well water constraints (this is or should be addressed in the existing facilities section.

p. 36, eliminate “caretakers residence” .

In Issues/opportunities & Constraints section: add neighborhood concerns about on-street parking by natural area users and sidewalk and pedestrian access along Kemmer Road.

O&M section: Add marking boundaries of property where needed. Fencing is a last resort to control access.

“Warning Poison Oak” signage could be a good deterrent to unauthorized access.

Consider “no exit” signs on dead end trails (specifically for the road that ends at Stonecreek).

On interpretive signs, use a “you are here” trail map insert.

Provide explanatory signage for why people need to stay on trails, particularly at the prairies. Address no collecting policy (e.g., mushrooming, geocaching and flower collection will be a desire).

Add text regarding the trail we show passing between the corner of the two private properties to explain that an easement will need to be granted by one of the property owners to allow this trail to exist.

Under the volunteer partnership section, expand the discussion re: student study and natural resource work beyond restoration.

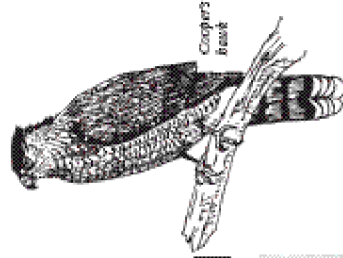
P.55 add "such as Oregon Equestrian Trails" when referring to equestrian trail groups.

It is fine to have a dry trailhead at Grabhorn—horse users will pack their own water.

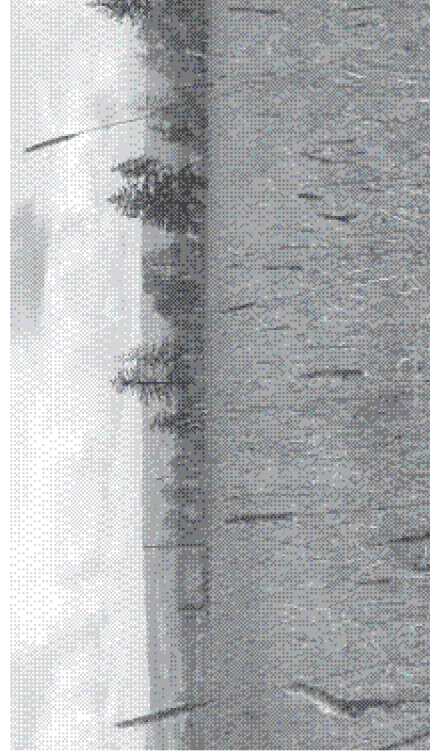
Refer to the horse ramp as an "assisted loading ramp" .

Cooper Mountain *chronicle*

Metro's Regional Parks and Greenspaces Department • Summer 2003



Cooper's
hawk



Cooper Mountain offers spectacular views of the Chehalis Mountains.

**Summer Metro
Greenscene**
News and activities
for nature lovers
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What's happening on Cooper Mountain?

It has been more than a year since the last issue of Cooper Mountain Chronicle. Metro has not added to the 256-acre property overlooking the Tualatin Valley, but the greenspace has improved, benefiting the many plants and animals that call Cooper Mountain home.

Metro staff and hundreds of volunteers have worked to remove invasive weeds, and plant and care for nearly 60,000 trees to restore the recently-logged site. Pockets of oak and madrone trees balanced with open meadow areas and wetlands now support a fascinating array of plants and wildlife. The increased presence of the beautiful rare delphinium and the return of the Western bluebird are just two examples. Cooper Mountain also serves as one of several butterfly-monitoring sites in the region.

Next year, Metro will begin work to prepare a master plan to establish a nature park on its Cooper Mountain property. The plan will identify proposed uses (e.g., hiking, picnicking, nature education and enjoyment) and amenities (e.g., parking, trails, viewpoints, restrooms, signs) featured in the nature park. Natural resource protection measures also will be part of the plan. Interested in participating in the planning process? Call Jane Hart at (503) 797-1585 or send e-mail to hartj@metro.dst.or.us. The Metro Council will approve the plan by December 2004.

For more information about Cooper Mountain, other Metro parks and greenspaces or volunteer opportunities call at (503) 797-1850 or visit Metro's web site at www.metro-region.org/parks.

Street of Dreams partnership benefits Cooper Mountain

The 2003 Street of Dreams at Renaissance Pointe takes place July 19 through Aug. 17 on Cooper Mountain.

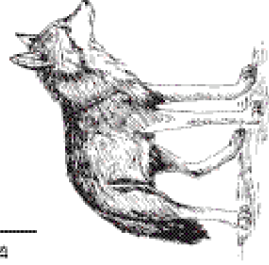
The Home Builders Association of Metropolitan Portland, which hosts the event, arranged with Metro to use a grass field at the intersection of Southwest 190th Avenue and Kemmer Road for parking.

The association will provide traffic management, site security and restore the site if needed. The temporary parking lot is in an area of marginal wildlife use and avoids areas where sensitive plants and animals live.

Since the event takes place in mid summer, most wildflowers have gone to seed and wildlife activity is low.

In exchange for use of the field, the association will help fund the master planning for Cooper Mountain and build greater awareness of the benefits of Metro's open spaces acquisition program for area residents. Residents, businesses and local governments are working together with Metro to assure that the natural environment remains a vital part of our communities.

"Investments in open spaces provides important benefits to our community," said Jim Desmond, director of Metro's Regional Parks and Greenspaces Department. "This partnership gets us one step closer to opening Cooper Mountain as a nature park for the public to enjoy."



Western bluebirds return to Cooper Mountain

With help from volunteers and the Prescott Bluebird Recovery Project, Western bluebirds have returned to Cooper Mountain. These gentle and colorful thrushes have diminished in numbers in Western Oregon. However, placement of 15 nest boxes in strategic areas on Cooper Mountain during the last four years has given them a new home.

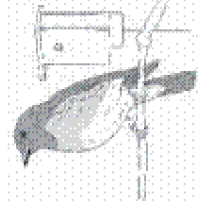
Historically, Western bluebirds were common into the early 20th century, when small farms with interspersed clearings and woodlands dominated the Willamette Valley. The bluebirds used holes in snags, dead and dying trees and wooden fence posts to build their nests. These natural cavities diminished as residential development and large-

scale agriculture replaced family farms. Fewer nesting sites and increased competition from house sparrows and European starlings pushed Western bluebirds to a few scattered populations. By the mid-1940s, bluebirds were only found near Cooper Mountain in places such as Ladd Hill near Sherwood and Parrett and Chehalis mountains near Newberg.

Western bluebirds prefer open fields, pastures or large mowed yards with medium-sized trees for nest guarding and perching. Nest boxes are placed in the open on fence posts or metal poles near select trees. When nesting season begins in March, the male establishes and defends feeding territories to which he brings his mate.

Females choose the "best" nest box within that territory. A successful pair will return year after year to the same area, often to the same nest box.

The Cooper Mountain bluebirds are not migratory. Many will remain in their nesting territories throughout the winter in small flocks. They may move to lower elevations if the weather becomes too cold or may roost overnight in a nest box.



Today, the Western bluebird is making a come-back throughout the Willamette Valley. The work of many volunteers and Metro staff to establish and maintain suitable habitat for bluebirds on Cooper Mountain is part of that success. Visitors can look forward to enjoying these beautiful birds for many years to come.

The Prescott Bluebird Recovery Project is a nonprofit organization dedicated to the recovery, restoration, and enhancement of the Western bluebird and other native cavity nesting birds (swallows, wrens, nuthatches, chickadees). To learn more about Western bluebirds and their recovery in Oregon, go to www.prescottbluebird.com.

Cooper Mountain – a stop on the summer open spaces tour series

Metro Council President David Bragdon is hosting a series of guided summer open space tours for interested citizens. On Saturday, July 12, the tour bus will pay a visit to Cooper Mountain as part of the Washington County tour.

Thanks to voter approval of the 1995 open spaces, parks and streams bond measure, Metro purchased 8,000 acres of greenspaces throughout the region, including 256 acres on Cooper Mountain. This land will support fish and wildlife, soften the urban

landscape and offer people future access to nature close to home.

The tours offer people an opportunity to visit some of these remarkable places and learn about how Metro is working with other park agencies to

assemble a system of parks, greenspaces, trails and greenways around the greater Portland metropolitan region.

To find out more about the free guided summer greenspaces tours, call (503) 797-1560.

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Author – Alexis Dow, CPA

Reviewers – Rex Burkholder, Carl Hostalka,

Susan McLean, Rod Monroe,

Brian Newman, Rod Park

Metro Council President –

David Bragdon

Regional Parks and Greenspaces

Department

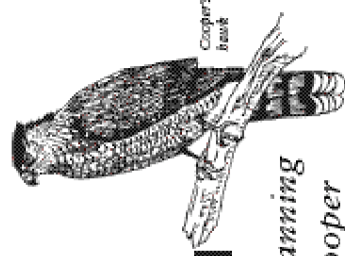
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Portland, OR 97232



Cooper Mountain chronicle

Metro's Regional Parks and Greenspaces Department • January 2004



Planning begins for a nature park on Cooper Mountain

Together with the public, Metro and its partners will begin preparing a master plan next month for a natural area park on Cooper Mountain. The park will not become a site for active recreation (for example, sport or ball fields). Instead, the property will be developed to protect Cooper Mountain's native plants, wildlife and views while providing opportunities for nature-related use and enjoyment by park visitors.

A project advisory committee representing interested citizens, local government agencies and groups will work with Metro staff to identify issues, develop park design alternatives and natural resource protection measures. The committee's first meeting will be in early February. Interested citizens will also be invited to attend public meetings, participate in guided tours of the property and get involved in helping shape the elements of the master plan and park concept designs.

Some 236 acres are protected on Cooper Mountain so far – including the summit and southern slope of the mountain. This area, on the western edge of Beaverton, is home to many native plants and wildlife and offers views of the Tualatin Valley and Chehalien mountains. Hundreds of volunteers have contributed thousands of hours to improve Cooper Mountain's natural environment. The return of Western bluebirds and several species of wildflowers to Cooper Mountain is a good sign that the hard work is paying off.

The Cooper Mountain Master Plan will be adopted by Metro Council in spring 2005. "Balancing the protection and enhancement of the property's natural values with appropriate public use requires careful consideration. It's going to take some time," said Metro Councilor Carl Hosticka. Hosticka represents Metro District 3, which includes Cooper Mountain.

Organizations or residents interested in participating in the master planning process or getting on the mailing list should call Ron Klein at (503) 797-1774 or send e-mail to kleinr@metro.dst.or.us.



Be a part of planning the park on Cooper Mountain

You can help us begin the master planning process by taking a few minutes to give us your thoughts about a park on Cooper Mountain. Complete and return this survey by Feb. 27 to Ron Klein, Metro Regional Parks and Greenspaces Department, 600 NE Grand Ave., Portland, OR 97232.

You also can complete the survey by going on line at www.metro-region.org. Go to "Quicklinks" and click on "Cooper Mountain master plan." On the master plan page you can link to the survey in the left column. The web site also contains additional information about the master planning activity schedule, site tours and volunteer opportunities.

1. Do you think having natural open space in your community is valuable? (circle one) yes no
2. What do you think is the most important reason for making improvements at the Cooper Mountain natural area?

3. How important are the following park features and activities for a park on Cooper Mountain? (circle one)

- play structure for young children very important somewhat important not important
- network of walking trails very important somewhat important not important
- loop trail with viewpoint very important somewhat important not important
- trails for horses very important somewhat important not important
- mountain biking in the park very important somewhat important not important
- parking for at least 15 vehicles plus one bus very important somewhat important not important
- parking for at least 30 vehicles plus two buses very important somewhat important not important
- wildlife viewing very important somewhat important not important
- help improve habitat for plants and animals very important somewhat important not important
- bike racks very important somewhat important not important
- restrooms very important somewhat important not important
- a place to spend time with family and friends very important somewhat important not important

continued

How important are the following park features and activities for a park on Cooper Mountain? (continued)

- individual picnic areas
very important somewhat important not important
- a group picnic shelter
very important somewhat important not important
- resting/viewing benches
very important somewhat important not important
- guided tours to learn more about nature
very important somewhat important not important
- a place for school field trips for outdoor learning
very important somewhat important not important
- signs that showcase the natural and cultural features of the park
very important somewhat important not important

4. Should the park provide for small groups (25-50) and family gatherings? *(circle one)* *yes no*

5. What concerns or issues do you have about opening a park on Cooper Mountain? (for example, noise, litter, wildfire, vandals, traffic)

6. How often would you visit the park if it had some of the features you would use? *(circle one)*

weekly monthly a few times per year never

7. Because of conflicts with wildlife and to protect sensitive plants, Metro employs a "no-dogs-allowed" policy in its nature parks. Would you agree with a similar policy at a Cooper Mountain park? *(circle one)*

strongly agree somewhat agree somewhat disagree strongly disagree

8. Please provide other comments and suggestions that would be helpful to Metro in preparing a draft Cooper Mountain Master Plan.

9. What is your age group? *(circle one)*

younger than 18
18-34
35-54
55-65
older than 65

10. What is your ZIP code? _____

Metro People places • open spaces

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy and good transportation choices for people and businesses in our region. Voters have asked Metro to help with the challenges that cross those lines and affect the 24 cities and three counties in the Portland metropolitan area.

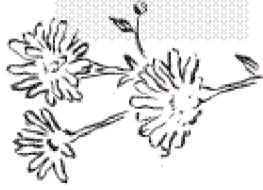
A regional approach simply makes sense when it comes to protecting open space, caring for parks, planning for the best use of land, managing garbage disposal and increasing recycling. Metro oversees world-class facilities such as the Oregon Zoo, which contributes to conservation and education, and the Oregon Convention Center, which benefits the region's economy.

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Auditor – Alexis Dow, CPA

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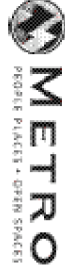
Take a guided nature tour
of Cooper Mountain this spring!
with Metro naturalists Deb Scrivens and
James Davis. Check your spring 2004 issue
of Metro GreenScene or visit
www.metro-region.org/greenscene



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Cooper Mountain chronicle

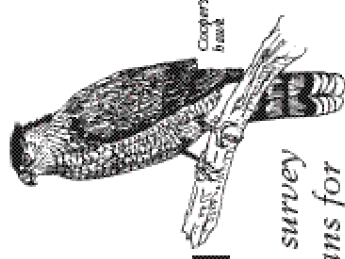
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Cooper Mountain chronicle

Metro's Regional Parks and Greenspaces Department • May 2004

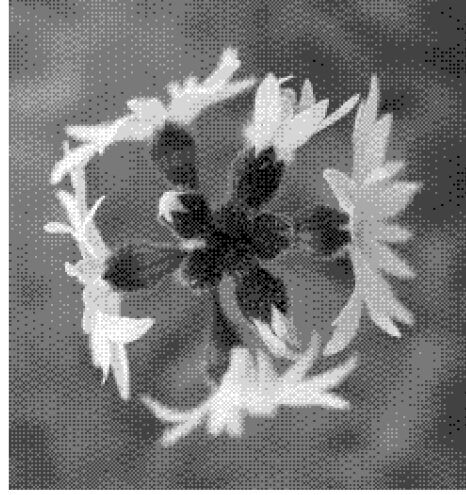


Public opinion survey helps shape plans for Cooper Mountain

Nearly 400 people took the time to complete and return a survey posted on Metro's web site and distributed to 1,800 addresses in the vicinity of Cooper Mountain. The survey is not scientific, but is an important part of the master planning process to help identify possible public facilities, uses and issues associated with the natural area property. Most of the respondents (69 percent) were from the immediate surrounding area of Cooper Mountain and most (98 percent) valued natural open space as a community benefit.

Eighteen possible public facilities and visitor experiences were rated. Respondents ranked providing a network of trails (98 percent), viewing wildlife (92 percent) and environmental education such as school field trips (81 percent) as very important or somewhat important. The top five concerns and issues included activities such as vandalism, littering, noise, wildfire, traffic and parking in adjacent neighborhoods. Based on this survey and discussions with neighbors, various

continued



Woodland star

Open house offers look at plans for Cooper Mountain natural area

A ttrend an open house to view facility design options for the Cooper Mountain natural area from **6 to 8 p.m. Wednesday, May 19**, at Southridge High School, 9625 SW 125th Ave., Beaverton. Three design options and maps will be on display. Metro staff will be available to answer questions and take your comments.

Metro and its partners began work earlier this year to prepare a master plan to build visitor facilities on its 240-acre natural open space on Cooper Mountain near Beaverton. The plan will recommend public uses and amenities to be featured at the natural area. Above all, the plan will address how visitors can enjoy the greenspace while protecting native plants, wildlife and views.

Citizen comments, technical analysis and review by the Cooper Mountain Project Advisory Committee and Metro staff will serve to help shape and select a recommended natural area design option. The recommended design will be featured at another open house in September and published in a draft master plan by the end of 2004. The draft master plan will be subject to public review and comment. Metro Council is expected to adopt the final master plan by spring 2005.

Find out more about the Cooper Mountain natural area by visiting Metro's web site at www.metro-region.org/parks, by calling Ron Klein at (503) 797-1774 or by sending an e-mail to kleinr@metro.dst.or.us.



Take a trip into nature!

Metro is offering a guided nature tour of Cooper Mountain's birds and wildflowers from **12:30 to 4 p.m. Sunday, May 23**. The tale of the Cooper Mountain landscape includes volcanoes, wildfire, oak prairies, perched wetlands, rare wildflowers including the pale larkspur and uncommon birds such as the western bluebird. Explore this greenspace, compare diverse habitats and track wildlife with Metro naturalist Deb Scrivens.

Bring a snack and plenty of water for this stroll. Terrain is steep and rough in some places. For adults and children 6 or older; children must be accompanied by an adult.

The tour is free, but advance registration is required by calling (503) 797-1850 option 4. You will receive directions to the meeting place and other details after you register.

citizen, recreation and environmental groups; and the Cooper Mountain Project Advisory Committee, Metro developed a series of master planning goals and objectives to guide proposed site designs and facility improvements.

Three design alternatives will be presented out that will feature public facilities, public uses and habitat protection measures. These draft designs will be available for public review and comment at the May 19 open house.

Cooper Mountain natural area to get new signs

There's a lot of excitement surrounding future plans to build new facilities at Cooper Mountain natural area. However, until public use can be carefully planned to protect its special natural features, Metro's Cooper Mountain property is not officially open to the public. Indiscriminant use of the property has caused some land and habitat damage from newly established informal trails and inappropriate activity (e.g., paintball games). There was even a recent man-caused fire on the property that could have been more serious.

Consistent with its park rules (Metro Regulatory Code, Title 10.01.220), Metro will post signs on its Cooper Mountain property prohibiting motorized vehicles, firearms, bikes and dogs.

Not allowing dogs in Metro parks and natural areas has been puzzling to many people. The primary reason for such a rule is because of the conflict pets (particularly dogs) produce in parks and natural areas managed for fish and wildlife habitat.

For example, Smith and Bybee Lakes Wildlife Area and Oxbow Regional Park are open year-round for public use and enjoyment, but are managed in a way that protects habitat for a wide variety of fish and wildlife species.

ies. Visitors to these places have a unique opportunity to experience the native plants and animals in a natural environment. Dogs, by nature, can significantly alter a visitor's experience and can damage sensitive habitats or restored habitat sites as well as harass or kill vulnerable wildlife.

A "dogs-on-leash" rule has proved ineffective in the past, because many people disregard the policy. We also have experienced that a number of pet owners do not take the responsibility to pick up pet waste.

With the exception of special service dogs, Metro will continue its current policy of excluding pets from their parks and natural areas to help assure a quality visitor experience and help protect the natural resource values of places such as Cooper Mountain.

Metro People places • open spaces

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy and good transportation choices for people and businesses in our region. Voters have asked Metro to help with the challenges that cross those lines and affect the 24 cities and three counties in the Portland metropolitan area.

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Metro's web site
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Cooper Mountain
chronicle

Cooper Mountain chronicle

Metro's Regional Parks and Greenspaces Department • September 2004

Plan taking shape for Cooper Mountain Natural Area



The vision for a public natural area on Cooper Mountain comes into focus this fall with the release of a proposed design concept for trails, access points, a nature house and other visitor facilities. Attend an open house in September to see the draft facility design for this 231-acre open space in Washington County. Later this year, the public will review and comment on a draft master plan that will go before the Metro Council for adoption in spring 2005.

New funding identified by the Metro Council will help make the plan a reality. "Metro's acquisition program has been very successful in protecting more than 8,000 acres of open space throughout the region," said Metro Councilor Carl Hosticka, whose district includes Cooper Mountain. "Opening some of these incredible places to the public is an important next step. Cooper Mountain Natural Area will provide access to nature, learning and recreation for generations to come."

Nearly a year in the making, the proposed design is intended to protect and enhance the natural area for wildlife while offering visitors high-quality experiences in nature. Successfully achieving this balance requires the participation, expertise and leadership of many. Tualatin Hills Park and Recreation District, the city of Beaverton, a dedicated project advisory committee and hundreds of neighbors and citizens all helped produce the draft design concept.

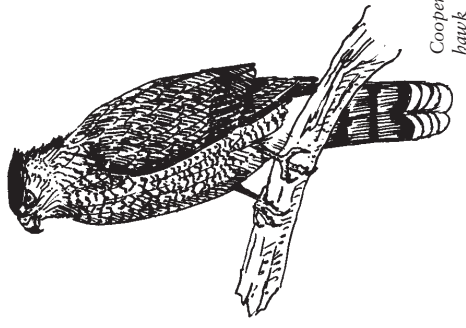
Under the proposal, visitors will access the natural area from both Southwest Kemmer and Grabhorn roads. Entrance areas will include parking lots, picnic tables and other amenities. With an emphasis on use by hikers, Cooper Moun-

tain will feature a 3 1/2-mile trail network that will include an equestrian loop and a 1/2-mile ADA accessible summit trail with views of the Tualatin River Valley. In the future, a nature house will be the staging area for a variety of environmental education activities, including school field trips and guided nature tours. When complete, regional trail connections to the natural area will offer opportunities for bicycle use.

More information about the natural area and the master planning process is available on Metro's web site at www.metro-region.org/parks. Get on the Cooper Mountain mailing list by calling Ron Klein at (503) 797-1774 or sending e-mail to kleinr@metro.dst.or.us.

Come to an open house on Sept. 22

See inside for details



Cooper's
hawk

Review the proposed design concept

Open house at the Jenkins Estate

6 to 8 p.m. Wednesday, Sept. 22

Review the proposed visitor facility design concept for the Cooper Mountain Natural Area. Metro staff will be on hand to answer your questions and receive your comments about the proposed facilities, habitat protection measures and recommended recreational uses. The Jenkins Estate is located at 8005 SW Grabhorn Rd., Aloha.

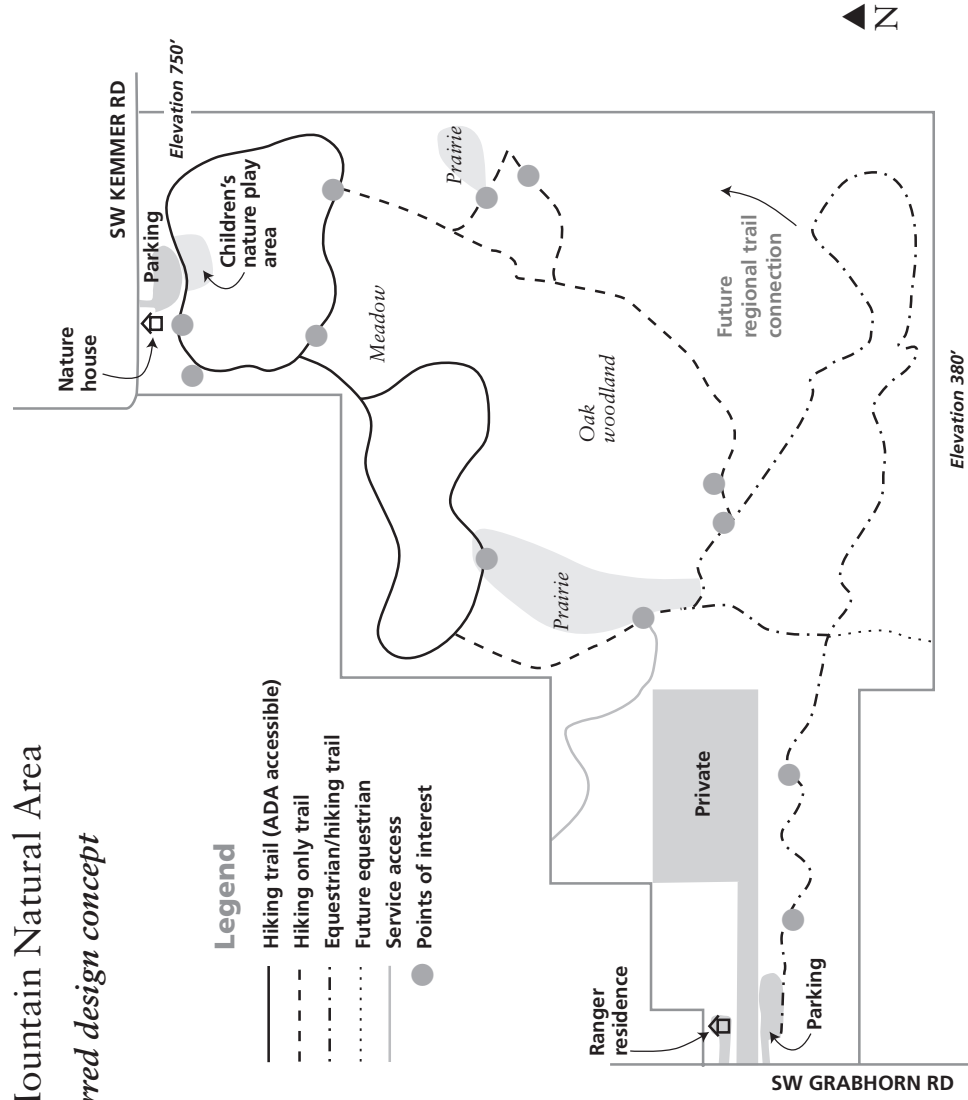
Can't make the open house?

Attend a virtual open house on Metro's web site

If you can't attend the Cooper Mountain open house at the Jenkins Estate, visit the virtual open house on Metro's web site. See the proposed design concept, review background information, maps and planning documents, ask questions via e-mail or the phone, and give us your input in an online survey. Go to www.metro-region.org/parks and click on "Cooper Mountain virtual open house" between Sept. 22 and Oct. 15.

Cooper Mountain Natural Area

Draft preferred design concept



Get to know Cooper Mountain

It is likely to take a few years for Cooper Mountain Natural Area to officially open to the public. Design, permitting and construction take time. But you don't have to wait to enjoy the nature of Cooper Mountain. Take advantage of one of the many opportunities that Metro offers to explore and experience this unique natural area.

Metro naturalists lead nature tours highlighting the wild side of

Cooper Mountain throughout the year. Discover the many plants and animals that call Cooper Mountain home, including rare birds and wildflowers. Public tours are listed in the Metro GreenScene and on Metro's web site. For groups of 10 to 25 people, Metro will arrange a private tour. Call Metro naturalist Deb Scrivens at (503) 797-1852 for group tour details.

Since Metro purchased the Cooper Mountain property in 1997, dozens of volunteers have helped with a variety of habitat restoration and management projects. Volunteers are needed to continue in the restoration effort and help monitor plant and wildlife populations.

If you would like to get involved in habitat improvement projects for wildlife or have special skills in identifying native plants, birds, mammals, reptiles or amphibians, call Mary West at (503) 797-1814 for more information

about becoming a Cooper Mountain volunteer.

Until facilities are developed and adequate access and protection of natural resources is ensured, the public is asked to limit their use of Cooper Mountain Natural Area to these guided tours and volunteer activities. In the meantime, Metro has posted signs on the property that prohibit dogs and the use of motorized vehicles, firearms and bikes (Metro Regulatory Code, Title 10.01.220). These interim policies are critical to the success of restoration efforts.

Learn about the nature of Cooper Mountain

Naturalist guided tours

**11 a.m. to 1:30 p.m. Sunday, Sept. 19, and
10 a.m. to 12:30 p.m. Saturday, Sept. 25**

Join a Metro naturalist on a guided tour of the Cooper Mountain Natural Area. Learn about the interesting geologic history of the site, and see for-ests of different ages, as well as many rare species of plants and trees, including the Willamette Valley ponderosa pine. Much of the Tualatin River watershed can be viewed from the site. Bring a snack and plenty of water. Terrain is steep in some places. All ages are welcome, but an adult must accompany children. Free. Advance registration required; call (503) 797-1850 option 4.



Cooper Mountain visitors examine wildlife tracks.

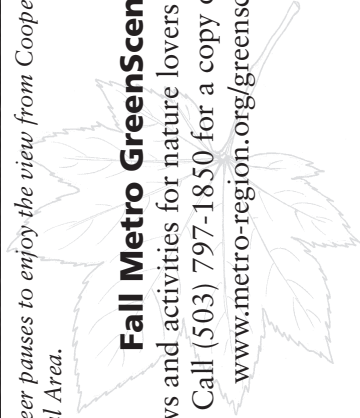


Volunteer pauses to enjoy the view from Cooper Mountain Natural Area.

Fall Metro GreenScene

News and activities for nature lovers of all ages.

Call (503) 797-1850 for a copy or visit
www.metro-region.org/greenscene.



Metro

People places • open spaces

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Metro's web site

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Cooper Mountain chronicle



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Regional Parks and Greenspaces
Department
600 NE Grand Ave.
Portland, OR 97232

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 05-3643, FOR THE PURPOSE OF APPROVING THE COOPER MOUNTAIN MASTER PLAN AND MANAGEMENT RECOMMENDATIONS

Date: December 1, 2005

Prepared by: Lora Price

BACKGROUND

On February 15, 1996, Metro Council adopted Resolution No. 96-2275A ("For the Purpose of Approving a Refinement Plan for the Cooper Mountain Target Area as Outlined in the Open Space Implementation Work Plan"). The resolution identified 428 acres of forested properties on the southwest face of Cooper Mountain as a priority for acquisition pursuant to the 1995 Open Space, Parks and Streams bond measure. Between February 1997 and December 1999, Metro Greenspaces staff negotiated and executed Agreements of Purchase and Sale and acquired ten priority properties identified in the Cooper Mountain Refinement Plan.

The 231-acre Cooper Mountain Natural Area, located in unincorporated Washington County, straddles the urban growth boundary approximately three miles southwest of Beaverton city limits. The site features scenic vistas, unique upland oak woodland habitat and headwaters to the Tualatin River and will provide a regional scale natural area for public use.

On July 19, 2001, Metro Resolution 01-3088 (" For the Purpose of Creating a Green Ribbon Committee to Examine and Nominate Certain Metro Greenspaces Sites to Open and Operate for the Public") was approved. It directed the formation of a short-term, fast working citizen task force, The Green Ribbon Committee, to address Regional Parks and Greenspaces project priorities and funding needs by 1) identifying 8 – 10 projects/sites within Metro's existing open spaces properties to provide greater access to the public, 2) quantifying the cost to accomplish these projects in a fiscally realistic manner and validating budget requirements within a range of \$2 - \$4 million, annually, and 3) recommending to Council an appropriate revenue source to implement these priority projects.

Cooper Mountain was identified as one of fifteen recommended sites, and was further recognized as an anchor site deserving a higher funding level. The Committee also recommended permanent use of Metro's excise tax for capital improvement and operations and maintenance of all fifteen sites.

On May 20, 2004, Metro Council Ordinance No 04-1048A, (" For The Purpose of Amending Metro Code Chapter 7.01.023 to Increase the Amount of Additional Excise Tax Dedicated to Funding Metro's Regional Parks and Greenspaces Programs"), was adopted which added \$1.50 per ton excise tax on solid waste dedicated to Regional Parks. The funds will provide the resources necessary to develop the highest priorities in the Green Ribbon Committee's report, including minimal development of Cooper Mountain. The ordinance also included the longer-term revenue necessary to operate the facility and provide environmental education programming and volunteer activities in this suburban portion of the region.

In January 2004 Metro Parks planning team initiated a 20-month public master planning process for the Cooper Mountain Natural Area. Metro worked closely with Tualatin Hills Park and Recreation District, the City of Beaverton (both financial partners on the Master Plan), Washington County Planning Department, a 16-member Project Advisory Committee and adjacent landowners. Additionally, an

interest survey, updates to the planning process through newsletters and a website, public open houses, trail tours, community meetings, a design workshop and public written comments were used to solicit and share information with all stakeholders. The Master Plan and Management Recommendations represents the culmination of this process and reflects design solutions appropriate to the site.

ANALYSIS/INFORMATION

1. Known Opposition: None.

There is no known opposition to the Cooper Mountain Master Plan and Management Recommendations. During the Project Advisory Committee meetings, public open houses, and meetings with neighbors, concerns and issues were raised related to appropriate types and levels of recreational use, trail design, management oversight and impacts to neighbors. Issues included bicycle and equestrian use, the allowance of dogs, safety and wildfire concerns, and impacts to surrounding neighbors from increased traffic. The public input has been very useful in helping define the appropriate balance of recreation use and resource protection for this site and is largely reflected and incorporated throughout the plan. Some concerns, i.e. traffic increases, will be further analyzed and addressed in the design and engineering phase of the project.

2. Legal Antecedents

Metro Council Resolution No. 96-2275A ("For the Purpose of Approving a Refinement Plan for the Cooper Mountain Target Area as Outlined in the Open Space Implementation Work Plan") identified 428 acres of forested natural area in the Cooper Mountain Target Area as a priority for acquisition in order to provide a regional scale natural area in Washington County accessible to the public. Metro Council Ordinance No. 04-1048A, ("For The Purpose of Amending Metro Code Chapter 7.01.023 to Increase the Amount of Additional Excise Tax Dedicated to Funding Metro's Regional Parks and Greenspaces Programs") approved an additional \$1.50 per ton excise tax on solid waste dedicated to Regional Parks to provide the resources necessary to develop the highest priorities in the Green Ribbon Committee's report, including minimal development of Cooper Mountain.

3. Anticipated Effects

When implemented, the Cooper Mountain Master Plan and Management Recommendations will allow the public to enjoy spectacular views, oak woodlands, mixed conifer and riparian forests, meadows, wildflower prairies, and perched wetlands via a carefully planned trail system. Interpretive opportunities and environmental education activities focused on the unique habitats and wildlife that live in these settings will also be provided.

The Master Plan and Management Recommendations provide a conceptual vision for Cooper Mountain Natural Area that guides future use, site improvements, vegetation management and future operations. The document provides a conceptual site plan for facility and trail development, estimated costs and proposed phasing for implementation. It provides strategies and priorities for vegetation management and cost estimates for habitat restoration. It identifies interpretive themes and program delivery methods. Finally, it provides recommendations for future operations and maintenance that address safety, security, facility use, maintenance practices and anticipated staffing needs.

Specific recommendations in the Master Plan and Management Recommendations include:

- A 3.5-mile trail system that traverses a diversity of habitats and accommodates hikers, equestrians and people with disabilities.
- Emergency and service vehicle access along a converted logging road that could accommodate future regional bike trail connections to the Westside Powerline Regional Trail and Burlington Northern Regional Trail.

- A nature house that will provide an environmental education classroom for school groups and meeting space for community groups.
- Two parking areas and trailheads. Kemmer Road will provide parking for up to 30 vehicles, a bus drop off, restroom, benches, drinking fountain, children's play area and other amenities. Grabhorn Road will offer parking for 20 vehicles including horse trailers, staging for equestrians, restroom, picnic tables, shelter and other amenities such as bike racks, benches and trash receptacles.
- A caretaker residence and maintenance yard to provide a management presence on site.
- Interpretive signs along the trail and education programs that focus on the natural and cultural history of the site and vicinity.
- Habitat restoration strategies for the oak woodlands, prairie, meadow, riparian and mixed conifer forest habitats.

4. Budget Impacts

The development of the Cooper Mountain Natural Area has been divided into three phases: Phase I will include the development of the Kemmer Road entrance and trailhead amenities, the nature house, and construction of the complete trail system. The estimated cost for Phase I is \$1,143,111. Phase II includes the development of the Grabhorn Road entrance and trailhead amenities at an estimated cost of \$271,600. Phase III includes the development of the caretaker's residence at an estimated cost of \$336,000. The estimated cost to restore the natural resources on site is approximately \$375,000. The total estimated cost to restore habitats and design and construct all recommended improvements is \$2,125,711. Annual costs to operate and maintain the future developed natural area are estimated at \$275,000 per year.

Metro will be the primary funding source for project implementation, but grants and other financial partnerships will be pursued. Metro's FY 2005-06 budget includes \$150,000 for design, engineering and land use approvals. Metro's FY 2006-07 and 2007-08 budgets allocate a total of \$1,500,000 for habitat restoration and the construction of trails and facilities. This amount is sufficient to develop Phase I proposed improvements, and will be funded through the dedicated excise tax increase for park development. This funding will also be used to leverage additional funding to complete Phases II and III.

It remains the goal of the Parks Department to share the responsibilities and cost for long-range management of the site, once open to the public, with Tualatin Hills Parks and Recreation or another local parks provider. Those discussions will commence this fiscal year and the outcome is not certain at this time.

RECOMMENDED ACTION

Michael J. Jordan, Chief Operating Officer, with the concurrence of David Bragdon, Council President, recommends approval of Resolution No. 05-3643.

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ESTABLISHING A) RESOLUTION NO. 05-3644
BROWNFIELDS PROGRAM AND A)
BROWNFIELDS TASK FORCE) Introduced by Councilor Rex Burkholder
)

WHEREAS, establishing a Brownfields Program that complements ongoing efforts by cities and counties in the region will enhance the efficient use of land, eliminate environmentally contaminated sites and generate additional tax revenues for local governments; and

WHEREAS, identifying and prioritizing Brownfields in the region is an important part of increasing the developable short-term land supply in the region; and

WHEREAS, underutilized Brownfields sites are a collective challenge for the region, yet present an opportunity to provide significant redevelopment opportunities for affordable housing and jobs for the region; and

WHEREAS, establishing a task force to provide recommendations to the Metro Council on developing and maintaining an inventory of Brownfields, characterization of sites and prioritization of cleanup areas would enhance the program and could be funded by a grant from the U. S. Environmental Protection Agency ("Brownfields Task Force"); and

WHEREAS, a Brownfields Task Force should be composed of citizens from affected areas, experts in the Brownfields field, local governments and contain representation from all parts of the region; now, therefore,

BE IT RESOLVED:

The Council directs the Metro Chief Operating Officer to prepare, by January 31, 2006:

1. A Brownfields Task Force strategic work program for 2006 to outline objectives, measures for success and integration with Metro's existing investments in parks and open space, centers and growth management in the Brownfields Program;
2. A draft membership list for review by the Metro Council; and
3. A notice soliciting membership.

ADOPTED by the Metro Council this _____ day of December, 2005.

David Bragdon, Council President

Attest:

Approved as to form:

Christina Billington, Recording Secretary

Daniel B. Cooper, Metro Attorney

STAFF REPORT

RESOLUTION NO. 05-3644, FOR THE PURPOSE OF ESTABLISHING A BROWNFIELDS PROGRAM AND A BROWNFIELDS TASK FORCE

Date: November 16, 2005

Prepared by: Lydia Neill

INTRODUCTION

The Metro Council adopted Resolution No.05-3605, For the Purpose of Expressing Support for the Comprehensive Economic Strategy and Taking Action to Help Achieve the Region's Objective to Improve the Economy of the Metro Region on July 28, 2005. Resolution No. 05-3605 also outlined a short-term strategy for completing several projects that were both within the agency's core competencies and would have positive economic impacts on the region. One of the short-term items was developing a proposal to address the problem of brownfields in the region.

To proceed on fulfilling these economic development initiatives, staff is preparing two Environmental Protection Agency (EPA) Brownfield grant applications. A 10-day letter was forwarded to Council and no comments were made at that time and as a result staff is proceeding with the grant application process. If funded, two EPA grants would provide Metro with resources for brownfields assessment and site characterization to determine levels of contamination and develop plans to move sites towards cleanup and redevelopment. Staff is proposing to concentrate efforts in economically distressed parts of the region and to build on work that has already been completed by the City of Portland, Clackamas County and the City of Gresham. The highlights of the grants are summarized below. Staff is preparing two grants for \$200,000 each; one for hazardous waste and one for petroleum.

EPA Brownfields Grant Applications will allow Metro to complete the following work:

1. Complete a region-wide inventory of brownfields;
2. Focus site characterizations (Phase I and II assessments) in areas that are economically distressed; Phase I and II assessments are required before clean-up funding can be sought in successive grant cycles; site characterization could lead to redevelopment of industrial sites, redevelopment for mixed uses and/or affordable housing;
3. Form a Brownfields Task Force (BTF) to establish a mechanism to inform and engage the public when the grant is received;
4. Develop a strategy to assess and prioritize sites, focus cleanup, convene and create partnerships to actively encourage redevelopment; and
5. Develop a bank of sites that could be used for redevelopment in centers and possibly for affordable housing.

Resolution No. 05-3644 will provide direction to staff to develop a brownfield program and guidance in forming the BTF. The BTF will provide outreach opportunities for the program, links to communities where the work will be focused and technical expertise on brownfields.

ANTICIPATED EFFECTS

In order for Metro to be successful in the submittal of a grant to EPA, the proposals must be provided to the public and an adequate comment period be established. A news release as well as the draft grant proposals will be circulated to the Metro Technical Advisory Committee (MTAC) and the Metro Policy

Advisory Committee (MPAC) and announced for public comment at the December 1, 2005 Metro Council meeting.

LEGAL ANTECEDENTS

The Brownfields program is consistent with Metro Council Resolution No. 05-3605, adopting the community economic development strategy.

BUDGET IMPACTS

Staff resources for this program will be provided from staff assignments that are in the 2004/2005 budget for economic development. If the grants are successful, grant funds are proposed to be set aside for interns; data resource center staff time to support mapping; communications efforts and consultants to complete this work.

I:\STAFF REPORTbrown_1.doc

BEFORE THE METRO COUNCIL CONTRACT REVIEW BOARD

FOR THE PURPOSE OF AUTHORIZING AN	)	RESOLUTION NO. 05-3645
EXEMPTION FROM COMPETITIVE BIDDING)	
REQUIREMENTS AND AUTHORIZING THE)	
CHIEF OPERATING OFFICER TO ISSUE A)	
DESIGN / BUILD REQUEST FOR PROPOSALS)	
(RFP), FOR THE DESIGN, ENGINEERING AND)	
CONSTRUCTION OF A WATER PLAY)	
FACILITY FOR BLUE LAKE REGIONAL PARK	)	Introduced by Michael J. Jordan, Chief
AND ENTER INTO A CONTRACT WITH THE	)	Operating Officer, with the concurrence of
SELECTED CONTRACTOR	)	Council President David Bragdon

WHEREAS, the Metro Council approved Resolution No. 01-3101B ("For the Purpose of Approving the Blue Lake Regional Park Economic Feasibility Study and Facility Design Concept") on December 6, 2001; and

WHEREAS, the Blue Lake Regional Park Economic Feasibility Study and Facility Design Concept includes provisions for the development of a water play facility "Spray Park" adjacent to the existing swim beach. This "Spray Park" development is intended to provide an option for water play for young children who are not allowed to swim in the lake or those individuals who prefer a non-lake water experience; and

WHEREAS, the adopted Regional Parks and Greenspaces budget for FY 05/06 includes budgeted funds for the design and development of a water play facility; and

WHEREAS, the Metro Code requires that this contract be subject to competitive bidding, unless an exemption is obtained from the Metro Contract Review Board; and

WHEREAS, Metro Code Section 2.04.054(c) authorizes, where appropriate, the use of alternative contracting practices that take account of market realities and modern and innovative contracting methods, which are consistent with the public policy of encouraging competition; and

WHEREAS, Metro Regional Parks and Greenspaces Department proposes to issue a Design/Build Request for Proposals and a subsequent Contract, not-to-exceed a maximum-price of \$190,000; and

WHEREAS, combining design and construction into one contract creates a cost savings by focusing design efforts only on a play facility that can be constructed within available budgeted funds, and allows construction to begin while subsequent project details are concurrently designed (expediting the work); and

WHEREAS, this proposed Design/Build RFP (attached as Exhibit A), encourages competition through the use of multiple evaluation criteria, including contractor fees, professional qualifications and experience, and schedule control; now therefore

BE IT RESOLVED:

1. That the Metro Contract Review Board exempts the Blue Lake Regional Park Water Play Facility contract from competitive bidding requirements, and authorizes the Chief Operating Officer to employ an RFP process, using the evaluation criteria included as part of the accompanying Staff Report.

2. That the Metro Council Contract Review Board authorizes the Chief Operating Officer to execute a contract for the design, engineering and construction of a Water Play Facility at Blue Lake Regional Park with the selected proposer.

ADOPTED by the Metro Council this _____ day of _____, 2005.

David Bragdon, Council President

Approved as to Form:

Daniel B. Cooper, Metro Attorney

EXHIBIT A
Resolution 05-3645

**DESIGN/BUILD
REQUEST FOR PROPOSALS**

RFP#06-1165-PKS

FOR

WATER PLAY FACILITY

AT

BLUE LAKE REGIONAL PARK

December 2005

Glenn Taylor, Project Manager
taylorg@metro.dst.or.us
(503) 797-1716

**PROPOSALS DUE: January 5, 2006, NOT LATER THAN 2:00 PM
LATE PROPOSALS WILL NOT BE ACCEPTED**

EXHIBIT A

WATER PLAY FACILITY for BLUE LAKE REGIONAL PARK REQUEST FOR PROPOSAL

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SECTION ONE – OVERVIEW

1. INVITATION TO SUBMIT A PROPOSAL

- 1.1 METRO is issuing this Request for Proposals (RFP) for a Contractor-Led Design/Build team to provide the design and construction of equipment for an interactive water-play facility, a.k.a “Spray Park”, “Spray Ground”, or “Splash Pad” in Blue Lake Regional Park located at 20500 NE Marine Drive, Troutdale, OR. Contractors are to engage all design consultants and subcontractors required to design and perform the work, as described in this RFP. This is a single-phase RFP with established selection criteria (defined in Section Two). The selection of the design/build team will be based on the quality of responses to all selection and evaluation criteria, and determination of how Metro can best be served. The contract will be a lump sum for all design work, labor and materials. The budget for this project is \$190,000. All work is to be complete by June 15, 2006. **Sealed proposals must be delivered to Metro, Regional Parks and Greenspaces Department, 600 NE Grand Ave, Portland, OR 97232 to the attention of Glenn Taylor, Project Manager, no later than 2:00 PM on Thursday, January 5, 2006.**

1.2 INFORMATION AVAILABLE:

This Request for Proposals may be examined at Metro Regional Center in the Regional Parks and Greenspaces Department and is available on-line at metro-region.org. All known holders of these documents will be on the Proposal Holder list and will receive any addenda issued.

1.3 PRE-PROPOSAL CONFERENCE:

A Pre-Proposal Conference, for prospective Contractors and designers, will be conducted at The Blue Lake Regional Park Curry Building located at 20500 NE Marine Drive, Troutdale, OR on December 13, 2005 at 10:00 am. Attendance at this meeting is not mandatory. A site visit is planned, following the meeting.

1.4 RIGHT TO REJECT PROPOSALS:

Metro reserves the right to reject all Proposals or any Proposals not conforming to the intent and purpose of the Request for Proposals, to reject for good cause any and all Proposals upon a finding of Metro that it is in the public interest to do so or to waive any informality or irregularity in any Proposal or Proposals. Metro further reserves the right to award the Contract at any time within sixty (60) days following the Proposal opening date.

1.5 CONTACT INFORMATION:

For information concerning the proposed work contact Glenn Taylor at (503) 797-1716.

2. OVERALL SCOPE OF WORK

2.1 Background:

Metro completed an Economic Feasibility Study and Facility Design Concept in December 2001, which recommended the addition of a 5,000 square foot water play area. This new child-adult water feature will be an additional attraction that will relieve some pressure on the swim beach and provide an attractive option for young ones not allowed in the lake or those that prefer a non-lake water experience.

2.2 Scope of Work:

2.2.1 Provide Design and Construction for all aspects of the water play facility. Design and construction shall include all design, equipment, labor and materials for a complete and operational facility. Designs shall be done by professional engineers/architects registered in the State of Oregon as required by state law and all local jurisdictions having authority.

2.2.2 The Scope of Work by the design/build team shall include (but are not limited to):

- A. All water play facility features, site improvements, utilities, plumbing, electrical, etc. engineering design.
- B. Design Document Submittals for Owner review and approval at 30%, 80% and 100% completion.
- C. Construction Document preparation, including, drawings and specifications, for review and approval.
- D. Building Permit submittals.
- E. Site survey
- F. Demolition
- G. Excavation
- H. Utilities
- I. Plumbing
- J. Electrical
- K. Concrete work
- L. Painting
- M. Equipment installation
- N. Construction supervision/management.

2.2.4 Schedule: Work must be complete by June 15, 2006 (to be verified by Owner).

3. Existing Conditions

3.1 Existing Site Conditions:

The water play facility will be located on the site of a current basketball court north and east of the existing swim beach center. The removal and disposal of the existing asphalt paving and basketball standards will be the responsibility of the Design/Build Contractor.

3.2 Site Utilities:

Metro will be adding a new 6" diameter water main that will terminate just to the north of the new facility. An 8" diameter sanitary sewer line manhole is located to the north and east of the facility just east of an existing restroom building. The existing swim beach center building has a 225 amp electrical panel with eight spare breakers that may be used to power the water play structure equipment. There are no storm water drainage lines in the park. The City may require that some sort of drainage facility be installed for winter storm water runoff rather than allow it to be discharged into the sanitary sewer system. It will be the Design/Build Contractors responsibility to determine all the utility requirements and include them in the design and construction cost of the facility.

4. SUPPLEMENTARY CONDITIONS

4.1 CONTRACT TIME:

4.1.1 Time is a basic consideration of this Contract. Pursuant to the provisions of the Time of Completion and Schedule for the Work (Article 5 of the General Conditions of these Contract Documents), work shall commence within five (5) calendar days after issuance of written Notice to Proceed from Metro and **shall be Substantially Completed by June 15, 2006 (to**

be verified by Owner). Completion within this time period is contingent on immediate availability of the site to the Contractor.

4.1.2 LIQUIDATED DAMAGES:

Due to the impact of the work on attendance and access to other public areas of the park, failure to complete work within the established Contract Time (above) is critical. If Contractor exceeds this time, the actual damage to Metro for the delay will be substantial but will be difficult or impractical to determine. **It is therefore agreed that Contractor will pay to Metro, not as a penalty but as Liquidated Damages, the per diem amount of \$600 per day for each and every day that the work is incomplete, after the approved substantial completion date.** A determination of Liquidated Damages liability will be based on the Notice-to-Proceed and the issuance of the Certificate of Substantial Completion. Liquidated Damages may be held from any release of Contract Retainage.

Payment of liquidated damages shall not release Contractor from obligations in respect to the complete performance of the Work, nor shall the payment of such liquidated damages constitute a waiver of Metro's right to collect any additional damages which it may sustain by failure of contractor to fully perform the Work, it being the intent of the parties that the aforesaid liquidated damages be full and complete payment only for failure of Contractor to complete the Work on time. Metro expressly reserves the right to make claims for any and all other damages which Metro may incur due to Contractors failure to perform in strict accordance with this Contract.

4.2 PERMITS AND LICENSES

4.2.1 Contractor shall acquire and pay for all building permits such as electrical permits, mechanical permits, sewer and water connection permits, transportation permits, street closure permits, wage and hour regulations permits, and all other permits of a temporary nature relating to the construction of the project.

4.3 SITE CONDITIONS:

4.3.1 UTILITIES:

Consult with Owner and other private and public utility companies, departments or districts as required for locations, extent, and disposition of all required services related to same. The Owner will assist with locating utilities; however the contractor is responsible for locating light and power poles, sewer, gas, irrigation lines, water piping, and gas and water "shut off" boxes and covers. Notify the project manager and all known potentially affected utility companies, departments of districts at least 48 hours in advance of intended excavation in the approximate locations of underground active utilities. Carefully probe and/or hand dig when excavations approach approximate locations of such utilities. Arrange for and pay cost of disconnecting, removing, relocating, capping, replacing or abandoning all public and private utilities impeding construction operations, all per servicing utilities' regulations and governing Codes. Cap abandoned utilities. Provide maintenance of all on-site active above-grade and below-grade services to others than Owner. Any damaged utilities shall be repaired immediately to Owner's satisfaction.

4.4 SAFETY AND HEALTH PRECAUTION:

4.4.1 Provide warning signs, flagger(s), and other safety and health precautions which may become necessary or required for protection of work already in place or for protection of the public, Owner's personnel, and construction personnel, including Owner's Representatives engaged on the Project. State of Oregon Workmen's Compensation Board Safety Codes for Construction Work and Federal Occupational Safety and Health Standards of the Occupational Safety and Health Act of 1970 (OSHA), all as applicable, form a part of these Specifications. See Article 10 of the General Conditions.

4.4.2 SPECIAL PRECAUTIONS:

Construction work in and around such areas of the Owner's building occupied by operations personnel or frequented by the public and to remain in continued operation shall be conducted in such manner as to permit such operation without jeopardy and with absolute minimum of inconvenience to occupants and public. Take every precaution to minimize noise, spreading of dust and debris, causing undue vibrations or impacts, and other nuisances. Do no structural or other damage to any in-place improvements to remain. Access to the site will occur through public areas so special caution is advised. Any damage done to existing grounds or facilities must be replaced to pre-construction status.

4.5 **DEFINITIONS:**

4.5.1 Owner, Owner's Representative, Project Manager - All such references, in this document, refer to the Metro's designated Project Manager, or a designee of Metro's Project Manager.

5. **GENERAL REQUIREMENTS**

5.1 **CONTRACTOR USE OF PREMISES:**

5.1.1 General:

- A. Except as otherwise stipulated, Contractor will have use of the Project Premises for the execution of the Work.
- A. Contractor shall conduct his operations as to insure the least reasonable inconvenience to the General Public. The project work shall be coordinated with the operation of the park staff so as to minimize traffic congestion and other problems during events. Utility location and connections shall be coordinated with the proper utility companies.
- B. If and where necessary and when directed, move any stored Products, Equipment, or Vehicles which are under contractor's control, and which interfere with operations of Owner.
- C. Obtain and pay for any necessary additional Storage or Work Areas.
- D. The Owner reserves the right to stipulate specific days / times when work cannot occur in an area of the park.

5.1.2 Site Access:

- A. The site will be available Monday through Friday, 7:00 a.m. through 5:00 p.m. Requests to conduct work on the park grounds during any other period must be coordinated with and approved by the Project Manager. Restrictions on the hours of work may occur from time to time to accommodate park activities or special events, etc. Access and parking locations shall be designated by the Project Manager. Park staff and visitors must be allowed safe and adequate access to all areas at all times during construction, unless closure has been scheduled in advance.
- B. While transiting through the park, construction vehicles shall not exceed the 10 mph speed limit.
- C. Remove ignition keys from parked vehicles.
- D. Allow for Owner occupancy of the site and nearby facilities.
- E. Owner Project Manager will identify / approve adequate staging area for contractor parking/ mobilization.

5.1.3 Product Deliveries:

- A. The Contractor shall deliver between the hours of 7:00 a.m. and 5:30 p.m. Unloading must be completed by 5:30 p.m. unless approved in advance by the project manager or park staff. Requests for such approval must be received by the Project Manager at least one (1) day prior to delivery. Contractor shall assume all risk of deliveries during hours beyond those listed above.

- B. Instruct subcontractors and suppliers where deliveries are to be made. Park Personnel will not accept deliveries at Main Park Entry Gate.

5.1.4 Construction Access Routes:

- A. Use only those routes previously identified by Owner.
- B. Repair or, when directed, replace paved surfaces which have been damaged by Contractor's use.
- C. Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times

5.1.5 Use of Owner's Property & Equipment:

- A. Do not use Owner's property, facilities, or equipment such as tools, ladders, furniture, janitorial equipment, supplies, etc.
- B. Any work taking place in planting areas will be coordinated with the park staff. Any moving, pruning or other alterations must have prior approval by the park staff.
- C. Do not disturb any trees outside area of work.

5.1.6 PROTECTING EXISTING UTILITIES

- A. Before starting work, Contractor shall determine exact location of any concealed Utility Lines, including Irrigation Lines that could be damaged by Contract Work.
- B. Contractor shall assume that unknown utility lines do exist, and Contractor shall proceed with caution when working in areas that could conceal unknown utilities. If such utility lines are encountered, immediately request disposition instructions from the Project Manager.
- C. If utility lines or irrigation lines are damaged, remove, repair, or replace lines as directed. Additional compensation and/or extensions of time, if any, caused by removing, repairing, or replacing lines will be determined in accordance with General Conditions.

5.1.7 ANIMALS PROHIBITED

- A. Neither Contractor, subcontractors, material suppliers, project workers, nor project visitors shall bring animals onto park property, nor shall animals be kept within vehicles while on or adjacent to property.

5.1.9 SHUTDOWN OF EXISTING UTILITIES

- A. Do not interrupt existing park utility services or programs without advance written-approval of Owner's Representative.
- B. Minimum Advance Notice:
 - 1. For minor (2 hours or less) interruptions: 3 working days.
 - 2. For major (more than 2 hours) interruptions impacting entire buildings or major areas within park property: 10 working days.

5.1.10 CORRECTION PERIOD FOR NON-COMPLYING WORK

- A. Contractor's response to notice of Work to be corrected shall be accomplished during the following time periods:
- B. Emergency Work:
 - 1. Failures or deficiencies constituting immediate danger or health hazard to people or likely damage to property.
 - 2. Response Time: Within three hours, 24 hours per day 7 days per week.

- C. Urgent Work:
 - 1. Failures or deficiencies which do not immediately endanger persons or property, but would soon do so if not corrected.
 - 2. Response Time: Between 7:00 a.m. and 4:00 a.m. on Mondays through Fridays and within three calendar days following receipt of Notice.
- D. Routine Work:
 - 1. Failures or deficiencies of less importance that do not meet criteria of Emergency or Urgent Work.
 - 2. Response Time: Between 7:00 a.m. and 4:00 p.m. on Mondays through Fridays and within five calendar days following receipt of Notice.

5.2 **PROJECT COORDINATION**

5.2.1 COORDINATION

Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of The Work.

- A. Schedule construction operations in sequence required to obtain best results where installation of one part of Work depends on installation of other components.
- B. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
- C. Coordinate storage or staging areas for all trades.
- D. When necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
- E. Administrative Procedures:
 - 1. Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of Work.
 - 2. Administrative activities include, but are not limited to:
 - a. Preparation of Schedules.
 - b. Installation and removal of temporary facilities.
 - c. Delivery and processing of submittals.
 - d. Progress meetings.
 - e. Project closeout activities.
- F. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.

5.2.2 SUBMITTALS

- A. Staff Names: Within 15 days of commencement of construction operations, submit a list of Contractor's principal staff assignments, including superintendent and other personnel in attendance at Project site.
 - 1. Identify individuals, their duties and responsibilities.
 - 2. List personnel addresses and telephone numbers.
- A. Post copies of list in Project meeting room, and temporary field office.
- B. All submittals in accordance with 5.3, including
 - 1. Design and construction documents @ 30%, 80% and 100% completion
 - 2. Shop drawings
 - 3. Product data
 - 4. Samples

5. Quality assurance

- E. Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities.
1. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.
 2. Comply with Submittal Procedures, Section 1, Article 5.3.

5.2.3 PROJECT MEETINGS

A. Preconstruction Conference:

Schedule a preconstruction conference prior to starting construction, at a time convenient to Owner, but not later than 15 days after execution of Agreement.

1. Hold conference at Project site or other convenient location.
2. Conduct meeting to review responsibilities and personnel assignments.
 - a. Attendees: Metro Project Manager, Blue Lake Park staff, and Owner consultants (as needed); Contractor and its superintendent; designers, subcontractors, suppliers, and manufacturers deemed necessary by Contractor and Owner.
 - b. Participants shall be familiar with Project and authorized to conclude matters relating to Work.
 - c. Agenda: Discuss items of significance that could affect progress, including following:
 - 1) Construction schedule.
 - 2) Critical work sequencing.
 - 3) Designation of responsible personnel, and emergency off-hour contacts.
 - 4) Procedures for processing field decisions and Change Orders.
 - 5) Procedures for processing Applications for Payment.
 - 6) Distribution of Contract Documents.
 - 7) Submittals and approvals.
 - 8) Routing of correspondence.
 - 9) Preparation of record documents.
 - 10) Use of premises.
 - 11) Site access, traffic, and parking rules.
 - 12) Office, work, and storage areas.
 - 13) Safety procedures, and first aid.
 - 14) Housekeeping.
 - 15) Security.
 - 16) Working hours.
 - 17) Inspection procedures.
 - 18) Insurance.
 - 19) Final inspection procedures.

B. Pre-installation Conferences:

Conduct a pre-installation conference at Project site before each activity that requires coordination with other construction activities.

1. Attendees: Contractor, subcontractor(s), manufacturer's representative if required by manufacturer or these Specifications, and fabricators involved or affected by construction activity under consideration. Include code enforcement personnel if required by local codes.
2. Advise Owner of scheduled meeting dates.
3. Review progress of other construction activities and preparations for particular activity under consideration, including requirements for following:
 - a. Contract Documents and related Change Orders.
 - b. Shop Drawings, Product Data, and quality control Samples.
 - c. Mockups.
 - d. Possible conflicts or compatibility problems.

- e. Time schedule.
 - f. Weather limitations.
 - g. Manufacturer's preparation and installation recommendations.
 - h. Warranty requirements.
 - i. Substrate acceptability.
 - j. Governing regulations.
 - k. Inspecting and testing requirements.
 - l. Safety.
 - m. Protection.
 - 4. Record significant discussions, agreements, and disagreements of each conference.
 - a. Distribute record of meeting to concerned parties, including Owner, within 72 hours after meeting.
 - 5. Do not proceed with installation if conference cannot be successfully concluded.
 - a. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene conference at earliest feasible date.
- C. Progress Meetings:
- 1. Conduct progress meetings at Project site at regular scheduled intervals.
 - a. Coordinate meeting dates with preparation of payment request.
 - 2. Contractor to write and distribute minutes of meeting to concerned parties within 72 hours after meeting.
 - 3. Attendees: Authorized representatives of Owner, Contractor, and subcontractors, suppliers, or other entities concerned with current progress or involved in planning, coordination, or performance of immediate future activities.
 - a. Participants shall be familiar with Project and authorized to conclude matters relating to The Work.
 - 4. Agenda: Review items of significance that affect construction progress, including following:
 - a. Construction Schedule.
 - b. Coordination of Work.
 - c. Status of Shop Drawing submittals and approvals.
 - d. Status of Proposal Requests.
 - e. Requests for information and clarification issues.
 - f. Project administration issues.
 - 5. Update Construction Schedule after each progress meeting.
 - a. Issue updated schedule concurrently with minutes of each meeting.

5.2.4 DESIGN/CONSTRUCTION SCHEDULE

- A. Format: Detailed precedence style Critical Path Method (CPM).
 - 1. Submit within 30 days after date established for commencement of Work.
- B. Provide a separate graphic representation for each significant construction activity and event.
 - 1. Include design submittals (@30%/80%/100% completion and reviews), construction start-up for each project element, finish, duration, slack time, approval dates, material ordering, delivery dates, anticipated shutdowns, partial occupancy and Owner use, Completion Date and other such information required to allow Owner's monitoring of progress of project and identifying critical path of events required to meet Completion Date.
 - 2. Use same breakdown of units of Work as indicated in Schedule of Values.
- C. Distribution: Following response to initial submittal, print and distribute copies to Owner, subcontractors, and other parties required to comply with scheduled dates.

- D. Schedule Updating: Revise schedule after each progress meeting, event, or activity where revisions have been recognized or made.
 - 1. Bring significant deviations from Schedule immediately to Owner's attention.

5.2.5 LAYOUT OF WORK

- A. Survey and verify conditions of project site.
- B. Record existing conditions prior to construction for comparison with Contract Documents.
 - 1. Report conflicts to Owner prior to start of Work.
 - 2. Owner will provide revisions to Contract Documents or issue instructions to deal with conflicts.
 - 3. Be responsible for remedying conflicts, which could have been prevented by timely reviews of existing conditions.
 - 4. Remedies, which vary from Contract Documents shall be approved by Owner's Representatives.

5.2.6 FIELD ENGINEERING

- A. Engineering Services:
 - 1. Provide field engineering services as required for construction.
- B. Existing Control Points:
 - 1. Protect control points prior to starting Work, and preserve permanent reference points during construction.
 - 2. Make no changes or relocations of control points without prior written notice to Owner's Representative.
 - 3. Report to Owner's Representative when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
- C. Instrument Layout:
 - 1. Using site benchmarks and existing elevation control points, establish lines and levels, located and laid out by survey instrumentation.
 - 2. Locate water supply, storm and sanitary sewer lines.
 - 3. Locate edge and level of paving, curbs, walks, and sloping landscape.
 - 4. Locate building foundations, column locations, and floor levels.
 - 5. Locate controlling lines and levels required for plumbing, mechanical and electrical Work within 5 feet of building perimeter.
- D. Corrections:
 - 1. Record changes in elevations or location of Work on project record Documents.
 - 2. Report errors in horizontal and vertical dimensions and grades prior to starting Work.
- E. Verification:
 - 1. Verify dimensions of new and existing Work.
 - a. If field measurements differ slightly from Drawings, modify to accommodate. If field measurements differ significantly, notify Owner prior to commencing Work.
 - 2. Coordinate locations of openings through floors, roofs and walls with Architectural, Mechanical and Electrical Drawings.
- F. Documentation: Submit documentation to verify accuracy of field engineering Work when requested by Owner.
- G.

END OF SECTION

5.3 **SUBMITTAL PROCEDURES**

PART ONE – GENERAL

5.3.1. Coordination:

- A. Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
- B. Coordinate transmittal of submittals for related elements of Work so processing will not be delayed by need to review submittals concurrently for coordination.
 - 1. Owner reserves right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 - 2. Partial submittals may be rejected as not complying with these provisions of Contract.
- C. Contractor to certify that each item in submittal has been reviewed and is in accordance with specified requirements for that item, and that field dimensions, adjacent construction Work related to submittal items, have been verified.
 - 1. Apply Contractor's stamp, signed by Contractor, certifying Contractor's review of submittal.
 - 2. Owner will return submittals without action if Contractor has not coordinated submittal and applied signature prior to transmittal to Owner.
- D. Coordinate and ensure that no Work is preformed that is involved with submittal until receiving Owner's stamped and signed approval.

5.3.2. Processing:

- A. Identify each submittal with following:
 - 1. Identity of Project, Contractor, subcontractor or supplier.
 - 2. Reference to pertinent Contract Drawing sheet and detail number(s), and Contract Specification Section number.
- B. Submit items pertaining to only one Specification Section in each submittal.
- C. Number each submittal by Specification Section number and sequential item number.
 - 1. Retain numbering system throughout revisions with addition of sequential letters for each revision to initial submittal.
- D. Identify deviations from Contract Documents, and Product or system limitations, which may be detrimental to successful performance of completed Work.
- E. Transmit each submittal from Contractor to Owner using a transmittal form.
 - 1. Owner will not accept submittals received from sources other than Contractor.

5.3.3. Submittal Log:

- A. Submit submittal log listing all submittals and date to be submitted at first construction meeting.
- B. Submit log itemizing project submittals and project submission date one week prior to first submittal.
- C. Identify each submittal in accordance with Subparagraph 5.2.2.B.3.
- D. Maintain an accurate submittal log for duration of Work, showing current status of submittals at all times.
- E. Make log available to Owner for review upon request.

PART 2 PRODUCTS

5.3.4. DESIGN & CONSTRUCTION DOCUMENTS:

- A. Provide Design / Construction Documents at 30%, 80% and 100% completion.
 - 1. Make drawing accurate, to a scale sufficiently large to show pertinent aspects of the item and its method of construction.
 - 2. Provide engineering drawings/calculations, as required by the state law and local jurisdictions having authority, stamped by an engineer in the State of Oregon.
 - 3. Provide drawings in CADD and /or PDF electronic format.
- B. Make design Drawings accurately to a scale sufficiently large to show pertinent aspects of item and its method of connection to Work.
- C. Provide engineering calculations and drawings stamped by engineer(s)/architects registered in state work is being performed.

5.3.5. SHOP DRAWINGS

- A. Scale and Measurements: Make Shop Drawings accurately to a scale sufficiently large to show pertinent aspects of item and its method of connection to Work.
 - 1. Show in detail, materials, dimensions, thicknesses, methods of assembly, attachments, relation to adjoining Work, and other pertinent data and information.
- B. Coordination: Reference Shop Drawing details to Contract Drawing sheet and detail number(s).
- C. Shop Drawing Format and Submittals:
 - 1. 8 1/2 x 11 inch and 11 x 17 inch sheet size: Submit 5 copies.
 - 2. Larger than 11 x 17 inches: Submit five (5) bond copies of each sheet.
 - 3. Except for templates, patterns and similar full-size drawings, do not submit sheets larger than 36 x 60 inches.
- D. Copies will be returned, marked with Owner's action taken and corrections or modifications required, to Contractor for reproduction and distribution.
 - 1. Do not permit use of unmarked Shop Drawings in connection with construction.

5.3.6 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system.
- B. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required or proposed for Work, clearly mark copies to indicate applicable information.
- C. Include following information:
 - 1. Manufacturer's printed recommendations.
 - 2. Compliance with trade association standards.
 - 3. Compliance with recognized testing agency standards.
 - 4. Performance characteristics and capacities.
 - 5. Notation of dimensions verified by field measurement.
 - 6. Required clearances, wiring and piping diagrams, and controls.
 - 7. Manufacturer's standard schematic drawings and diagrams, modified as required to suit Project requirements.
 - 8. Notation of coordination requirements.
- D. Colors and Patterns: Except where specific color and pattern is indicated in Contract Documents, and whenever a choice of color or pattern is available in specified products, submit two (2) color and pattern charts to Owner for selection.

- E. Submit following for each required submittal:
 - 1. Two (2) copies for Owner.
 - 2. Number of copies as required for Maintenance manuals.
 - 3. Number of copies as required by Contractor for distribution.
- F. Owner will retain three (3) copies and return remainder, marked with action taken and corrections or modifications required, to Contractor for distribution.
 - 1. Contractor to retain number of copies required for maintenance manuals.
 - 2. Do not permit use of unmarked copies of Product Data in connection with construction.

5.3.7. SAMPLES

- A. Submit Samples for review of size, kind, color, pattern, and texture, and to illustrate functional and aesthetic characteristics of Product.
- B. Where variation in color, pattern, or texture, or other characteristic is inherent in material or product represented, submit at least 3 multiple units that show approximate limits of variations, or number of units indicated in individual specification Sections.
- C. Submit following for each required submittal:
 - 1. Three (3) samples for Owner.
 - 2. Number of samples as required by Contractor for distribution.
 - a. Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of Work.
- D. Field Samples: Full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish Project standard.

5.3.8. QUALITY ASSURANCE SUBMITTALS

- A. Submit quality control submittals, including:
 - 1. Design data
 - 2. Certifications
 - 3. Manufacturer's instructions
 - 4. Manufacturer's field reports
 - 5. Other quality control submittals required under individual Technical Specifications of Project Manual.
- B. Certifications: Where individual Technical Specifications Sections of Project Manual require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from manufacturer certifying compliance with specified requirements.
 - 1. Certification to be signed by an officer of manufacturer or other individual authorized to sign documents on behalf of company.

PART 3 EXECUTION

5.3.10. OWNER REPRESENTATIVE'S ACTION

- A. Except for submittals for record or information, where action and return is required, Owner's Representative will review each submittal, mark to indicated action taken, and return to Contractor.
 - 1. Allow minimum 10 working days for Owner's Representative's review of each submittal following receipt of submittal.

- B. Action Stamp: Contractor's designer will stamp each submittal with an action stamp, and mark stamp appropriately to indicate action taken, as follows:
1. Final Unrestricted Release: When a submittal is marked NO EXCEPTION TAKEN, Work covered by submittal may proceed provided it complies with requirements of Contract Documents. Final payment depends on that compliance.
 2. Final-But-Restricted Release: When a submittal is marked MAKE CORRECTIONS NOTED, Work covered by submittal may proceed provided it complies with corrections on submittal and requirements of Contract Documents. Final payment depends on that compliance.
 3. Returned for Re-submittal: When a submittal is marked REVISE AND RESUBMIT, do not proceed with Work covered by submittal, including purchasing, fabrication, delivery, or other activity.
 - a. Revise or prepare a new submittal according to notations and resubmit. Repeat as necessary to obtain a mark releasing submittal.
 - b. Do not use, or allow others to use, submittals marked REVISE AND RESUBMIT, at Project site or elsewhere where Work is in progress.
 4. Rejected from use: When a submittal is marked REJECTED; work or product covered may **NOT** proceed or be used.
 5. Other Action: Where a submittal is for information or record purposes or special processing or other activity, Owner will return submittal marked RECORD DOCUMENT.
- C. Action stamp for design build: Owner's Representative will approve each submittal after Contractor's Designer has reviewed it.
- D. Unsolicited Submittals: Owner's Representative will return unsolicited submittals to sender without action.

END OF SECTION

5.4 CUTTING AND PATCHING

PART 1 GENERAL

5.4.1. SUBMITTALS

- A. Proposal for Cutting and Patching: Where cutting and patching involves structural elements, submit for approval a proposal describing procedures. Include the following information in the proposal:
1. Describe extent of cutting and patching required, how it will be performed, and why it cannot be avoided.
 2. Indicate changes to structural elements, and changes in appearance of visual elements. Include structural calculations.
 3. List products proposed for use and entities that will perform the Work.
 4. Indicate dates that work will be performed, duration of the Work, and when work will be uncovered for Owner's observation.
 5. List utilities that cutting and patching work will affect.
 6. Submit cost estimate and secure Owner's approval of cost estimate and type of reimbursement before proceeding with cutting and patching.

5.4.2. QUALITY ASSURANCE

- A. Structural Work: Do not cut and patch structural elements in a manner that would change their load carrying capacity of load deflection ratio.
1. Obtain approval before cutting and patching structural elements.

- B. Do not cut and patch operating elements in a manner that would reduce their capacity to perform as intended, cause increased maintenance, or decreased operational life or safety.
- C. Do not cut and patch exposed elements of construction that in Owner's opinion would reduce visual aesthetic qualities, or result in visual evidence of cutting and patching.
 - 1. Remove and replace construction cut and patched in a visually unacceptable manner.

5.4.3. WARRANTY

- A. Cut and patch construction using methods and with materials in such a manner as to not void any warranties required or existing.

PART 2 PRODUCTS

5.4.4. MATERIALS

- A. Use new materials identical to existing materials.
- B. Exposed surfaces: Where identical materials are not available, use materials that visually match existing adjacent surfaces as nearly as possible.
- C. Use materials whose installed performance is equal or better to that of existing materials.

PART 3 EXECUTION

5.4.5. INSPECTION

- A. Inspect existing conditions, including elements subject to movement or damage during cutting, excavating, patching, and backfilling.
- B. After uncovering Work, inspect conditions affecting installation of new Work.
- C. Discrepancies: If uncovered conditions are not as anticipated, immediately notify Owner and secure direction before proceeding further.
 - 1. Do not proceed until unsatisfactory conditions are corrected.

5.4.6. PREPARATION

- A. Provide temporary support of work to be cut, including shoring and bracing as required to maintain structural integrity of Work.
- B. Protect existing construction during cutting and patching to prevent damage.

5.4.7. GENERAL PERFORMANCE

- A. Use skilled workers trained and experienced in necessary crafts and familiar with requirements and methods required to restore surfaces to their original condition.
- B. Where required perform excavating and backfilling in accordance with applicable requirements of Division 2 Sections of these Specifications.
- C. Provide dust proof barriers where necessary to protect existing surfaces.

5.4.8. CUTTING

- A. Perform cutting and demolition by methods, which will provide least damage to other portions of Work.

- B. Prior to cutting existing work, locate concealed utilities to eliminate possibility of service interruption or damage.
- C. Cut through concrete or masonry with a carborundum masonry saw or diamond-core drill.
- D. When masonry construction must be pierced, furnish and install a steel pipe sleeve in opening and grout in place neatly.
 - 1. Leave grout surface to match existing finish.
 - 2. Fabricate sleeve one inch in diameter larger than pipe or insulation.
 - 3. Back and caulk between sleeve and pipe with waterproof sealant.
 - 4. At penetrations of fire-resistant rated walls, partitions, ceiling, or floor construction: Seal voids with fire-resistant rated materials as require to maintain assembly of fire-resistant rating of penetrated element, or as required by Building Code.

5.4.9. PATCHING

- A. Perform fitting and adjusting of products to provide a finished installation complying with tolerances and finishes specified for type of construction involved.
- B. Where replacement of equipment and fixtures is required, restore existing plumbing, heating, ventilation, air-conditioning, electrical, and similar systems to full operational condition.
- C. Refinish surfaces to match existing adjacent finish, patching with seams that are durable and as invisible as possible.
 - 1. Where possible, inspect and test patched area to demonstrate integrity of seam.
 - 2. For continuous surfaces, refinish to nearest intersection or natural break.
 - 3. For assembly, refinish entire unit.
 - 4. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining work in manner that will eliminate evidence of patching and refinishing.
- D. When finished surfaces are cut so that smooth transition with existing or new work is not possible, submit to Owner, for approval, recommendation for terminating surface along straight line at natural line of division.
 - 1. Where change of plane of 1/4 inch or more occurs, submit to Owner, for approval, recommendation for providing smooth transition.

5.4.10. CLEANING

- A. Clean areas and spaces where cutting and patching work is performed.

END OF SECTION

5.5. **CONSTRUCTION WASTE MANAGMENT**

PART 1 GENERAL

5.5.1 WASTE MANAGEMENT GOALS

- B. Reuse or recycle waste materials produced as a result of Project to minimize impact of construction waste on landfills and to minimize expenditure of energy and cost fabricating new materials.
- C. Implementation of Contractor's waste management plan for work performed on Project.

5.5.2 WASTE MANAGEMENT PLAN

- A. Indicate waste materials that will be reused or recycled as a result of work performed on Project when practicable and cost effective.
- B. Documentation of Materials to be reused or recycled.
 - 1. Frequency: Monthly
- D. List types of waste materials produced as a result of work performed on site on form at end of this section.
- D. Weight tickets for waste materials removed from site during demolition and construction.

5.5.3 SUBMITTALS

- A. Construction Waste Management Plan.

5.5.4. ON-SITE MATERIALS SORTING AND STORAGE DURING CONSTRUCTION

- A. Verify requirements of recycle or waste processor facilities for preparation of materials they will receive, and what levels of contamination in materials is acceptable.
 - 1. Document in management plan.
- B. Coordinate with local hauler to provide separate containers for materials to be recycled.
- C. Follow source separation requirements for each waste and use appropriate on-site container for each waste.
- D. Provide separate containers for non-recyclable materials.
- E. Rebates: Paid or credited by hauler or recycling facility to be distributed as follows:
 - 1. One hundred percent to Contractor.
- F. Hazardous Waste: Hazardous wastes shall be separated, stored, and disposed of according to local regulations.
 - 1. Do not dispose of any chemicals or other materials (paint, etc.) in skink, landscape areas or in storm drains.
- G. On-site burning of waste shall not be allowed.
- H. Inform field personnel and subcontractors of recycling program.
- I. Continuously monitor program to verify proper source separation and avoidance of recyclable materials contamination.
 - 1. Provide on-site container to facilitate recycling.
- J. Track materials and quantities of recycled materials on form at end of this section.
- K. Recycling Processors and Facilities: Comprehensive list of recycling facilities in Portland Metro area is available from local building permit office or by contacting Metro at (503) 234-3000.

END OF SECTION

5.6 EXISTING TREE PROTECTION

5.6.1 PROTECTION

- A. Temporary fencing, barricades, and guards as necessary or required to protect trees, which are to remain from, damage above and below grade.
 - 1. Erect as directed by Owner, the Oregon .
 - 2. Use galvanized 6-foot chain link fencing and 4-foot orange plastic safety fencing.
- B. Protection of root systems from smothering and compaction.
 - 1. Do not store construction materials or permit vehicles to drive or park within drip line area of any tree to remain.
- C. Protection of plant growth, including root systems of trees, from dumping of refuse or chemically injurious material or liquids, and continual puddling of running water.
- D. This specification shall be applied concurrently and in conjunction with other plant material protection measures herein described and specified.

5.6.2. INSPECTION

- A. Inspect trees shown on plans to be protected, prior to start of construction.
 - 1. Document and photograph unusual conditions.
 - 2. Submit copies of documentation to Owner prior to beginning work.
 - 3. Verify conditions regarding tree protection prior to site disturbance.
- B. Owner must be present during demolition of existing conditions within drip line of trees to remain.
- C. Notify Owner 24 hours prior to inspection and / or tagging of protected trees.

5.6.3. GENERAL

- A. Install barricades at drip lines of trees designated to remain prior to commencement of construction.
 - 1. Designate protected trees to be clear of any material storage, personnel, or vehicular movement.
 - 2. Barricades to occur for any trees within 30 feet of construction or vehicular movement.
- B. Protect root systems of trees to remain from damage due to noxious materials in solution caused by runoff or spillage during mixing and placement of construction materials.
- C. Protect root systems of trees to remain from flooding, erosion, or excessive wetting resulting from dewatering operations and compaction.
- D. Protect existing trees to remain against unauthorized cutting, breaking, or skinning roots and branches, skinning, and bruising of bark.
- E. Fires on project site are not allowed.
- F. Where cutting seems necessary, review conditions with Owner before proceeding, and comply with directives of the Owner.

5.6.4. EXCAVATION AROUND TREES

- A. Excavate within drip line of trees only as approved by Owner.
- B. Where trenching for utilities is required within drip lines, tunnel under or around roots by hand digging or boring.
 - 1. Do not cut main lateral roots or tap roots over one inch diameter.

2. Trench toward trunk of tree and tunnel under central root mass to avoid severing lateral roots on side of trench.
 3. Temporarily support and protect from damage until permanently covered with approved backfill.
- C. Do not allow exposed roots to dry out before permanent backfill is placed. Provide temporary earth or burlap cover.
1. Water roots daily when exposed and maintain in a moist condition.
- D. Backfill roots after inspection approval from Owner.
1. Backfill around root excavations only with clean import topsoil free from materials deleterious to root growth.
 2. Backfill to eliminate voids, compact only by means of manual tamping at root areas.
 3. Water sufficient to settle topsoil and eliminate voids or air pockets around roots.
 4. Allow for natural settlement of soil surface, and furnish and apply topsoil sufficient to bring to original finish grade after backfill settlement.
- E. Conditions that threaten survivability of protected tree or that affects stability or integrity of root system, notify Owner.

5.6.5. GRADING AND FILLING AROUND TREES

- A. Maintain existing grade within drip line of trees unless otherwise indicated on Drawings.

5.6.6. MAINTENANCE OF PROTECTIVE MEASURES

- A. Maintain protective measures throughout construction process.
1. Repair any alteration to protection measures throughout construction process.
 2. Repair or reinstall protective measures upon alteration.
 3. Monitor protective measures daily.
 4. Pruning and/or repairs must be approved in advance and at completion by Horticulture Supervisor.
 5. Contractor responsible for cost of repair caused by his actions or by actions of his/her subcontractors.

5.6.7. CLEANING AND ADJUSTING

- A. Remove fencing, barricades, and guards.
- B. Remove debris and dispose of in a legal manner.

END OF SECTION

5.7 **CLOSEOUT PROCEDURES**

5.7.1. SUBSTANTIAL COMPLETION

- A. Prior to requesting inspection for certification of Substantial Completion, complete following.
1. In Application for Payment that coincides with, or first follows, date of Substantial Completion is claimed, show 100 percent completion for portion of Work claimed as substantially complete.
 - a. Include supporting documentation for completion as indicated in these Contract Documents.

- b. If 100 percent cannot be shown, include a list of incomplete items, value of incomplete construction, and reasons Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases enabling Owner unrestricted use of Work and access to services and utilities.
 - a. Include occupancy permits.
 - 5. Submit:
 - a. Record Drawings
 - b. Record Specifications
 - c. Maintenance manuals
 - d. Final project photographs
 - e. Damage or settlement surveys
 - f. Property surveys
 - g. Other final record information.
 - 6. Deliver tools, spare parts, extra stock, and similar items.
 - 7. Make final changeover of permanent locks and transmit keys to Owner.
 - a. Advise Owner's personnel of changeover in security provisions.
 - 8. Complete startup testing of systems and instruction to Owner's operation and maintenance personnel.
 - 9. Discontinue and remove temporary facilities from site, along with mockups, construction tools, and similar elements.
 - 10. Complete final cleanup requirements.
 - 11. Touch up and otherwise repair and restore marred, exposed finishes, including touchup painting.
- B. Inspection Procedures:
- 1. On receipt from contractor a written request for inspection with certification the project is substantially complete and a punch list, Owner will proceed with an inspection or advise Contractor of unfilled requirements.
 - 2. Owner will prepare Certificate of Substantial Completion following inspection or advise Contractor of construction that must be completed or corrected before certificate can be issued.
 - a. Owner will re-inspect once when requested with assurance that punch list and Work is substantially complete.
 - b. Results of completed inspection will form basis of requirements for Final Acceptance.
 - 3. Owner will allow Contractor no longer than 30 calendar days from Date of Substantial Completion to remedy deficiencies.

5.7.2. FINAL ACCEPTANCE

- A. Prior to requesting final inspection for certification of final acceptance and final payment, submit following:
 - 1. Final payment request with releases, including insurance certificates for products and systems where applicable.
 - 2. Updated final statement accounting for final additional changes to Contract Sum.

- a. Owner will prepare a final Change Order after final acceptance showing adjustments to Contract Sum, which were not made previously by Change Orders.
 - 3. Certified copy of Owner's final inspection list of items to be completed or corrected, endorsed and dated by Owner.
 - a. Certification to state each item has been completed or corrected or otherwise resolved for acceptance.
 - 4. Consent of Surety to Final Payment.
 - 5. Evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Re-inspection Procedure:
- 1. Owner will re-inspect to verify status of completion upon receipt of notice that Work, including list of items from earlier inspection, has been completed.
 - a. Indicate items for which completion is delayed under circumstances acceptable to Owner.
 - 2. If Work is found to be complete following final inspection, Owner will issue a certificate of final acceptance.
 - 3. Should Owner and Owner determine that Work is incomplete or defective:
 - a. Owner will promptly notify Contractor, in writing, listing incomplete or defective Work.
 - b. Contractor to remedy deficiencies promptly, and notify Owner when ready for re-inspection.

5.7.3. RECORD DOCUMENT SUBMITTALS

- A. Project Record Drawings:
- 1. Maintain a clean, undamaged set of Contract Drawings and Shop Drawings, and identify as RECORD DRAWINGS - PROJECT SET.
 - 2. Mark Drawings to show actual installation and construction where construction varies substantially from Work as shown.
 - a. Using an erasable colored pencil (not ink or indelible pencil), clearly describe change by graphic line and note.
 - b. Date entries, and note related Change Order numbers where applicable.
 - c. Call attention to entries by a "cloud" drawn around areas affected.
 - d. Where overlapping changes occur, mark with different colors.
 - 3. Conversion of Schematic Layouts:
 - a. Design of future modifications of facility may require accurate information as to final physical layout of items, which are shown, schematically on Drawings.
 - b. Show on Project set of Record Drawings, by dimension accurate to within one inch, centerline of each run of items shown schematically on Drawings. Clearly identify item by accurate note such as "cast iron drain", "galv. water", and like. Show, by symbol or note, vertical location of item ("under slab", "in ceiling plenum", "exposed", and like). Relate by identification descriptive to Specifications.
 - 4. Final Record Documents: Prior to request for Substantial Completion, provide Owner with Record Documents on Autocad (or compatible electronic file) and on a printed set of drawings.
 - a. Carefully transfer change data shown on Project set of Record Drawings to the electronic file, coordinating changes as required.
 - b. Clearly indicate at each affected detail and other drawings a full description of changes made during construction, and actual location of items.

- c. Show final location of electrical junction boxes and outlets, telephone and data outlets, supply and return registers, and like.
 - d. Call attention to entries by a "cloud" drawn around areas affected.
 - e. Make changes neatly, consistently, and with proper media to assure longevity and clear reproduction.
- B. Record Specifications:
 - 1. Maintain one complete copy of Project Manual including Addenda, and other written construction documents, such as Change Orders and modifications issued during construction.
 - 2. Mark Specifications to show changes in actual Work performed in comparison with Specification text.
 - 3. Note substitutions in reference to items specified.
- C. Operation and Maintenance Manuals:
 - 1. Submit 3 copies of maintenance manuals prior to system start-ups and instruction of operation and maintenance personnel.
 - 2. Provide manuals in 8-1/2 x 11 inch format with plastic/fiberboard covers and colored flysheets separating sections, to include following:
 - a. Cover labeled as "Operating and Maintenance Instructions" With name and address of Project, and names of Contractor and Subcontractors.
 - b. Typewritten index near front of manual, providing immediate information as to location within manual of emergency information regarding installation.
 - c. Complete instructions regarding operation and maintenance of equipment, including lubrication, disassembly, and reassembly.
 - d. Complete nomenclature of parts of equipment.
 - e. Complete nomenclature and part number of replacement parts, name and address of nearest vendor, and other data pertinent to procurement procedures.
 - f. Copy of guarantees and warranties issued.
 - g. Manufacturers' bulletins, cuts, and descriptive data, where applicable, clearly indicating precise items included in this installation and deleting, or otherwise clearly indicating, manufacturers' data with which this installation is not concerned.
 - h. Other data as required in applicable Sections of these Specifications.
- D. Other Documents:
 - 1. One set of bonds.
 - 2. Spare parts and materials extra stock.
 - 3. One set of evidence of compliance with requirements of governmental agencies having jurisdiction including, but not necessarily limited to:
 - a. Certificates of Inspection.
 - b. Certificates of Occupancy.
 - 4. One set of certificates of insurance for products and completed operations.
 - 5. One set of evidence of payment and release of liens.
 - 6. One copy of list of Subcontractors, service organizations, and principal vendors, including names, addresses, and telephone numbers where they can be reached for emergency service at times including nights, weekends, and holidays.

5.7.4. INSTRUCTION

- A. Instruct Owner's personnel in proper operation and maintenance of systems, equipment, and similar items which were provided as part of Work.

END OF SECTION

SECTION TWO

PROPOSAL FORMAT, EVALUATION, AND SELECTION

I. PROPOSAL FORMAT/EVALUATION CRITERIA:

All proposals shall be scored on the following criteria:

- 1.1 Format (10 Points)
 - 1.1.1. Provide a cover letter, stating that the information provided is “true and complete”.
 - 1.1.2. Attach the Contractor Identification Form (enclosed)
 - 1.1.3. Attach the Resident Contractor Form (enclosed).
 - 1.1.4. Attach a Proposal Security Deposit (in the amount of \$ 14,000).
 - 1.1.5. Provide the requested information (Items 1.2 – 1.5) in a thorough manner; refer to Proposal Requirements (following this section).
 - 1.1.6. Submit seven (7) copies of the proposal.
- 1.2 Contractor Qualifications and Experience with Similar Projects (25 Points)
 - 1.2.1 How many years has your organization been in business as a Contractor?
Provide licensing information.
 - 1.2.2. Under what former names has your organization operated?
 - 1.2.3. Experience
 - A. List the type of work your organization normally performs with its own forces
 - B. Does your firm own or are you able to obtain the necessary equipment for this job?
 - C. Has your organization previously performed a design/build contract similar to this project?
 - D. List similar projects completed by your team
 - F. List any projects for public facilities
 - 1.2.4. Claims and Suits
 - A. Has your organization ever failed to complete any work awarded to it?
 - B. Are there any outstanding judgments, claims, arbitration proceedings, or suits pending or outstanding against your organization or officers?
 - C. Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years?
 - D. Have any officers or employees been convicted of any crimes relative to a project such as this?
 - 1.2.5. References
 - A. List the major construction projects your organization has in progress: project, owner, contract amount, percent complete, scheduled completion date and contact person.
 - B. List the major construction projects your organization has completed in the last 3 years: project, owner, contract amount, percent complete, scheduled completion date, and contact person.
 - C. List three subcontractor references.
 - D. List three supplier references.
 - E. List a bank reference.
 - F. Prior to award of the Contract, the Contractor may be required to submit to Metro their latest balance sheet and income statement, with the last audit date and name of firm preparing the audit (if available).

1.3. Design Elements – Priority Listing of Desirable Features (25 points)

1.3.1 High Safety factor

- A. Cleanable non-slip deck surface
- B. No exposed sharp objects or pinch points
- C. Pressure diverter behind nozzles to prevent eye injury from high pressure, low pressure system, or pressure compensating nozzles
- D. No elevated climbing structures over concrete deck
- E. Layout allows full view of the entire area from a shaded bench

1.3.2 Environmentally and child friendly

- B. Recirculation and treatment of water
- C. Motion detector or automatically timed shutdown on each feature
- D. Timer for total shut-off at night
- E. Water management that avoids wasting water and energy
- F. At least one feature should encourage collaborative activity such as a central spray (fountain) that rises higher when several children place their feet over a ring of spray nozzles surrounding the central spray (or similar)
- G. Interactive controls (i.e. aim a water cannon at a friend, cause one nozzle to erupt by stepping on another, child adjustable flow rate, etc.)
- H. Variety of sprays including ground nozzles, over-head spray and mist, dueling water cannons, random dump buckets, etc.
- I. Basic operational signage in Spanish and English or preferably pictorial
- J. Provide adequate space on the splash pad, especially around a low flow ground bubbler for toddlers
- K. Aesthetically attractive to 2 to 12 year-old children and adult friendly
- L. Colorful water features in primary colors
- M. Mechanical equipment housed in a park-like structure
- N. Innovative design
- O. Layout and grading of site provides location for future perimeter park benches outside the spray zone and potentially shaded from sun
- P. Zoned for different ages

1.3.3 Low maintenance

- A. No permit-required confined entry areas as defined by Oregon Occupational Safety and Health Administration (OR-OSHA)
- B. No hazardous chemicals to mix
- C. Automated monitoring of disinfectant residual, turbidity, and ph
- D. Ozone treatment preferred over chemical disinfection
- E. Low maintenance coatings on water features
- F. Simple push button controls preferred over high-tech proximity switches
- G. Multi-stage filtration such as catch basins with removable basket filter, automatic wash-down y-screen and final sediment and particulate filter

1.3.4 Operational efficiency

- A. Individual features capable of operational isolation from each other; some equipment can be shut down while the rest operate
- B. System should function without staff supervision
- C. Features are re-locatable (interchangeable lay-out)
- D. Peak flows of all fixtures no greater than 200 gallons per minute (GPM)

1.3.5 Vandal resistant

- A. Tamper-proof nozzle attachments
- B. Lockable controls

- C. Above-ground features are removable in the off-season
- D. Painted surfaces resistant to paint tagging

1.3.6 Practical considerations

- A. Expandable in the future
- B. Buildings of fire resistive construction

1.4. Fees/Cost (20 points)

- 1.4.1. Describe the proposed methods (and computer programs) that will be utilized for controlling design/construction costs to stay within the \$190,000 cap.
- 1.4.2. Submit a not-to-exceed lump sum price to provide Design and Construction Services for this project if lower than the budget.

1.5. Schedule (20 points)

- 1.5.1. Describe the proposed method (and computer programs) that will be utilized for Schedule Control.
- 1.5.2. Submit a proposed project schedule, with an assumed Start Date of February 15, 2006 and a Completion Date of June 15 2006.
 - A. Show Design work, Reviews and Construction completion for each project element.
 - B. Identify Critical Path.

II. EVALUATION AND SELECTION PROCESS

The proposals shall be evaluated by an Evaluation Committee consisting of not less than five (5) knowledgeable individuals ("Evaluators"). Working independently with copies of the written proposals, the Evaluators will assign scores to each proposal for each of the five categories described under Proposal Format (above). The five (5) categories and the highest possible score for each are as follows:

<u>Category</u>	<u>Max. Score</u>
1) Proposal Format	10 points
2) Contractor Qualifications	25 points
3) Design Elements	25 points
4) Fees / Cost Control	20 points
5) Schedule Control	20 points
Total Maximum Possible Score:	100 points

For each proposal, the total score from each Evaluator shall be computed; this figure will be added to that proposal's scores from the other Evaluators, giving the full "Evaluation Score" for each written proposal.

METRO may choose to add a second step to the evaluation process. If, at the conclusion of evaluation of the written proposals, it is determined to be in the best interests of METRO, oral evaluations will also be conducted. The top-scoring Proposers, not more than three, (3) shall be invited to the oral interview. The same criteria used to evaluate the written responses will be used to evaluate the finalists during the oral evaluations. No additions, deletions or substitutions may be made to proposals during the oral evaluations that cannot be viewed as clarification.

After the oral evaluation, each evaluator will independently assign a score to each evaluation criterion and the criteria scores for the oral evaluation will be summed. The oral evaluation scores and the written evaluation scores will be summed resulting in a final score. The award will be given to the proposal having the highest final score.

III. PROPOSAL REQUIREMENTS

3.1. PREPARATION OF PROPOSALS

- 3.1.1. Metro reserves the right to declare any proposal non-responsive and reject it without further consideration if it is deemed to contain errors, omissions, is conditioned by the Contractor, or in any manner, extent or way fails to conform to each and every specific requirement(s) of these RFP.
- 3.1.2. Each Proposal shall give the full business address of the Contractor and be signed by it with its legal signature.
 - A. Proposals by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership authorized to sign contracts on behalf of the partnership, or by an authorized representative, followed by the printed name and title of the person signing.
 - B. Proposals by corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and designation of the president, secretary or other person authorized to bind it in the matter. When requested by Metro, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished.
 - C. If a Proposal is submitted by a joint venture, a certified copy of the legal agreement constituting the joint venture shall be attached to the Proposal.
- 3.1.3. The name of each person signing shall also be typed or printed below the signature. Signatures of all individuals must be in longhand.
- 3.1.4. Failure to fulfill any of the above requirements may render the Proposal non-responsive.

3.2. SUBMISSION OF PROPOSALS

All proposals must be submitted not later than the time prescribed, at the place, and in the manner set forth in the INTRODUCTION. Proposals must be made in the prescribed format; Each Proposal and all other documentation required to be submitted with the Proposal must be submitted in a sealed envelope, so marked as to indicate its contents without being opened, and addressed in conformance with the instructions in the INTRODUCTION and the REQUEST FOR PROPOSALS.

3.3. MODIFICATION OR WITHDRAWAL OF PROPOSALS

- 3.3.1. Any Proposal may be modified after delivery to the location specified in the Invitation to Proposal by delivering to the same location before the time fixed for the Proposal opening, a written sealed supplement to the original Proposal, marked "Supplement to Proposal of (Name of Contractor) for the "Oregon Stormwater Improvements, Attention: Lee Campbell, Project Manager. A supplement shall clearly identify the Proposal item(s) that are changed by setting forth the original Proposal item(s), and the modified item(s). Metro may reject any Proposal supplement that, in its opinion, does not set forth the proposed modifications clearly enough to determine the definiteness and certainty of the item(s) offered by the Contractor. No Contractor shall be allowed to submit more than one (1) Proposal for this Contract.
- 3.3.2. Proposals may be withdrawn by the Contractor prior to the time fixed for the receipt of Proposals by having an authorized representative of the Contractor with sufficient identification personally pick up the Proposal. Proposals may not be withdrawn for a period of sixty (60) days from and after the opening of Proposals or on or prior to the last date of any extension of such time as may be agreed upon between Metro and the Contractor.

3.4. PROPOSAL SECURITY

- 3.4.1. Proposals must be accompanied by a certified check or cashier's check drawn on a bank in good standing, or a Proposal Bond on the form provided herein by Metro, issued by a surety authorized to issue such bonds in Oregon, named on the current list of approved surety companies acceptable on federal bonds, and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the US. Treasury Department, in the amount of not less than Ten Percent (10%) of the proposal amount. This proposal security shall be given as a guarantee that the Contractor will not withdraw its Proposal for a period of sixty (60) days after Proposal opening, and that if awarded the Contract, the successful Contractor will execute the attached Agreement and furnish a properly executed Performance Bond and a properly executed Labor and Materials Payment Bond, each in the full amount of the Proposal, within the time specified. Proposal security deposited in the form of a certified check or cashier's check shall be subject to the same requirements as a Proposal Bond.
- 3.4.2. The Attorney-in-Fact (Resident Agent) who executes these bonds on behalf of the surety must attach a notarized copy of his/her Power of Attorney as evidence of his/her authority to bind the surety on the date of execution of the bond.

3.5. REJECTION OF PROPOSALS

- 3.5.1. Metro reserves the right to reject all Proposals or any Proposal not conforming to the intent and purpose of the RFP, to waive any informality or irregularity in any Proposal or Proposals, to reject any Proposal not in compliance with all prescribed public RFP procedures and requirements and, for good cause, to reject any or all Proposals upon a finding by Metro that it is in the public interest to do so.

END OF SECTION

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GENERAL CONDITIONS

ARTICLE 1 GENERAL PROVISIONS

- 1.1. Definitions. Unless otherwise defined or specified in the Contract Documents, the following terms shall have the meanings indicated:
- 1.1.1. Act of God -- means an earthquake, flood, typhoon, cyclone or other natural phenomenon of catastrophic proportions or intensity.
 - 1.1.2. Addendum (Plural: Addenda) -- means a document issued by Metro during the bidding period which modifies, interprets, supersedes or supplements the Contract Documents and becomes a part of the Contract Documents. It is the Bidder's responsibility to determine how addenda impact the Work. All Bids submitted shall include the cost of the Work included in any addenda issued prior to award.
 - 1.1.3. Alternate Bids -- are portions of the Work for which a Bidder must submit a separate Bid amount. Alternate Bid items may or may not be awarded at Metro's discretion.
 - 1.1.4. Owner/Engineer -- is the firm representing Metro as designers and its agents, representatives, employees and consultants or such other firm as Metro may appoint. The Owner/Engineer will have authority to act on behalf of Metro only to the extent provided in these Contract Documents.
 - 1.1.5. "As-Builts" or Record Documents -- are those drawings made, revised or annotated by Contractor and approved by Metro during the performance of the Contract, fully illustrating how all elements of the work were actually installed and completed.
 - 1.1.6. Authorized Representative -- is a person, corporation, partnership or other legal entity acting on behalf of another through expressly delegated authority as specified in these Contract Documents.
 - 1.1.7. BES -- Bureau of Environmental Services
 - 1.1.8. Bid -- is the written offer of a Bidder to perform the Work as defined in these Contract Documents, when made out in accordance with all of the Contract Documents and submitted on the appropriate Bid Forms.
 - 1.1.9. Bidder -- is any individual, partnership, corporation, or joint venture, acting directly or through a duly and legally authorized representative, submitting or intending to submit a Bid for the Work as described in these Contract Documents.
 - 1.1.10. Bidding Documents -- See "Contract Documents."
 - 1.1.11. Bid Forms -- include the following: the Bid proposal (including Schedule of Bid Prices and Recycled Product Attachment), Surety; Minority, Women-Owned and Emerging Small Business Program Compliance Form; Resident/Non-Resident Bidder Status form; Signature Page; the Non-Collusion Affidavit; and Bid Bond.
 - 1.1.12. City -- means the City of Portland, Oregon.
 - 1.1.13. Change Order -- is a written document signed by Metro and Contractor stating their agreement upon all of the following:
 - A. a change in the Work;
 - B. the amount of the increase or decrease in the Contract Amount, if any; and
 - C. the extent of the adjustment to the Contract Time, if any.

- 1.1.14. Clarification -- is a written document consisting of supplementary details, instruction or information issued by Metro after the award of Contract, which clarifies, or supplements the Contract Documents and becomes a part of the Contract Documents. A Clarification may or may not affect the scope of work.
- 1.1.15. Completion -- See "Substantial Completion" and "Final Completion and Acceptance."
- 1.1.16. Construction Coordinator -- is the Metro representative on the construction site. The Construction Coordinator will be an employee of Metro, who will represent Metro to the extent of his authority as delegated by the Chief Operating Officer. For purposes of administering this contract the terms "Construction Coordinator", "Construction Manager", and will refer to the on-site Metro representative and to any duly appointed assistants who may be designated in writing. The Owner/ Engineer of Record will be called upon as required by and at the direction of Metro for technical assistance and for interpretation of the Contract Documents.
- 1.1.17. Construction Manager See "Construction Coordinator."
- 1.1.18. Construction Schedule or Schedule -- is the timeline described in Article 5 of the General Conditions and Section 1, Article 5.2.4 (Page 9 of 22) Design/Construction Schedule.
- 1.1.19. Contract Amount -- is the total amount shown in the Construction Agreement as revised by Change Orders.
- 1.1.20. Contract Documents or Contract or Bidding Documents -- consist of the Advertisement for Bids, the Invitation to Bid, the Instructions to Bidders, the Bid Forms, the Construction Agreement, the Performance Bond, the Labor and Materials Payment Bond, the General Conditions, the Supplementary Conditions, the Specifications, the Drawings, the approved and updated Construction Schedule, and any modifications of any of the foregoing in the form of Addenda, Clarifications, Change Orders or Force Account Work.
- 1.1.21. Contractor -- is the party who has entered into this Contract with Metro and who is responsible for the complete performance of the Work contemplated by the Contract Documents and for the payment of all legal debts pertaining to the Work, including its officers, agents, employees and representatives.
- 1.1.22. Contract Time -- is the period of time, including adjustments approved by Metro, which is allowed in the Contract Documents for Contractor to substantially complete the Work.
- 1.1.23. Critical Path Method or CPM -- means the critical path method of scheduling as understood and interpreted by standard industry practice.
- 1.1.24. Days -- means calendar day including Saturdays, Sundays and legal holidays.
- 1.1.25. Direct Costs -- are those costs of labor (including benefits), material and equipment incurred by the person, corporation, partnership or joint venture whose employees are actually performing the task.
- 1.1.26. Minority Business Program -- is Metro's program to provide maximum opportunities to Minority, Women-Owned and Emerging Small Business Enterprises in contracts, which is contained in Metro Code Section 2.04.
- 1.1.27. Drawings -- means the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.
- 1.1.28. Equal, Approved, Approved Equal -- is used to indicate that the material or product to be supplied or installed must be equal to or better than that named in function, performance,

reliability, quality and general configuration and that the substitute must be approved by Engineer. Equality in reference to the Project design requirements shall be determined by Owner/Engineer prior to installation of any material or product in the Project. Where the term "or equal" is not used and a sole product is specified, the term "or equal" is implied.

- 1.1.29. Final Completion and Acceptance -- means the completion by Contractor of all of the Work called for under the Contract, whether expressly or impliedly required, including but not limited to, satisfactory operation of all equipment, completion and correction of all punch list items to the satisfaction of Metro, settlement of all claims, delivery of all warranties and agreements to correct Work, equipment operation and maintenance manuals, as-built drawings, required approvals and acceptances by federal, state or local governments or other authorities having jurisdiction over the Work, and removal of all rubbish, tools, scaffolding and surplus materials and equipment from the Site.
- 1.1.30. Final Payment -- is the balance of the Contract Amount to be paid to the Contractor upon Final Completion and Acceptance of the Work.
- 1.1.31. Force Account Work -- is work, ordered in writing by Metro, for which Contractor must report its actual costs in accordance with Paragraph 8.4 of the General Conditions.
- 1.1.32. Furnish -- means, unless the context requires otherwise, supply and deliver materials, systems and equipment to the Site, ready for unpacking, assembly, installation, etc., as applicable in each instance.
- 1.1.33. General Contractor -- is the party who enters into the Contract with Metro. See also "Contractor".
- 1.1.34. Geotechnical Engineer -- The Geotechnical Engineer is an agent of the Engineer.
- 1.1.35. Inclement Weather -- is a meteorological condition or conditions, abnormal to the Portland metropolitan area for the time of year in question, which cannot be reasonably anticipated and which has a significantly adverse effect on the critical path of the Construction Schedule. Abnormality of the weather is defined as the number of days the weather parameters exceed the normal adverse weather days at the project.
- For work under this contract, Metro defines adverse weather days as days on which Contractor is impacted by weather, normally defined as days with an average daily temperature of less than 32°F, significant daily precipitation or snow. Contractor will be cognizant of adverse weather days based upon long-term averages when preparing project schedule, and shall refer to the annual publication of Local Climatological Data for Portland Oregon available at the Portland Weather Service Office.
- 1.1.36. Install -- includes, unless the context requires otherwise, unload, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, connect to electrical power and/or piping, and similar operations at the Site, as applicable in each instance.
- 1.1.37. Lump Sum -- means all costs and expenses of whatever nature, including Overhead and Profit, associated with the Work involved.
- 1.1.38. Material or Materials -- shall be construed to include machinery, equipment, manufactured articles, materials of construction such as formwork, fasteners, etc., and any other classes of items to be provided in connection with the Contract, except where a more limited meaning is indicated by the context.
- 1.1.39. Metro -- is a metropolitan service district organized under the laws of the State of Oregon and the Metro Charter.
- 1.1.40. Metro Chief Operating Officer or Chief Operating Officer -- means the Chief Operating Officer of Metro.

- 1.1.41. Metro Council or Council -- means the elected Council of Metro.
- 1.1.42. Miscellaneous Phrases -- in the Contract Documents shall be interpreted as follows:
- Wherever the words "as directed," "as instructed," "as required," "as permitted," or words of like effect are used, it shall be understood that the direction, requirement, or permission of Metro is intended.
- The words "sufficient," "necessary," "proper," and the like shall mean sufficient, necessary or proper in the judgment of Metro.
- The words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to, Metro.
- 1.1.43. Notice of Award -- is the document issued by Metro to the lowest responsive, responsible Bidder whose Bid complies with all the requirements prescribed by the Contract Documents. The Notice of Award shall be given pursuant to the provisions of the Instructions to Bidders. It shall not entitle the party to whom it is given to any payment under the Contract, nor shall Metro be liable to such party or to any person for any alleged damages for any action taken in reliance upon such notice.
- 1.1.44. Notice to Proceed -- is the written notice given Contractor to commence the prosecution of its Work as defined in the Contract Documents. The Notice to Proceed will also establish the date and time of a preconstruction conference.
- 1.1.45. Other Metro Contractors -- are all individuals, corporations, partnerships, or joint ventures (except Contractor or Owner/Engineer) with whom Metro has a contract to perform work on, or related to, the Project.
- 1.1.46. Overhead -- when applied to the cost of the work, shall include the following items, when reasonable and necessary for completion of the work:
- A. All on-site payroll costs, taxes, insurance, fringe benefits and bonuses of same, for supervising, estimating, expediting, purchasing, drafting and clerical/secretarial services where directly incurred in the performance of the Contract.
 - B. Small tools (less than \$250 capital cost per item).
 - C. Equipment maintenance and repairs.
 - D. Temporary construction, utilities, and safety requirements.
 - E. Transportation of materials other than direct identifiable cost of specific deliveries, or as included in price of material.
 - F. Parking fees for workers (if applicable).
 - G. Permit fees.
 - H. Cost of reproduction.
 - I. Field office costs.
 - J. Home or branch office overhead shall not be included, but shall be part of Contractor's profit and shall include, but is not limited to, the following:
 - 1. Accounting functions of Contractor's Home and Branch Office.
 - 2. General expenses of Contractor's Home and Branch Office.
 - 3. Interest on capital.
 - 4. Salaries of any home and branch office estimators and administration.
- 1.1.47. Owner -- means Metro.
- 1.1.48. Plans -- means Drawings.
- 1.1.49. Profit -- means that portion of Contractor's Bid price that is not Direct Costs or Overhead

- 1.1.50. Project -- means the Work described in the Contract Documents.
- 1.1.51. Provide -- means furnish and install complete and in place and ready for operation and use.
- 1.1.52. Punch List -- is the list prepared by the Owner/Engineer and/or Construction Manager at the time of Substantial Completion, which reflects Contractor's incomplete, nonconforming work. Punch list items must be completed to the satisfaction of the Owner/Engineer and Metro in order for the Project to reach Final Completion and Acceptance.
- 1.1.53. Request for Clarification -- is a written request made by Contractor for additional information to clarify an ambiguity in the Contract Documents.
- 1.1.54. Retainage or Retention -- is the difference between the amount earned by Contractor on the Contract and the amount paid on the Contract by Metro.
- 1.1.55. Schedule of Values -- is the detailed breakdown of a lump sum contract amount as required in Article 9.2 of the General Conditions.
- 1.1.56. Separate Contract -- is a contract between Metro and a party other than Contractor for the construction or furnishing of a portion of the Project.
- 1.1.57. Shown, As Shown -- work shown on the Drawings which is a part of the Contract Documents.
- 1.1.58. Site -- is the real property upon which the Project is located.
- 1.1.59. Special Inspector -- is a representative of the, Owner, Engineer or Geotechnical Engineer with specialized knowledge applicable to the installation of certain elements of the work.
- 1.1.60. Specifications -- are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.
- 1.1.61. Subcontractor -- means a person, partnership, corporation or joint venture, which has a direct contract with Contractor to perform a portion of the Work at the Site.
- 1.1.62. Submittals -- include shop drawings, samples, manufacturer's brochures, pamphlets, catalog cuts, color charts or other descriptive data, clearly defining the article, material, equipment or device proposed by Contractor for use in the Work. "Shop drawings" are the drawings and diagrams showing details of fabrication and erection, which Contractor is required to submit to the Owner/Engineer.
- 1.1.63. Substantial Completion -- is the stage in the progress of the Work, as determined by Metro, when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that Metro can occupy or use the Work for its intended use.
- 1.1.64. Supplier -- means an individual, partnership, corporation or joint venture entering into an agreement with Metro or Contractor for furnishing a portion of the Work which requires no labor at the Site, other than common carriers.
- 1.1.65. Unit Prices -- are the costs for specific units of work as defined in the Bid and Supplementary Conditions and include all costs, including, but not limited to, equipment, labor, materials, incidentals, Overhead and Profit, for the unit of work described.
- 1.1.66. Work -- means, unless the context requires otherwise, the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by

Contractor to fulfill Contractor's obligations. The Work may constitute all or a portion of the Project as the context requires.

1.2. Intent and Interpretation of Contract Documents

- 1.2.1. Intent -- The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intent of the Contract Documents is to include in the Contract price the cost of all labor and materials, water, fuel, tools, plant, scaffolding, equipment, power, light, transportation, and all other facilities, services and expense as may be necessary for the proper execution of the Work, unless otherwise indicated in these Contract Documents. In interpreting the Contract Documents, words describing materials or work which have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with such well-known meaning recognized by Owner, Engineer and Metro.
- 1.2.2. Divisions and Headings -- Titles and headings are for the convenience of organizing the Contract Documents and shall not be construed to limit Contractor's obligations hereunder. The General Conditions are divided into fifteen (15) Articles. The first-tier subheadings of each Article shall be referred to as Paragraphs; the second-tier sub-headings shall be referred to as Subparagraphs; and the third-tier subheadings shall be referred to as Clauses.
- 1.2.3. Mandatory Nature of Specifications and Drawings -- mention in the Specifications or indication on the drawings of articles, materials, operations, sequence or methods requires Contractor to furnish and install (i.e., provide) each article mentioned or indicated, of quality or according to qualifications noted, to perform each operation called for, in the sequence called for, and to provide therefor, all necessary labor, equipment and incidentals. The determination of the type of operations and methods to be utilized in the performance of the Work shall be the responsibility of Contractor unless the Contract Documents prescribe a specific type of operation, sequence or method, in which case Contractor shall comply with the prescribed operation, sequence or method. Sentences in the imperative tense or command format in these Contract Documents shall be deemed to be directed to Contractor and to require Contractor to perform the services and/or provide the materials described.
- 1.2.4. Precedence of Contract Documents -- all determination of the precedence of, or discrepancy in, the Contract Documents shall be made by Metro, but in general, precedence will be in accordance with the following list with the highest precedence item at the top:
- A. Signed Construction Agreement.
 - B. Supplementary Conditions.
 - C. General Conditions, Advertisement for Bids, Instructions to Bidders, Invitation to Bid, Bid Forms, Performance Bond and Labor and Materials Payment Bond.
 - D. Specifications
 - E. Drawings.

Within each of the above documents, detailed information takes precedence over general information and words take precedence over numbers unless obviously incorrect.

Addenda, Clarifications and all Change Orders to the Contract Documents take the same order of precedence as the specific sections that they are amending.

- 1.2.5. Discrepancies, Errors and Omissions -- the intent of the Contract Documents is to require Contractor to perform and provide every detail and item necessary for completion of the Project. The Contract Documents are not complete in every detail, however, and Contractor shall comply with their intent and meaning, taken as a whole, and shall not avail itself of any manifest errors or omissions to the detriment of the Work. Should any error, omission, discrepancy or ambiguity appear in the Contract Documents, instructions

or work done by others, Contractor shall immediately upon discovery submit a Request for clarification to Metro pursuant to Paragraph 3.2. If Contractor proceeds with any such work without receiving a Clarification, Contractor shall be responsible for all resulting damage and defects, and shall perform any work necessary to comply with Metro's Clarifications at no cost to Metro. Any work or material not indicated in the Contract Documents, which is manifestly necessary for full and faithful performance of the Work in accordance with the intent of the Contract Documents shall be indicated by Contractor on the shop drawings and provided by Contractor to the same extent as if both indicated and specified. Any work indicated on the drawings but not specified, or vice versa, shall be furnished in the manner specified above as though fully set forth in both. Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked or specified. In case of discrepancy or ambiguity, in quantity or quality, the greater quantity or better quality as determined by Metro shall be provided at no extra cost to Metro.

- 1.2.6. Standards to Apply Where Detailed Specifications Are Not Furnished --wherever in these Contract Documents or in any directions given by Metro pursuant to or supplementing these Contract Documents, it is provided that Contractor shall furnish materials or manufactured articles or shall do work for which no detailed Specifications are set forth, the materials or manufactured articles shall conform to the usual standards for first-class materials or articles of the kind required, with due consideration of the use to which they are to be put. Work for which no detailed Drawings or Specifications are set forth herein shall conform to the usual standards for first-class work of the kind required.
- 1.3. Supply of Contract Documents -- Metro shall supply Contractor, without charge, a maximum of ten (10) sets of Contract Documents. Contractor shall contact Metro for additional sets of documents for which Contractor shall be charged the cost of printing.
- 1.4. Use of Contract Documents -- the Contract Documents were prepared for use in the construction of this Project only. No part of the Contract Documents shall be used for any other construction or for any other purpose except with the written consent of Metro. Any unauthorized use of the Contract Documents is at the sole responsibility of the user and such unauthorized use shall be deemed an activity in the performance of the Contract for purposes of Contractor's duty to indemnify under Article 11.
- 1.5. Copyright -- all submittals, record documents and any other products or documents produced by Contractor pursuant to this Contract are the property of Metro and it is agreed by the parties hereto that such documents are works made for hire. Contractor does hereby convey, transfer and grant to Metro all rights of reproduction and the copyright to all such documents.
- 1.6. Severability Clause -- should any provision of this Contract at any time be in conflict with any law, regulation or ruling, or be legally unenforceable for any reason, then such provision shall continue in effect only to the extent that it remains valid. In the event that any provision of this Contract shall become legally unenforceable, in whole or in part, the remaining provisions of this Contract shall nevertheless remain in full force and effect.
- 1.7. Notice or Service -- any written notice required or allowed under the Contract shall be deemed to have been communicated to the other party and service thereof shall be deemed to have been made if such notice is delivered in person to the individual, a member of the partnership or joint venture, or an officer of the corporation for whom it was intended or if delivered at or sent by regular, registered or certified mail to the last business address of the relevant person or party known to the person or party giving the notice or to Contractor's Site office if the notice is directed to Contractor. The date or time of service for purposes of all notices required or allowed under the Contract shall be the date and/or time upon which the relevant document was mailed or delivered as above-described.

The address given in the Bid is hereby designated as the legal business address of Contractor, but such address may be changed at any time by ten (10) days prior notice in writing, delivered to Metro.

ARTICLE 2 CONTRACTOR'S ORGANIZATION

- 2.1. Contractor's Authorized Representatives -- prior to commencing any work under this Contract, Contractor shall submit in writing to Metro a list of Contractor's authorized representatives. Such list shall include the name and title of each representative along with the extent to which each representative is authorized to represent, bind and act for Contractor. The description of extent of representation shall include, but not be limited to, the maximum dollar value of Change Orders which the individual may authorize, whether the individual may respond to Request for Proposals and for what maximum dollar amount and whether the individual may submit a claim pursuant to Paragraph 3.3. Contractor shall be fully liable for the acts, omissions and decisions of such representatives to the extent stipulated in the written list submitted to Metro.

Contractor shall at all times be represented at the Site by one or more of such authorized representatives, who, cumulatively, shall have complete authority to represent, bind and act for Contractor in all matters pertaining or related to this Contract. In the event that Contractor does not comply with this paragraph and, consequently, is not fully represented at the Site at all times, Contractor shall be deemed to acquiesce in all actions taken by Metro which pertain or relate to this Contract.

- 2.2. Contractor's Office at the Site -- prior to commencement of work at the site, Contractor shall establish a field office at the site acceptable to the Construction Coordinator. This office shall be located in a job trailer or temporary building. This office shall be the headquarters of Contractor's representatives authorized to receive notices, instructions, drawings or other communications from the Construction Manager on behalf of Metro or the Owner/Engineer and to act on Change Orders or other actions. Such notices, instructions, drawings or other communications given to such a representative or delivered to Contractor's site office in his/her absence shall be deemed to have been given to Contractor.
- 2.3. Key Personnel -- Contractor shall submit, in writing, to Metro a list of the names, addresses, and telephone numbers of its key personnel who are to be contacted in case of emergencies on the job during non-working hours, including Saturdays, Sundays and holidays and all other key personnel as may be required.
- 2.4. Contractor's Employees -- Contractor shall enforce strict discipline and good order among Contractor's employees and other persons carrying out the Work. Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

Whenever Metro shall notify Contractor that any employee on the Work is, in the judgment of Metro, incompetent, unfaithful, disorderly or refuses to carry out the provisions of the Contract, such employee shall be discharged or transferred from the Work.

Contractor shall give Metro, at its request at any time, full and correct information as to the number of workers employed in connection with each subdivision of the Work, the classification and rate of pay of each worker, the cost to Contractor of each class of materials, tools and appliances used by it in the Work, and the amount of each class of materials used in each subdivision of the Work.

- 2.5. Daily Construction Reports -- each day Contractor shall deliver to the Construction Manager a daily construction report, which shall include, at a minimum, the following information:

2.5.1. Name of Contractor and Project.

2.5.2. Weather, temperature and any unusual Site conditions for the day in question.

2.5.3. A brief description and location of the day's work activities and any special problems and/or serious accidents or environmental releases, including preventative or mitigation measures taken. (including work of Subcontractors)

- 2.5.4. A description of significant progress in construction for that day as well as any problems encountered that might affect the progress of the Project as they relate to the Construction Schedule.
- 2.5.5. A detailed listing of labor employed on the Work for that day. The listing shall include a description of both Contractor's and Subcontractor's workers employed that day and shall have breakdowns for minority, female trade and worker classifications and hours worked.
- 2.5.6. Equipment in use that day (other than hand tools).
- 2.5.7. Daily summary and accumulated quantity amounts of items listed above.
- 2.5.8. Any other information as requested by Metro or its representative.
- 2.6. Contractor to Supply Sufficient Material and Workers -- Contractor shall at all times keep on the premises sufficient material and employ sufficient supervision and workers to prosecute the Work at the rate necessary to substantially complete the Work herein required within the time specified in the Contract and in accordance with the Construction Schedule. Contractor shall coordinate the Work of its Subcontractors so that information required by one will be provided by others involved in time for incorporation in the Work in proper sequence and without delay of any materials, devices or provisions for future work.
- 2.7. Construction Plant, Equipment and Methods --the construction plant and equipment provided by Contractor, and Contractor's methods and organization for handling the Work shall be such as will secure a good quality of work and rate of progress which will ensure the completion of the Work within the time specified, in accordance with the Construction Schedule, and without violating city, local, state or federal environmental regulation during construction.

Contractor shall give Metro full information in advance as to Contractor's plans for carrying on any part of the Work. If at any time before the commencement or during the progress of the Work, any part of Contractor's plant or equipment, or any of Contractor's methods of executing the Work, appears to Metro to be inadequate to ensure the required quality, environmental protection or rate of progress of the Work, Metro may order Contractor to increase or improve its facilities or methods, and Contractor shall promptly comply with such orders. Neither compliance with such orders nor failure of Metro to issue such orders shall relieve Contractor from obligation or liability to secure the quality of work and the rate of progress required by the Contract. Contractor shall be responsible for overload of any part or parts of structures beyond their safe calculated carrying capacities, and for release of pollutants into surrounding waters resulting from Contractor's activities on the Site.

Contractor shall provide temporary utilities pursuant to the Specifications and shall be responsible for the safety and adequacy of its plant, equipment and methods.

- 2.8. Contractor's Temporary Structures -- Contractor shall obtain all necessary permits for and shall erect and maintain at its own expense, and remove upon completion of the Work or as ordered by Metro temporary structures, sheds, barriers, walks, hoisting equipment, scaffolds, etc., as are necessary for the Work pursuant to these Contract Documents.

Contractor's temporary structures, equipment, stored materials, stored equipment, etc., shall be located so as not to interfere with the prosecution of the Work. If not so located, they shall be moved by Contractor, as directed by Metro, at no cost to Metro. Contractor's temporary structures, equipment or materials that obstruct progress of any portion of the work shall be removed or relocated by Contractor at Contractor's expense.

ARTICLE 3 ADMINISTRATION OF THE CONTRACT

- 3.1. Authority and Relationships of Metro and Owner/Engineer -- the following provisions shall govern the authority of the various officers, agents, representatives, consultants and employees of Metro, and Owner/Engineer. Except as specifically provided in this section, no individual acting or

purporting to act as an officer, agent, representative, consultant or employee of Metro or Owner/Engineer shall have any authority to make representations, statements or decisions of whatever nature binding Metro or Owner/Engineer regarding any aspect of this Contract. Except as specifically provided in this Article, Contractor shall have no right to, and shall not rely on any such representation, statement or decision. Any reference to action by Metro in this Contract requires the written approval of the Metro Chief Operating Officer or a person who is designated in writing by the Metro Chief Operating Officer as having authority to act for Metro but only to the extent that such authority is expressly delegated in writing.

3.1.1. Authority of Metro -- except as otherwise provided herein, Metro shall determine the amount, quality, acceptability, fitness, and progress of the Work covered by the Contract. Metro and Owner/Engineer will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and they will not be responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents. Metro and Owner/Engineer will not be responsible for or have control over the acts or omissions of Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work. Nothing contained in this Contract is intended nor shall be construed to create any third-party beneficiary relationship between Metro and Contractor's subcontracting agents or employees.

It shall be the duty of Contractor to comply with all procedures established and/or implemented by Metro as stated above. In the event any such procedures are at variance with other provisions of these Documents, such procedures shall prevail.

Metro may call for meetings of Contractor, Contractor's Subcontractors and Suppliers as Metro deems necessary for the proper supervision and inspection of the Work. Such meetings shall be held at the Site on regular working days during regular working hours, unless otherwise directed by Metro. Attendance shall be mandatory for all parties notified to attend.

Contractor shall immediately comply with any and all orders and instructions given in accordance with the terms of this Contract by Metro.

Contractor has no right to, and shall not, rely on representations of whatever nature made by any individual, whether or not employed by or purporting to represent Metro or Owner/Engineer, unless such individual has been specifically and expressly delegated authority to make such representations pursuant to these Contract Documents. Likewise Contractor has no right, and shall not rely on any representations of authorized changes in the contract of whatever size or nature unless such change is in writing and signed by Metro.

Nothing contained in this Paragraph shall obligate Metro or Owner/Engineer to supervise Contractor's work under this Contract and Contractor shall remain fully responsible for the complete and proper supervision of all of the Work.

3.2. Clarifications -- should it appear that the Work to be done or any of the matters relative to the Contract Documents are not sufficiently detailed or explained in the Contract Documents, or should there be any questions which may arise as to the meaning or intent of the Contract Documents, Contractor shall immediately submit to Metro a written Request for Clarification which shall fully describe the information sought. It is Contractor's responsibility to request information under this Paragraph in sufficient time for review by Owner and Metro so that the orderly progress and prosecution of the Work is not delayed.

The Owner/Engineer, in consultation with Metro, shall interpret the meaning and intent of the Contract Documents and shall issue, within ten (10) working days of receiving a Request for Clarification from Contractor, a written Clarification describing such meaning and intent. Additionally, the Owner/Engineer, after consulting with Metro, may at any time issue written Clarifications as deemed necessary to carry out the Work included in the Contract Documents.

Notwithstanding any dispute or disagreement which Contractor may have concerning any such Clarifications, Contractor shall perform the Work as prescribed and in accordance with all such Clarifications.

If notified by Metro that a Clarification is forthcoming, any related work done before the receipt of the Clarification shall be coordinated with Metro so as to minimize the effect of the Clarification on work in progress. Any related work not coordinated with Metro done before receipt of the Clarification shall be at Contractor's risk and at no cost to Metro if that work does not conform to the Clarification.

If Contractor proceeds with work which is not sufficiently detailed or explained in the Contract Documents without requesting and obtaining a Clarification pursuant to this Paragraph, Contractor shall do so at its own risk and shall, at no cost to Metro, perform any additional work which may be required by Metro to bring the work into conformance with the intent of the Contract Documents.

3.3. Contractor's Claims

3.3.1. Generally -- no claims of any sort whatsoever by Contractor shall be considered or allowed under this Contract except as specifically provided and prescribed under this Paragraph. Failure to make a claim as specifically prescribed by this Paragraph or failure to perform disputed work, if any, as directed by Metro shall bar Contractor from any recovery of any sort or extension of time resulting from the facts surrounding the claim. Contractor's full and complete compliance with this Paragraph shall be a condition precedent to any right of Contractor to further prosecute any claim against Metro arising out of or related to Work described in the Contract Documents. Every decision and action of Metro shall be considered final unless Contractor makes a claim concerning such decision or action pursuant to this Paragraph.

3.3.2. Types of Claims -- the types of claims which Contractor may make are limited to the following:

- A. Claims based upon justifiable delays as described in Subparagraph 3.3.3;
- B. Claims based upon differing Site conditions as described in Subparagraph 3.3.4;
- C. Claims based upon Clarifications or Change Orders issued by Metro or any other decision, action or failure to act by Metro as described in subparagraph 3.3.5.

As a condition precedent to any such claim, Contractor shall comply with all applicable procedural and substantive requirements of this Contract.

Contractor may make claims, which include requests for extensions of the Contract Time and/or requests for increases in the Contract Amount. If Contractor believes that a single circumstance or set of facts gives rise to both a claim for an extension to the Contract Time and an increase in the Contract Amount, Contractor must state both such allegations in one written claim or waive the unstated allegation;

3.3.3. Claims For Justifiable Delays

- A. Definition of Justifiable Delay -- if Contractor is significantly and justifiably delayed in the prosecution of the Work due to any of the acts, events or conditions described as justifiable delays below, Contractor may make a claim for an increase in the Contract Time and/or Contract Amount pursuant to Clause 3.3.3.B.

"Justifiable Delay" shall mean, and is limited to, the acts, events or conditions described in sections (a) through (j) below, if such act, event or condition has a materially adverse effect on the ability of Contractor to obtain the benefits of its rights or to perform its obligations under this Contract or materially increases the cost to Contractor to obtain the benefits of such rights or to perform such obligations and if such act, event or condition and its effect:

1. Are beyond the reasonable control of Contractor (or any third party for whom Contractor is directly responsible);
2. Do not arise out of (a) strikes, labor disputes or other labor difficulties involving Contractor or its Subcontractors or Suppliers or entities providing transportation to Contractor or its Subcontractors or Suppliers, (b) labor shortages, or (c) changing economic conditions; and
3. Could not have been reasonably anticipated by Contractor.

The acts, events and conditions are:

- (a) An Act of God.
- (b) Inclement Weather.
- (c) Acts of a public enemy, war (whether or not declared) or governmental intervention resulting therefrom, blockage, embargo, insurrection, riot or civil disturbance.
- (d) The failure to issue or renew, or the suspension, termination, interruption or denial of, any permit, license, consent, authorization or approval essential to the Work, if such act or event shall not be the result of the willful or negligent action or inaction of Contractor, or of any third party for whom Contractor is directly responsible, and if Contractor shall be taking or have taken or shall cause to or have caused to be taken, all reasonable actions in good faith to contest such action (it being understood that the contesting in good faith of any such action shall not constitute or be construed as a willful or negligent act of Contractor).
- (e) The failure of any appropriate federal, state, municipal, county or other public agency or authority or private utility having operational jurisdiction over the Work or Site to provide and maintain utilities, services, water and sewer lines and power transmission lines to the Site, which are required for and essential to the Work.
- (f) Epidemics or quarantines.
- (g) Material, equipment or fuel shortages or freight embargoes.
- (h) Priorities or privileges established for the manufacture, assembly or allotment of material by order, decree, or otherwise of the U. S. or by any department, bureau, commission, committee, agent or administrator of any legally constituted public authority.
- (i) Changes in the work ordered by Metro if they require additional time to complete the work and adversely impact the Critical Path.
- (j) The prevention by Metro of Contractor from commencing or prosecuting the Work.

Acts, events, or conditions outside the control of the Owner/Engineer, Metro or Contractor which are found to be justifiable delay under 3.3.3.A.3 (a) through (h), may result in a time extension but the risk for bearing the cost of extended overhead will remain with Contractor.

No claim for extension of the Contract Time will be considered for Inclement Weather unless Contractor submits documentation that such weather conditions are abnormal for the area and period of time in question; that they could not have been reasonably anticipated; and that the Inclement Weather had a significantly adverse effect on the critical path of the Construction Schedule.

Delays in delivery of equipment or material purchased by Contractor or its Subcontractors or Suppliers (including Metro-selected equipment) shall not be considered as a just cause for delay if timely ordering would have made the equipment available. Contractor shall be fully responsible for the timely ordering, scheduling, expediting, delivery, and installation of all equipment and materials.

The term "delay" shall specifically not include and no extension of the Contract Time or increase in the Contract Amount shall be allowed for (i) any delay which could have been avoided by the exercise of care, prudence, foresight and diligence on the part of Contractor; (ii) any delay in the prosecution of parts of the Work, which may in itself be unavoidable but which does not necessarily prevent or delay the prosecution of other parts of the Work, nor the Substantial Completion of the Work of this Contract within the time specified; (iii) any reasonable delay resulting from the time required by Metro for review of Submittals or Shop Drawings submitted by Contractor and for the making of surveys, measurements and inspections; (v) any delay arising from an interruption in the prosecution of the Work on account of the reasonable interference from Other Metro Contractors which does not necessarily prevent the Substantial Completion of the Work of this Contract within the time specified; and (vi) any delay resulting in any manner from labor disputes, strikes or difficulties or any delay resulting in any manner from any labor-related event, act or condition whether or not Contractor has any control over such event, act or condition.

- B. Justifiable Delay Claims Procedure -- Contractor shall, within twenty-four (24) hours of the start of the occurrence or Contractor's first knowledge of the occurrence which is the basis of the claim for justifiable delay, which ever is earlier, notify Metro in writing of such delay. The written notice by Contractor shall indicate the cause of the delay and shall estimate the possible time extension requested. Within ten (10) days after the cause of the delay has been remedied, Contractor shall give written notice to the Construction Manager of any actual time extension and any increase in the Contract Amount requested as a result of the aforementioned occurrence in accordance with this Contract.

Within Twenty-one (21) days after Contractor submits to the Construction Manager such a written notice for an extension of time and/or increase in the Contract Amount, the Construction Manager will issue the decision on each request. If Contractor is dissatisfied with such decision, Contractor may preserve its claim as provided and prescribed by Subparagraph 3.3.6.

- 3.3.4. Claims for Differing Site Conditions -- Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Construction Manager of (i) subsurface or latent physical conditions at the Site which differ materially from those indicated in this Contract, or (ii) unknown physical conditions at the Site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The Construction Manager shall investigate the Site conditions promptly after receiving the notice. If the conditions do materially so differ as to cause an increase or decrease in Contractor's cost of, or the time required for performing any part of the Work under this Contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made and a Change Order issued.

If Contractor is dissatisfied with the decision of the Construction Manager under this Subparagraph, Contractor may preserve its claim as provided and prescribed by Subparagraph 3.3.6.

- 3.3.5. Other Contractor Claims -- Contractor claims based upon Clarifications or Change Orders issued by Metro or any other decision, action or failure to act by Metro shall be made according to this Subparagraph. Contractor shall, within twenty-four (24) hours following discovery of the facts, which give rise to its claim, notify the Construction Manager in writing of its intent to make the claim. Within ten (10) days following discovery of the facts, which give rise to its claim and prior to commencing the work or conforming to the Clarification on which the claim is based, if any, Contractor shall submit its formal written claim to the Construction Manager. Contractor's formal claim shall include a description of:

- A. The factual occurrences upon which Contractor bases the claim including the decision, action or failure to act by Metro or its authorized representatives that allegedly give rise to the claim;
- B. how Metro's decision, action or failure to act has affected Contractor's performance or otherwise affected Contractor;
- C. Whether the claim is for an extension in the Contract Time or increase in the Contract Amount or both and the specific extension or increase requested;
- D. The provisions of the Contract upon which the claim is based.

Submission of written notice of intent to make a claim and formal claim as specified above shall be mandatory and failure to comply shall be a conclusive waiver to any claim by Contractor. Oral notice or statement will not be sufficient nor will notice or statement after commencing the work in question.

After the written notification is submitted by Contractor (if the claim is not resolved or withdrawn in writing) and only upon written direction by the Construction Manager, Contractor shall proceed without delay to perform the work pursuant to the direction of the Construction Manager. While the work on an unresolved claim is being performed, Contractor shall keep track of costs and maintain records in the manner set forth in the section on Force Account Work, at no cost to Metro. Such notice by Contractor and the fact that Contractor is keeping track of costs and maintaining records shall not in any way be construed as proving the validity of the claim nor the costs thereof.

Provided the claim or claims have been submitted in accordance with the requirements of this Article, the Construction Manager will consider and investigate the claim or claims of Contractor. Within twenty-one (21) days of receipt of the above-described written notification of claim the Construction Manager will advise Contractor of the Construction Manager's decision to accept or reject the claim or claims, in full or in part. If Contractor is dissatisfied with the decision of the Construction Manager under this Subparagraph, Contractor may preserve its claim as provided and prescribed by Subparagraph 3.3.6.

- 3.3.6. Preservation of Claims -- Within thirty (30) days after a rejection of claim, in whole or in part, by Metro under Subparagraphs 3.3.3, 3.3.4 or 3.3.5, Contractor may preserve its claim by submitting a fully documented claim package to Purchasing and Contracts Manager, Metro. That package shall include substantiating documentation with an itemized breakdown of Contractor and Contractor's Subcontractor's costs on a daily basis which shall include, but not be limited to, labor, material, equipment, supplies, services, Overhead and Profit. All documentation that Contractor believes is relevant to the claim shall be provided in the claim package including without limitation, payroll records, purchase orders, quotations, invoices, estimates, correspondence, profit and loss statements, daily logs, ledgers and journals. Failure to submit the claim package in full compliance with this requirement, and/or maintain cost records as herein required, will constitute a waiver of the claim.

If Contractor elects to pursue any claims by filing a lawsuit against Metro, it must commence such lawsuit within six (6) months after the date of Substantial Completion. Failure to commence a lawsuit within this time limitation shall constitute a waiver of all such claims by Contractor.

3.4. Metro's Right to Adjust Payments

- 3.4.1. Adjusted Payments for Delay -- Time is of the essence in this Contract. Metro and Contractor understand and agree that Metro will be damaged if Contractor fails to substantially complete the Work within the Contract Time, and that Metro will be vulnerable to further damages if Metro is obligated to continue paying Contractor for work performed after the Contract Time has expired. It is therefore agreed that after the Contract Time, Metro may adjust its payments to Contractor by any combination of the

following: (1) making no further payments to Contractor until the Work is substantially complete, (2) paying the Subcontractor costs incurred by Contractor without any overhead, profit or fee of any kind going to Contractor, and/or (3) by collection of liquidated damages in the amount of \$600 per day.

Permitting Contractor to continue and finish the work or any part thereof after the Contract Time has expired shall in no way operate as a waiver on the part of Metro of any of its rights under this subparagraph or the balance of the Contract Documents.

3.4.2. Adjusted Payments Not a Bar to Metro's Right to Other Damages -- Payment of adjusted payments shall not release Contractor from obligations in respect to the complete performance of the Work, nor shall the payment of such adjusted payments constitute a waiver of Metro's right to collect any additional adjusted payments which it may sustain by failure of Contractor to fully perform the Work, it being the intent of the parties that the aforesaid adjusted payments be full and complete payment only for failure of Contractor to complete the Work on time. Metro expressly reserves the right to make claims for any and all other damages which Metro may incur due to Contractor's failure to perform in strict accordance with this Contract.

3.5. Mediation -- Both parties shall, in good faith, attempt to negotiate resolutions to all disputes arising out of this Contract. It is agreed, subject to the conditions and limitations of this paragraph, that any controversy or claim arising out of or relating to this Contract which remains unresolved after such negotiations, shall submit to mediation prior to the commencement of litigation. The mediator shall be an individual mutually acceptable to both parties. Should the parties lack specific recommendations for a mediator, the parties shall look to the local circuit court or the Oregon Dispute Resolution Commission. Each party shall pay its own costs for the time and effort involved in mediation. The cost of the mediator shall be split equally between the two parties. Both parties agree to exercise their best effort in good faith to resolve all disputes in mediation. Participation in mediation is a mandatory requirement on both the and Contractor. The schedule and time allowed for mediation shall be mutually acceptable. The mediation process is nonbinding.

Contractor agrees to consolidation of any mediation between Metro and Contractor with any other mediation involving, arising from, or relating to this Contract.

All disputes not resolved by mediation shall be decided exclusively by a court of competent jurisdiction in Multnomah County, Oregon, under the laws of the state of Oregon.

In no event shall submission of a dispute arising out of this Contract, by either party, relieve Contractor of its obligation to fully perform the requirements of the Contract as directed by Metro, pending resolution of the dispute pursuant to the procedures set forth in this Article. In the event Contractor, in Metro's opinion, fails to fully perform the requirements of the Contract pending resolution of a dispute, Metro shall be entitled to exercise its rights to impose adjusted payments pursuant to Subparagraph 3.4.1, and/or terminate the Contract pursuant to Article 15 of this Contract.

ARTICLE 4 SUBCONTRACTING AND ASSIGNMENT OF THE CONTRACT

4.1. Contractor's Responsibility for the Work -- Contractor shall perform or cause to be performed all labor, services and work of whatever nature and shall provide or cause to be provided all materials, equipment, tools and other facilities of whatever nature necessary to complete the Work and shall otherwise cause the Work to be completed in accordance with the Contract Documents.

Contractor shall take and assume all risk for all work and material involved in the Project until the entire Project has been finally accepted by Metro.

Contractor shall supervise and direct the Work, using Contractor's best skill and attention. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the

Contract, unless the Contract Documents give other specific instructions concerning these matters.

- 4.2. Subcontracting -- Contractor shall arrange and delegate its work in conformance with trade practices and union regulations, if applicable, but shall remain responsible to Metro for performance of all work required or implied by the Contract Documents. Contractor shall also be responsible for coordinating the efforts of its Subcontractors and Suppliers.

- 4.2.1. Objection to Subcontractors or Suppliers -- Metro reserves the right to make reasonable objection to any of Contractor's Subcontractors or Suppliers if Metro discovers any data or information at any time during the performance of the Contract which gives Metro a basis for such reasonable objection.

Metro will notify Contractor in writing if Metro has any reasonable objection to any of Contractor's Subcontractors or Suppliers. Contractor shall not subcontract with any Subcontractor or Supplier to which Metro has made a reasonable objection. In the event of Metro's reasonable objection to any Subcontractor or Supplier, Contractor shall propose another entity to which Metro has no reasonable objection. The Contract Amount shall not be increased by any difference in cost occasioned by such substitution, nor shall the Contract Time be extended.

- 4.2.2. Substitution, Change or Addition of Subcontractors or Suppliers -- At any time that Contractor intends to substitute, change or add a Subcontractor or Supplier during the performance of the Contract, Contractor shall give Metro prior written notice of such intention. Contractor shall not substitute, change or add any such Subcontractor or Supplier if Metro gives Contractor reasonable objection in writing within ten (10) days after Metro receives such notice.

When any Subcontractor fails to prosecute a portion of the Work in a satisfactory manner, Metro may so notify Contractor. If the Subcontractor fails to cure the unsatisfactory work promptly, Contractor shall remove such Subcontractor immediately upon written request of Metro and Contractor shall request approval from Metro of a new Subcontractor to perform this section of the Work at no increase in the Contract Amount, and with no change in the Contract Time.

- 4.2.3. Metro Not Obligated to Detect Unsatisfactory Work -- Nothing contained in this Contract shall obligate Metro or place on Metro an affirmative duty to detect or discover unsatisfactory work or materials of Contractor's Subcontractors or Suppliers. Failure of Metro to detect or discover such unsatisfactory work or materials shall not relieve Contractor of any of its obligations under this Contract.

- 4.2.4. No Contractual Relationships Between Metro and Contractor's Subcontractors and Suppliers -- Nothing contained in this Contract is intended nor shall be construed to create any contractual or third-party beneficiary relationship between Metro and any of Contractor's Subcontractors, Suppliers or agents, save and except in relation to the Labor and Materials Payment Bond.

- 4.2.5. Contractor's Agreements with Subcontractors -- Contractor shall provide in all subcontract and supply agreements that the Subcontractor or Supplier will be bound by the terms and conditions of this Contract to the extent that they relate to the Subcontractor's or Supplier's work. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with sub-tier Subcontractors and Suppliers. Contractor shall make available to each proposed Subcontractor and Supplier, prior to the execution of the subcontract or supply agreement, copies of the Contract Documents, which apply to the work and materials to be provided by the Subcontractor or Supplier. Subcontractors and Suppliers shall similarly make copies of applicable portions of such documents available to their respective proposed sub-tier Subcontractors and Suppliers.

All Subcontractor's and Supplier's agreements shall also provide that they are assignable to Metro at Metro's option, in the event that Metro terminates the Contract. Contractor will provide to Metro, a copy of all subcontracts and supply contracts for permanent materials.

Nothing contained in this Subparagraph shall be construed as creating a direct or indirect contractual relationship between Metro and any of Contractor's Subcontractors or Suppliers. No such Subcontractor or Supplier shall have, or shall claim to have, any third-party beneficiary rights or status in relations to this Contract, save and except in relation to the Labor and Materials Payment Bond provided by Contractor.

- 4.3. Assignment -- Contractor shall constantly give its personal attention to the faithful prosecution of the Work. Contractor shall keep the Work under its personal control and shall not assign any or all of Contractor's rights, by power of attorney or otherwise, nor delegate any of its duties except with the prior written approval of the Metro Council.

ARTICLE 5 TIME OF COMPLETION AND SCHEDULE FOR THE WORK

- 5.1. Prosecution of Work Generally -- Contractor shall commence the Work within five (5) days after issuance of written Notice to Proceed from Metro and will diligently prosecute the Work to its Final Completion and Acceptance. The start of Work shall include attendance at preconstruction conferences, preparation and submittal of shop drawings, equipment lists, Schedule of Values, CPM construction schedules, requests for substitutions and other similar activities, as described by these Contract Documents.

- 5.2. Time of Completion -- Contractor shall bring the Work to Substantial Completion within the Contract Time as set forth in the Construction Agreement.

The time limits stated in these Contract Documents are of the essence of this Contract. By executing the Construction Agreement, Contractor confirms that the Contract Time is a reasonable period for performing all of the Work.

Failure of Contractor to substantially complete the Work within the Contract Time and according to the provisions of these Contract Documents shall subject Contractor to damages pursuant to the applicable sections of these Contract Documents.

- 5.3. Extensions of Time -- Extensions of the Contract Time shall be made pursuant to the procedure and according to the provisions and requirements contained in Articles 3 and 8 of these Contract Documents.
- 5.4. Project Scheduling -- Contractor shall submit to Metro a detailed Construction Schedule for completion of the work pursuant the Specifications. The Construction Schedule shall, when approved and as updated and approved by Metro, become a part of the Contract Documents.
- 5.5. Use of Completed Parts of the Work Before Acceptance -- Whenever, in the opinion of Metro, the Work or any part thereof is in a condition suitable for use and it is in the best interest of Metro to require such use, Metro may take possession of, connect to, open for public use, or use the Work or a part thereof. When so used, maintenance and repair due to ordinary wear and tear or vandalism will be made at Metro's expense and Metro will defend liability claims, which may result from such use by Metro. The use by Metro of the Work or part thereof as contemplated in this Paragraph shall in no case be construed as constituting acceptance of the Work or any part thereof. Such use shall neither relieve Contractor of any of its responsibilities under the Contract Documents, nor act as a waiver by Metro of any of the conditions thereof.

ARTICLE 6 COORDINATION WITH OTHER METRO CONTRACTORS

- 6.1. Other Metro Contractors Generally -- Metro reserves the right to award other contracts in connection with the work. Contractor shall afford all such Other Metro Contractors reasonable opportunity for storage of their materials and execution of their Work, shall provide that the execution of Contractor's Work properly connects and coordinates with work of all Other Metro

Contractors, and shall cooperate with Other Metro Contractors to the end of facilitating the Work in such a manner as Metro may direct. Connection between the work of the Contractor and other Metro Contractors will be the responsibility of the party, which is last in time to construct, unless otherwise directed in the Contract Documents.

- 6.2. Duty to Inspect Other Metro Contractors' Work -- Where Contractor's Work is associated with that of Other Metro Contractors, or is to interface in any way with such Other Metro Contractor's work, Contractor shall examine, inspect and measure the adjacent or in-place work of such Other Metro Contractors. If Contractor determines that any defect or condition of such adjacent or in-place work will impede or increase the cost of Contractor's performance or otherwise prevent the proper execution of Contractor's Work, Contractor shall immediately, and before performing any work affected by the Other Metro Contractors' work, submit a Request for Clarification to Metro pursuant to Paragraph 3.2. If Contractor proceeds without examining or inspecting the work and submitting a Request for Clarification, Contractor shall be held to have accepted the Other Metro Contractors' work or material and the existing conditions, and shall be responsible for any defects in Contractor's Work resulting therefrom and shall not be relieved of any obligation or any warranty under this Contract because of any such condition or imperfection. This provision shall be included in any and all of Contractor's subcontracts for Work to be performed.

The foregoing does not apply to latent defects. Contractor shall report latent defects in any Other Metro Contractors' work at any time such defects become known or Contractor should have known, and Metro shall promptly thereafter take such steps as may be appropriate. If Contractor in the exercise of reasonable care should have known of such defects but did not report them, such defects shall not be considered latent.

- 6.3. Duty to Maintain Schedule -- It shall be the responsibility of Contractor to maintain its schedule so as not to delay the progress of the Project or the work of Other Metro Contractors. Contractor is required to cooperate in every way possible with Other Metro Contractors. Except as otherwise specifically provided in this Contract, no additional compensation will be paid for such cooperation. If Contractor delays the progress of the Project or the progress of Other Metro Contractors, it shall be the responsibility of Contractor to take all of the steps necessary to bring the affected work into compliance with any affected schedules and to indemnify Metro from all liability for such delays pursuant to Article 11.

Metro shall be under no duty to monitor or detect any delays of Contractor or any Other Metro Contractor on the Project or any lack of coordination on the Project. Consequently, the failure of Metro to so monitor or detect shall not be construed as relieving Contractor of its duties to fully perform all of its obligations under the Contract.

- 6.4. Failure to Maintain Schedule -- If, in the opinion of Metro, Contractor falls behind the Construction Schedule or delays the progress of Other Metro Contractors and is not entitled to an extension of time pursuant to the Contract Documents, Contractor shall perform all steps which are necessary, in the opinion of Metro, to bring Contractor's Work into compliance with the Construction Schedule or to remedy any delay to the progress of Other Metro Contractors. Contractor shall submit operation plans to Metro, which plans shall fully demonstrate the manner of intended compliance with this Paragraph. The steps referred to above shall include, but not be limited to:

- 6.4.1. Increase manpower in such quantities and crafts as will substantially eliminate the backlog of work.
- 6.4.2. Increase, when permitted, the number of working hours per shift, shifts per working day, working days per week, or the amount of equipment or any combination of the foregoing, sufficient to eliminate the backlog of work.
- 6.4.3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- 6.4.4. Expedite delivery of materials and equipment such as use of airfreight.

If Metro directs Contractor to take measures described in this Paragraph, or if Contractor takes such measures without direction from Metro, Contractor shall bear all costs of complying. Metro shall, however, reimburse Contractor for reasonable costs of complying if such directive to accelerate from Metro was issued to overcome delay caused by the acts or omissions of Metro or persons acting for Metro, provided Contractor has complied with all applicable provisions of Articles 3 and 8 of this Contract.

Failure to maintain the construction schedule or to take action to regain the schedule or to furnish a schedule as outlined in the specifications may result in withholding of all or part of the monthly progress payments.

- 6.5. Failure to Coordinate Work -- If Contractor fails to coordinate its work with the work of Other Metro Contractors as directed by Metro, Metro may, upon written notice to Contractor:
- 6.5.1. Withhold any payment otherwise due hereunder until Contractor complies with Metro's directions.
 - 6.5.2. Direct others to perform portions of the affected Work and charge the cost of such Work against the Contract Amount or deduct the cost from sums held in Retainage.
 - 6.5.3. Terminate any or all portions of the Work for Contractor's failure to perform in accordance with the Contract.
- 6.6. Other Metro Contractors' Failure to Coordinate -- If Contractor determines that any Other Metro Contractor on this Project is failing to coordinate its work with the Work of Contractor, Contractor shall immediately and before performing any affected Work submit a Request for Clarification to Metro pursuant to Paragraph 3.2.
- 6.7. Conflicts Among Contractors -- Any difference or conflict that may arise between Contractor and Other Metro Contractors in regard to their work shall be adjusted as determined by Metro. If directed by Metro, Contractor shall suspend any part of the Work specified or shall carry on the same in such manner as may be prescribed by Metro when such suspension or prosecution is necessary to facilitate the work of Other Metro Contractors.
- 6.8. Coordination Drawings -- Contractor shall prepare coordination drawings as determined necessary by Metro, to satisfactorily coordinate and interface its Work with the work of all Other Metro Contractors, thereby avoiding conflicts, which may arise.
- 6.9. Conferences -- At any time during the progress of the Work, Metro shall have authority to require Contractor to attend any conference of any or all of Contractors engaged in the Project or related projects.

ARTICLE 7 CONTROL AND QUALITY OF WORK AND MATERIAL

7.1. Quality Control

- 7.1.1. Generally -- Contractor has the primary responsibility for quality control. Contractor will provide continuous superintendence and inspection to insure that the work is completed in accordance with the plans and specifications. Additionally, during the performance of the Work, Metro, the Owner/Engineer, and Special Inspectors, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, including representatives of federal, state, and local agencies having jurisdiction over the Work, may at any time, and for any purpose, enter upon the Site, the shops where any part of such Work may be in preparation, or the factories or sites where any materials for use in the Work are being or are to be manufactured or derived. Contractor shall provide proper and safe facilities therefor, and shall make arrangements with manufacturers or other suppliers to facilitate inspection of their processes and products to such extent as Metro's interest may require.

No claims for extension of the Contract Time or increase in the Contract Amount shall be allowed for any access allowed to Metro under this Paragraph.

- 7.1.2. Quality Control Plan -- Contractor shall prepare and submit to the Construction Manager within thirty (30) days following Notice to Proceed a Quality Control Plan, which describes Contractor's, procedures for implementing the Quality Control Program. The Plan shall include, but not be limited to, the Quality Control Organization, inspection procedures, tests anticipated, materials control, contingency plans related to fire protection and remediation of contaminated releases or other environmental improvement, and reports. Metro reserves the right to accept or reject or modify the Quality Control Plan. Contractor will submit an interim Quality Control Plan prior to the start of work to cover the first thirty (30) days of construction.
- 7.1.3. Quality Control Manager -- Prior to initiation of construction, Contractor shall designate in writing a Quality Control Manager who shall be responsible for coordinating Contractor's Quality Control Program. The individual so designated shall be the interface with the Construction Manager on matters relating to submittals, inspection, scheduling, unacceptable work product and corrective actions. Metro reserves the right to accept or reject the Quality Control Manager designated by Contractor.
- 7.2. Inspection -- Contractor has the primary responsibility for providing inspection and testing, except as otherwise set forth in the specifications. Metro and its agents will also inspect at their discretion or as outlined in the specifications.
 - 7.2.1. Generally -- Contractor shall at all times commencing with the issuance of the Notice to Proceed until Final Completion and Acceptance of the Work, permit Metro, the Owner/Engineer, and Special Inspectors, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, including representatives of federal, state, and local agencies having jurisdiction over the Work, to visit and monitor the progress of the Work for conformance of the Work with the Contract Documents.
 - 7.2.2. Special Inspections -- Contractor shall at all times, commencing with the issuance of the Notice to Proceed until Final Completion and Acceptance of the Work, permit Metro, the Owner/Engineer, and Special Inspectors, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, including representatives of federal, state, and local agencies having jurisdiction over the Work, to visit and inspect the Work, the materials and the manufacture and preparation of such materials, and subject the Work and materials to inspection and testing to determine if the Work conforms to the requirements of the Contract Documents. Contractor shall maintain proper facilities and safe access for all such inspections. Where the Contract requires work to be inspected or tested, it shall not be covered up until inspected, tested and approved by Metro. Contractor shall be solely responsible for notifying Construction Manager at least two (2) working days prior to performing such work, so that necessary arrangements for inspection and testing can be made. Should any work be covered without such inspection or test and approval, it shall be uncovered and repaired at Contractor's expense.
 - 7.2.3. Notice to Metro for Certain Work Days -- Whenever Contractor intends to perform work on Saturday, Sunday or any legal holiday, it shall give written notice to Metro of such intention at least two (2) working days prior to performing such work, or such other period as may be specified by Metro, so that Metro may make the necessary arrangement for testing and inspection.
 - 7.2.4. Correction of Defective Work Before Acceptance -- Any defective work or work which otherwise fails to conform to the Contract Documents, which is discovered before Final Completion and Acceptance of the Work, shall be corrected immediately by Contractor, and any unsatisfactory materials shall be rejected and replaced with satisfactory materials, notwithstanding that they may have been overlooked by the authorized inspector. The inspection of the Work by Metro, the Owner/Engineer or any other agency

shall not relieve Contractor of any of its obligations to perform fully all of the terms and provisions of the Contract Documents.

- 7.2.5. Acceptance Not Implied by Failure to Object -- Failure or neglect on the part of Metro or any of its authorized representatives to condemn or reject defective, improper or inferior work or materials shall not be construed to imply a final acceptance of such work or materials and shall not be construed as relieving Contractor of its duties to perform fully all requirements of the Contract Documents.

7.3. Unsatisfactory Materials and Workmanship

- 7.3.1. Generally -- Material, work or workmanship which, in the opinion of the Construction Manager, does not conform to the Contract Documents, or is not equal to the samples submitted to and approved by the Construction Manager, or is in any way unsatisfactory or unsuited to the purpose for which it is intended, will be rejected. Contractor shall bear the cost of correcting or removing as deemed necessary by Metro, all non-conforming materials, work or workmanship. Contractor shall make a close inspection of all materials as delivered, and shall promptly replace all defective materials with conforming materials without waiting for their rejection by Metro.

- 7.3.2. Removal of Rejected or Non-Conforming Work or Material -- All rejected material or work, and all defective or non-conforming work or material, shall be removed from the Site without delay. If Contractor fails to do so within forty-eight (48) hours after having been so directed by Metro, the rejected material may be removed by Metro and the cost of removal charged against Contractor and deducted from Retainage held by Metro or offset against payments due Contractor, at Metro's option.

If in the judgment of Metro it is undesirable or impracticable to replace any defective or non-conforming work or materials, the compensation to be paid to Contractor shall be reduced by Change Order or Force Account, as applicable, by such amount as, in the judgment of Metro, shall be equitable.

- 7.4. General Warranty of Contractor -- Contractor warrants to Metro that materials and equipment provided under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects and contaminants not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by Metro, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

The warranty made by Contractor under this Paragraph shall be in addition to any other specific warranties and certifications required elsewhere in these Contract Documents.

- 7.5. Correction of Work by Contractor -- Contractor shall be responsible for and shall promptly correct or replace any defective Work, whether due to faulty or contaminated materials or errors in workmanship, or Work failing to conform to the requirements of the Contract Documents which may be discovered or which may develop within one (1) year after the date of Substantial Completion or within such longer period as is specified below or otherwise in these Contract Documents.

In the case of equipment manufactured by others and supplied and/or installed by Contractor, the one (1) year period shall commence upon the date of first beneficial operation of such equipment by Metro. In the case of Work which is corrected or replaced by Contractor, the one (1) year period shall commence again on the date of acceptance by Metro of such corrected or replaced Work. Testing shall not be construed to mean acceptance.

If Metro does not require correction or replacement of defective Work or Work failing to conform to the Contract Documents, Contractor, if required by Metro, shall repay to Metro such portion of the Contract Amount as is equitable under the circumstances, as determined by Metro.

Contractor's responsibilities under this Paragraph shall not extend to correction or replacement of defects, which are attributable to mistreatment by Metro, or to normal wear and tear.

7.6. Warranty and Correction Agreements by Subcontractors

7.6.1. Generally -- In addition to any requirements for written warranties required by the Specifications, Contractor shall require all of its Subcontractors and Suppliers of any tier to make the same warranty to Metro as Contractor makes under Paragraph 7.4. Contractor shall also require all of its Subcontractors and Suppliers of any tier to agree to correct or replace defective Work or Work not conforming to the Contract Documents, and to take full responsibility for defective materials, in the same manner as Contractor agrees to correct or replace such Work under Paragraph 7.5.

7.6.2. Form of Submissions -- Contractor shall require all of its Subcontractors and Suppliers of any tier to sign documents evidencing the promises made pursuant to Subparagraph 7.6.1 above and shall submit such documents to Metro with its request for Final Payment. Such documents shall be signed by both Contractor and the applicable Subcontractor or Supplier and shall be in the following form:

"We the undersigned hereby warrant that the _____

(described work performed and/or materials provided)

which we have provided for Oregon Stormwater Improvements has been done in accordance with the Contract Documents and that the work as provided will fulfill the requirements of the warranty included in Article 7 of the Contract Documents.

"We agree to correct or remove and replace any or all of our work, together with any other adjacent work which may be displaced or affected by so doing, that may be defective in its workmanship or materials or which may fail to conform to the requirements of the Contract Documents within a period of one (1) year following the applicable date described in Paragraph 7.5 without any expense whatsoever to Metro, normal wear and tear and mistreatment excepted.

"In the event of our failure to comply with the above-mentioned conditions within twenty (20) calendar days after Metro notifies Contractor in writing, we collectively and separately do hereby authorize Metro to proceed to have said defects repaired and corrected at our expense and we will honor and pay the costs and to dispose of nonconforming materials and charges therefore upon demand."

7.7. Remedies Not Restrictive -- The remedies provided for in this Article shall not be restrictive of but shall be cumulative and in addition to all other remedies of Metro in respect to latent defects, frauds or failure to perform all work as required by the Contract Documents.

7.8. Proof of Compliance with Contract Provisions -- For Metro to determine whether Contractor has complied or is complying with the requirements of the Contract which are not readily enforceable by inspection and test of the Work, Contractor shall, upon request, promptly submit to Metro such properly authenticated documents as may be necessary to demonstrate compliance with the Contract or other satisfactory proof of its compliance with such requirements.

7.9. Patents, Copyrights, Trademarks -- All fees or costs of claims for any patented invention, article or arrangement or any copyrights or trademarks that may be used upon or in any manner connected with the performance of the Work or any part thereof, shall be included in the Bid for doing the Work. Contractor shall save, keep, hold harmless, and fully indemnify Metro and Owner from all

damages, claims for damage, lawsuits, costs, expenses or liabilities of whatever nature in law or equity, including attorney's fees and court costs, which may at any time arise or be set up for any infringement of the patent rights, copyrights or trademarks of any person or persons in consequence of the use by Metro of articles to be supplied under the Contract and of which Contractor is not the patentee or assignee or has not the lawful right to sell the same. This is in addition to all other hold harmless and indemnification clauses in these Contract Documents.

- 7.10. Anti-Trust Claims -- By entering into this Contract, Contractor, for consideration paid to Contractor under the Contract, does irrevocably assign to Metro any claim for relief or cause of action which Contractor now has or which may accrue to Contractor in the future, including, at Metro's option, the right to control any such litigation on such claim for relief or cause of action, by reason of any violation of 15 USC Section 1-15, ORS 646.725 or ORS 646.730, in connection with any goods or services that are used, in whole or in part, for the purpose of carrying out Contractor's obligations under this Contract.

Contractor shall require all Subcontractors and Suppliers to irrevocably assign to Metro, as a third party beneficiary any right, title or interest that has accrued or may accrue to the Subcontractors or Suppliers by reason of any violation of 15 USC Section 1-15, ORS 646.725 or ORS 646.730, including, at Metro's option, the rights to control any litigation arising thereunder, in connection with any goods or services provided to the Subcontractors or Suppliers by any person, in whole or in part, for the purpose of carrying out the Subcontractors' or Suppliers' obligations as agreed to by Contractor in pursuance of the completion of the Contract.

In connection with Contractor's, Subcontractors' or Suppliers' assignment, it is an express obligation of Contractor, Subcontractor or Supplier that it will take no action which will in any way diminish the value of the rights conveyed or assigned hereunder to Metro. It is an express obligation of Contractor, Subcontractor or Supplier to advise the General Counsel of Metro:

- 7.10.1. In advance, of its intention to commence any action on its own behalf regarding such claims for relief or causes of action;
- 7.10.2. Immediately, upon becoming aware of the fact that an action has been commenced on its own behalf by some other person or persons, of the pendency of such action; and
- 7.10.3. The date on which it notified the obligor(s) of any such claims for relief or causes of action of the fact of its assignment to Metro.

Furthermore, it is understood and agreed that in the event that any payment under any such claim is made to Contractor, Subcontractor or Supplier, it shall promptly pay over to Metro its proportionate share thereof, if any, assigned to Metro hereunder.

ARTICLE 8 CHANGES IN THE WORK

- 8.1. Change Orders Generally -- Metro may order changes in the Work herein required, including deletions of work, and may order additional materials and work in connection with the performance of the Work.

If such changes in the Work increase or decrease the cost of any part of the Work or change the time necessary to complete the Work, the Contract Amount shall be increased or decreased by such amount and the Contract Time changed as Contractor and Metro may agree upon as reasonable in a written Change Order. Contractor shall promptly comply with such Change Orders and carry them out in accordance with the Contract Documents.

No order for any alteration, modification or additional work which shall increase or decrease the Contract Amount or change the Contract Time shall become part of the Contract unless the resulting Change Order shall have been agreed upon in writing and the Change Order signed by Contractor and Metro, unless the work is Force Account work. Metro may, at its discretion, also require the signature of Contractor's surety on the Change Order. Prior to the approval of such

Change Order, the Owner/Engineer shall have approved any design modifications entailed thereby.

8.2. Procedure for Determining Impact of Change Orders on Contract Amount

8.2.1. Price before Proceeding -- If Metro intends to order changes in the Work, it may request a proposal by Contractor for the proposed added or deleted work before directing Contractor to commence work. Within fourteen (14) days after issuance of such request by Metro, Contractor shall furnish three copies of a complete breakdown of costs of both credits and additions directly attributable to the change in the Work proposed, itemizing materials, labor, taxes, affect on Contract Time, if any, and Overhead and Profit on a form approved by Metro and in accordance with the limitations described in the following Paragraph. Subcontract work shall be so indicated and written proposals from Subcontractors or Suppliers shall be included with similar breakdowns provided. Following submission of its cost breakdown, Contractor shall meet with Metro to discuss all aspects of scope, costs, scheduling and construction methods.

8.2.2. Proceed While Pricing -- If Metro finds it necessary to make changes in the Work in an expeditious manner, it may direct Contractor to proceed with the change while preparing a proposal for the added or deleted Work. In such an instance, Metro may assign an estimated value to the change, which Contractor shall not exceed without further authorization by Metro. Within fourteen (14) days after issuance of such by Metro, Contractor shall furnish three copies of a complete breakdown of costs of both credits and additions directly attributable to the change in the Work proposed, itemizing materials, labor, taxes, affect on Contract Time, if any, and Overhead and Profit on a form approved by Metro and in accordance with the limitations described in the following Paragraph. Subcontract work shall be so included with similar breakdowns provided. Following submission of its cost breakdown, Contractor shall meet with Metro to discuss all aspects of scope, costs, scheduling and construction methods.

8.2.3. Unit Prices -- If the proposed additional or deleted work is the subject of Unit Prices stated in the Contract Documents or subsequently agreed upon, such Unit Prices shall be binding upon Contractor in calculating the increase or decrease in the Contract Amount attributable to the proposed additional or deleted work.

8.3. Limitations when Change Orders Impact Contract Amount-- The following limitations shall apply in the calculation of the costs of changes in the Work:

8.3.1. Overhead and Profit -- Contractor will be permitted a reasonable allowance for Profit and Overhead on its increased Direct Cost resulting from any changes in the Work ordered by Metro. Likewise, Profit and Overhead will be deducted for any portion of the Work, which is deleted. In the case of a change involving both credits and extras, Overhead and Profit shall be applied to the net extra after subtraction of credits.

Overhead and Profit for the entity performing the work with its own crews shall not exceed twenty percent (20%) of the Direct Cost of the changed work.

Overhead and Profit for Contractor or Subcontractor who has had the work performed by a lower tier Subcontractor shall not exceed five percent (5%) of the Direct Cost of the changed work.

If the Work is performed by a second-tier or inferior Subcontractor, the total Overhead and Profit for all tiers shall in no event exceed thirty percent (30%) of the Direct Cost of the changed work. Distribution of this Overhead and Profit among the tiers is the responsibility of Contractor.

8.3.2. Taxes and Insurance -- Federal, state, regional, county and local taxes, including, but not limited to, income taxes, excise taxes, sales and use taxes and payroll taxes and

insurance shall be shown separately and will be allowed on extras and shall be credited on credits. No Overhead and Profit will be allowed on taxes and insurance.

8.3.3. Bond Premiums -- The actual rate of bond premium as paid on the additional Direct Cost plus the cost of taxes defined in 8.3.2 will be allowed. No Overhead and Profit will be allowed on such premiums.

8.3.4. Equipment Costs -- The allowance for equipment costs (both rental as well as Contractor-owned equipment) shall be limited to those rates in the Rental Rate Bluebook published by Dataquest Incorporated, 1290 Ridder Park Drive, San Jose, California 95131-2398, (800) 227-8444.

8.4. Force Account Work -- If Contractor does not respond to Metro's Request for Proposal with a cost breakdown within the fourteen (14) day period as required above, or if Metro determines that Contractor's breakdown of costs is unreasonable in consideration of the work proposed to be added or deleted, or if Metro determines that the proposed work must be commenced promptly to avoid delay to the Project, Metro may issue an order for Force Account work and Contractor shall promptly perform or delete the work described in such order. Change, if any, in the Contract Amount due to such Force Account work shall be the sum total of the following items:

8.4.1. Actual labor cost, including premium on compensation insurance and charge for social security taxes, and other taxes pertaining to labor.

8.4.2. The proportionate cost of premiums of public liability property damage and other insurance applicable to the extra work involved and required by these Contract Documents.

8.4.3. Actual cost of material, including applicable taxes pertaining to materials.

8.4.4. Actual cost of plant and equipment rental, at rates to be agreed upon in writing before the work is begun or at rates per Subparagraph 8.3.4 above. No charge for the cost of repairs to plant or equipment will be allowed. Equipment items having a capital cost of under \$250.00 are considered small tools and classified as Overhead.

8.4.5. Overhead and Profit as provided and limited in Paragraph 8.3.

8.4.6. The proportionate actual costs of premiums for bonds required by these Contract Documents.

Whenever any Force Account work is in progress, Contractor shall furnish each working day to Metro a detailed written report signed by Contractor and Metro's representative of the amount and cost of all of the items listed in (1) through (6) above, and no claim for compensation for such extra work will be allowed unless such report shall have been made. Metro reserves the right to provide such materials as it may deem expedient and no compensation, overhead or profit will be allowed to Contractor for such materials.

8.5. Oral Modifications -- No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this Contract.

8.6. Contractor Proposals for Changes in Work

8.6.1. Generally -- At any time during the performance of the Work, Contractor may propose to Metro changes in work which Contractor believes will result in higher quality work, improve safety, shorten the Contract Time, decrease the Contract Amount, or otherwise result in better or more efficient work.

8.6.2. Purpose -- Metro encourages Contractor to submit Value Engineering Change Proposals (VECPs) in order to avail Metro of potential cost savings that may result. Contractor and Metro will share any savings, computed in accordance with instructions herein.

Contractor is encouraged to submit VECPs whenever he identifies an area which can be improved, using the format described herein.

- 8.6.3. Application -- This clause applies to a contractor developed and documented VECP which: (1) requires a change to this Agreement to implement the VECP; and (2) reduces the Contract Price without impairing essential functions or characteristics of the Work, provided it is not based solely on a change in specified quantities.
- 8.6.4. Documentation -- At a minimum, the following information shall be submitted by Contractor with each VECP: (1) description of the existing requirements of the Contract Documents which are involved in the proposed change; (2) description of the proposed change; (3) discussion of differences between existing requirements and the proposed change, together with advantages and disadvantages of each changed item; (4) itemization of the requirements which must be changed if the VECP is accepted (e.g., Drawing numbers and Specifications); (5) justification for changes in function or characteristics of each such affected item and effect of the change on the performance of the end item; (6) effect of proposed change on life-cycle costs, including operation and maintenance, replacement costs, and life expectancy; (7) date or time by which a Change Order adopting the VECP must be issued in order to obtain the maximum cost reduction, noting any effect on Contract Time or delivery schedule; and (8) cost estimate for existing contract requirements correlated to his lump sum breakdown and proposed changed requirements. Costs of development and implementation by Contractor shall be identified. Estimated Metro costs (e.g., cost of testing and redesign) shall also be identified.
- 8.6.5. Submission --Proposals will be processed expeditiously; however, Metro will not be liable for any delay in acting upon any proposal submitted pursuant to this clause. Contractor shall have the right to withdraw, in whole or in part, any VECP at any time prior to acceptance by Metro.
- 8.6.6. Acceptance -- Metro may accept, in whole or in part, by Change Order, any VECP submitted pursuant to this clause. Until a Change Order is issued, Contractor shall remain obligated to perform in accordance with this Agreement. The decision as to acceptance or rejection of any VECP will be at the sole discretion of Metro and will be final and not subject to review by mediation or otherwise.
- 8.6.7. Sharing -- If a VECP submitted by Contractor pursuant to this clause is accepted, Contractor shall proceed with the change and the Contract Price will be adjusted in accordance with the following provisions:
- A. Definitions
1. Estimated Gross Savings to Contractor (GS): The difference between cost of performing the Work according to the existing requirement and the cost if performed according to the proposed change. In each instance, Contractor's profit shall not be considered part of the cost.
 2. Contractor Costs (CC): Reasonable costs incurred by Contractor in preparing the VECP and making the change such as cancellation or restocking charges where required.
 3. Estimated Net Savings to Contractor (NS): Gross savings (GS) less Contractor costs (CC).
 4. Metro's Costs (OC): Reasonable costs incurred by Metro for evaluating and implementing the VECP, such as testing and redesign, where required.
- B. Calculations
1. The Contract Price shall be reduced by an amount equal to 50 percent of (NS) plus 50 percent of (OC), expressed by the formula:
$$\text{Reduction} = 0.5 (\text{NS}) + 0.5 (\text{OC}).$$
 2. Contractor's profit will not be reduced by application of the VECP.

- 8.6.8. Subcontracts -- Contractor shall include appropriate value engineering incentive provisions in all subcontracts of \$25,000 or greater. He may include such provisions in any Agreement. Subcontracts shall contain a provision that any benefits accruing to Contractor as a result of an accepted VECP initiated by a Subcontractor shall be shared by Contractor and Subcontractor. To compute any adjustment in the Contract Price under Paragraph 6.45 above, Contractor's costs of preparation and charge for a VECP shall include any preparation and change costs. Examples are cancellation or restocking charges when required.
- 8.6.9. Disclosure Restrictions -- Contractor may restrict Metro's right to use any sheet of a VECP or of the supporting data submitted pursuant to this clause, in accordance with the terms of the following legend if it is marked on such sheet:

Legend

To the extent allowed by law, data furnished pursuant to the value engineering incentive clause of the Agreement shall not be: (1) disclosed to any outside person or agency, (2) duplicated, or (3) used. Metro may disclose, duplicate, or use furnished data to evaluate a VECP submitted under said clause. This restriction does not limit Metro's right to use information that has been obtained, or is otherwise available, from Contractor or from another source without limitations. If such a VECP is accepted, Metro shall have the right to duplicate, use, and disclose any data reasonably necessary to the full utilization of such VECP as accepted, in any manner and for any purpose whatsoever, and have others so do.

- 8.7. Impact of Authorized Changes in the Contract -- Changes in the Work made pursuant to this Article and extensions of the Contract Time allowed by Metro due to such changes shall not in any way release any warranty or promises given by Contractor pursuant to the provisions of the Contract Documents, nor shall such changes in the Work relieve or release the sureties of bonds executed pursuant to said provisions. The sureties, in executing such bonds, shall be deemed to have expressly agreed to any such change in the Work and to any extension of Contract Time made by reason thereof.

ARTICLE 9 PAYMENTS AND COMPLETION

- 9.1. Scope of Payment -- Payment to Contractor of the Contract Amount for performing all Work required under the Contract, as adjusted for any Change Orders approved as hereinbefore specified, shall be full compensation for furnishing all labor, materials, equipment and tools necessary to the Work, and for performing and completing, in accordance with these Contract Documents, all Work required under the Contract, and for all expenses incurred by Contractor for any purpose in connection with the performance and completion of said Work.

Whenever it is specified herein that Contractor is to do work or provide materials of any class for which no price is fixed in the Contract, it shall be understood that Contractor is to do such work or provide such materials without extra charge or allowance or direct payment of any sort, and that the cost of doing such work or providing such materials is included in its Bid.

- 9.2. Schedule of Values

- 9.2.1. Generally -- Within thirty (30) days after the Notice to Proceed and at least 15 days prior to Contractor's application for the first progress payment, Contractor shall submit a detailed breakdown on its lump sum bid. The format and detail of the breakdown shall be as directed by Metro to facilitate and clarify future progress payments to Contractor. This breakdown shall be referred to as the Schedule of Values.

- 9.2.2. Review of Schedule of Values -- Metro will review the Schedule of Values to ascertain that the dollar amounts of the Schedule of Values are in fact fair cost allocations for the work item listed. Upon concurrence by Metro, a formal approval of this Schedule of

Values will be issued. Metro shall be the sole judge of fair cost allocations. Contractor's monthly progress payment requests shall reflect the cost figures included in the approved Schedule of Values and shall be based upon completed work items or percentages of work items completed prior to the end of the payment period as more fully described below.

9.3. Progress Payment Procedure

- 9.3.1. Generally -- Subject to the approval of Metro, disbursements shall be made by Metro of progress payments upon written request of Contractor. Before the end of each calendar month, Contractor shall file with the Construction Manager in duplicate on a form approved by Metro, a proposed payment estimate for the period commencing on the 26th day of the previous month through midnight on the 25th day of the calendar month in question. Metro and the Construction Manager shall review Contractor's estimate and shall determine the value of Contractor's work based upon the Schedule of Values and incorporated labor and materials for the payment period. Contractor shall not be paid for any work, which is, in Metro's opinion, defective or improper or for work needed to correct Contractor's defective or improper work. Contractor shall be paid 95 percent (95%) of the determined value of work accomplished less any offset or withholding of sums by Metro allowed under the Contract Documents within thirty (30) days after receipt by Metro of Contractor's payment estimate. Metro will routinely withhold five percent (5%) as Retainage.

No inaccuracy or error in any monthly progress payment estimates shall operate to release Contractor or its surety from damages arising from such work or from the enforcement of each and every provision of the Contract Documents, and Metro shall have the right subsequently to correct any error made in any estimate for progress payments.

- 9.3.2. Retainage -- If, in Metro's opinion, work on the Project is progressing satisfactorily, Metro may eliminate additional Retainage on any remaining monthly progress payments after 50 percent (50%) of the Work under the Contract is, in Metro's opinion, completed. Elimination of additional Retainage under this Subparagraph shall be allowed by Metro only upon written application by Contractor, which application shall include written approval of Contractor's surety.

If after Metro allows such an elimination of additional Retainage, Metro determines that progress of the Work is not satisfactory or that Contractor has breached any provision of the Contract, Metro may again retain and continue to retain, in addition to that Retainage already being held by Metro, five percent (5%) of any future progress payments made to Contractor.

When Metro determines that the Work is 97-½ percent (97-½%) complete, Metro may, at its discretion and without application by Contractor reduce the retained amount to 100 percent (100%) of the value of the Work remaining to be done.

All funds retained by Metro under this section shall be retained in a fund by Metro and paid in accordance with ORS 279C.570.

Contractor may elect to deposit bonds or securities of the type described below with Metro or in any bank or trust company to be held in lieu of the cash retainage described above and for the benefit of Metro. In such event, Metro shall reduce the Retainage in an amount equal the value of the bonds and securities and shall pay the amount of the reduction to Contractor in accordance with ORS 279C.570. Interest on such bonds or securities shall accrue to Contractor.

Bonds and securities deposited or acquired as described above shall be of a character approved by the Director of Oregon's Department of General Services including, but not limited to:

- A. Bills, certificates, notes or bonds of the United States.
- B. Other obligations of the United States or its agencies.
- C. Obligations of any corporation wholly owned by the federal government.
- D. Indebtedness of the Federal National Mortgage Association.

Contractor may elect to require Metro to deposit the accumulated Retainage in an interest bearing account in a bank, savings bank, trust company or savings association for the benefit of Metro. Interest on such an account shall accrue to Contractor.

If Metro incurs additional costs as a result of Contractor's exercise of any of the above-described options, Metro may recover such costs from Contractor by reduction of the Final Payment. Metro shall inform Contractor of all such accrued costs.

- 9.3.3. Payment for Material Stored Off Site --Payment for material stored off of the Site will not be allowed unless the payment for such material benefits Metro in terms of lead time, scarcity, schedule, etc. Metro has sole discretion as to what materials will be paid for in advance of delivery to or installation on Site. Proof of off-site material purchases (invoice or checks) and appropriate insurance coverage will be required for payment. Title to all equipment and materials shall pass to Metro upon payment therefore or incorporation in the Work, whichever shall first occur, and Contractor shall prepare and execute all documents necessary to effect and perfect such transfer of title. Contractor must provide to Metro written consent from Contractor's surety approving the advanced payment for materials stored off-site.

The maximum prepayment allowed by Metro shall be 75 percent of the actual fair market value of the item being considered. Metro shall be the sole judge of fair market value. Contractor shall protect stored materials from damage, and damaged or otherwise unacceptable materials, even though paid for, shall not be incorporated into the Work.

- 9.3.4. Other Conditions Precedent to Payment -- It is a condition precedent to Contractor's rights to any payments under the Contract that all bills for labor and materials, including labor and materials supplied by or to Contractor, shall have been paid in full and, if requested by Metro, Contractor shall submit receipted invoices and/or lien waivers, as evidence of payment in full of all such accounts. As a further condition precedent to Contractor's right to any payments under this Contract, if requested by Metro, Contractor shall submit a claims release before any payment, and a final claims release stating Contractor has been paid in full prior to the Final Payment.

Payments to Contractor shall be conditioned upon Contractor complying with all provisions of this Contract regarding scheduling and progress reports submissions and upon Contractor furnishing all other information and data necessary to ascertain actual progress. Metro's determination that Contractor has failed or refused to furnish the required information, data, schedules or other reports shall constitute a basis for withholding all payments until the required information, data, revised schedules and diagrams, if necessary, and other reports are furnished.

- 9.3.5. Payment Does Not Imply Acceptance of Work -- The granting of any progress payment, or the receipt thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof, and shall in no way lessen the liability of Contractor to replace unsatisfactory work or material, though the unsatisfactory character of such work or material may or may not have been apparent or detected at the time such payment was made
- 9.3.6. Offset of Sums Due Metro from Contractor --In addition to any retention rights allowed Metro under this Contract, it is mutually understood and agreed that Metro may, upon prior written notice to Contractor, offset from any payment otherwise due Contractor, as much as may be necessary to protect and compensate Metro from any costs or expenses

it may incur due to any breach of the Contract by Contractor, including applicable liquidated damages. Any sums so offset shall become the property of Metro.

9.3.7. Time of the Essence --Time is of the essence for the performance of the Work under this Contract.

9.4. Substantial Completion -- When Contractor considers the Work to be substantially complete, Contractor shall submit to Metro a written notice that the Work is substantially complete and a punch list of items to be completed or corrected. Within a reasonable time after receipt of such notice, Metro and Owner will review the Work, including a physical inspection, to determine the status of completion. Should the Owner and Metro determine that the Work is not substantially complete:

9.4.1. Construction Manager will promptly notify Contractor in writing, giving the reasons therefor.

9.4.2. Contractor shall remedy the deficiencies in the Work, and thereafter send a second written notice of Substantial Completion to Metro.

The above-described procedure shall be followed until the Work is, in the opinion of Metro and Owner/Engineer, substantially complete. At that point:

A. The Owner/Engineer will prepare a Certification of Substantial Completion on AIA Document G704, accompanied by the approved punch list of items to be completed or corrected as verified and amended by the Owner/Engineer.

B. Metro shall submit the Certificate of Substantial Completion to Contractor for signature. Contractor shall complete the items on the approved punch list.

9.5. Final Completion and Acceptance -- When Contractor considers the Work to be finally complete, Contractor shall submit written certification to Metro that:

9.5.1. Contract Documents have been reviewed.

9.5.2. Work has been inspected for compliance with Contract Documents.

9.5.3. Work has been completed in accordance with Contract Documents to include submission of record documents.

9.5.4. Equipment systems have been tested in presence of Metro and are operational.

9.5.5. Work is ready for final inspection.

Owner/Engineer and Metro will promptly review the Work and include a physical inspection to verify the status of completion and shall inform Metro of the conclusions. Metro shall, within fifteen (15) days after receipt of Contractor's certification, either accept the Work or notify Contractor of the work yet to be performed on the Contract as outlined below.

Should the Owner/Engineer and Metro consider that the work is incomplete or defective:

A. Construction Manager will promptly notify Contractor in writing, listing the incomplete or defective work.

B. Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written certification to Metro that the Work is complete. Metro will then advise the Owner/Engineer.

C. Owner/Engineer and Metro will review and re-inspect the Work.

The above-described procedure shall be followed until the Work is, in the opinion of Metro and Owner/Engineer, finally complete. Contractor shall immediately thereafter prepare and submit Closeout Submittals as described below.

- 9.6. Closeout Submittals -- Contractor shall submit the following items, as applicable, with its request for Final Payment:
- 9.6.1. Evidence of Compliance with Requirements of Governing Authorities.
 - 9.6.2. Project record documents in accordance with the Specifications.
 - 9.6.3. Operation and maintenance data in accordance with the Specifications.
 - 9.6.4. Warranties in accordance with requirements of various Specification sections and these General Conditions.
 - 9.6.5. Extra stock and maintenance materials. Contractor shall submit receipts, signed by Metro, for the various specific items.
 - 9.6.6. Evidence of payment and release of claims in accordance with the following section.
 - 9.6.7. Consent of surety to Final Payment.
 - 9.6.8. Certificates of insurance for products and completed operations in accordance with Article 11 of these General Conditions.
 - 9.6.9. If Contractor is a "non-resident contractor" as that term is defined in Subparagraph 14.3.6, complete documentation of Contractor's compliance with ORS 279A.120.
- 9.7. Releases -- Contractor and each assignee under any assignment in effect at the time of Final Payment shall execute and deliver, at the time of application for Final Payment, as a condition precedent to Final Payment, a release in form and substance satisfactory to Metro, discharging and releasing Metro and the Owner/Engineer of and from all liabilities, obligations and claims arising under this Contract.

In addition to the above-described release, Contractor shall:

- 9.7.1. Submit to Metro an affidavit certifying that Contractor has paid all federal, state and local taxes including excise, use, sales, and employee withholding taxes.
 - 9.7.2. Deliver to Metro written releases of all rights to file claims against Metro or to file claims on any bonds in connection with the Contract, signed by each Subcontractor and Supplier who performed labor or furnished materials in connection with the work.
 - 9.7.3. Deliver to Metro Contractor's written undertaking, with sureties acceptable to Metro:
 - A. To promptly pay and obtain a release of claims on any bonds which may in the future affect the premises; and
 - B. To defend, indemnify and save Metro harmless from any liability or expense because of any claim on any bond or any other claim related to the Contract or the Work.
- 9.8. Final Payment -- Upon application of Contractor and Contractor's completion of and compliance with all of the provisions of the above Paragraphs and settle of all claims arising from the agreement including claims that Metro may have against Contractor, Metro shall pay Contractor the balance of the Contract Amount subject to the availability of monies in the Construction Fund as described in Paragraph 9.1 and less any previous payments, offsets and withholdings allowed Metro under this Contract and Retainage which has been returned to Contractor.

Acceptance of Final Payment by Contractor shall constitute a waiver of all claims of whatever nature which Contractor may have or allege to have against Metro arising out of or related to Work described in the Contract Documents.

- 9.9. No Waiver of Rights -- Neither the final review by Metro, nor any order or certificate for the payment of money, nor any payment for, nor acceptance of the whole or any part of the Work by Metro, nor any extension of time, nor any position taken by Metro shall operate as a waiver of any provision of this Contract or of any power herein reserved by Metro or any right to damage herein provided; nor shall any waiver of any breach of this Contract be held to be a waiver of any other or subsequent breach. All of Metro's remedies provided in this Contract shall be taken and construed as cumulative; that is, in addition to each and every other remedy herein provided; and Metro shall have any and all equitable and legal remedies, which it would in any case have.

ARTICLE 10 SAFETY AND PROTECTION OF THE WORK

10.1. Safety Requirements

- 10.1.1. Safety Generally -- Contractor shall be solely and completely responsible for the safety of the Work and the Site, including, but not limited to, the safety of all persons and property involved in the Work at the Site at any time until Final Completion and Acceptance of the Work.

All Work shall be performed in full accordance with all applicable safety codes, laws, ordinances and requirements including, but not limited to, the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act as set forth in Title 29 of the Code of Federal Regulations, federal and state OSHA, Metro's insurance standards, and all other applicable safety codes. Where any of these are in conflict, the more stringent requirement shall be followed. Contractor's failure to thoroughly familiarize itself with the aforementioned safety provisions shall not relieve it from any requirements in the Contract Documents to comply with such safety provisions or from any penalties for failure to so comply.

Contractor shall inspect the Work and the Site daily and immediately correct any unsafe conditions. All job personnel shall be knowledgeable of and comply with the above safety requirements.

Contractor shall take all precautions to prevent the possibility of fire resulting from contract operations. Contractor shall provide properly maintained emergency fire extinguishing equipment of a readily available type and quantity as necessary to meet potential fire hazards.

- 10.1.2. Health and Safety Program -- Contractor shall develop, publish and implement the overall Health and Safety Program for the Project. This Program shall conform to all applicable codes. Contractor shall submit the written Health and Safety Program to Metro for review and comment within fourteen (14) days after the receipt of the written Notice To Proceed. The Program, as approved by Metro, shall subsequently be distributed to and implemented by Contractor's personnel as well as its Subcontractors and Suppliers. Contractor shall fully implement and comply with the approved Safety Program.

- 10.1.3. Health and Safety Officer -- Prior to initiation of construction, Contractor shall designate in writing a Site Health and Safety Officer who shall be responsible for coordinating Contractor's Health and Safety Program. The individual so designated shall be the interface with the Construction Manager on matters relating to safety, and Contractors compliance with the approved Safety Program. Metro reserves the right to accept or reject the Health and Safety Officer designated by Contractor.

- 10.2. First Aid -- Contractor shall maintain on the Site during work operations, a member of its work force who is qualified in administering first aid to its personnel and shall have available in its job

office the first aid equipment as required to meet all applicable safety codes. The names and credentials of qualified personnel will be submitted to the Construction Manager.

Contractor shall require or provide adequate clothing and protective gear for all personnel working on the job site. This includes but is not limited to hard hats; substantial boots or shoes, shirts with sleeves at all times; eye and ear protection, gloves, face masks, welding hoods, safety belts as required for the type of work being done.

- 10.3. Protection of Work, Persons and Property Against Damages -- Contractor shall protect the Work from damage due to construction operations, the action of the elements, including erosion due to normal and extraordinary weather conditions, the carelessness of other contractors, vandalism, or any other cause whatever until Final Completion and Acceptance of the Work.

Contractor shall protect all public and private property insofar as it may be endangered by operations of Contractor including adjoining lands, air and waterways, and shall be fully responsible for taking proper precautions for the prevention of accidents to persons and/or damage to such property at, on or near the Site.

All federal, state and local safety and environmental protection laws, rules and orders including fire codes, applicable to the Work to be done under the Contract, shall be obeyed, complied with and enforced by Contractor.

Contractor shall provide and maintain such guards, fences, barriers, signs, regulatory and warning lights, and other traffic control and safety devices adjacent to and on the Site as may be necessary to prevent accidents to the public and damage to property. Contractor shall also provide, place and maintain such lights as may be necessary for illuminating the said signs, guards, fences, barriers and other traffic and safety control devices.

Upon Final Completion and Acceptance of the Work, Contractor shall remove all temporary signs, lights, barriers, etc., from the Site.

ARTICLE 11 INDEMNIFICATION AND INSURANCE

- 11.1. Indemnification -- Contractor agrees that for purposes of the Oregon Tort Claims Act (ORS 30.260 through 30.300), neither Contractor, its officers, agents and employees nor any Subcontractor or Supplier of Contractor of any tier, or its officers, agents or employees, are agents of Metro. Contractor for itself and its officers, agents, employees and its Subcontractors and Suppliers of any tier and their officers, agents and employees will make no claim whatsoever against Metro for indemnification pursuant to ORS 30.260 to 30.300 and Contractor agrees to hold Metro harmless and indemnify Metro from any such claims.

Contractor shall assume all responsibility for the Work and shall bear all losses and damages directly or indirectly resulting to Contractor, Metro, Owner, their officers, agents and employees, or to others on account of the character or performance of the Work, or accidents, unless such cause is due to the sole negligence of Metro or Owner.

Contractor shall assume the defense, if requested, indemnify and hold harmless Metro and Owner from all claims, liability, loss, damage, consequential or otherwise, and injury of every kind, nature and description, directly or indirectly resulting from activities in the performance of the Contract, the ship, maintenance or use of motor vehicles in connection therewith, or the acts, omissions, operations, or conduct of Contractor or any Subcontractor or Supplier under the Contract or in any way arising out of the Contract, irrespective of whether fault is the basis of the liability or claim.

Any specific duty or liability imposed or assumed by Contractor, as may be otherwise set forth in the Contract Documents, shall not be construed as a limitation or restriction of the general liability or duty imposed upon Contractor by this Paragraph.

Such liabilities and losses from which Contractor shall indemnify and hold harmless the above-described indemnities shall include, but not be limited to:

- 11.1.1. Special activities by Metro to verify and/or expedite delivery of materials and those losses incurred by Metro as a result of any delays to Other Metro Contractors resulting from acts of Contractor or its failure to act.
- 11.1.2. Acceleration payments to Other Metro Contractors on the project or related projects resulting from Contractor falling behind the Construction Schedule for causes not entitling it to an extension of time under any provisions of the Contract Documents which cause other Metro Contractors to fall behind the Construction Schedule and who must then accelerate the performance of the work, as directed by Metro, in order to maintain progress.
- 11.1.3. Violations of the ordinances or regulations of Metro, any federal, state, county or city laws or order of any properly constituted authority in any manner affecting this Contract, in addition to any laws or regulations which might affect this Contract.
- 11.1.4. Any and all suits, actions, damages or claims of every name and description to which the above indemnified may be subjected or put by reason of injury to persons or property arising out of, in connection with, or incident to the execution of the work or resulting from acts or omissions on the part of Contractor, its Subcontractors, officers, employees or agents and all attorney's fees and court costs incident thereto.

11.2. Insurance

11.2.1. Public Liability and Property Damage Insurance

Contractor shall purchase and maintain, at the Contractor's expense, the following types of insurance covering the Contractor, its employees and agents.

- A. Broad form comprehensive general liability insurance covering bodily injury, property damage, and personal injury with automatic coverage for premises/completed operations and product liability. The policy must be endorsed with contractual liability coverage.
- B. Automobile bodily injury and property damage liability insurance.

Insurance coverage shall be on an occurrence basis with an annual aggregate limit of \$1,000,000.

Metro, its elected officials, departments, employees and agents shall be named as an ADDITIONAL INSURED. Notice of any material change or policy cancellation shall be provided to Metro thirty (30) days prior to the change.

- C. Subcontractor's Insurance -- Contractor shall require that all of its Subcontractors and Suppliers of any tier provide insurance coverage and conditions identical to Contractor's insurance coverage, except that the policy limits of all Subcontractors' insurance coverage shall be at least \$1,000,000 combined single limit for each occurrence and in the aggregate.

11.2.2. Workers' Compensation and Employer's Liability Insurance

The Contractor, its subcontractors, and all employers working under this contract are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers. The Contractor shall provide Metro with certification of workers' compensation insurance including employer's liability of \$1,000,000.

- 11.2.3. Forms of Policies and Other Insurance Requirements -- In addition to filing any other insurance certificates specified elsewhere in these Contract Documents, Contractor shall, within seven (7) days following Notice of Award of Contract, provide Metro two (2) certified

copies of the policies of all insurance herein required to be obtained by Contractor except that Worker's Compensation Insurance may be evidenced by a Certificate of Insurance. At Metro's request, Contractor shall immediately deliver to Metro the receipts for payment of premiums on any or all such policies.

All policies of insurance and Certificates of Insurance shall be satisfactory to Metro. Approval of the insurance by Metro shall not relieve or decrease the extent to which Contractor or Contractor's Subcontractors and Suppliers of any tier may be held responsible for payment of any and all damages resulting from performance of the Work.

Each such policy or Certificate of Insurance shall bear an endorsement precluding its cancellation, expiration or any reduction in its coverage without giving to Metro at least sixty (60) days prior written notice. Contractor shall file with Metro two (2) certified copies of the required new or renewed policy or two (2) Certificates of Insurance for each such policy, as applicable, before the effective date of such cancellation, change or expiration.

If Contractor neglects to obtain or maintain in force any such insurance or to deliver such policy or policies, certificates and receipts to Metro, then Metro may, at its option, obtain and maintain such insurance. Contractor hereby appoints Metro its true and lawful attorney, to do all things necessary to obtain and maintain such insurance. All monies expended by Metro for such insurance shall be charged to Contractor and Metro may offset its costs in obtaining and/or maintaining such policies from sums due or to become due Contractor under the Contract or otherwise collect such sums from Contractor. Failure of Metro to obtain or maintain such insurance shall in no way relieve Contractor of any of its responsibilities under this Contract.

Contractor's failure to maintain any item of the required insurance shall be sufficient cause for termination or suspension of this Contract.

All insurance required shall be obtained through a company or companies having a policyholders surplus of at least ten (10) times the amount or limit of liability afforded by such insurance company on policies issued for this Contract. Such company shall be duly and legally licensed to transact business in the state of Oregon and shall be acceptable to Metro. Said insurance shall be primary over any insurance or self-insurance of Metro.

11.3. Builder's All Risk Insurance

- 11.3.1. Contractor, for the life of this Contract, shall effect and maintain Builders All Risk Insurance and fire insurance with extended coverage and malicious mischief coverage upon the structures on which the work of this Contract is to be done to 100 percent (100%) of the insurable value thereof, protecting: 1) 's interest; 2) Contractor's interest; and 3) the subcontractor's interests in the work. Contractor's interest and the subcontractor's interests, as used herein, means their property interests and the property interests of others for which they are responsible in the Project, in all materials and supplies entering into or used or destined for use therein, and in all expendable items of equipment which are used in or are incidental to but which do not become a part of the finished Project, located at the job site at the time of loss or damage. Such insurance shall not exclude coverage for landslides, collapse, explosion or loss due to the result of faulty workmanship.
- 11.3.2. Contractor and all subcontractors shall be responsible for any loss or damage to their machinery and apparatus and nonexpendable items of their equipment.
- 11.3.3. Contractor shall provide adequate fire protection equipment and safeguards to protect 's and Contractor's interests in accordance with 's insurance carrier's requirements.

11.4. Labor and Materials and Performance Bonds

- 11.4.1 Contractor shall provide continuous coverage of a separate Performance Bond and a Labor and Materials Bond for the duration of the Contract. The Bonds shall be in the forms provided in these Contract Documents.

- 11.4.2 As an alternative to providing either or both of the bonds specified in this section, Contractor may provide a Letter or Letters of Credit, issued by a sound financial institution satisfactory to Metro. Such Letter or Letters of Credit shall be in a form acceptable to Metro. The Letter or Letters of Credit shall be in an amount equivalent to the bonds required under this section.**

ARTICLE 12 MINORITY BUSINESS PROGRAM

Contractor shall comply with all pertinent provisions of Metro's Minority Business Program which are contained in Metro Code 2.04 and which are by this reference expressly incorporated herein and made a part of this Contract.

Contractor shall not replace a minority, women-owned or emerging small business enterprise Subcontractor with another Subcontractor, either before Contract award or during Contract performance, without prior written approval of Metro. In replacing a minority, women-owned or emerging small business Subcontractor, Contractor shall replace such minority, women-owned or emerging small business Subcontractor with another certified minority, women-owned or emerging small business Subcontractor or make good faith efforts to do so. Failure to do so shall constitute Contractor's default of this Contract, and Metro, at its option, may terminate this Contract under the procedures set out in Article 15.

Metro reserves the right, at all times during the period of this Contract, to monitor Contractor's compliance with the terms of the Minority Business Program and enforce the program if Contractor should fail to so comply. Contractor shall be bound by any and all representations made concerning its compliance with the program prior to Contract award and any and all representations made by Contractor concerning the replacement of a minority or women-owned business Subcontractor during the performance of this Contract.

ARTICLE 13 EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION REQUIREMENT

Contractor shall be certified as Equal Employment Opportunity Affirmative Action Employers by the City of Portland, Oregon, for the entire term of the Contract. Contractor's Subcontractors and Suppliers shall be certified prior to commencement of any of their Work on the Project and shall remain certified for the entire duration of the Contract.

ARTICLE 14 MISCELLANEOUS STATUTORY RESPONSIBILITIES OF CONTRACTOR

- 14.1. Generally -- Contractor shall keep itself fully informed of and shall fully comply with all federal, state, regional and local laws, rules, regulations, ordinances and orders pertaining in any manner, to this Contract and those rules, regulations and orders of any agency or authority having jurisdiction over the work or those persons employed or engaged therein. Contractor shall pay all taxes, including federal, state, regional, county, city or taxes of any other governmental entity applicable to the work performed or materials provided under this Contract.
- 14.2. Environmental Laws -- Contractor shall fully comply with all federal, state and local laws, ordinances and regulations dealing with the prevention of environmental pollution and the preservation of natural resources and all amendments thereto. Contractor shall also fully comply with all rules, regulations and ordinances enacted or to be enacted by any federal, state or local agency dealing with the prevention of environmental pollution and the preservation of natural resources that affect the performance of the Contract. Such statutes, rules, regulations and ordinances shall include, but are not limited to those in 7 USCA Sections 136 to 136Y, 15 USCA Sections 2601 to 2629, 33 USCA Sections 1251 to 1376, 33 USCA Sections 1401 to 1445, 42 USCA Sections 300f to 300j-11, 42 USCA Sections 4321 to 4370a, 42 USCA Sections 4901 to 4918, 42 USCA Sections 6901 to 6991i, 42 USCA Sections 7401 to 7642, 42 USCA Sections 9601 to 9675, 29 USCA Sections 651 et seq., Oregon Administrative Rules Chapter 61, and Title 18 of the City of Portland Code.

Such agencies shall include, but not be limited to, the following:

FEDERAL AGENCIES

Agriculture, Department of
Forest Service
Soil Conservation Service
Defense, Department of
Army Corps of Engineers
Energy, Department of
Environmental Protection Agency
Health and Human Services, Department of
Interior, Department of
Fish and Wildlife Service
Heritage Conservation and Recreation Service
Bureau of Land Management
Bureau of Indian Affairs
Water and Power Resource Service
Office of Surface Mining
Labor, Department of
Occupational Safety and Health Administration
Mine Safety and Health Administration
Transportation, Department of
Coast Guard
Federal Highway Administration

STATE AGENCIES

Agriculture, Department of
Energy, Department of
Environmental Quality, Department of
Fish and Wildlife, Department of
Forestry, Department of
Geology and Mineral Industries, Department of
Human Resources, Department of
Land Conservation and Development, Department of
Soil and Water Conservation Commission
State Engineer
State Land Board and Division of State Lands
Water Resources Board, Department of
Bureau of Labor and Industries

LOCAL AGENCIES

City of Portland
Multnomah County
Metro
Planning Commissions (as applicable)

14.3. Other Provisions of Oregon Law

14.3.1. Generally -- The provisions set out in Oregon Revised Statutes Chapters 187 and 279, as amended or superseded, including the latest additions and revisions, are incorporated by reference as part of these Contract Documents. Such sections include, but are not necessarily limited to, ORS 187.010, 187.020, and all sections of ORS 279A, 279B and 279C. Contractor shall fully comply with all applicable provisions of these statutes. The specific requirements of certain of these sections are set out below.

14.3.2. Payment to Subcontractors and Laborers -- Pursuant to ORS 279C.505, Contractor shall make payment promptly, as due, to all persons supplying such Contractor labor or material for the projection of the Work provided in this Contract. Contractor shall pay all contributions or amounts due the Industrial Accident Fund (IAF) from such Contractor,

Subcontractor or Supplier incurred in the performance of the Contract. Contractor shall not permit any lien or claim to be filed or prosecuted against Metro, the State, County, school district, municipality, municipal corporation, or subdivision thereof, on account of any labor or material furnished. Contractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

- 14.3.3. Failure to Make Payment for Labor or Services -- Pursuant to ORS 279C.515, if Contractor fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished to Contractor or a Subcontractor by any person in connection with this Contract as such claim becomes due, Metro may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due Contractor by reason of such Contract. Metro's payment of such a claim in the manner authorized by ORS 279C.515 shall not relieve Contractor or Contractor's surety from obligation with respect to any unpaid claims.
- 14.3.4. Hours of Work -- Except as provided in ORS 279C.520, no person shall be employed for more than ten (10) hours in any one day, or forty (40) hours in any one week, except in cases of necessity, emergency, or where the public policy absolutely requires it, and in such cases the laborer shall be paid at least time and a half pay for all overtime in excess of ten (10) hours a day and for work performed on Saturday and on any legal holiday specified in ORS 279C.540.
- 14.3.5. Payment for Medical Care -- Pursuant to ORS 279C.530, Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to the employees of Contractor, of all sums which Contractor agrees to pay for such services and all monies and sums which Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying such service.
- 14.3.6. Requirements for Non-resident Contractors -- Pursuant to ORS 279A.120, any "non-resident contractor" awarded a public contract with a price exceeding \$10,000, shall promptly report to the Department of Revenue, on forms to be provided by the Oregon Department of Revenue, the total contract price, terms of payment, length of contract and such other information as may be required before Final Payment can be received on the public contract. Final Payment shall not be made until this provisions has been complied with.

For purposes of this paragraph, a "non-resident contractor" is one who is not domiciled in or registered to do business in the state of Oregon.

- 14.3.7. Prevailing Wage -- The contractor, and all subcontractors and suppliers, shall be required to comply with ORS 279C.800 through 279C.870 and ensure that all workers are paid not less than, and in accordance with, the Prevailing Wages published by the Oregon Bureau of Labor and Industries.

The contractor is required to pay a fee equal to one-tenth of one percent (0.1 percent) of the price of the contract, but not less than \$100 nor more than \$5,000, under ORS 279C.825. The fee shall be paid on or before the first progress payment or 60 days from the date work first began on the contract, whichever comes first. The fee is payable to the Bureau of Labor and Industries at the following address:

Bureau of Labor and Industries
Wage and Hour Division
Prevailing Wage Unit
800 NE Oregon Street, #32
Portland, OR 97232

The Appendix to this Contract contains a schedule of the existing prevailing rate of wage which may be paid to workers in each trade or occupation required to perform the Work,

either by Contractor or its Subcontractors or any other person doing or contracting to do the whole or any part of the Work contemplated by this Contract, and such workers shall be paid not less than such specified minimum hourly rate of wage. The specifications for each subcontract shall include a copy of the prevailing wage schedule applicable to this project, and each subcontract shall include a clause regarding conformance to the schedule. In order to insure compliance of prevailing wage requirements, under Chapter 279, Metro will require that all payrolls be submitted on a schedule to be determined by Metro.

14.3.8. Sanitary Facilities -- Contractor shall be responsible for all costs that may be incurred in complying with ORS 654.150 and the rules adopted pursuant thereto including, but not limited to, securing exemption or partial exemption from the requirements of ORS 654.150, (sanitary facilities at construction projects; standards, exemptions).

14.3.9. Royalty Payments -- Contractor shall promptly pay when due, all royalties owed to the State of Oregon or other governmental entity under ORS Chapter 274 or other provision of law.

14.4. Work to Comply with Codes -- All Work shall be in full compliance with any and all codes specified in the Contract Documents and all federal, state and local laws, ordinances, rules, regulations and orders and all amendments to such codes, laws, ordinances, rules, regulations and orders. If Contractor observes or discovers that any portion or portions of the Contract Documents are at variance with any such requirements, Contractor shall promptly submit a written Request for Clarification to Metro pursuant to Paragraph 3.2, which shall fully describe the variance. If Contractor performs Work contrary to codes, laws, ordinances, rules, regulations or orders without submitting such Request to Metro, Contractor shall assume full responsibility for such Work and shall bear all costs attributable thereto.

Persons authorized by Metro or any governmental body having jurisdiction over the Project may at any time enter upon any part of the work to ascertain whether Contractor is complying with such laws, ordinances, regulations or orders.

14.5. No Additional Compensation Allowed for Compliance with Laws -- The Contract Amount includes full compensation for compliance with all applicable laws, rule, regulations, ordinances and orders and all amendments thereto and Contractor shall not make claim for nor be allowed any additional compensation for such compliance.

ARTICLE 15 TERMINATION OR SUSPENSION OF THE WORK

15.1. For Default of Contractor -- If Contractor should be adjudged bankrupt, or if Contractor should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of insolvency, or if Contractor should refuse to or fail to supply enough properly skilled workers or proper materials for the efficient prosecution of the Work, disregard laws, ordinances or the instructions of Metro, or otherwise be in violation of any provision of the Contract, Metro may, without prejudice to any other right or remedy and after giving Contractor and Contractor's surety on the Performance Bond prior written notice, terminate the Contract or any portion of the Contract, which termination shall be effective ten (10) days after service of such notice. Such notice shall contain the reasons for the termination and shall state that unless, within ten (10) calendar days of service of the termination notice on Contractor, Contractor or its surety on the Performance Bond shall have cured or shall have made, in Metro's opinion, appropriate arrangements for prompt cure of all of the cause(s) for termination cited in the notice of termination, the Contract shall terminate.

Upon termination, Metro may take possession of the premises and of all materials, tools and appliances thereon as well as all other materials whether on the premises or not, for which Contractor has received partial payment, and finish the Work or the portion terminated by whatever method it may deem expedient.

In the event action as above indicated is taken by Metro, Contractor, or Contractor's surety, shall provide Metro with immediate and peaceful possession of all of the materials, tools and appliances located on the premises as well as all other materials whether on the premises or not, for which Contractor has received any progress payment. Upon termination, in the event that the surety does not complete the Contract, at the election of Metro, Contractor shall assign any and all subcontracts and material contracts to Metro or Metro's designee. Further, Contractor shall not be entitled to receive any further payment until the Work is completed. On completion of the Work, determination shall be made by Metro of the total amount Contractor would have been entitled to receive for the Work, under the terms of the Contract, had Contractor completed the Work. If the difference between said total amount and the sum of all amounts previously paid to Contractor, which difference will hereinafter be called the "unpaid balance," exceeds the expense incurred by Metro in completing the Work, including expense for additional managerial and administrative service, and all other costs, damages and expenses incurred by Metro due to Contractor's failure to complete the Contract, such excess will be paid to Contractor, with the consent of the surety. If, instead, the described expenses incurred by Metro exceed the unpaid balance, the amount of the excess shall be paid to Metro by Contractor or his/her surety. If only a portion of the Contract is terminated, this paragraph shall be deemed to apply to that portion of the Work only.

In addition to the above-mentioned right, Metro shall have the right, at its option, to suspend all or part of Contractor's performance under the Contract should any of the events occur which give Metro the right to terminate the Contract as above-described. In such event Metro shall give Contractor and Contractor's surety prior written notice of such suspension and Contractor shall stop or cause to stop all such work under the Contract immediately on receipt of such notice and shall not commence such work under the Contract again unless and until Contractor shall receive written notice from Metro to proceed. Metro shall not be responsible or liable to Contractor or others for any costs or expenses of whatever nature related to Contractor's failure to stop work as directed by Metro.

After receipt of a notice of termination or suspension, and except as otherwise directed by Metro, Contractor shall as regards those portions of the Contract terminated or suspended:

- 15.1.1. Stop work under the Contract on the date and to the extent specified in the notice of termination or suspension.
- 15.1.2. Place no further orders or subcontracts, or suspend the same, as applicable, for materials, services or facilities except as necessary to complete the portion of the work under the Contract, which is not terminated or suspended.
- 15.1.3. Terminate or suspend, as applicable, all orders and subcontracts to the extent that they relate to the performance of such work terminated or suspended.

Metro may, at its discretion, avail itself of any or all of the above rights or remedies and its invoking of any one of the above rights or remedies will not prejudice or preclude Metro from subsequently invoking any other right or remedy set forth above or elsewhere in the Contract.

None of the foregoing provisions shall be construed to require Metro to complete the Work, nor to waive or in any way limit or modify the provisions of the Contract relating to the fixed and liquidated damages suffered by Metro on account of failure to complete the Project within the time prescribed.

- 15.2 Termination in the Public Interest -- It is hereby agreed that Metro has the right to terminate the Contract in whole or in part when Metro considers it to be in the public interest.

In the event the Contract is terminated as being in the public interest, Contractor shall be entitled to a reasonable amount of compensation for preparatory work and for all reasonable costs and expenses arising out of the termination, excluding lost profits.

In the event of termination under this Paragraph, the amount to be paid to Contractor shall be determined on the basis of the Schedule of Values in the case of any fully completed separate item or portion of the Work for which there is a separate or unit contract price and in respect to any other work under the Contract, Contractor will be paid a percent of the Contract price equal to the percentage of the work completed.

* * * END OF SECTION * * *

SECTION FOUR - ATTACHMENTS

SECTION 00500
DESIGN/CONSTRUCTION AGREEMENT

CONTRACT NO. _____

This Construction Agreement is made by and between _____, hereinafter called Contractor and **Metro, 600 N.E. Grand Ave., Portland, OR 97232** a metropolitan service district organized under the laws of the State of Oregon and the Metro Charter, hereinafter called Metro.

Contractor and Metro agree as follows:

1. Contract Documents

The Contract Documents consist of this Construction Agreement, the Advertisement for Proposals, the Invitation to Proposal, the Instructions to CONTRACTORS, the Proposal Forms (including Schedule of Proposal Prices, Surety, MBE/WBE/ESB Business Program Compliance, Prevailing Wage Rate Compliance, Resident/Non-resident CONTRACTOR Status, Signature Page, Non-Collusion Affidavit, Proposal Bond, MBE/WBE/ESB Utilization), the Performance and the Labor and Materials Payment Bonds, the General Conditions, the Supplementary Conditions, the Technical Specifications, the Drawings, the approved and updated Construction Schedule, and other information and data as listed in the Supplementary Conditions, and any modifications of any of the foregoing in the form of Addenda or Change Orders in accordance with the terms of the Contract. Where applicable, reference to this Construction Agreement herein shall be deemed to refer to all of the Contract Documents.

These documents form the Contract and are, by this reference, expressly incorporated herein. All are as fully a part of the Contract as if attached to this Construction Agreement and repeated fully herein. No amendment made to this Contract nor Change Order issued shall be construed to release either party from any obligation contained in the Contract Documents except as specifically provided in any such amendment or Change Order.

2. Scope of Work

Contractor agrees to provide all labor, tools, equipment, machinery, supervision, transportation, permits, and every other item and service necessary to perform the Work described in the Contract Documents. Contractor agrees to fully comply with each and every term, condition and provision of the Contract Documents.

3. Contract Amount

As consideration for Contractor's performance hereunder, Metro agrees to pay contractor the Contract Amount as adjusted by approved Change Orders issued pursuant to the Contract Documents and subject to the availability of monies in the Construction Fund. Contractor agrees to accept the Contract Amount as full payment for contractor's performance of the above-described Work.

The Contract Amount is \$ _____

Metro shall make payments to Contractor in the manner and at the times provided in the Contract Documents and the attached Schedule of Proposal Prices dated _____

4. Additional or Deleted Work

Contractor shall, when so instructed by Metro under the procedures of the contract Documents, perform additional Work or delete Work in accordance with the Contract Documents. Any increase or decrease in the Contract Amount shall be determined pursuant to the applicable provisions of the Contract Documents.

5. Time of Completion; Adjusted Payments

Time is of the essence of this Construction Agreement. The Contract Time shall commence upon issuance of the Notice to Proceed. Contractor shall commence work under this Contract within five (5) calendar days after issuance of written Notice to Proceed. Contractor shall bring the work to substantial completion no later than _____ days after notice to proceed. By executing this Construction Agreement, Contractor confirms and accepts that the Contract Time so stated is a reasonable period for performance of all of the Work.

If Contractor fails to substantially complete the Work, within the Contract Time, as determined by Metro in accordance with the Contract Documents, Contractor shall be liable for adjusted payments to Metro as described in the Contract Documents.

6. Bonds

Contractor submits herewith a Performance Bond and a separate Labor and Materials Payment Bond, both in a form acceptable to Metro and otherwise in accordance with the Contract Documents and each in the Contract Amount to ensure full compliance, execution and performance of this Contract by Contractor and payment by Contractor of labor and material Suppliers as more fully described in the Contract Documents.

7. Remedies for Default

If Contractor fails to perform as specified in the Contract Documents, Metro shall be entitled to all the rights and remedies which this Contract provides, as well as all remedies provided by law. This Contract shall not be construed as limiting or reducing the remedies provided by law which Metro would have in the absence of any provision of the Contract.

8. Laws of Oregon Apply

The law of Oregon shall govern the interpretation and construction of this Construction Agreement and all of the Contract Documents.

For public work subject to ORS279C.800 to 279C.870, the Contractor shall pay prevailing wages and shall pay an administrative fee to the Bureau of Labor and Industries pursuant to the administrative rules established by the Commissioner of the Bureau of Labor and Industries.

9. Ownership of Documents and Maintenance of Records

Unless otherwise provided herein, all documents, instruments and media of any nature produced by Contractor pursuant to this agreement are Work Products and are the property of Metro, including but not limited to: drawings, specifications, reports, scientific or theoretical modeling, electronic media, computer software created or altered specifically for the purpose of completing the Scope of Work, works of art and photographs. Unless otherwise provided herein, upon Metro request, Contractor shall promptly provide Metro with an electronic version of all Work Products that have been produced or recorded in electronic media. Metro and Contractor agree that all work Products are works made for hire and Contractor hereby conveys, transfers, and grants to Metro all rights of reproduction and the copyright to all such Work Products.

A. Contractor and subcontractors shall maintain all fiscal records relating to such contracts in accordance with generally accepted accounting principles. In addition, Contractor and subcontractors shall maintain any other records necessary to clearly document:

1. The performance of the contractor, including but not limited to the contractor's compliance with contract plans and specifications, compliance with fair contracting and employment programs, compliance with Oregon law on the payment of wages and accelerated payment provisions; and compliance with any and all requirements imposed on the contractor or subcontractor under the terms of the contract or subcontract;
2. Any claims arising from or relating to the performance of the contractor or subcontractor under a public contract;
3. Any cost and pricing data relating to the contract; and
4. Payments made to all suppliers and subcontractors.

B. Contractor and subcontractors shall maintain records for the longer period of (a.) six years from the date of final completion of the contract to which the records relate or (b.) until the conclusion of any audit, controversy or litigation arising out of or related to the contract.

C. Contractor and subcontractors shall make records available to Metro and its authorized representatives, including but not limited to the staff of any Metro department and the staff of the Metro Auditor, within the boundaries of the Metro region, at reasonable times and places regardless of whether litigation has been filed on any claims. If the records are not made available within the boundaries of Metro, the Contractor or subcontractor agrees to bear all of the costs for Metro employees, and any necessary consultants hired by Metro, including but not limited to the costs of travel, per diem sums, salary, and any other expenses that Metro incurs, in sending its employees or consultants to examine, audit, inspect, and copy those records. If the Contractor elects to have such records outside these boundaries, the costs paid by the Contractor to Metro for inspection, auditing, examining and copying those records shall not be recoverable costs in any legal proceeding.

D. Contractor and subcontractors authorize and permit Metro and its authorized representatives, including but not limited to the staff of any Metro department and the staff of the Metro Auditor, to inspect, examine, copy and audit the books and records of Contractor or subcontractor, including tax returns, financial statements, other financial documents and any documents that may be placed in escrow according to any contract requirements. Metro shall keep any such documents confidential to the extent permitted by Oregon law, subject to the provisions of section E.

E. Contractor and subcontractors agree to disclose the records requested by Metro and agree to the admission of such records as evidence in any proceeding between Metro and the Contractor or subcontractor, including, but not limited to, a court proceeding, arbitration, mediation or other alternative dispute resolution process.

F. Contractor and subcontractors agree that in the event such records disclose that Metro is owed any sum of money or establish that any portion of any claim made against Metro is not warranted, the Contractor or subcontractor shall pay all costs incurred by Metro in conducting the audit and inspection. Such costs may be withheld from any sum that is due or that becomes due from Metro.

G. Failure of the Contractor or subcontractor to keep or disclose records as required by this document or any solicitation document may result in disqualification as a bidder or proposer for future Metro contracts as provided in ORS 279B.130 and Metro Code Section 2.04.070(c), or may result in a finding that the Contractor or subcontractor is not a responsible bidder or proposer as provided in ORS 279B.110 and Metro Code Section 2.04.052.

10. Entire Agreement

The Contract Documents constitute the final written expression of all of the terms of this Construction Agreement and are a complete and exclusive statement of those terms. Any and all representations, promises, warranties, or statements by either party that differ in any way from the terms of this written agreement shall be given no force and effect. This Contract shall be changed, amended, or modified only by written instrument signed by both Metro and Contractor. This Contract shall not be modified or altered by any course of performance by either party.

CONTRACTOR

By: _____

Title: _____

Date: _____

METRO

By: _____

Title: _____

Date: _____

Performance Bond

SECTION 00600 PERFORMANCE BOND

(NOTE: CONTRACTORS MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW BY ALL MEN BY THESE PRESENT:

We the undersigned _____ as
PRINCIPAL (hereinafter called CONTRACTOR), and _____ a
corporation organized and existing under and by virtue of the laws of the state of _____ duly
authorized to do surety business in the state of Oregon and named on the current list of approved surety companies
acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit
staff of the Bureau of Accounts and the U.S. Treasury Department and is of the appropriate class for the bond amount as
determined by Best's Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors, administrators,
successors and assigns, jointly and severally, to pay to METRO as OBLIGEE (hereinafter called METRO), the amount of
_____ Dollars (\$) _____
_____) in lawful money of the United States of America.

WHEREAS, the CONTRACTOR entered into a contract with METRO dated _____, 20____, which
Contract is hereunto annexed and made a part hereof, for accomplishment of the project described as follows: _____
_____.

NOW, THEREFORE, the condition of this obligation is such that if the CONTRACTOR shall promptly, truly and
faithfully perform all the undertakings, covenants, terms, conditions, and agreements of the aforesaid _____
_____, METRO having performed its obligations thereunder, then this
obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever CONTRACTOR shall be declared by METRO to be in default under the Contract Documents for the
project described herein, the SURETY may promptly remedy the default, or shall promptly complete the _____
_____ in accordance with the Contract Documents and the project Specifications. SURETY, for value received, further
stipulates and agrees that all changes, extensions of time, alterations, or additions to the terms of the Contract or
Specifications for _____ are within the scope of the SURETY's undertaking on
this bond, and SURETY hereby waives notice of any such change, extension of time, alteration or addition to the terms of the _
_____ or to the Work or to the Specifications. Any such change, extension of time, alteration or addition
to the terms of the _____ or to the Work or to the Specifications shall automatically increase the
obligation of the Surety hereunder in a like amount, provided that such increase shall not exceed twenty-five percent (25%) of
the original amount of the obligation without the consent of the Surety.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments made
hereunder, until the full amount of the obligation is exhausted.

No right of action shall accrue on this bond to or for the use of any person or corporation other than METRO or its
heirs, executors, administrators, successors or assigns.

If more than one SURETY is on this bond, each SURETY hereby agrees that it is jointly and severally liable for
obligations on this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____.

SURETY

CONTRACTOR

By: _____

By: _____

Title: _____

Title: _____

Street Address

Street Address

City State ZIP

City State ZIP

Phone Number

Phone Number



METRO

600 NE Grand Ave.
Portland, OR 97232-
2736
(503) 797-1700

Labor and Material Payments Bond

SECTION 00650

(NOTE: CONTRACTOR MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW ALL MEN BY THESE PRESENT:

We the Undersigned _____ as PRINCIPAL and _____ a corporation organized and existing under and by virtue of the laws of the state of _____, and duly authorized to do surety business in the state of Oregon and named on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and which carries an "A" rating and is of the appropriate class for the bond amount as determined by Best's Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, unto METRO, as OBLIGEE, in the sum of _____ Dollars (\$ _____) in lawful money of the United States of America, for the payment of that sum for the use and benefit of claimants as defined below.

The condition of this obligation is such that whereas the PRINCIPAL entered into a contract with METRO dated _____, 20____, which contract is hereunto annexed and made a part hereof, for accomplishment of the project described as follows: _____.

NOW THEREFORE, if the PRINCIPAL shall promptly make payments to all persons, firms, subcontractors, corporations and/or others furnishing materials for or performing labor in the prosecution of the Work provided for in the aforesaid _____, and any authorized extension or modification thereof, including all amounts due for materials, equipment, mechanical repairs, transportation, tools and services consumed or used in connection with the performance of such Work, and for all labor performed in connection with such Work whether by subcontractor or otherwise, and all other requirements imposed by law, then this obligation shall become null and void; otherwise this obligation shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is as specified in ORS 279C.600.
2. The above-named PRINCIPAL and SURETY hereby jointly and severally agree with the OBLIGEE and its assigns that every claimant as above-specified, who has not been paid in full, may sue on this bond for the use of such claimant, prosecute the suit to final judgment in accordance with ORS 279C.610 for such sum or sums as may be justly due claimant, and have execution thereon. The OBLIGEE shall not be liable for the payment of any judgment, costs, expenses or attorneys' fees of any such suit.

PROVIDED, FURTHER, that SURETY for the value received, hereby stipulates and agrees that all changes, extensions of time, alterations to the terms of the _____ or to Work to be performed thereunder or the Specifications accompanying the same shall be within the scope of the SURETY's undertaking on this bond, and SURETY does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the _____ or to the Work or to the Specifications. Any such change, extension of time, alteration or addition to the terms of the contract or to the Work or to the Specifications shall automatically increase the obligation of the SURETY hereunder in a like amount, provided that the total of such increases shall not exceed twenty-five percent (25%) of the original amount of the obligation without the consent of the SURETY.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments made hereunder, until the full amount of the obligation is exhausted, or if the full amount of the obligation is not exhausted and no claim is pending resolution, until such time as no further claims can be made pursuant to law with regard to the above-described project, by any claimant specified in ORS 279C.600.

If more than one SURETY is on this bond, each SURETY hereby agrees that it is jointly and severally liable for all obligations of this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20____.

SURETY

By: _____

Title: _____

CONTRACTOR

By: _____

Title: _____

-

Street Address

City,

State

ZIP

Phone Number

Street Address

City,

State

ZIP

Phone Number

RESIDENT/NON-RESIDENT BIDDER STATUS

Oregon law requires that Metro, in determining the lowest responsive Bidder, must add a percent increase on the Bid of a non-resident Bidder equal to the percent, if any, of the preference given to that Bidder in the state in which that Bidder resides.

Consequently, each Bidder must indicate whether it is a resident or non-resident Bidder. A resident Bidder is a Bidder that has paid unemployment taxes or income taxes in the state of Oregon during the twelve (12) calendar months immediately preceding submission of this Bid, has a business address in Oregon, and has stated in its Bid that the Bidder is a "resident Bidder." A "non-resident Bidder" is a Bidder who is not a resident Bidder (ORS 279A.120).

The undersigned Bidder states that it is: (check one)

- 1. _____ A resident Bidder
- 2. _____ A non-resident Bidder

Indicate state in which Bidder resides: _____

CONTRACTOR QUALIFICATION STATEMENT

The undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading:

Contractor Name _____

Address _____

Telephone _____ Fax _____

E-Mail _____

Project Name _____

Organization _____

How many years has your organization been in business as a Contractor? _____

Under what former names has your organization operated? _____

Licensing

Oregon CCB# _____

Other licenses _____

Experience

List the type of work your organization normally performs with its own forces? _____

Does your firm own or able to obtain the necessary equipment for this job? Please explain _____

Claims and Suits

Has your organization ever failed to complete any work awarded to it? _____

-

Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or officers? _____

Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last five years? Provide information _____

Have any officers or employees been convicted of any crimes relative to a project such as this? _____

References

List the major construction projects your organization has **in progress**

Project Name	Owner	Architect	Amount	% Complete	Completion Date	Contact Person	Phone #

List the major construction projects your organization has **completed in last 3 years**

Project Name	Owner	Architect	Amount	% Complete	Completion Date	Contact Person	Phone #

List 3 subs we can contact for a reference.

Name	Specialty	Contact Name	Phone #

List 3 suppliers we can contact for a reference.

Name	Specialty	Contact Name	Phone #

List a bank reference:_____

Signature

The information provided is true and complete.

Signature_____Title_____Date_____

—

Please describe your Drug Testing Program:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.BIDDER SIGNATURE

Print Name of Bidder: _____ Signature: _____

Title: _____ Date: _____

-

SIGNATURE PAGE

The name of the Bidder submitting this Bid is _____
doing business at _____

_____ Street _____ City _____ State _____ Zip _____

which is the full business address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of all of the partners, if the Bidder is a partnership or joint venture, or of all persons interested in this Bid as individuals are as follows:

If Individual

IN WITNESS hereto the undersigned has set his/her hand this ____ day of 20____

Signature of Bidder _____

Printed Name of Bidder _____

Title _____

If Partnership or Joint Venture

IN WITNESS hereto the undersigned has set his/her hand this ____ day of 20__.

Name of Partnership or Joint Venture

By: _____

Printed Name of Person Signing

Title: _____

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this ____ day of 20__.

Name of Corporation

State of Incorporation

By: _____

Printed Name of Person Signing

Title: _____

NON-COLLUSION AFFIDAVIT

STATE OF _____) County of _____)

I state that I am _____ (Title) of _____ (Name of Bidder) and that I am authorized to make this Affidavit on behalf of the Bidder. I am the person authorized by the Bidder and responsible for the price(s) and the amount of this Bid.

I state that: (1) the price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other contractor, Bidder or potential Bidder, except as disclosed in the attached appendix.

(2) Neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other person who is a Bidder or potential Bidder, and they will not be disclosed before bid opening.

(3) No attempt has been made or will be made to induce any person to refrain from bidding on this contract, or to submit a Bid higher than this Bid, or to submit any intentionally high or non-competitive bid or other from of complementary Bid.

(4) This Bid is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any person to submit a complementary or other noncompetitive Bid.

(5) _____ (Name of Bidder), its affiliates, subsidiaries, officers, directors and employees (as applicable) are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as listed and described in the attached appendix.

I state that I and _____ (Name of Bidder) understand and acknowledge that the above representations are material and important, and will be relied on by Metro in awarding the Contract for which this Bid is submitted. Any misstatement in this Affidavit will be treated as fraudulent concealment from Metro of the true facts relating to the submission of Bids for this Contract.

Signature of Affiant

Printed Name of Affiant

Sworn to and subscribed before me this _____ day of _____ 20____.

Notary Public for _____ My Commission Expires: ____/____/____



METRO

600 NE Grand Ave.
Portland, OR 97232-2736
(503) 797-1700

PROPOSAL Bond

(NOTE: CONTRACTORS MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

BOND NO. _____

AMOUNT: \$ _____

KNOW ALL MEN BY THESE PRESENT, that _____
hereinafter called the PRINCIPAL, and _____
_____ a
corporation duly organized under the laws of the State of _____ having its principal place of
business at _____ in the state of _____, and
authorized to do business in the state of Oregon, as SURETY, are held and firmly bound unto _____
hereinafter called the OBLIGEE, in the penal sum of _____
____ DOLLARS (\$ _____), for the payment of which we bind ourselves, our heirs,
executors, administrators, successors, and assigns, jointly and severally, firmly by these present.

THE CONDITION OF THIS PRINCIPAL IS SUCH THAT:

WHEREAS the PRINCIPAL is herewith submitting a **PROPOSAL FOR** _____ said
Proposal, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if the Proposal submitted by the PRINCIPAL is accepted, and the Contract awarded
to the PRINCIPAL, and if the PRINCIPAL shall execute the proposed Contract and shall furnish any
bond(s) required by the Contract Documents within the time fixed by the Documents, then this obligation
shall be void; if the PRINCIPAL shall fail to execute the proposed Contract and furnish the bond(s), the
SURETY hereby agrees to pay to the OBLIGEE the penal sum as liquidated damages, within ten (10)
days of such failure.

Signed and sealed this _____ day of _____, 20____.

By: _____

PRINCIPAL

By: _____

ATTORNEY-IN-FACT

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO.05-3645, FOR THE PURPOSE OF AUTHORIZING AN EXEMPTION FROM COMPETITIVE BIDDING REQUIREMENTS AND AUTHORIZING THE CHIEF OPERATING OFFICER TO ISSUE A DESIGN / BUILD REQUEST FOR PROPOSALS (RFP), FOR THE DESIGN, ENGINEERING AND CONSTRUCTION OF A WATER PLAY FACILITY FOR BLUE LAKE REGIONAL PARK AND ENTER INTO A CONTRACT WITH THE SELECTED CONTRACTOR

Date: November 10, 2005

Prepared by: Glenn Taylor and Teri Dresler

BACKGROUND

Metro Council approved Resolution No. 01-3101B, ("For the Purpose of Approving the Blue Lake Regional Park Economic Feasibility Study and Facility Design Concept"), on December 6, 2001. The preferred concept plan included a new child-adult water play area that would serve as a safe water experience for young children and be an integral component of a broader strategy to restore sagging attendance and support transition to increased entry fees. The water play area will be an additional attraction that will relieve some pressure on the swim beach and also provide an attractive option for young ones not allowed in the lake or those that prefer a non-lake water experience.

The proposed water "Spray Park" is a children's play area on a concrete slab where water is sprayed from structures and/or ground sprays and immediately drained to a re-circulating water treatment system. Typically, children interact with the spray fixtures using simple-to-operate controls. They interact with each other by collaboratively changing spray patterns, squirting each other with water cannons, or "disappearing" into a mist or a waterfall. It will replace the existing basketball court near the swim beach.

This contract, for the design and construction of the interactive water-play facility, will be awarded based on a competitive process. But due to aesthetic elements and the complexity of determining the best offer, the award will not be based solely on the lowest price. Each design/build firm will submit their offer in the form of a preliminary design and a firm fixed price for the features and amenities they will provide. The evaluation criteria used to select a design/build firm for this project will be based on a combination of the following criteria: 1) Format (10 Points), 2) Contractor Qualifications and Experience with Similar Projects (25 Points), 3) Design Elements – Priority Listing of Desirable Features (25 points), 4) Fees /Cost (25 points), and 5) Schedule (20 points). A Committee established by the Metro Regional Parks & Greenspaces Department for this purpose will conduct the evaluation, and recommend to the Chief Operating Officer which design/build firm to award the contract.

The selection process is excerpted below in italics from the RFP document (attached to the Resolution as Exhibit A).

EVALUATION AND SELECTION PROCESS

The proposals shall be evaluated by an Evaluation Committee consisting of not less than five (5) knowledgeable individuals ("Evaluators"). Working independently with copies of the written proposals, the Evaluators will assign scores to each proposal for each of the five categories described under

Proposal Format (above). The five (5) categories and the highest possible score for each are as follows:

<u>Category</u>	<u>Max. Score</u>
1) Proposal Format	10 points
2) Contractor Qualifications	25 points
3) Design Elements	25 points
4) Fees / Cost Control	20 points
5) Schedule Control	20 points
Total Maximum Possible Score:	100 points

For each proposal, the total score from each Evaluator shall be computed; this figure will be added to that proposal's scores from the other Evaluators, giving the full "Evaluation Score" for each written proposal.

Metro may choose to add a second step to the evaluation process. If, at the conclusion of evaluation of the written proposals, it is determined to be in the best interests of Metro, oral evaluations will also be conducted. The top-scoring Proposers, not more than three, (3) shall be invited to the oral interview. The same criteria used to evaluate the written responses will be used to evaluate the finalists during the oral evaluations. No additions, deletions or substitutions may be made to proposals during the oral evaluations that cannot be viewed as clarification.

After the oral evaluation, each evaluator will independently assign a score to each evaluation criterion and the criteria scores for the oral evaluation will be summed. The oral evaluation scores and the written evaluation scores will be summed resulting in a final score. The award will be given to the proposal having the highest final score.

FINDINGS

In accordance with Metro Code Sections 2.04.054(c) and 2.04.052(a)(1), and ORS Chapter 279, the conditions for exemption from competitive bidding are as follows:

A. The proposed exemption to competitive bidding is unlikely to encourage favoritism or substantially diminish competition for public contracts.

- 1) Several domestic and international firms offer this type of specialized equipment and provide design services as a part of their package price and this process encourages them to partner with local contractors for the installation. There is no dearth of competition.
- 2) The proposed process of selection will ensure fairness in the competition for the best overall design and lowest long-term lifecycle cost.

B. The awarding of this contract pursuant to the exemption will result in substantial cost savings to Metro or the public.

- 1) The design-build option will optimize the design and construction timeline due to the synergy between the contractor and consultant. The formal bid process that typically requires a minimum of six weeks is eliminated. Research by the "Design-Build Institute of America" indicates this method of procurement results in an average reduction in the total time from RFP to completed project of 33%.

- 2) Under the proposed format, design and construction will begin as soon as a contract between Metro and the successful offering firm has been ratified. The expected signature date is approximately January 15th, 2006. The designer and the builder are selected under one competitive process instead of two separate competitions under design, bid, and then build. This reduces staff time and the cost of the finished product. The average construction cost savings has been found to be 6%.
- 3) The proposed design/build process will result in the offer being selected that has the “Greatest Value” for Metro. This facility will require substantial operation and maintenance funding over its entire life as a popular recreational facility. The selection criteria under this process include the lowest total “life cycle cost” rather than merely the lowest initial cost.

ANALYSIS/INFORMATION

- 1 **Known Opposition:** There is no known opposition to this proposed resolution.
- 2 **Legal Antecedents:** Metro Code Section 2.04.054(c) provides that the Metro Contract Review Board shall, where appropriate, direct the use of alternate contracting practices that take account of market realities and modern and innovative contracting methods, which are consistent with the public policy of encouraging competition, subject to the requirements of ORS 279C.335
- 3 ORS 279C.335 provides that the Metro Contract Review Board may exempt a public improvement contract from the competitive bidding process, upon the approval of findings stating that it is unlikely that the exemption will encourage favoritism or substantially diminish competition for public improvement contracts, and the exemption will result in the award of a contract that produces substantial cost savings to Metro and the public.

Metro Code Section 2.04.052(a)(1) provides that the procedures for the issuance of competitive Requests for Proposals, when authorized as an exception to competitive bid requirements shall comply with all state law requirements that are generally applicable to local governments.

Resolution No. 01-3101B approved the Blue Lake Regional Park Economic Feasibility Study and Facility Design Concept on December 6, 2001.

- 4 **Anticipated Effects:** The Regional Parks and Greenspaces Department will issue a Contractor-Led Design / Build Request for Proposals with a maximum price of \$190,000.
- 5 **Budget Impacts:** The FY 05-06 budget included the Water Play Structure for an amount of \$140,000. However, this budget did not include a water recycling facility for the structure that is estimated to cost an additional \$50,000, which will come out of the parks renewal and replacement budget. The recycling facility is estimated to reduce water use by 85% or an estimated 2,500,000 gallons per year

RECOMMENDED ACTION

Chief Operating Officer recommends passage of Ordinance No. 05-3645