

A G E N D A

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METRO

MEETING: METRO COUNCIL REGULAR MEETING
DATE: April 11, 1996
DAY: Thursday
TIME: 2:00 PM
PLACE: Council Chamber

<u>Approx. Time*</u>		<u>Presenter</u>
2:00 PM	CALL TO ORDER AND ROLL CALL	
(5 min.)	1. INTRODUCTIONS	
(5 min.)	2. CITIZEN COMMUNICATIONS	
(5 min.)	3. EXECUTIVE OFFICER COMMUNICATIONS	
	4. CONSENT AGENDA	
2:15 PM (5 min)	4.1 Consideration of Minutes for the April 4, 1996 Metro Council Meeting.	
	5. ORDINANCES - SECOND READING	
2:20 PM (10 min)	5.1 Ordinance No. 96-635B , Relating to Contract Policies Amending Metro Code Chapter 2.04; and Declaring an Emergency.	McLain
	6. RESOLUTIONS	
2:30 PM (5 min)	6.1 Resolution No. 96-2312 , For the Purpose of Creating a Tax Study Committee, Establishing a Scope of Work, and Confirming Appointments.	Monroe
2:35 PM (5 min)	6.2 Resolution No. 96-2304 , For the Purpose of Amending the Contract between Metro and Gardiner & Clancy LLC (Contract No. 904803) for Financial Advisory Services	McFarland

Related to the Analysis of Alternative Funding Mechanisms for Metro's Solid Waste System.

2:40 PM (5 min) 6.3 **Resolution No. 96-2305**, For the Purpose of Authorizing the Executive Officer to enter into an Agreement with the Oregon Department of Environmental Quality for the Purpose of Funding Regulatory Oversight of the St. Johns Landfill. McFarland

2:45 PM (5 min) 6.4 **Resolution No. 96-2310**, For the Purpose of Approving the Year 7 Annual Waste Reduction Program for Local Governments. McFarland

2:50 PM (5 min) 6.5 **Resolution No. 96-2313**, For the Purpose of Amending the Contract between Metro and Ankrom Moisan Association Architects (Contract No. 903749) for Architectural Services Associated with the Development of a Capital Project at Metro Washington Park Zoo. Monroe

EXECUTIVE SESSION HELD PURSUANT TO ORS 192.660(1)(E). DELIBERATIONS WITH PERSONS DESIGNATED TO NEGOTIATE REAL PROPERTY TRANSACTIONS. (PLEASE NOTE: A public hearing will be held prior to Executive Session)

2:55 PM (10 min) 6.6 **Resolution No. 96-2306**, For the Purpose of Approving a Refinement Plan for the Canemah Bluff Section of the Willamette River Greenway as Outlined in the Open Space Implementation Work Plan. Morissette

3:05 PM (10 min) 6.7 **Resolution No. 96-2307**, For the Purpose of Approving a Refinement Plan for the Willamette Narrows Section of the Willamette River as Outlined in the Open Space Implementation Work Plan. Morissette

3:15 PM (10 min) 6.8 **Resolution No. 96-2308**, For the Purpose of Approving a Refinement Plan for the Clackamas River Greenway as Outlined in the Open Space Implementation Work Plan. Morissette

3:25 PM (10 min) 6.9 **Resolution No. 96-2309**, For the Purpose of Approving a Refinement Plan for the Newell Creek Canyon as Outlined in the Open Space Implementation Work Plan. Morissette

3:35 PM (10 min) 7. **COUNCILOR COMMUNICATIONS**

3:45 PM **ADJOURN**

Agenda Item Number 4.1

Approval of Minutes

For the April 4, 1996 Council Meeting

**Metro Council Meeting
Thursday, April 11, 1996**

MINUTES OF THE METRO COUNCIL MEETING

Thursday, April 4, 1996

Council Chamber

CALL TO ORDER AND ROLL CALL

Councilors Present: Councilor Don Morissette, Councilor Ruth McFarland, Councilor Rod Monroe, Deputy Presiding Officer Susan McLain, Councilor Ed Washington, Presiding Officer Jon Kvistad.

Absent: Councilor Patricia McCaig

Presiding Officer Jon Kvistad called the meeting was called to order at 2:55.

1. INTRODUCTIONS

None.

2. CITIZEN COMMUNICATIONS

None.

3. EXECUTIVE OFFICER COMMUNICATIONS

None.

4. CONSENT AGENDA

4.1 Consideration of Minutes for the March 7, 1996 Work Session and the March 28, 1996 Metro Council Meeting

Motion: Deputy Presiding Officer Susan McLain made the motion for adoption of the minutes of the March 7, 1996 Work Session and the March 28, 1996 Metro Council Meeting.

Second: Councilor Ed Washington seconded the motion.

Discussion: Councilor Don Morissette requested several changes in comments he made during the March 7, 1996 Metro Council Work Session. Presiding Officer Jon Kvistad requested David Aeschliman, Recorder to make these changes.

Vote: The vote was 6 aye and 0 nay for adoption of the two sets of minutes with the changes requested by Councilor Morissette. Councilor Patricia McCaig was absent.

5. ORDINANCES - SECOND READING

5.1 Ordinance No. 96-636, For the Purpose of Adjusting the Planning Fund Budget to Reflect Unanticipated Program Increases in the Growth Management Services Department, Authorizing Additional FTE; and Declaring an Emergency.

Motion: Deputy Presiding Officer Susan McLain made the motion adoption of Ordinance 96-636.

Second: Councilor Ed Washington seconded the motion.

Discussion: Deputy Presiding Officer Susan McLain stated that extensive discussion of this ordinance has been held in the Growth Management Committee meetings. She stated that the staff report is available at today's meeting. Public involvement secondary to the Urban Growth Boundary issues have necessitated this budget increase.

Councilor Rod Monroe stated these positions are badly needed. It is anticipated that they will continue through the next fiscal year. He requested councilors to be consistent in their vote and not recommend that these positions be cut in two months.

Councilor Morissette stated that while he supported this ordinance in Growth Management Committee, he was going to reserve judgment on next year's budget until the time that budget is voted upon.

Public Hearing: No testimony was given.

Vote: The vote was 6 aye and 0 nay for adoption of Ordinance 96-636 Councilor Patricia McCaig was absent.

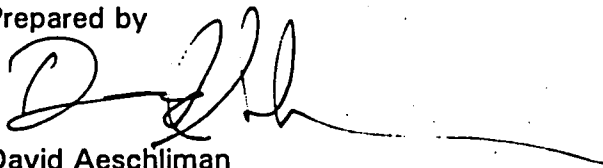
6. COUNCILOR COMMUNICATIONS

Deputy Presiding Officer Susan McLain expressed her thanks to John Fregonese, Head of the Growth Management Department and Sherry Oeser of Growth Management for their work on the 2040 Open Houses. She reported that attendance has been excellent with many positive comments from members of the public. Constituents who have attended these Open Houses have enjoyed meeting with Metro Councilors, the electronic pulse survey and they liked the maps that were available at these meetings.

Councilor Ed Washington complimented Presiding Officer Jon Kvistad on the feature article in the April 4, 1996 Oregonian. Councilor Washington stated that yesterday he met with two representatives from Hoffman Construction with regard to the contract that is

being let for the new building at the Exposition Center. He stated that he felt that Hoffman Construction would work very hard to ensure minorities and female contractors an equal opportunity in this construction.

Prepared by

A handwritten signature in black ink, appearing to read 'D. Aeschliman', with a long horizontal line extending to the right.

David Aeschliman
Council Clerk

ADJOURN

With no further business to come before the Metro Council on this afternoon, the meeting was adjourned by Presiding Officer Jon Kvistad at 2:08.

Agenda Item 5.1

Ordinance No. 96-635B

*Relating to Contract Policies Amending Metro Code Chapter 2.04;
and Declaring an Emergency*

**Metro Council Meeting
Thursday, April 11, 1996**

STAFF REPORT

IN CONSIDERATION OF ORDINANCE NO. 96-635^B RELATING TO CONTRACT POLICIES AMENDING METRO CODE CHAPTER 2.04.

Date: February 14, 1996

Presented by: Scott Moss and Dan Cooper

PROPOSED ACTION

To perform a comprehensive revision of Metro Code Chapter 2.04. This chapter establishes the policy of the Council for Metro's contracting efforts.

FACTUAL BACKGROUND AND ANALYSIS

Metro Code Chapter 2.04 was written 15 years ago and has undergone several amendments over the years. The Metro Council, Executive Officer and General Counsel recognized the need to perform a comprehensive revision of this code to assure that Council's policies are enacted and allowing the Executive Officer to provide efficient procedures to carry out those policies.

The following objectives are promoted by the proposed code change:

- Assure integrity by maintaining the public trust and by carrying out the policy established by the Metro Council
- Provide efficiency by allowing contracting to occur in a timely manner and provide the right quality and quantity to Metro's operating departments.
- Promote competition by simplifying contracting procedures and being friendlier to small business, which assures the maximum overall value for each dollar spent.

The proposed revision does not change the MBE/WBE/DBE sections of the contract code.

Attached is a summary of code changes.

STAFF REPORT
Ordinance No.. 96-635
Page Two

BUDGET IMPACT

There is no budget impact.

EXECUTIVE OFFICER RECOMMENDATION

The Executive Officer recommends approval of Ordinance 96-635.

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SUMMARY OF CONTRACT CODE CHANGES

1. During the budget process Council reviews, approves, and funds contracts over \$25,000. If a proposed contract has not been approved in the budget process, it shall be forwarded to the Council Presiding Officer to determine if Council review is required.
2. The new code establishes Metro's contracting policy and allows the Executive Officer to establish internal processing procedures. (A few procedures that relate to policy will remain intact.)
3. Eliminates the "A" and "B" contracting policy. Establishes "significant impact" contracts. After budget, Council approves RFBs/RFPs and contracts if they are "significant impact" and are multi-year, defined as:
 - contracts over 36 months for operation of all or part of a Metro facility or concessions.
 - public improvement contracts or personal services contracts over \$250,000.
 - A contract decreasing revenues or increasing expenditures by more than 5% of the fund.
 - Personal services contracts for regional planning over \$100,000.
 - Personal services contracts for studies on services allowed under the charter and not currently exercised over \$25,000.

Contracts acquiring or transferring property or other governmental functions continues to require Council approval.

4. All proposed contracts over \$25,000 must be approved by Council in the annual budget process. If the contract was not included in the budget process, a 10-day notice will be forwarded to the Presiding Officer. If it is a significant impact contract, it must be approved by resolution. If it is not a significant impact contract, a description of the contract and appropriation unit will be provided to the Council.
5. Clearly distinguishes between personal services and public contracts.
6. Increases performance and labor & materials bonds to \$25,000. Encourages small businesses to compete for small Metro projects.
7. Revenue contracts for concessions and parking can be done with an RFP. Previously required Council approval to do a proposal rather than bid.

SUMMARY OF CONTRACT CODE CHANGES
Page Two

8. Public contracts quote threshold has increased to \$2,500 from \$500. Although departments must continue to obtain quotes from a WBE and MBE for any purchase over \$500 (reduces the three quote requirement to two).
9. Personal Services contracts can be amended to double contract if under \$25,000. If over \$25,000, the contract can only be amended to an additional \$25,000 by the Executive Officer. After this threshold, amendments must be approved by Council. This changes the current policy that unlimited amendments under \$10,000 can be done without Council approval.
10. In Public contracts, the scope of work cannot be amended to include activities not related to the original scope of work without Council approval.
11. A quarterly status report of all contracts listed in budget will be provided to Council. Monthly reports showing newly entered contracts and amendments will continue.
12. Current "A" contracts are considered "significant impact" contracts.
13. An appeal process has been added to cover disqualifications of bidders.
14. Emergency clause to allow for personal services and public contracts.
15. Allows for repair of items not to be competitively bid if unable to determine price.
16. Grants to non-profit and others (recycling stream restoration, etc.) are to follow competitive RFP process.

BEFORE THE METRO COUNCIL

RELATING TO CONTRACT POLICIES) Ordinance No. 96-635B
AMENDING METRO CODE CHAPTER 2.04)
) Introduced by
) Executive Officer Mike Burton
) and Councilor Susan McLain

THE METRO COUNCIL ORDAINS AS FOLLOWS:

Section 1. The Metro Council finds:

(a) Chapter 2.04, Metro Contract Procedures, establishes policies and procedures for Metro regarding public contracts, personal services contracts, and intergovernmental agreements.

(b) This Code chapter has been amended from time to time over the last 15 years, but has not been comprehensively revised.

(c) As a result of the effect of multiple amendments, the Code chapter is in need of comprehensive revision in order to allow for more effective policies and procedures.

Section 2. Metro Code Chapter 2.04 is retitled as Chapter 2.04, Contract Policies.

Section 3. Existing sections 2.04.010 to 2.04.090 are hereby repealed and the following Metro Code sections 2.04.010 to 2.04.070 are hereby adopted:

CHAPTER 2.04

METRO CONTRACT POLICIES

SECTIONS	TITLE
2.04.010	Definitions
	<u>Contracts in General</u>
2.04.020	Authority to Execute Contracts, Budget Limitations
2.04.022	Federal Law and Rules
2.04.024	Metropolitan Exposition-Recreation Commission
2.04.026	Council Approval of Contracts

- 2.04.028 Council Information Reports
- 2.04.030 Regulations
- 2.04.032 Prohibition Against Doing Business With Certain Former Metro Officials

Personal Services Contracts

- 2.04.040 Personal Services Contracts -- General
- 2.04.042 Personal Services Contracts -- Up to \$25,000
- 2.04.044 Personal Services Contracts -- More than \$25,000
- 2.04.046 Personal Services Contracts -- Amendments
- 2.04.048 Notice of Award and Appeals of Personal Services Contracts

Contract Review Board

- 2.04.050 Public Contract Review Board
- 2.04.052 Public Contracts -- General
- 2.04.054 Competitive Bidding Exemptions
- 2.04.056 Public Contracts Under \$25,000
- 2.04.058 Public Contracts Amendments
- 2.04.060 Food Products
- 2.04.062 Sole Source
- 2.04.064 Sale of Surplus Property
- 2.04.070 Notice of Award and Appeals

2.04.010 Definitions

For the purposes of this chapter unless the context requires otherwise the following terms shall have the meanings indicated:

- (a) "Auditor" means the Metro auditor provided for in Section 18 of the 1992 Metro Charter.
- (b) "Competitive bidding" means an advertised solicitation of sealed bids.
- (c) "Contract Review Board or Board" means the Metro Contract Review Board created pursuant to section 2.04.050 of this chapter.
- (d) "Council Presiding Officer" means the council presiding officer provided for in Section 16 of the 1992 Metro Charter.
- (e) "Emergency" means the occurrence of a specific event or events that could not have been reasonably foreseen and prevented, and which requires the taking of prompt action to

remedy the condition and thereby avoid further physical damage or harm to individuals or the occurrence of avoidable costs.

(f) "Emergency contract" means a contract whose purpose is limited to remedying an emergency situation.

(g) "Executive Officer" means the Metro executive officer provided for in Section 17 of the 1992 Metro Charter.

(h) "Intergovernmental agreement" means a written agreement with any other unit or units of federal, state or local government providing for the acquisition of goods or services by Metro, for the provision of goods or services by Metro or for the payment or receipt of funds in order to promote or carry out a common purpose.

(i) "Notice of award" means written communication to a responsive, responsible bidder or proposer stating that their bid or proposal has been conditionally determined to be the lowest, responsive, responsible bid or most responsive proposal and that the district intends to enter into a contract upon completion by the bidder/proposer of all required conditions.

(j) "Personal services contract" means any contract by which Metro acquires a professional, artistic, creative, consulting, educational, or management service. Contracts which are predominately for the purpose of obtaining a product, labor or materials, or the services of a construction trade are not a personal services contract.

(k) "Procurement Officer" means the person designated by the executive officer to carry out the functions required of such person by this chapter.

(l) "Public agency" means any agency of the federal government, state of Oregon, or any political subdivision thereof, authorized by law to enter into public contracts and any public body created by intergovernmental agreement.

(m) "Public contract" means any purchase, lease or sale by Metro of personal property, public improvement or services, including those transacted by purchase order, other than agreements which are for personal services.

(n) "Public improvement" means projects for construction, reconstruction or major renovation on real property by or for a public agency. "Public improvement" does not include emergency work, minor alteration, ordinary repair or maintenance in order to preserve a public improvement.

(o) "Request for Proposals or RFP" means the issuance of a request for offers that will be evaluated based on factors that are not limited to price alone.

(p) "Sole source contract" means a contract for which it can be documented there is only one qualified provider of the required service or material.

2.04.020 Authority to Award and Execute Contracts, Budget Limitations

Pursuant to the 1992 Metro Charter, the executive officer and auditor have the authority to award and execute contracts that are necessary to carry out their administrative responsibilities. These two officers may delegate authority to award and execute contracts on their behalf by doing so in writing. The council presiding officer is delegated authority to award and execute contracts on behalf of the council. Unless the council expressly approves a contract containing a requirement to the contrary, no contract may obligate Metro to the payment of funds not appropriated for that purpose by the council.

2.04.022 Federal Law and Rules

Notwithstanding any provision of this chapter, the applicable federal laws, rules and regulations shall govern in any case where federal funds are involved and the federal laws, rules and regulations conflict with any of the provisions of this chapter or require additional conditions in public or personal services contracts not authorized by this chapter.

2.04.024 Metropolitan Exposition-Recreation Commission

The Metropolitan Exposition-Recreation Commission has authority to enter into contracts pursuant to Metro Code section 6.01.04(j). Notwithstanding any provision of this chapter to the contrary, the commission may without the prior approval of the executive officer enter into contracts in any amount in accordance with contracting rules adopted by the commission pursuant to the authority contained in section 6.01.040(j). However, the contract review board created pursuant to section 2.04.050 shall be the contract review board for the commission.

2.04.026 Council Approval of Contracts

(a) Notwithstanding any other provisions of this chapter, executive officer or auditor must obtain authorization by the council prior to execution of the following types of contracts:

- (1) Any contract which commits the district to the expenditure of appropriations not otherwise provided for in the current fiscal year budget at the time the contract is executed and which has a significant impact on Metro. The following types of contracts shall be considered to have significant impacts unless the council finds that under the circumstances a contract will not have a significant impact:

- (A) Any public contract for a term greater than 12 months for private operation of all or of a major part of a Metro facility or concessions at a Metro facility.
 - (B) Any public improvement contract for an amount over \$50,000.
 - (C) Any public contract which will potentially result in a material (more than 5 percent of the related fund) loss of revenues or increase in expenditures in more than one year in any Metro fund.
 - (D) Any contract for personal services for a term greater than 12 months and in an amount greater than \$50,000.
 - (E) Any contract for personal services for an amount greater than \$50,000 related to Metro's exercise of its regional planning functions pursuant to Section 5 of the 1992 Metro Charter.
 - (F) Any contract for personal services for an amount over \$25,000 related to the study by Metro of exercising authority, pursuant to Section 7 of the 1992 Metro Charter, over additional functions.
- (2) Any agreement entered into pursuant to ORS chapter 190 by which Metro acquires or transfers any interest in real property, assumes any function or duty of another governmental body, or transfers any function or duty of Metro to another governmental unit; or
 - (3) Any contract for the purchase, sale, lease or transfer of real property owned by Metro. However, the executive officer may execute options to purchase real property.

(b) Prior to adoption of the annual budget, the executive officer shall submit a list of proposed contracts over \$25,000 to be entered into during the next fiscal year. The council shall designate in the annual budget ordinance which contracts have a significant impact on Metro.

Thereafter, if the executive officer proposes to enter into a contract that will commit the district to the expenditure of appropriations not provided for in the current fiscal year budget in an amount greater than \$25,000 that the council has not considered during the annual budget process the Executive Officer shall inform the council presiding officer in writing and shall recommend whether the contract should be classified as a significant impact contract. The presiding officer shall immediately cause copies of the notice to be furnished to all members of the Council. The Council may determine that the contract has a significant impact on Metro within 10 days of receipt of the notice from the executive officer. If the contract is determined by the Council to have a significant impact on Metro, execution by the executive officer shall be subject

to Council authorization. If the Council does not determine that the contract has a significant impact on Metro, the executive officer may execute the contract after transmitting a description of the purpose of the contract, the appropriation to which contract payments will be charged, and a summary of the scope of work to be performed to the council or a council committee as deemed appropriate by the presiding officer.

(c) All contracts which require council authorization pursuant to subsection (a)(1) or (b) above and which are subject to competitive bidding or request for proposals procedures shall require council authorization of the request for bids or request for proposals prior to release of bidding or proposal documents to vendors. At the time of council authorization of the competitive bid or request for proposal documents, the council may waive the requirement of council authorization of the contract.

2.04.028 Council Information Reports

The executive officer shall provide a monthly report to council showing all contracts awarded and amended during the preceding month.

The executive officer shall make available to the council on request information showing the status of all contracts whether listed in the adopted budget or not.

2.04.030 Regulations

The executive officer may establish by executive order additional regulations consistent with this chapter.

2.04.032 Prohibition Against Doing Business With Certain Former Metro Officials

(a) Except as provided for in subsection (d) below, Metro may not do business with any Metro official while the official is in office or within one year after the Metro official ceases to be a Metro official if the official had authority to exercise official responsibility in the matter. Any contract entered into in violation of this provision is void.

(b) Metro officials shall be deemed to have authority to exercise official responsibility as follows:

Elected officials have authority to exercise official responsibility over any Metro matter. Appointed commissioners have authority over any matter over which the relevant commission has jurisdiction. Department directors have authority over any matter related to the department they administer.

(c) Definitions: For the purpose of this section undefined terms used herein shall be construed as defined in ORS chapter 244; the following terms shall have the following meaning:

- (1) "Business" means any corporation, partnership, proprietorship, firm, enterprise, franchise, association, organization, self-employed individual and any other legal entity operated for economic gain but excluding any income-producing not-for-profit corporation that is tax exempt under section 501(c) of the Internal Revenue Code with which a public official is associated in a nonremunerative capacity.
- (2) "Business with which the Metro official is associated" means any business of which the person or the person's relative is a director, officer, owner or employee, or agent or any corporation in which the person or the person's relative owns or has owned stock worth \$1,000 or more at any point in the preceding calendar year.
- (3) "Department director" means any person employed by Metro in a position on a permanent basis which is subject to appointment by the executive officer and confirmation by the Metro council.
- (4) "Doing business" means entering into a direct contractual relationship with a business with which the Metro official is associated.
- (5) "Elected official" means any person elected or appointed as a member of the Metro council, the executive officer, or the auditor.
- (6) "Metro" means all of Metro including any department or branch of Metro including any Metro commission.
- (7) "Metro commissioner" means any person appointed to a position on a commission created pursuant to an ordinance adopted by the Metro council whose appointment is subject to confirmation by the Metro council.
- (8) "Metro official" means any department director, elected official or Metro commissioner.

(d) Upon the request of the executive officer or a Metro commission, the council may waive the effect of the prohibition contained in subsection (a) upon making written findings that:

- (1) It is in the best interests of Metro to do business with the Metro official.
- (2) The Metro official took no action while in office that directly related to the preparation of the terms and conditions in the contract documents that may give an appearance of impropriety or favoritism.

- (3) Other factors exist which are explicitly found by the council to benefit Metro that outweigh the policy considerations of ensuring that no appearance of favoritism exists in the award of Metro contracts.

(e) This section applies only to Metro officials who first take office or are re-elected or re-appointed to an office after September 7, 1995. This section shall not be construed to permit any activity that is otherwise prohibited by any other statute, rule, ordinance, or other law.

2.04.040 Personal Services Contracts -- General

(a) Disadvantaged Business Program. All contracting for personal services is subject to the Metro Disadvantaged Business Enterprise Program, Metro Womens Business Program, and the Metro Minority Business Program provisions of this chapter.

(b) Substantive Requirements. All Metro personal services contracts shall contain all provisions required by ORS chapter 279 and shall be construed to be consistent with all relevant provisions of ORS chapter 279.

2.04.042 Personal Services Contracts Up to \$25,000

(a) For personal services contracts of less than \$2,500, multiple proposals need not be obtained, but are encouraged.

(b) Personal services contracts of \$2,500 or more but not more than \$25,000 shall be subject to the following process:

Proposals shall be solicited from at least three potential contractors who are capable and qualified to perform the requested work. Prior to selecting any contractor for a personal services contract greater than \$10,000 but not more than \$25,000, the procurement officer shall publish notice of the intent to solicit competitive proposals, and include a summary of the nature of the proposed contract, the estimated cost of the contract, and the name of a contact person. No contract selection may be made until at least five days after such publication and after consideration of all proposals received.

2.04.044 Personal Services Contracts of More than \$25,000

Personal services contracts of \$25,000 shall be subject to the following process:

(a) A request for proposals shall be prepared and advertised at least once. Notice shall also be mailed to interested contractors known to Metro.

(b) All request for proposals shall at a minimum contain a description of the project and a brief summary of the project history, contain a detailed proposed scope of work or other specifications setting forth expected performance by the contractor, include a description of the

criteria that will be utilized to evaluate proposals and a broad range of the estimated cost for the project.

(c) Evaluations of proposals and the determination of the most qualified proposer shall be made.

2.04.046 Personal Services Contract Amendments

(a) Personal services contracts of an initial amount of \$25,000 or less may be amended to increase the amount of the contract to no more than twice the original contract amount. This limit is cumulative and includes any and all contract amendments or extensions. Any contract amendment(s) in excess of this ceiling requires approval by the council. The council shall determine whether it is appropriate to amend the contract despite the policy that favors competitive procurement of personal services.

(b) Contracts with an initial amount of greater than \$25,000 may be amended provided that any amendment that increases the total amount payable to an amount more than \$25,000 greater than the initial contract amount shall be subject to approval by the council. The council shall determine whether it is appropriate to amend the contract despite the policy that favors competitive procurement of personal services.

2.04.048 Notice of Award and Appeals of Personal Services Contracts

Notice of award and any appeal thereof shall be subject to the rules and procedures established in section 2.04.070 except that the final determination of any appeal shall be made by the council and not the contract review board.

2.04.050 Public Contract Review Board

(a) Creation of the Public Contract Review Board. Pursuant to ORS 279.055 the Metro council is designated and created as the Metro Contract Review Board.

(b) Powers of Board. The Metro contract review board shall have all the powers provided to a contract review board by ORS chapter 279.

(c) Contract Review Board Meetings

(1) The meetings of the contract review board shall normally, but need not, be conducted at the same time as, and as a part of, the regular meetings of the Metro council.

- (2) The rules of procedure adopted by the council for its proceedings shall also govern proceedings of the contract review board unless they conflict with rules adopted by the board.

2.04.052 Public Contracts -- General

(a) State Law Requirements, Procedures. The procedures for competitive bidding of all Metro public contracts and for the issuance of competitive Request for Proposals when authorized as an exception to competitive bid requirements shall comply with all requirements that are generally applicable to local governments. The executive officer may establish by executive order detailed procedural requirements consistent with this chapter and state law. In so doing, the executive officer may adopt in whole or in part the model rules of procedure established by the Oregon Attorney General pursuant to ORS 279.049.

(b) Substantive Requirements. All Metro public contracts shall contain all provisions required by ORS chapter 279 and shall be construed to be consistent with all provisions of ORS chapter 279.

(c) Rejection of Bids. The executive officer may reject any bid or proposal not in compliance with all prescribed procedures and requirements and may, for good cause, reject any or all bids or proposals upon finding that it is in the public interest to do so.

(d) Bonds. Unless the board shall otherwise provide, bonds and bid security requirements are as follows:

- (1) Bid security not exceeding 10 percent of the amount bid for the contract is required unless the contract is for \$25,000 or less.
- (2) For public improvements, a labor and materials bond and a performance bond, both in an amount equal to 100 percent of the contract price are required for contracts over \$25,000.
- (3) Bid security, labor and material bond and performance bond may be required even though the contract is of a class not identified above, if the executive officer determines it is in the public interest.

(e) Disadvantaged Business Program. All public contracts are subject to the Metro Disadvantaged Business Enterprise Program, Metro Womens Business Program, and the Metro Minority Business Program provisions of this chapter.

2.04.054 Competitive Bidding Exemptions

Subject to the policies and provisions of ORS 279.005 and 279.007, and the Metro Code, all Metro and Metropolitan Exposition-Recreation Commission public contracts shall be based upon competitive bids except:

(a) State Law. Classes of public contracts specifically exempted from competitive bidding requirements by state law.

(b) Board Rule. The following classes of public contracts are exempt from the competitive bidding process based on the legislative finding by the board that the exemption will not encourage favoritism or substantially diminish competition for public contracts and that such exemptions will result in substantial cost savings:

- (1) All contracts estimated to be not more than \$25,000 provided that the procedures required by section 2.04.056 are followed.
- (2) Purchase and sale of zoo animals, zoo gift shop retail inventory and resale items, and any sales of food or concession items at Metro facilities.
- (3) Contracts for management and operation of food, parking or similar concession services at Metro facilities provided that procedures substantially similar to the procedures required for formal Request for Proposals used by Metro for personal services contracts are followed.
- (4) Emergency contracts provided that written findings are made that document the factual circumstances creating the emergency and establishing why the emergency contract will remedy the emergency. An emergency contract must be awarded within 60 days of the declaration of the emergency unless the board grants an extension.
- (5) Purchase of food items for resale at the zoo provided the provisions of section 2.04.060 are followed.
- (6) Contracts for warranties in which the supplier of the goods or services covered by the warranty has designated a sole provider for the warranty service.
- (7) Contracts for computer hardware and software provided that procedures substantially similar to the procedures required for formal Request for Proposals used by Metro for personal services contracts are followed.
- (8) Contracts under which Metro is to receive revenue by providing a service.

- (9) Contracts for the lease or use of the Oregon Convention Center or other facilities operated by the Metro Exposition-Recreation Commission.
- (10) Contracts for purchases by the Metro Exposition-Recreation Commission in an amount less than \$31,000 provided that any rules adopted by the commission which provide for substitute selection procedures are followed;
or
- (11) Contracts for equipment repair or overhaul, but only when the service and/or parts required are unknown before the work begins and the cost cannot be determined without extensive preliminary dismantling or testing.
- (12) Contracts in the nature of grants to further a Metro purpose provided a competitive request for proposal process is followed.

(c) **Board Resolution.** Specific contracts, not within the classes exempted in subsection (a) and (b) above, may be exempted by the board by resolution subject to the requirements of ORS 279.015(2) and ORS 279.015(5). The board shall, where appropriate, direct the use of alternate contracting and purchasing practices that take account of market realities and modern innovative contracting and purchasing methods, which are consistent with the public policy of encouraging competition.

2.04.056 Public Contracts Under \$25,000

(a) **Under \$2,500.** Competitive bids are not required for public contracts less than \$2,500. Metro should, where feasible, obtain competitive quotes.

(b) **Between \$2,500 and \$10,000.** Unless otherwise exempt from competitive bidding under section 2.04.054, when the amount of the contract is \$2,500 or more, but less than \$10,000, Metro must obtain a minimum of three competitive quotes. Metro shall keep a written record of the source and amount of the quotes received. If three quotes are not available, a lesser number will suffice provided that a written record is made of the effort to obtain the quotes.

(c) **Between \$10,000 and \$25,000.** Unless otherwise exempt from competitive bidding under section 2.04.054, when the amount of the contract is \$10,000 or more, but not more than \$25,000, Metro must obtain a minimum of three competitive quotes. Metro shall keep a written record of the source and amount of the quotes received. If three quotes are not available, a lesser number will suffice provided that a written record is made of the effort to obtain the quotes. In addition, the contracting department shall notify the procurement officer of the nature of the proposed contract, the estimated cost of the contract, and the name of the contact person. The procurement officer shall publish notice of the intent to solicit competitive quotes, including a summary of the information supplied by the contracting department regarding the

nature of the proposed contract. No contract selection may be made until at least five days after such publication and after consideration of all quotes received.

(d) Contracts under \$25,000 should be awarded on the basis of the least cost alternative available that is capable of performing the work required.

2.04.058 Public Contract Amendments

(a) The executive officer may execute amendments to public contracts which were not designated as contracts having a significant impact on Metro, provided that any one of the following conditions are met:

- (1) The original contract was let by a formal competitive procurement process, the amendment is for the purpose of authorizing additional work for which unit prices or alternates were provided that established the cost for the additional work and the original contract governs the terms and conditions of the additional work; or
- (2) The amendment is a change order that resolves a bona fide dispute with the contractor regarding the terms and conditions of a contract for a public improvement and the amendment does not materially add to or delete from the original scope of work included in the original contract; or
- (3) The amount of the aggregate cost increase resulting from all amendments does not exceed 20 percent of the initial contract if the face amount is less than or equal to \$100,000 or 10 percent if the face amount is greater than \$100,000; amendments made under subsection (1) or (2) are not included in computing the aggregate amount under this subsection; or
- (4) The Metro contract review board has authorized the extension of the contract amendment.

(b) No contract which was designated as a contract having a significant impact on Metro may be amended without the express approval of the council evidenced by a duly adopted resolution or ordinance; except as follows:

- (1) The executive officer may approve any amendment that is a change order than resolves a bona fide dispute with the contractor regarding the terms and conditions of a contract for a public improvement if the amendment does not materially add to or delete from the original scope of work included in the original contract. Provided, however, the executive officer must obtain council approval for any such change order that results in a total aggregate increase of more than 5 percent of the original contract

amount. If the council approves a change order pursuant to this subsection it may also in the same action authorize additional change orders to resolve future disputes in an amount not to exceed that established by the council.

- (2) The executive officer may approve any contract amendment to a contract for a public improvement that does not increase the contract amount more than \$25,000 if the amount of the aggregate cost resulting from all amendments authorized pursuant to this subsection does not exceed 5 percent of the initial contract. In computing the dollar amount of any amendment for the purpose of this subsection, only the amount of additional work or extra cost shall be considered and may not be offset by the amount of any deletions.
- (3) The executive officer may approve a change order for additional work if the original contract was let by a formal competitive procurement, the amendment is for the purpose of authorizing additional work for which unit prices or bid alternates were provided that established the cost for the additional work and the original contract governs the terms and conditions of the additional work.
- (4) The executive officer may approve a change order to a public improvement contract in order to meet an emergency.

(c) No public contract may be amended to include additional work or improvements that are not directly related to the scope of work that was described in the competitive process utilized to award the contract.

(d) For the purpose of this section any contract which was subject to specific council authorization of its execution prior to the effective date of this ordinance shall be considered to be a contract that has a significant impact on Metro.

2.04.060 Food Products

(a) All food items and food service contracts will be procured through competitive bidding, except as provided in sections (b) through (e) below.

(b) Competitive bids or quotes are not required when food items other than those routinely stocked by a Metro department are needed for requested catering services.

(c) Competitive bids or quotes are not required for fully or partially prepared food items which require:

- (1) The use of a specific recipe provided and/or developed in conjunction with a Metro department; or
- (2) The use of a proprietary recipe or formula which is the property of a vendor.

(d) Purchases of groceries, meat, poultry, and produce may be limited to vendors who have been prequalified. The executive officer shall establish prequalification procedures that ensure competition and fairness.

2.04.062 Sole Source

If there is only one qualified provider of the service required, the initiating department need not solicit and document proposals. The initiating department must document that there is only one qualified provider of the service required. Sole source contracts may not exceed \$2,500 unless the board shall have specifically exempted the contract from the public bidding or applicable alternative procurement procedure.

2.04.064 Sale of Surplus Property

Contracts for sale of surplus property may be executed without competitive oral or sealed bids only when the executive officer determines in writing that the number, value and nature of the items to be sold make it probable that the cost of conducting a sale by bid will be such that a liquidation sale will result in substantially greater net revenue to Metro.

2.04.070 Notice of Award and Appeals

(a) At least five days prior to the execution of any public contract over \$25,000 for which a competitive bid or proposal process is required, Metro shall provide a notice of award to the contractor selected and to all contractors who submitted unsuccessful bids or proposals.

(b) Bid/Request for Proposals Appeal Procedures. The following procedure applies to aggrieved bidders and proposers who wish to appeal an award of a public contract or a personal services contract above \$25,000. The appeal process for bids is the same as for a request for proposals. In the case of a request for proposals, disagreement with the judgment exercised in scoring by evaluators is not a basis for appeal.

- (1) All appeals shall be made in writing and shall be delivered to the procurement officer at Metro's main office within five working days of the postmarked date on the notice of award. The written appeal must describe the specific citation of law, rule, regulation, or procedure upon which the appeal is based.

- (2) The procurement officer shall forthwith notify the appropriate department director and the executive officer of the appeal. Within 10 working days of the receipt of the notice of appeal, the executive officer shall send a notice of rejection of the appeal or a notice of acceptance of the appeal, as applicable, to the appellant. The appellant may appeal the executive officer's decision to reject the appeal in writing to the board within five working days from the postmarked date on the notice of rejection.
- (3) The board will review the grounds for appeal, all pertinent information, and the executive officer's recommendation, and make a decision. The decision of the board is final.
- (4) No contract which is the subject of a pending appeal may be executed unless the board shall have given its approval at the request of the executive officer. The executive officer may request the board to determine a matter without waiting for the expiration of the time periods provided for herein.
- (5) In the event council authorization of execution of the contract is required under section 2.04.026 of this Code the appeal shall be heard before the council considers authorization of the contract.

(c) Appeals from Disqualifications

- (1) The board shall hear all appeals from any person who is disqualified by Metro as a bidder. The basis for the appeal shall be limited to the following grounds:
 - (A) Disqualification of bidder pursuant to ORS 279.037.
 - (B) Denial of prequalification to bid pursuant to ORS 279.039 and 279.041.
- (2) Any person who wishes to appeal disqualification as a bidder shall, within three business days after receipt of notice of disqualification, notify in writing the general counsel that the person appeals the disqualification. The general counsel shall promptly notify the board of the appeal by providing notice to the presiding officer.
- (3) Promptly upon receipt of notice of appeal, the presiding officer shall notify the appellant and the general counsel of the time and place of the appeal proceeding.

- (4) The board shall conduct the appeal proceeding and decide the appeal within 10 days after receiving notification of the appeal from the general counsel. The board shall set forth in writing the reasons for the decision.
- (5) Appeal Proceeding.
 - (A) The presiding officer shall preside over the appeal proceeding. The general order shall be as follows:
 - (i) Presentation by Metro of documentation and testimony supporting the disqualification.
 - (ii) Presentation by the appellant of documentation and testimony opposing the disqualification.
 - (B) Members of the board shall have the right to ask both Metro and the appellant questions and to review documentation referred to and presented by the parties.
 - (C) Formal court rules of evidence shall not apply.
 - (D) The board shall consider de novo the notice of disqualification, and record of investigation made by Metro and any evidence provided by Metro and the appellant prior to or at the appeal proceeding. There shall be no continuance or reopening of the appeal proceeding to offer additional evidence unless the appellant can demonstrate to the presiding officer that the additional evidence was not known to the appellant at the time of the proceeding or that with reasonable diligence the appellant would not have discovered the evidence prior to the appeal proceeding.
 - (E) A tape recording will be made of the appeal proceeding which shall be made available to the appellant upon payment of costs to Metro of making the tape.
 - (F) The board shall render a decision which shall be reviewed only upon petition in the Circuit Court of Multnomah County. The petition must be filed within 15 days after the date of the decision.
- (6) Metro may reconsider its determination with regard to the disqualification at any time prior to the appeal proceeding.

(d) Appeals of contract awards and decisions of the auditor shall be made directly to the contract review board.

Section 4. The definition of Executive Department contained in Metro Code sections 2.04.110(h); 2.04.210(h); and 2.04.310(g) is amended to read:

"Executive Department" means the State of Oregon's Executive Department or such state agency, department or entity to which has been delegated the responsibility to certify a Minority Business Enterprise, Women Business Enterprise, or a Disadvantaged Business Enterprise and to engage in related activities.

Section 5. Transition Provisions:

(a) Any contract initiated prior to the effective date of this ordinance and executed after the effective date of this ordinance shall be valid if the procedures utilized were in substantial compliance with this ordinance.

(b) Any public contract or personal services contract executed prior to the effective date of this ordinance that was subject to Council approval pursuant to former Metro Code section 2.04.033 or any similar previous Code requirement shall be considered to be a contract having a significant impact on Metro for the purpose of Metro Code section 2.04.058.

Section 6. Sections 2 and 3 of this Ordinance shall take effect on July 1, 1996. Upon the adoption of this Ordinance, the Council shall designate contracts proposed for funding during Fiscal Year 1996-1997 as contracts having a significant impact on Metro pursuant to Metro Code section 2.04.026, as it will be in effect on July 1, 1996.

Section 7. This Ordinance being necessary for the immediate preservation of the public health, safety or welfare of the Metro area, in order to provide an orderly transition in contracting policies that will coincide with the advent of the new fiscal year, an emergency is declared to exist, and this Ordinance takes effect on passage.

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ADOPTED by the Metro Council this ____ day of _____, 1996.

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

jep
r-o/1252b

Agenda Item 6.1

Resolution No. 96-2312

(Omitted — Committee consideration still needed.)

**Metro Council Meeting
Thursday, April 11, 1996**

Agenda Item 6.2

Resolution No. 96-2304

*For the Purpose of Amending the Contract between Metro and Gardiner & Clancy LLC
(Contract No. 904803) for Financial Advisory Services*

**Metro Council Meeting
Thursday, April 11, 1996**

CHANGE ORDER SUMMARY

CHANGE ORDER NO: 1 INITIATION DATE: 3-18-96
CONTRACT NO: 904803 PROJECT: Financial Advisory Services
CONTRACTOR: Gardiner & Clancy, LLC VENDOR #
PROPOSED BY: Craig Prosser / Financial Planning Division
PROJECT MANAGER/DEPARTMENT

FINANCIAL IMPACT *main: 610-041400-524190-00000*
BUDGET CODE/TITLE: but this amendment will be charged to REM

Original Contract Sum: \$ 65,000
Net Change Orders to Date: \$ -
Contract Sum Prior to this C/O: \$ 65,000
This Change Order Request: \$ 48,000
New Contract Sum, Post C/O: \$ 113,000

Fiscal Year 95 - 96
Appropriation \$ 32,500

Contract, Paid to Date: \$ 3,312

Est. Appropriation Remaining: \$ 29,188

EFFECTIVE DATE(S): 1/29/96 - 1/31/97

REVIEW & APPROVAL:

Craig Prosser 3/18/96
DIVISION MANAGER DATE

Robert E. Smith 3/18/96
DEPARTMENT DIRECTOR DATE

DIRECTOR ADMINISTRATIVE SVC DATE

[Signature] _____
FISCAL DATE
[Signature] 3-18-96
BUDGET (MULTI-YEAR ONLY) DATE
[Signature] 3-18-96
LEGAL DATE

STAFF REPORT

CONSIDERATION OF RESOLUTION NO. 96-2304 FOR THE PURPOSE OF AMENDING THE CONTRACT BETWEEN METRO AND GARDINER & CLANCY, LLC (CONTRACT NO. 904803) FOR FINANCIAL ADVISORY SERVICES RELATED TO THE ANALYSIS OF ALTERNATIVE FUNDING MECHANISMS FOR METRO'S SOLID WASTE SYSTEM

Date: March 18, 1996

Presented by: Craig Prosser

PROPOSED ACTION

Approval to amend the existing contract (Contract No. 904803) "between Metro and Gardiner & Clancy, LLC for financial advisory services related to the analysis of alternative funding mechanisms for Metro's solid waste system. This resolution would increase the contract value by \$48,000."

FACTUAL BACKGROUND

Amendment of the existing contract (Contract No. 904803) is needed to consolidate consulting services related to solid waste rate reform under one contract. In January 1996, Metro executed a contract for \$65,000 for financial advisory services. Included within the scope of work is work related to "analysis of rate structure for solid waste tip fees and alternative funding mechanisms." After this contract was signed, Regional Environmental Management (REM) identified a need for special analyses related to reform of the current funding mechanism for its solid waste functions, beyond the expertise of the financial advisor. This work needs to be coordinated with financial advisor's work, however, to ensure consistency and to avoid duplication. To ensure a comprehensive and consistent approach to researching alternative funding mechanisms for solid waste functions, Metro Financial Planning and REM staff concluded that this special analysis for REM should be performed under the auspices of Metro's financial advisory services contract. Because the cost of this special analysis will exceed the \$10,000 allowed under Metro Code for contract amendments, the Financial Planning Division seeks Council authorization to amend this contract.

In his 1996-'97 proposed budget, the Executive Officer directed REM to develop its recommendations for restructuring of the current solid waste fee system by July 1, 1996. In setting up a process for developing those recommendations, REM identified the need for specialized consulting services to perform various technical analyses. Because this work requires special expertise in solid waste

finances and operations, REM and the Financial Planning Division concurred that Metro's financial advisor would not be able to perform this work on its own. Because of the importance of the solid waste fee system to Metro's solid waste operations, existing bond covenants for solid waste facilities, and funding for Metro as a whole, however, REM and the Financial Planning Division concluded that Metro's financial advisor should exercise oversight of this technical analysis by initiating a subcontract to procure these specialized consulting services as provided under its existing contract with Metro.

Due to the need to subcontract the specialized consulting services, the financial advisory services contract would be increased by \$48,000 to a new total of \$113,000. This does not constitute a request for new funds. Rather, funds authorized in the FY 1995-'96 approved budget for procurement of similar consulting services by REM will be reallocated to this financial advisory services contract amendment.

Section 2.04.054(a)(3) of the Metro Code required that, "For Personal Services contracts, any contract amendment or extension exceeding \$10,000 shall not be approved unless the Contract Review Board shall have specifically exempted the contract amendment from the competitive procurement procedures of Section 2.04.053."

Metro Council, acting as Contract Review Board, is hereby requested to specifically exempt this amendment from competitive procurement procedures of Section 2.04.053 and thereby authorizes the Executive Officer to execute this contract amendment.

EXECUTIVE OFFICER RECOMMENDATION

The Executive Officer recommends approval of Resolution No. 96-2304.

BEFORE THE CONTRACT REVIEW BOARD

FOR THE PURPOSE OF AMENDING THE) RESOLUTION NO. 96-2304
CONTRACT BETWEEN METRO AND GARDINER)
& CLANCY, LLC (CONTRACT 904803) FOR) Introduced by
FINANCIAL ADVISORY SERVICES RELATED)
TO THE ANALYSIS OF ALTERNATIVE FUNDING) Mike Burton
MECHANISMS FOR METRO'S SOLID WASTE) Executive Officer
SYSTEM)

WHEREAS, Metro executed contract No. 904803 with Gardiner & Clancy, LLC in 1996; and

WHEREAS, Amendment of this contract is needed to consolidate consulting services related to the analysis of alternative funding mechanisms for Metro's solid waste system; and

WHEREAS, This request represents a shift in existing or available resources and is not a request for new funds; and

WHEREAS, The Financial Planning Division of the Administratives Services Department has established that Gardiner & Clancy, LLC as Metro's financial advisor is the best qualified to oversee all technical analysis consulting services related to the study of altenative funding mechanisms; and

WHERAS, The Metro Council as Public Contract Review Board may declare that it is in the public's interest for this work to move forward in the most expedient manner, accepts those findings and waives competitive bidding; now, therefore,

BE IT RESOLVED,

That the Metro Contract Review Board authorizes the execution of Change Order No. 1 to Contract No. 904803 with Gardiner & Clancy, LLC pursuant to the terms of Metro Code Sections 2.04.054 (a) (2) and (3) by increasing the contract value by \$48,000.

ADOPTED by the Metro Council this _____ day of _____,

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

AMENDMENT NO. 1
CONTRACT NO. 904803

This Agreement hereby amends the above titled contract between Metro, a metropolitan service district, and Gardiner & Clancy LLC, hereinafter referred to as "Contractor."

This amendment is a change order to the original Scope of Work as follows: _____

Payment: This contract amount of \$65,000 shall be increased by \$48,000, bringing
the adjusted total to \$113,000.

Except for the above, all other conditions and covenants remain in full force and effect.

In Witness to the above, the following duly authorized representatives of the parties referenced have executed this agreement:

Contractor: Gardiner & Clancy, LLC

METRO

SIGNATURE

DATE

SIGNATURE

DATE

NAME

NAME

TITLE

TITLE

Agenda Item 6.3

Resolution No. 96-2305

*For the Purpose of Authorizing the Executive Officer to
Enter into an Agreement with the Oregon Department of Environmental Quality
for the Purpose of Funding Regulatory Oversight of the St. Johns Landfill*

**Metro Council Meeting
Thursday, April 11, 1996**

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 96-2305 FOR THE PURPOSE OF AUTHORIZING THE EXECUTIVE OFFICER TO ENTER INTO AN AGREEMENT WITH THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY FOR THE PURPOSE OF FUNDING REGULATORY OVERSIGHT OF ST. JOHNS LANDFILL

Date: March 11, 1996

Presented by: Jim Watkins
Dennis O'Neil

PROPOSED ACTION

Approval of Resolution No. 96-2305 authorizing the Executive Officer to enter into an agreement with the Oregon Department of Environmental Quality to pay for regulatory oversight by the Site Response Section of the Environmental Clean-up Division.

FACTUAL BACKGROUND AND ANALYSIS

In March, 1995 the Oregon Department of Environmental Quality (DEQ) added the St. Johns Landfill to its list of sites with confirmed releases of hazardous substances and to its inventory of sites in various phases of remediation. The effect of this action was to make a complex regulatory framework more complex and unpredictable. For water quality impacts, the St. Johns Landfill is now regulated by three offices within DEQ: Solid Waste, Water Quality, and now The Site Response Section (SRS) of the Environmental Clean-up Division which oversees the clean-up of sites contaminated with hazardous substances. These three tentacles of the DEQ operate under three different sets of laws and rules.

Metro was concerned that unpredictability and inconsistencies in regulatory approach within DEQ would result in decreased efficiency and increased costs for Metro's continuing effort to monitor the environmental impact of St. Johns Landfill and to construct cost-effective environmental improvements. Therefore, after submitting two major studies requested by DEQ, Metro requested information from DEQ as to:

- 1) How DEQ currently views the environmental impact of St. Johns Landfill;
- 2) How DEQ will be regulating St. Johns Landfill in future years.

After seven months, DEQ responded by proposing that its solid waste office regulate the St. Johns Landfill through the Solid Waste Disposal Site Closure Permit. Other DEQ offices concerned with groundwater and surface water quality, such as the Water Quality Office and the SRS, would also regulate St. Johns Landfill through the solid waste office and the closure permit. The advantage of this arrangement was that DEQ would speak to Metro with one voice on water quality issues rather than with multiple, confusing, conflicting voices.

In contrast with other DEQ regulatory programs which are financed by solid waste fees or are not financed directly by Metro, SRS oversight is financed through mandatory charges levied on potentially responsible parties whose properties are being cleaned up. Therefore, DEQ proposed that Metro enter into an open-ended agreement with it to pay DEQ for SRS oversight costs. Metro negotiators insisted on an initial limit of \$50,000 and the ability to terminate the agreement if Metro desired. The attached Letter of Agreement 904902 contains these clauses.

If Metro signs this Letter of Agreement, the SRS will begin to actively take part now in regulatory oversight of St. Johns Landfill. Metro is a participant in an agreement rather than the object of a unilateral order by DEQ. DEQ agrees to a cost limit which cannot be exceeded without approval by Metro. Metro will incur increased regulatory costs now but should expect reduced confusion and uncertainty.

If Metro does not sign the Letter of Agreement, the SRS will probably not assume oversight now. However, because St. Johns Landfill is under its regulatory jurisdiction, SRS sooner or later will exercise regulatory oversight and order Metro to pay for this oversight and for any cleanup work it requires. Metro may face a situation where it performs certain work under the Solid Waste Rules now and then has to modify or re-do this work later when new personnel and a new regulatory framework are imposed.

BUDGET IMPACT

The St. Johns Landfill Closure Account in the FY 95-96 budget contains funds sufficient for DEQ review. Sufficient funds are available because of a delay in implementing the Gas Pipeline Project.

EXECUTIVE OFFICER RECOMMENDATION

The Executive Officer recommends approval of Resolution No. 96-2305.

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AUTHORIZING THE	)	RESOLUTION NO. 96-2305
EXECUTIVE OFFICER TO ENTER INTO AN)	
AGREEMENT WITH THE OREGON DEPART-	)	Introduced by Mike Burton
MENT OF ENVIRONMENTAL QUALITY FOR	)	Executive Officer
THE PURPOSE OF FUNDING REGULATORY)	
OVERSIGHT OF ST. JOHNS LANDFILL)	

WHEREAS, Metro is implementing its Revised Closure and Financial Assurance Plan for St. Johns Landfill and its Natural Resources Management Plan for Smith and Bybee Lakes by constructing environmental protection improvements on St. Johns Landfill and continuing to monitor its environmental impact; and

WHEREAS, This effort can be most cost effectively carried out if Metro negotiates with the Oregon Department of Environmental Quality (DEQ) within a consistent and predictable regulatory framework; and

WHEREAS, a consistent and predictable regulatory framework is promoted if Metro enters into an agreement with the Site Response Section of the DEQ Environmental Clean-up Division to pay for a regulatory oversight at this time; and

WHEREAS, The resolution was submitted to the Executive Officer for consideration and was forwarded to the Council for approval; now therefore,

BE IT RESOLVED, That the Metro Council authorizes the Executive Officer to enter into Letter Agreement 904902 (Attached as Exhibit A) with the Oregon Department of

Environmental Quality for Metro to fund regulatory oversight by the DEQ Site Response Program.

ADOPTED by the Metro Contract Review Board this _____ day of _____, 1996.

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

DO:clk
S\SHARE\ONE\DEQAGMT RES

TRANSMITTAL SUMMARY

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
 TEL 503 797 1700 | FAX 503 797 1799



METRO

To: Risk and Contracts Management

From: _____
 Department: REM
 Division: Engineering
 Name: Dennis O'Neil
 Title: Sr. SW Planner
 Extension: 1697

Date: 3/13/96 Vendor: DEQ
 Subject: 2020 SW 4th Ave Suite 40
 Bid Contract Portland OR 97201
 RFP Other Vendor no.: _____
 Contract no.: 904902
 Purpose: Site Response Program at SILF

Expense
 Procurement Personal/professional services Services (LM) Construction IGA

Revenue	Budget code(s)	Price basis	Contract term
<input type="checkbox"/> Contract	<u>531-319000-52490-75960</u>	<input type="checkbox"/> Unit prices, NTE	<input checked="" type="checkbox"/> Completion*
<input type="checkbox"/> Grant		<input type="checkbox"/> Per task	<input type="checkbox"/> Annual
<input type="checkbox"/> Other		<input checked="" type="checkbox"/> Total/lump sum	<input type="checkbox"/> Multi-year**
This project is listed in the 199 <u>5</u> -199 <u>6</u> budget.		Payment required	<u>3/15/96</u> Beginning date*
<input type="checkbox"/> Yes	<input type="checkbox"/> Type A	<input type="checkbox"/> Lump sum	<u>Open</u> Ending date
<input checked="" type="checkbox"/> No	<input type="checkbox"/> Type B	<input checked="" type="checkbox"/> Progress payments	

Total commitment	Original amount	\$ <u>50,000⁰⁰</u>
	Previous amendments	\$ _____
	This transaction	\$ _____
	Total	\$ <u>50,000⁰⁰</u>
	A. Amount of contract to be spent fiscal year <u>95-96</u>	\$ <u>35,000⁰⁰</u>
	B. Amount budgeted for contract <u>Misc Prof Services</u>	\$ <u>7,210,000⁰⁰</u>
	C. Uncommitted/discretionary funds remaining as of <u>3/8/96</u>	\$ <u>4,384,492⁹⁶</u> ...

Approvals

Project manager: _____ <u>[Signature]</u>	Division manager: _____ <u>Jim Watkins</u>	Department director: _____ <u>[Signature]</u>
Fiscal: _____	Budget manager: _____	Risk: _____
Legal: _____		

Competitive quotes, bids or proposals

Submitted by	\$Amount	M/W/DBE	Foreign or Oregon contractor
Submitted by	\$Amount	M/W/DBE	Foreign or Oregon contractor
Submitted by	\$Amount	M/W/DBE	Foreign or Oregon contractor

Comments

Attachments Ad for bid Plans and specifications Bidders list (M/W/DBEs included)

Instructions

- Secure contract number from Risk and Contracts Management. Place number on the transmittal summary and all contract copies.
- Complete transmittal summary form to the extent of project completion.
- If contract is:
 - Sole source, attach memo detailing justification pursuant to ORS 279.
 - Less than \$2,500, attach memo detailing need for contract and contractor's capabilities, bids, etc.
 - More than \$2,500 but less than \$25,000, attach quotes, informal solicitations, evaluation forms, etc.
 - More than \$25,000 attach RFP/RFB complete with summary, all required documents and all evaluation, utilization forms.
- List and identify all subcontractors below.
- Provide completed RFB/RFP packet to Risk and Contracts Management.

Subcontractor/supplier
 Address
 City/state/ZIP
 Phone

M/W/DBE certified Ethnicity
 Type of work
 Dollar amount

Subcontractor/supplier
 Address
 City/state/ZIP
 Phone

M/W/DBE certified Ethnicity
 Type of work
 Dollar amount

Attach additional list(s) as necessary.

Total utilization: \$ _____

Total contract: \$ _____

Percent utilization: _____



March 1, 1996

Mr. Mike Burton
Executive Officer
METRO
600 NE Grand Avenue
Portland, Oregon 97232-2736

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

Re: St. Johns Landfill

NORTHWEST REGION

Dear Mr. Burton:

This letter serves as an Agreement (Letter Agreement) between the Oregon Department of Environmental Quality (DEQ) and METRO to provide DEQ Site Response Program (SRP) review and technical support for the investigation and remediation of hazardous substances released to the environment from the St. Johns Landfill (facility) in Portland, Oregon. The facility is approximately 238 acres bordered to the north by the North Slough, to the south and west by the Lower Columbia Slough, and to the east by Smith Lake.

Under this Agreement, SRP will provide planning assistance, technical review, and oversight services in support of the DEQ's Solid Waste Program for the focused remedial investigation, risk assessment, feasibility study, interim actions, and remedy selection and implementation for the facility. ORS 190.110 permits state agencies to enter into an agreement for the performance of authorized actions, such as this intergovernmental agreement. The facility is currently regulated under ORS 459.005 et. seq., OAR Chapter 340, and Solid Waste Disposal permit 116, administered by DEQ's Solid Waste Program. Project management and enforcement responsibility remains with the Solid Waste Program under the Solid Waste Disposal permit under this Agreement.

The objectives of the work to be completed under this Agreement are to:

- Identify the hazardous substances which have been released to the environment,
- Determine the full nature and extent of hazardous substances in affected media on and off-site,
- Determine the distribution of hazardous substance concentrations,
- Determine the direction and rate of migration of hazardous substances,
- Identify migration pathways,
- Identify the environmental impact and risk to human health and/or the environment,
- Develop the information necessary to select a remedial action.

A more detailed Scope of Work will be provided to METRO following completion of technical staff discussions between DEQ and METRO. Extra copies of future technical reports and monitoring reports shall be provided to the Solid Waste project manager for distribution to appropriate SRP staff.

John A. Kitzhaber
Governor



2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471
DEQ-1

If necessary, SRP staff shall be allowed to enter and move freely about the facility at all reasonable times for the purpose of observing landfill closure operations, evaluating environmental conditions, observing or collecting samples, and providing technical assistance. SRP staff shall notify the facility management of their presence at the site upon arrival.

This Agreement authorizes recovery of costs incurred by SRP for activities described in this Agreement. METRO's obligations under this agreement shall not exceed \$50,000. However, if DEQ's costs approach \$50,000, DEQ will notify METRO, and DEQ and METRO will negotiate payment of any costs exceeding \$50,000. DEQ shall provide METRO with a monthly statement of costs incurred by SRP for services described above after January 1, 1996. The costs will include both direct and indirect costs. Direct costs include site-specific expenses. Indirect costs include personnel and other overhead expenses allocable to DEQ's participation under this Agreement and not charged as direct site-specific costs. The Solid Waste Programs costs are covered by the permit fee and are not recoverable under this Agreement. Within 30 days after issuance of the monthly statement, METRO shall pay the amount of costs billed by check made payable to the "State of Oregon, Hazardous Substance Remedial Action Fund".

This agreement may be terminated by either party without cause by giving 30 days written notice of intent to terminate. Costs incurred prior to the effective date of the termination must be paid.

SRP looks forward to working with METRO on the investigation and remediation of environmental releases to enhance the environment in the vicinity of St. Johns Landfill.

Sincerely,



Tom Bispham
Administrator, Northwest Region

cc: Dave St.Louis, NWR Site Response Manager
Chuck Donaldson, NWR Solid Waste Manager
Tim Spencer, NWR:SW
Ann Levine, NWR:SR
Project File

If the terms of this Letter Agreement are acceptable to you, please sign in the space provided below and return a signed original to DEQ.

Accepted and agreed to this _____ day of _____, 1996.

By: _____
Mike Burton
Executive Officer

Agenda Item 6.4

Resolution No. 96-2310

(Omitted — Committee consideration still needed.)

**Metro Council Meeting
Thursday, April 11, 1996**

Agenda Item 6.5

Resolution No. 96-2313

*For the Purpose of Amending the Contract Between Metro and Ankrom Moisan Association Architects
(Contract No. 903749) for Architectural Services Associated with the Development of a Capital Project
at Metro Washington Park Zoo.*

**Metro Council Meeting
Thursday, April 11, 1996**

STAFF REPORT

CONSIDERATION OF RESOLUTION NO. 96-2313 FOR THE PURPOSE OF AMENDING THE CONTRACT BETWEEN METRO AND ANKROM MOISAN ASSOCIATED ARCHITECTS (CONTRACT NO. 903749) FOR ARCHITECTURAL SERVICES ASSOCIATED WITH THE DEVELOPMENT OF A CAPITAL PROJECT AT METRO WASHINGTON PARK ZOO

Date:

Presented by: Y. Sherry Sheng

PROPOSED ACTION

Approval to amend the existing contract (Contract No. 903749) "between Metro and Ankrom Moisan Associated Architects for architectural services associated with the development of a capital project at Metro Washington Park Zoo. This resolution would increase the contract value by \$120,000."

FACTUAL BACKGROUND

Amendment of the existing contract (Contract No. 903749) is necessary due to the need to refine the project scope and program in response to new directions.

The basic services defined in the scope of work include: (1) Programming; (2) Preliminary Concepts; (3) Schematic Design Services; (4) Design Development Services; (5) Construction Documents Services; (6) Bidding Phase Services; (7) Construction Contract Administration Services; and (8) Post-Construction Services.

The initial work authorized by the Contract Review Board in summer, 1994, included Phases 1-3. Initial schematic design services had been satisfactorily completed; however, the scope of the project has been altered based on additional direction from the Metro Council and Metro Executive.

The purpose of additional design would be to refine the existing design to reflect changes in the scope and budget of the project. Further design will address five areas of the zoo: Oregon Forest, Oregon Waters, lions, public areas, and revenue facilities. The work will be divided into three rounds:

Round 1 - Modification of past design based on input from zoo staff and changes to the scope.

Round 2 - Review modified design with staff for further refinement. Incorporate revisions.

Round 3 - Finalize design program and prepare final presentation drawings and written design program.

The products from these rounds include:

- Plan to scale of each animal holding area and exhibit area showing layout, transfer doors, keeper areas, barrier grades, and vegetation massing.
- Section for each exhibit zone showing typical slopes, viewing angles, barrier heights, and vegetation massing/screening.
- Site plans, schematic floor plans, and concept sketches for revenue facilities.
- Updated cost estimate for Oregon Forest, Oregon Waters, lion exhibit, entry facilities, and public areas.

It will be beneficial to proceed at this time with some additional architectural services as a result of new direction from Council and the Executive. The continuation of design will facilitate involvement of zoo staff and community members. This work is timely in preparing us to move forward upon passage of the bond measure.

Section 2.04.054(a) (3) of the Metro Code requires that, "For Personal Services contracts, any contract amendment or extension exceeding \$10,000 shall not be approved unless the Contract Review Board shall have specifically exempted the contract amendment from the competitive procurement procedures of Section 2.04.053."

Metro Council, acting as Contract Review Board, is hereby requested to specifically exempt this amendment from competitive procurement procedures of Section 2.04.053 and thereby authorizes the Executive Officer to execute this contract amendment.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends adoption of Ordinance No. 96-2313

BEFORE THE CONTRACT REVIEW BOARD

FOR THE PURPOSE OF AMENDING THE	)	RESOLUTION NO. 96-2313
CONTRACT BETWEEN METRO AND)	
ANKROM MOISAN ASSOCIATED	)	Introduced by
ARCHITECTS(CONTRACT NO. 903749) FOR)	
ARCHITECTURAL SERVICES ASSOCIATED	)	Mike Burton
WITH THE DEVELOPMENT OF A CAPITAL	)	Executive Officer
PROJECT AT METRO WASHINGTON)	
PARK ZOO)	

WHEREAS, Metro executed Contract No. 903749 with Ankrom Moisan Associated Architects in 1994; and

WHEREAS, Additional architectural services are necessary to continue the scope of work tasks; and

WHEREAS, Additional design development has been requested to help further define a ballot measure; and

WHEREAS; This request represents a shift in existing or available resources and is not a request for new funds; and

WHEREAS, The Metro Washington Park Zoo has established that Ankrom Moisan Associated Architects has performed the work as specified and satisfactorily within the terms of the contract; and

WHEREAS, The Metro Council as Public Contract Review Board may declare that it is in the public's interest for this work on the zoo capital project to move forward in the most expedient manner, accepts those findings and waives competitive bidding; now, therefore,

BE IT RESOLVED,

That the Metro Contract Review Board authorizes the execution of Change Order No. 3 to Contract No. 903749 with Ankrom Moisan Associated Architects pursuant to the terms of Metro Code Sections 2.04.053 (a) (2) and (3) by increasing the contract value by \$120,000.

ADOPTED by the Metro Council this ____ day of _____, 1996.

Jon Kvistad, Presiding Officer

Approved as to form:

Daniel B. Cooper, General Counsel

Agenda Item 6.6

Resolution No. 96-2306

***For the Purpose of Approving a Refinement Plan for the Canemah Bluff Section
of the Willamette River Greenway as Outlined in the Open Space Implementation Work Plan.***

**Metro Council Meeting
Thursday, April 11, 1996**

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING A	)	RESOLUTION NO. 96-2306
REFINEMENT PLAN FOR THE CANEMAH)	
BLUFF SECTION OF THE WILLAMETTE)	
RIVER GREENWAY TARGET AREA AS	)	Introduced by Mike Burton
OUTLINED IN THE OPEN SPACE	)	Executive Officer
IMPLEMENTATION WORK PLAN)	

WHEREAS, in July 1992, Metro completed the Metropolitan Greenspaces Master Plan which identified a desired system of natural areas interconnected with greenways and trails; and

WHEREAS, at the election held on May 16, 1995, the electors of Metro approved Ballot Measure 26-26 which authorizes Metro to issue \$135.6 million in general obligation bonds to finance land acquisition and capital improvements pursuant to Metro's Open Spaces Program; and

WHEREAS, Canemah Bluff was designated as a Greenspace of regional significance in the Greenspaces Master Plan and identified as a regional target area in the Open Space, Parks and Streams Bond Measure; and

WHEREAS, in November 1995, the Metro Council adopted the Open Space Implementation Work Plan, which calls for a public "refinement" process whereby Metro adopts a Refinement Plan including objectives and a confidential tax-lot-specific map identifying priority properties for acquisition; and

WHEREAS, Resolution No. 95-2228 authorizes the Executive Officer to purchase property with accepted acquisition guidelines as outlined in the Open Space Implementation Work Plan, now therefore,

BE IT RESOLVED,

That the Metro Council adopts the Canemah Bluff section of the Willamette River Greenway Refinement Plan, consisting of objectives and a confidential-tax-lot specific map identifying priority properties for acquisition, authorizing the Executive Officer to begin the acquisition of property and property rights as detailed in the Open Space Implementation Work Plan adopted in November 1995 and in Resolution No. 95-2228.

ADOPTED by Metro Council this _____ day of _____, 1996.

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

Staff Report

CONSIDERATION OF RESOLUTION NO. 96-2306, FOR THE PURPOSE OF APPROVING A REFINEMENT PLAN FOR THE CANEMAH BLUFF SECTION OF THE WILLAMETTE RIVER GREENWAY TARGET AREA AS OUTLINED IN THE OPEN SPACE IMPLEMENTATION WORK PLAN

Date: March 21, 1996

**Presented by: Charles Ciecko
Jim Desmond**

BACKGROUND AND ANALYSIS

The Target Area description in the Bond Measure Fact Sheet (authorized by Council Resolutions 95-2113, 94-2050 and 94-2029B) is as follows:

"Oregon City Vicinity. Canemah Bluff. Acquire 390 acres along the Willamette River Greenway."

In the 1992 Greenspaces Master Plan, the Target Area is described as follows:

"Canemah Bluff. (Willamette River Watershed). Willamette River bluffs that are sheer-faced with large acre forest areas. Mark the place where the Willamette carved through basalt before descending to the Columbia after flowing over the Willamette Falls. High-quality wetlands at foot of cliffs. Historical cemetery on northern edge of bluffs. Oak and madrone growing on thinner soils.

Target Area Description:

The Canemah Bluff target area is a relatively large undeveloped area along the east bank of the Willamette River south of Oregon City. The bluffs themselves contain numerous habitats including steep cliffs, rock outcrops, oak/madrone forest, well-established native plant communities, diverse topography, seeps and numerous wetlands. This extensive natural area has been identified by the Oregon Department of Fish & Wildlife as a key upland habitat area that should be protected.

In addition to the natural values, the site contains a rich historical and cultural background. According to archaeological data, Willamette Falls was a center of Native American activity for over 3000 years by tribes such as the Chinook, Clackamas, and Callapooyas. It was an important fishing, village and trading site. This use continued undisturbed until EuroAmerican immigration in the early 1800's. Numerous oral histories and legends are attached to the Canemah Bluff area as a ceremonial site. It is said that the perched wetlands were an important site for gathering medicinal plants and that many of the rock outcroppings were used for ceremonial altars, some of which have been fashioned into mortars for grinding roots. Evidence of possible ceremonial pits and hunting blinds can be

seen today.¹ At the south end of the bluffs, adjacent to Highway 99, is a tall rock outcropping referred to as "Koelco" or "Balancing Rock." Oral legends say that the outcropping is related to a controversial failed marriage between the Molalla and Clackamas peoples.

An overlay of white settlement is also apparent in the target area. The townsite of Canemah (derived from the Callapooya term "kanim" or "canoe place"), listed as a National Register Historic District in 1978, was a boat-building center that provided housing for many riverboat captains referred to as the "Steamboat Elite." Remnants of an old wagon road leading to Canemah and the Canemah Pioneer Cemetery are still in evidence on the bluffs above the town.

A portion of the target area is in Oregon City, with the majority of it in unincorporated Clackamas County. The entire area is subject to timber harvest and/or development.

Refinement Process

The Open Space Implementation Work Plan adopted by the Metro Council in November 1995, required that a Refinement Plan be submitted to the Council for approval for each target area. The Refinement Plan will contain objectives and a confidential tax-lot-specific map identifying priority properties for acquisition, enabling Metro to begin the acquisition of property and property rights as detailed in the Open Space Implementation Work Plan and in Resolution No. 95-2228. Resolution No. 95-2228 "authorizes the Executive Officer to acquire real property and property interests subject to the requirements of the *Acquisition Parameters* and *Due Diligence* guidelines of the Open Space Implementation Work Plan."

The process for the development of the Willamette Narrows Refinement Plan has included field visits conducted by Metro staff and consultants, analysis of relevant maps, review and assessment of planning documents, and interviews with 16 individuals representing property owners, governmental agencies, natural resource experts, non-profit advocacy groups and Native American tribal interests. The most prevalent issues relating to acquisition are summarized in Appendix A.

A public workshop to discuss the proposed Refinement Plan was held on March 13th in Oregon City. Approximately 75 people attended and their comments are summarized in Appendix B. A biological report by David Smith, an independent consultant with Wildlife Dynamics, is attached as Appendix C.

Findings

The area contains large contiguous forest with low human impact and few invasive species. This significant forest canopy, coupled with a diverse system of wetlands, seeps and rocky cliffs, provides valuable habitat to a number of plant and animal species. The large expanse of forested land also provides a good visual buffer when viewed from the west, while the steep faces provide vistas of the river below. The cultural and historic resources on the site offer additional interest from an interpretive and educational perspective.

¹ Information concerning the location of cultural resources is sensitive and will not be released to the public.

Future linkages to Molalla River State Park and Clackamette Park could be established in conjunction with the Willamette River Greenway corridor on the west side of the river. A looped system could be created using the Canby Ferry and Oregon City bridges as river crossing points.

The area identified for acquisition/protection (approximately 600 acres) is a regionally significant natural and cultural resource due to its biological, botanical, geologic, wildlife and historical values.

Stakeholder consensus was in favor of supporting the county and state-wide land use goals for the Willamette River Greenway, including the following:

- "To protect, conserve, enhance and maintain the natural scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River."
- "To maintain the integrity of the Willamette River by minimizing erosion, promoting bank stability, and maintaining and enhancing water quality and fish and wildlife habitats."

Because of the significant size and value of the Canemah Bluff resources, a combination of strategic purchases, partnership agreements and access easements will be required to provide a continuous greenway corridor and protect upland habitats. Acquisition of these properties, property rights, and partnerships will achieve the following goals:

- Protection of large blocks of contiguous wooded area for habitat value.
- Protection of the prehistoric cultural resources of the site.
- Protection of the visual integrity of the bluffs as seen from the west side of the river.
- Protection of the habitat and scenic values of Willamette River islands. (Note: included in Tier II objectives for Willamette Narrows target area directly on the other side of the river.)
- Provision of linkages between the historic district of Canemah, Oregon City, Willamette Falls, Clackamette Park, Canby, and Molalla River State Park.

Regional Parks and Greenspaces Advisory Committee

A presentation of the staff report was given by Metro staff and consultants at a public meeting in Room 370A of Metro Regional Center on March 19, 1996. This analysis and the resulting objectives were approved by a unanimous vote of the Regional Parks and Greenspaces Advisory Committee.

GOAL:

Create a future regional natural area of approximately 600 acres which supports statewide land use Goal 15 and protects biological, botanical, cultural, educational, historic, geologic, and scenic values.

OBJECTIVES:

The following are prioritized specific objectives of the Canemah Bluff Proposed Refinement Plan. The Refinement Plan area contains approximately 820 acres.

Tier I Objectives:

(390 acres)

- Aggregate large parcels of contiguous forest on the terrace above the cliffs.
- Preserve the steep cliffs, rock outcrops and seeps for their biological, scenic and cultural values.
- Acquire the peninsula of land that extends into the Willamette River for its scenic value, habitat value and potentially rare delphinium populations.
- Protect (through acquisition or other appropriate strategies) cultural and historic sites and old wagon roads for educational purposes, working in cooperation with the Oregon Historical Society and State Historic Preservation Office.

Tier II Objectives:

- Provide greenway linkages to the historic district of Canemah, Willamette Falls, Clackamette Park, Molalla River State Park and the Canby Ferry Crossing.
- Provide linkages into the residential neighborhoods to the east.

Partnership Objectives:

Work with various governmental agencies to secure linkages to public areas:

- Oregon City to coordinate linkages to Willamette Falls and Clackamette Park.
- The Oregon Parks and Recreation Department to assist in the acquisition or consolidation of public land within the greenway corridor from Canemah to Molalla River State Park.
- The City of Canby to coordinate linkages beyond Molalla River State Park.
- Clackamas County to coordinate Willamette River Greenway planning efforts.

Pursue partnerships with private and non-profit groups to protect and enhance the cultural, historic and resource values of the area. Groups may include:

- State Historic Preservation Office, Oregon Historic Society and Clackamas County Museum.
- The Nature Conservancy (to assist in the acquisition or protection of island habitats).

APPENDIX A

Summary of Comments from Stakeholder Interviews

- The islands in the Willamette River should be protected for habitat and scenic values.
- It is important to protect the large blocks of contiguous wooded area found on the bluffs for wildlife value.
- It would be good to link the bluffs area to other Oregon City parks and Molalla River State Park.
- Limited or no access to portions of the bluffs may be desirable to prevent degradation and protect resource values.
- Indian encampments were in the area developed as Canemah, which is on the National Historic Register.
- Significant wetlands occur on the bluffs that should be protected.
- The bluffs were probably used by Native Americans. Oral history refers to the site as a ceremonial location for possible ceremonial hunting, gathering and rituals.
- A 40-acre residential development is proposed on the portion of the site within the urban growth boundary. This development could impact sensitive wetlands, habitat, and cultural artifacts.
- The City of Canby has plans for a 40-mile bike path from Molalla River State Park up the river to Canby. This could tie into a greenway connection linking Canemah Bluff with Canby.
- The bluffs provide a good visual resource when seen from across the river and offer good views to the river.
- The site offers good interpretive opportunities for natural resources, cultural and wildlife. Pull-offs could be developed along Highway 99E.
- The area should be protected for its cultural significance. Protection of the cemetery, old wagon road, and other cultural features should be included.
- Because of the significance of Willamette Falls as a fishing and trading site, numerous tribes may have used the area including the Chinook, Clackamas, Callapooyas, Molalla, Multnomah, Xylapums and Cascades.
- The area around Rock Island was a traditional fishing area according to the State Historic Preservation Office. This is confidential information, not to be published for public distribution.

APPENDIX A

STAKEHOLDER LIST

Name	Project Association
<p>Dan Zinzer Dept. of Transportation & Development Clackamas County 902 Abernethy Road Oregon City, OR 97045-1100 Phone: 650-3320 Fax: 650-3351</p>	WN, CB, NC, CR
<p>Judie Hammerstad County Commissioner Board of Commissioners Clackamas County Courthouse Annex 906 Main Street Oregon City, OR 97045 Phone: 655-8581</p>	NC, CR
<p>Michael Jones, Curator Cascade Geographic Society PO Box 398 Rhododendron, OR 97049 Phone: 503-622-4798</p>	CB, WN, CR
<p>Sue Doroff Riverlands Conservancy Director PO Box 8787 Portland, OR 97207-8787 Phone: 241-3506 Fax: 241-9256</p>	CR, CB, WN
<p>Wilmer Gardner Local Resident (Historian) 18512 Abernethy Lane Milwaukie, OR 18567 Phone: 656-2737</p>	CB
<p>Charlotte Lehan Wilsonville City Council 29786 SW Lehan Ct. Wilsonville, OR 97070 Phone: 682-09901</p>	CB, WN

Key

WN= Willamette Narrows
NC= Newell Creek

CB= Canemah Bluffs
CR= Clackamas River

Name	Project Association
<p>Gary Miniszewski Oregon Parks and Recreation Dept. 1115 Commercial St. N.E. Salem, OR 97310-1001 Phone: 503-378-6378 Ext. 276 Fax: 503-378-6447</p>	<p>WN, CB</p>
<p>Dick Vandershaff/Cathy Macdonald Nature Conservancy 821 SE 14th Portland, OR 97214 Phone 230-1221</p>	<p>CB, WN</p>
<p>Jimmy Cagen Natural Heritage Program 1115 Commercial St. N.E. Salem, OR 97310-1001 Phone: 503-731-3070 Ext. 332 Fax: 503-378-6447</p>	<p>CB, WN</p>
<p>Linda Dobson Office of Public Utilities City of Portland 1220 S.W. Fifth Ave. Portland, OR 97204 Phone: 823-4145 Fax: 823-3017</p>	<p>WN</p>
<p>Don Oakley Oakley Engineering 700 N. Hayden Island Drive Portland, OR 97217 Phone: 289-7411 Fax: 289-7656</p>	<p>CB</p>
<p>Mike Houck Portland Audubon Society 5151 N.W. Cornell Road Portland, OR 97210 Phone: 292-6855 Fax: 292-1021</p>	<p>WN</p>

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Name	Project Association
<p>Lee Gilson State Historic Preservation Office Oregon State Parks 1115 Commercial St. N.E. Salem, OR 97310-1001 Phone: 503-378-6508 Fax: 503-378-6447</p>	<p>CB, WN, CR</p>
<p>Bernie and Elaine Newland Farwest CPO 26850 Pete's Mountain Road West Linn, OR 97068 Phone: 656-6621</p>	<p>WN</p>
<p>Bob Rindy Oregon Dept. of Land Conservation and Develop. 1175 Court St. N.E. Salem, OR 97310 Phone: 503-373-0050</p>	<p>WN</p>
<p>Scott Nelsen Parks Director City of Canby PO Box 930 Canby, OR 97013 Phone: 266-2761 Fax: 266-9316</p>	<p>CB</p>
<p>Mike Butts Planning Director City of West Linn PO Box 651 West Linn, OR 97068 Phone: 656-4211 Fax: 656-4106</p>	<p>WN</p>
<p>Ken Worster Parks Director City of West Linn 4100 Norfolk St. West Linn, OR 97068 Phone: 557-4700 Fax: 657-3237</p>	<p>WN</p>

Key

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Name	Project Association
<p>Denyse McGriff Planning Department City of Oregon City PO Box 351 Oregon City, OR 97045 Phone: 657-0891 Fax: 657-3339</p>	WN, CB, NC
<p>Rich Carson Director of Community Development City of Oregon City PO Box 351 Oregon City, OR 97045 Phone: 657-0891 Fax: 657-3339</p>	CB, NC
<p>Gary Spanovich PO Box 1067 Canby, OR 97013 Phone: 266-8996 Fax: 263-3742</p>	WN, CB
<p>Doug Cramer, Biologist Friends of Clackamas River 33831 Faraday Road Estacada, OR 97023 Phone: Home- 631-7487 Work- 630-6831 Fax: 630-8219</p>	NC, CR
<p>Pam Hayden Clackamas County DTD 902 Abernethy Road Oregon City, OR 97045 Phone: 655-8521 Fax: 650-3351</p>	CR
<p>Tom Kaffun / Diane Campbell North Clackamas Parks & Recreation District 11022 SE 37th Milwaukie, OR 97222 Phone: 794-8002 Fax: 794-8005</p>	CR

Key

WN= Willamette Narrows
 NC= N. Clackamas Creek

CB= Canemah Bluffs
 CR= Clackamas River

Name	Project Association
Jonathan Block City of Gladstone 525 Portland Avenue Gladstone, OR 97027 Phone: 656-5225	CR
Sha Spady Friends of Newell Creek Canyon 17855 Alden St. Oregon City, OR 97045 Phone: 659-3503 Fax: 786-2837	NC
Sparkle Anderson FarWest.CPO 27480 SW Stafford Road Wilsonville, OR 97070 Phone: 682-1132	WN
Ginny VanLoo Fish & Wildlife Groups 9907 SE Talbert Clackamas, OR 97015 Phone: 986-1426 Fax: 786-3682	CR
Peter Toll Pacific Rivers Council 23373 S. Johnson Road West Linn, OR 97068 Phone: 294-0786 Fax: 657-4010	CR
Norm Scott Clackamas County Planning & Urban Renewal 902 Abernethy Road Oregon City, OR 97045 Phone: 650-3355	CR

Key

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Name	Project Association
<p>Gordon McGhee Clackamas River Water District PO Box 2439 Clackamas, OR 97015 Phone: 655-6143 Fax: 788-0467</p>	CR
<p>Curt Hohn Surface Water Management District #1 902 Abernethy Road Oregon City, OR 97045 Phone: 650-3726</p>	CR
<p>Riz Bradshaw Sheriff's Marine Patrol 22234 Kaen Road Oregon City, OR 97045 Phone: 656-0668</p>	CR
<p>Scott Hammersly Friends of Clackamas River 8852 91st Avenue Portland, OR 97266 Phone: 243-6037 Fax: 774-9663</p>	CR
<p>Jerry Nördstrom Clackamas CPO PO Box 2136 Clackamas, OR 97015 Phone: 655-3988</p>	CR
<p>Steven C. Brutscher Oregon Parks & Recreation Dept. 1115 Commercial St. NE Salem, OR 97310-1001 Phone: 503-378-6378 Ext. 235 Fax: 503-378-6447</p>	CR

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Name	Project Association
<p>Chuck Scott Associate Dean of Instruction Clackamas County Community College 19600 S. Molalla Ave. Oregon City, OR 97045 Phone: 657-6958 Ext. 2460</p>	NC
<p>Wayne Lei, Boardmember John Inskeep Environmental Learning Center Portland General Electric 121 SW Salmon Portland, OR 97204 Phone: 464-8000</p>	NC
<p>Patrick Wright U.S. Fish & Wildlife Service Oregon State Office 2600 SE 98th, Suite 100 Portland, OR 97266 Phone: 231-6179 Fax: 231-6195</p>	CR
<p>Joe Pesek Oregon Dept. of Fish & Wildlife 17330 SE Evelyn St. Clackamas, OR 97015 Phone: 657-2058</p>	WN, CB, NC, CR
<p>Paul Keiran Oregon Dept. of Environmental Quality NW Region Office 2020 SW 4th, Suite 400 Portland, OR 97201 Phone: 229-5937 Fax: 229-5837</p>	NC
<p>James Dalton P.O. Box 3 Oregon City, OR 97045 Phone: Home 655-6471 Work 657-2874</p>	NC

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Name

Project Association

Lloyd Marbet, Chairman
Friends of Barton Park and the
Scenic Clackamas River
19142 SE Bakers Ferry Road
Boring, OR 97009
Phone: 637-3549
Fax: 637-6130

CR

and:

Program Manager
Oregon Conservancy Foundation
19140 SE Bakers Ferry Road
Boring, OR 97009

Randy Roop, Vice Chair
Friends of Barton Parks and the
Scenic Clackamas River
PO Box 2177
Clackamas, OR 97015-2177
Phone: Work- 669-3273
Phone: Home- 631-2827

CR

Hazel Stevens
Friends of Barton Park and the
Scenic Clackamas River
Friends of Clackamas River
27001 SE Suttle
Eagle Creek, Oregon 97022
Phone: 637-3223

CR

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Appendix B

Willamette Narrows and Canemah Bluffs Public Workshop
Carnegie Center, Oregon City
March 13, 1996

Comments and Questions:

What is the difference between Tier I and Tier II areas? What is the total acreage proposed for acquisition?

Staff responded that Tiers I and II represent attempts to establish priorities. Tier I of Willamette Narrows contains about 750 acres on the Willamette River, Tier II contains about 350. For the Canemah Bluff area, Tier I contains about 800 acres, Tier II contains about 400.

Are you looking into things like utility and rail road easements? What has been targeted?

Staff responded that Metro is primarily interested in abandoned rail road corridors, and that, while open to using access easements, it anticipates that conservation easements will be used more frequently.

What are the state's goals on the Willamette River?

Staff explained that Metro doesn't have complete information yet, but is coordinating its program with the state's, so that the two programs complement each other.

What form will the council's decision take, and how long will it take to spend the bond money?

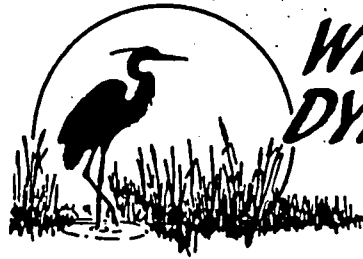
Staff described the council's decision making process, detailing dates and further opportunities for public comment, and outlined Metro's goal of spending 60 percent of the bond monies within three years.

Will the public have access to lands Metro buys?

Staff described the land banking and stabilization processes, limitations on using bond moneys for capital improvements, and the need to identify partners and further funding sources for managing public access.

What about the potential for a political shift in the future - could Metro's lands be sold off for development?

Staff described the legal constraints established by the bond measure and their ability to prevent such actions.



**WILDLIFE
DYNAMICS**

3559 N.E. Stanton St.
Portland, OR 97212
(503) 335-0380

APPENDIX C

METRO - OPEN SPACES REFINEMENT PROCESS Biological Resources Overview of Target Areas CANEMAH BLUFFS

Prepared for:

**Metro - Open Spaces Program
600 Northeast Grand Avenue
Portland, Oregon 97232**

Prepared by:

**Wildlife Dynamics, Inc.
David R. Smith
3559 Northeast Stanton Street
Portland, Oregon 97212**

March 15, 1996

METRO - OPEN SPACES REFINEMENT PROCESS
Biological Resources Overview of Target Areas
CANEMAH BLUFFS

March 15, 1996

INTRODUCTION

This report documents findings of the initial biological resources investigation of the Canemah Bluffs target area where land acquisition is proposed as part of the Metro - Open Spaces Program. The target area for this investigation was intentionally identified by general location only. This strategy allows Metro the flexibility to assess a relatively large number of parcels in a given region for the possibility of selecting the most desirable land in a willing-seller program.

Wildlife Dynamics, Inc. (WDI) conducted the preliminary biological resources investigations on the general target area. Objectives of the investigation were to gather existing biological information, interview individuals with knowledge of the area, perform a general habitat evaluation (using a target area perspective), identify unique or important habitat features (using a narrower perspective), and identify specific sections within the target area that should be investigated in greater detail. Criteria established in the Greenspaces Master Plan, bond documents, and Metro Council resolutions were used as guidelines for target area assessments. The results of the initial study were utilized to prepare for public meetings and to assist Metro in their land acquisition refinement process.

The following is the results of the initial biological resources investigations for the Canemah Bluffs.

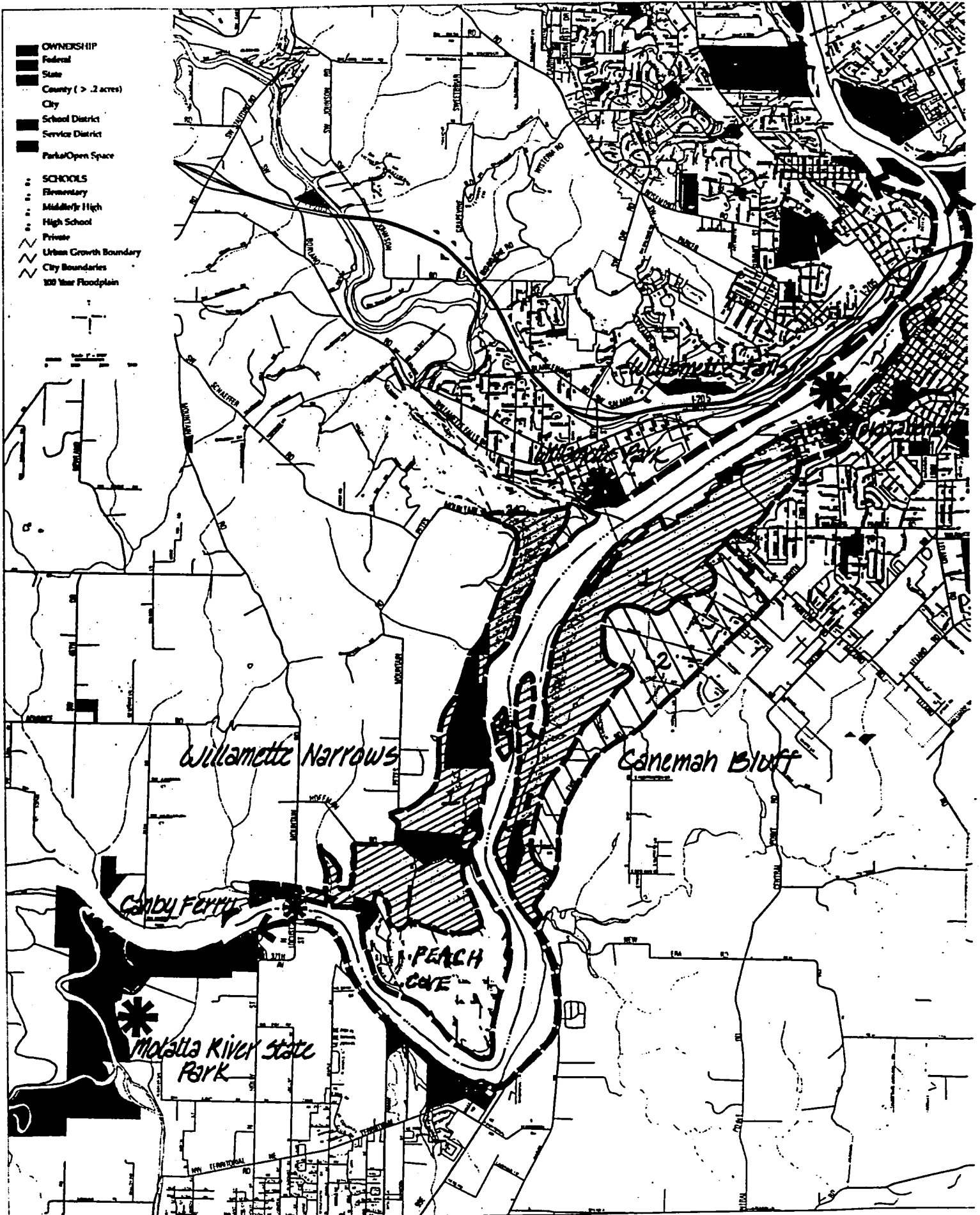
The bluffs are a large relatively undeveloped area along the Willamette River south of Oregon City. Many of the features found in this study area are considered important or unique. Special habitats located in the bluffs area – cliffs, rock outcrops, oak/madrone forest, diverse slopes and aspects, proximity to the river, seeps and wetlands, and large size – make the entire area important and meets all of the refinement process criteria for determining important target sites. Maintaining the contiguous forested habitat on the bluffs and bench above the cliffs should be a priority consideration. The existing habitat quality will be significantly affected if fragmentation of the existing habitats occurs.

Two islands in the Willamette River are included in this study area. All parties contacted placed the protection of the islands as high priority. Even though the islands have some nuisance plant problem, e.g. English ivy, they are considered unique habitat features that should be protected.

Persons Interviewed and general comments:

Joe Pesek, ODFW Biologist

- states priority should be given to securing protection of the islands;
and
- the entire undeveloped portion of the bluffs is a large block of quality wildlife habitat and should be protected



Measure 26-26: Willamette Narrows and Canemah Bluff Target Area



Agenda Item 6.7

Resolution No. 96-2307

*For the Purpose of Approving a Refinement Plan for the Willamette Narrows Section
of the Willamette River as outlined in the Open Space Implementation Work Plan*

**Metro Council Meeting
Thursday, April 11, 1996**

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING A	)	RESOLUTION NO. 96-2307
REFINEMENT PLAN FOR WILLAMETTE)	
NARROWS SECTION OF THE WILLAMETTE)	
RIVER GREENWAY TARGET AREA AS	)	Introduced by Mike Burton
OUTLINED IN THE OPEN SPACE	)	Executive Officer
IMPLEMENTATION WORK PLAN)	

WHEREAS, in July 1992, Metro completed the Metropolitan Greenspaces Master Plan which identified a desired system of natural areas interconnected with greenways and trails; and

WHEREAS, at the election held on May 16, 1995, the electors of Metro approved Ballot Measure 26-26 which authorizes Metro to issue \$135.6 million in general obligation bonds to finance land acquisition and capital improvements pursuant to Metro's Open Spaces Program; and

WHEREAS, the Willamette Narrows was designated as a Greenspace of regional significance in the Greenspaces Master Plan and identified as a regional target area in the Open Space, Parks and Streams Bond Measure; and

WHEREAS, in November 1995, the Metro Council adopted the Open Space Implementation Work Plan, which calls for a public "refinement" process whereby Metro adopts a Refinement Plan including objectives and a confidential tax lot specific map identifying priority properties for acquisition; and

WHEREAS, Resolution No. 95-2228 authorizes the Executive Officer to purchase property with accepted acquisition guidelines as outlined in the Open Space Implementation Work Plan, now therefore,

BE IT RESOLVED,

That the Metro Council adopts the Willamette Narrows section of the Willamette River Greenway Refinement Plan, consisting of objectives and a confidential tax-lot-specific map identifying priority properties for acquisition, authorizing the Executive Officer to begin the acquisition of property and property rights as detailed in the Open Space Implementation Work Plan adopted in November 1995 and in Resolution No. 95-2228.

ADOPTED by Metro Council this _____ day of _____, 1996.

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

Staff Report

CONSIDERATION OF RESOLUTION NO. 96-2307, FOR THE PURPOSE OF APPROVING A REFINEMENT PLAN FOR THE WILLAMETTE NARROWS SECTION OF THE WILLAMETTE RIVER GREENWAY TARGET AREA AS OUTLINED IN THE OPEN SPACE IMPLEMENTATION WORK PLAN

Date: March 21, 1996

**Presented by: Charles Ciecko
Jim Desmond**

BACKGROUND AND ANALYSIS

The Target Area description in the Bond Measure Fact Sheet (authorized by Council Resolutions 95-2113, 94-2050 and 94-2029B) is as follows:

"West Linn Vicinity. Willamette Narrows. Acquire 75 acres along the Willamette River Greenway."

In the 1992 Greenspaces Master Plan, the Target Area is described as follows:

"Willamette River watershed. Forest canyon between Petes Mountain and Wilsonville, the Canemah district of Oregon City and Molalla River State Park. Provide east-west ecological connectors between the Cascade Foothills and the Coast Range. Link upper and lower Willamette Valley and Tualatin Valley with the Tualatin Mountains. Willamette River Greenway addition."

Target Area Description:

The target area is defined as the area along the Willamette River from the mouth of the Tualatin River south to the Canby Ferry Crossing, and including Peach Cove. The area contains a mixture of land uses including rural residential, agricultural and commercial timber land. A large private Country Club borders the steep wooded slopes on the northwest portion of the study area. The forest land is mostly second growth, but extensive and diverse. A young/mature oak forest exists on the south-facing slopes near the center of the area. Surrounding the oak forest is a mixed conifer and deciduous forest. Conifers (mostly Douglas fir) are found on the upper slopes, while the deciduous trees (red alder, big leaf maple, Oregon ash, and cottonwood) are found in the lowlands and along drainages. The area contains numerous drainages, seeps and wetlands including some relatively large diverse wetlands/bogs (scrub/shrub, emergent, open water, etc.). These natural features, along with the varied topography, inter-mixed habitat types, and limited development make this portion of the study area high quality wildlife habitat and unique to the urban area.

Three islands constrict the Willamette River in the center of the refinement area. The northwestern-most island is owned by the Nature Conservancy and protects a rare delphinium population found there. The middle island is included in the Willamette Narrows target area and the easternmost island (Rock Island) is included in the Canemah Bluff target area. All of these islands provide unique scenic and habitat value.

Some land within the target area is publicly owned; several large tracts of land and a few isolated smaller parcels were purchased by the State Parks and Recreation Department in response to statewide land use Goal 15 (Willamette River Greenway), and Hebb Park, a county-owned facility offering river access and picnic sites, is located on the western edge of Peach Cove. The Canby Ferry, a significant historical and cultural feature, is located at the end of Locust Mountain Road. The ferry still operates, carrying two to four cars at a time, however, service has been suspended recently due to flood damage to the access road on the north side of the river.

A unique feature of the target area is the bog-like wetlands distributed throughout the south-central portion of the area. These wetlands have formed within the remnant potholes scoured by historical flows of the Willamette River. Surrounded by steeply forested bedrock banks and exposed bedrock banks and exposed bedrock, these bog-like wetlands are relatively undisturbed, dominated by native plants and fauna.

Refinement Process

The Open Space Implementation Work Plan adopted by the Metro Council in November 1995, required that a Refinement Plan be submitted to the Council for approval for each target area. The Refinement Plan will contain objectives and a confidential tax-lot-specific map identifying priority properties for acquisition, enabling Metro to begin the acquisition of property and property rights as detailed in the Open Space Implementation Work Plan and in Resolution No. 95-2228. Resolution No. 95-2228 "authorizes the Executive Officer to acquire real property and property interests subject to the requirements of the *Acquisition Parameters* and *Due Diligence* guidelines of the Open Space Implementation Work Plan."

The process for the development of the Willamette Narrows Refinement Plan has included field visits conducted by Metro staff and contractors, analysis of relevant maps, review and assessment of planning documents, and interviews with 19 individuals representing property owners, governmental agencies, natural resource experts, and non-profit advocacy groups. The most prevalent issues relating to acquisition are summarized in Appendix A.

A public workshop to discuss the proposed Refinement Plan was held on March 13th in Oregon City. Approximately 75 people attended and their comments are summarized in Appendix B. A biological report by David Smith, an independent consultant with Wildlife Dynamics, is attached as Appendix C.

Findings

The area provides a large somewhat fragmented natural area that offers a valuable scenic resource with high habitat value for plants and wildlife, but limited opportunity for recreational linkage to other public open spaces. The goals identified for the Willamette River Greenway by the state and county are twofold:

- "To protect, conserve, enhance and maintain the natural scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River."
- "To maintain the integrity of the Willamette River by minimizing erosion, promoting bank stability, and maintaining and enhancing water quality and fish and wildlife habitats."

The 650 acre refinement plan area contains steep slopes and residential development which hinder a continuous linear greenway corridor. Nonetheless, certain features including the bog-like wetlands, steep slopes, river islands and undeveloped portions of the river bank are regionally significant and appropriate for protection due to their botanical, wildlife, water quality and scenic values. Objectives of the Willamette Narrows target area are to:

- Protect wetlands, bogs, and seeps associated with the oak forest for their habitat value.
- Protect large blocks of contiguous forest area for habitat value.
- Protect water and river bank resources of the Willamette River.
- Protect the unique habitat and visual qualities of the Willamette River islands.
- Work cooperatively with state and local agencies and private landowners to provide greenway linkages, where feasible, to West Linn, Wilsonville, Canby, and Molalla River State Park.

Regional Parks and Greenspaces Advisory Committee

A presentation of the staff report was given by Metro staff and consultants at a public meeting in Room 370A of Metro Regional Facility on March 19, 1996. By a unanimous vote, the Committee approved the staff report subject to the following amendments:

1. The acquisition/protection of private islands in the Willamette River should be a Tier I objective, rather than a Tier II objective. (Note: the committee did not think it was particularly important which target area--Willamette Narrows or Canemah Bluff--includes the islands.)
2. As a partnership objective, Metro should work with the owners of agricultural land in the Peach Cove area to maintain protection of the resource and habitat values.

The following objectives reflect the amendments of the Regional Parks and Greenspaces Advisory Committee.

GOAL:

Create a regional natural area of approximately 350-400 acres which supports statewide land use Goal 15 and the Clackamas County Comprehensive Land Use Plan and protects wetland/bog forested land and undeveloped riparian areas for wildlife, biological, botanical, educational, and water quality values.

OBJECTIVES:

The following are prioritized specific objectives of the Willamette Narrows Refinement Plan. The Refinement Plan area contains approximately 650 acres.

Tier I Objectives: (75 acres)

- Acquire the bogs, ponds and small drainages to protect the biological and water quality values of these wetland systems.
- Acquire the steeply sloped areas north of the state parcel that are undergoing timber harvesting.
- Acquire large blocks of contiguous wooded area for habitat value, including remnant areas of oak on the south facing slopes.

Tier II Objectives:

- Acquire/protect the private islands in the Willamette River for their scenic habitat values.
- Acquire gently sloped lowlands within the 100-year flood plain to provide a recreation corridor and protect riparian vegetation.

Partnership Recommendations:

Develop partnerships to assist in implementing the long range vision for the Willamette Greenway Plan including:

- Work with Clackamas County to coordinate Willamette River Greenway planning efforts related to protection and enhancement of the forest and wetland/bog resources.
- Work with private landowners to explore opportunities for easements, timber management and water quality protection strategies.

Metro should also work in cooperation with public agencies and private groups to provide additional protections and access to the area's natural resources:

- Work with Oregon Parks and Recreation Department and the Nature Conservancy to assist in the protection or consolidation of public land within the greenway corridor, and to protect island habitat.
- Work with West Linn, PGE, Wilsonville, and Canby to coordinate plans for linkages to areas outside the Willamette Narrows target area such as Hebb Park and the Canby Ferry.

- Metro should explore opportunities to work cooperatively with the owners of agricultural land in the Peach Cove area to maintain protection of the resource and habitat values.

Executive Officer's Recommendation

The Executive Officer recommends passage of Resolution No. 96-2307.

APPENDIX A

Summary of Comments from Stakeholder Interviews

- The islands in the Willamette River should be protected for visual and habitat value.
- Linkages should be made to Molalla River State Park.
- The Canby Ferry would be a valuable crossing point for a future trail system on both sides of the Willamette River.
- Access to the greenway corridor is difficult due to large private holdings and steep topography. Cooperative agreements should be forged between Metro and private landowners, including the private golf course.
- A greenway corridor would probably receive a high level of use from neighbors. Equestrian and bicycle users should be considered. A large equestrian center is situated to the west of the target area.
- PGE owns property along the Willamette River from the mouth of the Tualatin River north to the falls. They are required to provide public access by law.
- The forested slopes on the south bank of the Tualatin River might be an important natural resource for wildlife value.
- Hebb Park would provide a good access point and recreational hub for a greenway corridor.
- Securing large blocks of undeveloped forest, particularly areas containing wetland features is important.
- The area around Rock Island was a traditional fishing area according to the State Historic Preservation Office. Information is confidential and not to be published for public distribution.

APPENDIX A

STAKEHOLDER LIST

Name	Project Association
<p>Dan Zinzer Dept. of Transportation & Development Clackamas County 902 Abernethy Road Oregon City, OR 97045-1100 Phone: 650-3320 Fax: 650-3351</p>	WN, CB, NC, CR
<p>Judie Hammerstad County Commissioner Board of Commissioners Clackamas County Courthouse Annex 906 Main Street Oregon City, OR 97045 Phone: 655-8581</p>	NC, CR
<p>Michael Jones, Curator Cascade Geographic Society PO Box 398 Rhododendron, OR 97049 Phone: 503-622-4798</p>	CB, WN, CR
<p>Sue Doroff Riverlands Conservancy Director PO Box 8787 Portland, OR 97207-8787 Phone: 241-3506 Fax: 241-9256</p>	CR, CB, WN
<p>Wilmer Gardner Local Resident (Historian) 18512 Abernethy Lane Milwaukie, OR 18567 Phone: 656-2737</p>	CB
<p>Charlotte Lehan Wilsonville City Council 29786 SW Lehan Ct. Wilsonville, OR 97070 Phone: 682-09901</p>	CB, WN

Key

WN= Willamette Narrows
NC= Newell Creek

CB= Canemah Bluffs
CR= Clackamas River

Name**Project Association**

Gary Miniszewski
Oregon Parks and Recreation Dept.
1115 Commercial St. N.E.
Salem, OR 97310-1001
Phone: 503-378-6378 Ext. 276
Fax: 503-378-6447

WN, CB

Dick Vandershaff/Cathy Macdonald
Nature Conservancy
821 SE 14th
Portland, OR 97214
Phone 230-1221

CB, WN

Jimmy Cagen
Natural Heritage Program
1115 Commercial St. N.E.
Salem, OR 97310-1001
Phone: 503-731-3070 Ext. 332
Fax: 503-378-6447

CB, WN

Linda Dobson
Office of Public Utilities
City of Portland
1220 S.W. Fifth Ave.
Portland, OR 97204
Phone: 823-4145
Fax: 823-3017

WN

Don Oakley
Oakley Engineering
700 N. Hayden Island Drive
Portland, OR 97217
Phone: 289-7411
Fax: 289-7656

CB

Mike Houck
Portland Audubon Society
5151 N.W. Cornell Road
Portland, OR 97210
Phone: 292-6855
Fax: 292-1021

WN

Key

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Name	Project Association
<p>Lee Gilson State Historic Preservation Office Oregon State Parks 1115 Commercial St. N.E. Salem, OR 97310-1001 Phone: 503-378-6508 Fax: 503-378-6447</p>	<p>CB, WN, CR</p>
<p>Bernie and Elaine Newland Farwest CPO 26850 Pete's Mountain Road West Linn, OR 97068 Phone: 656-6621</p>	<p>WN</p>
<p>Bob Rindy Oregon Dept. of Land Conservation and Develop. 1175 Court St. N.E. Salem, OR 97310 Phone: 503-373-0050</p>	<p>WN</p>
<p>Scott Nelsen Parks Director City of Canby PO Box 930 Canby, OR 97013 Phone: 266-2761 Fax: 266-9316</p>	<p>CB</p>
<p>Mike Butts Planning Director City of West Linn PO Box 651 West Linn, OR 97068 Phone: 656-4211 Fax: 656-4106</p>	<p>WN</p>
<p>Ken Worster Parks Director City of West Linn 4100 Norfolk St. West Linn, OR 97068 Phone: 557-4700 Fax: 657-3237</p>	<p>WN</p>

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Name	Project Association
Denyse McGriff Planning Department City of Oregon City PO Box 351 Oregon City, OR 97045 Phone: 657-0891 Fax: 657-3339	WN, CB, NC
Rich Carson Director of Community Development City of Oregon City PO Box 351 Oregon City, OR 97045 Phone: 657-0891 Fax: 657-3339	CB, NC
Gary Spanovich PO Box 1067 Canby, OR 97013 Phone: 266-8996 Fax: 263-3742	WN, CB
Doug Cramer, Biologist Friends of Clackamas River 33831 Faraday Road Estacada, OR 97023 Phone: Home- 631-7487 Work- 630-6831 Fax: 630-8219	NC, CR
Pam Hayden Clackamas County DTD 902 Abernethy Road Oregon City, OR 97045 Phone: 655-8521 Fax: 650-3351	CR
Tom Kaffun / Diane Campbell North Clackamas Parks & Recreation District 11022 SE 37th Milwaukie, OR 97222 Phone: 794-8002 Fax: 794-8005	CR

Key

WN= Willamette Narrows
 NC= Nassau Creek

CB= Canemah Bluffs
 CR= Clackamas River

Name

Project Association

Jonathan Block
City of Gladstone
525 Portland Avenue
Gladstone, OR 97027
Phone: 656-5225

CR

Sha Spady
Friends of Newell Creek Canyon
17855 Alden St.
Oregon City, OR 97045
Phone: 659-3503
Fax: 786-2837

NC

Sparkle Anderson
FarWest.CPO
27480 SW Stafford Road
Wilsonville, OR 97070
Phone: 682-1132

WN

Ginny VanLoo
Fish & Wildlife Groups
9907 SE Talbert
Clackamas, OR 97015
Phone: 986-1426
Fax: 786-3682

CR

Peter Toll
Pacific Rivers Council
23373 S. Johnson Road
West Linn, OR 97068
Phone: 294-0786
Fax: 657-4010

CR

Norm Scott
Clackamas County Planning & Urban Renewal
902 Abernethy Road
Oregon City, OR 97045
Phone: 650-3355

CR

Key

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NC= Newell Creek

CB= Canemah Bluffs
CR= Clackamas River

Name	Project Association
<p>Gordon McGhee Clackamas River Water District PO Box 2439 Clackamas, OR 97015 Phone: 655-6143 Fax: 788-0467</p>	CR
<p>Curt Hohn Surface Water Management District #1 902 Abernethy Road Oregon City, OR 97045 Phone: 650-3726</p>	CR
<p>Riz Bradshaw Sheriff's Marine Patrol 22234 Kaen Road Oregon City, OR 97045 Phone: 656-0668</p>	CR
<p>Scott Hammersly Friends of Clackamas River 8852 91st Avenue Portland, OR 97266 Phone: 243-6037 Fax: 774-9663</p>	CR
<p>Jerry Nordstrom Clackamas CPO PO Box 2136 Clackamas, OR 97015 Phone: 655-3988</p>	CR
<p>Steven C. Brutscher Oregon Parks & Recreation Dept. 1115 Commercial St. NE Salem, OR 97310-1001 Phone: 503-378-6378 Ext. 235 Fax: 503-378-6447</p>	CR

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Name	Project Association
<p>Chuck Scott Associate Dean of Instruction Clackamas County Community College 19600 S. Molalla Ave. Oregon City, OR 97045 Phone: 657-6958 Ext. 2460</p>	NC
<p>Wayne Lei, Boardmember John Inskeep Environmental Learning Center Portland General Electric 121 SW Salmon Portland, OR 97204 Phone: 464-8000</p>	NC
<p>Patrick Wright U.S. Fish & Wildlife Service Oregon State Office 2600 SE 98th, Suite 100 Portland, OR 97266 Phone: 231-6179 Fax: 231-6195</p>	CR
<p>Joe Pesek Oregon Dept. of Fish & Wildlife 17330 SE Evelyn St. Clackamas, OR 97015 Phone: 657-2058</p>	WN, CB, NC, CR
<p>Paul Keiran Oregon Dept. of Environmental Quality NW Region Office 2020 SW 4th, Suite 400 Portland, OR 97201 Phone: 229-5937 Fax: 229-5837</p>	NC
<p>James Dalton P.O. Box 3 Oregon City, OR 97045 Phone: Home 655-6471 Work 657-2874</p>	NC

Key

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Name

Project Association

Lloyd Marbet, Chairman
Friends of Barton Park and the
Scenic Clackamas River
19142 SE Bakers Ferry Road
Boring, OR 97009
Phone: 637-3549
Fax: 637-6130

CR

and:

Program Manager
Oregon Conservancy Foundation
19140 SE Bakers Ferry Road
Boring, OR 97009

Randy Roop, Vice Chair
Friends of Barton Parks and the
Scenic Clackamas River
PO Box 2177
Clackamas, OR 97015-2177
Phone: Work- 669-3273
Phone: Home- 631-2827

CR

Hazel Stevens
Friends of Barton Park and the
Scenic Clackamas River
Friends of Clackamas River
27001 SE Suttle
Eagle Creek, Oregon 97022
Phone: 637-3223

CR

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Appendix B

Willamette Narrows and Canemah Bluffs Public Workshop
Carnegie Center, Oregon City
March 13, 1996

Comments and Questions:

What is the difference between Tier I and Tier II areas? What is the total acreage proposed for acquisition?

Staff responded that Tiers I and II represent attempts to establish priorities. Tier I of Willamette Narrows contains about 750 acres on the Willamette River, Tier II contains about 350. For the Canemah Bluff area, Tier I contains about 800 acres, Tier II contains about 400.

Are you looking into things like utility and rail road easements? What has been targeted?

Staff responded that Metro is primarily interested in abandoned rail road corridors, and that, while open to using access easements, it anticipates that conservation easements will be used more frequently.

What are the state's goals on the Willamette River?

Staff explained that Metro doesn't have complete information yet, but is coordinating its program with the state's, so that the two programs complement each other.

What form will the council's decision take, and how long will it take to spend the bond money?

Staff described the council's decision making process, detailing dates and further opportunities for public comment, and outlined Metro's goal of spending 60 percent of the bond monies within three years.

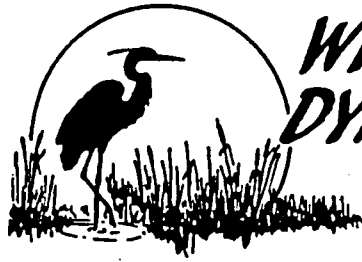
Will the public have access to lands Metro buys?

Staff described the land banking and stabilization processes, limitations on using bond moneys for capital improvements, and the need to identify partners and further funding sources for managing public access.

What about the potential for a political shift in the future - could Metro's lands be sold off for development?

Staff described the legal constraints established by the bond measure and their ability to prevent such actions.





**WILDLIFE
DYNAMICS**

3559 N.E. Stanton St.
Portland, OR 97212
(503) 335-0380

**METRO - OPEN SPACES REFINEMENT PROCESS
Biological Resources Overview of Target Areas
Willamette Narrows**

Prepared for:

**Metro - Open Spaces Program
600 Northeast Grand Avenue
Portland, Oregon 97232**

Prepared by:

**Wildlife Dynamics, Inc.
David R. Smith
3559 Northeast Stanton Street
Portland, Oregon 97212**

March 15, 1996

METRO - OPEN SPACES REFINEMENT PROCESS
Biological Resources Overview of Target Areas
Clackamas River, Canemah Bluffs, Willamette Narrows, and Newell Canyon

March 15, 1996

INTRODUCTION

This report documents findings of the initial biological resources investigation of four target areas where land acquisition is proposed as part of the Metro - Open Spaces Program. Each of the target areas for this investigation, Lower Clackamas River, Canemah Bluffs, Willamette Narrows, and Newell Canyon, were identified intentionally by general location only. This strategy allows Metro the flexibility to assess a relatively large number of parcels in a given region for the possibility of selecting the most desirable land in a willing-seller program.

Wildlife Dynamics, Inc. (WDI) conducted the preliminary biological resources investigations on the general target areas. Objectives of the investigations were to gather existing biological information, interview individuals with knowledge of the areas, perform a general habitat evaluation (using a target area perspective), identify unique or important habitat features (using a narrower perspective), and identify specific sections within the target area that should be investigated in greater detail. Criteria established in the Greenspaces Master Plan, bond documents, and Metro Council resolutions were used as guidelines for target area assessments (Appendix A). The results of the initial studies were utilized to prepare for public meetings and to assist Metro in their land acquisition refinement process.

The following are the results of the initial biological resources investigations.

Willamette Narrows

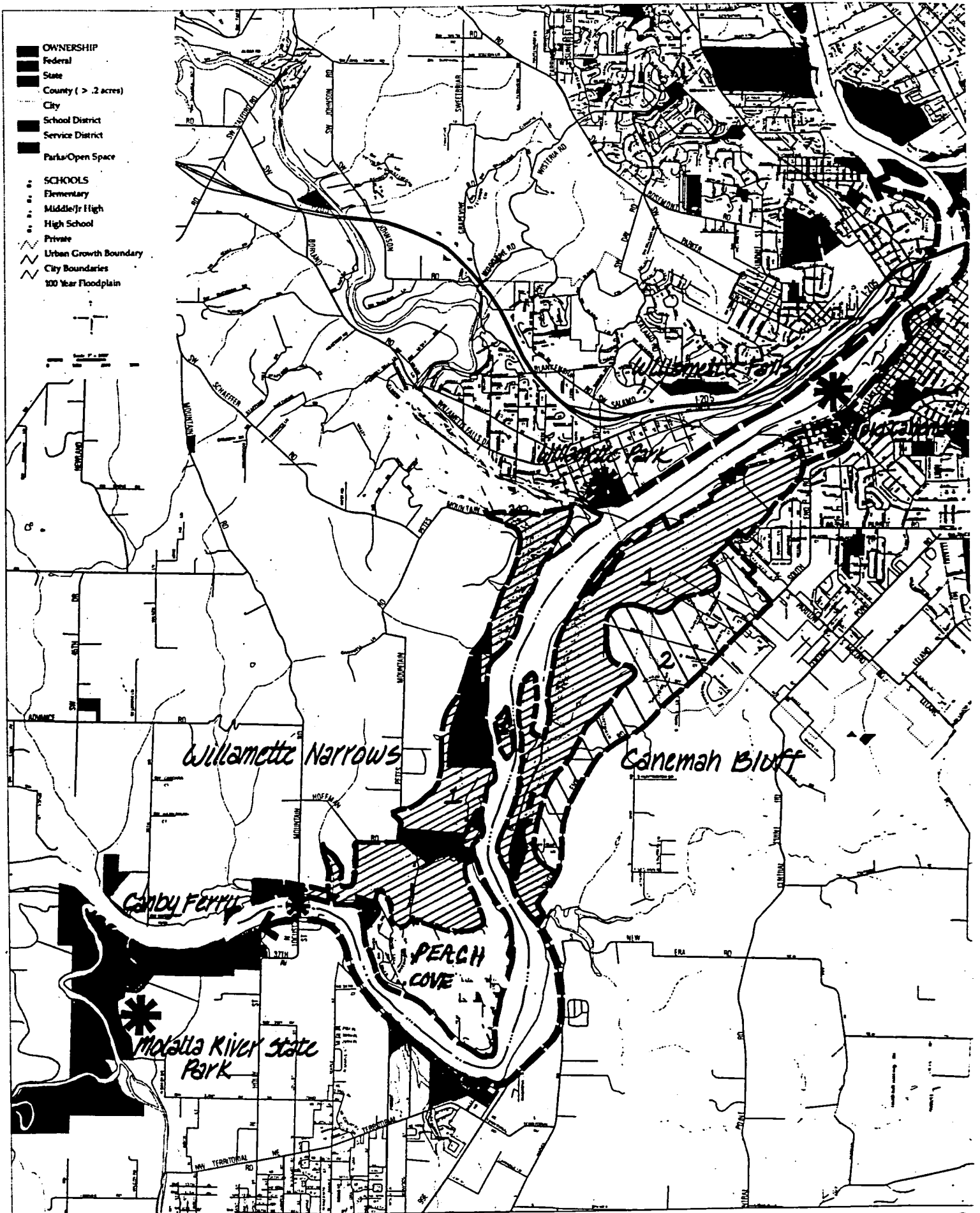
This target area is defined as the area along the Willamette River from the mouth of the Tualatin River south to Peach Cove and the Canby Ferry crossing. The target area has a mixture of land uses including rural residential, agricultural, timber production, golf courses, undeveloped forest, and open spaces. The undeveloped forest land and open space is mostly second growth but extensive and diverse. A young and young/mature oak forest exist on the south-facing slopes near the center of the study area. Surrounding the oak forest is a mixed conifer and deciduous forest. Conifers (mostly Douglas-fir) is on the upper slopes and the deciduous trees (red alder, big leaf maple, Oregon ash, and cottonwood) in the lowlands and along the drainages. The area contains numerous drainages, seeps and wetlands including some relatively large diverse wetlands (scrub/shrub, emergent, open water, etc.). The above features along with the various slopes and aspects, intermixed habitat types, and undisturbed state make this portion of the study area very high quality wildlife habitat and unique to the urban area.

Acquisition efforts should focus on the few large blocks of forested habitat that exist in between the state park properties. This approach would secure large areas of young/mature forest habitats that contain wetlands, seeps, drainages, and diverse vegetation. The oak forest, which is part of the above, are important forest types in the Metro area because most have been developed and fragmented. Other areas to be considered include the bluff area south of the mouth of the Tualatin along the Willamette that was recently logged, any riparian habitat along the Willamette and Tualatin rivers (particularly some of the steeper sloped areas), and the areas between the state and county lands (between Hebb Park and the Canby Ferry landing). Again, securing these areas will protect large contiguous blocks of undeveloped habitats that are high value for wildlife.

Persons Interviewed and general comments:

Joe Pesek, ODFW Biologist

- agrees with the strategy of securing the large blocks of undeveloped forest, particularly the ones the contain the wetland features.



Measure 26-26: Willamette Narrows and Canemah Bluff Target Area

Agenda Item 6.8

Resolution No. 96-2308

*For the Purpose of Approving a Refinement Plan for the Clackamas River Greenway
as Outlined in the Open Space Implementation Work Plan*

**Metro Council Meeting
Thursday, April 11, 1996**

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING A	)	RESOLUTION NO. 96-2308
REFINEMENT PLAN FOR THE CLACKAMAS)	
RIVER GREENWAY TARGET AREA AS	)	Introduced by Mike Burton
OUTLINED IN THE OPEN SPACE)	Executive Officer
IMPLEMENTATION WORK PLAN)	

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WHEREAS, at the election held on May 16, 1995, the electors of Metro approved Ballot Measure 26-26 which authorizes Metro to issue \$135.6 million in general obligation bonds to finance land acquisition and capital improvements pursuant to Metro's Open Spaces Program; and

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BE IT RESOLVED,

That the Metro Council adopts the Clackamas River Greenway Refinement Plan, consisting of objectives and a confidential tax-lot-specific map identifying priority properties for acquisition, authorizing the Executive Officer to begin the acquisition of property and property rights as detailed in the Open Space Implementation Work Plan adopted in November 1995 and in Resolution No. 95-2228.

ADOPTED by Metro Council this _____ day of _____, 1996.

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

Staff Report

CONSIDERATION OF RESOLUTION NO. 96-2308, FOR THE PURPOSE OF APPROVING A REFINEMENT PLAN FOR THE CLACKAMAS RIVER GREENWAY TARGET AREA AS OUTLINED IN THE OPEN SPACE IMPLEMENTATION WORK PLAN

Date: March 21, 1996

Presented by:

**Charles Ciecko
Jim Desmond**

BACKGROUND AND ANALYSIS

The Target Area description in the Bond Measure Fact Sheet (authorized by Council Resolutions 95-2113, 94-2050 and 94-2029B) is as follows:

"Clackamas River Greenway. Acquire up to 8 miles of greenway corridor along north bank of Clackamas River between Carver and Oregon City."

In the 1992 Greenspaces Master Plan, the Clackamas River Greenway is described as follows:

"Clackamas River (Clackamas River watershed). Large habitat base carved by Class 1 stream. Second-growth forest of mixed conifers and hardwoods support diverse species including big game, fur bearers and a variety of small mammals and birds. Salmonid fisheries also supported."

"Clackamas River Greenway. The Clackamas River between River Mill Dam and Carver is designated as a scenic river by the Oregon Scenic Waterways Program."

Target Area Description

NOTE: Stakeholder interviews indicated a desire to expand the refinement process to include the segment of the Clackamas River between Carver and Barton Park, and the South bank. Consequently, this Target Area Description Section includes narrative related to these areas.

The lower Clackamas River Greenway target area is located entirely within Clackamas County and is defined as the river corridor from Gladstone upstream to Barton Park (approximately 16 river miles). The adjacent floodplain and the immediately adjacent uplands (including the bluffs) are also included in the target area. The lower Clackamas River and its riparian corridor is a regionally significant natural resource. It is characterized by large expanses of gravelly floodplain and it provides habitat for wildlife and fish, possesses significant scenic value, offers recreation opportunities and is an important source of drinking water for the region. Within the target area, the lower Clackamas River has several tributaries that discharge into the River, including: Cow Creek, Sieben Creek, Rock Creek, Clear Creek, Richardson Creek (near Lake Pidgeon area) and Deep/Noyer Creeks.

Land uses within and adjacent to the target area include industrial, commercial, agricultural, rural housing and open space. The North Bank area between Gladstone and Carver generally forms the dividing line between urban and non-urban areas; the predominant land use here is industrial. This area represents a significant portion of Clackamas County's remaining industrial land base. Manufactured housing developments are also a common land use in this area.

The South Bank of the Clackamas River from Gladstone to Carver consists primarily of steeply sloped and forested bluffs with rural residential land uses and flat floodplain lands currently in agricultural uses.

From Carver to Barton Park, agricultural, forest and rural residential land uses are predominant. Manufactured housing is found both east and west of the Carver Bridge along the North bank of the river. Between Carver and Barton, the river is designated as a State Scenic Waterway.

Refinement Process

The Open Space Implementation Work Plan adopted by the Metro Council in November 1995, required that a Refinement Plan be submitted to the Council for approval for each target area. The Refinement Plan will contain objectives and a confidential tax-lot-specific map identifying priority properties for acquisition, enabling Metro to begin the acquisition of property and property rights as detailed in the Open Space Implementation Work Plan and in Resolution No. 95-2228. Resolution No. 95-2228 "authorizes the Executive Officer to acquire real property and property interests subject to the requirements of the *Acquisition Parameters* and *Due Diligence* guidelines of the Open Space Implementation Work Plan."

During the refinement process, available information about the target area was compiled, planning documents assessed, maps analyzed and biological field visits conducted. Nineteen individuals were interviewed representing county and state agencies, property owners, interested friends groups, natural resource experts and non-profit advocacy groups. The key points related to land acquisition expressed during the interview process are summarized in Appendix A. As previously noted, the refinement process addressed a larger area than specified in the bond measure fact sheets.

A public workshop to discuss the proposed Refinement Plan was held on March 13th in Oregon City. Approximately 75 people attended and their comments are summarized in Appendix B. A biological report by David Smith, an independent consultant with Wildlife Dynamics, is attached as Appendix C.

Findings

Conclusions drawn from the refinement process indicate that the lower Clackamas River Greenway proposed refinement area meets all of the criteria for a regionally significant natural area as established in the Metro Greenspaces Master Plan of 1992. Other important elements of the stakeholder interviews and research indicate:

- The Clackamas River is a regionally significant natural area providing unique fish and wildlife habitat, recreational opportunities and municipal water supply.

- A greenway on the North Bank of the river within the City of Gladstone is not feasible due to land use and topography.
- An effective greenway program should include both the North and South banks of the river from the eastern Gladstone City limits upstream to Barton Park.
- Land use policies and comprehensive plans should consider and address water quality, fish and wildlife values of tributary streams.
- Current administration of the State Scenic Waterway Program does not necessarily protect the river or its associated values from conflicting uses due to financial constraints.
- Due to current development pressure, acquisition efforts should focus on lands along the North Bank between Carver and Gladstone first and should complement the Clackamas County North Bank Greenway Plan where feasible.

Metro's acquisition goal of acquiring a minimum of eight miles of greenway corridor along the Clackamas River between Oregon City and Barton Park will be an important step in preserving and protecting this regionally significant natural resource. However, complete protection of the greenway corridor will also require coordinated acquisition efforts and other strategies involving other jurisdictions, private land owners, and local stewardship efforts.

General objectives to guide Metro's land acquisition efforts throughout the proposed refinement area include:

- Preservation and protection of the ecologically significant areas along the Clackamas River study area.
- Protection of the Clackamas River floodplain for flood storage, water quality, wildlife, and fishing values.
- Provision of linkages to tributaries and adjacent natural areas including: Cow Creek, Sieben Creek, Rock Creek, the Mt. Talbert natural area, Clear Creek, the Lake Pidgeon area, and Deep/ Noyer Creek.
- Preservation of the visual quality of the Clackamas River linear corridor by focusing protection activities within the floodplain and river bluffs zone.
- Provision of public access to the Clackamas River.

The area of the North Bank is under more development pressure and should be given first priority (Tier I) for land acquisition. The North Bank area has been extensively studied through a recent planning effort commissioned by the Clackamas County Board of Commissioners. A draft land use plan for the North Bank area is the product of this planning effort. It was produced under the guidance of a Planning Consensus Committee which included representatives of interested public agencies and the local citizenry. The planning recommendations in the land use plan are firmly grounded in the findings of a biological assessment of the North Bank study area entitled "Natural Resources Report and Evaluation, North Bank of the Clackamas River" by Esther Lev, et. al. (1995). The plan recognizes that full protection of the natural resources along the Clackamas River will require public acquisition coupled with land use designations, special ordinance protections, a comprehensive program for recreation and public access, and a management program for responsible stewardship.

Within the North Bank area, the plan identifies priorities for land acquisition. This plan, in addition to the Greenspace Master Plan criteria, will be used to select properties for acquisition in Tier I.

The same level of study has not been undertaken for the lower Clackamas River east of Carver to Barton Park or along the South Bank from Gladstone to Carver. While these two areas are not under the same development pressure as the North Bank portion of the refinement area, their protection is equally important as a near-term regional goal. With the upcoming development of the "Sunrise Corridor" and increasing demand for housing in the region, many argue that this growth will place more development pressure on the upper reaches of the refinement area as well as increase demand for its use as a recreational resource.

Regional Parks and Greenspaces Advisory Committee

A presentation of the Staff Report was given by Metro Staff and its consultants at a public meeting in Room 370A of Metro Regional Center on March 19, 1996. This analysis and the resulting objectives were approved by a unanimous vote of the Regional Parks and Greenspaces Advisory Committee.

GOAL:

Create a Lower Clackamas River Greenway located between the eastern city limit of the City of Gladstone and Barton Park.

OBJECTIVES:

The following are prioritized specific objectives of the Clackamas River Greenway Refinement Plan.

Tier I Objectives:

From Gladstone upstream to Carver, North Bank:

- Acquire the ecologically sensitive areas along the Clackamas River in coordination with the North Bank Study.
- Acquire the floodplain lands for flood storage, wildlife, fish, water quality, scenic and recreational values.
- Provide linkages to tributaries and adjacent natural areas including: Cow Creek, Rock Creek, and Sieben Creek.

Tier II Objectives:

From Carver to Barton Park, North Bank:

- Provide river access at designated points.
- Acquire continuous blocks of riparian corridor to support wildlife, fish, water quality, scenic and recreational values.
- Preserve the scenic quality of the Clackamas River Greenway corridor from the river by acquiring continuous blocks of riparian corridor.

Tier III Objective:

- Consider South Bank acquisitions only if funds remain available after Tier I and Tier II objectives have been accomplished.

Partnership Objectives:

- Pursue partnership opportunities for land acquisition with the Clackamas County Surface Water Management District #1, the Clackamas River Water District, the Clackamas County Parks Department, the North Clackamas Parks and Recreation District, and the State of Oregon.
- Coordinate all land acquisition efforts with potential partners prior to approaching property owners.
- Work with Clackamas County to preserve the scenic quality of the Clackamas River bluffs.
- Pursue opportunities to enhance the State Scenic Waterway program.

Executive Officer's Recommendation

The Executive Officer recommends passage of Resolution No. 96-2308.

Appendix A

Clackamas River Greenway

Summary of Comments from Stakeholder Interviews

- The area of study and possible acquisition should be expanded to the east (at least to Barton). This is because land along the river outside the UGB is also in danger of further deterioration due to increased usage, erosion occurrences and general management policies.
- There was a high degree of consensus that the North Bank area (from Gladstone to the Carver Bridge) should be given first priority in Metro's land acquisition efforts.
- The findings of North Bank of the Clackamas River study and the recommendations outlined in the draft land use plan are generally well accepted.
- There was a strong consensus that the sites identified as "ecologically sensitive" in the Natural Resources Report and Evaluation, North Bank of the Clackamas River by Lev, et.al. (1995) should be given priority for acquisition within the North Bank area.
- Protection of floodplain lands is also important for flood storage, water quality improvement and wildlife habitat.
- It is important to consider linkages to tributaries which drain into the Clackamas River throughout the target area.
- The lower Clackamas River should be preserved and protected for its wildlife habitat value (especially fisheries) and for its significant water quality.
- Partnership opportunities with other governmental agencies exist primarily in the North Bank area. Before property owners are contacted by Metro, land acquisition efforts should be coordinated with potential partners (i.e. Clackamas County Surface Water Management District #1).
- Many suggested that Metro consider looking at parcels that were recently flooded or areas where the river channel has changed. They may be more willing sellers now.
- There is much controversy surrounding aggregate mining of the floodplain lands just upstream of Barton Park at the Rock Island Sand and Gravel operation. Many of those interviewed expressed concern that this activity is not appropriate in a river floodplain and is in direct conflict with other more protection-oriented goals for the river resource, including preserving wildlife habitat and scenic values.

APPENDIX A

STAKEHOLDER LIST

Name	Project Association
<p>Dan Zinzer Dept. of Transportation & Development Clackamas County 902 Abernethy Road Oregon City, OR 97045-1100 Phone: 650-3320 Fax: 650-3351</p>	WN, CB, NC, CR
<p>Judie Hammerstad County Commissioner Board of Commissioners Clackamas County Courthouse Annex 906 Main Street Oregon City, OR 97045 Phone: 655-8581</p>	NC, CR
<p>Michael Jones, Curator Cascade Geographic Society PO Box 398 Rhododendron, OR 97049 Phone: 503-622-4798</p>	CB, WN, CR
<p>Sue Doroff Riverlands Conservancy Director PO Box 8787 Portland, OR 97207-8787 Phone: 241-3506 Fax: 241-9256</p>	CR, CB, WN
<p>Wilmer Gardner Local Resident (Historian) 18512 Abernethy Lane Milwaukie, OR 18567 Phone: 656-2737</p>	CB
<p>Charlotte Lehan Wilsonville City Council 29786 SW Lehan Ct. Wilsonville, OR 97070 Phone: 682-09901</p>	CB, WN

Key

WN= Willamette Narrows
 NC= Newell Creek

CB= Canemah Bluffs
 CR= Clackamas River

Name	Project Association
<p>Gary Miniszewski Oregon Parks and Recreation Dept. 1115 Commercial St. N.E. Salem, OR 97310-1001 Phone: 503-378-6378 Ext. 276 Fax: 503-378-6447</p>	WN, CB
<p>Dick Vandershaff/Cathy Macdonald Nature Conservancy 821 SE 14th Portland, OR 97214 Phone 230-1221</p>	CB, WN
<p>Jimmy Cagen Natural Heritage Program 1115 Commercial St. N.E. Salem, OR 97310-1001 Phone: 503-731-3070 Ext. 332 Fax: 503-378-6447</p>	CB, WN
<p>Linda Dobson Office of Public Utilities City of Portland 1220 S.W. Fifth Ave. Portland, OR 97204 Phone: 823-4145 Fax: 823-3017</p>	WN
<p>Don Oakley Oakley Engineering 700 N. Hayden Island Drive Portland, OR 97217 Phone: 289-7411 Fax: 289-7656</p>	CB
<p>Mike Houck Portland Audubon Society 5151 N.W. Cornell Road Portland, OR 97210 Phone: 292-6855 Fax: 292-1021</p>	WN

Key

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Name**Project Association**

Lee Gilson
State Historic Preservation Office
Oregon State Parks
1115 Commercial St. N.E.
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CB, WN, CR

Bernie and Elaine Newland
Farwest CPO
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Phone: 656-6621

WN

Bob Rindy
Oregon Dept. of Land Conservation and Develop.
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WN

Scott Nelsen
Parks Director
City of Canby
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CB

Mike Butts
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WN

Ken Worster
Parks Director
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4100 Norfolk St.
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Fax: 657-3237

WN

Key

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Name	Project Association
Denyse McGriff Planning Department City of Oregon City PO Box 351 Oregon City, OR 97045 Phone: 657-0891 Fax: 657-3339	WN, CB, NC
Rich Carson Director of Community Development City of Oregon City PO Box 351 Oregon City, OR 97045 Phone: 657-0891 Fax: 657-3339	CB, NC
Gary Spanovich PO Box 1067 Canby, OR 97013 Phone: 266-8996 Fax: 263-3742	WN, CB
Doug Cramer, Biologist Friends of Clackamas River 33831 Faraday Road Estacada, OR 97023 Phone: Home- 631-7487 Work- 630-6831 Fax: 630-8219	NC, CR
Pam Hayden Clackamas County DTD 902 Abernethy Road Oregon City, OR 97045 Phone: 655-8521 Fax: 650-3351	CR
Tom Kaffun / Diane Campbell North Clackamas Parks & Recreation District 11022 SE 37th Milwaukie, OR 97222 Phone: 794-8002 Fax: 794-8005	CR

Key

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 CR= Clackamas River

Name	Project Association
Jonathan Block City of Gladstone 525 Portland Avenue Gladstone, OR 97027 Phone: 656-5225	CR
Sha Spady Friends of Newell Creek Canyon 17855 Alden St. Oregon City, OR 97045 Phone: 659-3503 Fax: 786-2837	NC
Sparkle Anderson FarWest.CPO 27480 SW Stafford Road Wilsonville, OR 97070 Phone: 682-1132	WN
Ginny VanLoo Fish & Wildlife Groups 9907 SE Talbert Clackamas, OR 97015 Phone: 986-1426 Fax: 786-3682	CR
Peter Toll Pacific Rivers Council 23373 S. Johnson Road West Linn, OR 97068 Phone: 294-0786 Fax: 657-4010	CR
Norm Scott Clackamas County Planning & Urban Renewal 902 Abernethy Road Oregon City, OR 97045 Phone: 650-3355	CR

Key

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Name	Project Association
<p>Gordon McGhee Clackamas River Water District PO Box 2439 Clackamas, OR 97015 Phone: 655-6143 Fax: 788-0467</p>	CR
<p>Curt Hohn Surface Water Management District #1 902 Abernethy Road Oregon City, OR 97045 Phone: 650-3726</p>	CR
<p>Riz Bradshaw Sheriff's Marine Patrol 22234 Kaen Road Oregon City, OR 97045 Phone: 656-0668</p>	CR
<p>Scott Hammersly Friends of Clackamas River 8852 91st Avenue Portland, OR 97266 Phone: 243-6037 Fax: 774-9663</p>	CR
<p>Jerry Nordstrom Clackamas CPO PO Box 2136 Clackamas, OR 97015 Phone: 655-3988</p>	CR
<p>Steven C. Brutscher Oregon Parks & Recreation Dept. 1115 Commercial St. NE Salem, OR 97310-1001 Phone: 503-378-6378 Ext. 235 Fax: 503-378-6447</p>	CR

Key

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CB= Canemah Bluffs
CR= Clackamas River

Name	Project Association
<p>Chuck Scott Associate Dean of Instruction Clackamas County Community College 19600 S. Molalla Ave. Oregon City, OR 97045 Phone: 657-6958 Ext. 2460</p>	NC
<p>Wayne Lei, Boardmember John Inskeep Environmental Learning Center Portland General Electric 121 SW Salmon Portland, OR 97204 Phone: 464-8000</p>	NC
<p>Patrick Wright U.S. Fish & Wildlife Service Oregon State Office 2600 SE 98th, Suite 100 Portland, OR 97266 Phone: 231-6179 Fax: 231-6195</p>	CR
<p>Joe Pesek Oregon Dept. of Fish & Wildlife 17330 SE Evelyn St. Clackamas, OR 97015 Phone: 657-2058</p>	WN, CB, NC, CR
<p>Paul Keiran Oregon Dept. of Environmental Quality NW Region Office 2020 SW 4th, Suite 400 Portland, OR 97201 Phone: 229-5937 Fax: 229-5837</p>	NC
<p>James Dalton P.O. Box 3 Oregon City, OR 97045 Phone: Home 655-6471 Work 657-2874</p>	NC

Key

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NC= Newell Creek

CB= Canemah Bluffs
CR= Clackamas River

Name

Project Association

Lloyd Marbet, Chairman
Friends of Barton Park and the
Scenic Clackamas River
19142 SE Bakers Ferry Road
Boring, OR 97009
Phone: 637-3549
Fax: 637-6130

CR

and:

Program Manager
Oregon Conservancy Foundation
19140 SE Bakers Ferry Road
Boring, OR 97009

Randy Roop, Vice Chair
Friends of Barton Parks and the
Scenic Clackamas River
PO Box 2177
Clackamas, OR 97015-2177
Phone: Work- 669-3273
Phone: Home- 631-2827

CR

Hazel Stevens
Friends of Barton Park and the
Scenic Clackamas River
Friends of Clackamas River
27001 SE Suttle
Eagle Creek, Oregon 97022
Phone: 637-3223

CR

Key

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CR= Clackamas River

Appendix B

Clackamas River Greenway Public Workshop
Carnegie Center, Oregon City
March 13, 1996

Comments and Questions

Establishing wildlife corridors should take precedence over trails. The Clackamas County comprehensive plan contains trail components, and Metro's priority should be protecting natural areas.

Staff responded that Metro's priority, as articulated in the bond measure, was to protect natural areas, that staff biologists were aware that trail corridors could compromise resource values if aligned improperly, and that the program would be sensitive to the issue.

Could you add area three to the project? The Friends of Clackamas River should be partners in the effort.

Staff responded that the purpose of the workshop was to solicit exactly that kind of suggestion, and that Metro was open to partnerships with groups such as the Friends of Clackamas River.

You should change from Tier II to Tier I land directly upstream from the confluence of Clear Creek and the Clackamas River. It is zoned R5 and under imminent threat of development.

Staff responded that the property at issue was also being analyzed through the Clear Creek refinement process, and that it would consider affording it a higher priority.

Your proposed connection on the north side of the river would be better established on the south side. Less of it is in private ownership, a viaduct would link it easily with other protected lands on the north of the river, and an existing trail would provide for public usage.

Staff responded that this was an excellent suggestion and would be considered. Program director Charles Ciecko asked how many people in the audience were uncomfortable with the northern connection alignment, and after a show of hands said that it would be moved to the south of the river.



3559 N.E. Stanton St.
Portland, OR 97212
(503) 335-0380

APPENDIX C

METRO - OPEN SPACES REFINEMENT PROCESS Biological Resources Overview of Target Areas LOWER CLACKAMAS RIVER

Prepared for:

**Metro - Open Spaces Program
600 Northeast Grand Avenue
Portland, Oregon 97232**

Prepared by:

**Wildlife Dynamics, Inc.
David R. Smith
3559 Northeast Stanton Street
Portland, Oregon 97212**

March 15, 1996

METRO - OPEN SPACES REFINEMENT PROCESS
Biological Resources Overview of Target Areas
LOWER CLACKAMAS RIVER

March 15, 1996

INTRODUCTION

This report documents findings of the initial biological resources investigation of the Clackamas River target area where land acquisition is proposed as part of the Metro - Open Spaces Program. The target area for this investigation was intentionally identified by general location only. This strategy allows Metro the flexibility to assess a relatively large number of parcels in a given region for the possibility of selecting the most desirable land in a willing-seller program.

Wildlife Dynamics, Inc. (WDI) conducted the preliminary biological resources investigations on the general target area. Objectives of the investigation were to gather existing biological information, interview individuals with knowledge of the area, perform a general habitat evaluation (using a target area perspective), identify unique or important habitat features (using a narrower perspective), and identify specific sections within the target area that should be investigated in greater detail. Criteria established in the Greenspaces Master Plan, bond documents, and Metro Council resolutions were used as guidelines for target area assessments. The results of the initial study were utilized to prepare for public meetings and to assist Metro in their land acquisition refinement process.

The following is the results of the initial biological resources investigations for the Lower Clackamas River.

The lower Clackamas River is defined for this study as the river from Gladstone upstream to Barton Park (approximately 16 river miles), the floodplain, and much of the immediately adjacent uplands to the river bluffs. The study area has a mixture of land uses including industrial, agricultural, rural housing, and open space. The greatest amount of development occurs in the Gladstone area where most upland sites are industrial developments and residential housing. Riparian and upland vegetation is limited to narrow and isolated patches of undeveloped lands. Agricultural and rural residential lands constitute the majority of the land use to Barton Park on both sides of river. A medium sized mobile home park is located on the north bank of the river at the Carver bridge.

A recent study, Natural Resources & Evaluation, North Bank of the Clackamas River (Lev et. al. 1995) completed for the Clackamas River Greenway study, describes the habitat and land uses of the north bank from Gladstone to Carver. The study discusses the overall watershed,

potential conflicting land uses, makes recommendations for future development and improvements, identifies areas that should be targeted for protection, and discusses rehabilitation and enhancement opportunities. Comments from all parties contacted agree that the Lev et. al. study (1995) reflects the conditions of the study area and the sites identified as "ecological significant" should be given priority for protection. The study also addresses the biological criteria issues being used for this refinement process. A Greenway Priorities Parcel sheet was compiled as a result of the Clackamas River Greenway study. The Priorities Parcel list should be used by Metro to refine potential acquisition sites in this portion of the target area.

Preliminary land use analyses and site evaluations have also been completed on the river and adjacent lands between Carver and Barton Park by the several organizations, agencies, and friends groups. This exercise was conducted to identify ecological sensitive areas on this reach of the river and the adjacent floodplain and uplands. Criteria used to identify the areas were similar to the North Bank Study, though a report and formal site assessments have not been completed. Sensitive areas identified for the river between Carver and Barton Park are mainly semi-natural floodplain habitats that are forested and contain important features, e.g. wetlands, side channels, and diverse vegetation. The areas near the confluence of creeks, lands adjacent to existing publicly owned open space, and lands with high restoration potential were identified as key areas to conduct further investigations for possible acquisition or protection.

Persons Interviewed and general comments:

Doug Kramer, PGE Biologist

- would like to see the Holly Farm site and Rock & Gravel site east of Barton protected
- agrees with all other sites identified

Sue Doroff, River Network

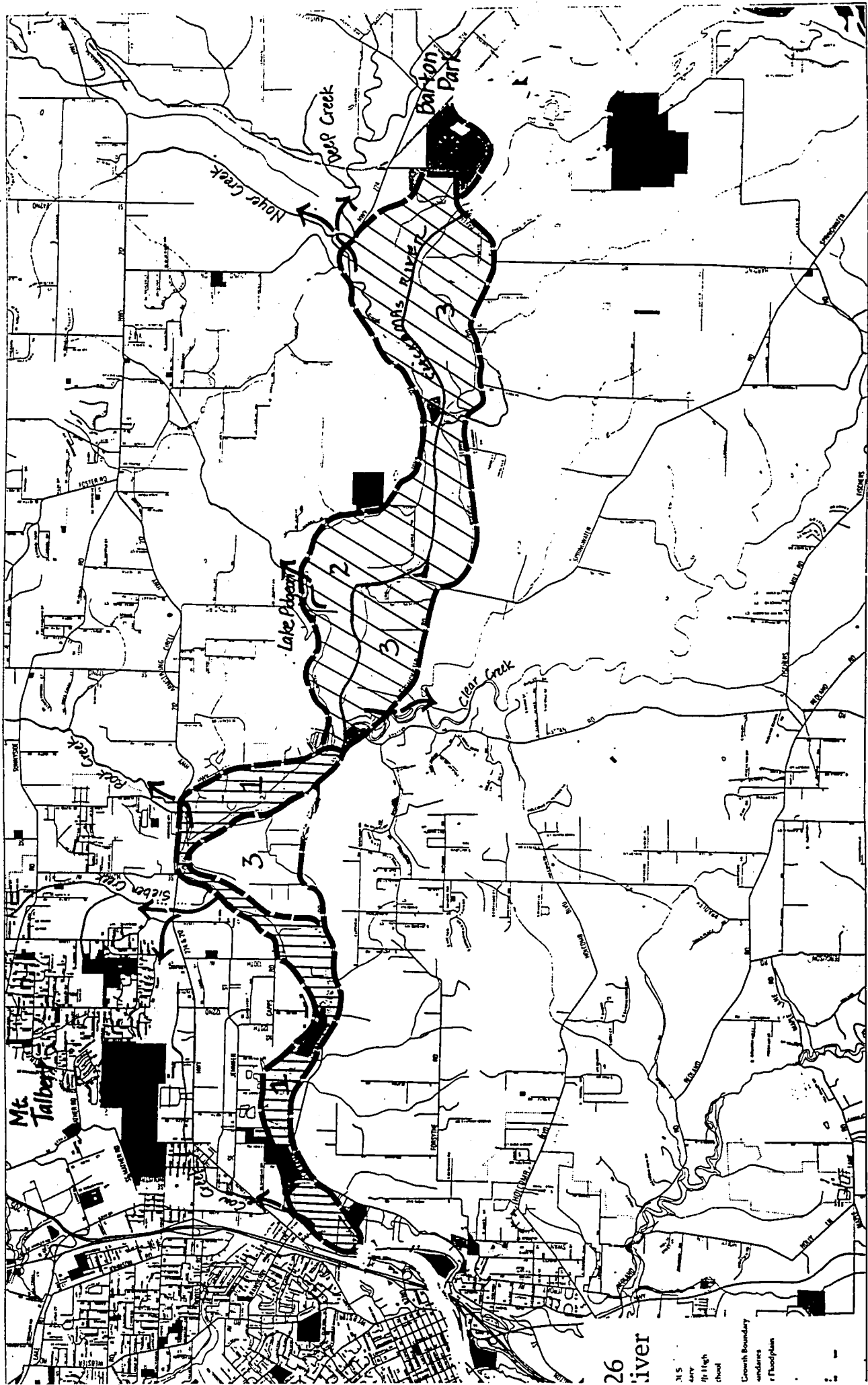
- had a compiled list of sensitive areas identified by the various parties working on the Carver to Barton reach
- endorsed the sites identified in the North Bank study

Joe Pesek, ODFW Biologist

- agrees with all sites identified
- stresses looking at recently flooded parcels or areas where the river channel has changed; and

Holly Michaels, ODFW Biologist

- agrees with all sites identified.



26
River

2.5
Land Use
High Flood
Growth Boundary
Land Use
High Flood

Agenda Item 6.9

Resolution No. 96-2309

*For the Purpose of Approving a Refinement Plan for the Newell Creek
Canyon as Outlined in the Open Space Implementation Work Plan*

**Metro Council Meeting
Thursday, April 11, 1996**

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING A) RESOLUTION NO. 96-2309
REFINEMENT PLAN FOR THE NEWELL CREEK)
CANYON TARGET AREA AS OUTLINED) Introduced by Mike Burton
IN THE OPEN SPACE IMPLEMENTATION) Executive Officer
WORK PLAN

WHEREAS, in July 1992, Metro completed the Metropolitan Greenspaces Master Plan which identified a desired system of natural areas interconnected with greenways and trails; and

WHEREAS, at the election held on May 16, 1995, the electors of Metro approved Ballot Measure 26-26 which authorizes Metro to issue \$135.6 million in general obligation bonds to finance land acquisition and capital improvements pursuant to Metro's Open Spaces Program; and

WHEREAS, Newell Creek Canyon was designated as a Greenspace of regional significance in the Greenspaces Master Plan and identified as a regional target area in the Open Space, Parks and Streams Bond Measure; and

WHEREAS, in November 1995, the Metro Council adopted the Open Space Implementation Work Plan, which calls for a public "refinement" process whereby Metro adopts a Refinement Plan including objectives and a confidential tax lot specific map identifying priority properties for acquisition; and

WHEREAS, Resolution No. 95-2228 authorizes the Executive Officer to purchase property with accepted acquisition guidelines as outlined in the Open Space Implementation Work Plan, now therefore,

BE IT RESOLVED,

That the Metro Council adopts the Newell Creek Canyon Refinement Plan, consisting of objectives and a confidential tax-lot-specific map identifying priority properties for acquisition, authorizing the Executive Officer to begin the acquisition of property and property rights as detailed in the Open Space Implementation Work Plan adopted in November 1995 and in Resolution No. 95-2228.

ADOPTED by Metro Council this _____ day of _____, 1996.

Jon Kvistad, Presiding Officer

Approved as to Form:

Daniel B. Cooper, General Counsel

Staff Report

CONSIDERATION OF RESOLUTION NO. 96-2309 FOR THE PURPOSE OF APPROVING A REFINEMENT PLAN FOR THE NEWELL CREEK CANYON TARGET AREA AS OUTLINED IN THE OPEN SPACE IMPLEMENTATION WORK PLAN

Date: March 21, 1996

**Presented by: Charles Ciecko
Jim Desmond**

BACKGROUND AND ANALYSIS

The Target Area description in the Bond Measure Fact Sheet (authorized by Council Resolutions 95-2113, 94-2050 and 94-2029B) is as follows:

“Newell Creek Canyon. Acquire 370 acres for natural area park.”

In the 1992 Greenspaces Master Plan, the Newell Creek Canyon area is described as follows:

“Nearly pristine canyon area including large old trees and great habitat diversity. One of the highest quality stream canyons in southeast portion of metropolitan area.”

Target Area Description

Newell Creek Canyon lies in the transition zone between Clackamas County and the eastern most limits of Oregon City. The canyon is roughly bounded on the north by Abernethy Road and Redland Road and on the south by Beaver Creek Road. Oregon Highway 213 bisects the canyon in a north/south direction, forming a barrier within the canyon from east to west. Newell Creek Canyon is an important visual asset to the Highway 213 corridor.

Newell Creek Canyon is a relatively intact upland forested habitat that has been logged in the past and is presently dominated by deciduous trees (mostly red alder and bigleaf maple) with scattered conifers (mostly Douglas fir and western red cedar). Various age classes of trees are present in the canyon because of past disturbances and timber harvest activities, including recent harvest on some parcels. Unique and important features of the canyon from a biological perspective include the size of the contiguous undeveloped land within the canyon and the presence of native populations of resident and anadromous fish.

The steep forested slopes of the upper canyon provide an intact canopy for Newell Creek and its tributaries, except in the vicinity of the powerline route which traverses the canyon in the southern portion. It is believed that flow in the upper canyon may be augmented by point sources of discharge such as springs or seeps (Watershed Applications, 1994). The downstream reaches of Newell Creek are less steep and provide spawning and rearing habitat for native anadromous fish such as coho salmon and steelhead. Newell Creek's fishery value has diminished over the last 20 to 30 years as water quality within the watershed has been degraded due to development in the upper watershed. Development

has increased peak stormwater discharges into the canyon, allowing siltation/scouring to occur, and changing the hydrology and subsurface drainage patterns into the canyon.

Refinement Process

The Open Space Implementation Work Plan adopted by the Metro Council in November 1995, required that a Refinement Plan be submitted to the Council for approval for each target area. The Refinement Plan will contain objectives and a confidential tax lot specific map identifying priority properties for acquisition, enabling Metro to begin the acquisition of property and property rights as detailed in the Open Space Implementation Work Plan and in Resolution No. 95-2228. Resolution No. 95-2228 "authorizes the Executive Officer to acquire real property and property interests subject to the requirements of the *Acquisition Parameters* and *Due Diligence* guidelines of the Open Space Implementation Work Plan."

- During the refinement process, available information about the target area was compiled, maps analyzed and biological field visits conducted. Fourteen individuals were interviewed representing various governmental agencies, property owners, interested friends groups, and natural resource experts. The key issues regarding land acquisition are summarized in Appendix A.

General objectives to guide Metro's land acquisition efforts throughout the target area include:

- Preserve large blocks of contiguous forested land along Newell Creek and its tributaries for wildlife habitat, water quality, scenic and recreational values.
- Preserve springs, seeps, beaver ponds and wetland areas associated with Newell Creek.
- Establish pedestrian and wildlife linkages between two sides of the canyon split by Highway 213.
- Protect views of the canyon as seen from Highway 213.
- Provide a transition or buffer zone between Newell Creek Canyon and urbanizing areas.
- Where feasible, link the canyon to dedicated open space land within adjacent developments.

Findings

Refinement process activities clearly indicate that land acquisition in the canyon will not be sufficient to protect Newell Creek and its associated fishery value. An integrated storm water management plan for developing lands upstream and adjacent to the canyon will be a critical factor in avoiding continued decline in water quality and subsequent loss of resident and anadromous fish resources. Approximately three quarters of the edge of the canyon rim and a large portion of the upper watershed lies within developed or developing lands within the city limits of Oregon City. Since the Oregon City land use laws do not include provisions for post-construction on-site stormwater detention facilities, and the recently drafted Oregon City Erosion Control Ordinance is not fully enacted, a key component of protecting the Newell Creek Canyon target area will involve working with Oregon City to coordinate stormwater management efforts.

The area identified for acquisition/protection (approximately 900 acres) is a regionally significant natural area due to its wildlife, fish, water quality, scenic and recreational values. Metro's land acquisition efforts must be prioritized to provide the most effective protection

possible with the available resources. Given the situation with Oregon City and the finding that all lands within the canyon are critical for protection, one approach to land selection for acquisition may involve acquiring those lands currently under developmental pressure.

However, complete protection of the natural resources will require a combination of strategic purchases and partnerships with agencies and private land owners adjacent to the canyon. Prioritized specific objectives for land acquisition efforts within the Newell Creek Canyon target area are enumerated in this report.

Regional Parks and Greenspaces Advisory Committee

A presentation of the staff report was given by Metro staff and consultants at a public meeting in Room 370A of Metro Regional Center on March 19, 1996. The Committee stated a strong concern regarding Oregon City's stormwater management policies, their impact on Newell Creek Canyon, and the need for further study of the issue. This analysis and the resulting objectives were approved by a unanimous vote of the Regional Parks and Greenspaces Advisory Committee.

GOAL:

Create a future regional park site of approximately 900 acres located within Newell Creek Canyon, that will protect the unique natural features and water quality of Newell Creek.

OBJECTIVES:

The following are prioritized specific objectives of the Newell Creek Proposed Refinement Plan.

Tier I Objectives:

(370 acres)

- Acquire large blocks of contiguous forested land along Newell Creek and its tributaries for protection of wildlife habitat.
- Acquire steeply sloped canyon land and upper canyon lands for water quality protection.
- Acquire parcels with springs, seeps, beaver ponds and wetland areas associated with Newell Creek.

Tier II Objectives:

- Establish pedestrian and wildlife linkages between the two sides of the canyon split by the Highway 213 bypass.
- Protect views of the canyon as seen from Highway 213 by acquiring lands adjacent to the road.

Partnership Recommendations:

- Work with Oregon City and Clackamas County to coordinate stormwater management in the Newell Creek watershed.
- Acquire parcels in key locations for their potential future use in establishing remedial stormwater treatment facilities constructed by others.
- Pursue partnership opportunity with the State of Oregon, school district, and Oregon City for coordinated management of public lands.
- Work with Oregon City and local homeowners' associations to secure dedicated open space lands within adjacent developments.
- Work with private landowners to explore opportunities for easements or acquisition to protect steeply sloped upper ravines within residential zones (primarily on western side of the canyon within Oregon City).

Executive Officer's Recommendation

The Executive Officer recommends passage of Resolution No. 96-2309.

APPENDIX A

Summary of Comments from Stakeholder Interviews

- Water quality of Newell Creek and Abernethy Creek is being impacted by development in the upper watershed.
- There are inadequate stormwater detention requirements within the Oregon City jurisdiction coupled with an increase in the development of impervious surfaces within the watershed. Clackamas County now requires stormwater detention with strict regulations (they require on-site detention of a 25-year storm).
- There was a high degree of consensus that all of the undeveloped land within the canyon should be considered for protection.
- Many voiced the opinion that two key parcels Metro should acquire are the Newell Creek Apartment site and a commercially zoned 2.2 acre parcel along Beaver Creek Road west of the apartment site.
- Metro may be able to protect ravines by securing easements or purchasing portions of residential lots.
- Some key (and large) parcels within canyon may not have willing sellers.
- There is a significant (large) land holding within the canyon that is owned by ODOT.
- Within developments surrounding the canyon, there are lands that will be dedicated as open space to Oregon City or remain under the control of homeowners' associations. It may be possible for Metro to secure linkages to these open spaces or in some cases work with Oregon City to have the dedicated open space lands transferred to Metro ownership.
- The confluence of Newell Creek and Abernethy Creek was identified as a key area for protection.
- Both Abernethy Creek and Tour Creek were mentioned as important drainages and wildlife corridors for potential linkages to the canyon target area.
- Several suggested that Metro consider acquiring parcels in key locations for the construction of future remedial stormwater treatment facilities. So much development has already occurred in the upper watershed without proper stormwater management that remedial efforts will have to be taken to correct past mistakes.
- There may be some partnership opportunities with Clackamas Community College in education, monitoring, management and stewardship of the canyon once land is secured. No land acquisition opportunities exist with the college.
- Some voiced the opinion that future trails allowing public access into the canyon would not be desirable because of the steep slopes and the need to let the natural system heal.
- A trail system which does not impact the core of the canyon may be possible along old RR corridor to east.

APPENDIX A

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<p>Sue Doroff Riverlands Conservancy Director PO Box 8787 Portland, OR 97207-8787 Phone: 241-3506 Fax: 241-9256</p>	CR, CB, WN
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Key

WN= Willamette Narrows
 NC= Newell Creek

CB= Canemah Bluffs
 CR= Clackamas River

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Appendix B

Newell Creek Proposed Refinement Plan Public Workshop Carnegie Center, Oregon City March 14, 1996

Comments and Questions:

Is there any large wildlife left in Newell Creek Canyon?

Metro staff said that it had heard of a resident elk herd, but that no one has reported any sightings recently.

Tour Creek (on the map) is also called Livesy Creek.

Metro staff stated that Metro maps usually conform with the USGS maps, which call it Tour Creek.

An Oregon City planner wanted the audience to know that some areas in the #2 Area on Metro's map are not included in any of the city's sewer service plans, due to difficulty of terrain.

Metro Staff explained the prioritization of the different numbered areas on the refinement plan map.

A comment was made from the audience that Area 1 is where acquisition priorities should be because Area 2 faces less development threat - hard to build due to topography, soils, etc. Newell Creek is where Metro should concentrate.

A comment was made that Area 2, for the above reasons, may be less expensive, therefore larger acreages may be purchased, so Metro should also consider that factor.

Has the city indicated if they want to sell their property in Area 1?

Metro staff indicated that there has been no dialogue with Oregon City on that and that Metro would not purchase public property, but partnership opportunities may certainly exist. An Oregon City planner indicated that they have had some discussion with Metro Greenspaces about dedicated lands and would be happy to work with Metro on acquired parcels.

A member of the audience cited a 1990 questionnaire circulated by Oregon City Parks and Recreation and stated that a majority of the respondents support a large park in Newell Creek Canyon.

Is there anyone in your group working on the FEMA project and is there a chance of using the funds for stormwater erosion damage?

Metro staff explained Metro's involvement in the project and said that Oregon City may be the more appropriate entity to address the stormwater issue.

A comment was made that if no one can see or use the acquired lands, it does not make sense to purchase it. They suggested a trail from the Oregon Interpretive Center to Abernethy Creek and then Newell Creek. A member from a Newell-Abernethy committee said they were already working on that and invited everyone to their next meeting, and asked for a mailing list from the public workshop.

A member of the audience suggested that a vacant restaurant site called the Copper Kettle (or TD's) overlooks the parcels Metro owns and would make a good acquisition.

How would partnership opportunities work on commercial properties?

Metro staff responded that we would most likely not purchase commercial properties but they will figure in the overall strategy and easements may be more appropriate in some cases.

What do you mean by greenspaces? What will we do with them?

Metro staff discussed the parks and openspace policy, including stabilization, landbanking and partnerships.

If you purchase and own Newell Creek Canyon, who will police it, fight fires, etc.?

Metro staff explained that fire management is one of the things considered in purchases, and that we will be in the same position as the current owner when it comes to policing, etc.

Are you aware of how the timber on the land and its management affects water quality?

Metro staff responded that we are, and discussed the need for individual management plans for each area.

A comment was made that we sometimes use the land wisely by leaving it alone and that Newell Creek Canyon especially needs time to heal. This would benefit the community.

An Oregon City planner discussed the problems with 4-wheel drive vehicles and dismantled vehicles in the middle of the creek. She said it was depressing.

Metro staff indicated that they would take action if 4-wheel drives were on Metro land.

A planner said that Oregon City is starting to require fencing on properties along the canyon rim to help them recover.

A member of the audience asked if Metro was involved in the Oregon City Urban Renewal Plan and discussed Dale's Wrecking Yard.

Metro staff indicated that we have not been involved in the local plan, but wrecking yards and such are one of the challenges we must address.

Is there a possibility of using Superfund money on the sites?

Metro staff explained that many designated Superfund sites have not been funded yet and the DEQ is the agency most involved.

A member of the audience asked about land around the cemetery.

Metro staff indicated that they will be meeting with the mayor of Oregon City on that.

A member of the audience asked about development problems such as dogs and their impact on wildlife.

Metro staff said that is addressed as a land management issue.



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APPENDIX C

METRO - OPEN SPACES REFINEMENT PROCESS Biological Resources Overview of Target Areas NEWELL CANYON

Prepared for:

Metro - Open Spaces Program
600 Northeast Grand Avenue
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Prepared by:

Wildlife Dynamics, Inc.
David R. Smith
3559 Northeast Stanton Street
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March 15, 1996

**METRO - OPEN SPACES REFINEMENT PROCESS
Biological Resources Overview of Target Areas
NEWELL CANYON**

March 15, 1996

INTRODUCTION

This report documents findings of the initial biological resources investigation of the Newell Canyon target area where land acquisition is proposed as part of the Metro - Open Spaces Program. The target area for this investigation was intentionally identified by general location only. This strategy allows Metro the flexibility to assess a relatively large number of parcels in a given region for the possibility of selecting the most desirable land in a willing-seller program.

Wildlife Dynamics, Inc. (WDI) conducted the preliminary biological resources investigations on the general target area. Objectives of the investigation were to gather existing biological information, interview individuals with knowledge of the area, perform a general habitat evaluation (using a target area perspective), identify unique or important habitat features (using a narrower perspective), and identify specific sections within the target area that should be investigated in greater detail. Criteria established in the Greenspaces Master Plan, bond documents, and Metro Council resolutions were used as guidelines for target area assessments. The results of the initial study were utilized to prepare for public meetings and to assist Metro in their land acquisition refinement process.

The following is the results of the initial biological resources investigations for the Newell Canyon.

Newell Canyon is a relatively intact upland forest habitat that has been logged at least once and is presently dominated by deciduous trees (mostly red alder and bigleaf maple) with scattered conifers (mostly Douglas-fir and western red cedar). Various age classes of trees are present in the canyon because of past disturbances and logging activities, including logging on some parcels in the past few of years. Individual mature trees are found in only a few scattered locations.

The canyon, in its existing condition, easily meets all of the refinement process criteria for determining important target sites. The most unique and important feature of the canyon from a biological perspective is the size of the contiguous undeveloped land within the canyon. The maintenance of the contiguous forest should be one of the principle issues considered when selecting parcels to protect. The second important issue is water quality of the watershed. Increasing development in the watershed will contribute to the existing problems associated with

storm water runoff, i.e. sediment loading, slope failures, pollutants, modified hydrology, and degraded aquatic habitat. Maintaining undeveloped land within the canyon, particularly in headwater areas, will assist in alleviating some future water quality problems. However, without a comprehensive watershed management plan, the increasing development in and around the canyon will continue to degrade the aquatic resources.

All parties contacted about the study area stated that all undeveloped land within the canyon should be considered for protection. Habitat features and areas of significance that were mentioned the most include:

- secure connection with those areas that are already set aside as open space (i.e. dedicated open space from recent residential developments, the city cemetery, etc.)
- existing forest habitat along drainages and unstable slopes
- the ODOT parcel appears to be significant to secure
- securing the forested habitat of the school and adding parcels to that portion (north side) of the canyon
- protect wetlands, seeps, and springs
- confluence of Newell and Abernathy creeks
- give priority to lands inside the UGB; and
- undeveloped headwater areas for water quality issues and possible storm water detention facilities.

Persons Interviewed and general comments:

Todd Moses, PGE Biologist

- is concerned with existing and future water quality and storm water issues and their affects on the Newell Creek watershed site (see Moses, September 1994, Appendix A)

Joe Pesek, ODFW Biologist

- states the whole canyon is important and all land should be considered for protection
- stresses looking at recently flooded parcels

Holly Michaels, ODFW Biologist

- agrees the whole canyon is important and all land should be considered

Greg Robard, ODFW Biologist

- states the whole canyon is important and all land should be considered; and

Sha Shady, Friends of Newell Canyon

- considers the whole canyon important.
- a watershed management plan must be completed.

Appendix A
**A Reconnaissance Assessment of Geomorphic and Riparian Zone Conditions,
and Preliminary Rehabilitation Recommendations, Upper Newell Creek**

A RECONNAISSANCE ASSESSMENT OF GEOMORPHIC AND RIPARIAN ZONE CONDITIONS, AND PRELIMINARY REHABILITATION RECOMMENDATIONS, UPPER NEWELL CREEK, OREGON CITY, OREGON

September 1994

The following narrative presents my findings concerning geomorphic and riparian zone conditions in and along the channel of Newell Creek in the vicinity of the Newell Creek Overlook Apartments site (hereafter referred to as the "apartment site"). A reconnaissance-level evaluation of this area was conducted on July 19 and August 3, 1994. The entire length of channel (including conditions along lower valley sideslopes) within the project area was evaluated. Immediately adjoining upstream and downstream channel segments within a few hundred feet of the property limits were also investigated.

LOCATION

The subject area conforms to the uppermost part of Newell Creek Canyon within Section 4, T.3 S., R.2 E., Clackamas County, Oregon (Figure 1). The upstream end of the study area is bounded by the junction of Beaver Creek Road on the south and Highway 213 (bypass) on the east, although conditions immediately upstream of the culvert east of Highway 213 were also investigated. The study area is bounded on the downstream end by the BPA powerline easement (marked in the field by overhead powerlines); the stream reach immediately downstream of the easement was also assessed. Channel distance on the apartment site measures approximately 1700 feet on the large-scale site plan of the project area; actual channel distance is greater than this because of the presence of more than one channel in places and because of channel bends not shown on the map.

GENERAL CHANNEL AND WATERSHED CONDITIONS

Flow Conditions

The U.S. Geological Survey 7.5-minute quadrangle of this area (*Oregon City, Oreg.*, 1985) incorrectly shows a blue line (perennial) stream extending only about one-half of the distance upstream between the BPA easement and Beaver Creek Road. In fact, a distinct channel extends all the way to the 48-inch corrugated metal culvert outfall under Highway 213 (at its junction with Beaver Creek Road). Newell Creek, now channelized, continues upstream of the culvert along Beaver Creek Road. Judging by conditions in late July and early August (in a very dry year), the entire length of stream that was evaluated supports perennial flow. Flow upstream of the culvert was estimated at no more than 1/2 cubic feet per second (cfs) on July 19.

While not actually measured, flow in Newell Creek appeared to be substantially greater downstream of the Highway 213 outfall than it was at the inlet to the culvert. This suggests that flow in the upper canyon may be augmented by point sources of discharge such as springs, seeps or even other stormwater outfalls.

The current (1994) planning document for the apartment site indicates that the contributing area upstream of the project area (upstream of Highway 213) is 435 acres (0.68 square mile). The 25-year peak flow in Newell Creek in the vicinity of the site, under existing conditions, is estimated at 173 cfs. Since the upstream area will continue to urbanize, the future peak flow from the 25-year storm event is estimated to be in the vicinity of 200 cfs. Upper Newell Creek can therefore be expected to experience more frequent and higher peak flows, and lower summertime base flows, as the watershed is developed. In my opinion, only increased reliance on source area re-infiltration of rainwater and reduction in impervious surfaces, practiced over the entire catchment, can moderate these interrelated impacts.

Valley Form

Upper Newell Creek at the apartment site flows through the head of a steep-sided, north-south trending canyon. This dissects an elevated, gently rolling surface reportedly underlain by the Boring Lava, Missoula

Flood deposits, Troutdale formation, and Sandy River Mudstone (Scott Burns, editor, Environmental Assessment of Newell Creek Canyon, Oregon City, Oregon, Portland State University unpublished report, January 1993; John McDonald, Newell Creek Overlook Apartments Soil Investigation, August 25, 1994). The transition from the canyon to the rolling upland occurs in the vicinity of the Highway 213 and Beaver Creek Road intersection.

The uppermost canyon segment of Newell Creek can be described as a channeled colluvial valley where the valley bottom width is approximately the same as the active (regularly flooded) channel width (there is essentially no floodplain). The steep hillsides generally impinge on the active channel. The valley floor is only slightly sinuous and valley gradient (map value) through this segment is on the order of 20% (11 degrees). Valley bottom and active channel width average roughly 10-15 feet, although there are wider and narrower areas and occasional multiple channels.

Valley gradient declines to about 10% (5-6 degrees) downstream and valley bottom width also generally increases in this direction; average channel width remains about 10-15 feet or so. In general, this lower part of the canyon within the apartment site is a steep alluvial valley where the stream flows through a valley fill of alluvium it has deposited and reworked, although in other areas the channel still trenches hillslope colluvium and occasionally clay- or silt-rich soft bedrock.

Valley sideslopes are for the most part steep although locally there are benched areas suggesting prehistoric landslides. Sideslopes are indented by broad or narrow hillslope hollows (steep draws) which are largely unchanneled.

Channel Type

USGS mapping indicates that upper Newell Creek is a first-order stream channel (it has no tributary channels). The local bedrock types have supplied substantial quantities of boulder, cobble and gravel-sized materials to the valley floor. Stream substrate therefore remains predominantly coarse-grained despite the modern influx of fine sediment (mainly silt). Modern silt deposits have overwhelmed or replaced coarse alluvium in places, especially downstream of the property boundary (downstream of the beaver dam, see below).

While there is no single, accepted stream channel typing scheme, two approaches are used here to characterize channel type. These are the system developed by Dave Rosgen ("A classification of natural rivers", Catena 22: 169-199, 1994) and that developed by David Montgomery and John Buffington for Washington's Timber/Fish/Wildlife (TFW) program (Channel Classification, Prediction of Channel Response, and Assessment of Channel Condition, report no. TFW-SH10-93-002, Washington Department of Natural Resources, June 1993). Definition of channel type has utility chiefly because general patterns of sensitivity to disturbance, sediment supply, and erosion potential – along with recovery and restoration potential – are associated with different stream types.

According to the Rosgen stream classification system, channel type in upper Newell Creek canyon changes from a steep, boulder-bed A2 channel in the uppermost part of the apartment site to a moderately steep cobble-bed B3 channel downstream to the vicinity of the beaver pond. These channel types are relatively stable and channel margins typically do not contribute much sediment to the stream. Localized areas within these channel types which have accumulated fine sediment deposits, or locally trenched colluvial toeslopes, do, however, remain prone to continued bank erosion.

The channel immediately downstream of the beaver pond area has incised into a relatively thick sequence of modern fine alluvium and would generally be described as an entrenched G6 or F6 type channel according to the Rosgen system. Such channels are quite sensitive to continued upstream disturbances such as changes in streamflow or sediment load, are subject to high channel bed or bank erosion, and have low recovery potential even if watershed conditions improve.

The TFW classification system would describe the uppermost, canyon-head reach of Newell Creek as a cascade channel, where gradient is very steep (8-30%), the substrate is dominated by boulders, the diameter of the largest particles is greater than bankfull depth, and flow tumbles between small, closely-spaced pools.

This is a highly stable channel type which accumulates little fine sediment but acts as a zone of transport for sediment from upstream and upslope sources. These channels are supply limited, meaning that local sediment supply is less than available transport capacity (because of the coarse substrate). Cascade channels are highly resilient to changes in discharge or upstream sediment supply because particles are essentially immobile during all but exceptionally high flows (which do not naturally occur in this headwater location).

As gradients flatten downstream, this channel type is replaced by the step-pool channel type. Step-pool channels are characterized by moderately steep gradient (3-8%) and exhibit a boulder/cobble substrate which is organized into channel-spanning accumulations leading to a pool spacing of roughly 1-4 channel widths. This is also a stable, supply-limited channel type, again because the large particle sizes dominating the channel bed and banks are immobile under most flow conditions. This type of channel also functions mainly as a zone of sediment transport and tends to reorganize itself relatively quickly into a new, stable configuration after channel disrupting events. Large woody debris (LWD) contributes substantially to a stepped morphology (now called a step-bed channel) in more or less intact systems under conifer forest cover. It is important to note that the stream segment of this general type on the subject site has been disturbed by land use practices during the recent past and, while essentially stable, does not everywhere exhibit the type morphology.

The incised channel downstream of the beaver pond appears to inexactly conform to what the TFW method would term a plane-bed channel type (or "glide" type channel) in that gradient is reduced, depositional bedforms and pools are essentially absent, and the streambed is armored with gravel-sized materials. Reduced gradient may reflect a stable downstream nickpoint and the streambed gravels in this area are here heavily embedded in a matrix of very fine sediment. Sluice-like plane-bed channels are typically not very resilient and may be subject to channel aggradation or degradation with changes in discharge or sediment supply.

Existing Vegetation Cover

Upper Newell Creek canyon is presently covered with regrown forest vegetation; the canyon has reportedly been logged more than once (Burns 1993). Overstory vegetation in the upper canyon area consists mainly of mature bigleaf maple and alder trees with scattered mature conifers, especially western red cedar. Understory woody vegetation consists of salmonberry, elderberry, vine maple, hazelnut, oceanspray, snowberry, salal and cedar saplings. Huckleberry occurs occasionally, growing mostly on large dead wood; red twig dogwood and ninebark also occur along the channel in the forested area. Groundlayer herbaceous vegetation is dominated by swordfern and saxifrages. While this groundcover superficially appears dense, considerable mineral soil remains exposed between individual plants.

Vegetation changes abruptly in the vicinity of the downstream end of the property. Vegetation clearance along the powerline route, possibly along with natural valley widening and flattening, has allowed beavers to colonize the area. Beaver activity has created a relatively large pond and upstream alluvial flat or delta which is mostly covered with reed canarygrass. Himalayan blackberry thickets and willow and young alder trees grow around the pond perimeter.

HISTORIC ALTERATIONS TO VALLEY MORPHOLOGY

Although this area is well wooded, stream channel and lower hillslope conditions within upper Newell Creek canyon are far from pristine or even stable. Conditions along the lower valley floor must be viewed in the context of past land practices.

Observed conditions in and around upper Newell Creek canyon indicate that land use alterations and impacts conform to the typical post-European settlement pattern for this region. Logging and early agricultural practices evidently resulted in a high level of upland erosion and valley sedimentation which is reflected in modern valley infills of fine sediment wherever valley gradient is sufficiently low to permit it. Upland erosion rates were subsequently reduced as vegetation regrew and somewhat better land management practices were implemented. Streams adjusted to these new circumstances (reduced sediment supply) by incising the

recently deposited valley fill. This has left the G6/F6 or "plane-bed" type channel found downstream of the property below the beaver dam.

Large cedar stumps as much as 6-7 feet dbh and a few very large downed logs as much as 5-6 feet in diameter indicate that upper Newell Creek canyon supported old growth forest before it was logged. This forest condition was probably accompanied by a very stable step-bed channel morphology in the upper canyon, with LWD providing much of this stable channel architecture. Large woody debris accumulations also must have buttressed colluvial toeslopes, which are now not as stable as they were previously. Loss of buttressing and the superficial bank protection by LWD would typically accelerate and exacerbate shallow sliding/soil creep processes and bank cutting, respectively.

Such a stable channel configuration would have required a very long period to evolve. Although landslides may have periodically disrupted the channel downstream of the project area, disequilibrium was probably rare in this headwater location because of small stream size (low stream power) and the absence of channel-altering floods and debris flows because of small watershed area and the gentle terrain upstream. The annual streamflow regime would have been relatively even (not flashy) because of the absence of overland flow – storm runoff must have been routed almost entirely through subsurface pathways on the forest-covered hillsides.

Although landslides probably occurred rarely and episodically, the remnants of old growth forest suggest that hillslopes must have similarly been in a generally stable condition for a long period prior to European settlement. An important factor in the stability of both hillsides and the channel was the presence of a thick and continuous forest floor (humus, duff and litter layer), which promoted both infiltration and subsurface runoff and prevented surface water erosion by rainsplash and rilling.

Although woody vegetation has regrown, both the valley floor and hillsides in upper Newell Creek canyon reflect the legacy of land use practices from the recent past. Both the channel and hillsides have yet to recover the stabilizing influences of substantial quantities of instream LWD and a well-developed forest floor. This recovery would be an exceptionally slow process under the most favorable circumstances (no development in the basin). Because existing and continuing development have irrevocably altered basin conditions (especially hydrology), the speed or even trajectory of recovery processes can no longer be fully predicted.

REACH-BY-REACH ASSESSMENT OF CHANNEL CONDITIONS

Upstream of Highway 213

Newell Creek extends upstream of the Highway 213 culvert as a ditch lined with young alder paralleling Beaver Creek Road. The channel in the segment immediately upstream of the culvert is about 6-8 feet wide with steep channel banks (which are sloughing in places). The channel is floored with a substantial deposit of silt. Along with upstream sources, erosion from adjacent bank slopes (particularly around the culvert inlet) also contributes fine sediment to the channel.

Highway 213 Culvert Outfall Area

The actual culvert opening was not observed because of dense undergrowth but flow from what must be this culvert is discharged onto a chute-like concrete energy dissipator. This is undercut and suspended about 6 feet above a plunge pool. A concrete pipe (about 36 inches in diameter) emerges from the slope underneath the chute. This pipe outlets further downstream. Although broken near its end, this pipe also appears to be discharging flow, possibly from another source.

Uppermost Canyon – Cascade Reach

Below the outfall(s), Newell Creek becomes the very steep boulder bed A2 or Cascade-type channel described previously. Root exposure, smaller areas which have been scoured to soft bedrock, and sediment and debris deposits indicate that high flows have scoured this area but have done little more than locally shift the coarse substrate.

This channel splits in places but soon reunites into a single dominant thread. While minor quantities of fine sediment from upstream intermittently accumulate behind boulders and other roughness elements in this reach, this sediment is moved on downstream during higher flow events.

Assuming the adjacent hillslopes remain vegetated and undisturbed, the channel through this area should remain stable even under anticipated, future peak flows because of the large size and packing of the substrate. Most high flows will only accomplish intermittent transport of gravel- and cobble-sized fragments. Larger boulders, which provide the dominant surface matrix through this reach, should remain immobile under virtually any anticipated flow event. This is demonstrated by the heavy moss growth on even relatively small boulders. Even the very large flow this past February, which was probably on the order of a 5-year or larger event, obviously failed to shift these rocks.

Apparently as a habitat enhancement measure, someone has locally imposed a stepped morphology in part of this area by cabling large rocks and logs together. However, because of the extremely steep gradient, the pools thus created are tiny and most of the drops between pools would be impassable to the fish capable of inhabiting the pools.

Step-Pool Reach (Cascade Reach to Beaver Pond)

Although disturbed, Newell Creek begins to assume the characteristics of a step-pool channel about 500 feet or so below the culvert outfall (distance not measured). Boulders and occasionally logs form channel-spanning structures and very small downstream pools in this reach. Large living roots also cross the streambed and form small pools in places. Large, complex pools with good overhead cover are absent.

Banks are generally stable through this reach, being protected by large particles, vegetation, or LWD. The streambed consists mainly of gravel, cobbles and small boulders which forms an armor layer which is stable under most flow conditions. The streambed is heavily embedded with fine sediment in most places. This further assists in increasing streambed resistance to erosion.

High flows are able to go out of bank in much of this area, reducing flow velocity and insuring stability. Localized bank erosion does occur in areas with minor infills of fine loose sediment which generally occur as low channel edge benches downstream of obstructions such as LWD. However, these areas are relatively small in size and are at least partially protected by standing trees, LWD, and understory vegetation. The channel impinges on steep, erodible toeslopes composed of colluvium in a few areas but channel banks are low and reasonably stable in most locations.

Temporary deposits of fine sediment veneers the streambed in places and some areas have accumulated a considerable thickness of silt, both upstream of structures and in downstream pools. This is an indication of a continuing high rate of fine sediment input during storm periods from the upper part of the basin (above the Highway 213 culvert). This material is awaiting easy remobilization by the increased flow this winter.

Only a few nickpoints occur in this reach, the largest (suggesting a headcut) within a tightly confined area. This drop consists of bedrock which has been augmented in height by large boulders and LWD. The drop is impassable to fish. The plunge pool downstream of this drop was the largest pool observed (about 400 square feet in surface area) but it lacks overhead cover and was loaded with loose silt.

Road Crossings. Two unsurfaced roads cross Newell Creek upstream of the beaver pond. The approach roads to both crossings are very steep and deeply rutted and must supply a large amount of sediment to the stream during rainstorms. Both roads were being used recreationally by four-wheel drive vehicles this summer.

The uppermost crossing is at least 500 feet upstream of the beaver pond. This is a Humboldt-type crossing consisting of large cedar logs laid side-by-side lengthwise in the creek in order to bridge the stream. This structure is trapping a large wedge of fine sediment at its upstream end and is also causing localized bank erosion adjacent to the structure.

The downstream crossing consists of a stream ford which crosses the creek at an acute angle just above the beaver pond area. By creating a low berm, the crossing has dewatered a portion of the cobbly natural channel immediately downstream, diverting the flow through an unstable, silt-floored new channel over a distance of nearly 50 feet. I observed a large amount of sediment released downstream when a vehicle crossed the stream at a high rate of speed (necessary because of deep mud in the ford as well as the steepness of the exit road). High flows will inevitably result in the downstream discharge of a large quantity of fine sediment from this area.

Beaver Pond

A large beaver pond occurs in the vicinity of the north property boundary and BPA easement. The dam forming the main pond is a substantial structure which is at least 6 feet high in places. The dam appears to be composed entirely of relatively small sticks and branches. A few much smaller beaver dams occur just downstream from the main structure. The delta of the main pond begins in the vicinity of the downstream ford just discussed. A large animal slipped unseen into the water when I first approached the pond and there was fresh evidence of beaver activity in the form of trails, gnawed green bark and wood chips.

It seems likely that vegetation clearance under the powerlines has been an important factor in allowing willows to thrive in this location, creating good conditions for beaver colonization. It is also possible (especially if the dam is not very well anchored) that only years of relatively low flood frequency conditions have allowed the beaver dam to persist here. On the other hand, the very large flow of this past February apparently failed to damage the dam.

While there was not sufficient time to make careful measurements, I believe that the open water portion of the main pond encompasses an area of at least 10,000 square feet. An equal size or larger area, mostly in the pond's delta, consists of saturated alluvium. This area is covered mainly with reed canarygrass. There are also a number of very large logs within the pond and delta complex.

Limited probing indicated a deep layer of silt within the flooded portion of the pond. The delta at the head of the pond also represents a huge wedge of unconsolidated, mostly fine sediment. I would conservatively estimate the amount of wet fine sediment trapped within this beaver dam complex to be on the order of at least 1500 cubic yards.

It may also be worth noting that this pond presents a considerable surface area to the sun. On a day when the ambient air temperature was only 74°F (August 3), I measured the water temperature in a shaded portion of the pond (at 6 inches depth) to be 65°F. Water temperature in the shaded channel upstream of the pond was 61°F at this time. Without speculating too much, it does appear that water heating in the pond could pose a potential impact to downstream water temperature with respect to fisheries, particularly as the pond continues to fill with sediment and shallow out. For now, water appears to discharge mainly from the lower part of the dam and this water may be somewhat cooler than the surface layer I measured.

The beaver pond represents mixed circumstances with respect to downstream sedimentation in Newell Creek. At the present time the pond is acting as a stilling basin and sediment trap, alleviating downstream sedimentation. However, as with all dams, if large quantities of fine sediment continue to be introduced to the canyon from upstream sources, this function has a definite (and probably rather short) lifespan. If the pond completely silts in it is likely to be abandoned by the beavers, increasing the risk of eventual dam failure. The beavers may also attempt to raise the height of the dam to maintain open water. This could result in both greater head from the backwater and a weakened structure.

Over the longer term, the beaver pond must pose a considerable risk with respect to downstream channel alterations and sedimentation. Breaching and failure of the beaver dam could result in a dam-break flood. The significance of this flood will depend in part on when it occurs with respect to background flow conditions, with the consequences being most severe if this occurs during a peak flow event. I've seen beaver dams which have failed during very high flows and this seems like a likely time for this to happen in this setting. No matter what countermeasures are taken within the watershed, both the magnitude and frequency of peak flows on Newell Creek are likely to increase in the foreseeable future, thereby increasing the risk of dam failure.

A dam-break flood would release a tremendous and concentrated slug of water and sediment downstream. Such a flow would cause channel scouring and the erosion of unconsolidated sediment deposits along the valley floor for a considerable distance downstream. A very high flow would also probably shift and perhaps transport any useful LWD in the downstream channel. The sudden discharge of a great quantity of sediment is likely to result in extensive aggradation and pool filling downstream, the effects of which could persist for a long period of time.

Channel Conditions Downstream of the Beaver Pond

Newell Creek downstream of the beaver dam complex was only briefly inspected over the first 500 feet or so because it is well beyond the downstream property line of the apartment site. The creek is deeply-entrenched and chute-like over the entire length examined. The stream follows a sinuous course through a relatively broad valley flat which is on the order of a hundred feet wide in some places. Channel banks are very steep to near vertical and are as much as 5 feet high. The active channel averages about 10-12 feet wide.

Streambanks throughout this area are essentially devoid of vegetation and are only rarely protected by LWD. Banks are generally composed of poorly consolidated silt or sandy silt representing the historic valley infill; sticks and logs embedded in this material attest to its relatively recent origin. Colluvium or cohesive clay form channel banks in smaller areas. I observed one small but fairly recent slide (involving at least 10 cubic yards of soil) in an area where the channel impinged on a steep slope cut in fine-textured colluvium.

Except for a few small LWD pieces and jams, the channel through this area is essentially devoid of structure. In confined areas, the substrate consists of heavily embedded gravel- and small cobble-sized material, although even in these areas there was often a thin veneer of loose fine sediment. Deep deposits of loose silt occur in somewhat less confined and lower gradient areas, completely burying any coarse substrate.

These conditions point to a chronic oversupply of fine sediment in this system which must continue into the foreseeable future. Fine sediments are unlikely to be flushed from substrate gravels in many places because these are so heavily embedded and tightly packed. Embeddedness results in a hydraulically smoother streambed surface, which is more resistant to erosion than the rock alone. Flows capable of flushing the silt from these surfaces would probably preferentially erode the streambanks composed of the unconsolidated modern fill which forms the valley flats.

This modern sandy and silty valley fill is highly erodible. The material has little strength when it is saturated (because of dilatancy) and it is not very well knitted together with plants' roots. The valley flats are colonized mainly by stinging nettle, bracken, salmonberry, blackberry, along with a few shrubs, and these plants seem to form only very weak root structures. Deposits of loose silt collapsed from unconsolidated channel banks were also common in this reach. These deposits are in a highly erodible condition before the onset of higher flows in the fall because they become very friable as they dry out.

Although incised, the stream channel in this area does not now appear to be degrading vertically so much as horizontally (widening). (This overall tendency can only be confirmed by continuing this survey downstream.) The channel floor appears to be well armored in most places by heavily-embedded gravels and no small headcuts were observed. On the other hand, outer bend banks were on the verge of collapsing in places or were experiencing grain-by-grain erosion in others. Small point bars of loose sediment were present on inner bends. This reach, and any reach in this basic condition, is likely to remain a chronic source of fine sediment for the foreseeable future even if there were no further change in basin condition. Because of susceptible banks and high channel confinement (leading to high stream power), any increase in the number and magnitude of high flows on Newell Creek can only increase the erosion rate in this area.

RIPARIAN VEGETATION WITH RESPECT TO PHYSICAL SITE CONDITIONS

Among the principal functions of the riparian zone with respect to physical site conditions are: 1) the long-term supply of LWD for channel stability and sediment storage sites; and 2) the provision of shade for water temperature moderation. Canopy closure (overhead shade) with respect to the stream channel should exceed about 70% in lowland streams for stream temperatures to be effectively moderated (Washington Forest

Practices Board, *Standard Methodology for Conducting Watershed Analysis*, TFW/Department of Natural Resources publication, October 1993). Newell Creek upstream of the beaver dam is well shaded, with summertime canopy closure exceeding 90%.

Large woody debris can be considered to include logs over 4 inches in diameter and 6-7 feet in length, root wads (stumps), and sizable woody debris jams. The best LWD for channel stability consists of large logs at least 12 inches in diameter (preferably much larger) of conifer species, especially western red cedar. Hardwood logs are not only generally smaller than those from conifers but quickly decay in the stream. Most in-channel LWD is recruited from a zone less than 100 feet wide along both sides of the channel. This 100-foot wide zone on either side of the channel is also generally judged most important for channel shading, aquatic food supply, and potential for buffering sediment delivery from upslope sources.

Instream accumulations of LWD are currently inadequate in upper Newell Creek because of past logging practices and channel disturbance. However, western red cedars, including both mature individuals and saplings, do occur along lower valley sideslopes in locations where they will eventually be able to enter the channel. Nevertheless, the potential for future recruitment of useful LWD to the stream remains inadequate because of 1) the general scarcity of these trees, 2) the long delay until their eventual recruitment into the stream as large material, and 3) the limited quantity (with some notable exceptions) of large pieces of already down LWD in the immediate vicinity of the channel.

On the other hand, LWD is less critical to channel stability in most of the upper canyon because the channel is effectively armored with large particles in this area. Furthermore, LWD contributed to those portions of the channel which have deeply incised into fine alluvium, such as downstream of the beaver dam, would probably not provide useful instream structures. Large pieces are more likely to bridge sluice-like channels and could also locally accelerate erosion if distributed more or less parallel to the flow within an incised channel.

STABILITY OF LOWER HILLSLOPES ABOVE THE ACTIVE CHANNEL

Hillslopes in this canyon are quite steep, ranging between about 20% (11 degrees) and 60% (31 degrees). Slope facets locally exceed 70% (35 degrees; measured with a clinometer). Many of these steepest segments occur within a pit-and-mound microtopography (see below), are largely devoid of vegetation and litter, and are subject to erosion by rainsplash.

Hillsides are mantled with erodible colluvial soils with a silt loam surface texture and generally have only a poorly developed forest floor to protect the mineral soil from surface water erosion. Although incomplete, soil surface protection is still provided by groundlayer vegetation and the sparse litter cover. This is sufficient to protect most areas from significant surface erosion in the absence of concentrated use by people.

The "pistol-butt" growth form (tree trunks curved downslope) seen in some mature western red cedar trees growing on steep lower valley sideslopes is suggestive of active soil creep (although this indicator can be somewhat ambiguous). In addition, an undulating pit-and-mound microtopography found on hillsides in many areas may be indicative of either or both logging disturbances and mass failures. Studies have described evidence of prehistoric landsliding within the canyon (Burns 1993) but site-specific investigations suggest that this part of the canyon is quite stable with respect to deep-seated mass movements (McDonald 1994).

Unchanneled drainageways (hillslope hollows) in and near the apartment site are quite steep. All such areas tend to concentrate shallow subsurface stormflow and some may even develop shallow surface water flow during large storm events. These drainage features tend to accumulate colluvial materials and sediment discharge from these areas is transport limited (meaning the supply of erodible materials normally exceeds the ability of slope processes to move it). In the absence of further site alterations, such areas can be expected to fail only episodically, supplying sediment to the stream during infrequent, high magnitude events. (The drainageway penetrating the northwestern corner of the apartment site has reportedly been eroded and channeled by uncontrolled stormwater runoff from upslope development.)

MANAGEMENT AND REHABILITATION RECOMMENDATIONS

The desire to preserve and/or restore a coldwater fishery is perceived to be the chief conservation focus with respect to Newell Creek canyon. The desire on the part of many to maintain this area as a semi-natural greenspace and large, unfragmented wildlife preserve also appear to be important considerations with respect to future management.

The following recommendations are therefore offered mainly in the context of these concerns, although measures to reduce the flux of fine sediment within Newell Creek can also have a beneficial influence with respect to overbank flooding and bank erosion in areas far downstream. Recommendations are not listed in any particular order of preference or importance.

Upstream and Upslope Areas

The degree that precipitation is allowed to directly infiltrate the soil and the apportionment of surface runoff and sediment in any watershed influence streamflow characteristics and channel conditions. This influence extends to the watershed divide.

Sediment Control. Sediment control measures should be required at all construction sites within the Newell Creek watershed. Construction interests in particular need to be educated about the deleterious effects of fine sediment on stream ecosystems and regulations governing sediment control need to be diligently enforced. A concerned citizenry can help with both tasks.

An engineered and maintained sediment trap could be installed immediately upstream of the Highway 213 culvert. As upslope/upstream sediment control is likely to be imperfect, a sediment trap would greatly reduce the delivery of fine sediment to lower Newell Creek, especially in the near future as the basin continues to build out.

Minimizing the Number and Size of Peak Flows. Since channel bank erosion occurs primarily during and shortly after large discharge events, stream channel erosion can be expected to increase if the frequency and magnitude of high flows increases. The occurrence of peak flows should therefore be minimized to the greatest degree possible, either through protracted onsite detention or source area re-infiltration of precipitation (preferably the latter wherever possible).

McDonald's (1994) investigation of subsurface conditions at the apartment site suggest that it should be possible to re-infiltrate all stormwater generated by the development currently planned for this site. With respect to the attenuation of peak flows, re-infiltration and slowed subsurface drainage of stormwater is certainly preferable to rapid and direct discharge to the stream via a pipe. The delay imparted by any length of travel through the soil will tend to reduce the height of flood peaks, although this benefit increases with the length of the groundwater flow pathway. The maximum benefits with respect to peak flow reduction are therefore best realized in developments which are distant from channels. Nevertheless, with respect to the apartment site, plans to minimize the area of impervious surface (see below) represents the correct approach and should be duplicated by all other development sites within the basin.

Baseflow Support. Efforts should be made to maximize the onsite infiltration of rainwater and groundwater recharge throughout the Newell Creek basin so that dry season flow can be maintained to the maximum degree possible. This function is also enhanced with a longer subsurface flow pathway between the point of re-infiltration to the ground surface and the stream channel. Minimizing groundwater withdrawal during all seasons, and reducing landscape watering during the summer, can also help to maintain dry season streamflow.

Because of its proximity to Newell Creek, this baseflow support function will be less effective at the apartment site than it would be at development sites which are more distant from channels. However the contribution here represents part of a cumulative improvement if duplicated basinwide. This site can serve as a model for stormwater management with respect to future development sites and the retrofitting of already developed areas within the basin.

The landscape plan for the Newell Creek Overlook Apartments site indicates that the preservation of native vegetation and open ground will be maximized and lawn area minimized. This strategy of maximizing the amount of area where rainwater can immediately infiltrate assists in both flood flow attenuation and baseflow support.

Water Quality. While the re-infiltration of relatively clean water from many developed surfaces (such as roofs) is certainly advisable, careful consideration may have to be given to alternative designs where water is to be re-infiltrated from contaminated surfaces such as parking lots. This possibility, and possible design alternatives, should be addressed by others with expertise in this area.

Hillside Erosion

Care should be taken to prevent substantially increased surface or subsurface water discharge to otherwise unaltered hillslope hollows. These areas are not adjusted to the extra water supply and are likely to respond to extra water by gullyng or mass failure. Depending on location and downslope conditions (e.g. slope change, roughness elements), erosion within hollows has the potential to introduce large quantities of fine sediment to the stream channel.

If necessary for stormwater disposal, steep draws could be used as discharge sites if fitted with carefully designed structures. These could be masked with native vegetation plantings. (No large, deep-rooted plants should be planted in hollows because of the risk of toppling in wet soils.) Even though re-infiltration may be the primary means of stormwater disposal at the apartment site, it is possible that excess storm runoff may have to be discharged via surface pathways during very large storm events.

Trails. Even straight-contour valleyside slopes and spurs remain at least locally subject to surface water erosion because of the absence of a deep and continuous forest floor covering the slopes. Any constructed trails should therefore be sited well upslope of the channel, especially where slopes are very steep. Trails should traverse the hillside with a low gradient, minimizing switchbacks, and should be constructed with careful attention to surface drainage (e.g. frequent waterbars and energy dissipators below these cross drains). The number and surface area of trails should be minimized. If a trail has to be located closer to the stream than recommended (as, for example, at a stream crossing), it should be routed away from unstable banks, particularly outer bend banks in areas where the stream has entrenched itself in unconsolidated alluvium.

People will inevitably use the canyon in increasing numbers as the population in the watershed grows. A single well-designed trail could result in less overall damage than the absence of formal trails and uncontrolled access to the canyon.

Unsurfaced Roads and Stream Crossings

Both stream crossings represent chronic sediment source areas and should be eliminated. Logs from the Humboldt crossing can be used to rebuild and stabilize streambanks at both crossings.

The roads leading to these crossings should also be obliterated, especially within any designated buffer area (see below). It is particularly important that surface erosion countermeasures be applied to the steep road segments immediately upslope of the stream crossings. At a minimum, this should consist of deeply ripping the road surface to relieve compaction and installing closely spaced waterbars (possibly log-reinforced) to enhance local infiltration, reduce slope length, and divert water off the road. Soil decompaction should be accomplished using a bulldozer-mounted ripper on seasonally dry soils. Physical rehabilitation should be followed by planting with native woody vegetation (especially conifers for future litter and LWD supply) and heavy mulching (preferably with salvaged forest litter).

Although obviously requiring some heavy equipment, much of the watershed rehabilitation effort with respect to roads and stream crossings can be accomplished by volunteer conservation groups. Volunteers could assist in channel bank rebuilding, waterbar construction, replanting and forest floor renewal.

Streamside Vegetation

An undisturbed buffer or setback should be retained along the creek. To the extent feasible, stormwater control facilities, trails or other installations should not be sited within this buffer. In general, a minimum buffer width of 100 feet is recommended along each bank.

Replanting of conifer species (mainly shade-tolerant species such as western red cedar) along the valley sides could enhance future conditions in this area. The hardwood overstory in much of this area is aging and the older alders in particular will not live much longer. Conifer planting and possibly the release of existing young conifers by thinning could "jump-start" conifer regeneration, insuring the persistence of good canopy closure for stream channel shading and the future recruitment of LWD to the stream. Conifer plantings should be provided good aftercare if they are to be successful in this area. Conservation volunteers could accomplish both the planting and maintenance operations.

The site plan for the Newell Creel Overlook Apartments indicates that, in general, an undisturbed buffer of well over 100 feet will be maintained between the developed area (including unbuilt but regraded slopes) and the stream. The placement of seepage trenches for stormwater discharge may require some incursion into this area. While this should be minimized to the maximum extent possible, the locations of seepage trenches could readily be replanted with native vegetation.

Instream Habitat Improvements

The very steep cascade-type (A2) channel segment would generally not be considered a fish-bearing stream, making this an inappropriate location for the installation of instream "habitat improvements" (although this has already been done here). Channel spanning structures (rock or log weirs) as well as other structures can be used in B3 (step-pool) channels since, if properly placed, they mimic and reinforce the stream's natural tendencies. However, the presence of a number of high drops (including structural nickpoints) would appear to preclude fish passage into and through the upper canyon area. Low summertime flow in this area may also prevent the persistence of a stable fish population in this area.

Incised (G6/F6) channels are not good locations for instream structures since banks are unstable and/or provide little opportunity for secure anchoring. Flow confinement leads to high stream power during peak flows in entrenched channels. Structures placed in these areas are therefore likely to cause bank or bed erosion and "blow out" during high flows.

While I have not evaluated downstream conditions in Newell Creek, it is probable that limited instream habitat rehabilitation funds would be better spent in downstream areas. The proper role for a headwater channel is to act as a buffer to minimize downstream sedimentation and provide a conduit for organic debris. Higher flow volume downstream (especially with respect to dry season conditions) should also be more favorable for supporting viable fish populations. Structures may well be helpful in restoring channel complexity and providing low-energy holding water and dry season refugia for fish in lower Newell Creek.

Beaver Pond

The pond area presents a difficult situation with no easy solutions. While the area now acts as a sediment trap, the risk to downstream habitat conditions it poses is, in my view, significant and likely to increase over time.

The impacts associated with a dam failure are particularly great in the context of any salmonid fishery in Newell Creek. If the fishery were the main consideration, it might be advisable to carefully take down the dam, excavate and remove the accumulated sediment, recontour the valley floor and rebuild channel banks, apply aggressive erosion control measures, and replant the area. This treatment is offered here as a consideration, and not a firm recommendation, because a complex mix of factors must influence any decision with respect to the beaver dam. Evaluation of all these factors and a decision on an appropriate course of action was not the subject of this investigation.

CONCLUSIONS

Upper Newell Creek canyon in the vicinity of the Newell Creek Overlook Apartments site has been severely impacted by past land use practices. These practices have left a legacy of channel instability which continues to the present day and will continue into the foreseeable future. Although the area has regrown with forest vegetation and appears "natural", it does not represent a pristine or geomorphically stable setting.

Upper Newell Creek is presently a conduit for large quantities of fine sediment derived from the uppermost watershed. The channel and valley floor within the study area also represent chronic source areas of fine sediment, although this tends to be localized and the contribution from downstream reaches is probably much greater. This is because the channel is steep and well armored with large rock through much of the property and the deposition of modern, unconsolidated and highly erodible sediment infills appears to have occurred mainly in lower gradient areas downstream of this site.

Increases in the frequency and magnitude of flood events on Newell Creek are inevitable as the basin continues to urbanize because the area of impervious surface, and the network of pipes and gutters, will likewise increase. This tendency in alteration of the flow regime should promote an increased tendency for channel bank erosion within Newell Creek canyon, resulting in increased sediment supply to downstream areas. (Better understanding of the full extent of this tendency would require a more thorough investigation of the entire channel network.)

Continued and perhaps increasing levels of fine sediment supply to downstream areas will undoubtedly impact instream habitat conditions in Newell Creek. Localized sedimentation in the lowest gradient reaches of Newell Creek or Abernethy Creek could also result in local flooding or streambank erosion. Unfortunately, even the cessation of all further development in the basin would not reverse this process because the stream remains out of geomorphic adjustment and susceptible to accelerated erosion (mainly of channel banks) by even moderate flow events.

Improvements in the "style" of development within the basin can ameliorate these conditions somewhat. Emphasis should be placed on the re-infiltration of precipitation wherever possible in developing areas. This will tend to mitigate against larger and more frequent flood flows and will also promote groundwater recharge, which is vital to maintaining streamflow (particularly in small basins) during our dry summers.

Re-infiltration as an approach to stormwater management requires the provision of engineered structures which accept stormwater running off impervious surfaces and allow it to slowly infiltrate into the ground. The low-intensity rainfall common to this region should facilitate this type of treatment. Re-infiltration is also promoted by minimizing the area of impervious surface in the first place. This is done by maximizing the area left in (or restored to) seasonally drought-tolerant native vegetation and litter cover as well as by minimizing the area of lawns, which can become relatively impervious as they age.

The preliminary design plan for the Newell Creek Overlook Apartments has incorporated re-infiltration as the primary means of managing stormwater generated by this development. The footprint of the developed area appears to represent about 15-20 acres and this includes landscaped areas which can still function as "soakaways." Even though groundwater flow pathways have been reduced because stormwater collected from roofs and road surfaces must be piped to downslope infiltration trenches closer to the stream, this treatment would appear to represent a large improvement over conventional designs with respect to minimizing impacts to the stream.

A wide protective setback will also be retained between the development site and stream. A number of other remedial measures for repairing stream conditions unrelated to this development can also be implemented on this property. These include the removal of dirt roads and road crossings from the valley floor, conifer planting, and efforts to minimize surface erosion on lower valley sideslopes (which remain susceptible to this in areas which might be disturbed by foot traffic).

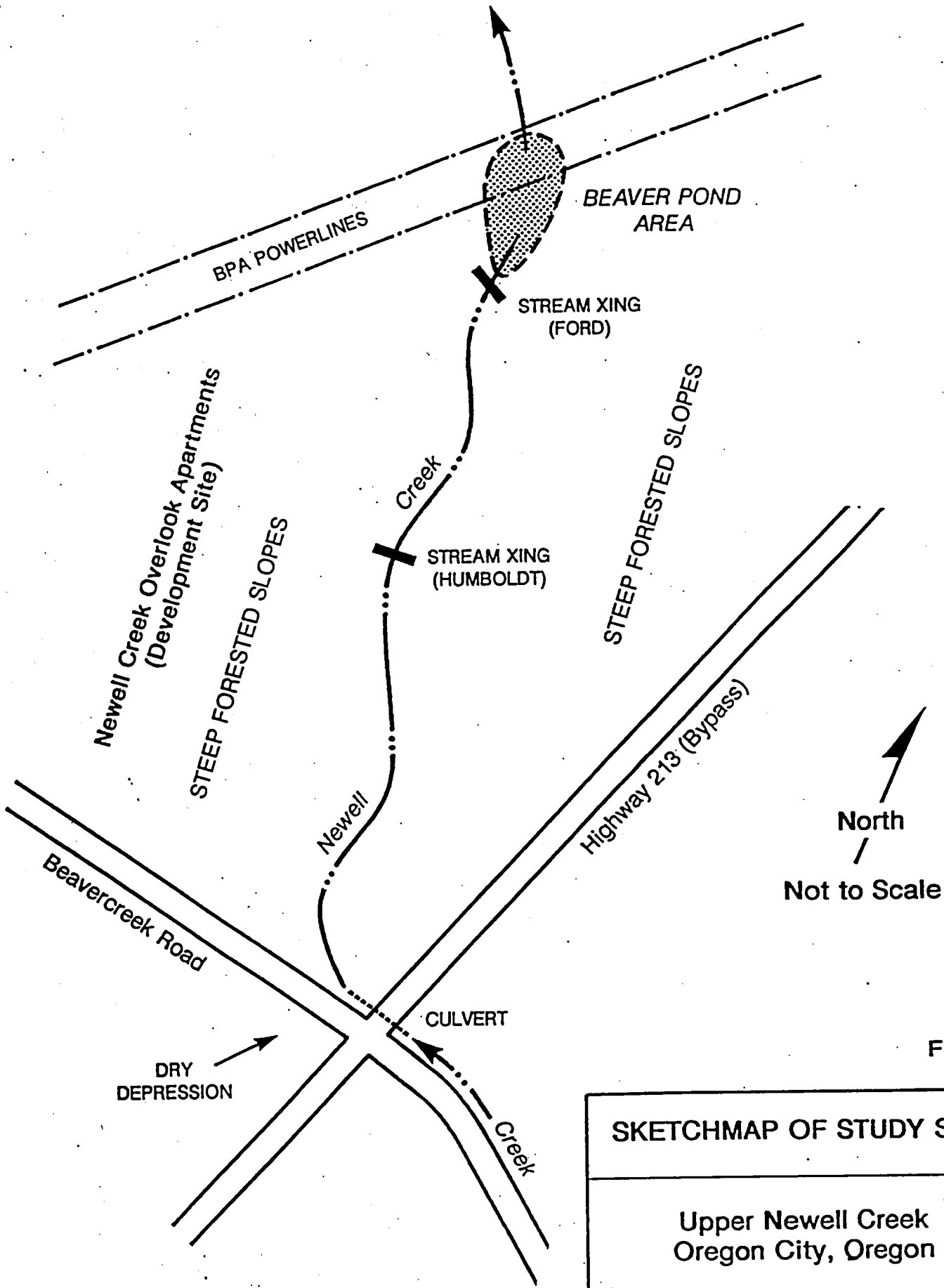
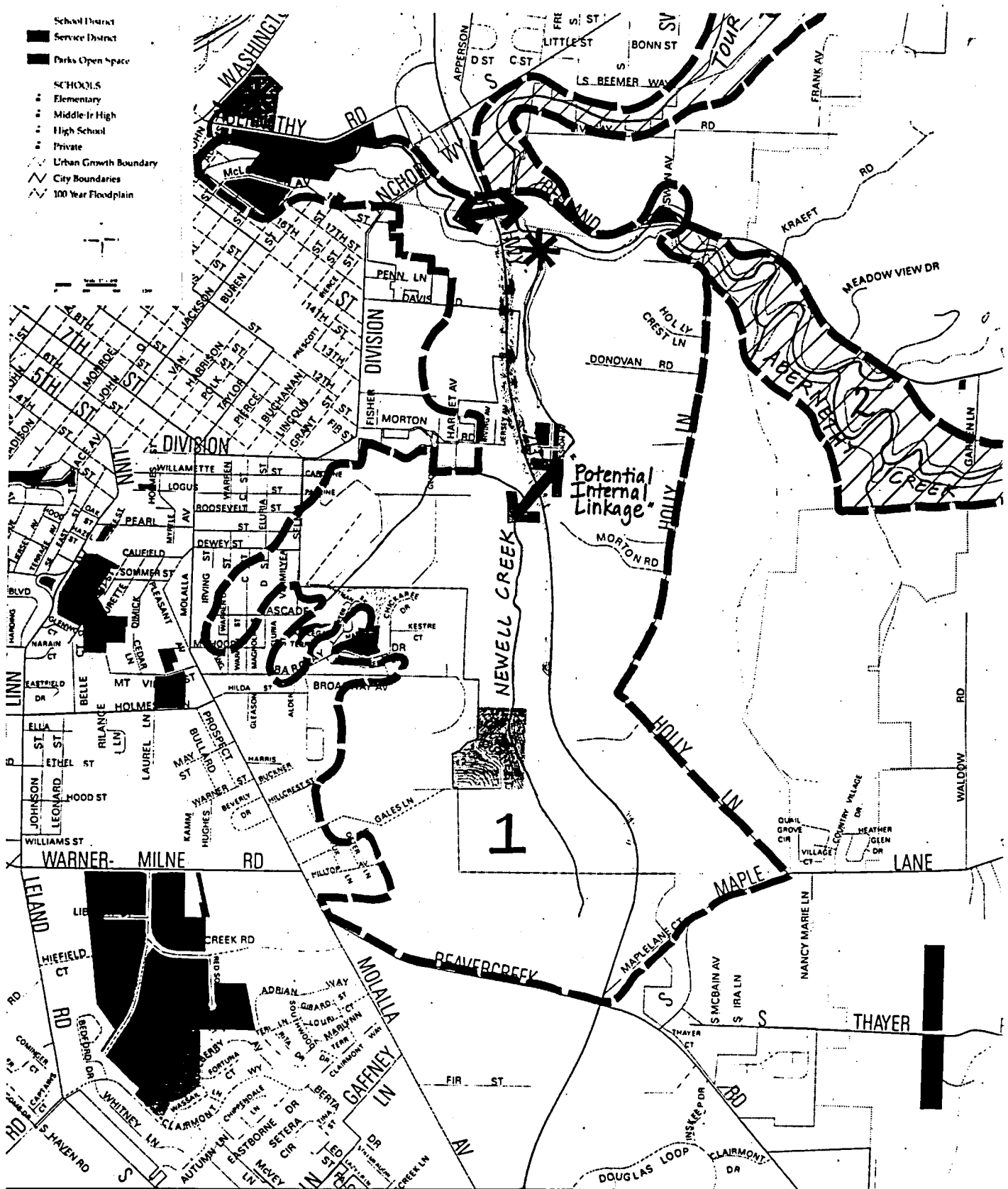


Figure 1

<p>SKETCHMAP OF STUDY SITE</p>
<p>Upper Newell Creek Oregon City, Oregon</p>
<p>September 1994</p>

- School District
 - Service District
 - Parks Open Space
- SCHOOLS
- Elementary
 - Middle-High
 - High School
 - Private
- Urban Growth Boundary
- City Boundaries
- 100 Year Floodplain



Measure 26-26: Newell Creek Canyon Target Area