Mt. Talbert

Master Plan & Management Recommendations

Mayer/Reed

NORTH CLACKAMAS PARKS & RECREATION DISTRICT

Mt. Talbert

Master Plan & Management Recommendations

Prepared for and Funded by:

North Clackamas Parks & Recreation District

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1 August 2000

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Executive Summary

Background

In 1997 the North Clackamas Parks & Recreation District (NCPRD) entered into an intergovernmental agreement with the Metropolitan Service District (Metro) to purchase and manage Mt. Talbert as a regionally significant component of the Metropolitan Greenspaces Master Plan.

Since the initiation of the partnership a total of 143 acres of land have been purchased. A total of 149 acres of Mt. Talbert is in public ownership. In 1999, North Clackamas Parks & Recreation District commissioned Mayer/Reed, landscape architects and planners, to create a master plan for Mt. Talbert. The master plan has been prepared in accordance with the NCPRD District-wide Master Plan (1990), the Metro Greenspaces Master Plan (1990) and the Metro Open Spaces, Parks and Streams bond measure (1995).

The master plan study area encompasses the currently owned Metro and NCPRD property plus an additional 200 acres of privately owned land. The master plan is a vision document that addresses projected improvements to the currently owned property and prospective uses and improvements for properties acquired in the future.

The Mt. Talbert Master Plan planning process was strategically organized to involve representatives of the regional community, the neighborhood community and technical experts from local jurisdictions. Throughout the planning process both a Steering Committee and a Technical Advisory Committee met and discussed issues that guided the planning consultant. In addition, public comments were obtained in two workshops. Community needs and desires were integrated into the master plan.

Master Plan Development & Implementation

The Mt. Talbert Master Plan identifies, analyzes and summarizes important factual data regarding the natural features of the study area as well as critical subjective community values that impact how this resource will be used by the region.

Implementation of the master plan will be guided by the mission statement and vision defined by the Steering Committee.

> *"Preserve and enhance the natural features and character of Mt. Talbert."*

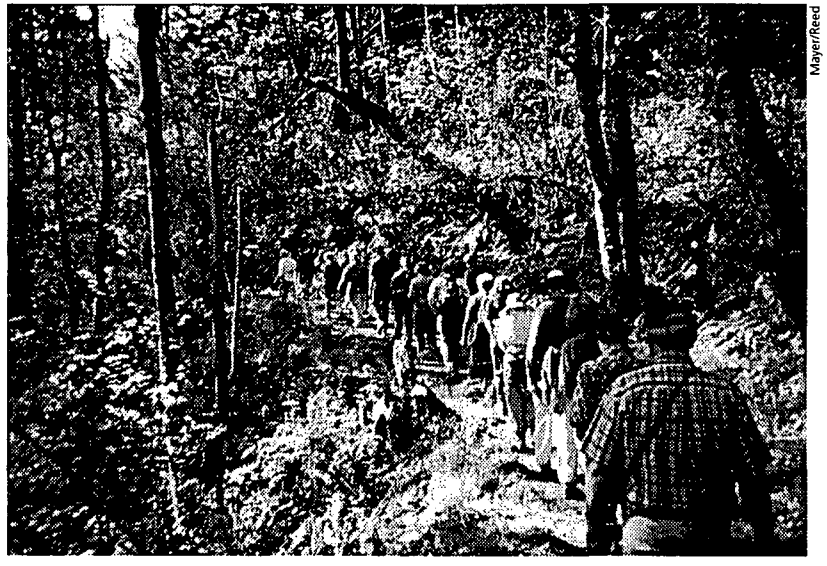
The following master plan goals were derived from the mission statement.

- Provide a natural experience in an urbanized area.
- Restore, enhance and protect the natural area while providing appropriate recreation opportunities.
- Preserve and enhance connections to other natural resources.
- Create a management and maintenance plan that addresses natural resources, recreation activities, safety and security.
- Plan for trails within and around Mt. Talbert and provide the necessary supporting elements for trail usage.
- Cooperate with neighbors and the community at large to provide an inclusive public process.
- Comply with the Metro Greenspaces Bond Measure regarding appropriate recreation activities on Mt. Talbert.
- Provide educational opportunities and cultivate volunteerism to encourage community stewardship of Mt. Talbert.
- Identify costs associated with phased development and ongoing maintenance.
- Develop a wildlife protection plan and an erosion control plan.
- Support scientific research.

The master plan goals translated into the following features:

- Educational and interpretive signage to address natural and cultural history
- Ecological restoration of disturbed land
- Pedestrian bridge over Mt. Scott Creek
- Soft trails except in ADA accessible areas
- Park hours and regulations signage at access points
- Bicycle racks at select trailhead locations
- Parking and picnic tables at Sunnyside entry only
- Screened portable toilets at Sunnyside entry with potential future upgrade to permanent facility
- Cooperation with local school districts for educational programs

Mt. Talbert is part of a connective fabric that will improve the region as a sustainable urban and suburban environment. Rapid development in Clackamas County has made Mt. Talbert an increasingly important regional wildlife resource, community learning environment and opportunity for passive enjoyment of nature. The master plan will help guide incremental changes foreseen over the next 10-15 years.



Mayer/Reed

Audubon sponsored field trip on Mt. Talbert.

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Introduction

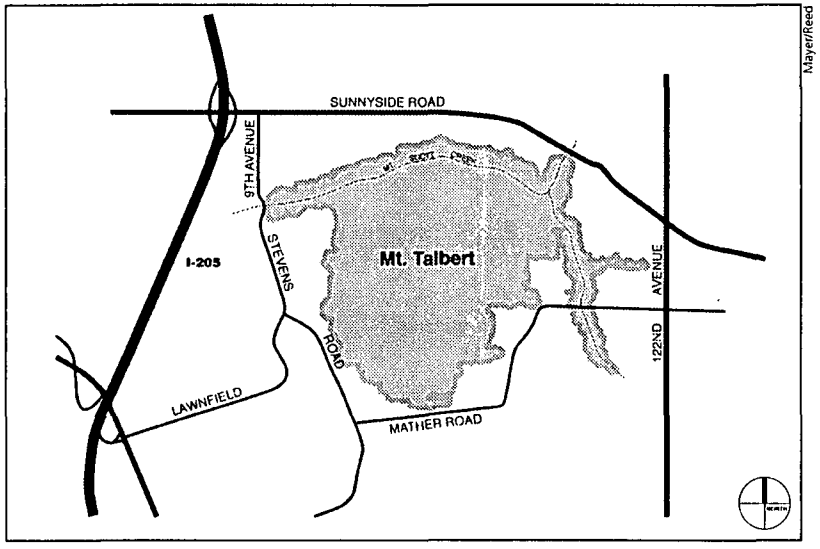
The Mt. Talbert master plan is one of the first planning efforts to be jointly reviewed by Metro and a partner agency for property purchased with Open Spaces bond funds. Metro served as the primary purchasing partner [75%] while North Clackamas Parks & Recreation District (NCPRD) contributed 25%. NCPRD will guide and fund the planning, construction, maintenance and operations of the site.

Study Purpose

The purpose of the study is to prepare a master plan that will guide the future management and development of Mt. Talbert.

Location

Mt. Talbert is located in the North Clackamas Parks & Recreation District east of I-205, south of SE Sunnyside Road, and west of SE 122nd Avenue.



Context Map

Background

The North Clackamas Parks & Recreation District was formed in 1990 through a grass roots effort of the citizens in the North Clackamas region. Prior to the Parks District being formed, this area was devoid of parks or recreation amenities (with the exception of those located in the incorporated cities).

The geographical boundary of the Parks District is the Clackamas County border to the north, the urban growth boundary to the east, the Clackamas River to the south, and the Willamette River to the west. The Parks District encompasses thirty (30) square miles and serves a population of approximately 95,000. The City of Milwaukie is the only incorporated city within the Parks District.

There are five neighborhoods that define the Parks District: The City of Milwaukie, Southgate/Town Center, Sunnyside, Oatfield, and Oak Lodge. A Neighborhood Parks Advisory Board (NPAB) serves each neighborhood. The Milwaukie City Council serves as the NPAB for the City of Milwaukie. Mt. Talbert is located in the Sunnyside neighborhood.

In addition to the five neighborhood boards, there is one District Advisory Board (DAB). This board is made up of a representative from each of the neighborhood boards, a representative from the Milwaukie Center Community Advisory Board, and three at-large members. The Parks District's Board of Directors is the Board of Clackamas County Commissioners.

Mt. Talbert is identified in the North Clackamas Parks & Recreation District's Master Plan and Neighborhood Parks Plan as a site to preserve for recreational trails and natural resource preservation. To date, the Parks District and Metro have acquired 149 acres on the butte. The northwest quadrant has yet to be acquired as well as the down slopes on the northern face. The following points identify why Mt. Talbert is important to the region:

- Watershed Protection: Mt. Scott Creek lies at the base of Mt. Talbert. If the butte were to be logged for residential development, Mt. Scott Creek could face serious siltation and water quality problems that would have direct effects on fish habitat as well as Kellogg Lake in the City of Milwaukie.
- Natural Resource Protection: Forest communities are diverse on Mt. Talbert, with mixtures of firs, western red cedars and big leaf maples near its base and oak and madrones at the top. The understory is relatively free of Himalayan blackberries and other non-native plants, and dominated by snowberry, serviceberry and sword fern. It is one of the few remaining large wildlife habitats in the urbanized area and is one of the last undeveloped buttes in the Portland region.
- Scenic Value: Mt. Talbert serves as a prominent scenic site in the Parks District. It can be seen from two major transportation corridors and various locations around the Portland metropolitan region.
- Recreational Value: Mt. Talbert has regional and local significance. Locally, Mt. Talbert serves as the hub of the Parks District's long-range plan for a trail system, linking the east and west side of I-205. Regionally, Mt. Talbert could be linked with other trails with the potential to reach to Portland, Gresham, Boring, and Oregon City.

A Park District goal is to have effective pedestrian links between all NCPRD public amenities. Specifically relating to Mt. Talbert, the goal is to connect Mt. Talbert to the 85 acre District Park and the 45 acre North Clackamas Park. This connection would link the east and west sides of I-205.

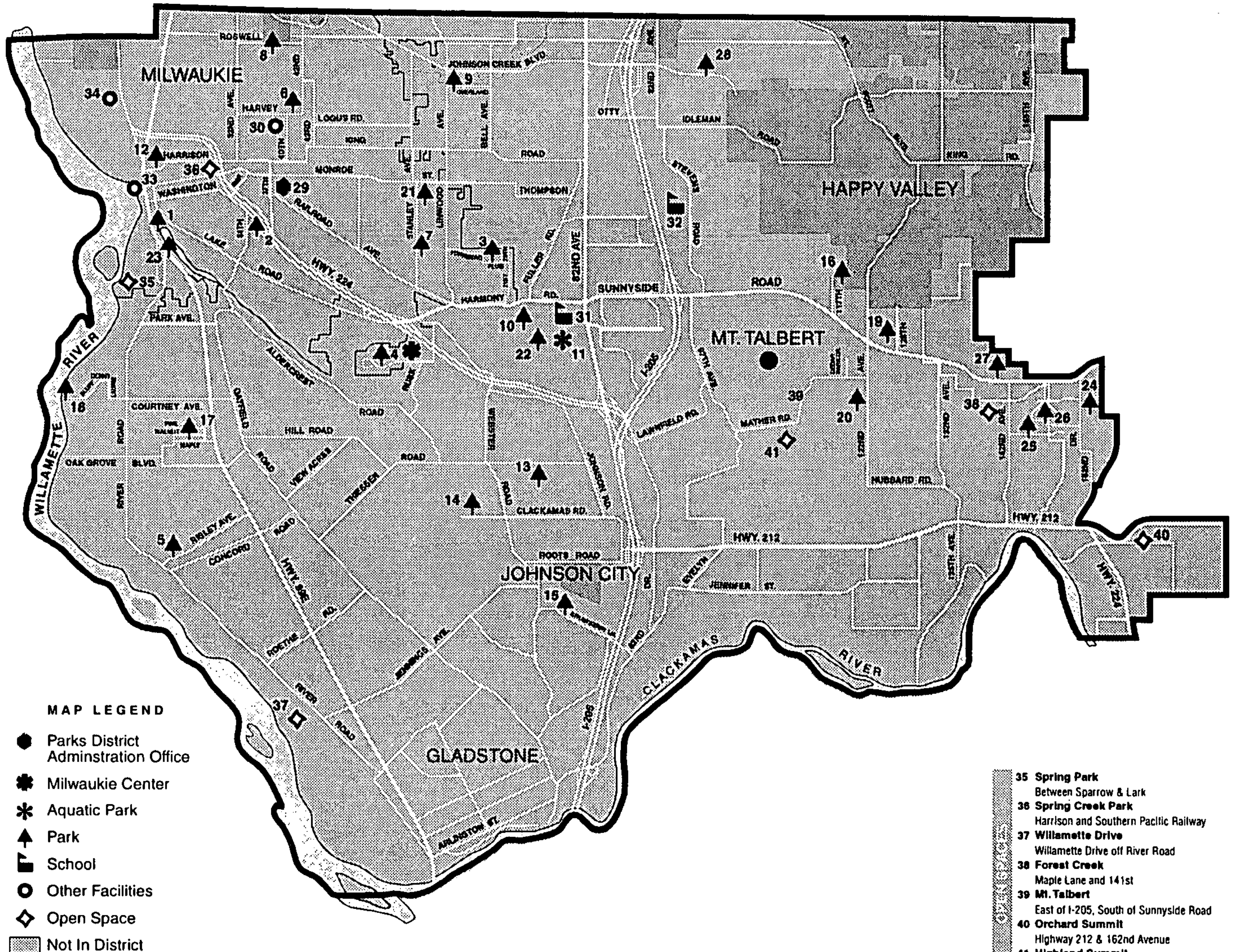
In 1997 the North Clackamas Parks & Recreation District formed an intergovernmental agreement with the Metro to purchase and manage Mt. Talbert as a significant component of a regional system of parks and greenspaces.

Metro's Regional Framework Plan (1997) addresses parks as a growth management strategy for sustaining our region's quality of life by protecting some of its last scenic open spaces, wildlife habitats and greenway corridors." This concept has grown out of an idea presented at the turn of the 20th century by the noted regional and city planners, John and Frederick Law Olmstead Jr. From their proposal to create a system of parks, grew Metro's vision of a regional parks and greenspaces system.

In 1995, citizens in Portland's metropolitan region approved a bond measure that allocated $135.6 million dollars to be used for the purchase of 6,000 acres of natural areas, trail corridors and greenways. The purpose of the bond measure is to help link these and other existing greenspaces and to purchase key properties that will be managed and protected. The overriding goal of the bond measure is to provide this and future generations the needed benefits of clean water and air and access to nature for picnicking, hiking, fishing and boating.

As of April 1, 2000, Metro has purchased a total of 5,891 acres of natural areas, parks, greenways and trails. This includes the currently owned Mt. Talbert property shown on the study area map.

NORTH CLACKAMAS PARKS & RECREATION DISTRICT



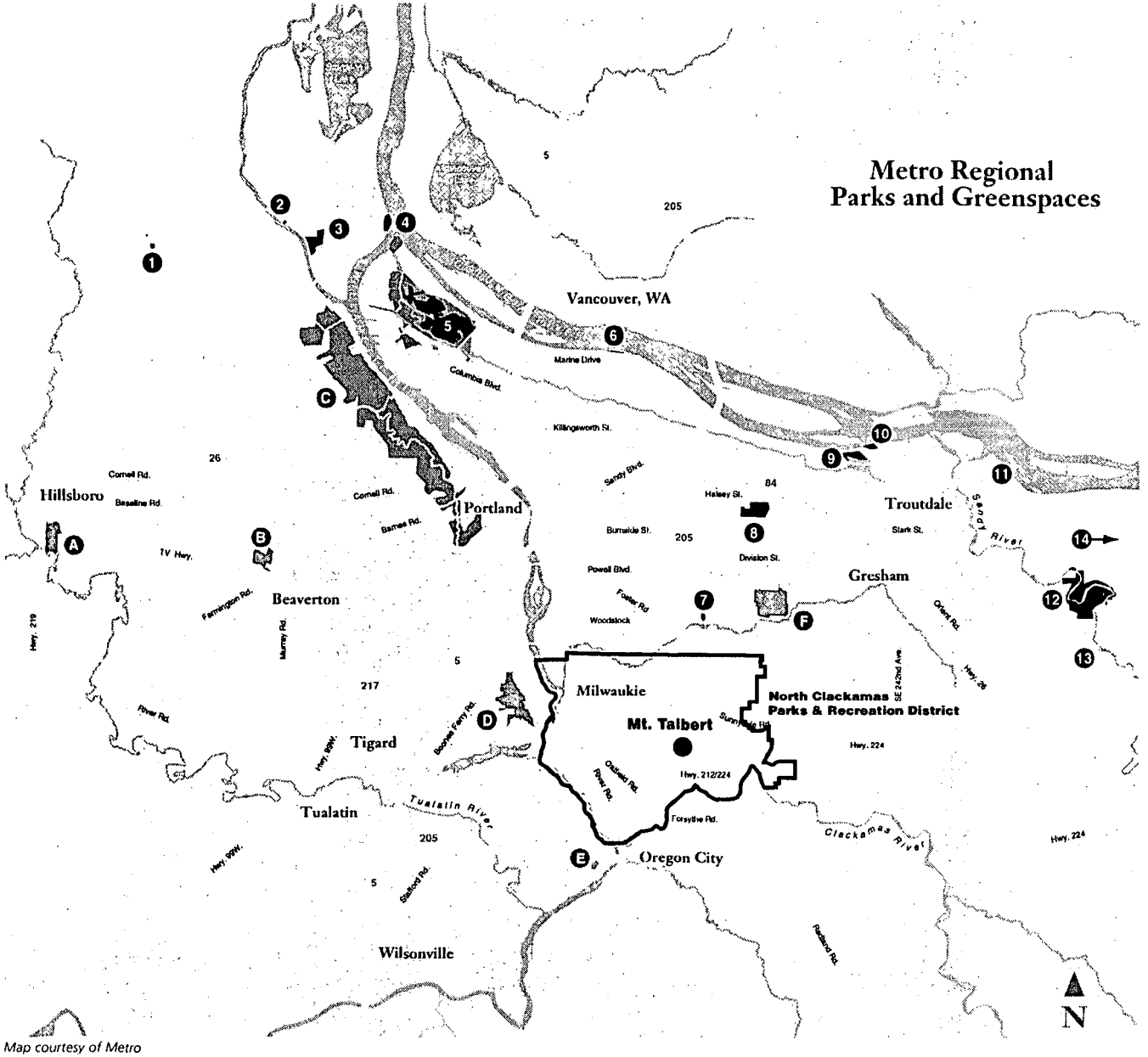
1 **Dogwood Park**
Adams and Main
2 **Century Park**
35th & Sellwood
3 **Furnberg Park**
S.E. Furnberg west of 70th
4 **North Clackamas Park/ Milwaukie Center/ Sara Hite Memorial Rose Garden**
5440 S.E. Kellogg Creek Drive
5 **Risley Park**
Between Risley & Swain
6 **Water Tower Park**
40th & Harvey
7 **Stanley Park**
Stanley & Harlow
8 **Ardenwald Park**
38th & Roswell
9 **Mill Park**
6201 S.E. Overland Street
10 **Neighborhood Park**
Harmony & Price-Fuller Road
11 **Aquatic Park**
7300 SE Harmony Road
12 **Scott Park**
Next to Ledding Library
13 **Alma Myra Park**
7510 S.E. Thiessen Road
14 **Ann-Toni Schreiber Park**
6717 S.E. Clackamas Road
15 **Heddie Notz Park**
7821 Strawberry Lane
16 **Southern Lites Park**
S.E. 117th Avenue
17 **Bunnell Park**
Walnut & Pine
18 **Rivervilla Park**
Off Courtney

19 **James/Abele Park**
Royal View and 126th
20 **122nd Street Property**
122nd near Mather Road
21 **Wichita Park**
Monroe and 57th
22 **85 Acre District Park**
82nd and Harmony Road
23 **Kellogg Lake Park Property**
E. of McLoughlin at River Road
24 **Oregon Trail Property**
Off 152nd and Oregon Trail Drive
25 **Sieben Property**
Off Sieben Drive in E. Sunnyside Village
26 **Village Green**
Oregon Trail Drive and 147th
27 **Summerfield Property**
Off 142nd in E. Sunnyside Village
28 **Altamont School/Park Property**
Off Johnson Creek Blvd. in Altamont Subdivision

29 **District Park Office**
11022 S.E. 37th Avenue
30 **Park Maintenance Office**
9909 S.E. 40th Avenue
31 **Oregon Institute of Technology**
7726 S.E. Harmony
32 **Mt. Scott Elementary**
11201 S.E. Stevens Road
33 **Jefferson Street Boat Ramp**
Highway 99E & Jefferson
34 **Pioneer Cemetery**
17th & Waverly Drive

35 **Spring Park**
Between Sparrow & Lark
36 **Spring Creek Park**
Harrison and Southern Pacific Railway
37 **Willamette Drive**
Willamette Drive off River Road
38 **Forest Creek**
Maple Lane and 141st
39 **Mt. Talbert**
East of I-205, South of Sunnyside Road
40 **Orchard Summit**
Highway 212 & 162nd Avenue
41 **Highland Summit**
Sites Within Subdivision

Map courtesy of North Clackamas Parks & Recreation District



Map courtesy of Metro

Metro Regional Parks & Greenspaces

1. Mason Hill Park
2. Sauvie Island Boat Ramp
3. Howell Territorial Park
4. Bell View Point
5. Smith and Bybee Lakes
6. M. James Gleason Boat Ramp and Broughton Beach
7. Beggars-tick Wildlife Refuge
8. Glendoveer Golf Course
9. Blue Lake Regional Park
10. Chinook Landing
11. Gary and Flagg Islands
12. Oxbow Regional Park
13. Indian John Island
14. Larch Mountain Corridor

Significant Public Greenspaces

A. Jackson Bottom
B. Tualatin Hills Nature Park
C. Forest Park
D. Tryon Creek State Park
E. Camassia Nature Reserve
F. Powell Butte Park

Mission Statement

After thorough analysis and discussion of issues and opportunities presented by both the Steering and Technical Advisory Committees, the Steering Committee was asked to define a guiding mission statement. The Steering Committee used the DAB ad-hoc committee's draft mission statement as a base from which they crafted the following refined mission statement:

> *"Preserve and enhance the natural features and character of Mt. Talbert."*

Master Plan Goals

From this mission statement, the Steering Committee developed the following Goals and Program Elements:

- Provide a natural experience in an urbanized area.
- Restore and enhance natural resources.
- Create a management plan that addresses natural resources and recreation activities, safety and security.
- Cooperate with neighbors and the community at large to provide an inclusive public process.
- Protect the natural area while providing appropriate recreation opportunities.
- Plan for trails within and around Mt. Talbert.
- Provide the necessary supporting elements for trail usage, e.g. parking signage, restrooms, access points, etc.
- Comply with the Metro Greenspaces Bond Measure regarding appropriate recreation activities on Mt. Talbert.
- Provide educational opportunities (maps, brochures, field trip opportunities).
- Cultivate volunteerism to encourage community stewardship of Mt. Talbert.
- Identify costs associated with phased development and ongoing maintenance.
- Develop a plan to protect wildlife.
- Develop an erosion control plan.
- Develop a map of the butte with trails.
- Preserve and enhance connections to other natural resources.
- Establish maintenance and management guidelines.
- Support scientific research.

Master Plan Program Elements

A preliminary list of site program elements and features was created to physically plan the site improvements.

- Interpretive information features
- Educational and directional signage – site map, natural vegetation identification
- Parking – Identify required quantity, required surfacing
- Access control, park hours and controlled entry points
- Avoid impacting sensitive areas
- Continuous trail loops, no dead-end trails
- Use existing trails
- Identify view opportunities where appropriate
- Resting benches
- Picnic tables and garbage cans near parking or trail heads at base of butte
- Toilet facilities
- Future interpretive center (as allowable under the Greenspace Bond Measure)
- Focus trails and interpretation on natural resources
- Different trail types as needed for different areas and users

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Steering Committee members on Mt. Talbert summit.

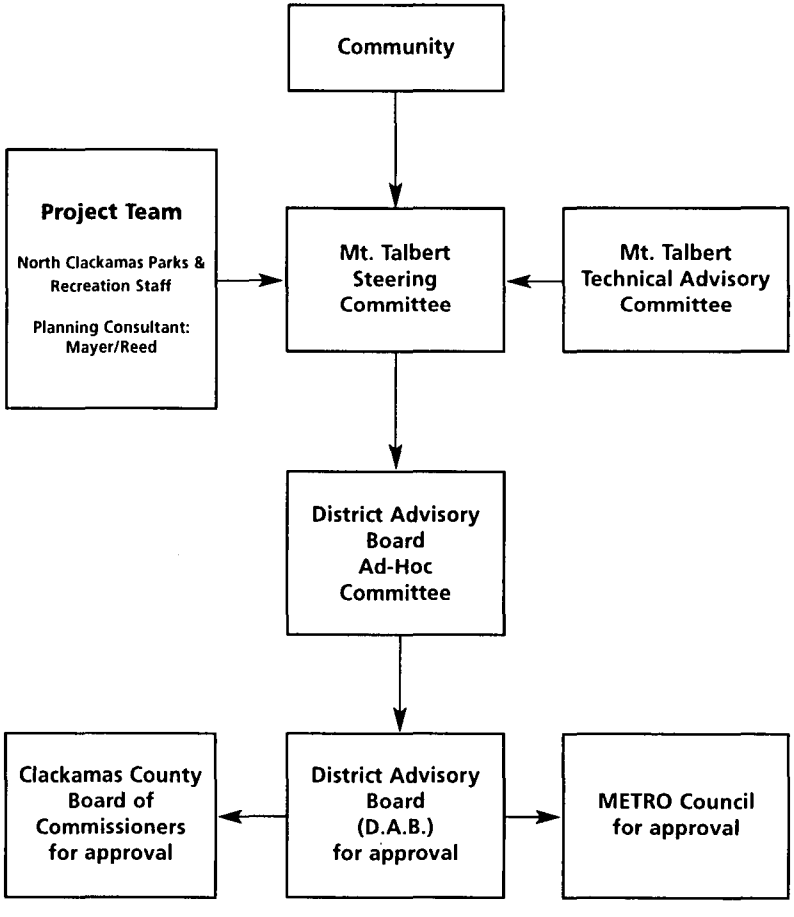
Public Involvement & Planning Process Summary

The Mt. Talbert Master Plan planning process was strategically organized to involve representatives of the regional community, the neighborhood community and technical experts from local jurisdictions. Throughout the planning process both the Steering Committee and the Technical Advisory Committee would meet and discuss issues and give the project team valuable information regarding community needs and desires. At the right is a flow chart of how decisions were made. Below is a description of the flow chart.

Community

Community involvement was aggressively sought out by directive of the District Advisory Board and a special ad-hoc committee whose role was to facilitate the selection of a community-based steering committee. NCPRD initiated and completed an extensive search for community members within the region to serve as liaisons between

Planning Process Diagram



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the committee and neighborhoods. In addition a series of community open house meetings were planned and advertised. Open house meetings allowed anyone in the community a chance to review and comment on the master planning process and plan components. Steering Committee members were on hand to answer questions and record comments and suggestions. These meetings were scheduled on four different days, different times and at various locations to promote optimum attendance.

Steering Committee

The Steering Committee is composed of 11 community volunteers from across the North Clackamas area. The Project Team leads the Steering Committee through the planning process.

Project Team

The project team included NCPRD staff and the planning consultants who were contracted to facilitate the planning process and summarize the conclusions in this master plan report.

Technical Advisory Committee

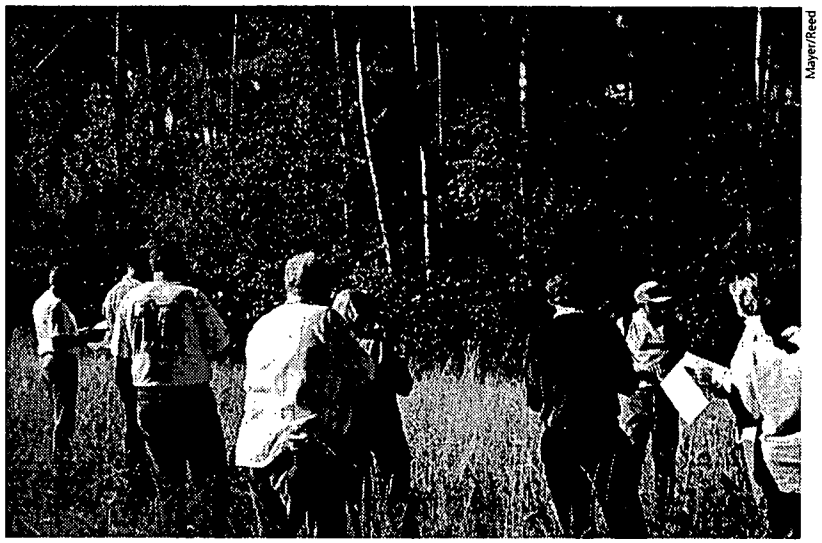
A Technical Advisory Committee (TAC) was also organized to provide important resource and technical guidance during the planning process and to inform local public agencies about the master plan.

District Advisory Board

The District Advisory Board (DAB) oversees the day-to-day operations of the district. The DAB is comprised of community volunteers from each of the district's five neighborhoods, the Milwaukie Center/ Community Advisory Board, and three at-large members. For this project, the DAB has the responsibility of approving plans for Mt. Talbert. The DAB, representing their citizen constituent groups, can evaluate projects from a district and regional perspective.

Board of Clackamas County Commissioners

The district's board of directors has approved the final plan.



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Steering Committee and Technical Advisory Committee at Cedar Park access point.

Metro Council

The Mt. Talbert master plan has been approved by the Metro Council.

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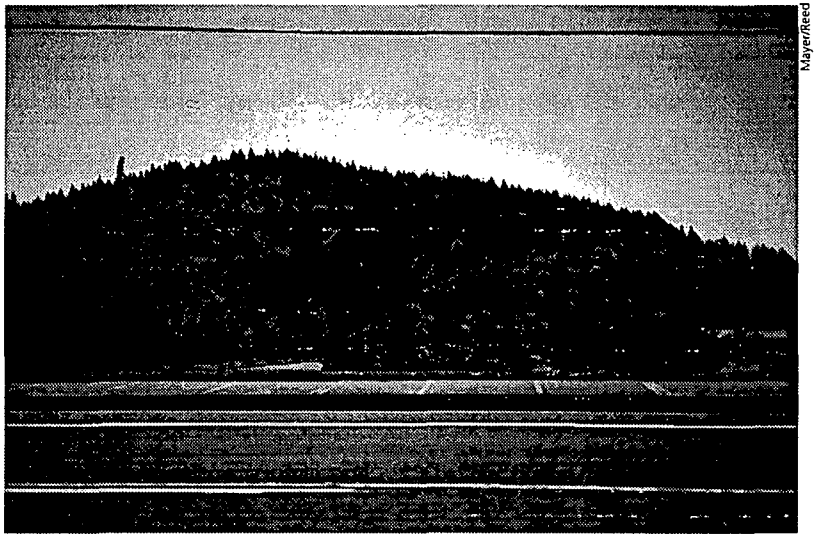
Mt. Scott Creek

Access Points

Technical Advisory Committee

Site Analysis



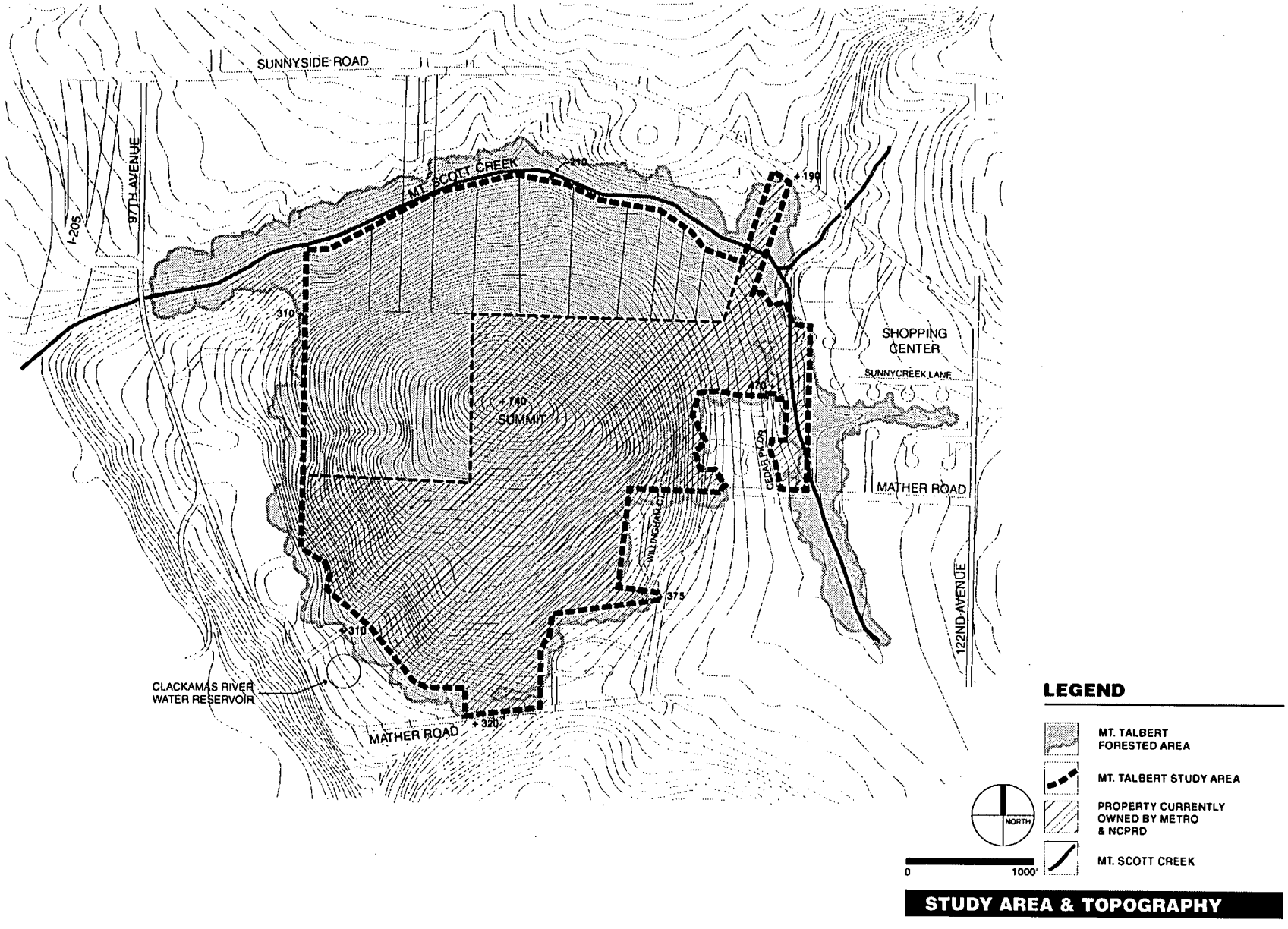
Looking south towards Mt. Talbert from Sunnyside Road.

Mt. Talbert Study Area

Mt Talbert was formed through volcanic activity and is topographically characteristic of the East Buttes and Boring Lava Domes Region. Mt. Talbert is located southeast of downtown Portland, immediately east of Interstate Highway 205 and south of Sunnyside Road. The study area of this report includes 149 acres of Metro and NCPRD owned land and approximately 200 acres of privately owned property. The goal of the master plan is to outline the optimum programmatic components of the entire area that will help support and maintain the ecological integrity of Mt. Talbert. The community planning process helped confirm that all undeveloped property on the slopes of Mt. Talbert within the study area should be protected from development to maximize the ecological integrity of the site. At this time it is uncertain how much of the private property within the study area can be acquired now or in the future. Acquisitions may include purchase, donations, or easements.

In addition, the East Buttes and Boring Lava Domes are important regional natural resources. Encroaching urbanization in Clackamas County has resulted in these buttes becoming important wildlife refuges. These natural areas also help maintain water quality and scenic values throughout the region.

Mt. Scott Creek, at the base of Mt. Talbert to the north, is a documented cutthroat trout habitat. Chinook and coho salmon also share various reaches and tributaries of the creek. It is foreseen that Mt. Scott Creek will become a protected wildlife resource through new federal legislation protecting endangered species. Impacts of Metro's Streams and Floodplain Protection Plan (Title 3) and the Endangered Species Act (ESA) are discussed later in this report.



STUDY AREA & TOPOGRAPHY

Mayer/Reed

Mt. Talbert History

Mt. Talbert is one of several lava domes which are grouped in north Clackamas and east Multnomah Counties. Because of their steep terrain they provide unique topographic character to the region along with wildlife habitat and view opportunities. Mt. Talbert is one of the few lava domes visible from downtown Portland that is undeveloped at the top.

Mt. Talbert has been subject to the impacts of natural resource harvest. Historic aerial photos dating from 1936 indicate that different sections of Mt. Talbert have been clear-cut for timber over subsequent years into the 1950's. Nearly every face of Mt. Talbert has been cleared at one time or another. Over time, the resulting second growth forest has reclaimed the dome with a diversity of native plant species. Remarkably, there is very little evidence of exotic or invasive plant species taking root here.

1936 aerial photograph.

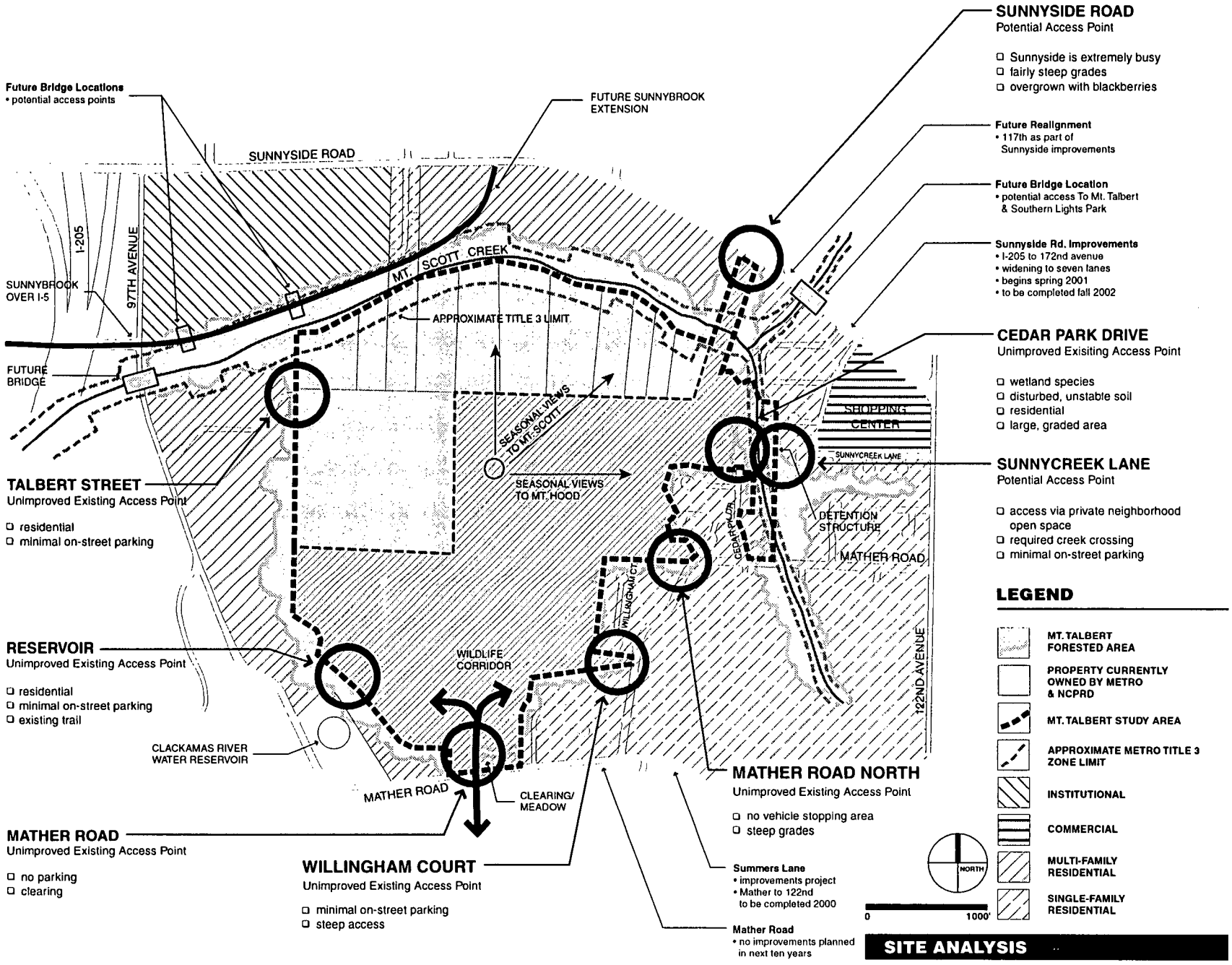
Mt. Talbert has remained relatively free from development because of steep slopes, erosive soils and slide potential. High construction costs for areas with natural constraints like Mt. Scott Creek make development costs a prohibitive factor. The development that has occurred is limited to the lower reaches of the butte where slopes are less steep and construction costs can be mitigated by the land uses allowed, generally multi-family housing.

Zoning

The majority of the property within the study area is zoned R-20 with three exceptions; portions of the south slope which is zoned R-15, the pan-handle that extends to Sunnyside Road which is zoned MR-2 and a small area at the northeast corner of the project study area which is zoned R-8.5. All "R" designated zones within the study area are defined by the county as "Urban Low Density Residential."

The R-20 zoning designation allows one residential dwelling per 20,000 square feet of land. This is approximately 2 houses per acre. Similarly, the portions of the south slope zoned R-15 are allowed to have one residential dwelling per 15,000 square feet or three housed per acre. The pan-handle parcel that crosses Mt. Scott Creek is zoned M-2 like the adjoining properties. MR-2 is defined as Medium High Density Residential which allows 18 units per acre. Typically property zoned MR-2 is developed as apartments. The small section of land at the northeast corner of the study area is zoned R 8.5. This allows one residential dwelling per 8,500 square feet of land approximately five per acre.

For more information regarding zoning within Clackamas County contact Clackamas County Dept. of Transportation & Development. For more information regarding slope and erosion potential contact Clackamas County Water and Environment Services.



SITE ANALYSIS

Land Use / Ownership

The surrounding land uses of Mt. Talbert are characteristic of developing suburban communities of the region.

North

The entire northern edge of the study area is bounded by Mt. Scott Creek. The land beyond the northwest corner of the study area and the creek is Kaiser Permanente Community Health Center and Offices. Kaiser Permanente occupies 61 acres of land with the Mt. Talbert area as a significant natural area adjacent to its developing campus.

Immediately east of Kaiser Permanente is a small group of single-family residences. Private properties continuing east are currently under active improvement and development, primarily multi-family housing. Near the thin strip of land in the study area that connects to Sunnyside Road is a future retirement center development. Mt. Talbert could become a viable asset to this development not only as a visual amenity but also a passive recreational facility for retired persons.

Several transportation projects are underway. Near the intersection of Southeast 117th Avenue and Sunnyside Road a new vehicular bridge will be constructed over Mt. Scott Creek replacing an older culvert which restricts the migration of fish. The Sunnybrook Extension that will parallel Mt. Scott Creek from I-205 to Southeast 108th Avenue is a new roadway project designed to relieve congestion at the Sunnyside Road and I-205 intersection.

South

The southern limit of the site is bounded by Mather Road, single-family houses and multi-family apartments. South of Mather Road are single-family residences, some are sited among more mature forest canopy. The properties are part of the wildlife corridor that extends south from Mt. Talbert through to Camp Withycombe.

East

The eastern portion of the study area parallels and includes a tributary of Mt. Scott Creek. This small tributary is currently relatively undisturbed, however, surrounding single-family housing developments could have a negative impact on the tributary. At 122nd Avenue and Sunnyside Road is a 10.5 acre shopping center.

West

The western side of the study area is bounded by multi-family developments that back up to the base of the butte. Typically these developments are fenced at the forest line, however private access points have evolved along this boundary. Skirting the western edge of the butte is 97th Avenue. Beginning at Mt. Scott Creek and northward, 97th Avenue will receive alignment improvements as part of the Sunnybrook Extension.

Land Acquisition

Metro and NCPRD have actively pursued dialogue with adjacent landowners who have property within the study area. It is the goal of Metro and NCPRD to purchase, acquire access and use easements or have the owners donate the land as part of the effort to preserve the Mt. Talbert natural area as a community resource. Discussions to acquire land are ongoing and land will be obtained as funds are available.

Transportation

Improvements to the surrounding transportation system were reviewed to ascertain the issues and understand opportunities. Below is a summary of surrounding roadway improvement projects.

Description	Beginning	Ending
Sunnyside Rd. Widening	Spring 2001	Fall 2002
Sunnybrook Extension	March 2000	Oct 2001
Mather Rd. (97th - Summers Lane)	10 yrs out	
Summers Lane Extension (Mather to 132nd)	under construction	2000
97th Ave. alignment	March 2000	October 2001

The projects described below are those that will have the most impact on Mt. Talbert within the next 10 years.

Sunnyside Road Widening Project

Between southeast 97th Avenue and 122nd Avenue, the Sunnyside Road Widening project will expand the road width to seven lanes of vehicular traffic, three lanes east bound, three lanes west bound and one center turning lane. Accompanying these vehicular improvements are bicycle lanes and sidewalks. This project has impacts on the accessibility of the site where the study area meets Sunnyside Road, as well as the Mt. Scott Creek fish passage.

SE 117th Avenue Realignment

As part of the Sunnyside Road widening project, SE 117th Avenue will be realigned. The realignment will include a signalized intersection at SE 117th Avenue and Sunnyside Road. The location of the signalized intersection is integral to the Mt. Talbert Master Plan. The main vehicular access point will be from Sunnyside Road. In order to facilitate a safe and efficient entrance and exit to Mt. Talbert, the intersection must be aligned with the NCPRD/Metro owned property.

Sunnybrook Extension

The Sunnybrook Extension project, in brief, will extend Sunnybrook Road from the west side of Interstate Highway 205 over the highway, parallel to Mt. Scott Creek to connect with Sunnyside Road at approximately 108th Avenue. The planning of this project is complete and construction will begin March of 2000. This transportation project is significant to its impact on Mt. Scott Creek, an important natural resource for the entire Mt. Talbert study area.

The permitting and review process associated with the Sunnyside Road Widening and the Sunnybrook Extension projects ensure environmental mitigation of many of the impacts and will make improvements to Mt. Scott Creek as a fish migration corridor. Improvements will include removing culverts through which the creek currently flows under roads and replacing them with bridges. Removal of the culverts is responsive to the final recommendations made in the recently completed report, Distribution of Fish and Crayfish and Measurement of Available Habitat in Streams of the North Clackamas County. The replacement of culverts with bridges will help increase the flood capacity of the riparian corridor and facilitate the migration of fish.

Sunnyside Road looking east.

Natural Resource Inventories and Analysis

The Project Team collected natural resource information and presented it to the Steering Committee. In addition, the Steering Committee convened for a walking tour to the top of Mt. Talbert to gain first hand information and a shared level of understanding of site characteristics, opportunities and constraints.

Soils and Slope Analysis

The Soil Survey of Clackamas County indicates that the study area contains eight soil types. Each soil type is related to a specific range of slope as noted below.

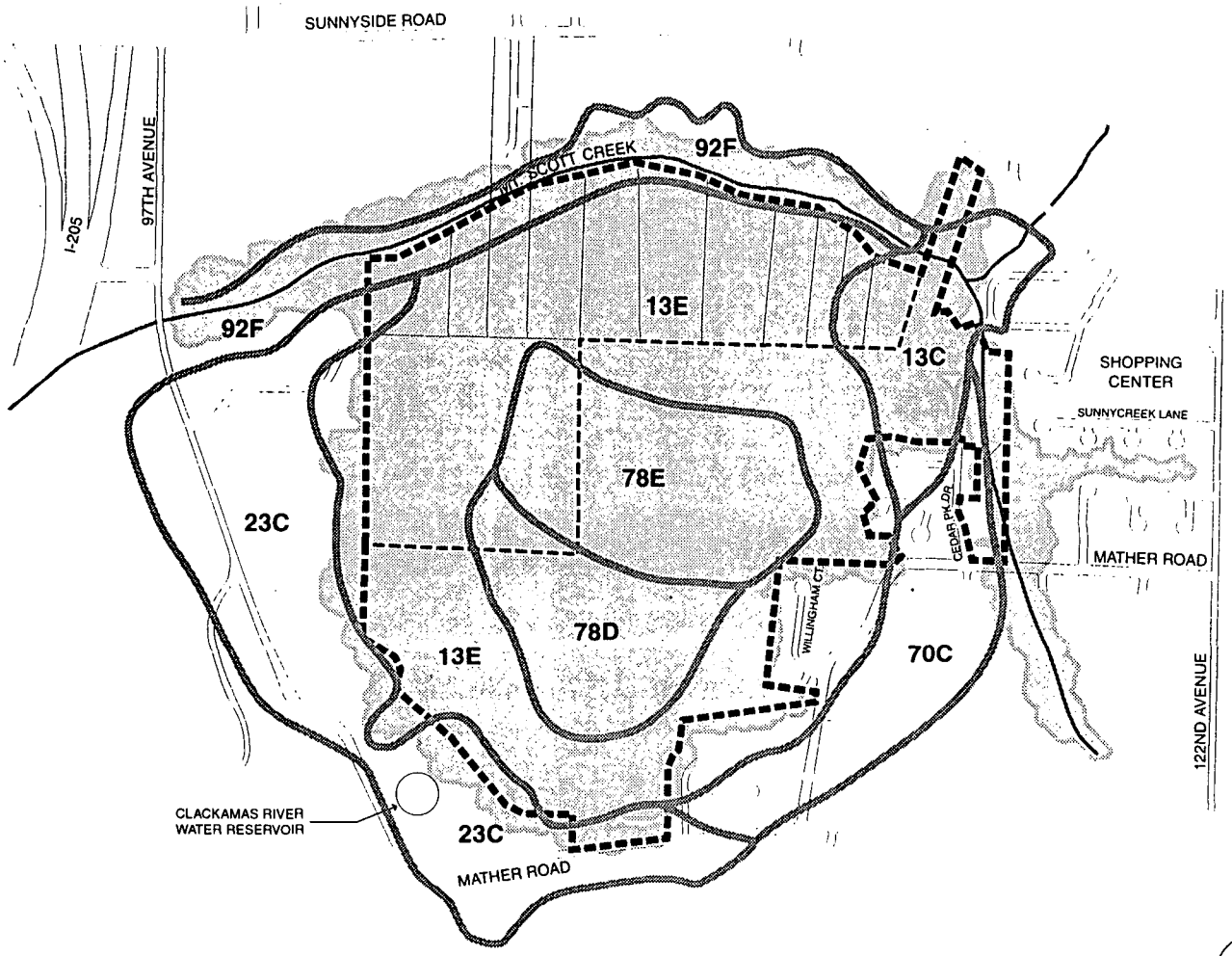
Mt. Talbert Soil Types

Unit	Name	% slope
13 C	Cascade Silt Loam	8 - 15%
13 E	Cascade Silt Loam	30 - 60%
23 C	Cornelius Silt Loam	8 - 15%
30 C	Delena Silt Loam	3 - 12 %
70 C	Powell Silt Loam	8 - 15%
78 D	Saum Silt Loam	30 - 60%
78 E	Saum Silt Loam	30 - 60%
92 F	Xerochrepts & Haploxerolls	20 - 60%

Mayer/Reed

Eroded gully along side of trail on Mt. Talbert.

Without exception these soils occur on moderate to severe slopes. The associated and varying degrees of soil permeability and wetness also increase the potential for soil erosion. Erosion and soil failures (landslides) can occur naturally but human impacts in steeply sloped areas magnify the possibility. Soil erosion problems in one area can impact natural waterways, watersheds and plant and animal habitat miles from the point of occurrence. Therefore the impacts associated with the development of recreational facilities must be carefully considered. The plant communities and the distribution of plants follow soil types along with slope, aspect and the microclimates on Mt. Talbert.



LEGEND

13C	CASCADE SILT LOAM 8-15% SLOPES
13E	CASCADE SILT LOAM 30-60% SLOPES
23C	CORNELIUS SILT LOAM 8-15% SLOPES
70C	POWELL SILT LOAM 8-15% SLOPES
78D	SAUM SILT LOAM 15-30% SLOPES
78E	SAUM SILT LOAM 30-60% SLOPES
92F	XEROCHREPTS & HAPLOXEROLLS VERY STEEP

MT. TALBERT FORESTED AREA

MT. TALBERT STUDY AREA

MT. SCOTT CREEK

NORTH

0 1000'

SOIL SURVEY

Plant Communities

Western Red Cedar Community

Western red cedars form a forest community on the mid-slope of the northeast corner of Mt. Talbert that is unique within the study area. The dense evergreen tree canopy shades out many understory species and keeps temperatures cool throughout the summer months. The forest floor is dense with sword ferns that grow in the rich humus soil created by years of accumulated leaf fall and decomposing tree branches and stumps. Spring sunlight penetrating the edge of this dense coniferous community helps support vine maples and a variety of native wildflowers. Although there are only two dominant species, the ecological systems found here are complex.

This plant community is made up of the following:

Common Name	Botanical Name
western red cedar* (up to 24" diameter breast height)	Thuja plicata
Douglas fir	Pseudotsuga menziesii
sword fern*	Polystichum munitum

* dominant species

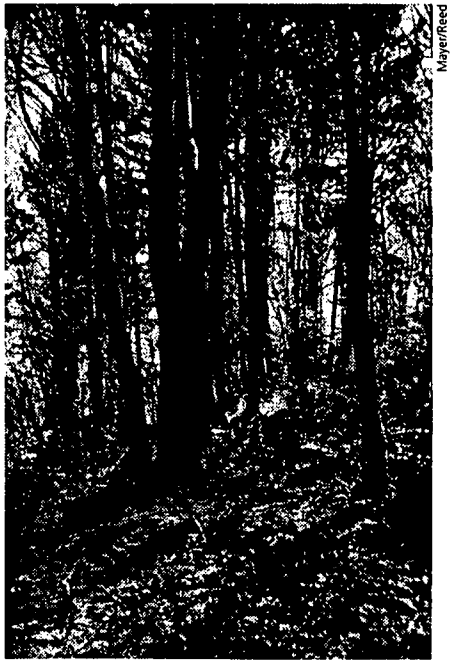
Deciduous / Coniferous Second Growth Community

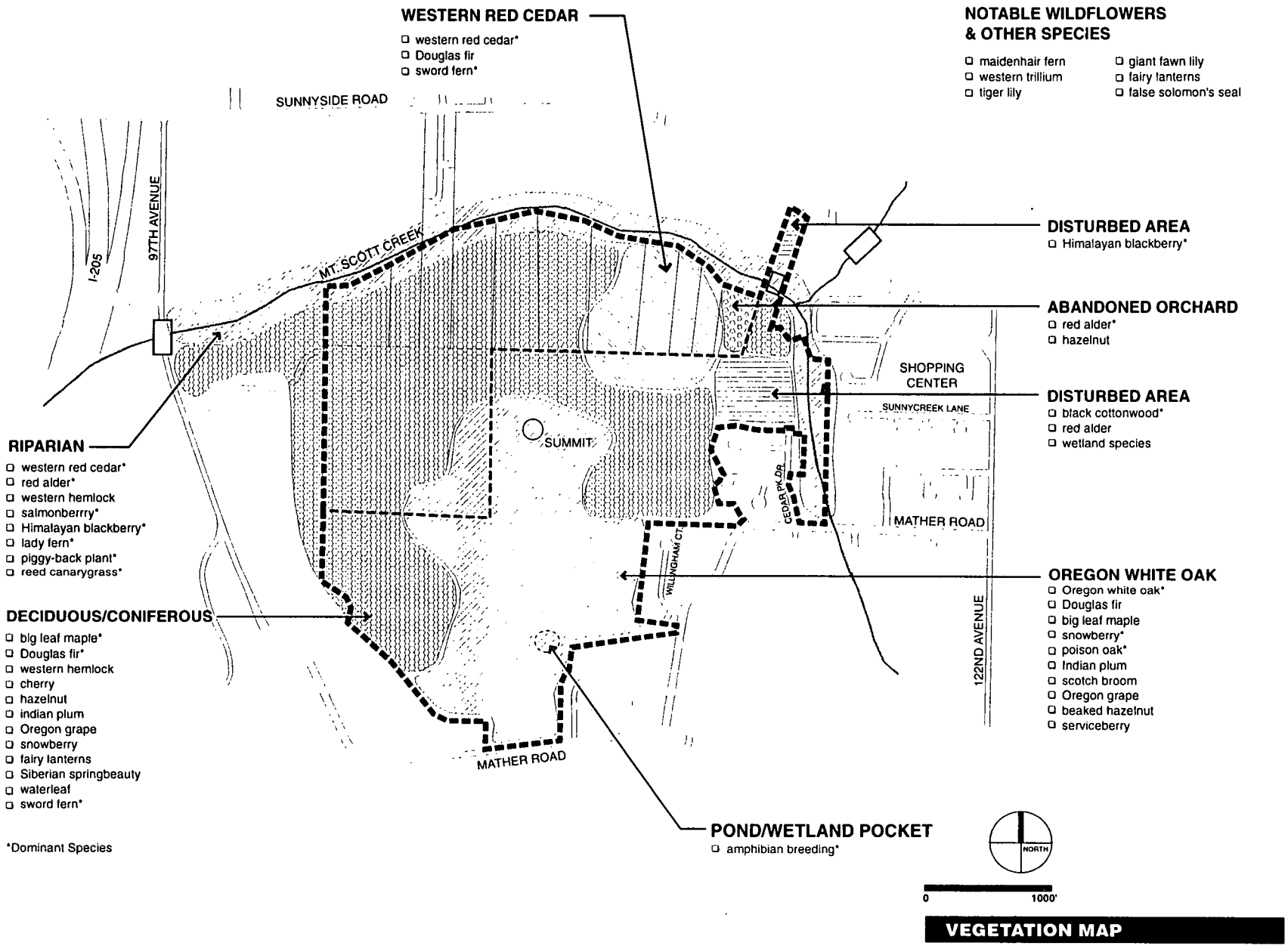
The deciduous / coniferous second growth vegetation is a transitional community that will evolve into a forest dominated by Douglas fir. After the impacts of the logging industry this community shows a healthy and natural succession to a Douglas fir forest. The amount and density of the understory is related to the amount of sunlight that penetrates the tree canopy. Before the deciduous trees leaf out in the spring patches of wildflowers can be found where sunlight hits the forest floor. The diversity of plant species creates opportunities for a variety of wildlife both seasonally or throughout the year. Raptors as well as songbirds nest in both evergreen conifers and the deciduous tree canopies.

Common species in the mixed second growth community include the following:

Common Name	Botanical Name
big leaf maple*	Acer macrophyllum
Douglas fir*	Pseudotsuga menziesii
western hemlock	Tsuga heterophylla
cherry	Prunus spp.
hazelnut	Corylus spp.
Indian plum	Oemleria cerasiformis
Oregon grape	Mahonia aquifolium
snowberry	Symphoricarpos albus
fairy lanterns	Calochortus albus
Siberian springbeauty	Montia sibirica
water leaf	Hydrophyllum spp.
sword fern*	Polystichum munitum

* dominant species





*Dominant Species

VEGETATION MAP

Oregon white oak community on south slope of Mt. Talbert

Oregon White Oak Community

The Oregon white oak community is as distinct as the western red cedar and Douglas fir community in its visible boundaries and character. The Oregon white oak community thrives on the southern exposed slopes of Mt. Talbert. Here the soils are generally shallow and rocky providing the opportunity for sun loving and deeply rooted plants to flourish. Oregon oaks are deciduous trees that allow a thick and scrubby understory of shrubs and groundcovers to thrive. The oak's twisted, knarled branches and deeply textured bark create an interesting character against the sky, in contrast to the deeply shaded western red cedar community.

Common Name	Botanical Name
Oregon white oak	Quercus garryana
Douglas fir	Pseudotsuga menziesii
big leaf maple	Acer macrophyllum
snowberry*	Symphoricarpos albus
poison oak*	Rhus diversiloba
Indian plum	Oemleria cerasiformis
Scotch broom (non-native)	Cytisus scoparius
Oregon grape	Mahonia aquifolium
beaked hazelnut	Corylus cornuta
serviceberry	Amelanchier laevis

* dominant species

Riparian Community

Riparian communities, in general, are a critical component of the forest ecology. Riparian communities border seasonal creeks and continually flowing streams and rivers. The associated soils serve as the last natural filters of surface runoff and groundwater before they arrive at these areas of concentration and natural water flow.

As an edge community, this riparian zone along Mt. Scott Creek is especially rich in species abundance and diversity. This corridor transports water throughout the year and is an important wildlife corridor providing access and habitat for mammals, amphibians, reptiles and birds.

The riparian community at the base of Mt. Talbert supports the following plant species:

Common Name	Botanical Name
western red cedar*	Thuja plicata
red alder*	Alnus rubra
western hemlock	Tsuga heterophylla
vine maple	Acer circinatum
salmonberry*	Rubus spectabilis
Himalayan blackberry (non-native)*	Rubus discolor
lady fern*	Athyrium filix-femina
piggy-back plant*	Tolmiea menziessii
reed canarygrass (non-native)*	Phalaris arandinacea

* dominant species

Wildflowers and Other Species

Wildflowers are a noted delight for the springtime visitor to Mt. Talbert. Other forest floor species such as ferns compliment the wildflowers. Some of the species observed are as follow:

Common Name	Botanical Name
maidenhair fern	Adiantum spp.
western trillium	Trillium ovatum
tiger lily	Lilium columbianum
giant fawn-lily	Erythronium oregonum
fairy lanterns	Disporum spp.
false Solomon's seal	Smilacina racemosa

Wetland Pockets

Wetland pockets can result from both natural conditions and manmade disturbances. Natural underground springs can create seasonal wet areas as well as feed more substantial wetland systems. Two manmade wetland pockets can be found on Mt. Talbert. The wetland pocket at the end of Cedar Park Drive has been created by soil disturbances where cutting away the natural soil has occurred to grade areas level for home construction. It is speculated that a small pond on the lower south side of Mt. Talbert may have been the accompanying water and/or irrigation source for a nearby early homestead. These areas can be left to develop naturally or can be enhanced to provide greater diversity as well as educational and experiential diversity.

Wetland pockets provide important habitats in the breeding habits of many species of amphibians. Common wetland plants noted on the site include the following:

Common Name	Botanical Name
soft rush	Juncus effusus
creeping buttercup	Ranunculus repens
red alder	Alnus rubra
black cottonwood	Populus trichocarpa

Invasive Plants

Invasive species are typically described as non-native or very opportunistic species that grow to dominate natural areas. This typically occurs in areas that have some level of soil or vegetation disturbance. Disturbances can result from natural forces such as landslides or cultural forces such as heavy foot traffic in sensitive areas, construction of a roadway, home construction, landfill or other intrusion. These changes in the natural landscape reduce tree canopy cover and alter soil conditions, drainage patterns and microclimate. Even though Mt. Talbert has a very limited number of areas that contain invasive plant species, if left unchecked, the few invasive species present could significantly impact the area and overtake native plants. These species require special attention by those managing and maintaining this area (see Management Recommendations).

The invasive species listed below are those noted during informal field surveys of the study area:

Common Name	Botanical Name
Himalayan blackberry	Rubus discolor
English ivy	Hedera helix
English holly	Ilex aquifolium
Scotch broom	Cytisus scoparius
Traveler's Joy clematis	Clematis 'Traveler's Joy'
Periwinkle	Vinca spp.

Wildlife Inventory

On April 24, 1999, Mike Houck of the Audubon Society and Jim Morgan of Metro led an Audubon sponsored field trip on Mt. Talbert. Shortly after, Jim Morgan, NCPRD staff and the consultant team led the Steering Committee members on a tour of Mt. Talbert.

Wildlife observations includes songbirds and active mammals. Lynn Sharp and Maurita Smyth added to the list of birds through sightings made later in the year. The following list includes the wildlife observed on the butte. Many other species likely occur, but are less conspicuous or rare.

Songbirds

Common Name	Scientific Name
American crow	Corvus brachyrhnchos
American goldfinch	Carduelis tristis
American robin	Turdus migratorius
Bewick's wren	Thryomanes bewickii
black-capped chickadee	Parus atricapillus
black-throated gray warbler	Dendroica nigrescens
Brewer's blackbird	Euphagus cyanocephalus
chestnut-backed chickadee	Parus rufescens
common bushtit	Psaltriparus minimus
downy woodpecker	Picoides pubescens
European starling	Surnus vulgaris
house finch	Carpodacus mexicanus
Hutton's vireo	Vireo huttoni
lesser goldfinch	Carduelis psaltria
mourning dove	Zenaida macroura
northern flicker	Colaptes auratus
olive-sided flycatcher	Nuttallornis borealis
orange crowned warbler	Vermivora celata
pileated woodpecker	Dryocopus pileatus
pine siskin	Carpodacus purpureus
red-breasted nuthatch	Sitta canadensis
red-breasted sapsucker	Sphyrapicus ruber
ruby-crowned kinglet	Regulus calendula
scrub jay	Aphelocoma coerulescens
solitary vireo	Vireo solitarius
song sparrow	Melospiza melodia
Steller's jay	Cyanocitta stelleri
violet-green swallow	Tachycineta thalassina
western tanager	Piranga ludoviciana
Wilson's warbler	Wilsonia pusilla
winter wren	Troglodytes troglodytes

Raptors

Common Name	Scientific Name
Cooper's hawk	Accipiter cooperi
red-tailed hawk	Buteo jamaicensis

Mammals

Prior to development of neighboring Mt. Scott to the north and the increasing traffic on Sunnyside Road, Mt. Talbert was part of a larger continuous wildlife habitat that spanned the eastern edge of Interstate Highway 205. Now Mt. Talbert is becoming an island of nature within its urbanizing context but remains closely linked to the forested and open land to the south that includes some adjacent private properties and Camp Withycombe. Although Mather Road presents an obstacle to some wildlife species, this wildlife corridor is critical to the health of the wildlife habitat of Mt. Talbert over the long term.

Few mammals have been observed, but formal surveys have not been conducted. Likely mammals on Mt. Talbert include a variety of bats, mice and voles, as well as Douglas squirrels, fox squirrels and flying squirrels.

Mammals observed in the area include the following:

Common Name	Scientific Name
beaver	Castor canadensis
black-tailed deer	Odocoileus hemionus
coyote	Canis latrans
possum	Didelphis virginiana
mole sp.	scapanus sp.
raccoon	Procyon lotor
shrew mole	Neurotrichus gibbsi
Shrew sp.	Sorex sp.

Herpetofauna (Amphibians & Reptiles)
Amphibian activity was observed at the wetland pockets at the end of Cedar Park Drive and the farmstead pond on the south side of the butte. It became readily apparent that water sources like the small pond are critical to the diversity of species found here. Mt. Scott Creek and its tributaries are vital to the species abundance and diversity of amphibian species in the area. Amphibians typically found in the area include the following:

Common Name	Scientific Name
common garter snake	Thamnophis sirtalis
rough-skinned newt	Taricha granulosa
Pacific chorus frog	Pseudacris regilla

Other herpetofauna may be present, however no formal inventory has been completed. Additional species likely to occur include the long-toed salamander, northwestern salamander and ensatina.

Aquatic Life
The Oregon Department of Fish and Wildlife (ODFW) and Water Environment Services (WES), a department of Clackamas County, surveyed the status distribution of aquatic species, including quality and quantity of habitat and possible ways to enhance the habitat.

The final report, Distribution of Fish and Crayfish and Measurement of Available Habitat in Streams of the North Clackamas County, was completed in November 1999. Mt. Scott Creek was one of seven streams surveyed. Instream and riparian habitats as well as fish and water quality surveys were completed for this study. Mt. Scott Creek's total length is 6.27 miles long. The report defines the portion of Mt. Scott Creek that borders the study area on the north side as "Reach 3" of the Mt. Scott Creek, approximately two miles long. The tributary that borders the eastern limit of the study areas is defined as a minor tributary.

The conclusions and recommendations of the report address all seven streams in North Clackamas County (NCC) and are summarized as follows:

Conclusions

1. Streams of NCC generally lacked complexity and other habitat components that provide good fish habitat.

2. Fish species present in NCC streams were typical of other Willamette Valley locations, by varied considerably among streams and reaches.

3. Anadromous or resident salmonids occurred in all streams surveyed, including three species listed as threatened or endangered under the Endangered Species Act (ESA).

4. Biotic integrity of fish communities in NCC streams is severely degraded with respect to historic conditions.

5. Several habitat and water quality components were significantly correlated with biotic integrity.

Recommendations

1. All culverts and other potential barriers to fish passage within the NCC areas should be inspected and repaired or replaced if they are found to impair fish movement.

2. Habitat restoration efforts should focus on vegetative planting and placement of large woody debris (LWD or other instream structures).

3. Biotic integrity should be used as a guide to prioritize habitat restoration and enhancement among stream sites.

4. Continued monitoring and additional survey would provide a variety of benefits.

Eleven species of fish are found in the total length of Mt. Scott Creek. Four of those species are listed as threatened or endangered species currently protected by the Endangered Species Act (ESA).

Common Name	Scientific Name	ESA
Pacific lamprey	Lampetra tridentate	
speckled dace	Rhinichthys osculus	
redsider shiner	Richardsonius balteatus	
coho salmon	Oncorhynchus kisutch	*
rainbow/steelhead trout	Oncorhynchus mykiss	*
Chinook salmon	Oncorhynchus shawytscha	*
cutthroat trout	Oncorhynchus clarki	*
western mosquitofish	Gambusia affinis	
prickly sculpin	Cottus asper	
reticulate sculpin	Cottus perplexus	
largemouth bass	Micropterus salmoides	

* see Endangered Species Act for further description.

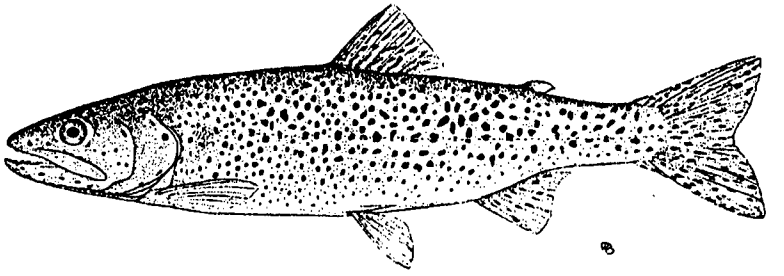
The survey of "Reach 3" of Mt. Scott Creek that borders the north side of Mt. Talbert contains three species, one of which is currently being reviewed by federal agencies for possible listing as a "threatened" species.

Common Name	Scientific Name	ESA
Pacific lamprey	Lampetra tridentate	
cutthroat trout	Oncorhynchus clarki	**
reticulate sculpin	Cottus perplexus	

** species currently under Federal review as potential "threatened species". Definition is expected in April of 2000.

Threatened species are defined as species that are most likely to become "endangered." Once a permitting and review process is initiated in a Metro Title 3 area or in an identified sensitive watershed area, there will be automatic review of the project by the Department of Interior and the National Marine Fisheries Services. Through the review process, the "threatened" species will be assessed on a case-by-case basis to determine the degrees of protection required. However this, at times, is identical to measures applied to listed "endangered" species.

The Distribution of Fish and Crayfish and Measurement of Available Habitat in Streams of the North Clackamas County data and report requires that development plans within the watershed and



Courtesy of Freshwater Fishes of Canada, W.B. Scott & E.J. Crossman

Cutthroat Trout

immediate riparian habitat will be closely examined and reviewed by federal, state and local jurisdictions for conformance with the mandated ESA restrictions to ensure there is no "take" of the endangered species.

Members of the Steering Committee and the Technical Advisory Committee throughout the planning process repeatedly noted the sensitivity of Mt. Scott Creek. Public access to Mt. Scott Creek was purposefully not included in the final master plan as an attempt to avoid impacts to this area. However, a foot bridge across the creek from the primary entry parking area is proposed.

Natural / Cultural Site Features

Homestead Pond

Northwest of the Cranberry Loop neighborhood in the vicinity of an abandoned homestead site is a small pond approximately 30 feet wide and 40 feet long. This pond is manmade taking advantage of local natural groundwater seeps in this area. The size of the pond varies seasonally in accordance with the flow of the groundwater seeps. In winter months the seep is very active and the pond overflows. A small channel constructed by the neighbors diverts winter flows away from homes to a county drainage structure.

Both mammals and amphibians use this pond as a source of water. Currently the pond has very steep sides that increase its human hazard potential and reduce its value to mammals. Amphibians currently appear to find this a safe environment because the steep sides make the pond less accessible to mammal predators.

Disturbed Areas

The area directly north of the end of Cedar Park Drive was planned as an extension to the existing Cedar Park development. Some preliminary grading of a road extension and a few house sites were completed prior to the sale of the property to Metro and NCPRD. The disturbed area is approximately 5 acres and includes an area of cut and fill. Some public sewer utility improvements were also made

Development impacts on soil and vegetation at Cedar Park access point.

in this area. Sewer facilities extend to the east and travel north along the tributary creek to Mt. Scott Creek.

As a result of the construction disturbance, several more seeps have surfaced creating some soil erosion and a wet condition at the previously proposed roadbed area.

The majority of existing vegetation in the area was cleared prior to grading operations. Existing red alder trees have died or are in declining health due to changes in the soil structure, impacts to roots and changes in natural drainage patterns. Cottonwood trees, an early successional species in wetland areas, have started to occupy this area where the alders once stood. Fishman Environmental Services indicated that wetland species now inhabit the cut and filled roadbed. Originally, the groundwater would have reached the tributary of Mt. Scott Creek. It is recommended that a wetland assessment be completed to further identify issues in this area.

Cave

Longtime neighbors of Mt. Talbert have described a natural cave located in the northwest quadrant of the study area. This natural feature is currently on private property and has not been explored by NCPRD staff or the consultant team. It has been described as a small cavern (inundated with poison oak) no more that 100 feet long with limited headroom. Caves are often associated with early Native American shelters and have been found to have archeological significance. This cave may also be used by bats. If this feature is to became part of the publicly owned park, a thorough analysis and record will be required. Until a comprehensive study is completed any disturbance to this area should be avoided.

Stream Channel Flood Control

A concrete flood control detention structure crossing the tributary of Mt. Scott Creek was constructed as part of a stormwater management plan for the Cedar Park subdivision. The dam is sized and constructed to detain a 25-year flood event. During small storm events water collects behind the structure. Similar structures mandated in subdivisions today are sized to detain 2-year storm events. Although it appears that this detention dam functions properly, a thorough assessment should be complete by Clackamas County Water Environment Services to determine whether it should or can be modified to enhance its function relative to riparian corridor enhancement.


Mayer/Reed

Flood control detention structure.

The detention dam is currently used as a foot bridge for access to Mt. Talbert from the neighboring subdivision. This structure is not safe for pedestrian use, but it has potential to become a safer pedestrian foot bridge.


USGS

1955 aerial photo depicting remnant orchards.

Remnant Orchards

Immediately west of the stretch of the study area that extends to Sunnyside Road is a parcel of private property that was historically cultivated as a filbert orchard. Early aerial photography reveals the grid pattern of the orchard that is now only vaguely definable through the thicket of red alder that is overtaking the area.

Mt. Scott Creek – Title 3 and ESA

Mt. Scott Creek is a major natural water feature on the northern limit of the site. This stretch of Mt. Scott Creek is viewed by the Oregon Department of Fish and Wildlife as the most significant stretch along its entire length, due primarily to the pristine state of the riparian corridor and the associated lack of development on the south side where the study area begins. Intense development on the north side of the creek will inevitably impact the creek corridor through increased public use, potential increased soil erosion, and modifications to the riparian habitat. Between S.E. 97th Avenue and 108th Avenue the Sunnybrook Extension will impact Mt. Scott Creek. However, environmental mitigation is planned as part of the improvement project.

Mt Scott Creek

Title 3

Metro has created and adopted an Urban Growth Management Functional Plan that outlines and describes policies for protecting water quality, flood plains and preventing soil erosion throughout the region. Title 3 complies with and supports Oregon's land-use laws and establishes performance measures for water quality and floodplain management that jurisdictions must administer through their local codes.

Oregon State water quality laws and Metro's Title 3 govern Mt. Scott Creek and its tributaries. Clackamas County is required to address issues of water quality and flood plain protection in its development plans and development review process. Below is a summary of Title 3 management measures:

Flood plain management measures:

1. Limit development in the floodplain of the region's rivers and streams for public safety.
2. Require balance cut and fill to avoid flood plain capacity reduction.

Water quality management measures:

1. Protect vegetation along rivers, streams and wetlands.
2. Prevent soil erosion and loose soil muddying streams.
3. Prevent uncontained uses such as hazardous materials along rivers and streams.

Title 3 and the Endangered Species Act (ESA) are important considerations in determining the level of access and recreation vs. preservation of the Mt. Scott Creek corridor.

Endangered Species Act (ESA)

The ESA is federal legislation that protects endangered species and their habitat through development restrictions and guidelines. This legislation applies to both animal and plant life. Although formal surveys of endangered plant species on Mt. Talbert have not been initiated, a recently completed survey of fish habitat in Mt. Scott Creek notes five endangered species of fish in Mt. Scott Creek. A "threatened" species occurs in "Reach 3" of the creek which is the stretch that borders the study area to the north.

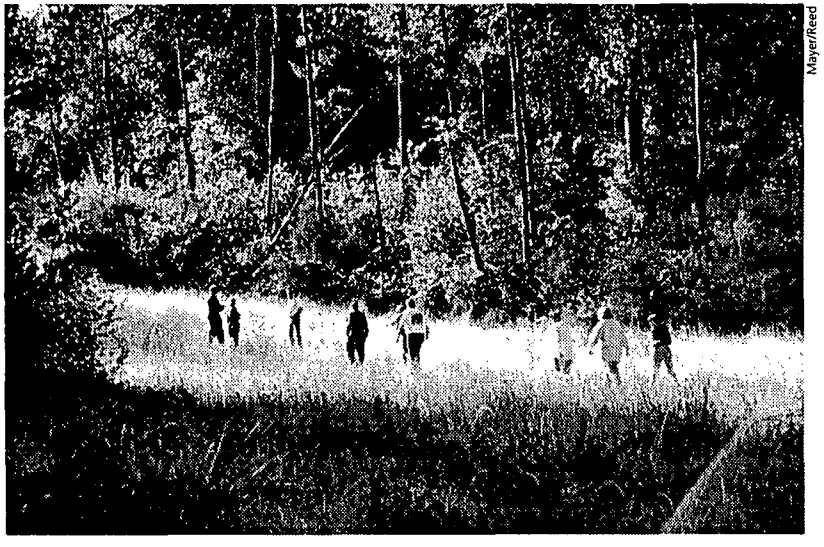
The role of the ESA is to prohibit "take" of a listed species. Broadly defined, "take" includes any activity that results in harm to a listed species or impacts to the habitat of a listed species. Permits and review by federal, state, and local agencies are required prior to any development in these areas that may result in "take." The Endangered Species Act is administered through the National Marine and Fisheries Service (NMFS) who will facilitate review processes carried out by local jurisdictions.

Access To Mt. Talbert

The perimeter of the study areas was explored to assess what points along its length are currently used for access and which points are suited for future access. Eight points were identified to have potential for varying degrees of access.

Sunnyside Road

The northernmost "panhandle" of the Mt. Talbert study area abuts 150 feet of Sunnyside Road. This highly utilized road has few safe pedestrian crossings, yet it is the point most likely to provide future vehicular access to the park. This access point is very visible to the public from Sunnyside Road and has the greatest potential for access by vehicles and the development of handicap accessibility. This point is shown on the site analysis map as a potential future access point. Although Mt. Scott Creek has been an assumed barrier to pedestrian access to Mt. Talbert from Sunnyside Road, there is evidence of seasonal public access long the stream corridor at various points.



Access at Cedar Park Drive.

Cedar Park Drive

Cedar Park Drive, a residential street off Mather Road, currently dead-ends into an expanse of land disturbed by construction grading activities. As a result of this disturbance, a small wetland has evolved adjacent to Mt. Scott Creek. Although this location provides access for pedestrians, maintenance and emergency vehicles, the potential wetland issues may limit its development.

Sunnycreek Lane

Sunnycreek Lane is a residential street located on the east side of Mt. Talbert in a planned housing development. An easement between homes allows residents' access to a common open green space that has some active recreational improvements. This common space is adjacent to a tributary of Mt. Scott Creek and abuts a small stormwater control dam. There is evidence that residents of this development use the stormwater control dam as a bridge to the other side of the creek. The dam is a precarious concrete structure not intended for public use as a bridge.

Mather Road North

The southeast corner of the site connects to Mather Road at the bend west of Cedar Park Drive. There is some evidence of this point being used as an access point but the lack of existing sidewalks along Mather Road make this a very unsafe pedestrian access point. In addition, its location at the bend in the road limits visibility and increases its hazard potential. This point is also steeply graded and is experiencing erosion problems.

Willingham Court

Willingham Court is another residential dead-end street off Mather Road. Due to the limited on-street parking and fairly steep access to trails, this point of entry is primarily for use by neighborhood residents.

Lack of sidewalks on Mather Road.

Mather Road

There is currently an open meadow north of Mather Road. It has been noted as an important wildlife corridor from Mt. Talbert to Camp Withycombe to the south. Deer regularly use this passage. In addition, the meadow supports a developed and diverse edge plant community. Access at this location could impact use of this corridor by wildlife.

Reservoir

Entrance to the park from this point is off a road adjacent to the Clackamas River Water Reservoir. An existing trail begins here and connects to other informal foot paths on the butte.

Talbert Street

Access via Talbert Street is through an apartment complex. Limited on-street parking is available. Talbert Street is not a through street and cannot support substantial automobile traffic.

Bicycle Circulation

There are only a few recently improved roadways that include dedicated bicycle lanes in the area. Existing bicycle access is unfavorable, particularly on the perimeter roads that carry higher volumes of traffic like Sunnyside Road and Mather Road (although, current plans for Sunnyside improvements do include bike lanes). Shoulders on adjacent roadways are minimal, if at all existent, and visibility is substantially limited at several locations. Present conditions suggest the need for future roadway improvements to include safer bicycle access to Mt. Talbert.

Technical Advisory Committee Observations

The Technical Advisory Committee commented on different aspects of the site and the issues that they found relative to their representative agency.

Metro Greenspaces Bond Measure

Jane Hart and Jim Morgan, representing the Metropolitan Service District (Metro), presented the provisions, land use requirements and restrictions attached to properties purchased with bond measure funds. These provisions are outlined in the introduction to this report. Jim also defined Title 3 and clarified the constraints attached to improvements within the immediate area on Mt. Scott Creek. (See Title 3, page 40)

Fire Safety

Rob Carnahan of Clackamas County Fire District No. 1 addressed fire safety on Mt. Talbert. Mt. Talbert does present challenges to the fire department for fire safety and rescue, however these are challenges that can be met. It was decided that vehicular access to the summit of Mt. Talbert should not be a requirement of the master plan due to the environmental impacts it would create. It was suggested, however, that trail maps be provided at access points, not just for typical users but also rescue personnel. In addition, fire hydrants should be installed near as many trailheads or access points as feasible.

Water District

Tim Jannsen of Mt. Scott Water District presented issues related to a proposed future district water mainline alignment and associated easement that is proposed to cross the site from Cedar Park Drive on the south side to Sunnyside Road to the north.

This new alignment will require an agreement between Metro, the NCPRD and the Mt. Scott Creek Water District. The potential opportunities associated with this project were discussed during the planning process. The Water District stated that the installation could be coupled with trail improvements along the same easement corridor, a pedestrian bridge across Mt. Scott Creek and that the Water District could help fund these improvements.

Water Environment Services

Karen Streeter of Water Environment Services defined the parameters of improvements that are possible within the watershed of Mt. Scott Creek and the impacts of the Endangered Species Act (ESA) summarized earlier in this report.

Public Safety and Security

Tim Grolbert, Clackamas County Sheriff, addressed issues of public safety and security on Mt. Talbert. Transient use, vandalism, trespassing and patrolling were discussed. Although no patrolling of this site exists today, the site was not viewed as prohibitive to patrolling or police response to emergency situations. Like Rob Carnahan, Tim felt that trail maps at access points would be useful when responding to emergencies in natural areas like Mt. Talbert. Tim added that park hours and rules should be posted to make users aware of prohibited activities. It was felt that increased public use of the site will discourage transient use of the site.

Educational Opportunities

Terry Wertz of Sabin Occupational Skills Center expressed interest for potential alliances with the North Clackamas School District (NCSD). As a teacher at the Sabin Occupation Skills Center, Terry was very enthusiastic about strong alliances with the school district's forestry education programs including trail maintenance, land surveying, sylviculture and wildlife, fish and stream habitat enhancement. More active uses that would require a classroom structure and agricultural practices were considered, but found to be inconsistent with uses allowed on lands acquired with open spaces bond measure funds. The NCPRD and the NCSD will work together to identify other joint educational opportunities on Mt. Talbert.

Master Plan

Introduction

Master Plan Components

Management Recommendations

Trail Maintenance

Vegetation Management

Recommended Next Steps

Mt. Talbert Master Plan

Introduction

The Mt. Talbert Master Plan is a vision for the future of Mt. Talbert based on a composite of the needs and desires of the community, inherent opportunities and constraints of the natural character of the site and resolution of issues presented by local agencies and jurisdictions. The Master Plan is a guide for the community when making decisions for the enhancements of the site over the next 10 to 15 years.

Future detailed planning, design and management of this community resource will be required to carry out the full intent of this plan. As time passes, community values and site conditions will change and modifications to the direction given in this report may be required. This is intended as a vision document, a guide rather than a mandate. As such, there should be an annual review of plan implementation as part of the capital improvement program and the plan's vision should be reviewed on a 10-15 year basis.

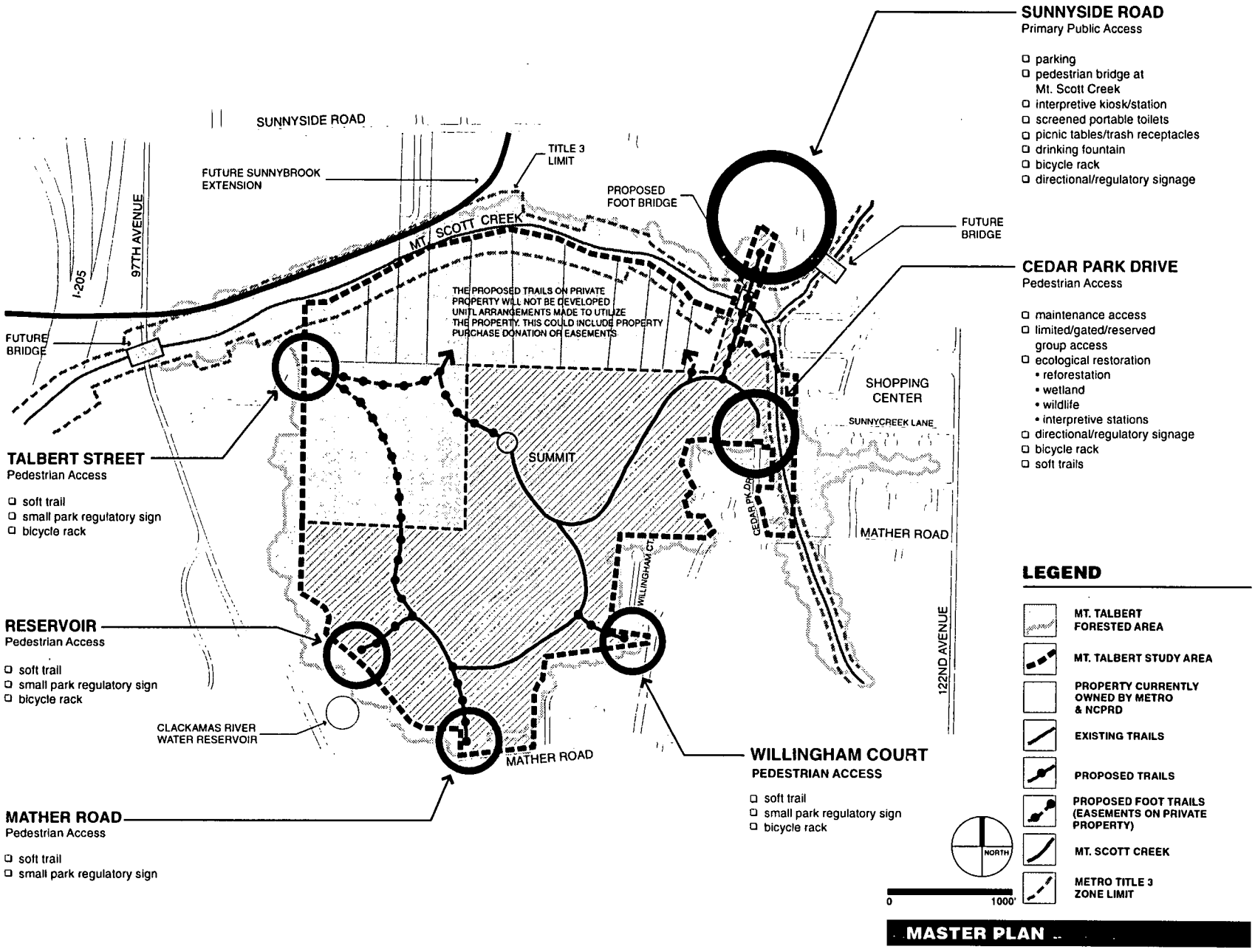
After considerable deliberation and input through the community open house process, the Steering Committee reviewed Schematic Plan One and Two (located in Appendix B) and resolved which features of each plan should be incorporated into the master plan.

Master Plan Features

- Educational and interpretive signage to address geology, ecology, history and culture
- Pedestrian bridge over Mt. Scott Creek
- Soft trails except in ADA accessible areas
- Parking at Sunnyside entry only
- Screened portable toilets at Sunnyside entry with potential future upgrade to permanent facility
- Bicycle racks at select trailhead locations
- Picnic tables at Sunnyside entry only
- Park hours and regulations signage at access points
- Ecological restoration of disturbed land
- Cooperation with local school districts for educational programs

Public Use Restrictions

- No bicycles. Due to the steep slopes and narrow trail widths, bicycles are incompatible with safe pedestrian usage of the trails. Bicycles also contribute to the erosion problems on the butte and cause ruts in the soft surface trails.
- No dogs. The primary purpose of Mt. Talbert is natural resource protection. Dogs may disturb the wildlife and vegetation that exist on the butte.
- No horses. Due to the steep slopes and narrow trail widths horses are incompatible with safe pedestrian usage of the trails. Horses also contribute to the erosion problems on the butte and cause damage to the soft surface trails. Additionally, horses may disturb the wildlife and vegetation that exist on the butte.
- No smoking. Smoking is prohibited for fire safety.


SUNNYSIDE ROAD
Primary Public Access
parking
pedestrian bridge at Mt. Scott Creek
interpretive kiosk/station
screened portable toilets
picnic tables/trash receptacles
drinking fountain
bicycle rack
directional/regulatory signage
SUNNYSIDE ROAD
TITLE 3 LIMIT
FUTURE SUNNYBROOK EXTENSION
PROPOSED FOOT BRIDGE
FUTURE BRIDGE
MT. SCOTT CREEK
I-205
97TH AVENUE
THE PROPOSED TRAILS ON PRIVATE PROPERTY WILL NOT BE DEVELOPED UNITL ARRANGEMENTS MADE TO UTILIZE THE PROPERTY. THIS COULD INCLUDE PROPERTY PURCHASE DONATION OR EASEMENTS
CEDAR PARK DRIVE
Pedestrian Access
maintenance access
limited/gated/reserved group access
ecological restoration
reforestation
wetland
wildlife
interpretive stations
directional/regulatory signage
bicycle rack
soft trails
SHOPPING CENTER
SUNNYCREEK LANE
SUMMIT
CEDAR PK DR
MATHER ROAD
WILLINGHAM CT
122ND AVENUE
TALBERT STREET
Pedestrian Access
soft trail
small park regulatory sign
bicycle rack
RESERVOIR
Pedestrian Access
soft trail
small park regulatory sign
bicycle rack
CLACKAMAS RIVER WATER RESERVOIR
MATHER ROAD
Pedestrian Access
soft trail
small park regulatory sign
WILLINGHAM COURT
PEDESTRIAN ACCESS
soft trail
small park regulatory sign
bicycle rack
LEGEND
MT. TALBERT FORESTED AREA
MT. TALBERT STUDY AREA
PROPERTY CURRENTLY OWNED BY METRO & NCPRD
EXISTING TRAILS
PROPOSED TRAILS
PROPOSED FOOT TRAILS (EASEMENTS ON PRIVATE PROPERTY)
MT. SCOTT CREEK
METRO TITLE 3 ZONE LIMIT
NORTH
0
1000'
MASTER PLAN

Master Plan Components

Mt. Talbert Access Points

The Steering Committee resolved to initially provide minimal improvements at pedestrian access points and monitor the use of entry points including the main entry. The extent of improvements will depend on needs dictated by the usage. Parking permits for visitors was an option discussed; however, this would require additional administrative staff and would not be enforceable without an active monitoring plan. NCPRD may, however, require permits for larger groups of visitors including school groups and community groups.

Points of access were carefully considered in view of guidelines outlined in the Metro Greenspaces Bond Measure Program and the sensitivity of this fairly undisturbed natural system. Access points were evaluated for the following criteria:

- accessibility by foot and wheelchairs
- connectivity to surrounding trail systems
- accessibility by car and parking
- accessibility by bicycle
- relationship to surrounding neighborhoods
- erosion problems and potential
- steep slopes
- current use as access
- public visibility
- disturbance to natural resources

Six points of entry to the Mt. Talbert study area were identified for inclusion in the master plan. Most of the proposed access points are currently being used for informal access. The access point at Sunnyside Road is new.

Due to the sensitive nature of Mt. Scott Creek, steep slopes, soil erosion potential and the feasibility of providing adequate monitoring of mountain bikes, it was resolved that bicycles be prohibited on Mt. Talbert beyond the access points.

Main Entry at Sunnyside Road

Following the guidance of input received regarding the two early schematic plans, the main entry will be at the Sunnyside Road access point. The primary entry point at Sunnyside Road was determined to be the best location for the following reasons:

- It has the highest public visibility.
- It is very accessible from Sunnyside Road.
- The existing and proposed adjacent land uses are supportive.
- The site is large enough to accommodate limited parking.
- Less severe slopes are conducive to easier pedestrian access.
- The site allows constructed amenities to be located away from the core natural area.
- The site provides some visual access to Mt. Scott Creek and limits access.
- Improvements can be developed in conjunction with Mt. Scott Creek water mainline improvements.
- Historically, this area has been the most disturbed area of the property.

Vehicular access into the parking area will be planned as part of the Sunnyside Road Expansion improvements project which will include a signaled intersection at 117th Avenue to allow safe entry and egress as well as dedicated bicycle lanes along both sides of Sunnyside Road. The use of the parking area may be controlled with the use of gates or chains and stanchions. Limited parking will be planned with accomodations for school buses and some motor homes. Restrooms, interpretive kiosks, pathways and other features will be developed to accommodate park visitors. A small pedestrian foot bridge will be needed to cross Mt. Scott Creek. ADA accessibility requirements will be met. However, due to the inherent steep terrain of the butte a completely accessible system of paths crossing Mt. Scott Creek is infeasible at this time. It was agreed that there may be opportunities at other sites, especially at Cedar Park Drive, to provide an accessible area with the development of future interpretive facilities accompanying site restoration activities.

Access to Mt. Talbert from Cedar Park Drive.

Secondary Entry at Cedar Park Drive
Cedar Park Drive is currently used as the main entry to Mt. Talbert. Visitors use a small dead-end section of the street to park their cars before hiking up to the summit on the unmarked main trail. With the prospect of limited parking, it was viewed as a secondary main entry where visitors from outside the immediate area may arrive by car or bicycle. Discussions with representatives from the neighborhood revealed concerns about uncontrolled parking, traffic congestion, noise and security. The nearby residents felt that Cedar Park Drive should be maintained as a public access point, but perhaps without developed parking or overt signage on Mather Road directing regional visitors to this location.

As a result of past earthwork and grading in this area, a small seasonal wetland has evolved adjacent to the tributary of Mt. Scott Creek. The new wetland may affect the amount of land available for a potential development in this area. Fishman Environmental Services recommends completing a wetland delineation in this area to determine appropriate mitigation requirements, if any apply. This location lends itself to "accessible" pedestrian access as well as maintenance and emergency vehicles, however, further research is required to determine feasibility.

The majority of the disturbed land in this area will benefit from reforestation, wetland mitigation and habitat preservation. Wetland enhancement, nature interpretation and a small maintenance structure may accompany the typical trail head improvement, which includes regulatory signs, a bike rack and trash receptacles.

Willingham Court
Due to limited on-street parking, this point of entry will be developed as an improved neighborhood pedestrian access point. Improvements will include, regulatory signage, a trash receptacle and a bicycle rack. Some trail improvements to mitigate steep grades and erosion potential should be considered.

Mather Road
To help protect the wildlife corridor habitat that exists in this area, access will be for pedestrians only. Improvements will include park hours and regulatory signage only. No bicycle racks will be provided.

Reservoir
This access point will receive all typical pedestrian improvements including park hours, regulatory signage and a bicycle rack.

Talbert Street
Trails from this access point do not fall within the existing Mt. Talbert Study Area and will not be possible until arrangements are made with private property owners. Access via Talbert Street is through an apartment complex. Limited on-street parking is available. Talbert Street is not a through street and cannot support substantial automobile traffic. This park entry point is intended for neighborhood pedestrians. Improvements will include regulatory signage, a trash receptacle and a bicycle rack.

Sunnycreek Lane

Access at Sunnycreek Lane is not considered in the master plan but should be considered for future development as a public access point. In its present state, this route, which uses the stormwater detention dam as a bridge, is unsafe and access should be discouraged. A partnership between the homeowner's association and NCPRD should be formed to assess desirability and feasibility of developing this access route. There may also be an opportunity to work with Clackamas County Water Environment Services (WES) to evaluate whether it is possible for the existing stormwater detention dam structure to be improved and developed into a safe pedestrian crossing. This access point is not indicated on the master plan because current access is only through a private development open space.

Mather Road North

Mather Road North was omitted as a future public access point due to public safety problems, ease of access and existing soil erosion issues identified in the site analysis.

Carrying Capacity

Given the sensitive nature of some of Mt. Talbert's natural characteristics including the Mt. Scott Creek corridor, the Steering Committee resolved that improvements to the site should 'go slow' to observe use patterns and visitor needs. Since there is no exact science to determining carrying capacity of a site, one has to depend on common sense, experience and long term monitoring to be able to assess the impacts of any given number of visitors. Monitoring, therefore, will play a very important role in determining future site needs, future project assessment and impacts to the natural features of the site.

NCPRD may, however, require permits for larger groups of visitors including school groups and community groups. Guides may also be provided if arrangements are made in advance.

Trail Improvements

Drawing upon their personal observations, the Steering Committee felt that existing trails are largely sufficient for access and touring the site on the south and east sides. The master plan calls for enhancement of existing trails. The only new trails to be constructed will be those linking newly developed access points with existing trails and an east-west trail connection on the northern slope of the butte.

There are existing trails that extend onto private property from the Metro and NCPRD property. The private property will be signed as such and will be prohibited from public usage. Trail construction guidelines referenced in Appendix D and in the Management Recommendations will be followed to avoid major impacts to the natural ecology of the site. Wood chips and other pervious materials appropriate for woodland trails will be used in all areas to help diminish the potential for trail and soil erosion. The proposed trails extending from the Talbert Street pedestrian access point would be developed to complete a trail loop and east-west connection along the north side of the butte.

Metro and various other members of the Technical Advisory Committee felt strongly that a loop trail should not penetrate the Title 3 area. Therefore, no trails within this sensitive corridor are shown in the final master plan.

Safety and Security

Park hours and regulations will be posted at every planned access point. The approximate 300 acre master plan area presents a difficult security surveillance and use control challenge. The Sheriff's Department and members of the Steering Committee felt that an increase of public activity on the site will help discourage current transient use and other abuses of the site. Neighboring residents, currently the most routine users of the site, could provide a heightened awareness of conditions in the areas and will be able to alert NCPRD or emergency response teams of hazard issues, violation of park rules or active abuse of the site. It is recommended that NCPRD facilitate the organization of a community based "Friends of Mt. Talbert" group that could assist NCPRD in its monitoring process.

Educational Interpretive Signage

Educational interpretive signage is an important component of the master plan. The educational and interpretive signage to be developed will focus on the natural character and sensitive qualities of the site. Topics will include: geology, geography, soils, ecology, cultural history and ecological restoration. Sign plaques with interesting graphics and narrative detail will increase community pride and respect for this special natural resource.

Park Hours and Regulations Signage

For public security and safety, park hours signs and regulatory signs will be installed at each access point. A small and diagrammatic map of the park will also aid emergency and police response teams in their navigation across the site. Regulatory signage will be placed in areas where unplanned and inappropriate pedestrian traffic is encountered.

Regulatory signage will include:

- No bicycles
- No dogs
- No horses
- No fires
- No camping
- No motorized vehicles
- No digging
- No paintball
- No firearms
- No hunting or fishing
- No intrusive noise
- No plant collecting

Ecological and Wildlife Habitat Restoration

The disturbed area at the Cedar Park Drive access point will be developed as an ecological restoration area as funding and work forces allow. A wetland delineation will be conducted in the area where wetland species have recently been encountered. Opportunities for developing and enhancing wetland wildlife habitat will occur with the development of an improvement plan for this specific access area. Forest restoration on the upper slopes of this area and wetland enhancement at the base will be synthesized into an educational interpretive experience that is sensitively woven together. Increased and managed native forest and wetland plantings in this area will provide an enhanced and more diverse wildlife habitat.

Cooperation with School Districts

Local school districts will be solicited as active supporters and users of the Mt. Talbert site. Mt. Talbert contains many passive educational opportunities from which local and regional students can benefit. Educational interpretive signage and ecological restoration efforts are recommended student opportunities for hands-on field experience. Special programs coordinated between NCPRD and the school districts will enhance community involvement and respect for this regional community asset.

ADA Accessibility

The Sunnyside Road access to Mt. Talbert is proposed to have facilities that meet ADA Standards. When this access is developed, the trailhead and connecting trails should also conform to ADA standards to the extent possible. For example, the bridge over Mt. Scott Creek should be accessible and a viewpoint into the watershed developed from the bridge. The Steering Committee recommended that accessible trails be accommodated where feasible. The Cedar Park Drive entry was also identified as an appropriate ADA access point that could be developed.

In the first quarter of 2000, the Federal Access Board will issue a draft of the Americans with Disabilities Act Guidelines for Outdoor Recreation. After the public comment period, it is expected that these guidelines will be published within 12 to 18 months. These federal guidelines will apply to all city, county, state and federal trail systems, including the US Forest Service. Agencies will be obligated to inform the public as to what exceptions to these guidelines any given facility may have. Exceptions may include trail grades in excess of 8.33%, a trail width narrower than three feet, trail surface variations or other safety considerations. For Mt. Talbert, it is anticipated that exceptions to these regulations will exist.

Toilet Facilities

Toilet facilities are to be provided only at the main entry of Sunnyside Road. If funding is available, permanent flush toilets may be provided as an alternative to screened seasonal portable toilets.

Pedestrian Footbridge

A pedestrian foot bridge will be constructed where Mt. Scott Creek crosses the "panhandle" of the study site that connects the Sunnyside Road entry to the sensitive core of Mt. Talbert. Only visual access to Mt. Scott Creek will be provided at this location. This improvement may be constructed as a part of a realignment of the currently proposed Mt. Scott Water District mainline easement.

Picnic Tables, Trash Receptacles, and Drinking Fountains

Picnic tables, trash receptacles and drinking fountains will be provided at the main entry at Sunnyside Road where most public access is anticipated. At other pedestrian access points a "pack-it-out" trash policy will be supported until litter or other abuses are encountered.

Management Recommendations & Strategies

One of the most important guidelines that was defined in the process of formulating the master plan was to keep Mt. Talbert in its natural state as much as possible. The Steering Committee felt that it is best to "go slow" when making improvements to the site, or "to live without a particular improvement until an undeniable need was expressed." By following this basic premise it was felt that the integrity and natural character of the site could be preserved for the longest period of time. This, however, does not relieve a need to develop a proactive maintenance and monitoring plan.

It is suggested that NCPRD seek the assistance of a field ecologist. A field ecologist would perform the invaluable task of being a professional plant and wildlife advocate for Mt. Talbert and other properties that NCPRD may acquire in the future. A consulting ecologist will have an in-depth and holistic understanding of a particular site from a natural science and systems approach. For example, impacts on one component of a sensitive ecological zone within the site may impact other aspects of the system including plant and wildlife habitat. An ecologist would also be able to assess and monitor general ecological health, troubleshoot impacted areas, lead restoration activities and participate in educational aspects of the master plan.

Monitoring

Monitoring is an often over-looked aspect of site management. Monitoring can be a very time consuming task that requires passive visual surveillance of site conditions on a scheduled basis. In active public seasons, it is critical to monitor impact to off-trail areas, short cuts and improper use and to ensure safety. In less active seasons, typically winter months, it is important to inspect the site for damage such as flooding, landslides, soil erosion, drainage, wind fall of trees, trail failure and other hazards that may need to be repaired in preparation for public access in more active seasons. The spread of invasive species should also be kept in check throughout the year by consistent periodic monitoring. This important task should be included as part of the citizen volunteer and Friends of Mt. Talbert group effort.

Maintenance

Monitoring for hazards will also reveal appropriate timing for seasonal general maintenance of trails and hand removal of invasive species. A thorough pro-active general maintenance regime will reduce the amount of hazards and troubleshooting required in off-season times. It is recommended that staff develop a detailed maintenance plan.

The National Park Service offers a Maintenance Management Plan Annual Training Session that provides an effective model outline of methods of site analysis, maintenance needs assessment and labor allocation. The basic premise of this training is that each site and each governing jurisdiction is unique and requires an in-depth analysis and knowledge of the site itself and available resources. Maintenance programs need to be developed in unison with an understanding of the ecological systems, resource conservation goals and labor resources.

Trail Maintenance

Drainage

Most trail degradation is due to poor drainage and erosion. Trail maintenance practices should focus on controlling drainage on and off the trail. Culverts, waterbars, ditches and other types of drainage devices used should be routinely inspected, cleaned or adjusted to maximize its effectiveness. A map of culvert locations is suggested since culverts often become obscured from casual view. Trails should be well drained. Water should not be allowed to puddle or travel across a trail. If the trail is not eroded by water running across it; it will become further degraded by the foot traffic that tries to avoid muddy areas.

Grading

Trails should be graded slightly toward the downhill side of a slope. This will help avoid stormwater from concentrating and increasing in velocity and erosive power. At locations where natural concentration of stormwater cross a trail a culvert or other control device should be used to reduce the velocity, control its route and help reduce its negative impacts.

Management

In addition to controlling invasive plant species it is also important to keep trails clear of low growing vegetation and of overhanging branches. Both of these conditions become impediments to people. New trails should be kept clear of areas where overhead obstacles may become problematic in the future.

Trail Alignment

Trail grades, routing and endpoints need to be carefully considered before active trail creation begins. Trail making techniques are described in the reference United States Forest Service material listed in the project resource list. Shortcuts at switchbacks and illegal trails are very common violations in public natural areas. It is best to use, repair and improve established trails when they exist to avoid the common mistakes and impacts associated with new trails.

Mayer/Reed

Overhanging vegetation along south slope trail.

Vegetation Management

Native Plants

One of the Steering Committee goals is to preserve and protect the sensitive and native plants and the intrinsic environment they create.

By their nature, natives are hardy in this climate and sustain themselves. Over time, competing invasive species can diminish the optimum habitat required to have a healthy native plant eco-system. In public natural areas there are many potential impacts to native species such as pedestrian foot traffic, bicycle use, domestic animals, and off trail explorations. Use restrictions and prohibitions must be posted and enforced if possible.

Surveillance of larger areas like Mt. Talbert is restricted by the size of the site and by available staff and personnel to be active on the site on a regular basis. Typically "friends" groups provide a vital role in surveillance and maintenance of large sites. Dedicated community members organize and establish a sense of community ownership in natural areas and often are involved on a voluntary basis to monitor the site for mis-use.

A formal comprehensive inventory of native and naturalized plants should be completed as part of the maintenance management plan developed by NCPRD. Groups involved with the maintenance of Forest Park have noted that the success of the natural character of the park is in part due to the lack of aggressive maintenance and limited public access in remote areas. However, with increasing public interest in natural areas and an increase in recreational use, impacts are occurring.

Resource Protection Areas

There are a number of native species found throughout the site which include the following:

Common Name	Botanical Name
maidenhair fern	Adiantum spp.
western trillium	Trillium ovatum
tiger lily	Lilium columbianum
giant fawn-lily	Erythronium oregonum
fairy lanterns	Disporum spp.
false Solomon's seal	Smilacina racemosa

These species are sensitive to foot traffic. Small areas that have an adequate concentration of these species should be signed and interpreted. Larger areas should be left unsigned. Public trails should not lead to areas identified as highly sensitive. A location should be chosen where concentrations are sufficient for adequate interpretation and visitor education.

Invasive Species Control

Common sense and an understanding of the growth cycles of exotics and native species is paramount to controlling invasive species. Eradication of invasive species is a process requiring training, guidance, patience and endurance.

Damage to native species is an unavoidable reality during hand removal of unwanted plants, but sensitive planning and scheduling of removal activities will greatly reduce the degree of impact sustained. Short-term damage is acceptable in view of the fact that if left unchecked the invasive species may overtake the natives and continue to degrade the site's ecology.

Areas adjacent to trails are areas that experience repeated disturbance from foot and especially bicycle traffic. Even minor disturbances provide for opportunistic propagation of invasive seeds. Construction of new trails can, at times, involve clearing of canopy

trees. Removal of the forest canopy allows light to penetrate to the forest floor and provides the microclimate environment for seeds of exotics to propagate. Trails can also interrupt natural drainage patterns creating new wet pockets that provide favorable conditions for invasive species.

In the process of scheduling plant removal activities it is generally a good idea to remove invasive species along trails last. This will allow one to replant disturbed trailside areas with native species at the same time.

Timing
Plants are typically weakest in the springtime when energy is being used for propagation and new growth. It is optimum to complete removal after the plants have flowered but before they set out seed. Hand removal in the spring also allows monitoring the area for new growth that may sprout from missed crowns and roots. For species with delicate or brittle root growth winter provides for softer soil and easier removal. This is especially true for ivy. It is recommended that light infestations of ivy not be removed beyond February because of the impacts to sensitive native species just beginning to develop in early spring. The same is true for monitoring. Aggressive monitoring is best carried out in the fall when natives are beginning to go dormant.

Method
If removal cannot occur prior to the plant setting seed and seed is visible on the plant, it is advised that the seeds be carefully removed and discarded off site prior to continuing the removal process. Many invasive species have also developed a fragile root system that is easily broken. Loosening the soil prior to removal is advised but while disturbing the soil as little as possible. Disturbed soil is naturally primed for any seed that may find its way to the ground. Inexperienced removal crews often sow more seeds than the number of plants they remove. Other species have underground crowns or nodules along the length of its roots from which new growth sprouts. Therefore it is recommended that a sharp thin spade be used to loosen the soil enough to estimate the depth of the crown; then using the spade to cut the root under the crown. Each plant has its own type of eradication defense system that needs to be understood. A botanist or ecologist is often aware of the growth nature of plants and can help devise new methods of removal in difficult areas.

Herbicides
It has been suggested that studies in removal methods and practices indicate that hand removal is the most effective long term solution to total eradication. Although there are varying views on removal of invasive species, herbicides should always be used with extreme caution. An ecologist or botanist and a licensed applicator should review products and methods, approve and carry out all herbicide use. Typically herbicide use is not recommended for natural areas and is not desired in areas where restoration of natural systems is the goal.

Work Force
Volunteer work forces have been extremely effective helping to control invasive plant species. Community groups, social clubs, scouts and youth organizations are examples of volunteer resources. Proper training in removal techniques is paramount. Volunteer group leaders should be trained prior to the day of removal activities by experienced park or county staff. A "Friends of Mt. Talbert" community group can also be established for monitoring and hand removal projects.

Invasive Species

English Ivy
English ivy is one of a few invasive species that is shade tolerant. Controlling the dispersal of seed is the greatest challenge. Ivy has the advantage of being a climbing vine that clings to tree bark and climbs up into the branches. When ivy sets seed it is out of reach for hand removal and allows dispersal by wind and birds.

Ivy eradication has been part of an ongoing effort of those operating and maintaining Forest Park in Portland, Oregon under

the direction of Sandy Diedrich. Sandy has contributed the following guidelines to control and eradicate invasive species. The first step to ivy removal is to remove reproductive aerial growth from tree trunks to prevent spreading through seed dispersal. Remove any flowers or seed that can be reached from the ground. Do not attempt to climb trees or yank vines from tree bark as this often damages the tree. The second step is to cut the vines at shoulder height and at ankle height and strip just this section of the vine from the tree trunk taking care not to damage the bark. Every vine must be cut and removed and pulled down from the "girdled" area. If one vine remains, ivy will continue to grow on the tree. Loppers, folding pruning saws and hand pruners seem to work best to cut the ivy and protect the tree. Leaving vines above the shoulder height is fine since they will wither and die. However, they will be unsightly for several seasons.

The second step is removal of vegetative ground crawling English ivy from a minimum of six feet from the base of the tree. Clearing the area around the base of the tree is best accomplished by pulling. A shovel or weeding tool may occasionally be required to loosen soil. One technique is to have a group of four or five people in a line pull and roll up the ivy as others remove it, cutting it around shrubs in order to avoid damaging them.

After ivy is removed, observe vegetation growth of other forest plants as well as ivy during the growing season and repeat the process. Monitoring and removal should occur for as long as necessary. After ivy is controlled, remaining bare spots can be replanted with native plants. Vegetation that develops depends on propagules existing in the soil that are hidden or dormant beneath the ivy as well as light availability and exposure. English ivy is tenacious but is controllable with continuous monitoring and surveillance. Ivy pulling and monitoring should continue annually and a photographic and descriptive record should be kept to document efforts and educate the public.

English Holly

English holly is another shade tolerant invasive plant species that is very painstaking to remove. First remove all the seed bearing berries (if it is a female) then cut off all the branches. Make sure none of the branches have tipped down to the ground and re-rooted. If so, approach those branches as if they were English ivy. After trimming off all the branches cut the trunk down to within 10 inches of the ground and then have a licensed herbicide applicator make a fresh cut and paint on a woody plant herbicide to the cambium layer of the remaining trunk stem. The best time for this process is in the fall when the tree is going dormant.

Scotch Broom

Scotch broom is a sun loving species that is especially visible in the spring when it has bright and profuse yellow flowers. This shrub will take hold in nearly all disturbed soils. The best time for hand removal is in May when the flowers are blooming and before the plant has set seed. Generally speaking, this plant will not re-sprout if it is cut at its base at ground level. Areas overrun by Scotch broom need continual monitoring.

Morning Glory

Morning glory is the most aggressive of the vining plants. Morning glory is one of the few species where complete removal of all debris from the site is recommended. Morning glory roots and stems can re-hydrate themselves after being dry and re-sprout. Hand removal must include all vines, leaves, and roots. Kitchen forks were found to be good for delicately loosening the soil surrounding the roots. Removal of morning glory is tedious and slow and requires patience. Do not let it bloom because it sets seed very shortly after. If you cannot finish completely removing the plants it is recommended to at least remove the blooms to prohibit the production of seed. Collect the seed any time.

Himalayan Blackberry

Himalayan blackberry is also a sun loving plant. Seed from uncompleted removal areas should also be collected, although the canes can be mulched and left on site. Don't dig up the roots of

Himalayan blackberries. Himalayan blackberries have nodules; sometimes referred to as "crowns" that grow along the root length. These crowns store energy and are the location from which new shoots develop. Loosen the soil gently, identify the depth of the crown and as described earlier use a sharp narrow spade to chop off the root below the level of the crown. This way you more effectively reduce the likelihood of it re-sprouting. Remember that digging up roots disturbs the soil and can propagate seeds from the very plant you are trying to control.

Clematis 'Traveler Joy'

Clematis 'Traveler Joy' is a particular non-native vine distinguished by its puffy white seed balls. If possible, collect floating, air-borne seeds and remove from the site. Follow the procedure described for English ivy. When ivy and clematis vines are dead then an arborist should to be called in to carefully take off vines if aesthetics are an immediate concern. Removal of clematis from the ground should generally follow the same procedure outlined for Himalayan blackberries because this species also has underground crowns.

Vinca Species

Vinca is an ornamental ground cover that will grow in sun or shade. The vines and roots snap with the slightest disturbance. The kitchen fork process also applies here similar to morning glory.

Poison Oak

Poison oak is an important part of the native ecology but can cause severe allergic reactions or dermatitis. It is mentioned with invasive species because it is often thought to be undesirable in areas of human use and potential for contact. Poison oak is a native that has developed a more or less symbiotic relationship with the trees it climbs on. Volunteers should not be encouraged to remove this plant or have contact with it. Professionals with proper equipment should manage it in selected areas directly adjacent to trails.

Mayer/Reed

Invasive Scotch Broom at Cedar Park access point.

Recommended Next Steps

Developing Mt. Talbert into a more publicly accessible natural area is the basis of this report. A cost assessment and the phasing of improvements is outlined to provide NCPRD and Metro a guide that addresses the most cost effective phasing and timing for improvements and funding opportunities. Improvements will be implemented in phases, as funding allows and as work forces are organized.

Implementation Costs

Design, construction and development costs can be estimated, however, specific site conditions, materials costs and labor expenses fluctuate with the economy and regional construction markets. For unique sites like Mt. Talbert where slopes are steep and access is limited the actual cost of labor varies greatly and can only be roughly estimated. See Appendix "E" for an estimate of implementation costs.

Establishing Volunteer Groups

Community volunteer groups can play an important role in implementing the goals of the master plan. Volunteer groups promote community use of the site and help establish a community's sense of stewardship. With appropriate funding, NCPRD can facilitate the establishment of a "Friends of Mt. Talbert" organization and help focus their efforts. Monitoring the site for abuse, violation of park rules, trail conditions and hazards are some examples where volunteers are very effective. Volunteer groups can also be trained in methods to help eradicate invasive species. Establishing a "Friends of Mt. Talbert" is an important first step in establishing community support for the master plan.

Funding for Implementation

Partnerships with other local, state, regional and federal agencies and private sources are available to help fund projects of this nature. Funding opportunities should be explored through the following resources:

- Metro Regional Government – Regional Parks and Greenspaces
- Environmental Protection Agency
- Governor's Watershed Enhancement Board
- US Forest Service
- Wetland and Nature Conservancy organizations
- Private donations
- Corporate donations
- Non-profit community organizations and partnerships

There are many tasks and steps involved in carrying out the direction set forth by a master plan. Master plan components can be grouped into three phases as outlined in the following Plan Implementation and Phasing Chart.

Plan Implementation & Phasing Chart

Description	Phase One 0-2 Years	Phase Two 2-4 Years	Phase Three 4-5 Years
Organization & Administration	1. NCPRD annual assessment of labor force requirements.	1. NCPRD annual assessment of labor force requirements.	1. Continue
	2. Pursue acquisition or use rights for all private property within the study area.	2. Continue	2. Continue
	3. NCPRD facilitate the establishment of a "Friends of Mt. Talbert" community action group.	3. NCPRD continues to foster volunteer groups.	3. Continue
Planning	1. Review master plan with all potential permitting agencies to establish future permitting requirements.	1. Initiate permitting for any improvements pending.	1. Provide any required monitoring of permitted activities.
	2. Complete a survey of all existing active trails and potential trail opportunities with special focus on links and an assessment of trail conditions.	2. Organized trail enhancement, initiate required permitting and construct new linking trails where required. Continue monitoring and improvements to trails.	2. Monitor trail conditions
	3. Complete topographic survey of all access points to assess trail construction feasibility.	3. Begin design of Cedar Park restoration. Coordinate with Mt. Scott Water district to avoid future tearing up of plantings.	3. None
	4. Coordinate main entry development with Sunnyside Road improvement project.		4. None
	5. None	5. None	5. Re-evaluate site program and assess needs that are not addressed at a master plan level.

Plan Implementation & Phasing Chart (continued)

Description	Phase One 0-2 Years	Phase Two 2-4 Years	Phase Three 4-5 Years
Inventory-Assessment & Ecological Monitoring	1. Establish wetland delineations for all wetland pockets identified in this report.	1. Assess ecological restoration and wetland enhancement opportunities. Begin planning enhancements.	1. None
	2. Initiate a formal wildlife inventory to provide base for impact assessment and management. Begin routine monitoring.	2. Monitor impacts from visitors and development of other enhancements.	2. None
Funding	1. NCPRD to explore and develop funding opportunities and project partnerships.	1. Pursue funding from identified sources for outlined projects.	1. None
Design/ Construction	1. Hire a design consultant team to provide survey information and conceptual designs for all points of entry. Coordinate with transportation projects.	1. Begin and complete development of all "pedestrian" access points. Focus on ecological restoration at Cedar Park.	1. Finalize plans for Cedar Park entry and begin construction.
	2. Finalize plans for the main entry, initiate permit process and proceed with construction documents.	2. Begin and complete main entry construction.	2. None
	3. Solicit community groups for trail enhancement and construction.	3. Continue	3. Continue

Plan Implementation & Phasing Chart (continued)

Description	Phase One 0-2 Years	Phase Two 2-4 Years	Phase Three 4-5 Years
Design/ Construction (continued)	4. Install site access signage and private property signage.	4. None	4. None
Education/ Interpretation	1. Solicit the involvement of surrounding school districts in defining interpretive opportunities.	1. Design public interpretive signage plan.	1. Provide routine maintenance of site interpretive facilities. Involve school district.
Site Maintenance	1. NCPRD train staff through National Park Service - Maintenance Management Plan Annual Training Session.	1. Train additional staff as needed to address demands of site.	1. Continue site maintenance.
	2. Prepare maintenance plan.	2. Continue hand removal routine.	2. Continue hand removal routine.
	3. Begin training and removal of invasive plant species with volunteer work forces, establish routine.	3. Continue	3. Continue
	4. Solicit community groups for trail enhancement and maintenance.		
Safety/Security			
	1. Plan for and coordinate installation of fire hydrants at all public points of access.	1. Design public signage plan and post signs at each entry point.	1. Provide routine maintenance of site signage.
	2. Continue dialogue and review of plans with public fire and safety personnel.	2. Annually review site development with appropriate public agencies.	2. Continue

Conclusion

Conclusion

The Mt. Talbert Master Plan & Management Recommendations clearly describe the community's resolution to protect this area as a natural and community resource. The Steering Committee's mission statement underscores the fact that Mt. Talbert is to remain a natural area.

> "Preserve and enhance the natural features and character of Mt. Talbert."

All the tenets set forth in this plan are consistent with the North Clackamas Parks & Recreation District's Comprehensive Master Plan. Upon approval by the NCPRD District Advisory Board and the Metro Council this plan will have a guiding force for the next 10 to 15 years.

The NCPRD and Mayer/Reed would like to thank all the individuals who participated in this important planning effort.

Project Resources

Project Resources

The resources drawn upon to facilitate the master planning process include the documents listed in the bibliography as well as the following maps and/or documents:

Kricher, John C., Gordon Morrison, Ecology of Western Forests, Peterson Field Guide, Houghton Mifflin Company, 1993.

Metro Regional Parks and Greenspaces, Ancient Forest Preserve Master Plan, June 1996.

Metro Regional Parks and Greenspaces, The Metropolitan Greenspaces Master Plan.

Metro Regional Trails and Greenways, brochure 1996 Bond Measure 26 - East Buttes Staff Report, July 3, 1996.

Metro - Regional Land Information System, aerial photography 1997, map section 2S2E-B. 1"= 400".

Oregon Fish & Wildlife, Water Environment Services, Department of Clackamas County, Distribution of Fish and Crayfish and Measurement of Available Habitat in Streams of the North Clackamas Urban Area, 1997-98 Annual Report.

Oregon Department of Fish & Wildlife, Distribution of Fish and Crayfish, and Measurement of Available Habitat in Urban Streams of North Clackamas County, Final Report 1997-1999. Nov. 1999.

Oregon Department of Transportation, Bicycle and Pedestrian Program. Oregon Bicycle and Pedestrian Plan: An Element of the Oregon Transportation Plan, June 14, 1995.

Portland Parks and Recreation, Bureau of Planning, Forest Park Natural Resources Management Plan, February 1995.

United States Department of Agriculture, Forest Service, Engineering Staff, Washington DC. Standard Drawings for Construction and Maintenance of Trails, December 1996.

United States Geographic Survey, aerial photos, and information website: http:// edcwww.cr.usgs.govusgs.gov photos 1936, 1955, 1956, 1969, 1977.

United States Department of Agriculture, Forest Service, Technology and Development Program, Washington DC. Trail Construction and Maintenance Handbook, October 1996.

United States Department of Agriculture, Soil Conservation Service. Soil Survey of Clackamas County, 1982.

W.B. Scott, E.J Crossman. Freshwater Fishes of Canada, Bulletin 184 of Fisheries Research, Board of Canada, Ottawa, 1973.

Additional Resources

Additional information regarding Metro's Urban Growth Management Plan can be obtained via their web site: <www.metro.dst.or.us/metro/growth/water/matters.html>

Additional information regarding invasive species by be obtained by contacting Sandra Diedrich, Manager of the Forest Park Ivy Removal Team at 503-823-3681,117 N.W. Trinity Place, Portland, OR. 97209 The internet is host to many web sites that contain information on invasive plants.

Appendices

Appendix A
Steering & TAC Meeting Summaries

Appendix B
Public Open House Summaries

Appendix C
Permitting

Appendix D
Trail Construction Details

Appendix E
Estimate of Implementation Costs

Appendix A

Steering and Technical Advisory Committee
Meeting Summaries

North Clackamas Parks & Recreation District
Mt. Talbert Master/Management Plan
Steering Committee Meeting #1
August 18, 1999

Minutes

Committee Members Present: Lynn Sharp, Kathy Bergin, Bill Aalberg, Dan Butler, Mike Miller, Karen McColloch, Bill Jablonski, Dick Shook, Jerry Allen, Jerry Foy, Jim Young, Liz Eraker

NCPRD Staff: Suzanne Bader

Consultant: Steve Koch, Carol Mayer-Reed

The purpose of the first Steering Committee meeting was to give committee members a general overview of the Parks District, the Mt. Talbert Master/ Management Plan process, the Mt. Talbert site itself and issues impacting the plan.

1. Site Overview

   Steve Koch gave a slide show and oral presentation on the Mt. Talbert site. Several issues raised by the steering committee included access, appropriate uses, private property rights, future acquisition plans and potential, Sunnybrook Extension and Sunnyside Road Widening Project.

2. NCPRD Overview

   Suzanne Bader gave a brief presentation on the District's services and facilities, history on the formation of the District, the role of the District's master plan and upcoming update and the governance structure.

3. Mt. Talbert Master/Management Plan process
   Suzanne discussed the following items:

   a. Purpose of the plan and where it fits within the District's overall goals. b. Possible plan elements were listed including access, design, security, natural resource preservation, trails, education, stewardship, funding, wildlife habitat preservation, etc.

   c. Steps in developing the plan

      1. Research and gather technical information
      2. Define vision (based on mission and goals)
      3. Present possible alternatives to Steering Committee and refine alternatives
      4. Present draft plan to Steering Committee and at Open House based on input received.
      5. Refine draft plan based on input received.
      6. Present final plan to District Advisory Board, Board of County Commissioners, Metro and community

   d. Issues impacting the plan:
      - Sunnybrook Extension
      - Sunnyside Road Widening Project
      - Title 3 and ESA listing
      - Access

   e. Steering Committee composition, criteria for selection and potential use of sub-committees.

4. Roles and Responsibilities in the planning process

   Suzanne explained the roles and responsibilities of different people in the planning process.

   a. NCPRD Staff
      - staff committee
      - oversight of consultant work
      - produce outreach materials and methods
      - coordinate distribution of materials

- maintain mailing list
- convene Technical Advisory Committee
- coordinate public open houses
- interface with District Advisory Board

b. District Advisory Board and Ad-Hoc Committee
   - select Steering Committee members
   - review draft plan submitted by SC; approve final plan
   - give feedback to Steering Committee via staff and DAB representative

c. Consultant
   - conduct site analysis and research technical issues
   - compile information, develop drawings and draft plan
   - attend Steering Committee meetings and public open houses

d. Steering Committee
   - attend Steering Committee meetings and public open houses
   - solicit and disseminate information regarding the plan
   - recruit public to participate in public meetings and forums
   - assist in design of public open houses
   - develop and submit draft plan to DAB
   - provide input on plan alternatives

5. Suzanne reviewed the timeline for the project and set the meeting schedule. See attached.

Meeting adjourned at 9pm.

North Clackamas Parks & Recreation District
Mt. Talbert Master/Management Plan
Steering Committee Meeting #2
September 8, 1999

Minutes

Committee Members Present: Lynn Sharp, Karen McColloch, Bill Jablonski, Bill Aalberg, Jerry Foy, Jim Young, Mike Miller, Dan Butler, Jerry Allen, Kathy Bergin, Dick Shook

NCPRD Staff: Diane Campbell, Suzanne Bader

Metro Staff: Jane Hart

Consultant: Steve Koch

I. Steering Committee Member Questions

The meeting began at 7:00 PM. A question was asked regarding Metro's role in the project. It was explained that Metro's role, as 75% owner of the property, is to ensure that the plan contains uses appropriate to the tenets of the Greenspaces Master Plan/Bond Measure, and that it complies with natural resource protection goals and regulations such as Title 3.

A question was raised regarding the Americans with Disabilities Act (ADA) rules. Staff and the consultant responded that the rules are still nebulous and that further research will be necessary.

A question was raised regarding which agency, Metro or NCPRD, has final approval authority for the plan. It was explained that each jurisdiction has to approve the plan. This is the first master/management plan of this size to go through the joint Metro/NCPRD process and therefore, it is still evolving.

Staff discussed the vision for the project as one that includes acquisition of as much property on Mt. Talbert as possible. In that light, this plan will incorporate a long-term vision with trails along both public and private property. This project must be sensitive to private property concerns and be clear about the District's intentions to acquire properties on a willing seller basis. It is also important for the plan to be functional without the private property included.

II. Opportunities and Issues

The Steering Committee was asked to identify opportunities and issues regarding the planning of Mt. Talbert. Each Steering Committee member identified an opportunity and issue to be addressed as part of the planning process. The numbers following the opportunities and issues refer to how many members brought up the same idea.

Opportunities:

Use existing trails (1)
Restore damage (1)
Site as record of history
- Vegetation (1)
- Culture (1)

Maintain tree canopy (1)
Seasonal habitat development (1)
Educational opportunity (4)
- Ecology, interpretive
- K-12 education

Different types of trails (2)
- Challenge levels

Regional multi-modal access (2)
- Aquatic Park, other NCPRD facilities
- Gresham, Happy Valley

Good potential access points (1)
Lots of surprises (1)
- Tributary Check Dam

Bus access from Sunnyside Rd. (1)
Close to lots of residents (1)

Dynamic system (1)

Issues:

Staying on trails (1)
Overuse/Control (2)
How unnatural do you allow it to become (1)
Access (1)
Appropriate uses
- Walking (1)
- No horses (3)
- No mtn. biking (2)
- No camping (1)

Limit development on site
- Restrooms/ structures (1)
- Parking lots (1)

Abuse and mgmt. of trails
- Erosion (2)

Non-native species "taking over" (1)
Acceptable parking (1)
Maintain/preserve habitat corridors (1)
Fire safety/Security (1)

III. Mission Statement

The Steering Committee was asked to review the mission statement created by the ad-hoc sub committee of the District Advisory Board. Below is the mission statement created by the ad-hoc sub committee and the recommended change to the mission statement by the Steering Committee:

Ad-Hoc Sub Committee Mission Statement

Mt. Talbert is a significant natural and recreational resource for the North Clackamas Parks & Recreation District and for the metropolitan region. Preservation and access for the District and regional community is essential. The master/management plan, developed with extensive community involvement, will preserve Mt. Talbert's natural resources, provide appropriate recreational opportunities, plan trail systems within and around the butte that connect to other trails in the District and region, and provide educational and volunteer opportunities.

Recommended Steering Committee Mission Statement

"Preserve and enhance the natural features and character of Mt. Talbert."

III. Goals

The Steering Committee was asked to review the goals created by the ad-hoc sub committee of the District Advisory Board. Below are the goals created by the ad-hoc sub committee and the recommended changes to the goals by the Steering Committee. The new text is in bold.

1. Provide a natural experience in an urbanized area
2. Restore and enhance natural resources
3. Create a management plan that addresses natural resources and recreation activities, safety **and security**
4. Cooperate with neighbors and the community at large to provide an inclusive public process
5. Protect the natural area while providing **appropriate** recreation opportunities
6. Plan for trails within and around Mt. Talbert
7. Provide the necessary supporting elements for trail usage, e.g. parking, signage, restrooms, **access points to the park**, etc.
8. Comply with the Metro Greenspaces Bond Measure regarding appropriate recreation activities on Mt. Talbert
9. Provide educational opportunities **(maps, brochures, field trips)**
10. Cultivate volunteerism to encourage community stewardship of Mt. Talbert
11. Identify costs associated with phased development and ongoing maintenance
12. **Develop a plan to protect natural wildlife**
13. **Develop an erosion control plan**
14. **Develop a map of the butte with trails**
15. **Preserve and enhance connections to other natural areas**
16. **Establish maintenance and management guidelines**
17. **Support scientific research**

IV. Programming Elements

The Steering Committee was asked to suggest programming elements to assist the consultant in creating draft plan alternatives for the committee to respond to at its next meeting. The following is a list of suggested programming ideas.

Interpretive features
Educational and directional signage
    Map – identification of natural vegetation
Parking
    Identify required quantity, surfacing
    No or reduced runoff surfacing
Access control
Avoid sensitive areas
No dead end trails – loops
    Utilize existing trails
Identify view opportunities
Resting benches
Picnic tables and garbage cans near parking or trail head at base
Port-o-potty – seasonal
Future interpretive center (is allowable under the Greenspace Bond Measure)
Natural focus to trails
Different trail types as needed

North Clackamas Parks & Recreation District
Mt. Talbert Master/Management Plan
Steering Committee Meeting #3
September 22, 1999

Minutes

Committee Members Present: Lynn Sharp, Karen McColloch, Bill Jablonski, Jim Young, Dan Butler, Jerry Allen, Kathy Bergin, Dick Shook

Committee Members Absent: Jerry Foy, Mike Miller, Bill Aalberg

NCPRD Staff: Diane Campbell, Suzanne Bader

Metro Staff: Jim Morgan

Consultant: Steve Koch

I. Suzanne Bader reviewed volunteer assignments for outreach for the open house.

The following list identifies committee members and the agencies, groups, etc. that they will be distributing flyers to. *(Please note: refer to the handout that shows additional assignments that had been decided upon prior to this meeting.)*

Lynn Sharp	Nature Conservancy, Gold's Gym, Johnson Creek Fred Meyer
Karen McColloch	School District, Business on east and west side of I-205, Cedar Park Neighborhood Watch, Eastside Athletic Club (Sunnyside Rd.), Top 'O Scott Golf Course, Rikz Farms
Dick Shook	Clackamas River Basin Council, Damascus CPO, North Clackamas Citizens Association, Clackamas CPO
NCPRD Staff	Kaiser, Monarch and Marriott hotels, Clackamas Town Center Mall, Southgate Planning Assoc., Service Clubs, North Clackamas Chamber of Commerce, equestrian club, cycling club, Milwaukie Marketplace
Kathy Bergin	Businesses on SE 122nd and SE 148th
Jerry Allen	Rock Creek CPO, Oregon Soccer Center, 24 hour fitness, Nelson Nautilus, Camp Withycombe, Kiwanis Club
Dan Butler	Boy Scouts, various churches
Jim Young	Volkswalkers
Bill Jablonski	East Side Athletic Club (McLoughlin Blvd.), Clackamas Fred Meyer

Suzanne noted that a carrier route mailing around the butte perimeter would be done as well as a mailing to several hundred interested individuals.

Suzanne will have revised flyers available on Monday, September 27th at 3:00pm. The committee needs to let staff know what open house they can attend. If attending on Saturday morning, please attend at 9:00am. If attending on Wednesday evening, please attend at 6:00pm. It was requested that the next open house in November be scheduled at McLoughlin Jr. High.

II. Steve Koch showed slides of trails on the butte and of potential access points.

Points of potential access and their desirability were discussed. Slides were shown of 10 points of access.

III. Steve Koch reviewed the preliminary drawings to be displayed at the open house.

A regional context map was displayed where trails were discussed. Lynn Sharp stated that we need to keep the connection natural from "Mather West" down to Camp Withycombe.

A site analysis was also shown. The location of the Sunnybrook extension and related trail challenges were discussed. Lynn Sharp was opposed to bridging the creek at the Sunnybrook extension because of sensitive habitat. Pedestrians are acceptable but not bikes and horses. It was relayed that bike racks and directional signage should exist at

the west end of the Sunnybrook to direct bikes onto the Sunnybrook extension or Sunnyside Rd. or around the butte but not through the butte. The group agreed with this.

IV. Auto access was reviewed. Four access points were discussed: Sunnyside Rd., Cedar Park and Mather Rd. west., and the reservoir on Mather Rd.

A question was raised regarding Metro's access requirements. Jim Morgan responded that the only requirement is that the access be compatible with the resource.

Sunnyside Road
This access point was viewed as the preferred main public access point due to its public visibility and the extended distance to Mt. Talbert, which would discourage usage of the more sensitive parts of the site.

Jim Young relayed that he felt the Sunnyside access should be the primary one.
Concern was expressed by the group that overuse of this access point could happen. Jim Morgan stated that we may want only one access point because it is easier to manage. Consensus was that it is a good access point but that we need to talk about how to restrict it. The committee agreed that this process should recommend if a lighted intersection is appropriate or not. (The lighted intersection is a part of the Sunnyside Td. widening project.)

Cedar Park Drive
Some committee members believed that this is a reasonable point of access. Karen McColloch relayed that many neighbors only want pedestrian access there. She also stated that the neighbors understand that if there is no parking then users will park in the street. That is also not desirable. Karen also relayed that the row of houses backing up to the open space off of Cedar Park Dr. facing north are concerned about the increase of partying and loud noises once the area is opened up to the public. Neighbors are also concerned about safety and security.

The committee viewed this as a potential secondary access, however, the degree to which it is developed needs to be determined with the help of the neighboring residents.

Mather Road West
Jim Morgan and Lynn Sharp each stated that this access point has a meadow and is good access for habitat to travel. If this were to be used as an access point, it would be a detriment to habitat. Dan Butler suggested limited parking. Bill Jablonski stated that the access is not convenient to existing homes because it is far away so it should not be an access point. Jim Morgan relayed that the open meadow has a unique plant community and also has a diverse bird community. He also pointed out that this may not be a good access point for people because of the steep slopes and poison oak. Kathy Bergin does not want to see parking at this location because of a herd of deer that migrates through the area.

Reservoir on Mather Road
The reservoir on Mather Rd. was raised by the committee as a potential access point that should be investigated.

General Comments
Dan Butler asked the question of how much did we really want to develop the butte and commented that we should go back to the mission statement. He suggested that we have trails but that we shouldn't encourage masses of people.

Lynn Sharp asked staff to find out county requirements regarding parking lots and impervious surfaces. She is concerned that paving may be required. A question was raised if we could share parking with Kaiser, for example.

Recommendation of Committee Regarding Access

Sunnyside Rd.:	Most public access with most intensity
Cedar Park:	Lesser degree of public access – perhaps just pedestrian
Mather Rd.:	Limited to no access and that it be noted as a wildlife corridor
Reservoir:	(Located on Mather Rd.) Look into this location as another access point

Jim Young suggested that we look at having parking passes to ease the parking on the street in Cedar Park. Suzanne Bader commented that this is a very difficult thing to do with many challenges.

V. Trails

The Steering Committee agreed that the existing trail alignments and old logging road remnants be used or improved for trails. There was no desire to construct new trails except small sections that may strategically link existing systems into a loop or provide access from trail head locations into the site. Minimal site disturbance was expressed as an important component of the planning process. There was consensus that the main public access point should accommodate "accessible" paths only in the immediate area including interpretive and educational areas.

What was not decided upon was a trail along Mt. Scott Creek and trail connections to Sunnyside Rd. and the privately owned property that makes up the northwest corner of the butte.

North Clackamas Parks & Recreation District
Mt. Talbert Master/Management Plan
Steering Committee Meeting #4
October 27, 1999

Minutes

Committee Members Present: Lynn Sharp, Karen McColloch, Bill Jablonski, Dan Butler, Jerry Allen, Kathy Bergin, Dick Shook, Mike Miller

Committee Members Absent: Jerry Foy, Bill Aalberg, and Jim Young

TAC Members Present: Dick VanIngan, Tim Grolbert

NCPRD Staff: Diane Campbell, Suzanne Bader

Metro Staff: Jim Morgan

Consultant: Steve Koch

I. A discussion was held on the October Open Houses. The committee agreed that they were a huge success. Specifically, 1) logistics and program were well planned and implemented; 2) attendance was approximately 70 people, a good turnout for a regional site (most of those in attendance were from the immediate area); and 3) participants were in general agreement with the preliminary drawings. There was some concern over the comments made by property owners on the northern slope of the property.

II. Diane distributed the compilation results from the Open House comment cards (see attached). The committee discussed the findings and incorporated the comments into the draft plan being developed for the November Open Houses. The committee gained consensus on the following points:

A. Structures (NCSD classroom, etc.)

The Parks District is meeting with the School District in early November to better understand the concept being proposed. NCSD staff will present its concept at the next SC meeting.

Comments:
- Structure is best suited to District Park
- Keep structure at current land lab and use existing facilities for program
- Use Mt. Talbert as field area only

Consensus:
- No enclosed structure
- Allow open air structure (up to 3 walls) at main entrance for kiosk or other purposes
- Allow restroom (screened portables), drinking fountain and trash can at main entrance

B. Bikes

Comments/Consensus:
- Need to align ourselves with bike advocates to enforce no bike policy
- Provide ample space and racks for parking
- Need to explain to people why no bikes are allowed

C. Dogs

Comments:
- Enforcement is difficult, people will do it anyway
- Dogs bring in invasive seeds on fur, paws and feces
- Dogs disturb sensitive wildlife and habitat

Consensus:
- No dogs allowed on site

D. Horses

Consensus:
- No horses allowed on site

E. Cedar Park Area

Comments:
- Construct pools for amphibians
- Need to reforest area
- Could be used as restoration site (take out invasive species and plant native species, interpretive signage, etc.)

Consensus:
- Pedestrian access
- Maintenance/emergency access point
- Maintenance storage shed
- Gated, drive around available for groups by appointment only
- Restoration/demonstration site for native species

F. Wilingham Court, Mather Road, Reservoir and Talbert Street

Consensus:
- Pedestrian access only
- Provide bike racks

G. Trails

Comments:
- Ledge trail on northern slope parallel to Mt. Scott Creek could connect with regional and local trails (I-205, Costco, etc.)

Consensus:
- No paving on butte trails with the exception of handicap-accessible trail at base running from 117th access towards Mt. Scott Creek and Cedar Park area (TBD)
- Use existing "ledge" trail on north/northwest portion to create loop from the summit

H. Parking

Comments:
- Shouldn't limit too much on the Sunnyside Rd. access, not fair to District residents that do not live within walking distance of the butte.

Consensus:
- Limit vehicular parking to Sunnyside Road/117th entrance

I. Clearing for view points

Consensus:
- No clearing to create view points

J. Interpretive Signage

Comments:
- Should be "low-key"

Consensus:
- Include ecological, historical and cultural signage that fits in with the natural landscape

III. Staff briefly reviewed outreach assignments for the next Open Houses in November.

Meeting adjourned at 9:05pm.

North Clackamas Parks and Recreation District
Mt. Talbert Master/Management Plan
Steering Committee Meeting #5
December 1, 1999

Minutes

Committee Members Present: Bill Jablonski, Jerry Allen, Dan Butler, Karen McColloch, Kathy Bergin, Dick Shook, Bill Aalberg, Mike Miller

Committee Members Absent: Jerry Foy, Lynn Sharp, Jim Young

TAC Members Present: Tim Grolbert, Terry Wertz, Tim Jannsen

Guests: Ken Noah, NCSD; Dee Gray, NCSD

NCPRD Staff: Diane Campbell, Suzanne Bader

Metro Staff: Jane Hart

Consultant: Steve Koch

I. Staff from the North Clackamas School District (NCSD) gave a presentation regarding their need to locate a classroom on Mt. Talbert. Terry Wertz, a teacher at the Sabin Occupational Skills Center and Ken Noah, Assistant Superintendent reviewed a proposal (attached) that highlighted options for NCSD use of the butte. After some discussion regarding use and number of students accessing the butte, Metro staff relayed that a classroom structure, computer lab, shop, and locker rooms would be inconsistent with the Metro Greenspaces Bond Measure and would not be allowable under its tenets. The Steering Committee recommended that except for a classroom, options 4 and/or 5 would be workable on the butte.

Specifically, the following were recommended as acceptable activities on the butte: (these activities are from the NCSD's list)

Plant identification, map reading, map making (with no disturbance to the vegetation), land surveying, compass use, silviculture (management of trees), ecology, trail building, trail maintenance, study wildlife and fish habitat, stream enhancement, reforestation/restoration, GIS (off site), and a native species only arboretum.

There were several activities on the list that are recommended as not acceptable: Arboricultural tree climbing, wild fire behavior, Christmas tree production, Christmas tree sales, soils, fire control, equipment operation, and firewood production.

Consensus was not reached regarding the appropriate number of students allowed on the butte at one time and the frequency of students accessing the butte. Terry Wertz relayed that there would be 25 students for two hours in the morning and 25 students for two hours in the afternoon, every other day. (The number of students and activities on the butte will vary.) It was resolved that NCPRD staff would work with NCSD staff to ensure that appropriate scheduling of NCSD use of the butte would occur.

II. The summary of the comment cards received from the November 10th and 13th open houses were reviewed. The comment cards revealed that the respondents to the cards (38) agreed with the elements of the draft plan. The steering committee reached consensus on each of the plan elements of the Draft Plan identified on the comment cards. The steering committee recommends that each of the elements be brought forward to the District Advisory Board and Metro for approval with the following additional language: Under the Sunnyside Rd. Access, there should be options considered for a permanent restroom if there is a need identified and funds are available. Under the Mather Rd. Access, the wildlife corridor should be protected and enhanced. Finally, under the Plan Restrictions, the Plan should prohibit hard surface trails except at the Sunnyside Trailhead or where handicapped access necessitates.

III. The Steering Committee acknowledged that the draft plan in written form may not be completed by the last meeting on

December 15th and designated an alternate date of December 22nd for their final meeting to review the written draft plan. Staff committed to getting the draft plan to the steering committee approximately one week prior the final meeting so that all comments could be discussed at the final meeting.

IV. Meeting Adjourned at 9:00 PM.

North Clackamas Parks & Recreation District
Mt. Talbert Master/Management Plan
Steering Committee Meeting #6
December 22, 1999

Minutes

Committee Members Present: Bill Jablonski, Jerry Allen, Dan Butler, Karen McColloch, Kathy Bergin, Dick Shook, Bill Aalberg, Mike Miller, Jerry Foy, Jim Young

Committee Members Absent: Lynn Sharp

TAC Members Present: Tim Grolbert, Dick Van Ingen, Tim Jannsen

NCPRD Staff: Diane Campbell, Suzanne Bader, Mike Henley

Metro Staff: None present

Consultant: Steve Koch

I. Mike Henley, Director of the NCPRD, formally thanked the steering committee and technical advisory committee for their hard work on the project.

II. The steering committee reviewed the draft master plan and made recommendations regarding content changes. All grammatical and spelling errors were brought to staff prior to the meeting or at the meeting but were not discussed.

III. The steering committee made a recommendation to the District Advisory Board that the name of the Mt. Talbert should officially be "Mt. Talbert Natural Area."

IV. Staff asked for volunteers to make a presentation to the District Advisory Board and potentially other boards for approval of the plan. Bill Jablonski, Dick Shook, and Dan Butler volunteered. Staff informed the steering committee that as the representative to the District Advisory Board, Lynn Sharp would also be included in making presentations to the boards.

V. Meeting Adjourned at 9:00 PM.

North Clackamas Parks and Recreation District
Mt. Talbert Master/Management Plan
Technical Advisory Committee
September 7, 1999

Minutes

Present: Karen Streeter, WES; Dick Shook, Friends of Mt. Scott/Kellogg Creeks; Jim Morgan, Metro; Tim Jannsen, Mt. Scott Water District; Jane Hart, Metro; Rob Carnahan, Clackamas County Fire District; Terry Wertz, N. Clackamas School District; Tom Ortman, Clackamas County; Mike McLees, Clackamas County; Diane Campbell, Suzanne Bader, Rich Robinson, NCPRD; Steve Koch, Mayer/Reed

Overview

Diane Campbell gave an overview of the Mt. Talbert planning process and timeline, ownership of the butte, future acquisitions and the Metro Greenspaces Program; outlined the role and responsibilities of the Steering Committee; and explained the open house process and encouraged TAC members to participate.

Site Overview/Technical Resources

Steve Koch gave an overview of the site and parameters of the master plan itself including a vision for the plan, site amenities, access, connections, potential trails and their locations. Steve then reviewed the current technical resources he is utilizing to develop the plan and asked TAC members to add any others that might be helpful (i.e. utilities, improvements, etc.)

Karen Streeter reported that WES had contracted with ODFW to develop a report on water quality, fish habitat, etc. in Mt. Scott Creek. Report is in final draft.

Dick Shook reported that the Sunnybrook Extension (up to 108th) shouldn't affect the plan too much but he noted that roadway and construction are something to be aware of in developing the plan. Construction on 117th is causing some erosion control issues very close to the creek.

Steve Koch reported on the Steering Committee site tour and showed slides and photos of both historical and current conditions. He noted that a Steering Committee member had volunteered to map the trails with GPS technology. A soil survey, bird inventory and vegetation habitat survey have already been completed by Mayer/Reed.

The TAC asked Steve about the maintenance and operations component of the plan. He explained that there were no good models available but will suggest that NCPRD participate in a training program offered by US Forest Service. The intent of the plan is to show broad criteria for maintenance. This will be coupled with education for the maintenance staff on how to appropriately maintain open space.

Role of Technical Advisory Committee

A general discussion took place on the best role for the TAC. Steve and Diane explained that this is a new process for the Parks District and they would very much appreciate suggestions from the group on this issue including what is the best way for the TAC to participate and how would the TAC like to review the document.

Jim Morgan of Metro highlighted the importance of planning for management of several different eco-systems and the need to develop best practices, i.e. thinning, invasive vegetation removal, etc.

It was decided to distribute a contour map to all TAC members asking them to identify issues and opportunities from their individual agency's point of view. All comments should be submitted by September 20th. A second TAC meeting was scheduled for October 7 at 1:30pm (location TBA) and a joint meeting of the Steering Committee and the TAC will also be scheduled.

North Clackamas Parks and Recreation District
Mt. Talbert Master/Management Plan
Technical Advisory Committee
October 7, 1999

Minutes

Present: Suzanne Bader, NCPRD; Jerry Allen, Steering Committee; Dan Butler, Steering Committee; Tim Grolbert, Sheriff's Office; Dick Van Ingen, County Planning; Dick Shook, Friends of Mt. Scott Ck., Steering Committee; Steve Maltby, County Engineering; Karen Streeter, Water Environment Services (WES); Jim Young, Steering Committee; Mike Miller, Steering Committee; Kathy Bergin, Steering Committee; Jim Morgan, Metro; Tim Jannsen, Mt. Scott Water District; John Thomas, Mt. Scott Water District; Mark Wigg, ODOT; Rob Carnahan, Clackamas County Fire District; Jane Hart, Metro; Joan Young, NCPRD; Don Robertson, NCPRD; Steve Koch, Mayer Reed

TAC members absent: Terry Wertz, N. Clackamas School District; Tom Ortman, Clackamas County; Mike McLees, Clackamas County; Rich Robinson, NCPRD

Steve Koch from Mayer Reed reviewed the map components, which included the Title 3 area, Mt. Scott Creek, access, areas affected by the endangered species act (ESA), and roadway projects that impact the plan (Sunnyside Rd. widening, Sunnybrook extension).

Steve Maltby of Clackamas County relayed that due to the location of the Sunnybrook extension, a path parallel to the creek would have to start on 97th from the southwest side of the creek. He also relayed that Title 3 and the ESA does not disallow path with a buffer but sets criteria to ensure water quality standards. Steve M. suggested that we may want to look at an alternative pedestrian access.

Steve M. also shared that during USFW, ODFW, NMFS, DEQ review of the Sunnybrook extension, all of the agencies concurred that having perpendicular paths up to the creek would be acceptable but not alongside the creek.

It was noted that the ESA listing does not include any critters yet. However, prior to development a wildlife inventory would be necessary.

John Thomas of the Mt. Scott Water District shared their need for an easement for a 12" water line. The water line would run effectively from Cedar Park Dr. over the butte to Sunnyside Rd. The easement would require the line to be underground with path access above ground. The intent of the line is to have two 12" lines running to the NW portion of the water district. They will need an easement 7.5 to 10 feet wide with some vehicular access. (The normal width is 20 feet.) A question was asked about how the pipe would cross the creek. Perhaps the pipe would go under a bridge. This could also be a possible connection for a Fire District hydrant.

Rob Carnahan of the Clackamas County Fire District stated that they wouldn't require additional trails or roads for vehicle access. He stated that the water district has capacity for any fire suppression effort. An ATV trail may be a good idea.

Steve Koch reviewed the concept plans and relayed the steering committee's consensus for the primary public access to be at Sunnyside Rd. Cedar Park to be a secondary access point. Steve also showed the existing trails, pedestrian access spurs, and ecological communities.

Diane Campbell will check on questions regarding if the Mt. Talbert Rd. and the reservoir road are public or private.

Tim Grolbert from the Sheriff's Office offered that Mt. Talbert may not require vehicular access. He wants to run a crime analysis on the areas. Tim suggested that we display a trespassing ordinance to deal with chronic offenders (this is very common in other parks). He also suggested that we display park rules.

Dan Butler shared that an old logging road is still intact except through Cedar Park. Jerry Allen said that we may not need a road.

Regarding ADA accessibility, Jerry Allen thought it most appropriate to have accessible areas at the trailheads and the main access point.

It was shared that DTD is acquiring a parcel of land just east of the Sunnybrook on the north side of the creek.

Steve Koch relayed that the steering committee reached consensus that there should be no bikes or horses allowed on the butte. Because of

the wildlife corridor, the steering committee also does not want the Mather Rd access point to be a major access. A pedestrian/neighborhood path would be acceptable. It was shared that the Mather Rd. access used to be an old bike racetrack.

The TAC discussed the erosion control problem on Hidalgo Ct. and recommended that that access point be deleted. The Willingham Ct. access should be left in as a pedestrian access.

The TAC discussed the trail parallel to Mt. Scott Creek. The concept originated from the Park District's Master Plan with a vision to connect Mt. Talbert across I-205 to the 85 acre District Park and the 45 acre North Clackamas Park. The plan shows a trail adjacent to the creek and another trail higher up on the butte that also runs east-west. The question was asked if we really needed two east-west trails. Also, because times have changed and it's not as feasible to locate trails close to creeks, it may be wise to have the east-west trail higher up on the butte.

Karen Streeter of WES commented that there is a sewer line easement along the creek that ends at Kaiser.

Appendix B

Public Open House Summaries

North Clackamas Parks & Recreation District
Mt. Talbert Master/Management Plan
Open House #1 (October 9 & 13, 1999)

Summary of Input

Station #2
Existing Reports

The Mt. Talbert planning process is guided in part by existing information that we have about the butte. Please take some time to look over the reports and maps. Have we forgotten anything? Any comments about the existing information that we do have?

Comments:

- Maps are well done, easy to comprehend.
- Was the butte logged in the past? Is its current plant community similar to original or greatly damaged? Approx. age of forest?
- Would you consider clearing to provide vistas, key views?
- The plans look good. I prefer the park remain mostly undeveloped. A concern I have is the lack of good pedestrian access through and from surrounding neighborhoods. Rather than driving to the park to enjoy it, I'd like to walk there.
- Will dogs be allowed in the park?
- Have any studies been done on expected park use? How many people can we expect in use in the future?
- How did Mt. Talbert get its name? Uses by Native Americans? Burial or sacred sites? Logging history? Any old growth trees? Any endangered species? How did Sunnyside Rd. get its name?
- I think I'd like it all to stay minimally developed. No paving of trails, no permanent structures, just keep it our neighborhood get away.
- No bikes, no animals (don't want a poop trail). Add picnic tables.
- A fair amount of deer cross – have seen and their tracks over 97th just north of the dip in the road/creek bed – right where Sunnybrook extension is to go in). Have seen one use culvert in summer (low water) to pass through and there is a tremendous amount of track on the west side of 97th creek bed.
- See attached letter.

Station #5
Schematic Plans

One purpose of the master/management plan is to preserve the natural resources of Mt. Talbert, whether they are plant communities or wildlife habitat. In addition to natural resource preservation, the master/ management plan has another purpose and that is to provide trails and supporting amenities on Mt. Talbert. Please let us know what you think about the two schematic plans. What do you like about these plans? What would you like to see change?

Schematic Plan 1			
PLAN ELEMENTS	I LIKE THIS ELEMENT	I DON'T LIKE THIS ELEMENT	COMMENTS
Pedestrian Access Points	18	1	Not at Mather/wildlife corridor, Not at Willingham Ct., Like main access on Sunnyside, Dogs on leash should be allowed, would like bike access as way to commute from south of Sunnyside to Kaiser, have rules but not trail maps
Vehicular Access Points	9	6	Limited parking on residential streets, Cedar Park Dr. should have pedestrian access only, Sunnyside should have vehicular access only
Prohibit bicycles on trails	18	3	Bikes will cause erosion and runoff into the creek, trails should be passive – walking only; would be nice to have a bike trail near the creek
Prohibit equestrian trails	17	2	Horses are hard on trails
Parking locations	10	4	Limit parking on residential streets, limit parking at Cedar Park, leave Mather Rd. access undeveloped, no parking at Cedar Park
Trails (locations, types, width)	14	2	
Environmental Education:	8	3	
Interpretive Signage	17	0	
Informational Kiosks	13	2	Have at the main vehicular entrance, have them only at trail heads
Restrooms (type, locations)	8	1	Have at the main vehicular entrance, if you have picnic tables and garbage cans you should have restrooms
Open air classroom -Structure -No Structure	Structure: 2 No Structure: 9 No classroom at all: 3		
General Comments About Schematic Plan 1: Need handicapped access that includes cardiac and locomotor impairments – there should be a road to the top, fire safety concerns, should have vegetation identification signs, keep blackberries out, guard against poison oak on trails, only prohibit bikes and horses in extremely sensitive areas, policing of bike use will be difficult, no motorcycles, have parking on abandoned Mather Rd. across from the reservoir, need south/west entrance, would like loop trail around butte to the top, don't need interpretive signage, have information about geology, water quality, and Mt. Scott Creek, have port-a-potties, have flush toilets, open air classroom at 122nd property, open air classroom only if have buy in from parks, WES, and School District, classroom would ruin natural quality of butte			

Schematic Plan 2			
PLAN ELEMENTS	I LIKE THIS ELEMENT	I DON'T LIKE THIS ELEMENT	COMMENTS
Pedestrian Access Points	9	6	Eliminate Mather Rd. access – too dangerous and important wildlife corridor, dogs allowed on leash
Vehicular Access Points	10	2	No parking at Cedar Park Dr., Sunnyside Rd. as vehicular access point, keep wildlife corridor clear
Prohibit bicycles on trails	19	3	Keep pedestrian area only, bikes erode soil and are too unsafe, want bike trail near or along creek
Prohibit equestrian trails	19	2	Keep area pedestrian only
Parking locations	7	3	Sunnyside Road should be the main parking location, limit parking at Cedar Park Dr., leave Mather Rd. undeveloped
Trails (locations, types, width)	9	2	
Environmental Education	8	0	
Interpretive Signage	16	0	Keep signage simple.
Informational Kiosks	9	1	Kiosks only at trail heads.
Restrooms (type, locations)	9	0	Include a primary vehicular access point only.
Open air classroom -Structure -No Structure	Structure: 3 No Structure: 6	No structure, simple structure.	

	No classroom at all: 2		
General Comments About Schematic Plan 2: Like pedestrian access better than plan #1, don't want people parking in front of house or in apartment spots, like access to Mather Rd., pursue land south of 117th, two vehicular accesses better than one, no motorcycles, keep horse trails separate, poison oak is a problem, would like a loop trail around butte and up to top, minimum of 100 feet setback for trail adjacent to creek, put trails through different tree types, interpretive signage at Wildwood recreation is a good model, like signs as you go with a guide at the base, Corvallis bald hill plan works well, do not like this plan			

North Clackamas Parks & Recreation District
Mt. Talbert Master/Management Plan
Open House #2
November 10th & 13th, 1999

Draft Plan – Summary of Comment Card Responses (38 cards turned in)

Sunnyside Road

PLAN ELEMENTS	I LIKE THIS ELEMENT (YES/NO)	THINGS I WOULD CHANGE ABOUT THIS ELEMENT OF THE PLAN/COMMENTS
Sunnyside Rd. Access	Yes: 34 No: 4	Sunnyside is too busy, need to handle school buses, need more auto accesses than just this one, traffic congestion concerns
Primary Public Access	Yes: 37 No: 1	Make sure there is enough parking
Vehicular Access - Parking	Yes: 37 No: 1	
Handicapped Accessible --Interpretive Kiosk --Hard Surface Path to Pedestrian Bridge at Mt. Scott Ck.	Yes: 35 No: 3	Handicapped areas will not fulfill the need so why bother Include ecological areas in interpretive signage Hard surface trail also needed along creek Leave as natural as possible
Screened Portable Toilets	Yes: 32 No: 6	May be vandalized, apartments are nearby, how about a permanent restroom tied to the sewer
Open Air Classroom	Yes: 32 No: 6	Identify plants, trees, Braille trail, history, cultural succession, vandalism may be problem, connect to new high school, not enough room – maybe at Cedar Park, Not enough information given.
Picnic Tables	Yes: 30 No: 8	Have a limited number, benches instead, groups may fill up the parking lot for group picnic, tables at the top, no grills or fires
Trash Receptacles	Yes: 37 No: 1	How about at the top, need them at every access point, no cans, people should pack trash out
Bicycle Rack	Yes: 36 No: 2	

Park Signage (hours, rules)	Yes: 38 No: 0	Need gates that close at dusk, no weapons, fires, firearms
Drinking Fountain	Yes: 31 No: 7	Maintenance intensive item, people will bring their own water

Cedar Park Drive

PLAN ELEMENTS	I LIKE THIS ELEMENT (YES/NO)	THINGS I WOULD CHANGE ABOUT THIS ELEMENT OF THE PLAN/COMMENTS
Cedar Park Drive Access	Yes: 34 No: 4	No street signage from Mather, need auto access just north of gates, limited parking should be available
Pedestrian Access --Bicycle Racks --Park hours, rules --Soft Surface Trails	Yes: 37 No: 1	Provide car parking on street or in a lot, provide restrooms, no bike racks
Maintenance Access	Yes: 36 No: 2	
Limited/Gated/Reserved Group Access	Yes: 29 No: 9	Need more access away from Sunnyside, why is it gated here and not at other accesses, groups should come in from Sunnyside, monitor impact to habitat from maint. vehicles
Ecological Restoration --Reforestation --Wetland enhancement --Wildlife preservation	Yes: 36 No: 2	

Talbert Street, Reservoir, Mather Road, & Willingham Court

PLAN ELEMENTS	I LIKE THIS ELEMENT (YES/NO)	THINGS I WOULD CHANGE ABOUT THIS ELEMENT OF THE PLAN/COMMENTS
Talbert St., Reservoir, Mather Rd. & Willingham Ct. (other pedestrian access points)	Yes: 33 No: 5	No Mather access, no street signage, provide parking on Willingham Ct, provide restrooms, no access on Willingham Ct., allow for wildlife moving in and out
Bicycle Rack	Yes: 32	Racks should be at Sunnyside and Cedar Park only

	No: 6	
Park Hours, Rules	Yes: 35 No: 3	
Soft Surface Trails	Yes: 35 No: 3	

Plan Restrictions

PLAN ELEMENTS	I LIKE THIS ELEMENT (YES/NO)	THINGS I WOULD CHANGE ABOUT THIS ELEMENT OF THE PLAN/COMMENTS
Prohibit Horses	Yes: 34 No: 4	Clackamas Co. has largest horse population in state, have a trail that is accessible from the North Clackamas Park horse arena to Gresham
Prohibit Dogs	Yes: 25 No: 13	Safer with dogs, dogs on leash, use scoops, have one trail for dogs, have trails like at Tryon Creek where they allow dogs on leash and have scoop rule
Prohibit Bicycles	Yes: 33 No: 5	
Prohibit clearing of trees for views	Yes: 28 No: 10	Would like to have view at top, take advantage of natural attrition to provide view areas – a little help sometimes is ok
Prohibit hard surface trails except at Sunnyside Trail Head	Yes: 32 No: 6	Need hard surface trials at other entry points, need hard surface on steeper pitches, if handicapped accessible is a priority, more hard trails needed, want hard trails at Cedar Park

GENERAL COMMENTS:

- Don't connect the three parks (Talbert, District, and North Clackamas) with trails – too problematic.
- Acquire more land adjacent to the existing Mt. Talbert park.
- Have directional signs at trail intersections.
- Have fixed compass at the summit showing directions; show elevation at the summit.
- Purchase land south to Camp Withycombe to help maintain the wildlife corridor.
- Maintain crossing from Mt. Talbert across Sunnyside Rd. just east of 117th Ave.

Plan Alternatives

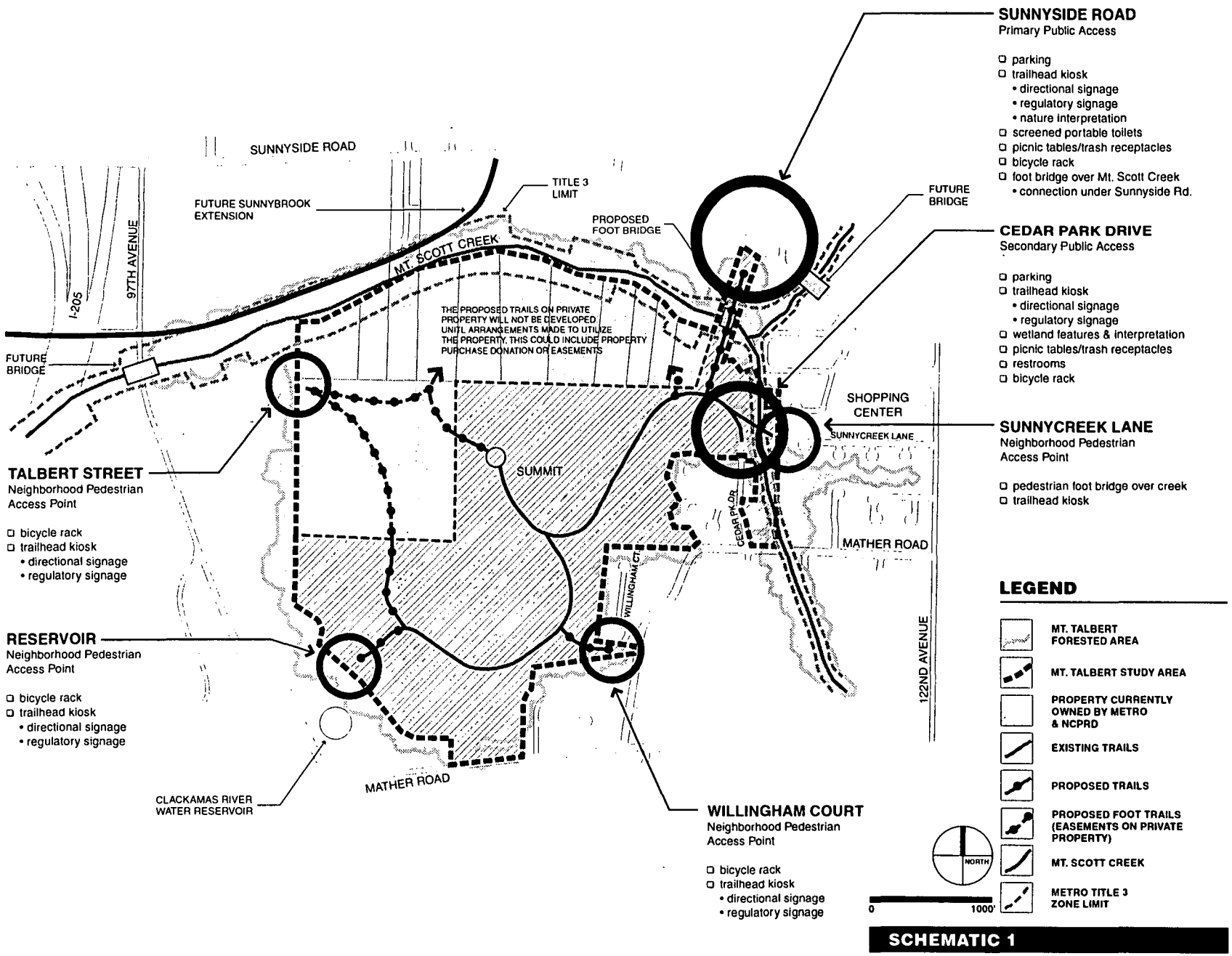
(As Presented at the Open Houses)

The consultant team, guided by the issues and opportunities identified by the Steering Committee and by the constraints identified in the site analysis process, formulated two schematic drawings that are consistent with the Steering Committee's Mission Statement.

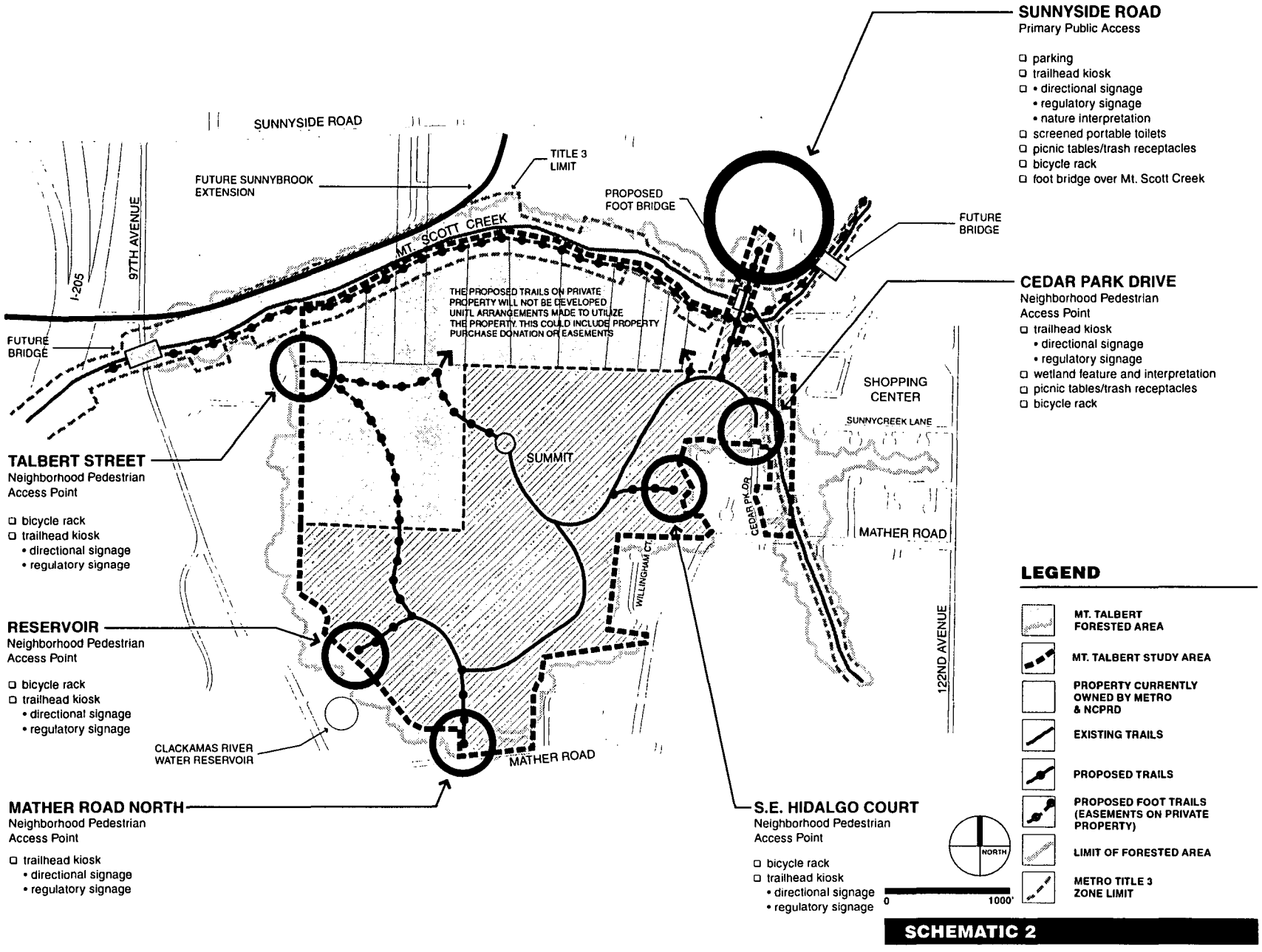
Schematic Plan One & Schematic Plan Two

Schematic Plan One and Two focus on three basic components: access, trails and access to the Mt. Scott Creek corridor. Variation in these three areas distinguish Plan One from Plan Two.

Feature	Plan One	Plan Two
Access		
Primary Access @ Sunnyside Rd.	**X**	**X**
• parking	X	X
• trail head kiosk	X	X
directional signage	X	X
regulatory signage	X	X
nature interpretation	X	X
• picnic tables	X	X
• trash receptacles	X	X
• bicycle rack	X	X
• foot bridge at creek	X	X
• screened portable toilets	X	X
Secondary Access at Cedar Park Dr.	**X**	
• limited parking	X	
• trail head kiosk	X	X
directional signage	X	X
regulatory signage	X	X
nature interpretation	X	X
• screened portable toilets		X
• wetland feature interp.		X
• picnic tables	X	X
• trash receptacles	X	X
• bicycle racks	X	X
Pedestrian Access		
• Cedar Park Drive		X
• Talbert Street	X	X
• Reservoir	X	X
• Mather Road		X
• Willingham Court	X	
• Hidalgo Court		X
• Sunny Creek Lane	X	
Trails		
• Develop existing trail system	X	X
• Limit new trail construction to links.	X	X
• Within Mt. Scott Creek (Title 3 area)		X
• Future loop trail (west and north side)	X	X
• New trail connection to Sunnyside Entry	X	X


SUNNYSIDE ROAD
Primary Public Access
parking
trailhead kiosk
• directional signage
• regulatory signage
• nature interpretation
screened portable toilets
picnic tables/trash receptacles
bicycle rack
foot bridge over Mt. Scott Creek
• connection under Sunnyside Rd.
CEDAR PARK DRIVE
Secondary Public Access
parking
trailhead kiosk
• directional signage
• regulatory signage
wetland features & interpretation
picnic tables/trash receptacles
restrooms
bicycle rack
SUNNYCREEK LANE
Neighborhood Pedestrian
Access Point
pedestrian foot bridge over creek
trailhead kiosk
TALBERT STREET
Neighborhood Pedestrian
Access Point
bicycle rack
trailhead kiosk
• directional signage
• regulatory signage
RESERVOIR
Neighborhood Pedestrian
Access Point
bicycle rack
trailhead kiosk
• directional signage
• regulatory signage
WILLINGHAM COURT
Neighborhood Pedestrian
Access Point
bicycle rack
trailhead kiosk
• directional signage
• regulatory signage
SUNNYSIDE ROAD
FUTURE SUNNYBROOK EXTENSION
TITLE 3 LIMIT
PROPOSED FOOT BRIDGE
FUTURE BRIDGE
MT. SCOTT CREEK
I-205
97TH AVENUE
THE PROPOSED TRAILS ON PRIVATE PROPERTY WILL NOT BE DEVELOPED UNITL ARRANGEMENTS MADE TO UTILIZE THE PROPERTY. THIS COULD INCLUDE PROPERTY PURCHASE DONATION OR EASEMENTS
FUTURE BRIDGE
SHOPPING CENTER
SUNNYCREEK LANE
SUMMIT
CEDAR PK DR
MATHER ROAD
WILLINGHAM CT
122ND AVENUE
MATHER ROAD
CLACKAMAS RIVER WATER RESERVOIR
LEGEND
MT. TALBERT FORESTED AREA
MT. TALBERT STUDY AREA
PROPERTY CURRENTLY OWNED BY METRO & NCPRD
EXISTING TRAILS
PROPOSED TRAILS
PROPOSED FOOT TRAILS (EASEMENTS ON PRIVATE PROPERTY)
MT. SCOTT CREEK
METRO TITLE 3 ZONE LIMIT
NORTH
0
1000'

SCHEMATIC 1


SUNNYSIDE ROAD
Primary Public Access
parking
trailhead kiosk
• directional signage
• regulatory signage
• nature interpretation
screened portable toilets
picnic tables/trash receptacles
bicycle rack
foot bridge over Mt. Scott Creek
SUNNYSIDE ROAD
TITLE 3 LIMIT
FUTURE SUNNYBROOK EXTENSION
PROPOSED FOOT BRIDGE
FUTURE BRIDGE
MT. SCOTT CREEK
97TH AVENUE
I-205
THE PROPOSED TRAILS ON PRIVATE PROPERTY WILL NOT BE DEVELOPED UNITL ARRANGEMENTS MADE TO UTILIZE THE PROPERTY. THIS COULD INCLUDE PROPERTY PURCHASE DONATION OR EASEMENTS
FUTURE BRIDGE
CEDAR PARK DRIVE
Neighborhood Pedestrian Access Point
trailhead kiosk
• directional signage
• regulatory signage
wetland feature and interpretation
picnic tables/trash receptacles
bicycle rack
SHOPPING CENTER
SUNNYCREEK LANE
SUMMIT
CEDAR PK DR
MATHER ROAD
TALBERT STREET
Neighborhood Pedestrian Access Point
bicycle rack
trailhead kiosk
• directional signage
• regulatory signage
WILLINGHAM CT
122ND AVENUE
RESERVOIR
Neighborhood Pedestrian Access Point
bicycle rack
trailhead kiosk
• directional signage
• regulatory signage
CLACKAMAS RIVER WATER RESERVOIR
MATHER ROAD
MATHER ROAD NORTH
Neighborhood Pedestrian Access Point
trailhead kiosk
• directional signage
• regulatory signage
S.E. HIDALGO COURT
Neighborhood Pedestrian Access Point
bicycle rack
trailhead kiosk
• directional signage
• regulatory signage
LEGEND
MT. TALBERT FORESTED AREA
MT. TALBERT STUDY AREA
PROPERTY CURRENTLY OWNED BY METRO & NCPRD
EXISTING TRAILS
PROPOSED TRAILS
PROPOSED FOOT TRAILS (EASEMENTS ON PRIVATE PROPERTY)
LIMIT OF FORESTED AREA
METRO TITLE 3 ZONE LIMIT
NORTH
0
1000'
SCHEMATIC 2

Issues and Opportunities

Issues

- Staying on trails
- Overuse / control
- How unnatural do you allow the site to become?
- Access
- Uses:
  - walking
  - dogs
  - horses
  - mountain bikes
  - camping
- Limit development on site:
  - restrooms, structures
  - parking areas
- Abuse and management of trails:
  - erosion
- Non-native species "taking over"
- What areas are acceptable for parking areas
- Maintain / preserve habitat corridors
- Fire safety / public safety / site security

Opportunities

- Use existing trails
- Restore damaged and disturbed areas
- Site as record of history
  - natural vegetation, wildlife & cultural uses
- Maintain tree canopy
- Seasonal habitat development
- Educational opportunities
  - ecology interpretation
  - K-12 education
- Different types of trails
  - challenge trails
- Regional multi-modal access
  - aquatic park, other NCPRD facilities
  - Gresham, Happy Valley
- Good potential access points
- Tributary stormwater detention dam
- Close to lots of residents
- Bus access from Sunnyside Road
- Dynamic natural systems

Appendix C

Permitting

Permitting
The permitting process is triggered by application for construction or improvements to sites that are within the floodplain or floodway, contain wetlands, or impact other water quality related natural resources. Permitting of development will follow typical local, regional, state and federal requirements. Because Mt. Scott Creek has been determined to contain endangered fish species and wetlands have been preliminarily identified on the site, review agencies will be reviewing all plans for many of the site improvements noted in this report.

Grading Permit
Any type of development or construction that requires changing the existing topography by the movement of more than 50 cubic yards of soil requires a grading permit issued by Clackamas County. This would include but is not limited to: parking lots, building foundations, bicycle trails and some types of pedestrian trails. Any proposed development would be reviewed for required permitting prior to submission for development approval.

Erosion Control Permit & NPD Permit (Non-Point Discharge)
Erosion Control Permit & NPD Permits are required relative to the grading permits and have requirements for erosion control techniques and devises to prevent or reduce impacts of soil erosion.

Stormwater Permit
Stormwater Permit requires stormwater runoff control plans and devises that control, reduce and mitigate and potential increases to stormwater runoff directed to local utilities and natural streams, rivers and other bodies of water. Collection devises such as stormwater detention ponds, wetland ponds, and bio-swales may be required installations prior to development dependent upon the assessed impacts.

Sanitary Sewer Connection Permit
A Sanitary Sewer Connection Permit will be required for any toilet facilities. Deep pit toilets proposed in areas with accessible points of connection to municipal sewer services would probable, be denied due to groundwater contamination issues.

WES
Clackamas County Water Environment Services implements Metro Regional Government, Title 3 areas. These are areas within the floodplain, adjacent to delineated wetlands and other water quality resources that have fallen into Title 3 definition.

Clean Water Act - Section 404
Clean Water Act - Section 404 is administered by the Army Corps of Engineers and is required for dredge and filling permits within floodplain areas and river areas. This also includes wetlands.

Environmental Protection Agency (EPA)
Environmental Protection Agency implements most of the Clean Water Act including Section 303 (water quality standards) Oregon State Department of Environmental Quality administers applicable regulations.

Oregon Division of State Lands (ODSL)
Oregon Division of State Lands has review jurisdiction over all projects that require cut or fill within a protected watershed, flood plain, floodway, wetlands, or water of the state.

Oregon Department of Fish and Wildlife (ODFW)
Oregon Department of Fish and Wildlife has review jurisdiction over any type of development that is proposed within 25 feet of any waterway. ODFW reviews all plans and makes comments to ODSL. ODFW does not have approval authority.

US Fish and Wildlife Service (USFWS)
The US Fish and Wildlife Service implements the ESA and reviews plans relative to ESA impacts on non-anadromous fish, wildlife and plants.

National Marine and Fisheries Service (NMFS)
The National Marine and Fisheries Service implements the ESA and reviews all projects that may impact any endangered anadromous fish.

Appendix D

Trail Construction Details

CLEARING LIMITS

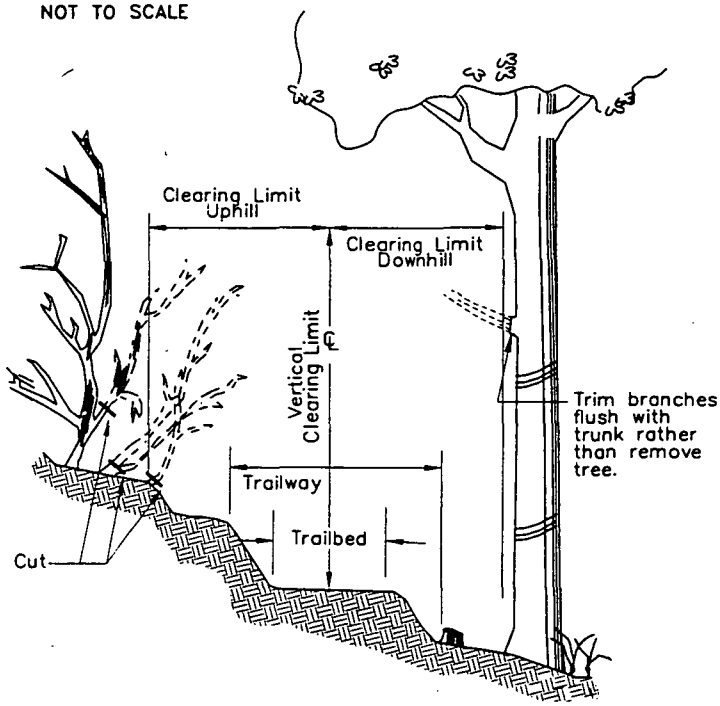
NOT TO SCALE

Clearing Limits (mm)

Location	Uphill	Downhill	Height

Do not remove trees over ___ mm diameter if they are over ____ m from the centerline (both sides).

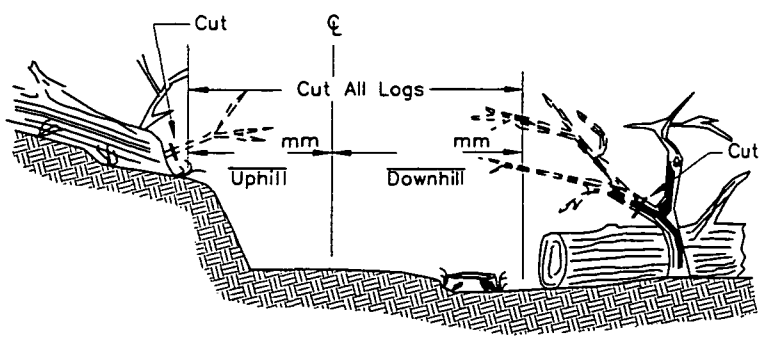
Remove all trees _____ mm or less in diameter if they are within _____ m of centerline (both sides).



Stump Height Requirements* (mm)

Stump Position	Side Slope	Uphill	Downhill
Stumps between the trailway and clearing limits.	Side slope less than or=to 10%		
	Side slope over 10%		
Stumps outside the clearing limits	Side slope less than or=to 10%		
	Side slope over 10%		

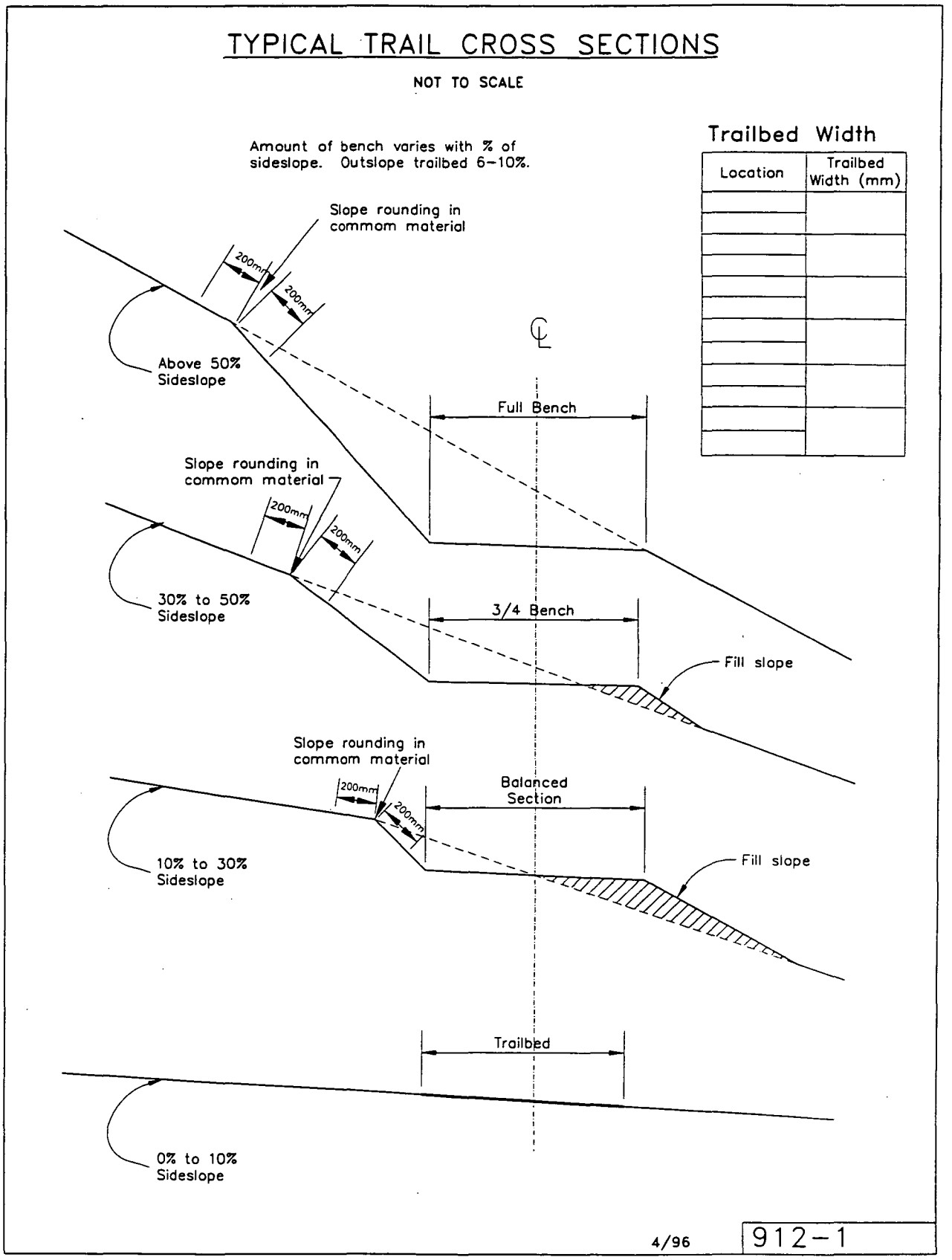
*All heights measured on uphill side of stumps.



4/96

911-1

911-1.—Clearing limits.



912–1.—Typical trail cross sections.

TRAILBED AND SLOPE FINISH

NOT TO SCALE

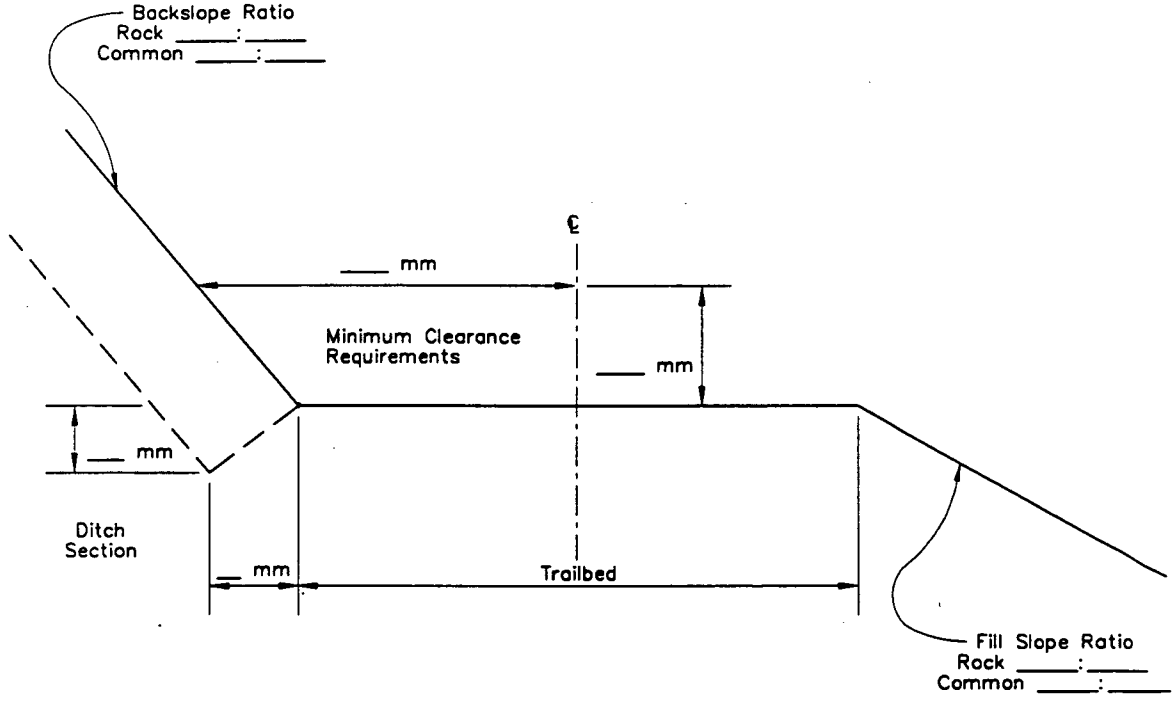
Slope Finish

Remove roots over ____ mm in diameter that protrude from the backslope.

Trailbed Finish

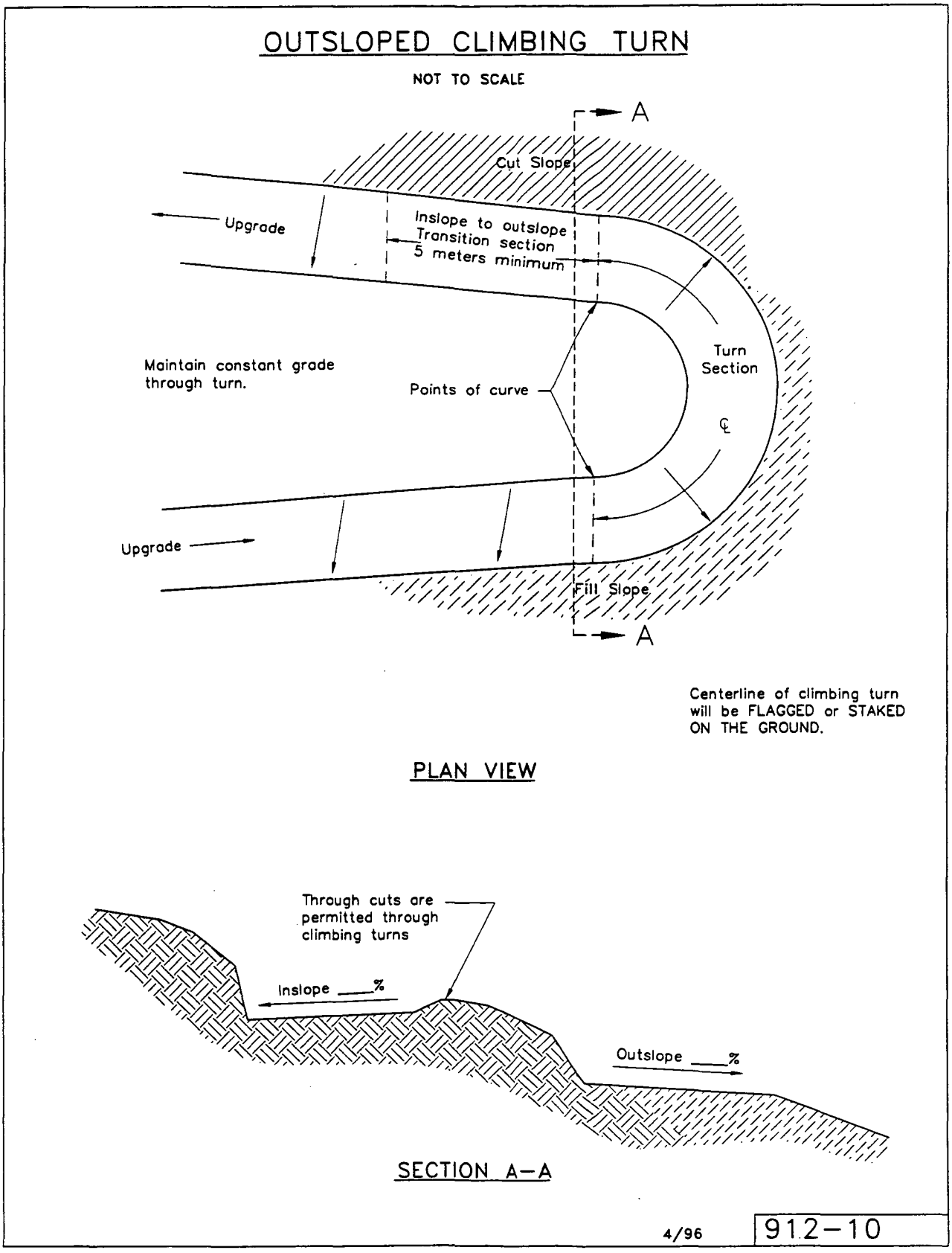
Remove loose rock on the trailbed surface over ____ mm in the smallest dimension.

Remove or reduce embedded rock that protrudes more than ____ mm above the trailbed.

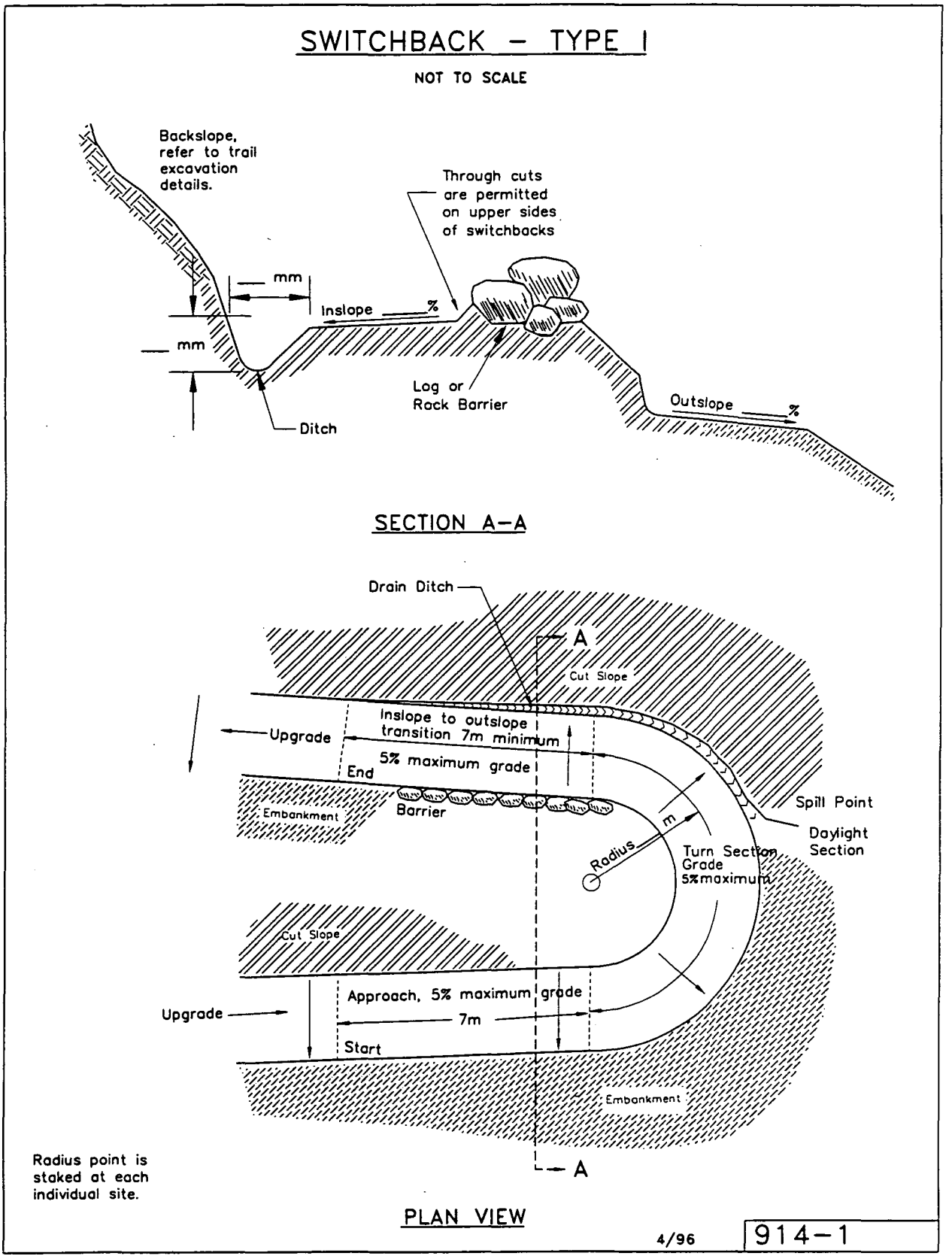


4/96 912-2

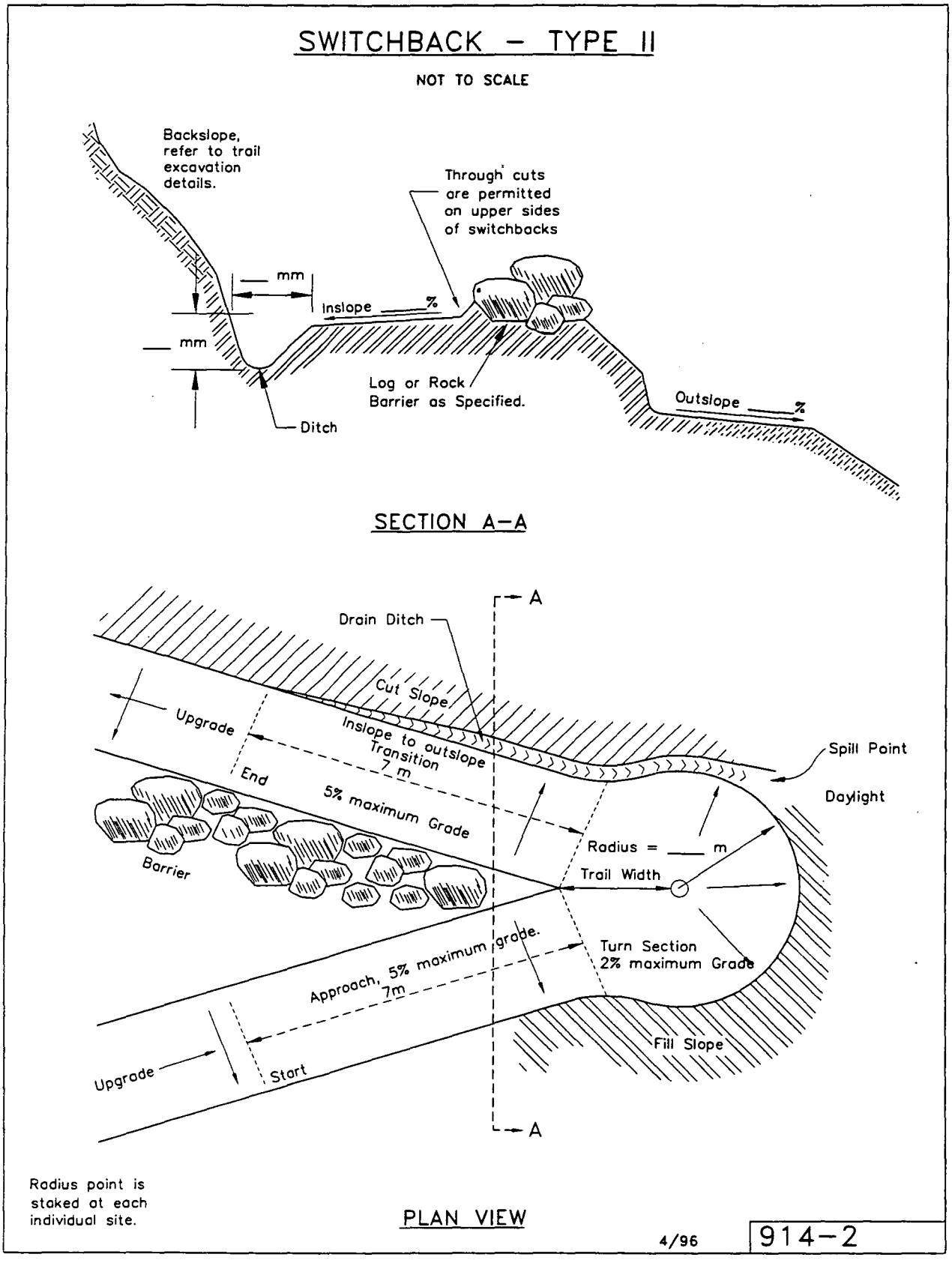
912-2.—Trailbed and slope finish.



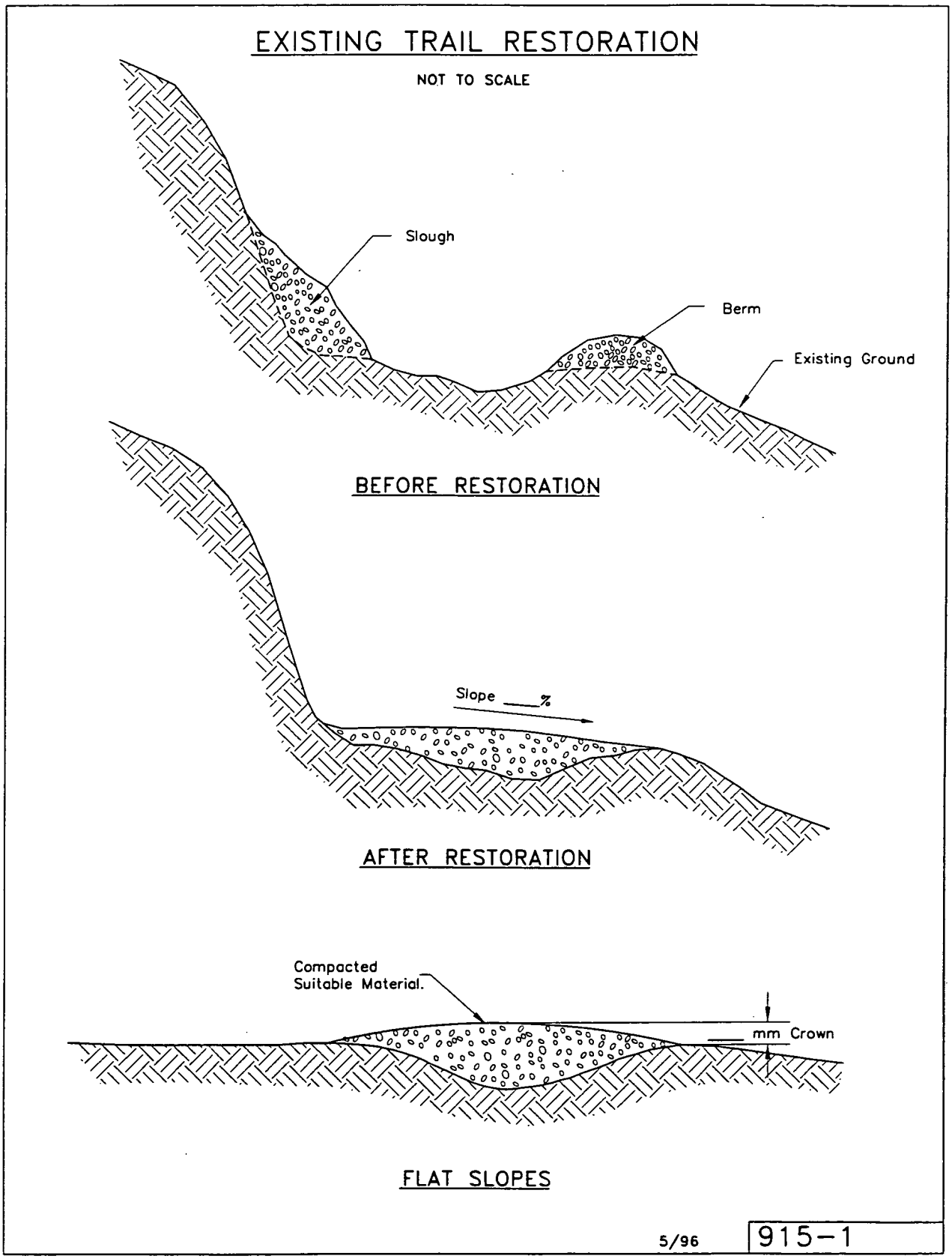
912–10.—Outsloped climbing turn.



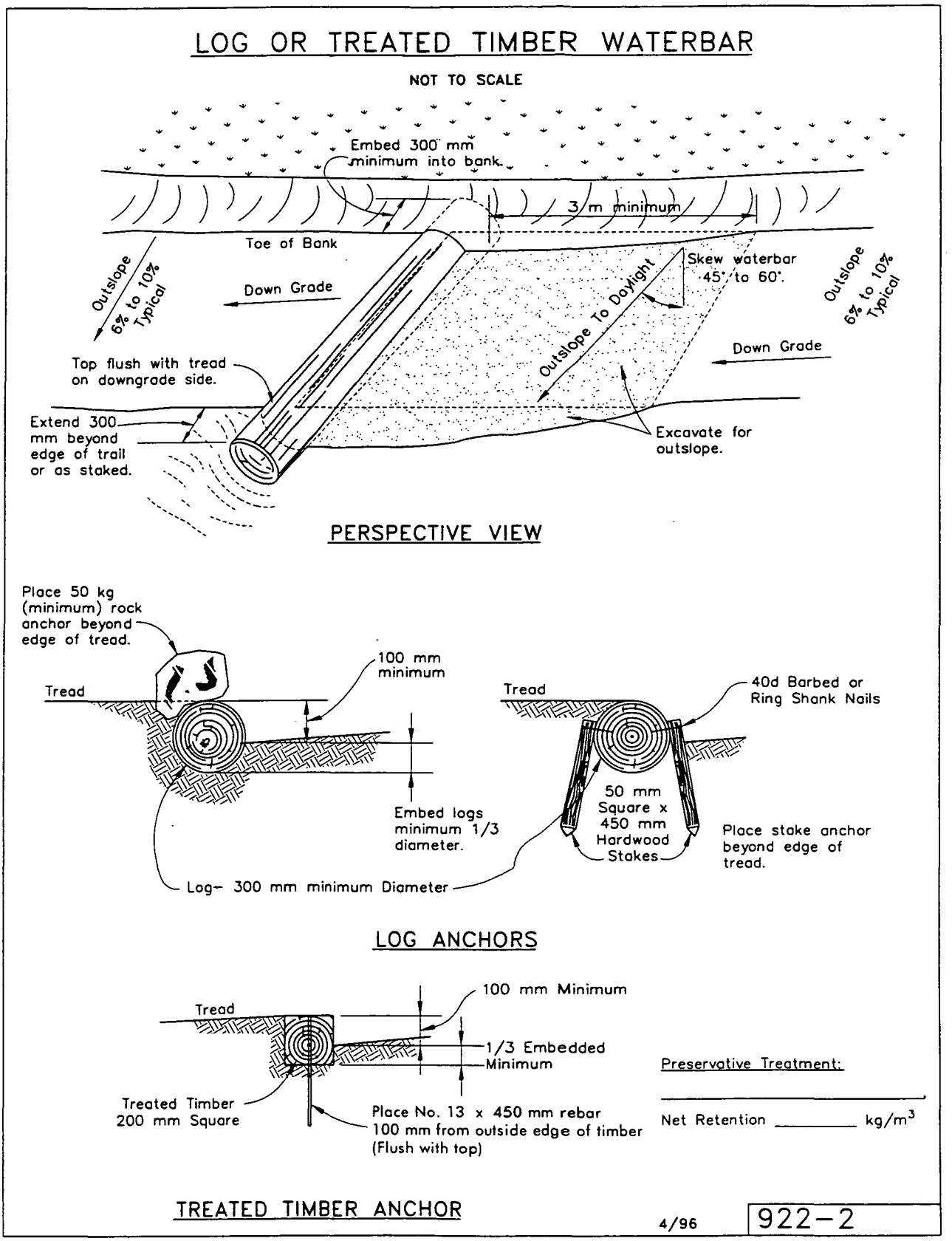
914–1.—Switchback—Type I.



914–2.—Switchback—Type II.



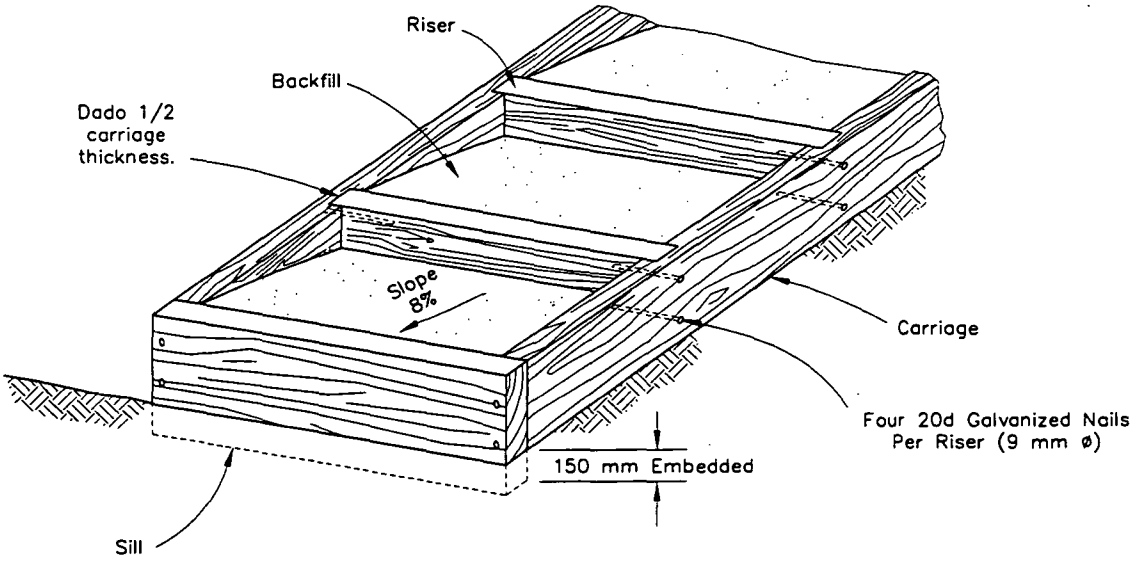
915–1.—Existing trail restoration.



922-2.—Log or treated timber waterbar.

CRIB LADDER STAIRWAY

NOT TO SCALE



Preservative Treatment:

_____

Net Retention _____ kg/m^3

STAIRWAY DIMENSIONS

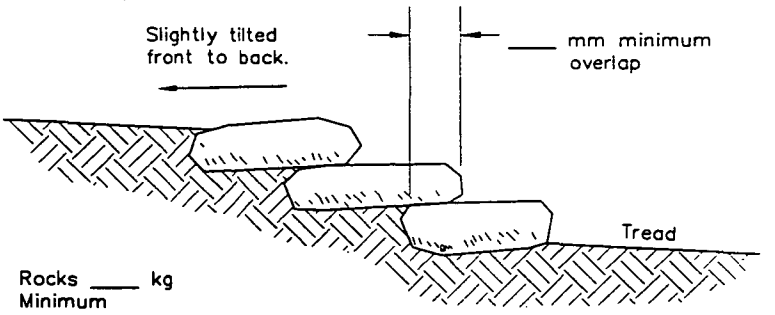
Location	Step Rise	Step Run	Width	Carriage Length	Carriage/ Plank Step Dimensions	Sill Dimensions	Species

5/96 933-2

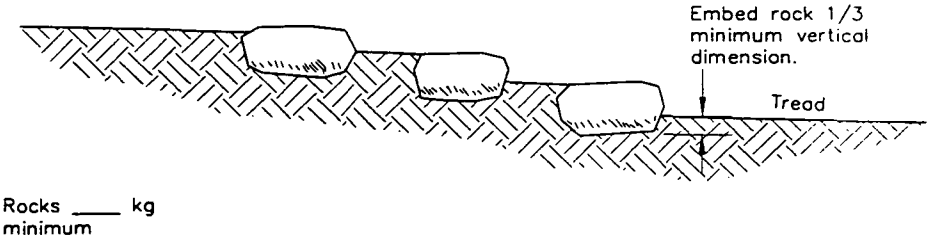
933-2.—Crib ladder stairway.

ROCK STAIRWAYS

NOT TO SCALE



OVERLAPPING ROCK STAIRWAY



ROCK RISER STAIRWAY

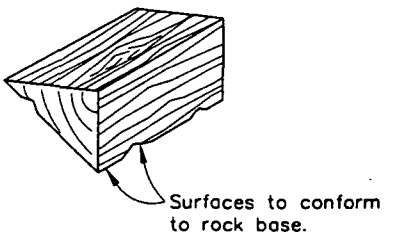
Location	Type	Maximum Step Rise	Maximum Step Run	Width

5/96 933-3

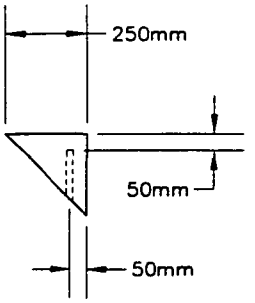
933-3.—Rock stairways.

PINNED STAIRWAY

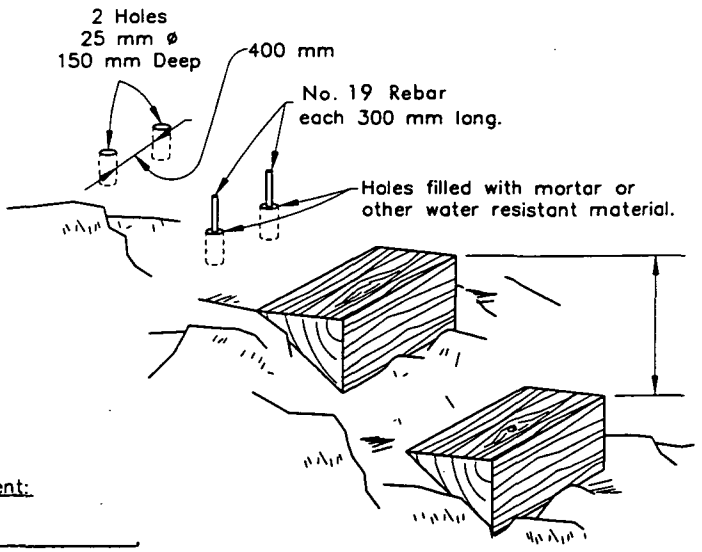
NOT TO SCALE



STEP



TYPICAL END VIEW
OF TREADS



Preservative Treatment: _____

Net Retention _____ kg/m³

Shape treads and place over rebar to provide a firm, solid contact with the rock. Tilt tread front to back 2%.

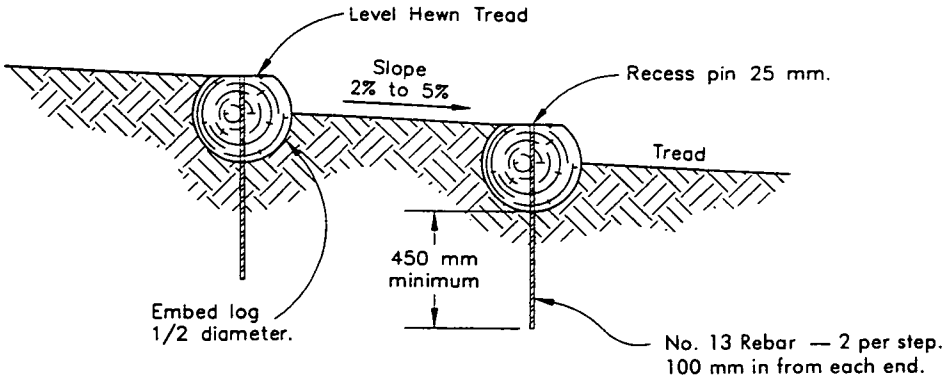
Location	Step Rise	Step Run	Width	Species

5/96 933-4

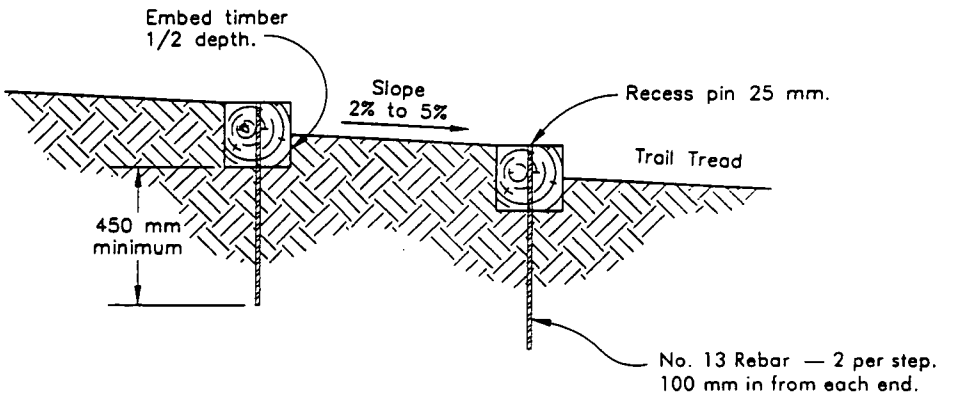
933-4.—Pinned stairway.

LOG AND TREATED TIMBER RISER STAIRWAY

NOT TO SCALE



LOG RISER STAIRWAY



TREATED TIMBER RISER STAIRWAY

Preservative Treatment:

_____

Net Retention _____ kg/m^3

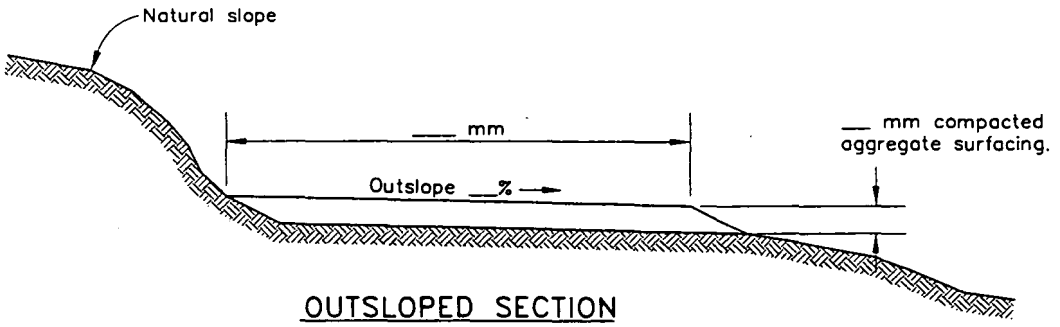
Location	Step Rise	Step Run	Step Width	Riser Material Type	Riser Material Dimensions	Species

4/96 933-5

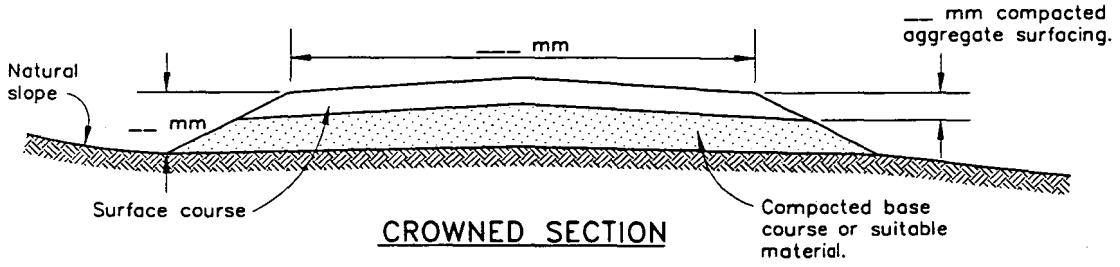
933–5.—Log and treated timber riser stairway.

AGGREGATE SURFACING

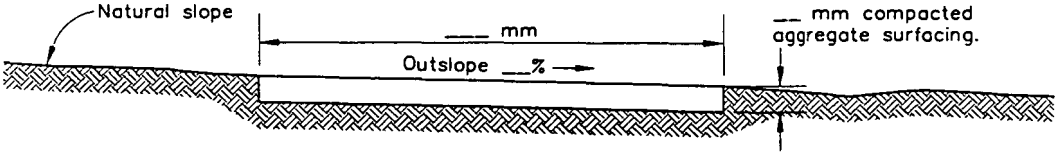
NOT TO SCALE



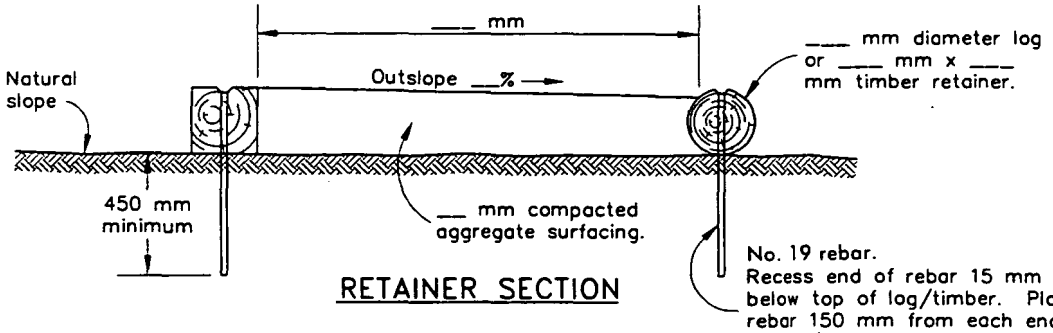
OUTSLOPED SECTION



CROWNED SECTION



EXCAVATED SECTION



RETAINER SECTION

LOCATION	TREAD DEPTH (mm)	TREAD WIDTH (mm)	RETAINER MATERIAL	RETAINER SPECIES	SIZE (mm)	TYPE OF TREATMENT	MINIMUM RETENTION kg/m3

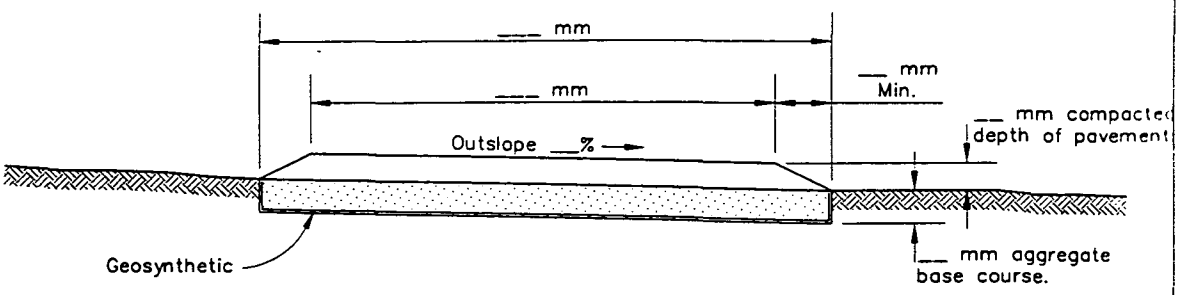
6/96

941-1

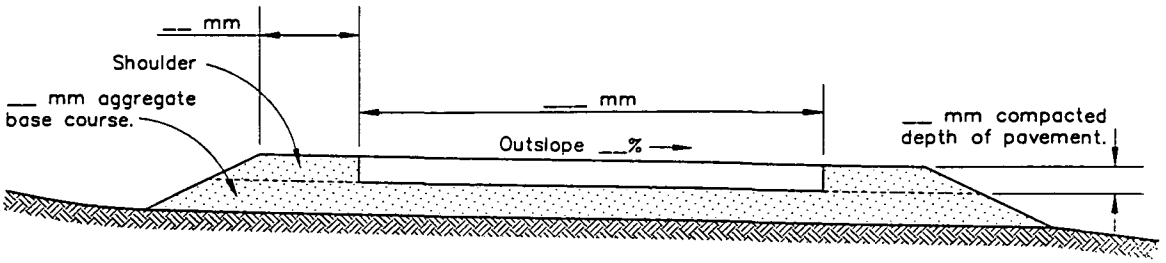
941-1.—Aggregate surfacing.

BITUMINOUS SURFACING

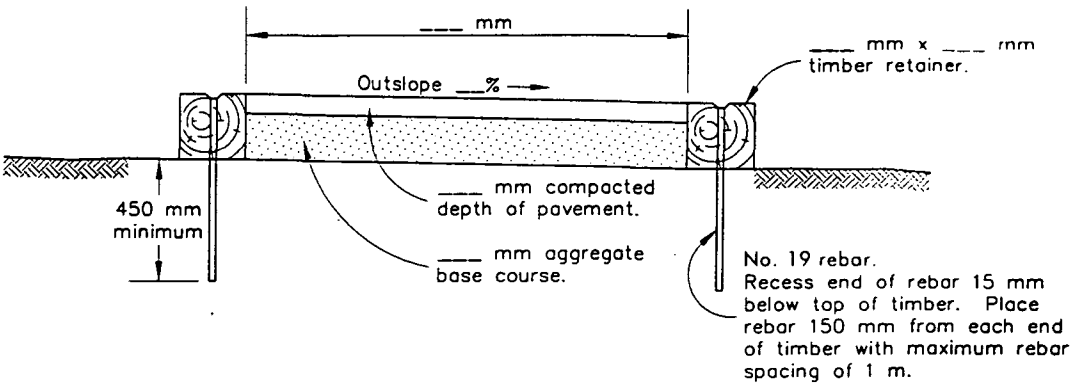
NOT TO SCALE



BITUMINOUS SURFACING – NO SHOULDERS



BITUMINOUS SURFACING WITH SHOULDERS



BITUMINOUS SURFACING WITH RETAINERS

RETAINER NOTES:

LOCATION	MATERIAL	SPECIES	SIZE (mm)	TYPE OF TREATMENT	MINIMUM RETENTION kg/m3

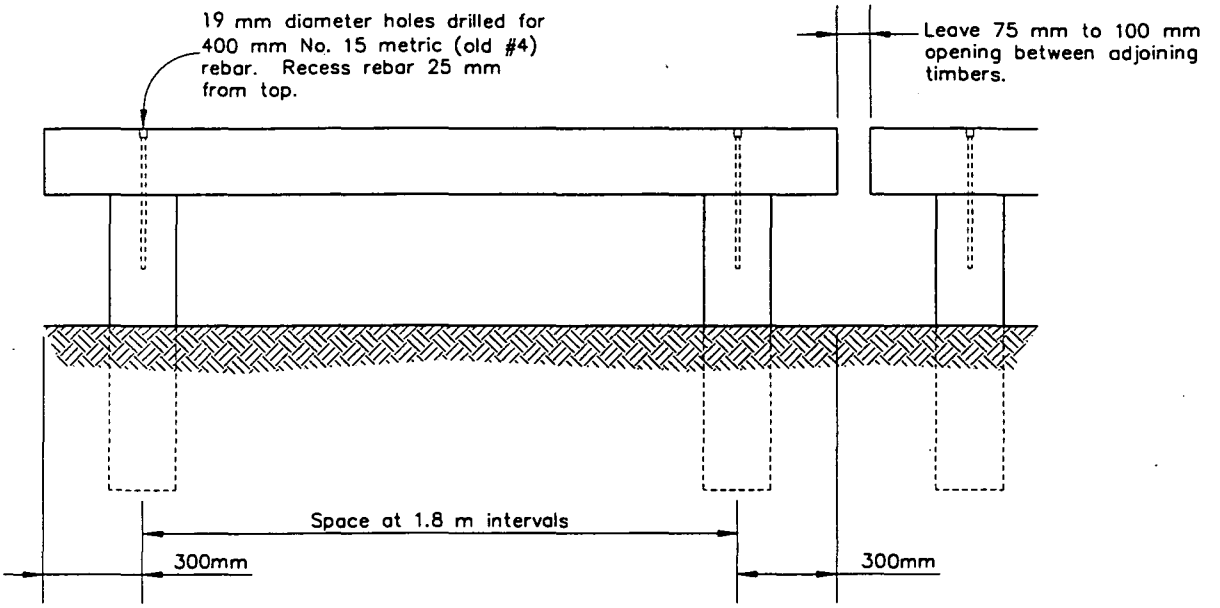
6/96

942-1

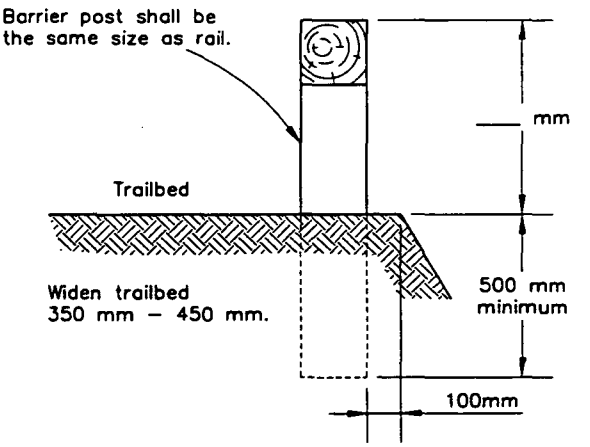
942-1.—Bituminous surfacing.

TREATED TIMBER BARRIER ON POSTS

NOT TO SCALE



FRONT VIEW



END VIEW

LOCATION	MATERIAL DIMENTIONS (mm)	SPECIES	TREATMENT TYPE	MINIMUM RETENTION
to				
to				
to				
to				
to				
to				

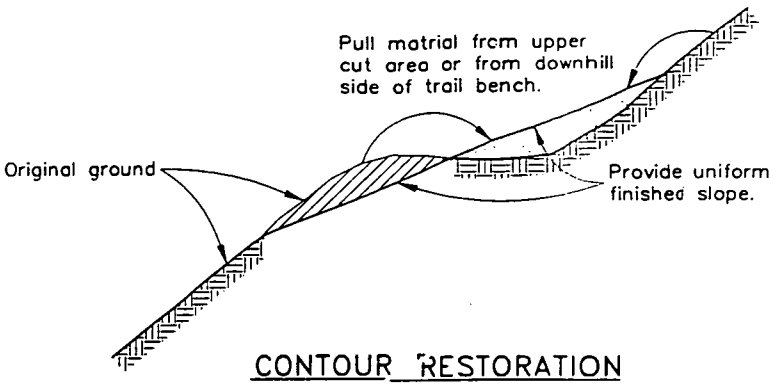
6/96

953–4

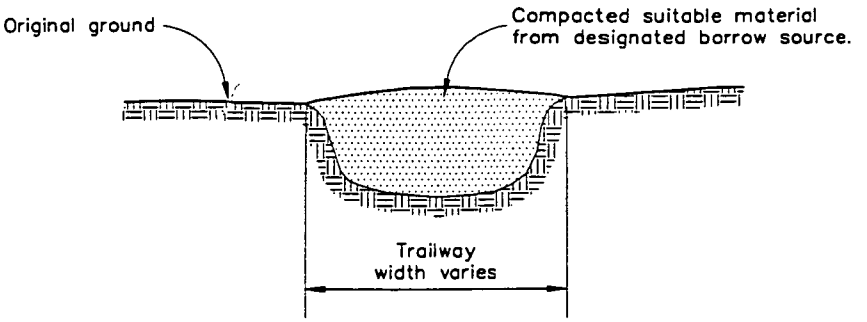
953–4.—Treated timber barrier on posts.

TRAIL OBLITERATION

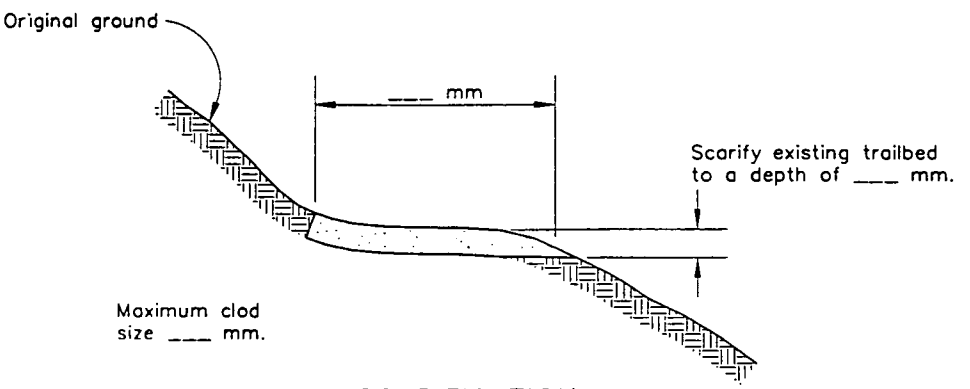
NOT TO SCALE



CONTOUR RESTORATION



TRENCH BACKFILL



SCARIFICATION

6/96

954–1

954–1.—Trail obliteration.

Appendix E

Estimate of Implementation Costs

Estimated Capital Improvement Costs for Mt. Talbert Site Development

General Assumptions:

1. Cost estimates apply only to improvements within the property currently owned by Metro & NCPRD
2. Metro & NCPRD property is approximatel 149 acres/6,490,440 s.f.
3. All costs are estimated and subject to revision due to unforeseen conditions.
4. Costs can vary based on strategy for phasing of work.

Ecological Inventory & Analysis

Description	Unit	Quantity	Unit Cost	Cost	Comments
Field survey and record existing plant communities.	LS	1	$3,600.00	$3,600.00	Professional ecologist
Vegetative analysis with guidelines for trail designation and access point development.	LS	1	$3,600.00	$3,600.00	Professional ecologist
Field survey and record existing wildlife communities.	LS	1	$5,400.00	$5,400.00	Professional ecologist
Wildlife analysis with guidelines for trail designation and access point improvements.	LS	1	$3,600.00	$3,600.00	Professional ecologist
Sub Total				**$16,200.00**	

Planning

Description	Unit	Quantity	Unit Cost	Cost	Comments
Evaluate existing trails and locate potential linking trail alignments. (Boundary survey not included)	LS	1	$5,000.00	$5,000.00	
Survey existing trails, logging road remnants, and stake new trails.	LS	1	$2,400.00	$2,400.00	GPS survey
Download survey data and map.	LS	1	$1,200.00	$1,200.00	
Sub Total				**$8,600.00**	

Design/Development - Primary Public Access at Sunnyside Road

Description	Unit	Quantity	Unit Cost	Cost	Comments
Stream habitat analysis for bridge construction	LS	1	$20,000.00	$20,000.00	Professional ecologist
Prepare topographic and existing features survey of Sunnyside access site.	LS	1	$12,000.00	$12,000.00	Surveyor
Download survey data and map.	hrs.	12	$75.00	$900.00	Landscape Architect
Coordinate primary public access with Sunnyside Road improvement projects.	hrs.	10	$95.00	$950.00	Landscape Architect
Prepare conceptual design for primary public access and parking area.	hrs.	40	$95.00	$3,800.00	Landscape Architect
Prepare design development and construction	hrs.	300	$75.00	$22,500.00	Landscape Architect

Design/Development - Primary Public Access at Sunnyside Road (Cont.)					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Provide construction observation services.	hrs.	80	$95.00	$7,600.00	Landscape Architect
Design Contingency 15%				**$7,162.50**	
Sub Total				**$74,912.50**	

Construction/Furnishings - Primary Public Access at Sunnyside Road					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Construction mobilization/cleanup	LS	1	$10,000.00	$10,000.00	
Rough grading	s.f.	95,000	$0.15	$14,250.00	
Fine grading	s.f.	95,000	$0.15	$14,250.00	
Asphalt paving per stall (includes paving, curb, striping, drainage and landscaping)	each	20	$2,000.00	$40,000.00	
Park lighting	each	4	$4,000.00	$16,000.00	
Wood pedestrian bridge (20' x 6') with standard wood railing.	LS	1	$24,000.00	$24,000.00	$50/s.f. + 1/3 (installation) + $8,000/footing
Concrete walk at edge of parking	s.f.	380	$3.10	$1,178.00	
Asphalt path (2" lift with 6" base)	s.f.	550	$1.50	$825.00	3.5 ft. width
Permanent restroom (2 single occupancy)	each	1	$80,000.00	$80,000.00	
Picnic shelter	each	1	$35,000.00	$35,000.00	
Site Furnishings					
Picnic tables	each	6	$1,000.00	$6,000.00	
Trash receptacles	each	4	$500.00	$2,000.00	
Bicycle racks	each	1	$950.00	$950.00	
Drinking fountain	each	1	$1,750.00	$1,750.00	
Interpretative and Informational Signage				$0.00	
Design of interpretive kiosk & kiosk signage	hrs.	60	$75.00	$4,500.00	
Interpretive kiosk	each	1	$2,000.00	$2,000.00	
Trail Interpretive Signage	each	5	$2,000.00	$10,000.00	
Buffer Planting					
Deciduous trees (2" caliper)	each	20	$250.00	$5,000.00	
Coniferous trees (6 ft. height)	each	5	$55.00	$275.00	
Shrubs (5 gal., 3' o.c., includes soil prep)	s.f.	4,200	$3.50	$14,700.00	
Recreation Area Planting					
Deciduous trees (2" caliper)	each	15	$250.00	$3,750.00	
Coniferous trees (6 ft. height)	each	5	$55.00	$275.00	
Lawn (hydro-seed - includes soil prep)	s.f.	3,300	$0.08	$264.00	
Meadow mix (hydro seed - includes soil prep)	s.f.	37,500	$0.15	$5,625.00	
Construction Contingency 15%				**$43,888.80**	
Sub Total				**$336,480.80**	

Design/Development - Access at Cedar Park Drive					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Prepare topographic and existing features survey of Sunnyside access site.	LS	1	$10,000.00	$10,000.00	Surveyor
Download survey data and map.	hrs.	12	$75.00	$900.00	Landscape Architect
Prepare conceptual design for maintenance access by design consultant.	hrs.	100	$95.00	$9,500.00	Landscape Architect
Prepare design development and construction drawings.	hrs.	300	$75.00	$22,500.00	Landscape Architect
Provide construction observation services.	hrs.	100	$95.00	$9,500.00	Landscape Architect
Construction Contingency 15%				**$7,860.00**	
Sub Total				**$60,260.00**	

Construction/Furnishings - Access at Cedar Park Drive					
NOTE: **Improvement area = 300,000 s.f. or approximately 6.8 acres excludes Title 3 areas flanking Mt Scott Creek tributary.**					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Construction mobilization/cleanup	LS	1	$10,000.00	$10,000.00	
Rough grading	s.f.	95,000	$0.15	$14,250.00	
Fine grading	s.f.	95,000	$0.15	$14,250.00	
Gravel maintenance road 10' wide 300 length.	s.f.	3,000	$1.00	$3,000.00	
Park lighting (includes electrical)	each	2	$4,000.00	$8,000.00	
Asphalt turn around at end of Cedar Park (3" lift with 12" base)	s.f.	3,600	$1.50	$5,400.00	
Site Furnishings					
Trash receptacles	each	4	$500.00	$2,000.00	
Bicycle racks	each	1	$950.00	$950.00	
Drinking fountain	each	1	$1,750.00	$1,750.00	
Interpretative and Informational Signage				$0.00	
Design of interpretive kiosk & kiosk signage	hrs.	60	$75.00	$4,500.00	
Interpretive kiosk	each	1	$2,000.00	$2,000.00	
Trail Interpretive Signage	each	6	$2,000.00	$12,000.00	
Buffer Planting					
Deciduous trees (2" caliper)	each	20	$250.00	$5,000.00	
Coniferous trees (6 ft. height)	each	5	$55.00	$275.00	
Shrubs (5 gal., 3' o.c., includes soil prep)	s.f.	4,200	$3.50	$14,700.00	

Construction/Furnishings - Access at Cedar Park Drive (Cont.)					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Recreation Area Planting					
Deciduous trees (2" caliper)	each	15	$250.00	$3,750.00	
Coniferous trees (6 ft. height)	each	5	$55.00	$275.00	
Lawn (hydro-seed - includes soil prep)	s.f.	3,300	$0.08	$264.00	
Meadow mix (hydro seed - includes soil prep)	s.f.	37,500	$0.15	$5,625.00	
Wetland Restoration / Reforestation					
Wetland delineation	LS	1	$3,500.00	$3,500.00	ecologist
Estimated 4 acre wetland restoration / reforestation, including plant materials	acre	4	$45,000.00	$180,000.00	
Elevated board walk	s.f.	250	$50.00	$12,500.00	
Wetland monitoring / separate from other site monitoring.	LS	1	$1,500.00	$1,500.00	annual monitoring
Construction Contingency 15%				**$45,822.90**	
Sub Total				**$351,311.90**	

Assessment and Design of Neighborhood Points of Access					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Prepare topographic survey of all neighborhood points of access	LS.	1	$12,000.00	$12,000.00	Surveyor
Download survey data and map	hrs.	16	$75.00	$1,200.00	Landscape Architect
Prepare conceptual design - neighborhood access points	hrs.	100	$75.00	$7,500.00	Landscape Architect
Prepare design development and construction drawings	hrs.	150	$75.00	$11,250.00	Landscape Architect
Provide construction services	hrs.	50	$75.00	$3,750.00	Landscape Architect
Design Contingency 15%				**$5,355.00**	
Sub Total				**$41,055.00**	

Construction of Neighborhood Points of Access					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Site Furnishings					
Trash receptacle	each	5	$500.00	$2,500.00	
Bicycle rack	each	5	$950.00	$4,750.00	
Signage @ each location	each	5	$2,000.00	$10,000.00	
Miscellaneous Improvements	LS	1	$40,000.00	$40,000.00	
Construction Contingency 15%				**$8,587.50**	
Sub Total				**$65,837.50**	

Construction of Access Trails within Metro/NCPRD Area					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Labor	hrs	1,000	$20.00	$20,000.00	
Miscellaneous materials / new construction	LS	1	$8,000.00	$8,000.00	
Wood chip surface on existing primary trail, 2" depth. (approximately. 1,000 lineal feet)	sy	500	$20.00	$10,000.00	3 ft. avg. width
Construction Contingency 15%				**$5,700.00**	
Sub Total				**$43,700.00**	

TOTAL ESTIMATED CAPITAL IMPROVEMENTS	**$998,357.70**

Estimated Site Maintenance & Monitoring Costs for Mt. Talbert

Site Maintenance					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Labor Cost					
Restroom maintenance	LS	1	$10,000.00	$10,000.00	
Brush/clear trails. 2 times/yr., 2 people	hrs.	80	$20.00	$1,600.00	
Drainage maintenance. 3-4 times/yr., 2 people	hrs.	80	$20.00	$1,600.00	
Tread maintenance (earthen trails), 1 time/yr, 2 people	hrs.	160	$20.00	$3,200.00	
Minor yearly repair of structures	LS	1	$15,000.00	$15,000.00	
Material costs-misc. wood, gravel, tools	LS	1	$2,000.00	$2,000.00	
Construction Contingency 15%				**$3,510.00**	
TOTAL ESTIMATED SITE MAINTENANCE				**$26,910.00**	

Monitoring Site Conditions					
Description	**Unit**	**Quantity**	**Unit Cost**	**Cost**	**Comments**
Safety and security - parking lot and trails	LS	1	$15,000.00	$15,000.00	annual
Ecological monitoring - observe & record impact	hrs.	40	$50.00	$2,000.00	2 times/year
Regular ranger visits / weekly walk (4 hr. ea)	hrs.	208	$50.00	$10,400.00	
Ecologist visits - two/yr	hrs.	208	$50.00	$10,400.00	
Construction Contingency 15%				**$5,670.00**	
TOTAL ESTIMATED SITE CONDITIONS MONITORING				**$43,470.00**	

TOTAL ESTIMATED ANNUAL MAINTENANCE & MONITORING	**$70,380.00**	

Estimated Review & Permitting Expenses

Note:

Review and permitting fees may be dependent upon site size, use type and environmental impact variables. Amounts indicated are estimates.

Permitting / Review Costs			
Description		**Cost**	**Comments**
Plan Check & Permitting			
Grading Plan Check		$200.00	est. varies on grading proposed.
Grading Permit		$500.00	est. varies on grading proposed.
Erosion Control Permit		$450.00	
Stormwater Plan Review		$250.00	
Sanitary Sewer Connection		$2,200.00	Service Development Charge (SDC)
Sanitary Sewer Plan Review		$400.00	
Driveway / Street Encroachment Permit		$400.00	minimum or 4% of road const. cost
Traffic Service Development Charge		varies	based on tax lot size and land use
Army Corp of Engineers final permit		$100.00	final permit
Wetland fill /removal permit (DSL / USCOE)		$1,200.00	Cedar Park Improvements
Reviews & Applications			
Oregon Dept. of Fish and Wildlife application		$375.00	fill or removal application
Oregon Dept. of Fish and Wildlife		$225.00	fee based on volume
Army Corp of Engineers plan review		none	
US Dept. of Fish and Wildlife		none	Section 7 or 10 consultation
National Marine and Fisheries Service		none	review only, may req. an environmental assessment.
Oregon Division of State Lands		none	
Water Environment Services		see permits	
Clackamas County		see permits	