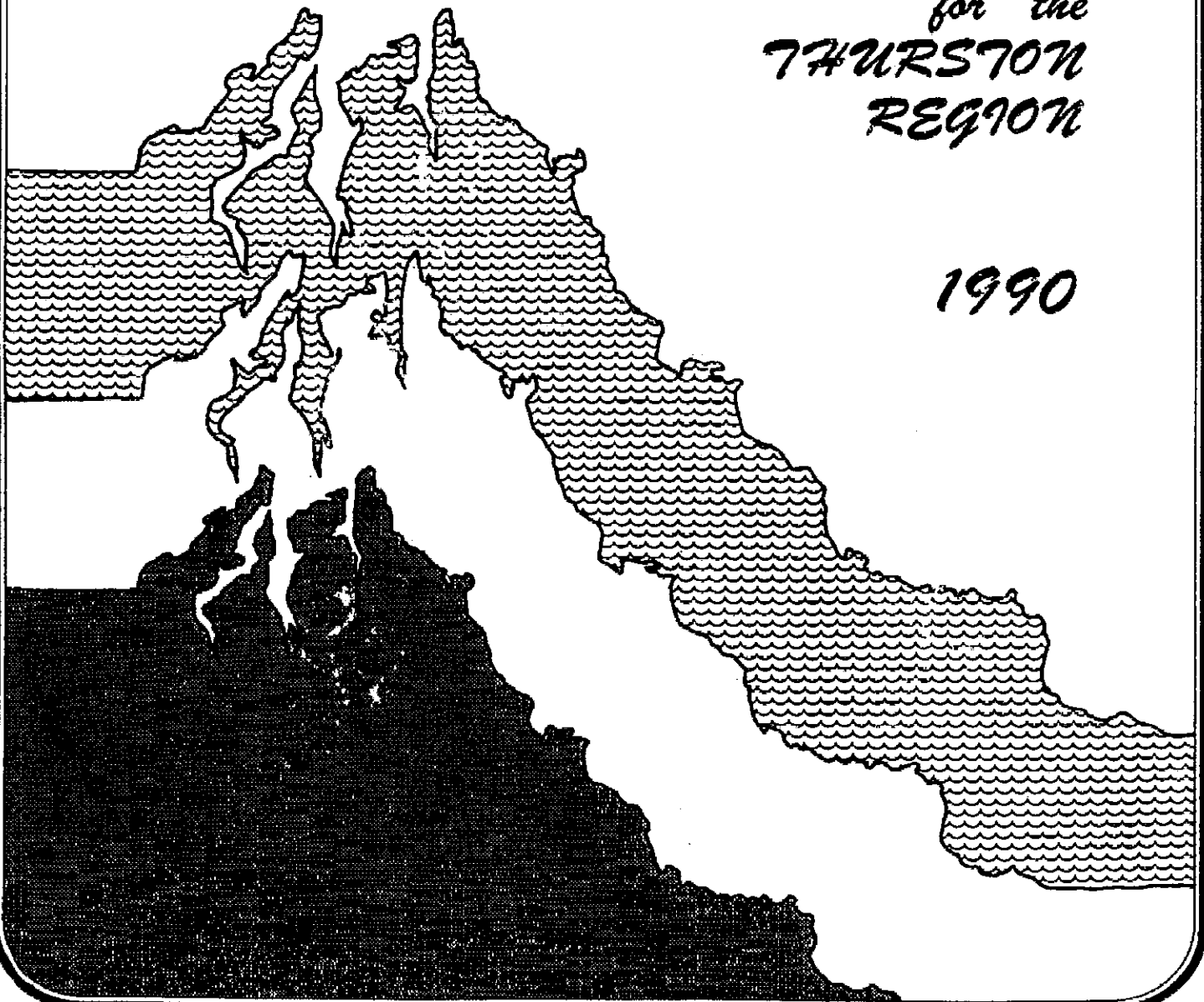


SHORELINE MASTER PROGRAM

for the
THURSTON
REGION

1990



Thurston Regional Planning Council

THURSTON REGIONAL PLANNING COUNCIL is a 15-member intergovernmental board made up of local governmental jurisdictions within Thurston County, plus the Washington State Capitol Committee, The Evergreen State College, and Intercity Transit. The Council was established in 1967 under RCW 36.70.060 which authorized creation of regional planning councils.

Thurston Regional Planning Council undertakes land use, environmental and transportation research and planning programs of interest to the member jurisdictions. Each member jurisdiction funds the Council's operations based on a per capita formula. The Council is governed by representatives from the member jurisdictions. They determine the budget and work program annually for Council projects and operations.

As a separate function, Thurston Regional Planning Council by intergovernmental agreement also provides the planning staff for the Planning Departments of Thurston County and the City of Olympia. In this function, the contracting governments are the sole determinants of the work program and funding levels for the local planning department work.

This report was prepared as part of the Thurston Regional Planning Council's 1990 regional work program.

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SHORELINE MASTER PROGRAM FOR THE THURSTON REGION

EFFECTIVE DATE: MAY 15, 1990

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SHORELINE MASTER PROGRAM ADOPTION DATES

Jurisdiction	1975 Program	1983 Program	1990 Program	Other Amendments	Local Adoption	Effective Date
Bucoda	Dec. 1975	July 1983	May 1990		May 21, 1976 Feb. 21, 1984 (O-193) Nov. 13, 1989	May 21, 1976 Oct. 14, 1984 May 15, 1990
Lacey	Dec. 1975	July 1983	May 1990		May 21, 1976 Oct. 8, 1981 Feb 21, 1984 (O-4484) July 28, 1989 (R-647)	May 21, 1976 Feb. 5, 1981 Oct. 14, 1984 May 15, 1990
Olympia	Dec. 1975	July 1983	May 1990	Percival Creek Urban Waterfront (SAMP) Amendment to O-5353 Capitol Lake Urban Waterfront Housing District	May 21, 1976 Feb. 7, 1984 (O-4485) May 5, 1987 (O-4774) July 25, 1989 (R-1281) January 5, 1993 (O-5353) May 25, 1993 (O-5373) November 25, 1996 (O-5650) June 25, 2002 (O-6195)	May 21, 1976 Oct. 14, 1984 Oct. 29, 1987 May 15, 1990 June 2, 1993 June 2, 1993 March 5, 1997 September 25, 2002
Tenino	Dec. 1975	July 1983	May 1990		May 21, 1976 Mar. 5, 1984 (O-385) Nov. 7, 1989 (R 1989-5)	May 21, 1976 Oct. 14, 1984 May 15, 1990

Jurisdiction	1975 Program	1983 Program	1990 Program	Other Amendments	Local Adoption	Effective Date
Thurston County	Dec. 1975	July 1983	May 1990	Percival Creek Kennedy Creek Kennedy Creek Trosper Lake	May 21, 1976 Aug 2, 1976 June 5, 1979 July 14, 1981 Dec. 22, 1981 Nov. 15, 1983 (O-7631) July 7, 1987 (O-8672) Oct. 16, 1989 (R-9295) Feb. 11, 1991 (R-9712) Dec. 16, 1991 (O-9935) January 16, 1996 (O-11101)	May 21, 1976 Sept. 9, 1977 Oct. 9, 1979 Oct. 24, 1981 April 2, 1982 Oct. 14, 1984 Oct. 29, 1987 May 15, 1990 Feb. 11, 1991 Dec. 16, 1991 July 25, 1995
Tumwater	Dec. 1975	July 1983	May 1990	Percival Creek Deschutes River (SAMP) Deschutes River (Riparian Plan) Trosper Lake	May 21, 1976 Nov. 16, 1983 (R-250) June 2, 1987 (R-331) Sept. 5, 1989 (R-375) May 5, 1992 (O-1298) Dec. 7, 1993 (O-1377) August 15, 1995 (O-095-019)	May 21, 1976 Oct. 14, 1984 Oct. 29, 1987 May 15, 1990 May 5, 1992 Nov. 2, 1993 July 25, 1995
Yelm	Dec. 1975	July 1983	May 1990		May 21, 1976 Nov. 9, 1983 (R-162) Oct. 25, 1989 (R-202)	May 21, 1976 Oct. 14, 1984 May 15, 1990

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I. BACKGROUND

In 1971, the Shoreline Management Act (RCW 90.58) was approved by the voters of the State of Washington. This law regulates the development and use of certain river, lake and marine shorelines within the State. A part of this law requires local governments (cities and counties) to adopt local "Shoreline Master Programs." The purpose of the local Master Programs is to apply the state law to the shorelines within each jurisdiction. The local Shoreline Master Program must be consistent with the Shoreline Management Act and with state administrative regulations adopted pursuant to the Act. This document, along with the administrative ordinances of local governments, constitute shoreline management for the Thurston Region.

The Act provides for regulation of shoreline development and use in two principal ways. First, it requires that each local Shoreline Master Program contain policies and regulations which define permitted uses and activities. All development activity within shoreline jurisdiction must be consistent with the Master Program, and hence these policies and regulations. In one respect, the Master Program is like a comprehensive plan for shorelines because it contains policies, and in another respect it is similar to a zoning code which contains specific performance standards and regulations. (The relationship between local zoning code and the Master Program is discussed in a following Section IV.B (refer to page - 4 -)).

The second way the Act regulates shoreline activities is by requiring permits for certain types of development or use. Compliance with the permit requirements is in addition to the need to comply with the program regulations. Thus, even if a person does not have to obtain a permit for a project, it still must comply with the regulations.

SECTION ONE -- ADMINISTRATION

II. PERMITS

A brief description of required permits follows. The procedures by which permits are obtained and administered is discussed in a following Section V (refer to page - 8 -).

A. Substantial Development Permit

State law provides that no "Substantial Development" shall be undertaken on Shorelines of the State without first obtaining a Substantial Development Permit (SDP). "Substantial Development" is defined as any development of which the total cost or fair market value exceeds two thousand five hundred dollars (\$2,500), or any development which materially interferes with the normal public use of the water or shorelines of the state. The law provides a limited number of exceptions to this permit requirement (refer to RCW 90.58.030(3)(e)).

Substantial Development Permits are issued by the jurisdiction in which the development will occur. The jurisdiction's final decision to approve or deny a Shoreline Permit may be appealed by any aggrieved person to the State Department of Ecology, the state Shorelines Hearing Board and to the court (refer to Section V.C, page - 10 -). State law provides that permits shall be granted only when the development proposed is consistent with the policy of the Shoreline Management Act, the state shoreline regulations (WACs) and the local Master Program (refer to WAC 173-14).

B. Shoreline Conditional Use Permit

State law authorizes local government to include in their Master Programs land uses and development which may be permitted by Conditional Use Permit. The purpose of a conditional use permit is to allow greater flexibility in varying the application of the use regulations of the Master Program. Review criteria governing issuance of the Conditional Use Permit are prescribed by state regulation and provisions of this program. Uses which are specifically prohibited by the master program shall not be authorized. Application for Conditional Use Permit approval is made to the local government with jurisdiction, and a public hearing is held. Final approval or disapproval is granted by the State Department of Ecology (refer to WAC 173-14).

C. Shoreline Variance Permit

State law authorizes the granting of relief from specific bulk, dimensional or performance standards of the master program in extraordinary situations. Such relief may be obtained through a Shoreline Variance Permit. Review criteria governing issuance of the Variance Permit are prescribed by state regulation and provisions of this program. Application for Variance Permit approval is also made to the local government with jurisdiction, and a public hearing is held. Final approval or disapproval is granted by the State Department of Ecology (refer to WAC 173-14).

D. Letter of Exemption from Substantial Development Permit Process

All developments that are not defined as substantial developments are exempted from the requirement to obtain a Shoreline Substantial Development Permit. However, these developments must still comply with the standards of the Shoreline Master Program. In addition, these developments may still need a Shoreline Conditional Use Permit or a Shoreline Variance.

A project proponent must obtain the approval of the local government where the development will occur. That jurisdiction will ensure that it conforms to the Shoreline Master Program and to state law. If it complies, a letter of exemption states that there are no further Shoreline permits to obtain, and may contain conditions which the proponent must meet.

SECTION ONE -- ADMINISTRATION

III. PENALTIES AND ENFORCEMENT

The Shoreline Management Act imposes significant penalties for violation of the act, regulations and master programs. A violation constitutes a gross misdemeanor, which is punishable by fine or imprisonment (RCW 90.58.220). In addition to the criminal penalty, the Act imposes liability on any person violating the act or conditions of a permit for all damage to public or private property arising from the violation. Furthermore, the violator may have to restore an area affected by a violation, and pay the entire cost of restoration, including attorney's fees and court costs (RCW 90.58.230).

IV. APPLICABILITY

A. Geographic Applicability

This program applies to all cities, towns and unincorporated areas of Thurston County.

B. Relationship to Zoning and Other Land Use Controls

In addition to the policies and regulations of use activities contained within the Shoreline Management Act and this Master Program, other laws also regulate land use and development within shoreline areas. For example, the State Building Code requires the issuance of a building permit for the construction of structures, the State Subdivision Act requires subdivision approval if the land is to be divided into lots, and State Health Regulations require permits for water and sewerage systems. A person proposing a project within the shorelines must comply with these and other laws as well as meeting the requirements of the Shoreline Management Act and the local Master Program.

Frequently, local government will have adopted zoning regulations and comprehensive land use plans which apply both within and outside shoreline areas. When these codes are applied within the shoreline area, there may be differences in the zoning regulations and the plan policies as compared with the regulations and policies of the Master Program. Because the Master Program is technically a state law (i.e., WAC), the requirements of the Master Program will prevail in the event of a

conflict with the local zoning or plan. Whether there is a "conflict," will depend upon the specific subject under consideration. Generally, however, a conflict will not exist if the zoning or plan requirements are more protective of shoreline environment than the Master Program. For example, if the zoning district allows a density of one unit per acre, and the Master Program allows a density of two units per acre without intending to discourage lower densities, no "conflict" would exist. In this case, the requirements of the more restrictive code would prevail (i.e., zoning).

C. Lands Adjacent to Shorelines

The Shoreline Management Act expressly contemplates that the use and development of land adjacent to shorelines complement the policy of the Act and Master Program. The purpose of this section is to discuss the manner in which this coordination is to be achieved.

In order to understand the relationship between land use control in the shoreline area and on adjacent lands, it is necessary to recognize the distinction between the regulatory permit process and the land use planning process. Simply stated, a development which is undertaken without obtaining the applicable shoreline permits or which is inconsistent with use regulations of the Master Program, is unlawful. On the other hand, a use or development which is to some extent inconsistent with a plan policy is not necessarily unlawful, although it may be denied or conditioned on the basis of its inconsistency with the plan. These principles apply to the regulation of shoreline and adjacent lands in the following:

1. All of the property lies outside the shorelines. No shoreline permit is required when development is to occur on property lying wholly outside the shoreline area, even though the development may have an impact in the shoreline. However, because the Shoreline Management Act and other laws require all developments to take into account the Shoreline Management Act and Master Program when reviewing the proposed development pursuant to other laws (such as zoning site plan review or subdivision review), the development can and should be affected (i.e., conditioned or, in appropriate circumstances, denied) in order to promote shoreline policy.
2. Part of the property is in the shorelines, part lies outside, and all the "development" is outside the shoreline. As in the prior situation (a), no shoreline permit may be required because all of the "development" lies outside

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the shoreline, and this remains true even though a portion of the land lies within the shorelines. "Development" refers to development for which a shoreline permit would otherwise be required (e.g., development with a fair market value of \$1,000 or more). However, use and actions within the shoreline, even though they do not constitute "development," must be consistent with the regulations of the Act and shoreline program. Furthermore, as is the case with property lying completely outside the shoreline, development of the property lying outside the shoreline should be reviewed for consistency with the Act and shoreline program when other review or permit processes are followed.

3. Part of the property is in the shoreline, part lies outside, and all or part of the "development" is proposed within the shoreline. A permit is required for the "development" within the shorelines. In addition, uses and other actions within the shorelines must comply with the master program regulations. Furthermore, when the development proposal consists of a single, integrated project and a shoreline permit is required due to development within the shorelines, review and approval of development outside the shorelines pursuant to other laws may be postponed until shoreline permit review is accomplished if the public interest would be served by such a review sequence. Finally, although development conditions may be attached to developments within shorelines, conditions may not be attached, pursuant to the Shoreline Management Act, to aspects of a development lying outside the shorelines. However, certain development conditions may be attached to portions of a development lying outside the shorelines pursuant to review processes other than the shoreline permit process (e.g., SEPA, subdivision review), and these conditions may be expressly designed to further shoreline policy (as in the case of subdivision approvals) or may indirectly produce that result (as in the case of SEPA review).

D. Developments and Uses Subject to Several Regulatory Sections

Some proposed developments or uses will be subject to more than one regulatory section of this program. For example, a proposed marina may be subject to regulations concerning "Dredging," "Landfilling," "Marinas and Boat Launching Facilities," "Commercial Development" and "Parking and Loading." A proposed development must be reviewed for consistency with the regulations of each applicable section. In the event of a conflict between requirements, the requirement which better promotes the priorities and policies of the Shoreline Management Act should prevail. In addition, the more specific requirement should prevail over a general requirement. Finally, the extent to which conflicting requirements are reconciled will largely depend upon a reasonable integration of requirements in the context of the specific project and its unique situation.

E. Unspecified Uses

This program does not attempt to identify or foresee all conceivable shoreline uses or types of development. When a use or development is proposed which is not readily classified within an existing use or development category, the program administrator shall identify and apply those program policies and regulations which will best promote the policies of the Shoreline Management Act and the shoreline program, with special reference to the policies of the environmental designation in which the use will be located.

V. ADMINISTRATIVE PROCEDURES

A. General

Those rules and policies which govern the administration of this Master Program are prescribed in four state and local laws. They are (1) the Shoreline Management Act, Chapter 90.58 of the Revised Code of Washington (RCW); (2) the Washington Administrative Code chapter 173, WAC; (3) the Shoreline Master Program for the Thurston Region, (this document); and (4) ordinances of local governments within Thurston County. The type of administrative regulation prescribed by each of those laws is more fully described below, as well as the relationship between these regulations. In general this document describes only the specific regulations of one of these, the Shoreline Master Program for the Thurston Region. However, each of the other laws may need to be consulted for applicable administrative regulations depending upon the nature of the issue in question.

1. Shoreline Management Act. The first law which prescribes administrative rules and policies is the state Shoreline Management Act, RCW 90.58. The Act establishes the basic administrative framework for Shoreline Master Programs throughout the state. The Act also authorizes various state agencies (Department of Ecology and Shorelines Hearing Board) and local governments (counties and cities) to adopt additional, more detailed rules and policies for administration of Master Programs. These detailed rules and policies are laws known as administrative regulations.
2. Washington Administrative Code. Administration regulations adopted by the state agencies are found in the Washington Administrative Code, known and cited as "WAC." The WAC's contain much more detailed administrative regulations than the Act. Further, the WAC's, like the Act, apply state-wide. The WAC's are the principal rules for administration of the Program. WAC's of particular significance to administration of the Program are WAC 173-14, concerning Substantial Development, Conditional Use and Variance Permits, and WAC 173-16 regarding revisions to master programs. Related WAC's are identified in Chapters 173 WAC and 461 WAC.
3. Local Master Program. Those administrative regulations adopted by local governments are contained in local shoreline Master Programs, and also

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include use regulations. In the Thurston Region, a "Regional" set of administrative regulations is established as a part of the Master Program. These regulations are supplemental to those contained within the WAC. These "Regional" administrative regulations will apply within every local government in Thurston County unless a local government elects to adopt different regulations applicable only to that government (see Section Two).

4. Local Administrative Regulations. If a local government within the Thurston Region elects to have administrative regulations which differ from the Regional regulations, such regulation would be bound in a local ordinance. Thus, the fourth law in which administrative regulations might be found is in a local ordinance. An example would be a local ordinance which provides for a hearings examiner to conduct the public hearings for shoreline permits.

In the event of a conflict between a local and "Regional" administrative rule, the local administrative rule prevails. In the event of a conflict between a local or "Regional" rule and a WAC, the WAC prevails. The Shoreline Management Act administrative provisions always prevail in the event of a conflict with a WAC, a regional rule, or a local rule.

In general, a person can become familiar with all necessary administrative regulations by: (a) Consulting the applicable WAC; (b) Consulting this Master Program; and (c) If the local government (city or county) has adopted a local ordinance, consulting the local ordinance. It is important to remember that all four laws described above are periodically amended by different bodies at different times. Further to correctly assess all the policy and regulations it is necessary to use current documents.

B. Administration/Local Ordinance

The Shoreline Master Program shall be administered pursuant to the procedures and policies contained in this document (the Shoreline Master Program for the Thurston Region) and Section "C" below, unless a local government shall have amended their Shoreline Master Program by adopting a local ordinance regulating such matters.

C. Regional Permit Procedure

1. Applications for Shoreline Substantial Development Permits, Conditional Use Permits and Variance Permits are subject to and shall be processed pursuant to

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Chapter 173-14 WAC as it now exists or is hereafter amended, and as provided below.

2. Applications for shoreline permits including a Substantial Development, a Conditional Use or a Variance Permit shall be submitted to the local government (city or county) on forms supplied by that jurisdiction. The application shall contain the information required by WAC 173-14-110 and such other information as may be required by the local government. The applicant shall pay to the local government the application fee prescribed by the approved fee schedule. In addition to the application fee, the applicant may have to pay fees for environmental analysis pursuant to RCW 43.21C (SEPA), and for other necessary actions or approvals.
3. Pursuant to WAC 173-14-080, a public hearing shall be held by the local government's Planning Commission to render a recommendation regarding applications identified in paragraph "1" above, except where the local government has adopted a Hearings Examiner System. Those local governments within the Region having adopted the Hearings Examiner system are: Thurston County, City of Olympia, City of Tumwater, and City of Lacey.
4. Pursuant to WAC 173-14-070, notice of the application and hearing shall be published in the manner prescribed therein, and mailed to the latest recorded real property owners as shown by the records of the county assessor within at least three hundred (300) feet of the boundary of the subject property.
5. The permit application and the recommendation of the Planning Commission shall be sent to the legislative body (e.g., Board or Council) of the local government, which shall then schedule a public hearing concerning the application and render a decision regarding the issuance of the permit. Notice of the public hearing shall be given in the same manner as the notice of the planning commission hearing.
6. The decision of the legislative body may be appealed to the Shorelines Hearing Board pursuant to WAC 173-14-170.

D. Inspections

Pursuant to RCW 90.58.200, the Administrator or his authorized representatives of that local government may enter land or structures to enforce the provisions of this Program. Entry shall be at reasonable times. If the land or structures are occupied, the Administrator shall first present proper credentials and request entry; and if the land or structures are unoccupied, the Administrator shall first make a reasonable effort to locate the owner, or other person having control of the property, and request entry.

E. Nonconforming Uses, Lots and Structures

1. Continuance; Contiguous Lots

- a. Subject to the provisions of this Program, a use, lot or structure lawfully existing prior to the effective date of this Program or any amendment thereto (refer to page - iii -), which is rendered nonconforming by adoption of the Program or an amendment, may continue in the manner and to the extent that it existed upon the effective date of the program or amendment, respectively.
- b. However, when a nonconforming lot is contiguous to another lot and both lots have the same owner, the contiguous lots are deemed a single, undivided lot for purposes of this program unless (1) each lot has a dwelling; (2) the purchase of an adjacent lot is subsequent to the adoption of this Program (i.e., May 21, 1976); or (3) pursuant to RCW 58.17.170, one or more of the lots is a platted lot, and less than five (5) years has lapsed since the final plat in which either of the lots is located was filed for record.

2. Alterations and Expansions of Nonconforming Structures. Proposed alterations or expansions of nonconforming structures may be allowed subject to conditions of approval attached by the decision-making body (e.g., Administrator, Board or Council). The proposal may also be denied. In determining whether to approve a proposed alteration and expansion, the decision-making body should consider the following criteria:

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- a. The extent to which the proposed alteration or expansion is inconsistent with the Policies and Regulations of the Master Program.
- b. The extent to which the proposal is compatible, in terms of use, appearance and other factors, with neighboring land uses.
- c. The extent to which a precedent might be set which would, cumulatively, result in development which is inconsistent with the Program.
- d. The extent to which measures may be taken to mitigate inconsistencies with Policies or Regulations of the Master Program, or adverse impacts of the proposal.

Expansions of nonconforming structures are prohibited when the expansion is to accommodate a nonconforming use; provided that when such accommodation entails only a change in density, the expansion shall not be automatically prohibited.

3. Expansions of Nonconforming Uses. The expansion of a nonconforming use is prohibited. An intensification of use is permitted and occurs when the intensified use is contained within the existing structure, or area which has been in use, and is not different in kind from the existing nonconforming use.
4. Relocation of Nonconforming Structure or Use. Nonconforming structures or uses shall not be relocated if the move adds to nonconformity.
5. Resumption of Discontinued or Abandoned Nonconforming Use or Structure. A nonconforming use or structure, when abandoned or discontinued, shall not be resumed. Discontinuance or abandonment is presumed to occur when the land or structure is not used for a particular use for twelve (12) consecutive months. Any person wishing to appeal a staff determination that discontinuance or abandonment has occurred may appeal to the legislative body within ten (10) days of the determination by filing an appeal with the local government department responsible for administering the Program.
6. Development of a Nonconforming Lot. When lot size would prevent development of a nonconforming lot consistent with the applicable setback

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requirements the administrator may authorize development under the following conditions:

- a. A written request is received from the project proponent.
- b. The development will be located as far landward as possible from the ordinary high-water mark.
- c. The decision of the administrator is based upon the criteria found in WAC 173-14-150 (Review Criteria for Variance Permits), as adopted and hereafter amended.

Upon receiving a written request, the administrator shall mail notice of the request to all property owners within 300 feet. At a minimum, the notice shall state the following:

- (1) The decision on the request will be made within ten days from the date that the notice was mailed; and
- (2) Interested citizens may contact the shoreline administrator for further information and to learn the administrator's decision.

Appeal of the administrator's decision shall be made in accordance with the procedures of appeal established in the affected jurisdiction's land use regulations.

7. Reconstruction of a Nonconforming Structure. In the event that a nonconforming structure is less than fifty percent (50%) destroyed by fire, explosion, natural catastrophe, or act of public enemy, nothing in this Program shall prevent the reconstruction of the nonconforming structure provided that reconstruction must be completed within one (1) year after the destruction. The determination of whether a building or structure is less than fifty percent (50%) destroyed shall rest with the building department. In the event that fifty percent (50%) or more of the structure is destroyed, then reconstruction is prohibited.
8. Conversion of a Nonconforming Use. A nonconforming use may not be converted to a prohibited use.

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F. Amendments

1. Amendments to the Shoreline Master Program, including changes to the mapped Environmental designations, shall be processed pursuant to WAC 173-19 as now or hereafter amended, and as provided below.
2. Applications for proposed amendments shall be submitted to the Planning Department on forms supplied by the department. The applicant shall pay to the department the application fee prescribed by the approved fee schedule. In addition to the application fee, the applicant may have to pay fees for environmental analysis pursuant to RCW 43.21C (SEPA), and for other necessary actions or approvals.
3. The legislative body shall hold the public hearing prescribed by WAC 173-19-062(1). The legislative body shall refer a proposed amendment to the Planning Commission for a recommendation. If the Planning Commission elects to hold a public hearing, a notice of the hearing shall be given in the same manner as the hearing held by the legislative body.
4. If the proposed amendment is a map change to the Shoreline Environment designation, which is quasi-judicial in character, notice of the proposed amendment shall be mailed to all owners of the property which is proposed for designation, as shown by the records of the county assessor. In addition, notice shall be mailed to all the owners of property which lies within three hundred (300) feet of the boundary of the property proposed for redesignation. Notices given pursuant to this subsection shall be mailed at least ten (10) calendar days before the date of the hearing. The applicant shall furnish to the Planning Department the names and addresses of property owners who are to receive notice.
5. a. Any judicial action to review the amendment of the Master Program shall be commenced within thirty (30) days from the date the Department of Ecology order adopting the amendment is filed with the State Code Reviser. Any judicial action to review a decision not to amend the Master Program shall be commenced within thirty (30) days from the date of the governing body's decision not to amend.

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- b. The plaintiff bringing any such action shall pay the full cost of transcription of the record prepared for judicial review.
6. The following process is recommended when substantial revisions to the Master Program are desired by one or more of the jurisdictions using the program. It is initiated by one or more jurisdictions proposing to Thurston Regional Planning Council (TRPC) that a review be undertaken. If TRPC agrees, the following process will begin:
- a. TRPC will appoint an advisory committee to review the areas of concern and develop recommendations. The advisory committee will consist of voting and non-voting members. The voting members, who represent the public and various interest groups are:
 - (1) One representative from the planning commission of each local government using the Shoreline Master Program;
 - (2) One representative from each affected Indian Tribe;
 - (3) One representative from the Port of Olympia;
 - (4) Eight members of the general public chosen to represent a variety of interest groups.
 - (5) Other representatives as deemed appropriate by TRPC.

The nonvoting members, who provide technical expertise and advice to the voting members, are:

- (1) One staff planner from each local government using the Shoreline Master Program;
- (2) One staff member from the Thurston County Economic Development Council;
- (3) One staff member from the Port of Olympia;

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- (4) One staff member each from the Washington Departments of Fisheries, Wildlife, and Ecology;
 - (5) Other representatives as deemed appropriate by TRPC.
 - b. The draft recommendations from the advisory committee should be submitted to each local government using the Master Program prior to the final meeting of the committee. This is intended to provide an opportunity to resolve any problems at the advisory committee level.
 - c. The draft recommendations from the advisory committee shall be submitted to the Department of Ecology for informal review and approval. This should be done on an on-going basis as the advisory committee develops its recommendations and/or prior to the final meeting of the committee.
 - d. The recommendations of the advisory committee are submitted to TRPC for review and approval.
 - e. TRPC forwards the changes as approved to the affected local jurisdictions for review and approval.
 - f. The adopted changes are submitted to the Department of Ecology for final adoption.
- 7. Where more detailed planning is desired for specific geographic areas, such as river corridors, one or more jurisdictions may develop Special Area Management Plans. A Special Area Management Plan should be comprehensive in nature and include at least the following:
 - a. Scope/Boundary of Plan
 - b. Policies
 - c. Use Regulations
 - d. Standards

A Special Area Management Plan is designed to replace existing environmental designations, and where conflicts exist, supersede general regulations. This approach is intended to allow jurisdictions to creatively address specific problems and situations while still maintaining the character, purpose or intent of the Master Program.

If a Special Area Management Plan is initiated, a letter of notification must be sent to the other jurisdictions that use this Shoreline Master Program prior to beginning the planning process. (The City of Tumwater did not adopt this sentence.)

G. Severability

If any provision of this Program or its application to any person or legal entity or circumstances is held invalid, the remainder of the Program, or the application of the provision to other persons or legal entities or circumstances, shall not be affected.

SECTION ONE -- ADMINISTRATION

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SECTION TWO -- GENERAL GOALS AND POLICIES

I. GOAL

The goal of this Master Program is to preserve to the fullest possible extent the scenic, aesthetic and ecological qualities of the Shorelines of the Thurston Region in harmony with those uses which are deemed essential to the life and well-being of its citizens.

II. PURPOSE

The local governments of Thurston County recognize that the Shorelines of the State and the Region are among the most valuable and fragile of our natural resources. There is great concern regarding their utilization, protection, restoration and preservation. In addition, these local governments find that the ever-increasing pressures to accommodate additional uses on the shoreline necessitates increased management coordination in the development of the Shorelines. These local governments further find that much of the Shorelines of the Region and the uplands adjacent thereto are in private ownership; that unrestricted construction on the privately-owned or publicly-owned Shorelines of the State is not in the best public interest; and therefore, coordinated planning is necessary in order to protect the public interest associated with the Shorelines of the State while, at the same time, recognizing and protecting private property rights consistent with the public interest. There is, therefore, a clear and urgent demand for a planned, rational and concerted effort, jointly performed by federal, state and local governments, to prevent the inherent harm in an uncoordinated and piecemeal development of the Shorelines of the State and Region.

SECTION TWO -- GENERAL GOALS AND POLICIES

III. POLICIES

It shall be the policy of the local governments of Thurston County to provide for the management of the Shorelines of the State and Region by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the State and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto.

To implement this document, the public's opportunity to enjoy the physical and aesthetic qualities of natural Shorelines of the State and Region shall be preserved to the greatest extent feasible consistent with the overall best interest of the people generally. To this end, uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment or are unique to or dependent upon use of the State's shoreline. Alterations of the natural condition of the shorelines, in those limited instances when authorized, shall be given priority for single-family residences, ports, shoreline recreational uses including but not limited to parks, marinas, piers and other improvements facilitating public access to shorelines of the Region; industrial and commercial developments which are particularly dependent on their location on, or use of, the shorelines of the Region; and other development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the Region. Permitted uses of the Shorelines of the State and Region shall be designed and conducted in a manner to minimize, to the extent feasible, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water.

SECTION TWO -- GENERAL GOALS AND POLICIES

IV. PRIORITIES

In accordance with the Shoreline Management Act of 1971, the management of Shorelines of State-Wide Significance shall be given preference to uses, in the following order of priority, which:

1. Recognize and protect the state-wide interest over local interest;
2. Preserve the natural character of the shoreline;
3. Result in long-term over short-term benefit;
4. Protect the resources and ecology of the shoreline;
5. Increase public access to publicly-owned areas of the shorelines;
6. Increase recreational opportunities for the public on the shoreline;
7. Protect life and property from hazards of flood; and
8. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary. (RCW 90.58.020)

SECTION TWO -- GENERAL GOALS AND POLICIES

V. REGIONAL CRITERIA

All development within the jurisdiction of this Master Program shall demonstrate compliance with the following policies:

- A. Public access to shorelines shall be permitted only in a manner which preserves or enhances the characteristics of the shoreline which existed prior to establishment of public access.
- B. Protection of water quality and aquatic habitat is recognized as a primary goal. All applications for development of shorelines and use of public waters shall be closely analyzed for their effect on the aquatic environment. Of particular concern will be the preservation of the larger ecological system when a change is proposed to a lesser part of the system, like a marshland or tideland.
- C. Future water-dependent or water-related industrial uses shall be channeled into shoreline areas already so utilized or into those shoreline areas which lend themselves to suitable industrial development. Where industry is now located in shoreline areas that are more suited to other uses, it is the policy of this Master Program to minimize expansion of such industry.
- D. Residential development shall be undertaken in a manner that will maintain existing public access to the publicly-owned shorelines and not interfere with the public use of water areas fronting such shorelines, nor shall it adversely affect aquatic habitat.
- E. Governmental units shall be bound by the same requirements as private interests.
- F. Applicants for permits shall have the burden of proving that a proposed substantial development is consistent with the criteria which must be met before a Permit is granted. In any review of the granting or denial of an application for a permit as provided in RCW 90.58.18.180 (1), the person requesting the review shall have the burden of proof.

SECTION TWO -- GENERAL GOALS AND POLICIES

- G. Shorelines of this Region which are notable for their aesthetic, scenic, historic or ecological qualities shall be preserved. Any private or public development which would degrade such shoreline qualities shall be discouraged. Inappropriate shoreline uses and poor quality shoreline conditions shall be eliminated when a new shoreline development or activity is authorized.

- H. Protection of public health is recognized as a primary goal. All applications for development or use of shorelines shall be closely analyzed for their effect on the public health.

SECTION TWO -- GENERAL GOALS AND POLICIES

VI. REGIONAL PLAN ELEMENTS

Plan Elements are uses or activities. Any of the more specific use activities, which are described later in this section, can be grouped into one or more of these Plan Elements. The eight Regional Plan Elements are listed and defined as follows:

- A. Economic Development. This element deals with the location and design of industries, transportation and port facilities, commercial and other developments that are largely dependent on shoreland locations. Economic development is defined as human use of shorelines to produce goods and services. Tourism, gravel mining, tree farming, aquaculture, manufacturing, commercial stores and shops, resorts, fishing and transportation facilities are examples of economic development.
- B. Public Access. This element is concerned with physical access to publicly-owned shores and tidelands and visual access to public waters. The regulations function to protect the physical and visual environment in the location, design and maintenance of public access developments.
- C. Circulation. This element is concerned: (1) with the location and character of existing and proposed highways, transportation corridors, freight and shipping terminals and waste disposal systems; (2) with the movement of people, goods and services; and (3) with the relationship of all these to the shorelines and aquatic habitat. Along with but not limited to, roads, bridges, highways, railroads and marine terminals, circulation use regulations consider pipelines, power transmission and telephone lines, airports, public access facilities and pedestrian and bicycle paths.
- D. Recreation. This element is concerned with the preservation, diversification, expansion and regulation of recreational opportunities, including but not limited to parks, beaches and tidelands for such activities as boating, picnicking, clam digging, fishing, climbing and hiking.

SECTION TWO -- GENERAL GOALS AND POLICIES

- E. Shoreline Use. This element considers the pattern of land use distribution on shorelines and adjacent upland, tidal marsh and flood plain areas. These uses include but are not limited to housing, commercial, industrial, transportation, utilities, public facilities, agriculture, recreational, aquaculture and educational uses. They also include the locational pattern of water uses of the same types, and the distribution of natural resources.
- F. Conservation. This element deals with the conservation of natural resources, including but not limited to scenic vistas, aquatic habitats of fish and wildlife, watercourses, beaches, tidal and submerged lands, and aesthetically valuable sites.
- G. Historical and Cultural Values. This element deals with the preservation or restoration of buildings, sites and natural features having historic, cultural, scientific, educational or physically unique characteristics. Archaeological sites, ancient villages, military forts, old settlers' homes, ghost towns and pioneer trails are examples of cultural features included in this element.
- H. Restoration. This element provides for restoration to a useful condition of areas which are blighted by abandoned buildings and dilapidated conditions.

VII. SHORELINE ENVIRONMENTS

The State of Washington Department of Ecology Final Guidelines for the Shoreline Management Act of 1971, establish a framework of four categories of shorelines, based on the degree of man's intrusion into the shoreline and the degree of uniqueness of the shoreline. These four categories are termed the "Natural, Conservancy, Rural and Urban Environments."

To further express the goals for each of these four Environments, eight Plan Elements are utilized. These goals serve to keep regulations governing Use Activities from being arbitrary. A definition and purpose for each Environment is also included in the following:

A. NATURAL ENVIRONMENT (Refer to WAC 173-16-040(4)(b)(i))

Purpose. The intent of a Natural Environment designation is to preserve, maintain or restore a shoreline as a natural resource existing relatively free of human influence, and to discourage or prohibit those activities which might destroy or degrade the essential, unique or valuable natural characteristics of the shoreline.

Definition. The "Natural Environment" designates shoreline areas in which unique natural systems and resources are to be preserved or restored. This environment is characterized by severely limited land and water use with little or no visual evidence of man-developed structures or occupancy. Development or utilization of soil, aquatic and forest resources, as well as nonrenewable mineral and nonmineral resources is prohibited. Public access and recreation are limited to a degree compatible with the preservation or restoration of the unique character of this environment.

SECTION TWO -- GENERAL GOALS AND POLICIES

Goal Statements

1. Economic Development. Economic development is not a goal of the Natural Environment.
2. Public Access. Public access may exist on public land to the extent that it does not degrade or change the natural or cultural features to be preserved or restored.
3. Circulation. Circulation corridors may exist only to the extent necessary to maintain the character of the Natural Environment areas to be preserved.
4. Recreation. Opportunities for passive recreation (viewing, photography, etc.) may exist wherever it is possible without degrading the characteristics to be preserved or restored.
5. Shoreline Use. The distribution of shoreline uses is not an issue in the Natural Environment.
6. Conservation. Nonconsumption, preservation and restoration of the distinguishing natural characteristics are the goals of the Conservation Element.
7. Historical and Cultural Values. A goal of the Natural Environment shall be to promote, protect and preserve historical, cultural, scientific or educational values on shorelines where these values are acknowledged.
8. Restoration. Blighted, abandoned or dilapidated uses and structures which would detract from the intended character will be absent from the Natural Environment areas. Side effects of uses, such as degraded water quality, also will be absent.

SECTION TWO -- GENERAL GOALS AND POLICIES

B. CONSERVANCY ENVIRONMENT (Refer to WAC 173-16-040(4)(b)(ii))

Purpose. The intent of a Conservancy Environment designation is to protect, conserve and manage existing resources and valuable historic and cultural areas in order to ensure a continuous flow of recreational benefits to the public and to achieve sustained resource utilization. The preferred uses are nonconsumptive of the physical and biological resources of the area and activities and uses of a nonpermanent nature which do not substantially degrade the existing character of the areas. Nonconsumptive uses are those uses which utilize resources on a sustained yield basis while minimally reducing opportunities for other future uses of the resources of the area.

Definition. The "Conservancy Environment" designates shoreline areas for the protection, conservation and management of existing valuable natural resources and historic and cultural areas. This environment is characterized by low-intensity land use and moderate-intensity water use with moderate to little visual evidence of permanent structures and occupancy. Sustained management of the pastoral, aquatic and forest resources, as well as rigidly controlled utilization of nonrenewable and other nonmineral resources which do not result in long-term irreversible impacts on the natural character of the environment are permitted. Intensity of recreation and public access may be limited by the capacity of the environment for sustained recreational use.

Goal Statements

1. Economic Development. The goal for this element is to reach a high level of renewable resource utilization on a sustained yield basis.
2. Public Access. It is a goal to maintain and improve the existing public access facilities to County shorelines, and to seek more facilities and devices to increase opportunities for public access to them. It is the intent of this goal to:
 - a. Recognize and protect private property rights consistent with the public interest;

SECTION TWO -- GENERAL GOALS AND POLICIES

- b. Prevent the destruction of the more fragile recreation areas through excessive use; and
 - c. Exercise due regard for the safety of the public.
3. Circulation. Circulation systems in the Conservancy shorelines of the County should exist to serve the economic, aesthetic, health, safety and cultural needs of the area, but are to be designed to have a minimal adverse impact upon shorelines.
 4. Recreation. Recreational opportunities are to be preserved and expanded through programs of development (public and private), and various means of public acquisition, such as purchase, leases, easements and donations. The intensity of the recreational use will be limited by the capacity of the environment to sustain it.
 5. Shoreline Use. A goal is to locate structures and uses in such a position that they are not highly visible from the water.
 6. Conservation. The goal of this element is to protect, conserve and manage existing natural resources and valuable historical and cultural areas in order to ensure a continuous flow of recreational benefits to the public, and to achieve sustained resource utilization.
 7. Historical and Cultural Values. This goal shall be to promote, protect and preserve historical, cultural, scientific or educational values on shorelines where these values are acknowledged.
 8. Restoration. The goal of this element is to restore to a useful or original condition those areas (including waters) which are blighted by present uses and dilapidated or abandoned structures.

SECTION TWO -- GENERAL GOALS AND POLICIES

C. RURAL ENVIRONMENT (Refer to WAC 173-16-040(4)(b)(iii))

Purpose. The primary purposes of the Rural Environment are to protect areas from urban expansion, restrict intensive developments along undeveloped shore-lines, function as a buffer between urban areas, and maintain open spaces for recreational purposes compatible with rural uses. New developments in a Rural Environment are to reflect the character of the surrounding area.

Definition. The "Rural Environment" designates shoreline areas in which land will be protected from high-density urban expansion and may function as a buffer between urban areas and the shorelines proper. This environment is characterized by low intensity land use and moderate to intensive water use. Residential development does not exceed two dwellings per acre. Visual impact is variable with a moderate portion of the environment dominated by structures of impermeable surfaces. Intensive cultivation and development of the renewable soils, aquatic and forest resources, as well as limited utilization of nonrenewable mineral resources is permitted. Recreational activities and public access to the shoreline are encouraged to the extent compatible with other rural uses and activities designated for this environment.

Goal Statements

1. Economic Development. Available resources should be utilized consistent with the definition and purpose of the Rural Environment.
2. Public Access. The primary goal of this element is to provide adequate public access areas to ensure maximum enjoyment of recreational and scenic opportunities with minimum conflict with other rural uses. It is the intent of this goal to:
 - a. Recognize and protect private property rights consistent with the public interest;
 - b. Prevent the destruction of the more fragile recreation areas through excessive use; and
 - c. Exercise due regard for the safety of the public.

SECTION TWO -- GENERAL GOALS AND POLICIES

3. Circulation. The goal of the Circulation Element in the Rural Environment is to provide facilities that are necessary only for local usage. Trail systems for safe nonmotorized traffic are to be encouraged where compatible with rural uses. Major planned circulation systems shall be located away from shoreline areas whenever possible.
4. Recreation. The recreation goal is to assure diverse, convenient and adequate water-related recreational opportunities along the shorelines of the County located in such a way as to minimize conflicts with other rural activities.
5. Shoreline Use. Areas for intensive public use should be distributed in such a manner as to avoid concentration of user pressure, to discourage intrusions endangering life or property, and to avoid uses having adverse effects on fragile natural systems.
6. Conservation. This goal shall be to have sound management in the conservation of all natural resources within the Rural Environment.
7. Historical and Cultural Values. The goal of this element shall be to promote, protect and preserve historical, cultural scientific or educational values on shorelines where these values are acknowledged.
8. Restoration. This goal is to restore to a useful or original condition those areas (including waters) which are blighted by present uses, discontinued uses and dilapidated or abandoned structures.

SECTION TWO -- GENERAL GOALS AND POLICIES

D. SUBURBAN ENVIRONMENT

Purpose. The purpose of the Suburban environment is to allow residential development at urban densities and recreational development. It is not intended to be applied to existing industrial and commercial areas.

Definition. The "Suburban" environment designates shorelines which are developed with residential uses at an urban density and/or recreational uses that improve the public's ability to use the shoreline. This environment can only be applied to lands within the urban growth area as defined by the Urban Growth Management Planning Area document, signed by Thurston County, Lacey, Olympia, and Tumwater on June 20, 1988, or as hereafter revised. This environment is characterized by moderate-intensity land use and moderate to intensive water use. Visual impact is variable with a moderate to high number of permanent structures. Recreational activities and public access to the shoreline are encouraged to the extent compatible with other uses and activities designated for this environment.

Goal Statements

1. Economic Development. Available resources should be utilized consistent with the purpose and definition of this environment.
2. Public Access. The goal is to plan for and, where appropriate, acquire visual and physical access to the water.
3. Circulation. The goal is to provide facilities that are necessary only for approved uses. Trail systems for safe nonmotorized traffic are to be encouraged. Major planned circulation systems for motorized vehicles should be located away from shoreline areas where possible.
4. Recreation. The goal is to assure diverse, convenient and adequate water-related recreational opportunities along the shorelines.
5. Shoreline Use. Shoreline uses are to be distributed in such a manner as to minimize transportation costs, conflicts between adjacent uses, and to avoid uses having adverse effects on fragile natural systems.

SECTION TWO -- GENERAL GOALS AND POLICIES

6. Conservation. The goal is to have sound management in the conservation of all human and natural resources within the Suburban environment.
7. Historic and Cultural Values. This goal shall be to promote, protect and preserve historical, cultural; scientific or educational values on shoreline where these values are acknowledged.
8. Restoration. This goal is to restore to a useful or original condition those areas (including waters) which are blighted by present uses, discontinued uses and dilapidated or abandoned structures.

SECTION TWO -- GENERAL GOALS AND POLICIES

E. URBAN ENVIRONMENT (Refer to WAC 173-16-040(4)(b)(iv))

Purpose. The purpose of an Urban Environment designation is to obtain optimum utilization of the shorelines within urbanized areas by providing for intensive public and private urban uses and by managing development of affected natural resources.

Definition. The "Urban Environment" designates shorelines within urbanized areas which provide for intensive public use and which are developed in a manner that enhances and maintains shorelines for a multiplicity of urban uses. This environment is characterized by high-intensity land and water use, visually dominated by man-made residential, commercial and industrial structures and developments. Both renewable and nonrenewable resources are fully utilized, and public access and recreation encouraged to the maximum compatible with the other activities designated in the environment.

Goal Statements

1. Economic Development. The goal of this element is to utilize most efficiently the limited shoreline for industry, transportation facilities, commercial and other developments that are particularly dependent upon their location on, or use of, the shoreline.
2. Public Access. This goal is to plan for and, where appropriate, acquire visual and physical public access to the water.
3. Circulation. The goal of this element is to integrate existing and proposed major thoroughfares, transportation routes, terminals, bicycling and pedestrian paths, and other public utilities and facilities and to assure that they best serve the uses of the shoreline.
4. Recreation. This goal is to provide close-to-home recreation.
5. Shoreline Use. Shoreline uses are to be distributed in such a manner as to minimize transportation costs and conflicts between adjacent uses.

SECTION TWO -- GENERAL GOALS AND POLICIES

6. Conservation. Resources in the Urban Environment should be utilized in a manner that minimizes the adverse impacts of that utilization on other resources.
7. Historical and Cultural Values. This goal shall be to promote, protect and preserve historical, cultural, scientific or educational values on shorelines where these values are acknowledged.
8. Restoration. The goal of this element is to restore to a useful or original condition those areas (including waters) which are blighted by present uses, discontinued uses and dilapidated or abandoned structures.

SECTION TWO -- GENERAL GOALS AND POLICIES

F. AQUATIC ENVIRONMENTS

All four of the shoreline environments apply equally to upland areas as well as aquatic lands and surface water. The specific location of the individual shoreline environments is mapped and further detailed in SECTION FIVE. As a part of those maps, a "Natural-Aquatic Environment" has been identified as a specific sub-environment is defined as follows:

Natural-Aquatic Environment

Definition. That surface water together with the underlying lands and the water column of all marine water seaward of ten (10) fathoms (60 feet) in depth.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

I. AGRICULTURAL ACTIVITIES

A. Scope and Definition

Agricultural practices include cultivating, tilling, weed control, irrigation, fertilizing agricultural land, harvesting crops, and applying management controls to avert wind and water erosion and damage. They also include animal husbandry practices associated with the feeding, housing, maintenance, processing and marketing of animals such as beef cattle, milk cows, breeding stock, horses and poultry and their by-products; also, agriculturally oriented storage, processing and management activities and structures.

Agricultural land is land which is used for the production of agricultural commodities. Agricultural commodities include any plants, or parts thereof, and animals produced by a farmer with their primary use being for sale, consumption, or propagation by man or animals.

B. Policies

1. Agricultural practices that prevent soil erosion and minimize siltation, turbidity, pollution and other environmental degradation in watercourses and wetlands should be utilized.
2. Overgrazing of livestock should be avoided to prevent erosion.
3. Agriculture is a preferred use on flood plains.

C. General Regulations

Suitable pollution control measures shall be established and maintained between agricultural activities and water bodies. The measures shall prevent or minimize pollution generated by the specific agricultural activities.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

D. Environmental Designations and Regulations

1. Urban, Suburban, Rural and Conservancy Environments. All types of agriculture are allowed provided the activities are consistent with the Policies and General Regulations of this Program.
2. Natural Environment. Grazing of livestock is permitted in the Natural Environment provided:
 - a. The character of the environment is not changed.
 - b. No harmful ecological impact results.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

II. AQUACULTURAL ACTIVITIES

A. Scope and Definition

Aquaculture involves the culture and farming of food fish, shellfish, and other aquatic plants and animals in lakes, streams, inlets, bays and estuaries. Aquacultural practices include the hatching, cultivating, planting, feeding, raising, harvesting and processing of aquatic plants and animals, and the maintenance and construction of necessary equipment, buildings and growing areas. Methods of aquaculture include but are not limited to fish hatcheries, fish pens, shellfish rafts, racks and longlines, seaweed floats and the culture of clams and oysters on tidelands and subtidal areas.

B. Policies

1. The Region should strengthen and diversify the local economy by encouraging aquacultural uses.
2. Aquacultural use of areas with high aquacultural potential should be encouraged.
3. Flexibility to experiment with new aquaculture techniques should be allowed.
4. Aquacultural enterprises should be operated in a manner that allows navigational access of shoreline owners and commercial traffic.
5. Aquacultural development should consider and minimize the detrimental impact it might have on views from upland property.
6. Proposed surface installations should be reviewed for conflicts with other uses in areas that are utilized for moorage, recreational boating, sport fishing, commercial fishing or commercial navigation. Such surface installations should incorporate features to reduce use conflicts. Unlimited recreational boating should not be construed as normal public use.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

7. Areas with high potential for aquacultural activities should be protected from degradation by other types of uses which may locate on the adjacent upland.
8. Proposed aquacultural activities should be reviewed for impacts on the existing plants, animals and physical characteristics of the shorelines.
9. Proposed uses located adjacent to existing aquaculture areas which are found to be incompatible should not be allowed.

C. General Regulations

1. Aquaculture development shall not cause extensive erosion or accretion along adjacent shorelines.
2. Aquacultural structures and activities that are not shoreline dependent (e.g., warehouses for storage of products, parking lots) shall be located to minimize the detrimental impact to the shoreline.
3. Proposed aquaculture processing plants shall provide adequate buffers to screen operations from adjacent residential uses.
4. Proposed residential and other developments in the vicinity of aquaculture operations shall install drainage and waste water treatment facilities to prevent any adverse water quality impacts to aquaculture operations.
5. Land clearing in the vicinity of aquaculture operations shall not result in off-site erosion, siltation or other reductions in water quality.
6. For nonaquacultural development or uses proposed within or adjacent to an Aquacultural District, or which may be adversely affected by the aquaculture operation, restrictive covenants shall be filed which will inform prospective buyers of the proximity of the Aquacultural District.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

7. Establishment of Aquacultural District. Due to the importance of aquaculture to the Thurston County economy and the unique physical characteristics required to initiate or continue an operation, this section allows for the establishment of an Aquacultural District. The permit for an Aquacultural District will be issued for a specific area. Development authorized within the District will be generally described and located to provide for the range of development associated with the aquaculture operation. The applicant for a District will provide the boundaries of the use area, location and size of upland structures, maximum size, height and surface area coverage of in-water structures, and a description of activities in sufficient detail to determine possible impacts. The activities within an Aquacultural District shall be reviewed on a periodic basis to assure compliance with the permit. If the Administrator finds that an activity or environmental impact is substantially different than that considered in the permit approval then action shall be taken to bring the operation into compliance with the permit. The applicant must be the lessee or owner of the property proposed for inclusion within an Aquacultural District.

The following describes how and when an Aquacultural District can be formed:

- a. Existing. Aquacultural uses existing prior to adoption of the Master Program (May 21, 1976) may be designated as Aquacultural Districts by the Administrator upon application of the operator. The application shall describe the extent of the operation prior to adoption of this Master Program, including the items specified above.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

- b. Changes to an Aquacultural District. Changes in uses within an Aquacultural District, including species reared and design of floating structures, may be allowed provided the Administrator finds that the activity does not exceed the scope of activity approved in the original permit. Additional over-water construction shall in no case exceed ten percent (10%) of overwater construction approved in the original permit. The proposed change shall not create adverse impacts exceeding those of the uses authorized in the original permit. Impacts to be considered in this determination include:
- (1) Aesthetics
 - (2) Water quality
 - (3) Navigation
 - (4) Noise
 - (5) Odor and waste management
- c. New. An Aquacultural District may be approved for a proposed new or expanded aquaculture use through the Substantial Development Permit process. The permit will be reviewed and approved for the range of activities associated with the proposed aquaculture use. An Aquacultural District must possess the characteristics which will produce an environment suitable for aquacultural production. Factors to be considered in determining whether a proposed Aquacultural District will be approved shall include:
- (1) Current use of the site and neighboring uses
 - (2) Physical suitability of the environment
 - (3) Type of aquaculture proposed and associated activities

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

- (4) Potential environmental impacts
- (5) The ability to minimize conflict between the proposed aquacultural use and other existing or permitted uses

D. Environmental Designations and Regulations

1. Urban, Suburban, Rural, Conservancy and Natural-Aquatic Environments. All types of aquaculture are allowed, provided the operation is consistent with the policies and regulations of this program and chapter.
2. Natural Environment. Aquaculture practices are limited to fishing and harvesting of wild and planted stocks for recreational and commercial purposes. Stocking not involving placement of structures or fill will be allowed by Conditional Use Permit, upon showing that the activity will not substantially change the character of the site or adversely affect natural populations.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

III. ARCHAEOLOGICAL AREAS AND HISTORIC SITES

A. Scope and Definition

These may include ancient villages, military forts, old settlers' homes, ghost towns, trails and scenic sites, abandoned cemeteries and other establishments, archaeological diggings, monuments, Native American sites and sites of former pioneer buildings.

B. Policies

1. Because archaeological areas and historic sites are nonrenewable educational tools and links with the past, they should be preserved regardless of the environment in which they are located.
2. Areas proposed for development, and specifically identified by the Washington Office of Archaeology and Historic Preservation, County Certified Local Governments, concerned tribes or similar agencies, as being of historic or archaeological interest should not have permits granted until all these agencies have an opportunity to comment on the particular project.
3. New sites uncovered during excavation or development should be reported by the developer to the local shorelines agency to enable other appropriate agencies to investigate the find. Local government should coordinate with these agencies to preserve important sites.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

4. The National Historic Preservation Act of 1966, and the Revised Code of Washington (Chapter 43.51), provide for the protection, rehabilitation, restoration and reconstruction of districts, sites, buildings, structures and objects significant in American and Washington pre-history, history, architecture, archaeology or culture. The state legislature has named the Director of the Washington State Historic Preservation Officer as the person responsible for this program. Prehistoric sites discovered during development should be reported under this program for possible preservation, restoration, and the necessary financing.
5. Prehistoric and historic areas and structures located in waterfront areas should be preserved. If parking or vehicular access required by this or other codes would adversely affect these historic areas or structures, alternatives such as allowing a reduction in required parking should be reconsidered.

C. General Regulations

1. If artifacts and items of historical and archaeological interest are discovered during the excavation or Development along shorelines, the excavation or development must immediately be stopped, and the find must be reported to the local shorelines agency. The local government shall notify appropriate agencies of the find. These agencies may include the Washington Office of Archaeology and Historic Preservation, the Washington Archaeological Research Center, the State Historical Museum, Certified Local Governments, concerned tribes and local historical societies.
2. The local shorelines agency shall arrange for inspection of the site within seven calendar days by one or more professional archaeologists or historians. These individuals shall make recommendations as to site restoration, site protection, or removal of artifacts, or loss of the site to development, so that the site may be used as intended, or compensation may be made as may be feasible at the time. The local shorelines agency shall review the recommendations and decide on the course of action within seven calendar days of receiving the recommendations.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

3. Conditions may be attached to Shoreline Permits to protect historic sites or artifacts as long as normal permit procedures are followed.
4. Where known sites (as recorded by the Washington Archaeological Research Center or the Washington State Office of Archaeology and Historic Preservation) are proposed for development, the local shorelines agency shall consult these agencies for their recommendations, and may deny the Shoreline Permit where the historic or archaeological value of the site outweighs the development value.
5. A Conditional Use Permit may be required for development of single-family residences where protection of historic and archaeological sites is a factor.

IV. BOATING FACILITIES

A. Scope and Definition

Boating facilities include marinas, boat ramps, piers, docks, boathouses, mooring buoys, recreational floats and marine railways. "Boat ramps" are constructed of concrete or other material which extends onto the water and tidelands for boat launching. A "marina" is a water-dependent facility that provides wet and/or dry moorage for over ten (10) boats and other related sales and maintenance services. "Piers and docks" are structures generally built from the shore extending out over the water to provide moorage for commercial and/or private recreation water craft or float planes or for water recreational use. When a pier or dock is to serve ten (10) or more boats, it is considered a marina and must comply with the marina regulations and not the regulations for piers and docks. They may either be anchored to and floating or permanently fixed to pilings. A "mooring buoy" is an anchored floating device for the purpose of securing a watercraft. "Recreational floats" are anchored platforms detached from the shoreline for recreational activities such as swimming and diving. "Marine railways" are a pair of sloping tracks used to launch watercraft. "Covered moorage" is a roofed structure for the wet or dry storage of one or more boats. "Boathouses" are a type of covered moorage which have walls and are usually for the storage of one (1) boat.

B. Policies

Marinas and Launching Ramps:

1. Evidence of substantial demand must be demonstrated prior to allowance of new marina or boat launching facilities.
2. Shallow water embayments with poor flushing action should not be utilized for marinas or boat launching facilities.
3. Marinas and launching ramps should be located to minimize the need for continual dredging, filling, beach feeding, and other river, lake, harbor, and channel maintenance activities.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

4. Fuel handling and storage procedures that minimize accidental spillage and provide satisfactory means for handling those spills that do occur should be required.
5. Solid and liquid wastes and untreated effluents should not be allowed to enter any bodies of water or to be discharged onto the land.
6. Where wet moorage is offered, pump-out and holding or treatment facilities should be provided by marinas for sewage contained on boats to protect water quality.
7. In locating marinas, the adverse effects of construction and operation of the facility upon fish and shellfish should be minimized.
8. Marinas and boat launching facilities should be located in areas where parking and access to the facility can be accommodated without causing adverse impacts upon the adjacent properties.
9. Landscaping should be utilized to moderate the visual impact of parking areas, marinas and boat launching facilities.
10. Illumination should be designed and constructed to minimize off-site light and glare.
11. Proposed marinas should provide for as many compatible shoreline dependent recreational uses as possible according to the size and extent of the facilities.

Piers and Docks:

12. Pier and docks should be designed and located to minimize obstructions to scenic views, and conflicts with recreational boaters and fishermen.
13. Cooperative uses of piers, docks and floats are favored especially in new subdivisions.
14. Moorage buoys are preferred over piers and docks especially in tidal waters.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

Mooring Buoys and Recreation Floats:

15. Mooring buoys and recreation floats should be as close to the shore as possible.
16. Mooring buoys and recreational floats should be designed and marked to be clearly visible.

Marine Railways:

17. Marine railways should not obstruct shoreline access.

Covered Moorage:

18. The size of the covered moorage should be the minimum necessary for the use proposed.
19. Covered moorage over the water should be discouraged in tidal waters and prohibited in fresh water.
20. Covered moorage should be designed and located to maintain view corridors and blend with the surrounding development.

C. General Regulations

Marinas and Launching Ramps:

1. Marinas shall conform to the commercial and parking use regulations of this program.
2. Marinas and launch ramps shall be located in areas where there is adequate water mixing and flushing and shall be designed not to retard or negatively influence flushing characteristics.
3. Marinas and launch ramps shall be located on stable shorelines where water depths are adequate to eliminate or minimize the need for offshore or foreshore channel construction dredging, maintenance dredging, spoil disposal, filling, beach feeding and other river, lake, harbor and channel maintenance activities.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

4. All boating facilities, including marinas and boat yards, shall utilize effective measures to prevent the release of oil, chemicals, or other hazardous materials onto or into the water. Such measures may include, but are not limited to, dikes, catch basins or settling ponds, interceptor drains, and planted buffers.
5. For marinas offering wet moorage, pump-out and holding or treatment facilities shall be provided to handle sewage contained on boats.
6. Marinas and their accessory facilities shall be located, designed, constructed and operated to minimize adverse effects on fish and shellfish.
7. In sensitive areas, such as near certified shellfish beds, the applicant shall be required to demonstrate that the maximum protection of shore features, water quality, and existing uses will be provided.
8. Perimeters of parking areas shall be landscaped. The permit application shall identify the size, type and location of landscaping.
9. Marinas shall make available public access opportunities, such access will not endanger public health and safety. If it is not physically feasible to develop public access, the project may be exempted from the requirement.
10. Accessory uses at marinas shall be limited to those uses that are shoreline dependent and of necessity to marina operation.
11. Marinas shall provide at least one method of boat launching, where feasible.
12. Restroom facilities must be provided at marinas and boat launching facilities.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

Piers and Docks:

13. Prior to final project approval of a residential development, a usable area shall be set aside for pier or dock unless there is no suitable area. Only one dock or pier is permitted in a new residential development.
14. All pier and dock development shall be painted, marked with reflectors or otherwise identified so as to prevent unnecessarily hazardous conditions for water surface users during day or night.
15. Docks and piers are prohibited on lakes or marine water bodies where the distance to the opposite shore is one hundred fifty (150) feet or less. This is to insure the maintenance of navigation.
16. When bulkheads are constructed in conjunction with pier or dock development, the bulkhead shall be placed no farther waterward of the ordinary high water mark than is necessary to achieve erosion control. The most landward portion of the footing shall be at the toe of the bank or the vegetation line where the toe of the bank is not discernible.
17. In marine water, the length of piers or docks for recreational use may be the average length of the existing docks or piers within one hundred (100) feet of each property line. If there exists a dock on one side of a new proposed one but not on the other, the average to be used for the side without a dock shall be one hundred (100) feet. If there are no piers or docks within one hundred (100) feet, the maximum length shall not exceed one hundred (100) feet as measured from the mean higher high-water mark and not exceed a depth of minus three (-3) feet as measured from mean lower low water. If this is not sufficient length to reach the desired depth for moorage, then a buoy shall be used.
18. There is no maximum length and width for commercial piers or docks; however, the proponent must show the size proposed is the minimum necessary to allow the use proposed.
19. The width of recreational docks or piers shall not exceed eight (8) feet.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

20. In fresh water areas, new docks shall not exceed the average length of the existing docks within one hundred (100) feet of the property lines. If there exists a dock on one side of a new proposed one but not on the other, the average to be used for the side without a dock shall be fifty (50) feet. If there are no docks with one hundred (100) feet, the length shall not exceed fifty (50) feet as measured from the ordinary high water mark.
21. At the terminus of a dock or pier, a float is normally attached for purposes of a landing and for moorage of watercraft. These floats may either be parallel to the dock or pier, or form a tee. The float cannot exceed four hundred (400) gross square feet for a piling dock/pier in tidal waters, two hundred fifty (250) gross square feet for a floating dock/pier on tidal water, and two hundred (200) gross square feet for docks/piers on fresh water. The total length of the dock/pier with an attached float cannot exceed the total length allowed under General Regulations #17 and #20.
22. Docks and piers shall be set back ten (10) feet on fresh and twenty (20) feet on tidal water from the side property line. These setbacks may be waived if two single-family property owners wish to construct a joint pier on the common property line under the following conditions:
 - a. Both property owners must record a non-exclusive easement granting each other the right to use the pier.
 - b. The easement must acknowledge that each property owner is giving up the right to construct a separate single-family pier.
23. Span between pilings for piers or docks on pilings shall be eight (8) feet or greater.

Mooring Buoys and Recreational Floats:

24. Buoys and floats must be discernible under normal daylight conditions at a minimum of one hundred (100) yards and must have reflectors for nighttime visibility.
25. Single property owner recreation floats shall not exceed sixty-four (64) square feet.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

26. Multiple property owner recreational floats shall not exceed ninety-six (96) square feet.
27. Mooring buoys and recreational floats shall not be located farther waterward than the existing floats and mooring buoys, or established swimming areas, unless the draft of the boat dictates it.
28. Only one mooring buoy or recreational float will be allowed per waterfront lot unless there is a demonstration of need. Such demonstration may include a community park or residential development where lot owners both on and away from the shoreline share a shoreline open space area.

Marine Railways:

29. Marine railways shall be located on the existing grade where feasible.

Covered Moorage:

30. A boathouse for residential property is permitted landward of the ordinary high-water mark. It shall not exceed one hundred (100) square feet unless the size of the applicant's boat demands a larger structure. The structure shall not exceed ten (10) feet in height.
31. Covered moorage is prohibited over fresh water.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

D. Environmental Designations and Regulations

1. Urban Environment. Marinas, boat ramps, piers, docks, boathouses, mooring buoys, recreational floats and marine railways are permitted subject to the Policies and General Regulations.
 - a. Covered moorage over tidal water is only permitted in a marina and must meet the following regulations.
 - (1) It does not exceed fifty percent (50%) of the total number of slips.
 - (2) It does not form a visual wall between the adjacent inland property and the water, or between a public facility and the water.
 - (3) The design and appearance of the covered moorage is compatible with other covered structures in the marina and the surrounding environment.
 - b. In marinas where the existing covered moorage does not comply with this Program, the following regulations will apply:
 - (1) Repair and maintenance is allowed on existing structures.
 - (2) Relocation and replacement with new structures is allowed provided:
 - (a) Area covered by the structure is not increased.
 - (b) The relocation and replacement preserves existing views between the adjacent inland property and the water, or between a public facility and the water.
 - (c) The appearance of the covered moorage is compatible with other covered structures in the marina and the surrounding environment.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

- c. Covered moorage on dry land for commercial purposes is only permitted in marinas and must comply with the following:
 - (1) A view corridor of not less than thirty-five percent (35%) of the width of the ownership shall be maintained from the abutting street and waterway.
 - (2) The structure shall not exceed thirty-five (35) feet in height.
 - (3) The structure shall be visually compatible with the surrounding environment.
- 2. Suburban and Rural Environments. Marinas, boat ramps, piers, docks, boathouses, mooring buoys, recreational floats and marine railways are permitted subject to the Policies and General Regulations.
- 3. Conservancy Environment
 - a. In the aquatic portion of a Conservancy Environment where the adjacent uplands are designated Rural or Urban, the same uses will be permitted as in the Rural Environment.
 - b. Recreational piers, boat ramps, docks, boathouses, mooring buoys and marine railways are permitted subject to the Policies and General Regulations.
- 4. Natural and Natural-Aquatic Environments. Marinas, piers, docks, boathouses, recreational floats and marine railways are prohibited. Launching areas for hand launched nonmotorized watercraft will be permitted in the Natural Environment.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

V. COMMERCIAL DEVELOPMENT

A. Scope and Definition

Commercial developments are those uses which are involved in providing goods, merchandise or services for compensation. Commercial developments range from small businesses within residences to high-rise office buildings including hotels, motels, grocery markets, shopping centers, restaurants, shops, private or public indoor recreation facilities.

B. Policies

1. Commercial developments which are water-dependent or water-related are encouraged.
2. Commercial development that will provide opportunities for the public to enjoy the shorelines of the state will be considered.
3. New commercial developments on shorelines should be encouraged to locate in those areas with existing commercial uses.
4. Commercial developments that are water-dependent or water-related are encouraged to provide public access.
5. Properties within the shoreline jurisdiction but separated from the water by an arterial or state highway are exempt from the use and public access requirements of this section, if consistent with the following:
 - a. The proposed development is consistent with the use requirements of the local zoning ordinance.
 - b. The proposed development is consistent with the general Policies and General Regulations of this Program, and the regulations of the specific Environment Designation.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

6. Commercial developments should be aesthetically compatible with the surrounding area. Structures should not significantly impact views from upland properties, public roadways and from the water.
7. Parking facilities should be placed inland, away from the immediate water's edge and recreational beaches.
8. Commercial development should be discouraged within the 100-year flood plain.
9. Commercial developments which impair upstream or downstream land uses, wildlife or stream hydrology are prohibited.
10. Buildings over the water for commercial uses may be allowed for water dependent, or for uses that provide significant public access to the water water-enjoyment uses.
11. Buildings should only be allowed over-the-water if an urban waterfront plan addressing the relevant issues is approved.
12. Water-enjoyment uses should not be located in areas needed for water-dependent and water-related uses.
13. Construction of over-the-water buildings should consider impacts on marine habitat.
14. Over-the-water buildings should only be allowed on marine waters characterized by urban development.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

C. General Regulations

1. Buildings over thirty-five (35) feet will be allowed if they do not obstruct the view of substantial numbers of residences or upland properties.
2. Home occupations are businesses conducted within a dwelling which is the bonafide residence of the principal practitioner. They are not considered as commercial uses in this program provided a zoning permit is obtained from the jurisdiction and no alteration is made to the exterior of the structure.
3. Home-based industries are small scale commercial or industrial activities on residential parcels performed in a structure other than the residence. The principal practitioner must reside on the property. Home-based industries are allowed provided it does not alter the appearance of the site as a residential parcel and retail trade at the site is minimal.
4. Commercial uses that are water-dependent or water-related shall provide public access when feasible.
5. Over-the-water buildings are allowed only on marine shorelines.
6. Water-dependent and water-enjoyment buildings will only be allowed over-the-water after an urban waterfront plan is approved by the affected jurisdiction responsible for processing the required Shorelines Conditional Use Permit. This plan must include the following:
 - a. There must be adequate provision for water-dependent and water-related uses.
 - b. The Plan must consider view preservation, public access, traffic impacts, parking, and other upland site development requirements.
 - c. The Plan must consider the potential impacts to habitat posed by over-the-water construction.

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7. All stair towers meeting one of the following conditions must be designed by a licensed civil engineer:
 - a. The location proposed is mapped as "Unstable" or "Intermediate Stability" in the Washington Coastal Zone atlas prepared by the State Department of Ecology.
 - b. All stair towers 24 feet in height or taller.
 - c. Other instances where the building official determines that site conditions dictate the preparation of plans by a licensed civil engineer.
8. Stair towers shall be designed to minimize obstructing the views enjoyed by adjoining residences.

D. Environmental Designations and Regulations

1. Urban Environment. The following commercial activities are permitted in the Urban Environment.
 - a. Water-dependent commercial uses.
 - b. Retail uses associated with water-dependent activities such as boat sales, bait shops and fishing supplies stores.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

- c. The following over-the-water buildings may be allowed by Conditional Use Permit:
 - (1) Water-dependent buildings subject to the following criteria:
 - (a) The applicant must evaluate potential impacts to habitat posed by the development and suggest measures to avoid, minimize or mitigate any identified impacts.
 - (b) They must be in conformance with the overall urban waterfront plan as discussed in General Regulation #6 above.
 - (2) Water-enjoyment buildings subject to the following criteria:
 - (a) They must be in conformance with the overall urban waterfront plan as discussed in General Regulation #6 above.
 - (b) Existing public access must not be adversely affected.
 - (c) There must be no significant view blockage from upland areas by water-enjoyment buildings.
- d. Public access must be provided for significant numbers of people to enjoy the shoreline.
- e. They must be designed to take advantage of the amenities, such as views, afforded by such locations.
- f. The applicant must evaluate potential impacts to habitat posed by the development and suggest measures to avoid, minimize or mitigate any identified impacts.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

- g. Uses other than those listed above may be allowed provided the following showings are made:
 - (1) The site is designed in a manner to allow substantial numbers of people access to and enjoyment of the shoreline.
 - (2) The use does not discourage public enjoyment of the shoreline due to impacts such as traffic, noise and other emissions.
 - h. On blocks located in downtown Olympia Urban Waterfront-Housing (UW-H) housing district, structures may be built to a maximum height of 70 feet or less as prescribed by district regulations. These blocks are bounded by the center lines of the following: on the south by 7th Avenue, on the west by Water Street, on the east by Columbia Street, on the north by State Street. (Ordinance #6295, 06/25/02)
2. Suburban Environment. The following commercial activities are allowed in the suburban environment:
- a. Commercial activities, including boat rentals and concessions, that are directly related to the recreational uses allowed in this environment.
3. Rural Environment. The following commercial activities are permitted in the Rural Environment:
- a. Water-dependent commercial uses.
 - b. Uses other than those listed above may be allowed provided the following showings are made:
 - (1) The site is designed in a manner to allow substantial numbers of people access to and enjoyment of the shoreline.
 - (2) The use does not discourage public enjoyment of the shoreline due to impacts such as traffic, noise and other emissions.
 - (3) Structures must be set back fifty (50) feet from the ordinary high-water mark.
 - (4) Commercial structures shall not exceed thirty-five (35) feet in height.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

4. Conservancy Environment. Water-dependent commercial recreation activities are permitted in the Conservancy Environment provided:
 - a. The development must be of low intensity and will not substantially alter the existing character of the area, and
 - b. The following findings are made:
 - (1) The site is designed in a manner to allow substantial numbers of people access to an enjoyment of the shoreline.
 - (2) The use does not discourage public enjoyment of the shoreline due to impacts such as traffic, noise and other emissions.
 - (3) Structures must be set back one hundred (100) feet from the ordinary high-water mark.
 - (4) Structures shall not exceed thirty-five (35) feet in height above the average grade.
5. Natural and Natural-Aquatic Environments. Commercial development is prohibited in the Natural and Natural-Aquatic Environments.

VI. DREDGING

A. Scope and Definition

Dredging means the removal of sand, soil, gravel, or vegetative materials by any means from the bottom of a stream, river, lake, bay, estuary or channel. Dredging includes the anchoring of dredges, placement of floating draglines, diking and bulkheading for the purpose of minimizing runoff and seepage from dredge spoils disposal, and the process of discharging spoils into either aquatic or land sites. Dredging does not include mining for commercial purposes.

B. Policies

1. Dredging should be conducted in such a manner as to minimize damage to natural systems in both the area to be dredged and the area for deposit of dredged materials.
2. Dredging of bottom materials for the single purpose of obtaining fill material should be discouraged.
3. Deposition of dredge material in water areas should be allowed for habitat improvement, to correct problems of material distribution adversely affecting aquatic populations, or when a site has been approved by the Interagency Open Water Disposal Site Evaluation Committee (WAC 332-30-166).

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

C. General Regulations

1. All applications for Substantial Development Permits which include dredging shall supply a dredging plan which includes the following information:
 - a. Location and quantity of material to be removed.
 - b. Method of removal.
 - c. Location of spoil disposal sites and measures which will be taken to protect the environment around them.
 - d. Plans for the protection and restoration of the wetland environment during and after dredging operations.
2. Toxic dredge spoil deposits on land shall not be placed on sites from which toxic leachates could reach shorelines and/or associated wetlands.
3. The Administrator and/or the legislative body may require that dredge disposal sites on land be completely enclosed by dikes designed to allow sediments to settle before dredge discharge water leaves the diked area. Such dikes must be protected from erosion.
4. No permit shall be issued for dredging unless it has been shown that the material to be dredged will not exceed the Environmental Protection Agency and/or Department of Ecology criteria for toxic sediments.
5. Dredging for the sole purpose of obtaining landfill material is prohibited.
6. Permits for dredging shall be granted only if the project proposed is consistent with the zoning and/or the land use designation of the jurisdiction in which the operation would be located.

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7. Dredge materials shall not be deposited in water unless:
 - a. The operation improves habitat; or
 - b. The site is approved by the Interagency Open Water Disposal Site Evaluation Committee (WAC 330-30-166).
 - c. The disposal of spoils will increase public recreational benefits.

D. Environmental Designations and Regulations

1. Urban, Suburban, Rural and Conservancy Environments. The following dredging activities are allowed:
 - a. Dredging to deepen navigational channels
 - b. Dredging to improve water quality
 - c. Dredging to bury public utilities
 - d. Dredging to increase recreation benefits
 - e. Dredging to maintain water flow
 - f. Dredging which is required to allow an activity permitted by this Master Program.
2. Natural and Natural-Aquatic Environments. Dredging is prohibited in the Natural Environment except as an emergency measure. Dredging is allowed in the Natural-Aquatic Environment for the same purposes as the Conservancy Environment and for deep water disposal of dredge spoils.

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VII. FOREST MANAGEMENT

A. Scope and Definition

Forest Management Practices are those "forest practices" conducted on or directly pertaining to forestland and relating to growing, harvesting or processing timber, including but not limited to: (1) road and trail construction; (2) harvesting, intermediate, final and salvage; (3) Pre-commercial thinning; (4) reforestation; (5) fertilization; (6) prevention and suppression of diseases, insects and fire; (7) brush control; and (8) site preparation through brush removal and/or prescribed burning. This section does not apply where the primary use of the property is residential.

B. Policies

1. Logging within shoreline areas should be conducted to ensure the maintenance of buffer strips of vegetation to prevent temperature increases adverse to fish populations, erosion of banks and maintenance of the riparian zone for wildlife habitat.
2. Logging should be avoided on shoreline with slopes of such grade that large sediment runoff will be precipitated, unless adequate restoration and erosion control can be expeditiously accomplished.
3. Rapid plant regeneration should be accomplished by planting where necessary to provide stability on areas of steep slope which have been logged.
4. Special attention should be directed in logging operations to prevent the deposition and accumulation of slash and other debris in contiguous waterways.
5. Roads and bridges should be designed, located, constructed, and maintained to prevent or minimize adverse effects on shoreline resources including visual impacts.
6. The policies and regulations are intended to be enforced through existing permit and review processes (i.e., Forest Practices Permits RCW 76.09 and WAC 222).

C. General Regulations

1. The local jurisdiction shall review forest practices applications filed within shoreline areas and provide any comments to the Department of Natural Resources within the allocated permit processing times established in the State Forest Practices Act.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

2. With respect to timber situated within two hundred (200) feet abutting landward of the ordinary high-water mark within Shorelines of State-Wide Significance, the Department of Ecology or local government shall allow only selective commercial timber cutting, so that no more than thirty percent (30%) of the merchantable trees may be harvested in any ten (10) year period of time: Provided, That other timber harvesting methods may be permitted in those limited instances where the topography, soil conditions or silviculture practices necessary for regeneration render selective logging ecologically detrimental: Provided further, That clear cutting of timber which is solely incidental to the preparation of land for other uses authorized by this Program may be permitted.
3. Timber on lands within shoreline areas that are proposed for conversion from timber management to another use cannot be harvested until a plan for the new use has been approved by the local government.
4. Lands permanently unsuited for production of wood fiber which provide significant wildlife habitat shall not be modified for timber production purposes. These lands are defined as wetlands, marshes, bogs and swamps in over one (1) acre in size. They include those areas that are inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.
5. No trees shall be felled into or across a water body except trees which cannot practically and safely be felled outside the water body using techniques in general use, and these trees must then be removed promptly. No bucking or limbing shall be done on trees laying in or across a water body except as may be necessary to remove the tree from the water body.
6. Certain conservancy zones are subject to special regulations set out in Section 3, Part VII.D, below.

D. Environmental Designations and Regulations

1. Urban and Rural Environments. All Forest Management activities are allowed in the Urban and Rural Environments subject to the General Regulations.
2. Conservancy Environment. Subject to the restrictions set forth in Part VII.D.3., below, all Forest Management Activities are allowed in the Conservancy Environment subject to the General Regulations. In addition, all forest harvesting activities conducted within two hundred (200) feet of the ordinary high-water mark of Conservancy shorelines shall be planned and

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

designed to insure adequate protection or enhancement of general wildlife habitat values. Forest practices shall:

- a. Avoid destroying low brush and nonmerchantable deciduous trees.
 - b. Avoid disturbing stumps and root systems.
 - c. Avoid excessive trafficking of equipment.
 - d. Use reasonable care when yarding from or through vegetative zones adjacent to the water to avoid material damage to the stream bank.
 - e. When practical, yard logs in the direction of the lay from water bodies.
 - f. Not disturb logs firmly embedded in streams unless authorized by an approved hydraulics permit.
 - g. Provide vegetative buffers adjacent to swamps, bogs, marshes, springs and other areas.
 - h. Be planned and designed to insure adequate protection of significant wildlife habitat which includes, but is not limited to: (a) bald eagle nests; (b) osprey nest sites; (c) spotted owl nest sites; (d) heron rookeries; (e) beaver ponds; (f) snags; (g) big game use habitat.
3. The following additional regulations apply to areas bordering Kennedy Creek designated as Conservancy:
- a. In the areas designated as a "no harvest zone" in the map entitled "Kennedy Creek Shoreline Designations" dated and labeled with this Ordinance number in the custody of the Thurston County Planning Department:
 - (1) harvesting and other commercial utilization of forest resources is prohibited;
 - (2) no new roads may be constructed;
 - (3) existing road shall be maintained to minimize the risk of mass failure and surface erosion;
 - (4) tractor scarification is prohibited;
 - (5) other land uses are limited to those otherwise allowed in the Natural Environment.

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- b. In all other areas:
 - (1) logging on slopes steeper than 35% shall be done with a cable system or other system which minimizes soil erosion and shall be carried out only in the months of May through October;
 - (2) all trees shall be felled away from the area designated in Part VII.D.3.a., above;
 - (3) harvesting shall be fire trailed prior to prescribed burning. Use of tractors for constructing fire trails will be limited to flat, well-drained ground. Hand trailing will be employed elsewhere;
 - (4) all land shall be planted with conifer tree stock, predominantly Douglas Fir, within two (2) years of slash treatment;
 - (5) competing vegetation shall be controlled by hand and/or through the use of selective herbicides. No herbicide application shall occur within fifty (50) feet of the area designated in Part VII.D.3.a., above;
 - (6) for three (3) years after the logging of any harvest unit, no logging may take place on any adjacent harvest unit.
 - c. Disputes as to whether any specific property is within the "no harvest zone" shall be resolved by mutual agreement of the County and the landowner, after consultation with the Squaxin Island Indian Tribe and affected state agencies. In resolving these disputes, all wetlands contiguous with Kennedy Creek shall be deemed to lie within the no harvest zone.
4. Natural Environment. Commercial utilization of forest resources is prohibited in the Natural Environment. The following Forest Management activities are allowed in the Natural Environment:
- a. The minimum clearing necessary to prepare land for uses authorized by this Program.
 - b. Preservation or restoration of indigenous vegetative growth in areas significantly affected by fire, insects or disease.

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VIII. INDUSTRIAL DEVELOPMENT

A. Scope and Definition

An industrial development means the fabrication, assembly, manufacturing, processing or storage of goods. This category also includes the facilities for the transfer of cargo and/or passengers from water-borne craft.

B. Policies

1. Future marine water-dependent or water-related industrial use should be located in shoreline areas already devoted to or zoned for industrial use. Where industry is now located in shoreline areas that are more suited to other uses, it is the policy of this Master Program to minimize expansion of such industry unless the property is already zoned for industrial use by the local jurisdiction.
2. Priority for industrial development along fresh water shorelines should be given to industrial uses in the following order of priority:
 - a. Water-dependent uses;
 - b. Water-related uses; and
 - c. Other industrial uses.

The lower-priority uses should be allowed if the higher-priority uses cannot be reasonably expected in the future, or if lower-priority uses will be of public benefit by increasing public use, enjoyment or access to the shoreline.

3. The cooperative use of docking, parking, cargo handling and storage facilities should be strongly encouraged in waterfront industrial areas.
4. New facilities should not substantially increase levels of air, noise, or water pollution.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

5. Open-pile or floating construction is favored in the expansion of facilities into water areas.
6. The length and width of industrial docks and piers should be the minimum necessary.
7. Buildings should only be allowed over-the-water if an urban waterfront plan addressing the relevant issues is approved.
8. Construction of over-the-water buildings should consider impacts on marine habitat.
9. Over-the-water buildings should only be allowed on marine waters characterized by urban development.

C. General Regulations

1. The project application shall incorporate the following:
 - a. Evidence of water dependency.
 - b. Cooperative use of service facilities by multiple concerns where possible.
 - c. Information on transportation and utility service corridors, traffic circulation, access to facility and effect of the proposed project on transportation and circulation in the vicinity.
 - d. Analysis of the impact upon and alteration to natural landform patterns.
 - e. Methods for treatment and control of waste disposal including any storm or sanitary sewer outfalls proposed.
 - f. Analysis of the impact upon ground water, hydrology, drainage patterns and soil erosion.
 - g. Analysis of air quality and noise level impacts.

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2. Issuance of a permit for the development, expansion or alteration of an industrial area shall be contingent upon the existence of emergency capabilities for controlling and eliminating potential water pollution impacts resulting from spills, leaks or operational failures.
3. Water storage and handling of logs is subject to the following standards:
 - a. Permits shall contain provisions for the clean up of log dumping and rafting areas, and disposal of wastes.
 - b. Bark and wood debris controls, together with collection and disposal facilities, must be employed at log dumps, raft building areas, and mill handling areas.
 - c. Logs shall not be dumped, stored or rafted where grounding will occur except in the Urban Environment of Budd Inlet.
 - d. Permits for free-fall dumping of logs are not allowed unless the applicant can demonstrate said procedures will not produce more adverse impacts than the easy let-down method. The use of log bundling and other devices should be encouraged.
4. Dry land storage of logs is subject to the following standards:
 - a. Unpaved storage areas underlain by permeable soils shall have at least a four (4) foot separation between ground surface and the winter water table.
 - b. Dikes, drains, vegetative buffer strips or other means shall be used to ensure that surface runoff is collected and discharged in a manner least detrimental to water quality from the storage area. It shall be demonstrated that state water quality standards or criteria will not be violated by such runoff discharge under any conditions of flow in nearby water courses. If such demonstration is not possible, runoff shall be treated to meet state and federal standards.
5. Over-the-water buildings are allowed only on marine shorelines.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

6. Water-dependent uses will only be allowed over-the-water after an urban waterfront plan is approved by the affected jurisdiction responsible for Shoreline Conditional Use Permits. This plan must include consideration of the following :
 - a. Adequate provision for water-dependent and water-related uses.
 - b. View preservation, public access, traffic impacts, parking, and other upland site development requirements.
 - c. Potential impacts to habitat posed by over-the-water construction.
7. All stair towers meeting one of the following conditions must be designed by a licensed civil engineer:
 - a. The location proposed is mapped as "unstable or "Intermediate Stability" in the Washington Coastal Zone Atlas prepared by the state Department of Ecology.
 - b. All stair towers 24 feet in height or taller.
 - c. Other instances where the building official determines that site conditions dictate the preparation of plans by a licensed civil engineer.
8. Stair towers shall be designed to minimize obstructing the views enjoyed by adjoining residences.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

D. Environmental Designations and Regulations

1. Urban Environment. The following industrial activities are allowed in the Urban Environment:
 - a. Water-dependent and water-related port and industrial uses on marine waters.
 - b. Expansion of existing industrial uses provided it does not adversely affect the flood carrying capacity of the floodplain.
 - c. Construction of replicas of and/or architectural interpretations of historical buildings originally located over water.
 - d. Water related and other industrial uses on fresh water, provided a water-dependent use cannot be reasonably expected.
 - e. Water-dependent over-the-water buildings may be allowed by Conditional Use Permit.
2. Suburban, Rural and Conservancy Environments. Industrial and port uses are prohibited in the Suburban, Rural and Conservancy Environments, including upland storage of logs. Expansion and maintenance of existing log storage and handling facilities is allowed.
3. Natural and Natural-Aquatic Environments.
 - a. Industrial developments are prohibited.
 - b. Storage of logs is prohibited in the Natural Environment.

IX. LANDFILLING

A. Scope and Definition

Landfilling means the creation of dry land areas by depositing material such as sand, soil or gravel into a wetland or shoreland. "Beach feeding" means the introduction of sand or gravel to beaches to enhance recreation, wildlife or to preserve natural physical character of the shoreline. Backfilling behind a bulkhead that is in conformance with the appropriate environment use regulations is not considered to be landfilling.

B. Policies

1. Shoreline fills or cuts should be designed and located so that significant damage to existing ecological values or natural resources, or alteration of local currents will not occur which create a hazard or a risk of significant injury to life, adjacent property and natural resource systems.
2. All fills should be accomplished with suitable safeguards for erosion control.
3. Fill material should be of such quality that it will not cause water quality degradation beyond the limits of adopted water quality standards defined by the Department of Ecology.
4. Priority should be given to landfills for water-dependent uses.
5. The size of landfills should be limited by the consideration of such factors as total water surface reduction, navigation restriction, impediment to water flow and circulation, reduction of water quality and destruction of habitat.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

C. General Regulations

1. Disposal of solid wastes is not considered landfilling for the purposes of this section.
2. Landfills shall consist of clean materials including such earth materials as clay, sand, and gravel, and also may include oyster or clam shells. In addition, concrete may be included in fill material if it is not liable to pollute ground water and is approved by the Administrator. Organic debris, such as wood and other vegetative material shall not be used as fill material.
3. Landfills, except for beach feeding, shall be designed, constructed, and maintained to prevent, minimize and control all material movement, erosion, and sedimentation from the affected area.
4. Landfill areas shall be covered with sufficient earth material to support indigenous vegetative ground cover and replanted with vegetation to blend with the surrounding environment.
5. Prior to issuance of any permit for landfilling in or along a stream, it must be demonstrated that the fill will not cause any detrimental change in flood elevations, or restrict stream flow or velocity. No fill which adversely affects the capability of a stream to carry 100-year flood flows will be allowed.
6. Artificial beach maintenance may be allowed by Substantial Development Permit in any environment, notwithstanding other regulations of this section. Provided, such maintenance shall be by "beach feeding" only, with both the quality and quantity of material to be approved by the Administrator. Habitat protection is a primary concern for any beach feeding operation and must be a consideration in permit approval.
7. Landfill which will interfere with public rights of navigation and rights corollary thereto shall not be permitted unless there is an overriding public interest.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

8. Landfill placed for the purpose of providing land to ensure required distances for septic tank drainfields is prohibited.
9. Permits for landfilling shall be granted only if the project proposed is consistent with the zoning of the jurisdiction in which the operation would be located.

D. Environmental Designations and Regulations

1. Urban Environment. Landfill for the purpose of developing a site for a use authorized under this program is allowed subject to the following condition:
 - a. Landfill associated with a dock or pier is prohibited except when needed to protect shoreside abutments.
2. Suburban, Rural and Conservancy Environments. Landfill is allowed in the Suburban, Rural and Conservancy Environment to prepare a site for a use authorized by this Program, provided:
 - a. The landfill is for a use authorized by this Program. Landfilling will only be permitted if will not significantly alter any of the following functions:
 - (1) Wildlife habitat
 - (2) Natural drainage control
 - (3) Maintenance of water quality
 - (4) Aquifer recharge
 - b. Landfill associated with piers or docks is prohibited except when needed to protect shoreside abutments.
3. Natural Environment. Landfilling is prohibited in the Natural Environment.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

X. MINING AND DRILLING

A. Scope and Definition

Mining and drilling is the removal of naturally occurring metallic and nonmetallic minerals and other related materials, including sand, gravel and quarry rock from on, and beneath, the earth's surface. Normally, such removal is for commercial and construction purposes. Mining includes deep pit, open pit, surface mining, quarrying, placer and hydraulic mining. Drilling for the extraction of materials such as oil or natural gas is covered under this section. Drilling for scientific research is regulated by the "Research" section. Mining and drilling for aquaculture purposes are regulated by the Aquaculture Section and not by this Section.

B. Policies

1. Recognizing that materials, especially sand, gravel, and quarry rocks, are in demand yet relatively limited in quality and quantity and that shorelines are also a valuable and limited resource where mining may have negative impacts, mining activities, therefore, should be encouraged primarily in other than shoreline areas.
2. Mineral extraction activities along shorelines that would irreparably alter or remove prime agricultural lands and associated activities should be prohibited.
3. Mining activities should not substantially alter or cause irreparable damage to normal geohydraulic processes, channel form and alignment, and meandering patterns of adjacent and nearby water bodies and associated marshes and wetlands except when it involves stream enhancement or relocation.
4. Mining activities should take all appropriate measures to minimize disruption of and damage to the fisheries resources.
5. Placer or hydraulic mining operations should be prohibited in all areas of Shoreline Management Act jurisdiction, unless it can be shown to be non-disruptive and non-damaging to other resources in the shoreline jurisdiction.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

6. Accessory equipment and materials essential to mining operations in shoreline areas should be, if at all feasible, stored or sited landward from the ordinary high-water mark.
7. Recognizing the limited quantity and quality of natural marine, especially accretion beach forms, and recognizing the increasing demand for other uses of these shorelines and the existence of alternative mineral sources, then mining of these shores should not be permitted.
8. Surface mining of river and stream point bars for sand and gravel may be permitted providing there is annual accretion and replacement of the mineral material.
9. Surface mining of river and stream point bars may be permitted providing the operation will not substantially impact normal geohydraulic processes, channel form and alignment, rivers meandering patterns, fish resources, water quality, and the shoreline environment.
10. Mining operations and practices should adhere to local, state and federal water quality standards.
11. Mining operations and practices in shoreline areas should protect receiving waters from degradation. These sources include but are not necessarily limited to erosion and subsequent sedimentation and siltation, chemical and petrochemical use and spillage, and storage or disposal of mine wastes and spoils.
12. The sensitivity of flood prone and floodplain areas should be carefully considered during review of proposed mining operations.
13. All equipment, works, and structures of mining operations should be able to withstand flooding without becoming hazards in themselves and without the placement of structural defense works.
14. Mining operations, if allowed on shorelines, should occur in areas other than those of high environmental, cultural, recreational or historical value.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

15. Mining operations, other than extraction of river point-bar material, should be set back a sufficient distance from water bodies and associated wetlands to utilize natural vegetation and topography, if adequate, for retarding or preventing erosion, protecting water quality from all possible sources of pollution, and preserving the natural values and aesthetics of the shoreline environment.
16. Overburden and spoil material should be handled and placed in a stable manner which will not destroy their potential reusable value and the value of the disposal site and will also prevent erosion, sedimentation, or leaching of material and hazardous substances into surface or ground waters.
17. Mining operations on shorelines should provide plans for and restore all disturbed areas to a biologically productive or useful condition to meet, at a minimum, the standards of the 1971 Surface Mining Act, RCW 78.44, administered by the Department of Natural Resources, and of appropriate regulatory agencies.
18. Reclamation plans should insure compatibility between the proposed site reclamation and existing land, shoreline and water uses.
19. Mining operations should take appropriate measures or controls, i.e., setbacks, buffers, to avoid or minimize hazardous conditions, use conflicts, and impacts to other shoreline and water users.
20. Mining activities, their siting, operations, and reclamation, should avoid or minimize visual and aesthetic impacts to shorelines in the vicinity and the aquatic environment.

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C. General Regulations

1. Applications for mining permits shall be accompanied by a report on the geologic makeup of the site, prepared by a competent professional geologist, addressing the following (at a minimum):
 - a. Type of material(s) present on the site.
 - b. Quantity of material(s) (by type).
 - c. Quality of material(s) (by type).
 - d. Lateral extent of mineral deposit.
 - e. Depth of mineral deposit.
 - f. Depth of overburden.
2. Operations too small to be covered by the requirements of the Surface Mining Act shall be required to submit adequate maps and written documentation to indicate how the operator intends to protect against sediment and silt production and provide for post-mining reclamation of the land.
3. Mining operations which will alter, impede or retard the flow or direction of flow of any stream within shorelines will be permitted provided it does not result in a substantial adverse impact to shoreline resources.
4. Mining operations shall be conducted in a manner which will not allow stagnant water to remain in excavations. All such excavations shall be backfilled and graded with suitable material.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

5. If mining operations reach a depth where ground water circulation is adequate to prevent stagnation, bodies of water may be left, provided that:
 - a. They be compatible with uses in the area.
 - b. All banks in soil, sand, gravel and other unconsolidated materials shall be sloped to five (5) feet below the low water line at a slope no steeper than three (3) feet horizontal to one (1) foot vertical. All solid rock banks shall be terraced or other measures taken to permit a person to escape from the water.
 - c. Above-water reclaimed areas shall be covered with a sufficient thickness of salvaged top soil to support indigenous vegetative ground cover and shall be replanted with vegetation to blend with the surrounding environment.
6. The removal of sand, gravel, or rock from marine beaches and bluffs shall be prohibited except in the least sensitive biophysical areas of the beach and not within or adjacent to a Critical Biological Area.
7. Should it become evident to the local jurisdiction that the continuance of any project in the current manner is detrimental to the proper functioning of the river or any other shoreline, the permit shall be reviewed by the granting authority (e.g., Administrator, legislative body) to determine if further conditions should be imposed or if the permit should be terminated.
8. Placer or hydraulic mining is prohibited in all waters and shorelines of the Region.

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9. The extraction of peat from bogs is allowed provided the following conditions are met:
 - a. Surrounding vegetation and wildlife are not significantly disturbed.
 - b. Access roads and wetland boundaries are revegetated with indigenous vegetation at the completion of the operation.
 - c. Impervious layers underneath the bog are not disturbed.
 - d. A buffer is retained during the operation between the mining activity and the upland edge of the bog.

D. Environmental Designations and Regulations

1. Urban, Rural and Conservancy Environments. Mining is allowed in the Urban, Rural and Conservancy Environments by Conditional Use Permit subject to the General Regulations.
2. Suburban Environment. Mining is prohibited in the Suburban Environment.
3. Natural and Natural-Aquatic Environments. Mining or drilling operations are prohibited in the Natural and Natural-Aquatic Environments.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XI. OUTDOOR ADVERTISING SIGNS AND BILLBOARDS

A. Scope and Definition

Signs and billboards are publicly displayed boards and structures whose purpose is to provide information, direction or advertising. Signs may be pleasing or distracting, depending upon their design and location. A sign, in order to be effective, must attract attention. A message, though, can be clear and distinct without being offensive. There are areas where signs are not desirable, but generally it is the design that is undesirable, not the sign itself. This section does not apply to temporary signs whose primary purpose and content is political.

B. Policies

1. Signs in shoreline areas should be designed so that they interfere as little as possible with visual access to the shoreline. Flush-mounted buildings signs should be the preferred method of display.
2. Where outdoor advertising is permitted in shoreline areas, signs should be designed and placed so that size, height, density, illumination and other factors insure compatibility with the existing shoreline and water environment and adjacent and surrounding land and water use.

C. General Regulations

1. Off-premise, temporary and directional signs shall not exceed five (5) feet in height and four (4) square feet.
2. Any sign or advertising devices that move and/or fluctuate in lighting or position in any manner are prohibited in shoreline areas.
3. On-premise signs and advertising, whether free-standing or wall mounted, shall not exceed the height of the highest exterior wall.
4. Developments and commercial services located in shoreline areas shall have no more than two (2) on-premise advertising devices or signs.

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D. Environmental Designations and Regulations

1. Urban, Suburban, Rural and Conservancy Environments. Signs are permitted in these environments, provided they are consistent with the Policies and General Regulations.

2. Natural and Natural-Aquatic Environments. Advertising signs are prohibited in the Natural and Natural-Aquatic Environments.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XII. PARKING AND LOADING

A. Scope and Definition

Any space or area specifically allotted for the purpose of temporary, daily or overnight off-street storage of motor vehicles as an accessory use.

B. Policies

1. Parking should be provided to allow access to any use of shoreline-related activities.
2. Parking areas should not adversely impact the visual qualities of the shorelines.
3. Parking areas should be located inland, away from the immediate edge of the water and recreational beaches, and should be linked with the shoreline by walkways. Where feasible, the walkways should be designed and constructed to accommodate handicap access.

C. General Regulations

1. Parking in shoreline areas must serve a shoreline use.
2. Upland parking facilities within the jurisdiction of this Master Program shall be designed and landscaped to minimize adverse impacts upon adjacent shorelines and abutting properties. The landscaping shall consist of appropriate materials and vegetation, to be planted within one year after completion of construction and provide an effective screening three (3) years after planting.
3. Upland parking facilities within the jurisdiction of this Master Program for shoreline activities shall provide safe and convenient pedestrian circulation within the parking area and to the shorelines.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

4. Parking facilities shall not be permitted over water.
5. Parking areas serving individual buildings on the shoreline shall be located landward from the principal building being served, except when the parking facility is within or beneath the structure and adequately screened or in cases when an alternate orientation would have less adverse impact on the shoreline.

D. Environmental Designations and Regulations

1. Urban, Suburban, Rural, Conservancy and Natural Environments. Parking is permitted consistent with the Policies and General Regulations.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XIII. PORTS

A. Scope and Definition

A port is an area which may encompass public or private enterprises involved in providing services and facilities for waterborne commerce, airborne commerce, industrial development, commercial development and recreational development.

B. Policies

1. Port facilities should be designed to permit viewing of harbor areas from viewpoints, waterfront restaurants and similar public facilities which would not interfere with port operations or endanger public health and safety.
2. The cooperative use of docking, parking, cargo handling and storage facilities should be strongly encouraged.
3. Prior to allocation of additional shorelands for port uses, local governments should consider State-wide and Regional needs and coordinate planning with other jurisdictions to avoid wasteful duplication of port services.
4. Long-range and facilities planning for the Port property should be a coordinated effort of local governments having jurisdiction so that the resulting development has minimized impacts to adjacent land uses.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

C. General Regulations

1. Proposed uses in a port area shall comply with Policies and Regulations of the use activity section of this Program which is applicable, particularly industrial development, commercial development and boating facilities.
2. All stair towers meeting one of the following conditions must be designed by a licensed civil engineer:
 - a. The location proposed is mapped as "Unstable" or "Intermediate Stability" in the Washington Coastal Zone Atlas prepared by the state Department of Ecology.
 - b. All stair towers 24 feet in height or taller.
 - c. Other instances where the building official determines that site conditions dictate the preparation of plans by a licensed civil engineer.
3. Stair towers shall be designed to minimize obstructing the views enjoyed by adjoining residences.

D. Environmental Designations and Regulations

1. Urban Environment. Port facilities are allowed consistent with the Policies and General Regulations.
2. Suburban Environment. Port-related recreation facilities are allowed as a permitted use.
3. Rural, Conservancy and Natural and Natural-Aquatic Environments. Port facilities are prohibited in these environments.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XIV. RECREATION

A. Scope and Definition

Facilities for refreshment of body and mind through play, amusement or relaxation. This includes passive uses such as hiking, canoeing, photography and fishing. It also includes intensive uses such as boat ramps, motor vehicles, playgrounds and parks whether they are for public or private usage.

B. Policies

1. Priorities for recreational development of shorelines should relate directly to densities and unique characteristics of the population served. Priorities for acquisition should consider need and special opportunities as well as access by public transit.
2. All recreational development projects should be considered on the basis of their compatibility with the environment.
3. Access to recreational locations such as fishing streams and hunting areas should be planned to prevent concentration of use pressures.
4. The linkage of shoreline parks and public access points through provisions for linear open spaces should be encouraged. Such open space could include hiking paths, bicycle paths and/or scenic drives located as close to the water's edge as feasible.
5. Recreational developments should be designed to preserve, enhance or create scenic views and vistas. Favorable consideration should be given to those projects that complement their environment.
6. Where possible, parking areas should be located inland, away from the immediate edge of the water, and recreational beaches, and should be linked with the shoreline by walkways.

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7. Recreational development should comply with all applicable city, county, state, and federal regulations.
8. Facilities for intensive recreational activities should be permitted only where sewage disposal and pest control can be accomplished to meet public health standards without altering the environment adversely.
9. Development of public fishing piers, underwater fishing reefs, and access to public waters and tidelands should be encouraged as part of an overall recreation plan or development.
10. Where appropriate, nonintensive, recreational use should be encouraged on flood plains that are subject to recurring flooding.
11. Artificial marine life habitats should be encouraged in order to provide increased aquatic life for recreation. Such habitats should be constructed in areas of low habitat diversity.

C. General Regulations

1. Public access points on lakes must provide parking space appropriate for the intended use.
2. Recreation facilities or structures which are not compatible with the environmental designation in which they are proposed are prohibited.
3. Events and temporary uses in the public interest may be approved by the Administrator in any environment, provided that such uses will not damage the wetland environment.
4. Recreational developments must provide facilities for nonmotorized access, such as pedestrian, bicycle and/or equestrian path links to the shoreline.
5. Sewage disposal and pest control must meet public health standards; waste must not be allowed to enter the water.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

6. The following regulations shall apply to artificial aquatic life habitats:
 - a. Habitats shall minimize interference with surface navigation.
 - b. Habitats shall be constructed of long-lasting, nonpolluting materials, and moored so as to remain in their original location even under adverse current or wave action.
 - c. Habitats may not be installed on publicly-owned submerged land without written permission of the administering governmental agency.
7. Public or private recreation areas which cater to the use of all-terrain or off-road vehicles as the primary recreational activity shall not be allowed in the shoreline areas.
8. All stair towers meeting one of the following conditions must be designed by a licensed civil engineer:
 - a. The location proposed is mapped as "Unstable" or "Intermediate Stability" in the Washington Coastal Zone Atlas prepared by the state Department of Ecology.
 - b. All stair towers 24 feet in height or taller.
 - c. Other instances where the building official determines that site conditions dictate the preparation of plans by a licensed civil engineer.
9. Stair towers shall be designed to minimize obstructing the views enjoyed by adjoining residences.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

D. Environmental Designations and Regulations

1. Urban Environment. Recreational use shall be permitted on Urban shorelines, subject to the general regulations and specific regulations.
 - a. Parking facilities shall be located away from the water edge as far as feasible.
 - b. The site shall be landscaped to mitigate any aesthetic conflicts with adjacent uses and the shoreline environment.
2. Suburban Environment. Low to medium intensity recreational uses shall be permitted on Urban-Residential shorelines provided:
 - a. A recreational facility or structure which changes or detracts from the character of the Suburban Environment (by building design or intensity of use) shall be prohibited.
 - b. Vehicular camping facilities, including restrooms, shall not be located within fifty (50) feet of the ordinary high-water mark of any shoreline. Roads and parking facilities within fifty (50) feet of the ordinary high-water mark of any shoreline are only allowed for handicapped access, for scenic viewpoints, or to provide access to boat launch facilities. Maintenance or upgrading of existing roads, parking and/or vehicle camping facilities including restrooms is permitted provided the area devoted to these facilities is not enlarged. Pedestrian and hiking trail access shall be permitted to link upland facilities with the shoreline.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

3. Rural Environment. Low to medium intensity recreational uses shall be permitted on Rural Environment shorelines, subject to the general regulations and following specific regulations.
 - a. A recreational facility of structure which changes or detracts from the character of the Rural Environment (by building design or intensity of use) shall be prohibited.
 - b. Roads, parking and vehicular camping facilities, including restrooms, shall not be located within fifty (50) feet of the ordinary high-water mark of any shoreline with the exception of access to boat launching facilities. Parking facilities and roadways may be within fifty (50) feet only if they provide access for handicap or for scenic viewpoints. Maintenance or upgrading of existing roads, parking and/or vehicle camping facilities including restrooms is permitted provided the area devoted to these facilities is not enlarged. Pedestrian and hiking trail access shall be provided to link upland facilities with the shoreline.

4. Conservancy Environment. Low intensity recreational uses are permitted in the Conservancy Environment provided:
 - a. Roads, parking and vehicular camping facilities, including restrooms, shall not be located within one hundred (100) feet of the ordinary high-water mark of any shoreline with the exception of access to boat launch facilities. Maintenance or upgrading of existing roads, parking and/or vehicle camping facilities including restrooms is permitted. Parking facilities and roadways may be within one hundred (100) feet only if they provide access for handicap or scenic viewpoints. Pedestrian or hiking trail access should be provided to connect upland facilities with the shoreline.
 - b. Whenever possible, landscaping shall be done with native species.

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- c. A recreational facility or structure which changes or detracts from the character of the Conservancy Environment (by building design or intensity of use) shall be prohibited.
 - d. Public or private recreation areas which cater to the use of all-terrain or off-road vehicles as the primary recreational activity shall not be allowed in the shoreline areas.
5. Natural Environment. Low intensity recreational uses may be allowed by Conditional Use Permit in the Natural Environment provided:
- a. Roads, parking or camping facilities including restrooms, are prohibited.
 - b. Use of pesticides, herbicides or fertilizers is prohibited.
 - c. Use of motor vehicles, motorboats and float planes is prohibited, except in the Natural-Aquatic Environment where they are allowed.
 - d. Whenever possible, landscaping must be done with native species.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XV. RESEARCH AND EDUCATION

A. Scope and Definition

Any development undertaken for the support of public or private research or education.

B. Policies

1. Research studies and educational uses of the shoreline should be conducted in a way to minimize impacts in accordance with the applicable environmental designations.
2. A shoreline permit should be required for research and educational activities which may significantly affect water quality or natural systems.
3. Construction and environmental alterations carried out for research or educational purposes are subject to the same regulations as for associated use activities.

C. General Regulations

1. Research and educational activities are limited to those which will not:
 - a. Jeopardize existing wildlife populations or organisms;
 - b. Permanently alter the character of biological habitats; and
 - c. Degrade the character of the shoreline environment in which they are located.

Temporary disruptions of biological systems may be permitted when a research activity will result in their restoration or improvement.

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2. Permits encompassing a variety of activities over an extended period of time may be granted provided limits on the duration of approval are established.
3. Temporary facilities necessary for the conduct of a research project must be removed at the conclusion of the prescribed research activity period.
4. Proposals for shoreline development or use in or on known sites of historic or scientific value that would adversely affect, damage, or diminish such resources is prohibited. Such proposals may be allowed by Conditional Use if it is shown that the materials, artifacts or resources are recoverable and transferrable through adequate evaluation by a qualified personnel.

D. Environmental Designations and Regulations

1. Urban, Suburban and Rural Environment. The following research and education activities are allowed:
 - a. Water-dependent and water related research activities.
 - b. Construction of permanent structures for research and education activities.
2. Conservancy and Natural Environments. The following research and education activities are allowed:
 - a. Water-dependent and water related research activities.
 - b. Construction of permanent structures for research and education activities may be allowed by a Conditional Use Permit.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XVI. RESIDENTIAL DEVELOPMENT

A. Scope and Definition

Activity associated with provision of human dwelling facilities, including subdivision of property, accessory buildings common to residential structures and individual utility services to residential units.

B. Policies

1. Residential development on shorelines and wetlands should be planned with minimum adverse environmental and visual impact.
2. Clustering of residential development is encouraged to minimize adverse environmental impact and to provide open spaces.
3. Residential developments created after the effective date of this Program should provide adequate common access to the shoreline and open space along the shoreline for all residences of the subdivision. The access and open space should be of adequate size to provide for recreation and to insure against unreasonable interference with adjacent properties.
4. When subdividing land, the area under shoreline jurisdiction may be set aside as an open space tract even if the tract would be smaller than the minimum lot size requirement in that shoreline environment. The public interest is served by maintaining shoreline property in a relatively undeveloped state, and private interests are furthered by allowing more flexibility in site design.
5. Residential developments created after the effective date of this Program should provide easements for access to or along the shorelines for the general public if there has been significant historical usage by the public. Historic use is regular use by the public over a period of years rather than incidental or occasional use by one or only few members of the public. This policy is not intended to apply to construction of an individual dwelling on a single lot.

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6. Residential development should be consistent with the environmental designation in which it is located as well as the local jurisdiction's land use plans and ordinances. If a conflict arises between the regulations of the Master Program and some other regulation of the local jurisdiction, then the most restrictive standard or density shall prevail.
7. Removal of vegetation should be minimized and any areas disturbed should be restored to prevent erosion and other environmental impacts.
8. Waste materials from construction should not be left on shorelines or beaches but stored upland.
9. A variety of housing types on land should be encouraged provided that they are consistent with the environmental designation criteria and the zoning regulations for the site.
10. Residential structures should be located to minimize obstruction of views of the water from upland areas. The intent of this policy is to encourage the retention of views in and through new residential developments. This policy is not intended to prohibit the development of individual shoreline lots simply because it may minimize or eliminate views from upland properties.
11. Residential development along shorelines should be designed and sited to make unnecessary such protective measures as filling, beach feeding, bulkheading, shoreline berms, construction groins or jetties, or substantial grading of the site.

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C. General Regulations

1. Residential development over water is not permitted.
2. "Submerged lands" within the boundaries of any waterfront parcel shall not be used to compute required lot area, lot dimensions, densities and/or required yards. Wetlands, i.e., marshes, bogs, swamps and tidelands, may or may not be used to compute required lot area, lot dimensions, densities and/or required yards depending upon adopted local policy of the legislative body of each jurisdiction. That portion of a parcel not identified as a submerged land or a wetland shall be referred to as dry land area. Wetlands may be included as open space depending upon adopted local policy of the legislative body of each jurisdiction.
3. Residential development proposals shall identify those areas of natural vegetation, retention and erosion control measures.
4. Residential development shall be arranged and designed to protect views, vistas, aesthetic values to protect the character of the shoreline environment and the views of neighboring property owners.
5. Residential structures shall not exceed thirty-five (35) feet above average grade unless it can be shown through the variance process that a higher structure will not interfere with visual access to the water from landward or adjacent properties. [Exception: See Urban Environment regulation 1.d]
6. Landfill for residential development which results in the creation of new dry land is prohibited.
7. Landfilling in flood hazard areas is allowed only for flood protection.
8. Storm drainage facilities shall be separate from sewage disposal facilities and include provisions, as required by the jurisdiction, to prevent direct entry of surface water runoff into receiving waters (see Utilities and Road Section).
9. Residential developers must demonstrate that ground water withdraws are consistent with state regulations.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

10. New residential subdivisions have the option of setting aside in an open space tract the portion of the property being divided that is under the jurisdiction of this Master Program. The following conditions must be met:
 - a. Restrictive covenants must be filed prior to final subdivision approval prohibiting the use of the open space tract as a building site.
 - b. The open space tract must be clearly identified on the final plat map.
11. All stair towers meeting one of the following conditions must be designed by a licensed civil engineer:
 - a. The location proposed is mapped as "unstable" or "Intermediate Stability" in the Washington Coastal Zone Atlas prepared by the State Department of Ecology.
 - b. All stair towers 24 feet in height or greater.
 - c. Other instances where the building official determines that site conditions dictate the preparation of plans by a licensed civil engineer.
12. Stair towers shall be designed to minimize obstructing the views enjoyed by adjoining residences.
13. Only one (1) dock or pier is permitted in a new residential development. Prior to final project approval of a residential development, a usable area shall be set aside for pier or dock; unless there is no suitable area.
14. New residential developments shall provide general public access to and along shorelines that have been historically used by the public for recreation.

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15. Residential subdivision developments and planned unit developments shall provide areas sufficient to ensure usable access to and along the shoreline area for all residents of the development except where the shoreline topography does not permit the same.
16. Each shoreline environment has a setback requirement for structures, from the ordinary high-water mark. Uncovered porches, decks or steps may project into the required setback provided such structures are no higher than thirty (30) inches above the average grade. The setback in each environment may be increased or decreased by the Administrator in the following way:
 - a. Increased Setback Requirements. The setback may be increased if the building area or setback areas have a slope of greater than forty percent (40%), severe slope instability exists or a feeder bluff is present. (Refer to the Coastal Zone Atlas of Washington, Volume 8, to identify these areas on marine shorelines.)
 - b. Decreased Setback Requirements. The setback may be relaxed provided that existing structures within three hundred (300) feet of each property line infringe on the setback. In such cases, the setback shall be determined by averaging the setback's existing structures within three hundred (300) feet along the waterfront of each property line. This shall not be construed to allow residential development over water. The setback shall be the minimum required in the environment on properties within three hundred (300) feet where residences do not exist for purposes of averaging.
17. Clustering of residential dwellings in all environments except Natural is allowed. The number of clustered lots or residential units encroaching into the shoreline area shall not exceed the number of units which results from multiplying the total acres (minus submerged lands) in shoreline area by the density allowed in the specific environment.

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18. Proposed residential development in the vicinity of aquaculture operations shall install drainage and waste treatment facilities to prevent any adverse impacts to aquaculture operations.
19. Restrictive covenants shall be filed which will inform prospective buyers of the proximity of the Aquacultural District for residential development proposed within or adjacent to an Aquacultural District, or which may be adversely affected by the aquaculture operation. Residential development, which requires plat approval or site plan review, shall be approved subject to a requirement that notice of the proximity of the Aquacultural District be placed on the face of the plat. Another suitable mechanism shall be used to notify new residents when the project does not require plat approval.

D. Environmental Designations and Regulations

1. Urban Environment

- a. Unless otherwise prohibited by local zoning ordinances, any type of residential structure or unit shall be permitted in the Urban Environment.
- b. In the Urban Environment setbacks and minimum lot size of dry land area shall be as specified by the local zoning ordinance, where local zoning does not conflict with other provisions of the Shoreline Master Program. The minimum lot width shall be measured at the ordinary high-water mark and at the building setback line.
- c. Land clearing and grading is permitted after obtaining a shoreline permit, an exemption from the Administrator, or a land clearing permit from the local jurisdiction for preparation of new building sites. A buffer of existing ground cover must be maintained in the area between the ordinary high-water mark and twenty (20) feet from the structure. The ground cover in the buffer may be disturbed only after approval of the Administrator where one or more of the following conditions apply:
 - (1) A building site has been approved in the buffer area and an erosion control and vegetation protection plan has been approved by the Administrator.

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- (2) The applicant wishes to landscape the area with other vegetation and has an erosion control plan approved by the Administrator.
- (3) When the construction of access pathway is proposed for to the shoreline, vegetation will be removed only within the boundaries of constructed access pathway.
- d. On blocks located in the downtown Olympia Urban Waterfront-Housing (UW-H) housing district, structures may be built to a maximum height of 70 feet or less as prescribed by district regulations. These blocks are bounded by the center lines of the following: on the south by 7th Avenue, on the west by Water Street, on the east by Columbia Street, on the north by State Street. (Ordinance #6295, 06/25/02)

2. Suburban Environment

- a. Residential densities in this environment shall not exceed four (4) units per acre, regardless of housing type.
- b. For shoreline lots which are not clustered, the minimum lot size shall be five thousand (5,000) square feet of dry land area and the minimum lot width shall be fifty (50) feet (measured at the ordinary high water mark and at the building setback line). Lot coverage with impervious surfaces in this environment shall not exceed 30 percent (30%).
- c. The basic setback for residential structures shall be fifty (50) feet from the ordinary high-water mark and/or comply with General Regulation #16.

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- d. Land clearing and grading is permitted after obtaining a shoreline permit, an exemption from the Administrator, or a land clearing permit from the local jurisdiction for preparation of new building sites. For existing lots, a buffer of existing ground cover must be maintained in the area between the ordinary high-water mark and twenty (20) feet from the structure. The ground cover in the buffer may be disturbed only after approval of the Administrator where one or more of the following conditions apply:
 - (1) A building site has been approved in the buffer area and an erosion control and vegetation protection plan has been approved by the Administrator.
 - (2) The applicant wishes to landscape the area with other vegetation and has an erosion control plan approved by the Administrator.
 - (3) When the construction of access pathway is proposed for to the shoreline, vegetation will be removed only within the boundaries of constructed access pathway.

- e. On rivers and streams with a flow greater than 20 cubic feet per second (cfs) a "natural area" buffer is required when land is platted or re-platted. This buffer is a strip of land beginning at the ordinary high-water mark and extending landward for one hundred (100) feet. The following conditions must be met:
 - (1) The buffer must be clearly identified as "open space" on the final plat map.
 - (2) Restrictive covenants must be filed prior to final subdivision approval prohibiting the use of the buffer as a building site and prohibiting the removal of native vegetation unless necessary for access pathways.

- f. For new subdivisions, connection to sewers or installation of dry-line sewers is required.

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3. Rural Environment

- a. Residential densities in this environment shall not exceed two dwelling units per acre, regardless of housing type.
- b. For shoreline lots which are not clustered, the minimum lot size shall be twenty thousand (20,000) square feet of dry land area and the minimum lot width shall be one hundred (100) feet (measured at the ordinary high water mark and at the building setback line). Lot coverage with impervious surfaces in this environment shall not exceed thirty percent (30%).
- c. The basic setback for residential structures shall be fifty (50) feet from the ordinary high-water mark and/or comply with General Regulation #16.
- d. Land clearing and grading is permitted after obtaining a shoreline permit, an exemption from the Administrator, or a land clearing permit from the local jurisdiction for preparation of new building sites. A buffer of existing ground cover must be maintained in the area between the ordinary high-water mark and twenty (20) feet from the structure. The ground cover in the buffer may be disturbed only after approval of the Administrator where one or more of the following conditions apply:
 - (1) A building site has been approved in the buffer area and an erosion control and vegetation protection plan has been approved by the Administrator.
 - (2) The applicant wishes to landscape the area with other vegetation and has an erosion control plan approved by the Administrator.
 - (3) When the construction of access pathway is proposed for to the shoreline, vegetation will be removed only within the boundaries of constructed access pathway.

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4. Conservancy Environment

- a. Residential densities shall not exceed one (1) unit per acre regardless of housing type.
- b. For shoreline lots not clustered, the minimum lot size shall be forty thousand (40,000) square feet of dry land area and the minimum lot width shall be one hundred (100) feet (measured at the ordinary high water mark and at the building setback line). Lot coverage with impervious surfaces in this environment shall not exceed thirty percent (30%).
- c. The basic setback for residential structures shall be one hundred (100) feet from the ordinary high-water mark and/or comply with General Regulation #16.
- d. Land clearing and grading is permitted after obtaining a shoreline permit, an exemption from the Administrator, or a land clearing permit from the local jurisdiction for preparation of new building sites. A buffer of existing ground cover must be maintained in the area between the ordinary high-water mark and twenty (20) feet from the structure. The ground cover in the buffer may be disturbed only after approval of the Administrator where one or more of the following conditions apply:
 - (1) A building site has been approved in the buffer area and an erosion control and vegetation protection plan has been approved by the Administrator.
 - (2) The applicant wishes to landscape the area with other vegetation and has an erosion control plan approved by the Administrator.
 - (3) When the construction of access pathway is proposed for to the shoreline, vegetation will be removed only within the boundaries of constructed access pathway.

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5. Natural Environment

- a. Minimum lot area shall be ten (10) acres.
- b. Minimum lot width shall be three hundred (300) feet (measured at the ordinary high water mark and at the building setback line).
- c. The basic setback for residential structures shall be one hundred (100) feet from the ordinary high-water mark and/or comply with General Regulation #16.
- d. Single-family residences are permitted and multifamily residences are prohibited.
- e. The removal of trees and other vegetation shall be kept to an absolute minimum in constructing a residence in a Natural Environment. This would prohibit cutting out areas for a view, lawn or garden.

XVII. ROAD AND RAILROAD DESIGN AND CONSTRUCTION

A. Scope and Definition

Roads and railroads are those passageways, and associated facilities and activities used by or associated with pedestrians, vehicles and trains, including but not limited to: all public and private roads; major highways; freeways; railways; the corridors in which they are placed; bridges; culverts; riprapping; landfills; cuts; turnouts; rest stations; viewpoints; picnic areas; landscaping; and soil erosion safeguards.

B. Policies

1. Major highways, freeways and railways should be located away from shorelands, except in port and industrial areas, so that shoreland roads may be reserved for slow-moving local or recreational traffic.
2. Road and railroad locations should be planned to fit the topography and utilize existing corridors so that minimum alterations of natural conditions will be necessary. This is especially important on flood plains.
3. Roads and railroads should be designed, constructed, and maintained to minimize erosion and to permit natural movement of ground water and flood waters to the extent practical.
4. All debris, overburden, and other waste materials from construction should be disposed of in such a way as to prevent their entry by erosion from drainage, high water, or other means into any surface water body.
5. Scenic corridors containing public roadways should have provision for safe pedestrian and other nonmotorized travel. Also, provisions should be made for viewpoints, rest areas, and picnic facilities in appropriate areas.
6. Railroad beds should be screened with trees in scenic areas.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

C. General Regulations

1. Excess construction materials shall be removed from the shoreline area.
2. Major roads and railroads shall cross shoreline areas by the shortest, most direct route feasible, unless such route would cause significant environmental damage.
3. Filling of tidelands, shorelands and marshes for road or railroad rights-of-way shall be prohibited unless no viable alternative exists.
4. All excavation materials and soils exposed to erosion by all phases of road, bridge and culvert work shall be stabilized and protected by seeding, mulching or other effective means, both during and after construction.
5. All debris, overburden and other waste materials from road and railroad construction, if permitted on shorelines, shall be disposed of in such a way as to minimize their entry by erosion from drainage into any water body.
6. Private roads shall follow natural contours where possible. Natural benches, ridge tops and flat slopes are preferred locations. Erodible cuts and filled slopes shall be protected by planting or seeding with appropriate ground cover or matting immediately following construction.
7. Where permitted to parallel shorelines, roads or railroads shall be setback a sufficient distance from the ordinary high-water line to leave a usable shoreline area.
8. Storm water runoff shall be controlled to reduce suspended solids before entering any surface water body.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

D. Environmental Designations and Regulations

1. Urban, Suburban, Rural and Conservancy Environments. The following roads and railroads are permitted:
 - a. Local public or private access roads to serve uses permitted in the Urban, Suburban, Rural and Conservancy Environment.
 - b. Transportation thoroughfares including major arterials, highways and railways.
2. Natural Environment. Access roads are permitted in the Natural Environment subject to the Policies and General regulations. Construction of new roads or significant widening of existing roads is prohibited, except for those that provide access to private residences or other activities permitted in the Natural Environment.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XVIII. SHORELINE PROTECTION

A. Scope and Definition

Shoreline protection is action taken to reduce adverse impacts caused by current, flood, wake or wave action. This action includes all structural and nonstructural means to reduce these impacts due to flooding, erosion and accretion. Specific structural and nonstructural means included in this use activity are bulkheads, dikes, levees, riprap, sea walls, shoreline berms, beach feeding and breakwaters.

B. Policies

1. Structural solutions to reduce shoreline damage should be allowed only after it has been demonstrated that nonstructural solutions would be unable to prevent further damage.
2. Shoreline protection devices should not be allowed for the purpose of creating new land, except that within the north basin of Capitol Lake, shoreline protection structures may be allowed in conjunction with permitted fill activities that enhance and increase public access.
3. Shoreline protection structures should allow passage of ground and surface waters into the main water body, such as weep hole.
4. The use of riprap structures is a preferred shoreline protection structure.
5. Shoreline protection activities should consider the ecological system of sizeable reaches of rivers, lakes or marine shorelines. This consideration should be given to factors such as off-site erosion, accretion or flood damage that might occur as a result of shoreline protection structures or activities. All uses and activities should be developed in a coordinated manner among affected property owners and public agencies.
6. Erosion, littoral drift, and accretions are primary components of the dynamic geohydraulic process that has created much of the unique and scenic shoreline. Therefore, shoreline protective structures should be located, designed and maintained in a manner which protects the integrity of these natural processes.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

7. Shoreline protection structures should be allowed to prevent damage to agricultural lands, public roads and bridges, existing structures and areas of unique public interest.
8. Shoreline stabilization projects should be located landward of natural wetlands, marshes and swamps of associated fresh and marine waters.
9. Substantial stream channel modification, realignment and straightening should be discouraged as a means of shoreline protection.
10. Junk and solid waste materials should not be permitted for shoreline protection.
11. Existing natural features such as snags, stumps or uprooted trees which support fish and other aquatic systems should not be removed unless they significantly intrude on navigation, reduce flow, or threaten agricultural land or existing structures and facilities. These activities may also require a Hydraulics Permit pursuant to WAC 220.
12. Breakwaters should be floating structures anchored in place and should not impede longshore sand and gravel transport unless such impedance is found to be beneficial to the natural system.

C. General Regulations

1. A shoreline permit or an exemption from the Administrator shall be required prior to all new construction of protective structures.
2. Vegetation shall be maintained on all streambanks except where removal is necessary for a permitted activity. If feasible, vegetation shall be re-established in areas where it has been removed for a permitted activity. In such instances, vegetation shall be re-established as soon as possible following its removal.
3. Techniques utilizing totally or in part vegetative bank stabilization methods shall be preferred over structural methods (such as concrete revetments or extensive riprap) unless the shoreline administrator determines that such methods will not provide adequate protection. This is not intended to preclude a combination of structural and vegetative methods.
4. Protective structures shall be allowed only when evidence is presented that one of the following conditions exist:

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

- a. Erosion or an active feeder bluff is threatening agricultural land, public roads or bridges, existing structures or areas of unique public interest.
 - b. It is necessary to the operation and location of shoreline dependent and related activities consistent with this Master Program.
 - c. The request is for the repair or replacement of an existing protection device.
 - d. The request is to increase and enhance public access within the north basin of Capitol Lake.
5. Protective structures shall be placed as close to the existing bank as feasible and parallel the natural shoreline. When they are proposed between two adjacent existing structures, the Administrator may allow it to extend out to form a straight line with the protective structure on each side. This shall only be allowed where no adverse impact will occur.
 6. Riprap structures shall be preferred to concrete revetments.
 7. Protective structures shall allow for the passage of surface and ground waters. Ponding and/or soil saturation is not permitted to occur.
 8. The height of structures shall not be more than that necessary to accomplish the protection needed.
 9. Use of beach material for backfill is prohibited.
 10. Shoreline protection structures shall not be allowed for the purpose of creating new land. Within the north basin of Capitol Lake shoreline berms or dikes shall be allowed in conjunction with fill activities that increase and enhance public access, subject to the following conditions:
 - a. The proposed fill is adequately mitigated through the creation of additional aquatic habitat in the basin; and

Applies only to the City of Olympia

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

- b. Water quality is maintained or enhanced; and
 - c. The shoreline protection structure shall have the smallest footprint necessary to accommodate public access to the shoreline; and
 - d. Construction methods used to build a shoreline protection structure shall utilize the best available technology and best management practices to mitigate all significant adverse impacts on water quality; and
 - e. Wetland areas proposed to be filled shall meet all provisions of Chapter 9, Landfilling, and meet all replacement and enhancement requirements of the City of Olympia Critical Areas Ordinance; and
 - f. All significant adverse impacts associated with placing a shoreline protection structure and fill waterward of the ordinary high water mark must be identified and mitigated in an environmental impact statement.
- 11. When feasible, steps shall not extend waterward of a proposed protective structure.
 - 12. Breakwaters must be floating structures and will only be allowed for the protection of uses authorized by this Program.
 - 13. Breakwaters must be designed and certified by a licensed engineer to withstand the storm forces which will be encountered.

D. Environmental Designations and Regulations

- 1. Urban, Suburban, Rural and Conservancy Environments. Shoreline protective measures are permitted subject to the Policies and General Regulations.
- 2. Natural Environment. Shoreline protective measures are not permitted except for shoreline protective berms of natural materials, beach feeding or vegetative bank stabilization measures used for the purpose of natural shoreline enhancement or protection.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XIX. SOLID WASTE DISPOSAL

A. Scope and Definition

Solid waste disposal means the temporary or permanent disposal, treatment, utilization, processing or holding of solid wastes, including but not limited to sanitary landfills, incineration, compositing, dumping, grinding, salvage, reclamation and waste transfer stations.

"Solid waste" includes all putrescible and nonputrescible solid and semi-solid wastes, including garbage, rubbish, ashes, industrial and wood wastes, swill, demolition and construction wastes, abandoned vehicles and parts of vehicles, household appliances and other discarded commodities. "Solid waste" does not include liquid sanitary sewage, dredge spoils, or agricultural and commercial logging wastes. (Refer to sections on "Landfilling and Dredging" and "Agriculture.")

B. Policies

1. Provisions should be made to limit and to control litter in shoreline areas.
2. Material should not be imported into shoreline areas for the purpose of disposing of it as solid waste.
3. Disposal of inert material in water areas should be prohibited unless the material is used for a constructive purpose such as landfill or wildlife habitat. The use of that material would then be governed by the policies and regulations of the constructive use to which it is placed.
4. Disposal of non-biodegradable waste should not be allowed within the shoreline.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

C. General Regulations

1. Solid waste disposal within the jurisdictional limits of the Shoreline Management Act shall be limited to collection activities.
2. Solid Waste disposal shall be in conformance with the Thurston County Comprehensive Solid Waste Management Plan.

D. Environmental Designations and Regulations

1. Urban, Suburban, Rural, Conservancy and Natural Environments. The following solid waste disposal facilities are allowed within the shoreline:
 - a. Garbage cans; and
 - b. Drop boxes.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

XX. UTILITIES

A. Scope and Definition

Utilities are those facilities which transport or produce water, electric power, oil, gas, steam, storm water, sewage, communications and industrial wastes. The installation of these facilities disturbs the shoreline environment and should be developed with minimal visual and physical effects on the environment.

B. Policies

1. Wherever utilities must be placed in a shoreline area, the locations should be chosen so as not to obstruct or destroy scenic views. Utilities should be placed underground, or designed to do minimal damage to the aesthetic qualities of the shoreline area.
2. Where construction connected with utility placement occurs on shorelines, banks should be restored to their pre-project configuration, replanted with native species and maintained until the new vegetation is established.
3. Sewage treatment, water reclamation, desalinization and power plants should be designed and located so as not to interfere with, and to be compatible with recreational, residential or other public uses of the water and shorelands.
4. Sewage outfalls to waterbodies should be avoided in preference to recycling or land disposal of sewage wastes. Where no alternative to outfalls into water exist, location of such outfalls should be part of the appropriate regional plan for solutions to sewage management problems.
5. Utility rights-of-way should be used for public access to and along waterbodies where feasible.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

6. If utilities must be located over the water, they should be placed on bridge-like structures rather than fill, and said structures should provide clearance for all marine vessels normally using the area.
7. New major transmission facilities should follow existing utility corridors unless prohibited by the environmental designation and regulations.

C. General Regulations

1. Applicants for permits to locate utility lines in the shoreline jurisdictional area shall submit a location plan with their application which shows existing utility routes in the vicinity of the proposed utility line. The proposed utility lines shall follow existing utility, natural drainage or transportation routes where feasible.
2. All utility facilities shall be located on lots or routes no larger than necessary.
3. The approved projects shall identify a method of reclamation which provides for revegetation and protection of wetland areas from erosion. As a minimum, this shall include the restoration of the affected area to pre-development elevation, replanted with native or pre-existing species and provisions for maintenance care for the newly planted or seeded vegetation until it is established.
4. Utility services accessory to individual projects shall be regulated by the specific use regulations for the activity in addition to the standards of this section and shall not require separate Substantial Development Permits for utility service installations.
5. Where feasible, utilities shall be placed underground unless such undergrounding would be economically or technically prohibitive or significantly detrimental to the environment.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

6. Utility facilities shall be designed for minimal environmental and aesthetic impact and shall be coordinated with local comprehensive plans.
7. Underwater utilities shall be located at a depth sufficient to prevent interference between the utility and other shoreline use activities.
8. All utility facilities must provide safeguards to ensure that no long-term damage will be caused to the adjacent or downstream environment should an accident occur involving the utility.
9. No discharge of waste material which could result in decertification of aquacultural areas or products or cause lowering of water quality ratings is permitted.
10. No new hydroelectric generating facilities are allowed on the Nisqually River pursuant to the recommendations of the Nisqually River Management Plan.

D. Environmental Designations and Regulations

1. Urban and Rural Environments. The following utility facilities are allowed in the Urban and Rural Environments:
 - a. Utility lines.
 - b. Control, collection or distribution facilities including, but not limited to, telephone exchanges, sewage treatment plants, water reservoirs, electrical substations and gas metering stations.
 - c. Power generating facilities except on the Nisqually River and transmission lines.

SECTION THREE -- POLICIES AND REGULATIONS FOR USE ACTIVITIES

2. Suburban Environment. The following utility facilities are allowed in the Suburban environment:
 - a. Utility lines.
 - b. Control, collection or distribution facilities including, but not limited to, telephone exchanges, sewage treatment plans, water reservoirs, electrical substations and gas metering stations.
 - c. Transmission lines.
3. Conservancy Environment. The following utility facilities are allowed in the Conservancy Environment by Conditional Use Permit:
 - a. Utility distribution lines
 - b. Utility transmission lines
4. Natural Environment. Utilities are not permitted in the Natural Environment, with the exception of necessary utilities to single-family residences and public recreation facilities, in accordance with regulations for such utilities in the Residential Development section.

Left blank intentionally.

SECTION FOUR -- DEFINITIONS

As used in this Program, the masculine includes the feminine and neuter, the singular includes the plural, the present includes the future, the word shall is mandatory and not permissive. Nothing in these definitions shall be construed to exempt any use or activity from complying with the provisions of other State and local regulations.

The following words and phrases, unless the context otherwise requires, shall mean:

ACT. The Shoreline Management Act of 1971 (Chapter 90.58 RCW, as amended).

ACCESSORY BUILDING, STRUCTURE OR USE. A building, part of a building or structure, or use which is subordinate to, and the use of which is customarily incidental to that of the main building, structure or use on the same lot.

ADMINISTRATOR. That person as appointed by the legislative body to administer the provisions of these regulations within the boundaries of that jurisdiction.

AGRICULTURAL ACTIVITIES. Refer to the definition on page - 37 -.

AQUACULTURAL ACTIVITIES. Refer to the definition on page - 39 -.

AQUACULTURAL DISTRICT. A geographical area within the aquatic shoreline environment where the bedlands are primarily used for aquacultural activities and which may include an adjacent dry land area for the support operations.

AQUATIC SHORELINE ENVIRONMENT. The surface of all rivers, all marine water bodies, and all lakes, together with their underlying lands and their water column seaward or waterward of the ordinary high-water mark (OHWM); including but not limited to bays, straits, harbor areas, waterways, coves, estuaries, streamways, tidelands, bedlands and shorelands.

AVERAGE GRADE LEVEL. The average of the natural or existing topography at the center of all exterior walls of a building or structure to be placed on a site; PROVIDED, that in the case of structures to be built over water, average grade level shall be the elevation of ordinary high water.

SECTION FOUR -- DEFINITIONS

BEACH. The zone along the shoreline where there is continuous movement of sediment both laterally and vertically. This zone extends from the daily low tide mark to where the permanent line of vegetation begins.

BEACH FEEDING. An artificial process in which selected beach material is deposited at one or several locations in the updrift portion of the drift sector. The material is then naturally transported by waves or currents downdrift to stabilize or restore accretion beaches and berms, which may be eroding due to artificial obstructions in the shore process corridor.

BEDLANDS. Those submerged lands below the line of extreme low tide in marine waters and below the line of navigability of navigable lakes and rivers.

BERM. One or several linear deposits of sand and gravel generally paralleling the shore at or landward of OHWM; berms are naturally stable because of material size or vegetation.

BILLBOARD. Refer to OUTDOOR ADVERTISING SIGNS AND BILLBOARDS.

BOATHOUSE. A type of covered moorage which has walls and is usually for the storage of one (1) boat.

BOAT RAMP. Constructed of concrete or other material which extends into the water for boat launching.

BOATING FACILITIES. Refer to definition on page - 47 -.

BOG. A depression or other undrained or poorly drained area containing, or covered with, peat (usually more than one layer) on which characteristic kinds of sedges, reeds, rushes, mosses, and other similar plants grow. In the early stages of development the vegetation is herbaceous and the peat is very wet. In middle stages the dominant vegetation is brush. In mature stages trees are usually the dominant vegetation, and the peat, at least near the surface, may be comparatively dry.

BREAKWATER. An off-shore structure either floating or not which may or may not be connected to the shore, such structure being designed to absorb and/or reflect back into the water body the energy of the waves.

SECTION FOUR -- DEFINITIONS

BUFFER. An area of natural vegetation measured perpendicular to the wetland edge for the purpose of protecting the shoreline.

BUILDING. Any structure designed for or used for the support, shelter or enclosure of persons, animals or personal property, and which is used in a fixed location on land, shorelands or tidelands.

BULKHEAD. A retaining wall used to hold back earth and to provide a solid surface to resist wave action.

BULKHEAD, NORMAL PROTECTIVE. A bulkhead that is constructed at or near the ordinary high-water mark to protect a single-family residence and is for protecting land from erosion, not for the purpose of creating new land.

CHANNELIZATION. The straightening, deepening or lining of stream channels, and/or prevention of natural meander progression of stream ways, through artificial means such as relocation of channels, dredging, and/or placement of continuous levees or bank revetments along significant portions of the stream. Dredging of sediment or debris alone is excluded.

CLEARCUT LOGGING OR CLEARCUTTING. The removal of the entire merchantable timber stand from an area.

CLUSTER DEVELOPMENT. A residential development which reserves substantial portions of land as open space or recreational areas for the joint use of the occupants of the development. This land may be provided by allowing dwelling units to be placed on lots smaller than the legal minimum size for regular subdivisions, as long as the density does not exceed prescribed standards.

COMMERCIAL DEVELOPMENT. Refer to the definition on page - 56 -.

CONDITIONAL USE PERMIT. Refer to SHORELINE PERMIT.

COVERED MOORAGE. A roofed structure for the wet or dry storage of one or more boats. Boathouses are a type of covered moorage.

SECTION FOUR -- DEFINITIONS

CRITICAL BIOLOGICAL AREAS. Those geographical locations where certain critical ecological processes occur such as the breeding, nesting, nursery, feeding and resting of rare, endangered or threatened species. These areas are identified on the Critical Biological Areas map of the Coastal Zone Atlas of Washington, Volume 8.

DENSITY. A ratio expressing the number of dwelling units which may be established on a specific land area. Commonly expressed as dwelling units per acre. For planned unit development projects, density is based on the entire project area above the ordinary high-water mark (i.e., Dry Land Area).

DEVELOPMENT. A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to this chapter at any state of water level.

DIKE. An embankment to prevent flooding by a stream or other water body, often referred to as a levee.

DOCK. Refer to PIER.

DRY LAND. All areas above the elevation of the Ordinary High-Water Mark.

DREDGING. Refer to the definition on page - 63 -.

DRILLING. Refer to the definition on page - 78 -.

DWELLING. A building or portion thereof, designed or used for residential occupancy. The term dwelling shall not be construed to mean a motel, rooming house, hospital or other accommodation used for more or less transient occupancy.

EDUCATION. Refer to the definition on page - 96 -.

EMERGENCY. An unanticipated and imminent threat to public health, safety or the environment which requires immediate action with a time too short to allow full compliance with this Master Program.

SECTION FOUR -- DEFINITIONS

ENVIRONMENT. "Environment" or "master program environment" or "shoreline environment" means the categories of shorelines of the state established by the Shoreline Master Program for the Thurston Region to differentiate between areas whose features imply differing objectives regarding their use and future development.

EXTREME HIGH TIDE. The highest tide level line water will reach in any one year.

EXTREME LOW TIDE. The lowest line on the land reached by a receding tide.

FEEDER BLUFF. A reach of shoreline which contains both an eroding beach and a feeding upland as identified on the Coastal Drift maps of the Coastal Zone Atlas of Washington, Volume 8.

FLOATS, RECREATIONAL. Those platform structures anchored in fresh or marine waters for water recreational purposes such as swimming, diving or water skiing to include jump ramps. They may serve as temporary moorage facilities but for the purposes of this program are not intended to be used as boat storage.

FLOOD PLAIN, ONE HUNDRED YEAR. That portion of the flood plain expected to be covered by flood waters during a flood having a probability of occurrence of once in one hundred years, although the flood may occur in any year.

FLOOD PLAIN MANAGEMENT. A long-term local government program to reduce flood damages to life and property and to minimize public expenses due to floods through a comprehensive system of planning, development regulations, building standards, structural works and monitoring and warning systems.

FLOODWAY. The channel or waterway and those portions of the flood plain adjoining the channel which are reasonably required to carry and discharge the flood waters of any water course or drainage way without causing a significant rise in water surface profile. Under normal conditions the floodway may be identified by a change in surface soil conditions or vegetative ground cover.

FLOODWAY, ONE HUNDRED YEAR. The area, including stream channels, within which the one hundred year flood could be contained between dikes impinging equally on both sides of the flood plain without raising the water level more than one foot above the uncontained one hundred year flood elevation.

SECTION FOUR -- DEFINITIONS

FOREST MANAGEMENT PRACTICES. Refer to the definition on page - 66 -.

FREE-STANDING SIGN. A self-supporting sign placed off and away from the building or use to which it is related.

GROIN. A shore-protection structure in the form of a barrier oblique to primary motion of water, designed to control movement of bed material.

GUIDELINES. Those standards adopted to implement the policy of this chapter (RCW 90.58) for regulation of use of the shorelines of the state prior to adoption of master programs. Such standards shall also provide criteria to local governments and the department in developing master programs.

HEARINGS BOARD. The State Shorelines Hearings Board established by the act in RCW 90.58.170.

HEIGHT. This is measured from average grade level to the highest point of a structure: Provided, that television antennas, chimneys, and similar appurtenances shall not be used in calculating height, except where it obstructs the view of a substantial number of residences on areas adjoining such shorelines, or the applicable master program provides otherwise. Provided further, that temporary construction equipment is excluded in this calculation.

HISTORIC BUILDING. A building or structure on a local, State or National Register of Historic Places.

HISTORIC SITE. Includes both archaeological and historic sites, structures or development which provide knowledge about our cultural heritage, including but not limited to Indian and pioneer settlements, old buildings, forts, trails, landings, bridges or the sites thereof together with interpretive facilities.

HOUSEBOAT. A floating home or building constructed on a float, used in whole or in part for human habitation as a dwelling unit and which is moored, anchored or otherwise secured in waters within the Thurston Region. A registered water-going vessel where the owner lives aboard shall not be construed as a "houseboat."

IMPERVIOUS SURFACE. Those surfaces that do not allow the downward passage of water.

SECTION FOUR -- DEFINITIONS

INDUSTRIAL DEVELOPMENT. Refer to the definition on page - 70 -.

INLAND. That land area which lies beyond shoreline management jurisdiction or two hundred (200) feet from the ordinary high-water mark, whichever is greater.

JUNK. Old iron, steel, brass, cooper, tin, lead or other base metals; old cordage, ropes, rags, fibers or fabrics; old rubber; old bottles or other glass, bones; wastepaper, plastic and other waste or discarded material which might be prepared to be used again in some form; any or all of the foregoing; and motor vehicles, no longer used as such, to be used for scrap metal or stripping of parts; but "junk" shall not include materials or objects accumulated by a person as by-products, waste or scraps from the operation of his own business or materials or objects held and used by a manufacturer as an integral part of his own manufacturing process.

LANDFILLING. Refer to the definition on page - 75 -.

LAUNCH RAMP. An inclined slab, set of pads, planks or graded slope used for launching boats with trailers or occasionally by hand; extensive parking and turn-around areas are usually accessory to launch ramps.

LEGISLATIVE BODY. The Board, Council or Commission of the local government.

LEVEE. A natural or man-made embankment on the bank of a stream for the purpose of keeping flood waters from inundating adjacent land. Some levees have revetments on their sides.

LOCAL GOVERNMENT. Any county, incorporated city or town which contains within its boundaries any lands or waters subject to this Master Program.

LOT. A fractional portion of subdivided land having fixed boundaries.

LOT AREA. The area contained within the boundaries of a lot excluding any area below the ordinary high-water mark.

LOT, FRONT. The portion of a lot adjacent to either the public street affording principal access to the property or the waterfront, if the property abuts a water body.

SECTION FOUR -- DEFINITIONS

LOT LENGTH. The maximum lineal dimension of a lot, not including access roads less the twenty-five (25) feet in width.

LOT WIDTH. For lots of a generally rectangular character, the average lineal dimension taken at right angles to the lot length. For other lots, the diameter of the largest circle which can be placed wholly within the boundaries of the lot.

MARINA. Refer to the definition on page - 47 -.

MARINE RAILWAYS.

(DOE requested addition.)

MARSH. A low, flat area on which the vegetation consists mainly of herbaceous plants such as cattails, bulrushes, tules, sedges, skunk cabbage, and other aquatic or semi-aquatic plant. Shallow water usually stands on a marsh, at least during a considerable part of the year. The surface is commonly soft mud or muck.

MASTER PROGRAM. The comprehensive use plan for the Thurston Region, and the use regulations together with maps, diagrams, charts or other descriptive material and text, a statement of desired goals and standards developed in accordance with the policies enunciated in RCW 90.58.020.

MINING AND DRILLING. Refer to the definition on page - 78 -.

MOORING BUOY. Those accessories used for the offshore moorage of pleasure craft. These accessories, usually provided by the boat owner, are normally used where docking facilities are not available or when depth to water bottom and tidal changes are insufficient to allow docking for deep-hulled craft.

MUNICIPAL JURISDICTION. A city or town within the Thurston Region which are affected by the Act.

NONCONFORMING BUILDING OR STRUCTURE. A building or structure or portion thereof which was lawfully erected, altered or maintained, but because of the application of this chapter, no longer conforms to the requirements of the Shoreline Master Program for the Thurston Region.

SECTION FOUR -- DEFINITIONS

NONCONFORMING LOT. A parcel of land legally established prior to the effective date of the Shoreline Master Program for the Thurston Region which does not conform with the lot size or area requirements of this Master Program.

NONCONFORMING USE. An activity that was lawfully established prior to the effective date of the Shoreline Master Program for the Thurston Region, but no longer conforms to the use regulations of this program.

NORMAL MAINTENANCE. This includes those usual acts to prevent a decline, lapse or cessation from a lawfully established condition.

NORMAL REPAIR. To restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction except where repair involves total replacement which is not common practice or causes substantial adverse effects to the shoreline resource or environment.

ON-PREMISE SIGN. A sign, located on the premises, advertising the goods, services or activities, manufactured, produced, conducted or available on that property.

OPEN SPACE. Land and natural wetlands which retain their natural or semi-natural character because they have not been developed with structures, paving or other development and, for the purposes of this program, are normally required of residential and/or recreation developments.

ORDINARY HIGH-WATER MARK (OHWM). This means the mark on all lakes, streams and tidal water which will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department: PROVIDED, that in any area where the ordinary high-water mark cannot be found, the ordinary high-water mark adjoining salt water shall be the line of mean higher high tide and the ordinary high-water mark adjoining fresh water shall be the line of mean high water.

OUTDOOR ADVERTISING. All publicly displayed messages such as signs, billboards, placards, pennants or posters, whose purpose is to provide official and commercial information, direction, and advertising.

SECTION FOUR -- DEFINITIONS

OUTDOOR ADVERTISING SIGNS AND BILLBOARDS. Refer to the definition on page - 84 -.

OVER WATER. Location of a structure or development above the surface of the water, including placement of buildings on piling or floats.

PARCEL. A lot or contiguous lots owned by an individual, related individuals, an organization or organizations having similar membership.

PARKING AND LOADING. Refer to the definition on page - 86 -.

PERMIT. Either a Substantial Development Permit, Conditional Use Permit or Variance issued in compliance with the Shoreline Management Act of 1971 and the Shoreline Master Program for the Thurston Region.

PIER. A structure generally built from the shore extending out over the water to provide moorage for commercial and/or private recreation water craft or float planes or for water-oriented recreation use. When a pier or dock is to serve ten (10) or more boats, it is considered a marina. They may either be anchored to and floating or permanently fixed to pilings.

PLANNED DEVELOPMENT. A residential development which permits departures from the conventional siting, setback and density requirements of other sections of this code in the interest of achieving superior site development, creating open space, and encouraging imaginative design by permitting design flexibility.

PLANNING COMMISSION. The board or commission of the local government which is authorized to review those permits identified in this Master Program.

PLANNING DEPARTMENT. That office or department of the local government which is authorized to administer the provisions of the Act, WACs and this Master Program.

PORTS. Refer to the definition on page - 88 -.

PROPERTY LINES. The exterior boundaries of a lot or parcel.

PUBLIC ACCESS. A trail, path, road or launching ramp by which the general public can reach the public waters from a public road.

SECTION FOUR -- DEFINITIONS

PUBLIC STREET. Any street, way, road, alley or highway in public ownership.

RECREATION. Refer to the definition on page - 90 -.

RECREATION, MEDIUM INTENSITY. Involves uses and activities that provide for increased public enjoyment of the shorelines and adjacent areas. Uses and activities may include parks, playgrounds, athletic fields, campgrounds, and boat ramps. Medium-intensity uses may require earth modification and construction of a variety of structures.

RECREATION, LOW INTENSITY. Involves activities such as hiking, canoeing, viewing, nature study, photography and fishing. Low intensity uses do not require extensive preparation of facilities.

REGION OR REGIONAL. All of that geographical area located within Thurston County.

RESEARCH AND EDUCATION. Refer to the definition on page - 96 -.

RESIDENCE, MULTIFAMILY. A residential building containing two (2) or more dwelling units located on a single lot or parcel of ground. For the purpose of this Ordinance, a multifamily dwelling shall include single-family attached units.

RESIDENCE, SINGLE-FAMILY. A detached building designed for occupancy by one (1) family and containing one (1) dwelling unit.

RESIDENTIAL DEVELOPMENT. Refer to the definition on page - 98 -.

REVTMENTS. Sloped walls constructed of riprap or other substantial material, placed on stream banks or marine shorelines to retard bank erosion from high velocity currents or waves respectively.

RIPRAP. Broken stone placed on shoulders, slopes or other such places to protect them from erosion.

ROAD AND RAILROAD DESIGN AND CONSTRUCTION. Refer to the definition on page - 109 -.

SECTION FOUR -- DEFINITIONS

SEAWALLS. Structures normally more massive than bulkheads and revetments, built for the purpose of protecting the shore and uplands from heavy wave action and incidentally, retaining uplands and fills. Seawalls are not common to the Puget Sound region.

SELECTIVE CUTTING. The removal of certain trees selected for cutting so as not to interfere with the growth and development of the remaining trees.

SHORELINE DEPENDENT USE. Any reasonable use that requires a shoreline or water surface location because of its functional nature, including but not limited to navigation, ports, marinas, docks, piers, floats, boat fueling stations, ship yards, seafood harvest, aquaculture, recreational boating and swimming and research and observation of natural shoreline phenomena.

SHORELINE JURISDICTION. Shorelines and Shorelines of State-Wide Significance.

SHORELINE MANAGEMENT ACT. The Shoreline Management Act of 1971 (Chapter 90.58 RCW, as amended).

SHORELINE PERMIT. A Substantial Development Permit issued pursuant to RCW 90.58.140(2), or a Conditional Use Permit or Variance Permit issued pursuant to WAC 173-14.

SHORELINE PROTECTION. Refer to the definition on page - 112 -.

SHORELINES. All water areas within Thurston County, including reservoirs, and their associated wetlands, together with the lands underlying them except:

1. Shorelines of State-Wide Significance;
2. Shorelines on segments of streams upstream of a point where the mean annual flow is twenty (20) cubic feet per second or less and the wetland associated with such upstream segments; and
3. Shorelines on lakes less than twenty (20) acres in size and wetlands associated with such small lakes.

SHORELINES OF STATE-WIDE SIGNIFICANCE. Areas identified by the Shoreline Management Act as having more than local interest. The following areas in Thurston County were designated as shorelines of state-wide significance:

1. All portions of Puget Sound lying seaward from the line of extreme low tide.
2. The area on Nisqually Delta from DeWolf Bight to Pierce County that lies between the ordinary high-water mark and the line of extreme low tide.
3. Alder Lake.
4. The Nisqually River.
5. The Chehalis River.
6. Wetlands associated with 2, 3, 4 and 5 above.

SHORELINES OF THE STATE. Shorelines and Shorelines of State-Wide Significance.

SIGN, OFF-PREMISE. Any sign used to advertise goods or services not generally available on the premises on which the display is located.

SIGN, ON-PREMISE. Any sign identifying the premises on which located or the occupant(s) thereof, or relating to goods or services manufactured, produced or available on the premise.

SIGNIFICANT WILDLIFE HABITAT AREAS. Those areas which are visited by animals with unusual frequency, density or diversity; or by those species identified as either endangered, threatened, sensitive, or monitored by the Washington State Department of Game; and used for critical processes such as feeding, breeding, nesting and resting, including sites identified as containing one or more of the following:

1. Bald eagle nests
2. Osprey nest sites
3. Spotted owl nest sites
4. Heron rookeries
5. Beaver ponds
6. Snags
7. Big game use habitat.

SECTION FOUR -- DEFINITIONS

SINGLE-FAMILY RESIDENCE. A detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership which are a normal appurtenance.

SOLID WASTE DISPOSAL. Refer to the definition on page - 116 -.

STAIRS. A series of steps or flights of steps for passing from one level to another.

STAIR TOWER. A structure twelve (12) feet or taller in height typically consisting of one (1) or more flights of stairs, usually with landings to pass from one level to another.

STAIRWAY. One or more flights of stairs, usually with landings to pass from one level to another.

STREAMBANK. This runs along the course of a stream and rises from the ordinary high water mark (OHWM) up to the first significant break in slope. The first significant break in slope is a bench at least fifteen (15) feet wide. The streambank ends at the top of the bank where that break in slope occurs. NOTE: This definition is not intended to include the concept of a buffer for streams. It is only a definition of a physical feature associated with streams.

STREAMWAY. That corridor of a single or multiple channel or channels, within which the usual seasonal or stormwater runoff peaks are contained. The flora, fauna, soil and topography is dependent on or influenced by the height and velocity of the fluctuating river currents.

STREET. A lineal passageway of automobile and/or truck traffic including but not limited to public and private roads, highways, alleys, lanes, ways, streets and thoroughfares.

STREET, FLANKING. A street abutting what is normally considered the side of a lot or parcel.

STREET, FRONTING. A street abutting what is ordinarily regarded as the front of a lot or parcel, but it shall not be considered as the ordinary side of a corner lot.

STREET, PUBLIC. A street in public ownership.

STRUCTURE. Anything constructed in the ground, or anything erected which requires location on the ground or water, or is attached to something having location on or in the ground or water.

SUBMERGED LANDS. Those areas below the ordinary high-water mark of marine waters, lakes and rivers.

SUBSTANTIAL DEVELOPMENT. Development of which the total cost or fair market value exceeds two thousand five hundred dollars (\$2,500), or any development which materially interferes with the normal public use of shorelines of the state; except that the following shall not be considered substantial developments for the purpose of this Master Program (refer to WAC 173-14-040):

1. Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements.
2. Construction of the normal protective bulkhead common to single-family residences.
3. Emergency construction necessary to protect property from damage by the elements.
4. Construction and practices normal or necessary for farming, irrigation and ranching activities, including agricultural service roads and utilities on wetlands, and the construction and maintenance of irrigation structures including but not limited to head gates pumping facilities, and irrigation channels; PROVIDED, that a feedlot of any size, all processing plants, other activities of a commercial nature, alteration of the contour of the wetlands by leveling or filling other than that which results from normal cultivation, shall not be considered normal or necessary farming or ranching activities. A feedlot shall be an enclosure or facility used or capable of being used for feeding livestock hay, grain, silage, or other livestock feed, but shall not include land for growing crops or vegetation for livestock wintering operations.

SECTION FOUR -- DEFINITIONS

5. Construction or modification of navigational aids such as channel markers and anchor buoys.
6. Construction on wetlands by an owner, lessee or contract purchaser of a single-family residence for his own use or for the use of his family, which residence does not exceed a height of thirty-five (35) feet above average grade level and which meets all requirements of the state agency or local government having jurisdiction thereof, other than requirements imposed pursuant to this chapter.
7. Construction of a dock, designed for pleasure craft only, for the private noncommercial use of the owner, lessee or contract purchaser of a single-family residence, the cost of which does not exceed two thousand five hundred dollars (\$2,500).
8. Operation, maintenance or construction of canals, waterways, drains, reservoirs or other facilities that now exist or are hereafter created or developed as a part of an irrigation system for the primary purpose of making use of system waters, including return flow and artificially stored ground water for the irrigation of lands.
9. The marking of property lines or corners on state-owned lands, when such marking does not significantly interfere with normal public use of the surface of the water.
10. Operation and maintenance of any system of dikes, ditches, drains or other facilities existing on September 8, 1975, which were created, developed or utilized primarily as a part of an agricultural drainage or diking system.

SURFACE OR OPEN-PIT MINING. Involves either the removal of surface material (overburden) to enable the underlying mineral resources to be exposed and extracted (quarried) or the direct extraction of naturally occurring surface minerals and materials such as rock, sand, gravel and aggregate. Removal of sand from river bars is considered a surface mining activity.

SURFACE WATER BODY. Any water area which is within the shorelines of the state.

SWAMP. Is similar to a marsh except that reeds and shrubs comprise the characteristic vegetation. Marshes and swamps merge into each other, and both tend to merge into bogs.

TIDELAND. The land on the shore of marine water bodies between OHWM or MHHW and the line of extreme low tide which is submerged daily by tides.

TIMBER. Forest trees, either cut or standing, of a commercial species including Christmas trees.

UTILITIES. Refer to the definition on page - 118 -.

UTILITY LINES:

1. DISTRIBUTION LINES. Linear facilities used to supply utility services directly to consumers in the vicinity of the facility, including electrical lines to consumers with a voltage less than 55,000 volts, local telephone and cable television lines, local sewer and water lines and local natural gas lines.
2. TRANSMISSION LINES. Linear facilities used to transmit utilities, energy supplies or materials in bulk beyond the source region to a distribution system located in another region.

VARIANCE PERMIT. Refer to SHORELINE PERMIT.

SECTION FOUR -- DEFINITIONS

WATER DEPENDENCY. The degree of dependency of any use of the land upon a shoreline location. This degree of dependency can range from water-dependent to water-related uses and is expressed as follows:

1. WATER-DEPENDENT USES. A use or portion of a use that cannot logically exist in any other location and is dependent on the water by reason of the intrinsic nature of its operation. Water-dependent uses include, but are not limited to:
 - a. Aquaculture
 - b. Boat launch facilities
 - c. Ferry terminals
 - d. Hydroelectric power plants
 - e. Marinas
 - f. Marine construction, dismantling and repair
 - g. Marine and limnological research and education
 - h. Private and public docks
 - i. Terminal and transfer facilities for marine commerce and industry
 - j. Water intakes and outfalls.
 - k. Log booming.
 - l. Tug and barge facilities.

2. WATER-RELATED USES. A use or portion of a use which is not intrinsically dependent on a waterfront location, but whose operations cannot occur economically without a shoreline location or without close proximity to water-dependent uses. Water-related uses include, but are not limited to:
 - a. Warehousing or storage facilities
 - b. Support services for fish hatcheries
 - c. Seafood processing plants
 - d. Wood products manufacturing
 - e. Log storage
 - f. Watercraft sales
 - g. Boating supplies

WATER-ENJOYMENT USES. A recreational use such as a park, pier, or other use facilitating public access as a primary character of the use; or, a use that provides for passive and active interaction of a substantial number of people with the shoreline for leisure and enjoyment as a general character of the use and which, through location, design and operation assure the public's ability to interact with the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the public and most if not all of the shoreline oriented space in the facility must be devoted to the specific aspects of the use that foster shoreline interaction. Water-enjoyment uses include but are not limited to:

1. Restaurants
2. Museums
3. Bicycle and Walking Trails
4. Boardwalks

WETLANDS. "Wetlands," "associated wetlands" or "wetland areas" means those lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the ordinary high-water mark; and all marshes, bogs, swamps, floodways, river deltas, and the entire one hundred (100) year flood plains associated with the streams, lakes and tidal waters which are subject to the provisions of the Act; the same to be designated as to location by the Washington State Department of Ecology. Flood plains shall not include those areas which are effectively protected from the one hundred (100) year flood by authorized flood control devices or other legal improvements.

SECTION FIVE -- SHORELINE JURISDICTION

I. DESIGNATION CRITERIA

In the following, "wetland" refers to that area subject to the provisions of the Shoreline Management Act Chapter 90.58 RCW (refer to WAC 173-22).

A. Puget Sound and Lakes

The wetlands shall be measured on a horizontal plane two hundred (200) feet in all directions from the line of vegetation. If there is no vegetative cover, the measurement will be, wherever possible, from a line connecting the lines of vegetation on either side of an area; otherwise, the measurement will be from the mean higher high tide on salt water (Puget Sound), and the mean high water on fresh water.

B. River Flood Plains

1. The wetland area within the river flood plains shall be not less than those lands extending landward for two hundred (200) feet in all directions as measured on a horizontal plane from the ordinary high-water mark; or the one hundred (100) year flood plain as established and mapped on either the Flood Insurance Rate maps published by the Federal Emergency Management Agency or by others using acceptable methods. Provided that this criteria shall not affect the designations nor the criteria for designation of marshes, bogs or swamps which lie within the flood plain or floodways.
2. On river deltas and flood plains where dikes have been placed by governmental agencies for public benefit and reasonably protect against floods, the wetlands will be designated as follows:
 - a. Where the dike is located within two hundred (200) feet of the ordinary high-water mark, the wetlands shall be that area within two hundred (200) feet of the ordinary high-water mark.
 - b. Where the dike is located more than two hundred (200) feet beyond the ordinary high-water mark, the wetlands shall be that area lying between apex of the dike and the ordinary high-water mark.

C. Marshes, Bogs and Swamps

If marshes, bogs and swamps which constitute associated wetlands extend more than two hundred (200) feet beyond the ordinary high-water mark of the body of water with which they are associated, their perimeters shall be the outer limit of the wetland designation. Such marshes, bogs and swamps shall be defined and designated according, but not limited to, the following definitions:

1. Marsh. A low flat area on which the vegetation consists mainly of herbaceous plants such as cattails, bulrushes, tules, sedges, skunk cabbage, and other aquatic or semi-aquatic plant. Shallow water usually stands on a marsh, at least during a considerable part of the year. The surface is commonly soft mud or muck.
2. Bog. A depression or other undrained or poorly drained area containing, or covered with, peat (usually more than one layer) on which characteristic kinds of sedges, reeds, rushes, mosses and other similar plants grow. In the early stages of development, the vegetation is herbaceous and the peat is very wet. In middle stages, the dominant vegetation is brush. In mature stages, trees are usually the dominant vegetation, and the peat, at least near the surface, may be comparatively dry.
3. Swamp. A swamp is similar to a marsh except that reeds and shrubs comprise the characteristic vegetation. Marshes and swamps merge into each other, and both tend to merge into bogs.

II. CONFLICTS BETWEEN DESIGNATION AND CRITERIA

In the event that any of the boundaries shown on the maps conflict with the criteria outlined above, the criteria shall control.

SECTION FIVE -- SHORELINE JURISDICTION

III. AQUATIC DESIGNATIONS

Water areas are subject to the same environment designations and same regulations as are land areas. The following rules shall apply:

A. Puget Sound

All of the salt or marine waters of the Thurston Region shall be designated "Conservancy Environment" to the mean sea level--at which point the landward designation (which may or may not be different) begins. The following are exceptions to this rule:

1. Waters beyond ten (10) fathoms shall be designated "Natural-Aquatic Environment."
2. Water extending directly out from the Nisqually Delta to the County line will be designated "Natural Environment."
3. Waters in Budd Inlet south of a line due west from Priest Point will be "Urban Environment."

B. Rivers and Streams

Waters of rivers and streams shall take the designation of the adjacent shorelines. However, an "Urban Environment" shoreline will be classified by the shoreline designation immediately upstream from the "Urban" designation.

C. Lakes

All fresh water lakes shall be designated "Rural Environment" except where more than fifty percent (50%) of the shoreline is "Conservancy" or "Natural," in which case lake water shall conform to the appropriate shoreline designation.

IV. COASTAL ZONE ATLAS

The Coastal Zone Atlas of Washington, Volume 8, 1980, for Thurston County, and any amendments thereto are adopted in full as an Appendix to this Master Program.

V. THURSTON SHORELINES

Those shorelines of the Thurston Region which fall under the jurisdiction of this Master Program and the Shoreline Management Act are summarized in the following:

THURSTON SHORELINES.....346.7 miles

 Shorelines of State-Wide Significance (65.7 miles)
 Shorelines of the State (280.3 miles)

A. PUGET SOUND.....90.0 miles

 Shorelines of State-Wide Significance (2.0 miles)
 Shorelines of the State (88.0 miles)

B. RIVERS AND STREAMS.....198.7 miles

 Shorelines of State-Wide Significance (58.4 miles)
 Shorelines of the State (140.3 miles)

C. LAKES58 miles

 Shorelines of State-Wide Significance (5.3 miles)
 Shorelines of the State (52.0 miles)

SECTION FIVE -- SHORELINE JURISDICTION

A. Puget Sound

	<u>From - To</u>	<u>Jurisdiction</u>
1. <u>Statewide Significance</u> Nisqually Delta	DeWolf Bight - Pierce County	TC
2. <u>Shorelines of the State</u> Nisqually Reach Henderson Inlet Dana Passage Budd Inlet Eld Inlet Totten Inlet		TC TC TC O-TC TC TC

B. Rivers and Streams

	<u>From - To</u>	<u>Jurisdiction</u>
1. <u>Statewide Significance</u> Chehalis River Nisqually River	Lewis County - Grays Harbor County Alder Lake - Puget Sound	TC TC
2. <u>Shorelines of the State</u> ¹ Beaver Creek Black River Cedar Creek Deschutes River Kenney Creek Little Nisqually River McAllister Creek McLane Creek Mima Creek Mitchell Creek Percival Creek Scatter Creek Sherman Creek Skookumchuck River Thompson Creek Waddell Creek Woodland Creek Yelm Creek	S11, T16, R2W - Black River Black Lake - Grays Harbor County Sherman Creek - Grays Harbor Co. Lewis County - Capitol Lake S14, T18, R4W - Mason County Lewis County - Alder Lake McAllister Springs - Puget Sound S25, T18N, R3W - Puget Sound S16, T16, R3W - Black River S18, T15, R3E - Deschutes River S21, T18, R2W - Capitol Lake S20, T16, R1W - Chehalis River S25, T17, R4W - Grays Harbor Co. Lewis County - Lewis County S11, T17, R1E - Nisqually River S8, T17, R3W - Nisqually River S9, T18, R1W - Puget Sound S29, T17, R2E - Nisqually River	TC TC TC L-O-T-TC TC TC TC TC TC TC O-T TC-Te TC TC-Bu TC TC TC TC-Ye

¹ NOTE: For a more detailed description, refer to the Shoreline Maps or WAC 173-18-380.

SECTION FIVE -- SHORELINE JURISDICTION

C. Lakes

	<u>Area</u>	<u>Relative Size</u>	<u>Jurisdiction</u>
1. <u>Statewide Significance</u> ²			
Alder Lake	1117.6 acres	(1)	TC
2. <u>Shorelines of the State</u> ²			
Bald Hills Lake	44.8 acres	(19)	TC
Black Lake	576.1 acres	(2)	TC
Capitol Lake	328.4 acres	(6)	L-O-TC
Chambers Lake (Little)	49.1 acres	(19)	L-O
Chambers Lake	72.5 acres	(15)	L
Clear Lake	172.8 acres	(11)	TC
Deep Lake	66.1 acres	(18)	TC
Elbow Lake	36.0 acres	(22)	TC
Grass Lake	120.0 acres	(13)	O
Hewitt Lake	26.6 acres	(25)	TC
Hicks Lake	171.3 acres	(12)	L
Ken Lake	24.6 acres	(28)	O
Lawrence Lake	339.2 acres	(5)	TC
Long Lake	311.0 acres	(7)	L-TC
McIntosh Lake	115.8 acres	(14)	TC
Munn Lake	29.8 acres	(24)	TC
Offutt Lake	192.0 acres	(10)	TC
Patterson Lake	257.0 acres	(8)	TC
Pitman Lake	27.0 acres	(26)	TC
Scott Lake	66.8 acres	(16)	TC
Skookumchuck Res.	550.0 acres	(3)	TC
Southwick Lake	37.1 acres	(22)	L-TC
St. Clair Lake	244.7 acres	(9)	TC
Summit Lake	522.6 acres	(4)	TC
Sunwood Lake	23.0 acres	(29)	TC
Tempo Lake	40.0 acres	(21)	TC
Trosper Lake	26.5 acres	(27)	O-TC
Ward Lake	66.8 acres	(17)	T-TC

² NOTE: There are 79 other lakes or ponds smaller than 20 acres in the County.

Legend:

Bucoda - Bu
 Lacey - L
 Olympia - O
 Tenino - Te

Thurston County - TC
 Tumwater - T
 Yelm - Ye

Left blank intentionally.

I. MAP KEY

Most of the "wetland" areas extended two hundred (200) feet landward from the line of vegetation. The two hundred (200) foot boundaries may be measured on site. The swamp and flood plain boundaries have been mapped by the Department of Ecology. These legal maps are available for public inspection in the headquarters of the Department of Ecology in Lacey, with the Thurston County Auditor and the various City Clerks. They closely correspond with those indicated on the maps of this Program.

Boundary lines established between two adjoining environment classifications are keyed on the maps with circled numbers (i.e., 22). A list of the legal or general descriptions of these boundaries follows.

SECTION SIX -- SHORELINE MAPS

II. LEGAL DESCRIPTIONS

The following legal descriptions mark the boundaries separating shoreline environment designations. It should be noted that property lines used for demarkation that do not extend the full distance covered by the Shoreline Management Act should be considered extended in a straight line the necessary distance covered by the Act in order to fully separate designated environments.

The legal descriptions are numbered to correspond with demarkation lines on the attached county-wide map.

1. The westerly line of Lot 102, Plat of North Shore Summit Lake
 - 1a. The southerly right-of-way line of 9th Avenue
 - 1b. The southerly right-of-way line of 5th Avenue West
 - 1c. The south line of Tract 4 of Supplemental Plat Crosby D.C.
 - 1d. The extended centerline of "C" Street
2. The East line of the Southwest Quarter of Northeast Quarter, Section 13, Township 18 North, Range 4 West
 - 2a. The North line of the North Half of the Northwest Quarter, Section 6, Township 18 North, Range 3 West
 - 2b. Beginning at the North edge of the right-of-way of the Summit Lake Road of the Northeast Quarter, Section 14, Township 18 North, Range 4 West
3. The West line of the East 334.5 feet of Lot 4, Section 23, Township 19 North, Range 3 West
4. The South line of Lot 35, Plat of Elizan Beach #2
5. North line of North 100 feet of South 174 feet Government Lot 4, Section 1, Township 18 North, Range 3 West

SECTION SIX -- SHORELINE MAPS

6. The southerly boundary of the following described property: commencing meander corner between Sections 1 and 12, North 89E55'15" East 559.39 feet, South 0E4'45" East 2605.15 feet to point of beginning, South 38E49'07" East 149.87 feet, North 53E52'53" West 155 feet to ordinary high water, northwesterly 150 feet, North 53E55'30" East 159 feet to beginning, Section 12, Township 18 North, Range 3 West (Assessor Parcel Number 138-12-24-01)
7. East line of the West 100 feet Government Lot 3, Section 7, Township 19 North, Range 2 West (Assessor Parcel Number 129-07-31-0203)
8. North line Lot 235, Boston Harbor Waterfront Acres Tracts #2
9. East line Section 7, Township 19 North, Range 2 West
10. North line Olympic View Subdivision
11. South line of North 100 feet West of road Government Lot 1, Section 4, Township 19 North, Range 2 West
12. North line South 270 feet of North 930 feet Government Lot 2, Section 17, Township 19 North, Range 2 West (Assessor Parcel Number 129-17-1304)
13. East line Section 33, Township 20 North, Range 2 West
14. South line Government Lot 1, Section 3, Township 19 North, Range 2 West
15. South line Government Lot 3, Section 3, Township 19 North, Range 2 West
16. East line Section 9, Township 19 North, Range 2 West
17. South line Lot 14, Block 2, Edgewater Beach
18. South line Lot 10, Sanderson Harbor
19. South line Lot 57, Boston Harbor Waterfront Acre Tracts, Division 1
20. South line Section 11, Township 19 North, Range 2 West

SECTION SIX -- SHORELINE MAPS

21. Southwesterly line of the following described parcel: southwesterly 100 feet of northwesterly 500 feet lying southwesterly of Tract 1 Fishtrap Beach and northwesterly of its extended southeasterly line, part of Government Lot 1, Section 12, Township 19 North, Range 2 West (Assessor Parcel Number 129-12-1205)
22. The West section line, Section 6, Township 19 North, Range 1 West
23. The North line of the following described parcel: commencing North line Lot 3, North 88E24'02" West 369.44 feet from Northeast corner South 3E41'08" East 307.18 feet South 41E54'28" West 105.05 feet to point of beginning, South 41E54'28" West 121.96 feet, North 88E24'02" West 392.29 feet northerly on meander line 95.45, South 88E24'02" East 465.09 feet to beginning (Assessor Parcel Number 119-06-3304)
24. South line of Government Lot 1, Section 8, Township 19 North, Range 1 West
25. Southerly right-of-way of Woodard Bay Road, Section 19, Township 19 North, Range 1 West
26. Southern line Lot 7C, Johnson Point Plat
27. Southern line Lot 76, Plat of Johnson Point Plat
28. The East line of vacated First Street running on the east side of Block 46, Plat of Puget City
29. South Section line, Section 3, Township 18 North, Range 2 West
30. Southern line Priest Point Park
31. Northern line Pascal Richard D.L.C.
32. The South line of the Northwest Quarter of the Northeast Quarter, Section 26, Township 19 North, Range 2 West
- 32a. The southerly line Lot 23, Plat of Gull Harbor

SECTION SIX -- SHORELINE MAPS

33. The South line Section 20, Township 19 North, Range 2 West
34. The southeasterly side Simpson Creek Section 30, Township 19 North, Range 2 West
35. The southeasterly line of following described parcel in Section 30, Township 19 North, Range 2 West: beginning South 30E East 157 feet South 17E30' East 350 feet South 9E45' East 185 feet South 16E30' East 248 feet South 54E30' East 158 feet South 61E45' East 215 feet South 47E30' East 170 feet South 51E30' East 264 feet South 83E East 452.7 feet from Northwest corner Lot 4 South 83E East 55.3 feet North 84E45' East 348 feet North 36E East 160 feet North 5E to centerline Young Cove westerly 210 feet more or less South 31E West to point North 5E18' West 105.9 feet from beginning, South 5E18' East 105.9 feet to beginning (Assessor Parcel Number 129-30-3302-01)
- 35a. The West line Lot 16, Plat of Forest Shores
36. The West line of Lot 7, Plat of Forest Shores
37. The East line of following described parcel in Section 6, Township 18 North, Range 2 West: commencing West Quarter Section corner North 3E44' West 486.78 feet North 72E2' East 1338.33 feet for point of beginning, North 72E2' East 105.13 feet North 628 feet South 82E19'26" West 100.92 feet South 648.14 feet (Assessor Parcel Number 128-06-2114)
38. The Evergreen State College property line as of March 1974
39. The Evergreen State College property line as of March 1974
40. The West line Lot 29, Sunset Beach Home Tracts
41. The North line Section 32, Township 19 North, Range 2 West
- 41a. The southeasterly line Lot 7, Mansanita Beach 2
42. The northerly right-of-way line of Old Mud Bay Road

SECTION SIX -- SHORELINE MAPS

43. A line parallel to and 200 feet West of the East line of the Northwest of the Northwest Section 32, Township 18 North, Range 2 West
44. The South line of the North Half of the Northeast Quarter of the Northwest Quarter, Section 32, Township 18 North, Range 2 West
50. The West section line Section 24, Township 19 North, Range 1 West
51. The East line of the West Half Northwest Quarter, Section 25, Township 19 North, Range 1 West
52. The North line of Southwest Quarter of Section 20, Township 18 North, Range 1 West
53. South line Government Lot 3, Section 29, Township 18 North, Range 1 West
- 53a. North right-of-way line of Ward Lake Public Access Road Section 36, Township 18 North, Range 2 West
- 53b. South line Lot 11, Ashburns Subdivisions
- 53c. The South line Lot 8, Hewitt Lake Terrace
54. The South line Government Lot 8, Section 27, Township 18 North, Range 1 West
55. The East line of the following described parcel in Section 27, Township 18 North, Range 1 West: East 85 feet of West 400 feet in Government Lot 6 (Assessor Parcel Number 118-27-3104-01)
56. The South line of Plat of Long Lake Country Club
57. The southwesterly line of the following described parcel in Section 35, Township 18 North, Range 1 West: commencing point 890.87 feet South and 784.51 feet West of Northeast corner Section 35, South 24E2' West 40.54 feet North 65E40' West 150 feet more or less to high waterline northerly 50 feet more or less; South 62E24' East 157.31 feet more or less to beginning (Assessor Parcel Number 118-35-1119)
- 57a. Beginning at the Northwest edge of the right-of-way of Draham Road of the Northeast Quarter of the Southeast Quarter, Section 9, Township 18 North, Range 1 West

58. The easterly line of Plat of Beachcrest 1st Addition
59. Willamette Meridian
60. The North line of the following described parcel in Government Lot 3, Section 30, Township 19 North, Range 1 East: commencing 974 feet East of Southwest corner, North 200 feet, East 491 feet, South 100 feet, West 355 feet, South 10E West 101.5 feet, West 100 feet (Assessor Parcel Number 219-30-3404)
61. North right-of-way Interstate 5
62. McAllister Creek centerline
63. The South line of the following described parcel in Government Lot 2, Section 8, Township 18 North, Range 1 East: commencing Northeast corner Packwood D.C. South 655 for point of beginning South 655 feet, East 420 feet North 655 feet, West 420 feet (Assessor Parcel Number 218-08-1203)
64. The South line of Section 9, Township 18 North, Range 1 East
- 64a. The northern extension of the southbound right-of-way of I-5 (amended August 7, 1979)
65. The North line of the Southeast Quarter of Northwest Quarter, Section 32, Township 18 North, Range 1 East
66. The northeasterly line of Lot 15 of Todd Cedars
67. The South line of Northeast Quarter Southwest Quarter, Section 31, Township 18 North, Range 1 West
68. The northwesterly right-of-way line Burlington Northern Railroad
- 68a. The intersection of Monroe Creek and Sherman Creek of the Southwest Quarter of the Northeast Quarter of the Northwest Quarter, Section 25, Township 17 North, Range 4 West
69. North line, Section 2, Township 16 North, Range 3 West

SECTION SIX -- SHORELINE MAPS

- 69a. The North line of the South Half of the South Half of the Northwest Quarter, Section 8, Township 17 North, Range 3 West
- 69b. The North line of the North Half, Section 16, Township 16 North, Range 3 West
- 70. A line running North from the intersection of the West section line, Section 31, Township 16 North, Range 3 West and Burlington Northern railroad right-of-way; thence along westerly edge of swamp; thence northerly to Burlington Northern railroad right-of-way in Section 30, Township 16 North, Range 3 West
- 70a. The South line Section 17, Township 16 North, Range 3 West
- 70b. The South line of the North Half, Section 14, Township 16 North, Range 3 West
- 71. The North line of the Southeast Quarter, Section 6, Township 17 North, Range 2 West
- 72. The North line of the Southwest Quarter of the Northeast Quarter, Section 7, Township 17 North, Range 2 West
- 73. Southerly line of the following described parcel: commencing Northwest corner South 2E07'49" West 669.61 feet, South 87E45'52" East 133.19 feet, South 2E14'08" West 97.21 feet to point of tangent with curve to left radius 1245.56 feet, southerly along curve 233.92 feet to point of beginning, southerly along curve 95.93 feet, North 77E03'45" East 210 feet to line high water Black Lake, northerly 80 feet, South 81E28'30" West 210 feet to beginning (Assessor Parcel Number 127-07-2204)
- 74. The North section line of Section 7, Township 17 North, Range 2 West
- 75. The extreme West edge of the right-of-way of Interstate 5

SECTION SIX -- SHORELINE MAPS

76. The North section line of Section 9, Township 16 North, Range 2 West
- 76a. The West line of the West Half of the Southeast Quarter of the Northwest Quarter of the Northwest Quarter of the Southwest Quarter, Section 11, Township 16 North, Range 2 West
77. The North side of the creek in Section 34, Township 17 North, Range 2 West
78. The southeasterly line of Lots 66 and 67, Block 1, Scott Lake, Division 2
79. West line of East 20 acres Government Lot 3, Section 2, Township 17 North, Range 1 West
80. The northwesterly line of the following described parcel in Section 2, Township 17 North, Range 1 West, Lot 2: commencing 456.2 feet East of North boundary Lot 2 with high waterline Patterson Lake East 193.8 feet South 450 feet West to meander line northerly on meander line to point South 46E40' East of beginning (Assessor Parcel Number 117-02-1404)
81. The South line of the North Half of the Southeast Quarter of the Southwest Quarter, Section 35, Township 18 North, Range 1 West
82. The centerline of the creek in Section 33, Township 17 North, Range 1 West draining from Offut Lake into Deschutes River
83. The East line of the following described parcel in Government Lot 2, Section 32, Township 17 North, Range 1 West: commencing East line Collins Street East of Southeast corner Block 5 Offut Lake East 339.75 feet North to shore of lake northwesterly to East line Collins Tracts, South to beginning (Assessor Parcel Number 117-32-4108)
84. The West line of Lot 14, Plat of Brandon
85. The southwesterly line of the following described parcel in Government Lot 3, Section 32, Township 17 North, Range 1 West: commencing Northeast corner Lot 3 South 640 feet southwesterly along meander line 350 feet, point of beginning, North 41E South 50 feet South 41E East 300 feet to meander line northeasterly 50 feet (Assessor Parcel Number 117-32-2407)

SECTION SIX -- SHORELINE MAPS

86. The East line of the West Half of Government Lot 1, Section 13, Township 16 North, Range 1 West
88. The North line of the following described parcel in Section 31, Township 18 North, Range 1 East: commencing 1566.6 feet East of Southwest section corner North 19E42'30" East 534.81 feet point of beginning, South 89E47'30" East 225 feet North 19E42'30" East 53.04 feet North 89E47'30" West 225 feet South 19E42'30" West 530 feet (Assessor Parcel Number 218-31-3414)
89. The East line of Lot 26, Thompsons St. Claire Tracts
90. The northwesterly lot line Lot 8 Twin Capes
92. North section line Section 17, Township 17 North, Range 2 East
93. The northwesterly line of Tract "J" Nisqually Pines, Division 1
94. Northwesterly right-of-way line Burlington Northern railroad
- 94a. The South line of the South Half of the Southeast Quarter of the Southwest Quarter of the Southwest Quarter of the Southwest Quarter, Section 29, Township 17 North, Range 2 East
95. East right-of-way line Crystal Spring Road
- 95a. Beginning at the North edge of the right-of-way of the Olympia-Yelm Highway of the Southeast Quarter, Section 11, Township 17 North, Range 1 East
96. The North line Lot 4, Section 23, Township 16 North, Range 1 West
- 96a. 290 feet East along the northerly line of Lots E and F of the Mountain View Addition, Township of Tenino; thence 175 feet North, Section 20, Township 16 North, Range 1 West
97. The West city limit line Bucoda (as of March 1974) and South section line Section 12, Township 15 North, Range 2 West
98. The North section line Section 7, Township 15 North, Range 1 West

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- 99. The North Section line Section 28, Township 16 North, Range 2 East
- 99a. The North line of the West Half of the Northwest Quarter of the Southeast Quarter of the Southeast Quarter, Section 18, Township 15 North, Range 3 East
- 100. The South line Government Lot 5, Section 28, Township 16 North, Range 2 East
- 101. The West line Lot 10 Edwards Lake Lawrence, Division 3
- 102. The South line of the North Half Government Lot 2, Section 20, Township 16 North, Range 2 East
- 103. The East line of Section 2, Township 17 North, Range 2 West

SECTION SEVEN -- APPENDICES

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I. WAC REVIEW CRITERIA

The following section contains the most recent edition of the Washington Administrative Code (WAC) regarding the review criteria for shoreline permits. The provisions for a Substantial Development Permit (SDP), a Shoreline Conditional Use Permit, and a Shoreline Variance Permit are as follows, and relate to the discussion on pages - 1 - through - 17 -. Amendments to the text or mapped shoreline "environment" designations are specifically discussed on pages - 14 - through - 17 -.

A. WAC 173-14-100 REVIEW CRITERIA FOR SUBSTANTIAL DEVELOPMENT PERMITS.

1. Prior to the effective date of an applicable master program, a substantial development permit shall be granted only when the development proposed is consistent with:
 - a. The policies and procedures of the act.
 - b. The guidelines and regulations of the department.
 - c. So far as can be ascertained, the master program being developed for the area.
2. After the adoption or approval, as appropriate, by the department of an applicable master program, a substantial development permit shall be granted only when the development proposed is consistent with:
 - a. The policies and procedures of the act.
 - b. The provisions of this regulation.
 - c. The applicable master program adopted or approved for the area.

The State Environmental Policy Act, Chapter 43.21C RCW, has been determined to be applicable to government permit programs. See WAC 461-08-175, Rules of Practice and Procedures of the Shoreline Hearings Board. Also see State Environmental Policy Act guidelines.

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B. WAC 173-14-140 REVIEW CRITERIA FOR CONDITIONAL USE PERMITS

The purpose of a conditional use permit is to allow greater flexibility in varying the application of the use regulations of the master program in a manner consistent with the policies of RCW 90.58.020: PROVIDED, that conditional use permits should also be granted in a circumstance where denial of the permit would result in a thwarting of the policy enumerated in RCW 90.58.020. In authorizing a conditional use, special conditions may be attached to the permit by local government or the department to prevent undesirable effects of the proposed use.

1. Uses which are classified or set forth in the applicable master program as conditional uses may be authorized provided the applicant can demonstrate all of the following:
 - a. That the proposed use will be consistent with the policies of RCW 90.58.020 and the policies of the master program.
 - b. That the proposed use will not interfere with the normal public use of public shorelines.
 - c. That the proposed use of the site and design of the project will be compatible with other permitted uses within the area.
 - d. That the proposed use will cause no unreasonably adverse effects to the shoreline environment designation in which it is to be located.
 - e. That the public interest suffers no substantial detrimental effect.
2. Other uses which are not classified or set forth in the applicable master program may be authorized as conditional uses provided the applicant can demonstrate, in addition to the criteria set forth in WAC 173-14-140(1) above, that extraordinary circumstances preclude reasonable use of the property in a manner consistent with the use regulations of the master program.

3. Uses which are specifically prohibited by the master program may not be authorized.
4. In the granting of all conditional use permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if conditional use permits were granted for other developments in the area where similar circumstances exist, the total of the conditional uses should also remain consistent with the policies of RCW 90.58.020 and should not produce substantial adverse effects to the shoreline environment.

C. WAC 173-14-150 REVIEW CRITERIA FOR VARIANCE PERMITS

The purpose of a variance permit is strictly limited to granting relief to specific bulk, dimensional or performance standards set forth in the applicable master program where there are extraordinary or unique circumstances relating to the property such that the strict implementation of the master program would impose unnecessary hardships on the applicant or thwart the policies set forth in RCW 90.58.020.

1. Variance permits should be granted in a circumstance where denial of the permit would result in a thwarting of the policy enumerated in RCW 90.58.020. In all instances extraordinary circumstances should be shown and the public interest shall suffer no substantial detrimental effect.
2. Variance permits for development that will be located landward of the ordinary high water mark (OHWM), as defined in RCW 90.58.030(2)(b), except within those areas designated by the department as marshes, bogs, or swamps pursuant to Chapter 173-22 WAC, may be authorized provided the applicant can demonstrate all of the following:
 - a. That the strict application of the bulk, dimensional or performance standards set forth in the applicable master program precludes or significantly interferes with a reasonable use of the property not otherwise prohibited by the master program.

SECTION SEVEN -- APPENDICES

- b. That the hardship described in WAC 173-14-150(2)(a) above is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the master program, and not, for example, from deed restrictions or the applicant's own actions.
 - c. That the design of the project will be compatible with other permitted activities in the area and will not cause adverse effects to adjacent properties or the shoreline environment designation.
 - d. That the variance authorized does not constitute a grant of special privilege not enjoyed by the other properties in the area, and will be the minimum necessary to afford relief.
 - e. That the public interest will suffer no substantial detrimental effect.
3. Variance permits for development that will be located either waterward of the ordinary high water mark (OHWM), as defined in RCW 90.58.030(2)(b), or within marshes, bogs, or swamps as designated by the department pursuant to Chapter 173-22 WAC, may be authorized provided the applicant can demonstrate all of the following:
- a. That the strict application of the bulk, dimensional or performance standards set forth in the applicable master program precludes a reasonable use of the property not otherwise prohibited by the master program.
 - b. That the hardship described in WAC 173-14-150(3)(a) above is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the master program, and not, for example, from deed restrictions or the applicant's own actions.
 - c. That the design of the project will be compatible with other permitted activities in the area and will not cause adverse effects to adjacent properties or the shoreline environment designation.

- d. That the requested variance will not constitute a grant of special privilege not enjoyed by the other properties in the area, and will be the minimum necessary to afford relief.
 - e. That the public rights of navigation and use of the shorelines will not be adversely affected by the granting of the variance.
 - f. That the public interest will suffer no substantial detrimental effect.
4. In the granting of all variance permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if variances were granted to other developments in the area where similar circumstances exist the total of the variances should also remain consistent with the policies of RCW 90.58.020 and should not produce substantial adverse effects to the shoreline environment.
5. Requests for varying the use to which a shoreline area is to be put are not requests for variances, but rather requests for conditional uses. Such requests shall be evaluated using the criteria set forth in WAC 173-14-140.

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I. CANYON REACH MANAGEMENT UNIT--OLYMPIA

A. Scope/Boundary

The Canyon Reach Management Unit--Olympia has been split into two sub-units based upon the differing physical and jurisdictional boundaries. All lands identified below shall be governed by the provisions of the Shoreline Master Program and Act, except for those lands in "2" below shall be governed by the provisions of the local zoning ordinance. Lands within this Management Unit are as follows:

1. Those lands within the jurisdiction of the Shoreline Management Act [two hundred (200) feet from the creek].
2. Those remaining lands within the canyon and including those lands from the shoreline jurisdiction to one hundred (100) feet beyond the top of the canyon.

B. Policies

These policies shall only apply to those areas described above.

1. Uses should be severely limited to those which protect, conserve and manage existing natural resources and valuable cultural areas. Uses should be nonconsumptive of the physical and biological resources or substantially nondegrading of the unique or valuable natural shoreline characteristic. There should be little or no intrusive visual evidence of man-developed structures within the canyon and it should remain relatively free of human influence.
2. Existing structures and uses should conform to the provisions of this management unit to the greatest extent possible.
3. Development should be prohibited within the Percival Creek Canyon except for road crossings and utility corridors where no reasonable alternative exists.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

4. The Percival Creek canyon should be managed as an ecologically sensitive area.
5. Uses or activities which can be identified as detrimental to the water quality of Percival Creek or which would require a federal or state pollution discharge permit other than for storm water conveyance or aquaculture purposes should be prohibited.
6. Where conflicts arise between economic development and the protection, conservation and management of existing natural resources, the latter should be given priority.
7. Agricultural practices, including use of chemicals and animal keeping, should be conducted in a manner which protects water quality.
8. Public access and recreational opportunities should be explored within the canyon, but limited to the degree compatible with the conservation or restoration of the canyon ecosystem. These opportunities should be discussed by the local parks departments, affected state agencies, and adjacent property owners.
9. A shoreline pedestrian trail within the canyon is authorized providing (in order of priority):
 - a. The Burlington Northern Railroad (BNRR) right-of-way is abandoned and is made available to the City; or
 - b. An access easement can be obtained from BNRR for a trail located adjacent to the tracks and within the right-of-way; or
 - c. Another acceptable trail route can be identified which is compatible with the canyon ecosystem.

C. Use Regulations

1. Allowable uses and activities within the canyon are as follows:

a. Primary Uses

- (1) Aquaculture. Aquacultural activities relating to the fishing and harvesting of wild and planted stock for recreational and commercial purposes.
- (2) Recreation. Low intensity and passive recreational facilities (viewpoints, unpaved trails, limited picnic facilities) including public- or privately-owned passive parks, wildlife refuges, or open spaces.
- (3) Research and Education. Temporary, water-dependent and water related research and educational facilities.
- (4) Road and Railroad Design and Construction
 - (a) Road. The continued use and maintenance of existing bridges is allowed. The future expansion of both SR-101 bridges from two to four lanes westbound and three lanes eastbound and the construction of the five-lane West Olympia Bridge are allowed. A road for motorized vehicles within the canyon is prohibited.
 - (b) Railroads. The continued use and maintenance of the existing Burlington Northern Railroad line and the construction of new facilities outside the canyon is allowed.
 - (c) Pedestrian Facilities. The maintenance and use of pedestrian bridges and trails is allowed.

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- (5) Utilities. The continued maintenance of existing facilities is allowed. Specific uses include storm water retention/detention ponds, and conveyance facilities, sanitary sewer, water, gas, electricity, telephone, telecable, and other similar utilities.

Where creek crossing is determined to be necessary, utilities shall be attached to or located immediately adjacent to one of these facilities: Evergreen Park pedestrian bridge, West Olympia bridge or SR-101 bridge.

Future utility improvements shall be underground, where feasible, and within or immediately adjacent to existing utility easements. Storm water discharges to the creek shall utilize existing discharge points to the extent feasible.

- b. Accessory Uses. The following uses are allowed only when shown to be clearly subordinate or incidental to the primary use; is the minimal area necessary to accomplish the proposed use; is in conformance with all appropriate local, state, and federal regulations; and is consistent with the following performance criteria:

- (1) Dredging. When allowed, this activity shall:
- (a) Include provisions for fisheries or wildlife habitat improvement.
 - (b) Be subject to the required plans, review and conditions of "Special Plans" Section E.
- (2) Forest Management Practices. When allowed, this activity shall be of limited scope such as selective tree harvesting for the preservation of view corridors or for trees affected by fire, disease or insects.

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- (3) Landfilling. When allowed, this activity shall:
 - (a) Be subject to the required plans, review, and conditions of "Special Plans" Section E.
 - (b) Return of the excavated portion of Olympic Park Replat proposed Division 2, North of Tract A in Division 1, to as close to its original contours as possible, be allowed, provided a landscaping plan is included for the filled area.
 - (4) Shoreline Protection. When allowed, this activity shall provide for bank protection devices or in-stream construction for the purpose of fisheries or wildlife enhancement.
 - c. Nonconforming Uses. A use lawfully existing prior to the effective date of this Canyon Reach Management Unit, the Shoreline Master Program for the Thurston Region, or any amendment thereto which is rendered nonconforming by the adoption of these regulations or an amendment thereof, may continue in a manner and to the extent that it existed upon the effective date of the Management Unit or amendment respectively.
2. Permitted uses outside of the Percival Creek canyon, but within 100 feet of the top of the bank are as follows:
- a. Primary uses and their customary accessory uses permitted by the underlying zoning district (subject to "b" below).
 - b. Uses or activities which can be identified as detrimental to the water quality of Percival Creek or which would require a federal or state pollution discharge permit other than for storm water conveyance or aquaculture purposes are prohibited.

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D. Dimensional Standards

Other than those standards below, dimensional standards within this unit shall be pursuant to the underlying zoning.

However, any rights created or granted within existing Planned Unit Development approvals or in the Memorandum of Settlement of Civil Action Thurston County Superior Court Case No. 84-2-01074 and SHB No. 84-38, between the Black Hills Audubon Society, the City of Olympia and Plaintiffs Falcone, et al., and Evergreen Park, Inc. shall not be affected by this section. Provided, if a geotechnical report required for a particular parcel under this ordinance indicates that the minimum setback provisions in the settlement agreement poses a hazard to persons, property or the environment when applied to said lot, the administrator may require minimum buffers as provided in subsection 1 below.

1. Canyon Buffer. The minimum buffer from the top of the canyon shall be twenty-five (25) feet except when the property is less than one hundred (100) feet in depth from the canyon to a frontage road. In this case, the administrator may authorize a reduction in this buffer of no more than fifty percent (50%), provided the structure would be visually obstructed from the railroad right-of-way, and is accompanied by a site plan which has incorporated into it the recommendations of a geotechnical report.
2. Density. The areas within the canyon shall be subtracted from the gross parcel size for the purpose of density calculation.

E. Special Plans

Developments lying within the shoreline jurisdiction or within the canyon will be required to submit these special plans or studies and undergo the special review as follows:

1. Environmental Checklist. No categorical exemptions shall exist within the canyon. All developments requiring a local permit shall prepare an Environmental Checklist.
2. Supplemental Review. Copies of all Environmental Checklists and their attachments, plans and reports shall be circulated to the Squaxin Island Tribe, and appropriate state and federal agencies for review. Development proposals shall incorporate applicable recommendations from these agencies for preventing and mitigating adverse impacts on fish or wildlife resources and enhancing wildlife habitat.
3. Water Quality Assessment. A detailed assessment of the water quality impacts and proposed mitigation measures will be a required part of the Environmental Checklist.
4. Geotechnical Report
 - a. This report shall include a description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinions and recommendations of the adequacy of the site to be developed. This report shall be prepared by either a licensed civil engineer or an engineering geologist who is knowledgeable of regional geologic conditions and who derives his/her livelihood from employment in this field.

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- b. Any area in which the investigation indicates the presence of geological hazards shall not be developed unless the report can conclusively demonstrate that these hazards would be overcome in such a manner as to prevent hazard to life or limb, hazard to property, adverse effects on the safety, use or integrity of the canyon ecology, and adverse impact on the natural environment. The burden of proof lies with the proponent.
 - c. The requirement of this report may be waived by the administrator if the proposed development would not cause significantly adverse geological impacts, or there is adequate geological information available on the area proposed for development to determine the impacts of the proposed development and appropriate mitigation measures.
5. Clearing and Grading Plan. This plan shall specifically identify vegetation to be removed, a schedule for vegetation removal and replanting, and the method of vegetation removal. Clearing and grading activities shall be undertaken only during the drier months of the year and shall be in accordance with all local ordinances. Undergrowth shall be retained to the extent feasible. Yarding methods which minimize soil disturbance shall be used.
6. Temporary Erosion Control Plan. This plan shall identify the specific mitigating measures to be implemented during construction to protect the water from erosion, siltation, landslides and deleterious construction materials.

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7. Storm Water Control Plan. Except for individually owned duplex and single-family residences not within a "project," a permanent storm water control plan shall take into consideration existing and projected development in surrounding areas and identify the means of protecting water quality.
 - a. Storm Water Maintenance Agreement. A maintenance program for the storm drainage system, which identifies maintenance activities, schedules, and responsibilities shall be part of the storm water control plan.
 - b. Storm Water Plan Review. Authorization of all storm water systems shall be by the local jurisdiction with review by the appropriate state and federal agencies and the Squaxin Island Tribe.

F. Permit Process

1. "Substantial development" located within shoreline jurisdiction and not expressly exempted by the State Shoreline Management Act and WAC 173-14-040 will require a Substantial Development Permit.
2. Uses and activities exempted by the State Shoreline Management Act and WAC 173-14-040 shall still comply with the policies and regulations of this Management Unit.
3. When a Substantial Development Permit is required, the Administrator shall undertake a consolidated review of the project by the affected parties identified in Section E and seek to minimize the time in the permit process through close coordination with the applicant.

II. CANYON REACH MANAGEMENT UNIT--TUMWATER

A. Scope/Boundary

The Canyon Reach Management Unit--Tumwater has been split into two sub-units based upon the differing physical conditions within the shoreline management jurisdiction. All lands identified below shall be governed by the provisions of the Shoreline Master Program and Act. Lands within this Management Unit are as follows:

1. Those lands within the canyon.
2. Those lands from the top of the canyon to the two hundred (200) foot boundary of the shoreline jurisdiction.

B. Policies

These policies shall only apply to those areas described above.

1. Uses should be severely limited to those which protect, conserve and manage existing natural resources and valuable cultural areas. Uses should be nonconsumptive of the physical and biological resources or substantially nondegrading of the unique or valuable natural shoreline characteristic. There should be little or no intrusive visual evidence of man-developed structures within the canyon and it should remain relatively free of human influence.
2. Existing structures and uses should conform to the greatest extent possible with the provisions of this management unit.
3. Development should be prohibited within the Percival Creek Canyon except for road crossings and utility corridors where no reasonable alternative exists.
4. The Percival Creek canyon should be managed as an ecologically sensitive area.

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5. Development uses or activities which can be identified as detrimental to water quality or which would require federal or state discharge permit other than for storm water conveyance or aquaculture purposes should be prohibited.
6. Where conflicts arise between economic development and the protection, conservation and management of existing natural resources, the latter shall be given priority.
7. Agricultural practices, including use of chemicals and animal keeping, should be conducted in a manner which protects water quality.
8. Public access and recreational opportunities should be provided within the canyon, but limited to the degree compatible with the preservation or restoration of the canyon ecosystem.
9. Construction of a shoreline pedestrian trail should only be authorized if an accessible route can be identified, realistically attained and be compatible with the canyon ecosystem.

C. Use Regulations

1. Allowable uses and activities within the canyon are as follows:
 - a. Primary Uses
 - (1) Aquaculture. Aquacultural activities relating to the fishing and harvesting of wild and planted stock for recreational and commercial purposes.
 - (2) Recreation. Low intensity and passive recreational facilities (viewpoints, unpaved trails, limited picnic facilities) including public- or privately-owned passive parks, wildlife refuges, or open spaces.
 - (3) Research and Education. Temporary, water-dependent and water-oriented related research and educational facilities.

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- (4) Road and Railroad Design and Construction
- (a) Road. The continued use and maintenance of existing bridges is allowed. Future road improvements which cross the creek shall be clustered immediately adjacent to the Mottman Road crossing. A road for motorized vehicles within the canyon is prohibited.
- (b) Railroads. The continued use and maintenance of the existing Burlington Northern Railroad line and the construction of new facilities outside the canyon is allowed.
- (c) Pedestrian Facilities. The maintenance and use of trails are allowed.
- (5) Utilities. The continued maintenance of existing facilities is allowed. Specific uses include storm water retention/detention ponds, and conveyance facilities, sanitary sewer, water, gas, electricity, telephone, telecable.

Future utility improvements shall be underground and within or immediately adjacent to existing utility easements where practical. Where creek crossings are determined to be necessary, they shall utilize either the Mottman Road or Burlington Northern Railroad bridge, or be processed as a Shoreline Conditional Use Permit and which may include some public access amenity (i.e., footbridge). Storm water discharges to the creek shall utilize existing discharge points to the extent feasible.

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- b. Accessory Uses. The following uses are to be clearly subordinate or incidental to the primary use; to contain the minimal area necessary; to conform to all appropriate local, state, and federal regulations; and to be subject to the following performance criteria:
- (1) Dredging or Excavation. When allowed, this activity shall:
 - (a) Include provisions for fisheries or wildlife habitat improvement.
 - (b) Be subject to the required plans, review and conditions of "Special Plans" Section E.
 - (2) Forest Management Practices. When allowed, this activity shall be of limited scope such as selective tree harvesting for the preservation of view corridors or for trees affected by fire, disease or insects.
 - (3) Landfilling. When allowed, this activity shall be subject to the required plans, review, and conditions of "Special Plans" Section E.
 - (4) Shoreline Protection. When allowed, this activity shall provide for bank protection devices or in-stream construction for the purpose of fisheries or wildlife enhancement.
- c. Nonconforming Uses. A use lawfully existing prior to the effective date of this Canyon Reach Management Unit, the Shoreline Master Program for the Thurston Region, or any amendment thereto which is rendered nonconforming by the adoption of this Management Unit or an amendment thereof, may continue in a manner and to the extent that it existed upon the effective date of the Management Unit or amendment respectively.

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2. Allowable uses and activities from the top of the canyon to the boundary of the shoreline jurisdiction are as follows:
 - a. Primary uses and their customary accessory uses (subject to "b" below):
 - (1) Sales
 - (2) Service
 - (3) Storage
 - (4) Manufacturing
 - (5) Residential
 - (6) Parks, open space and recreational facilities
 - (7) Uses of a similar nature as determined by the local administrator.
 - b. Uses or activities which can be identified as hazardous to the water quality of Percival Creek and the Black Lake Drainage Ditch or which would require a federal or state discharge permit are prohibited.

D. Dimensional Standards

Other than those standards below, dimensional standards within this unit shall be pursuant to the underlying zoning.

1. Setback/Landscaping
 - a. South Bank. A twenty-five (25) foot setback from top of canyon shall be reserved as a vegetated sight screen, using existing or supplemental planting.

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b. North Bank

- (1) Creek south of railroad: A twenty-five (25) foot setback from top of canyon shall be reserved as a vegetated sight screen, using existing or supplemental planting.
- (2) Creek north of railroad: A fifty (50) foot setback from the creek shall be reserved as a vegetated sight screen, using existing or supplemental planting.

2. Building Height. Thirty-five (35) feet within shoreline jurisdiction.

E. Special Plans

Substantial developments within the shoreline jurisdiction shall be required to submit these special plans or studies and undergo the special review as follows:

1. Environmental Checklist. No categorical exemptions shall exist within the canyon. All developments requiring a local permit shall prepare an Environmental Checklist.
2. Clearing and Grading Plan. This plan shall specifically identify vegetation to be removed, a schedule for vegetation removal and replanting, and the method of vegetation removal. Clearing and grading activities shall be undertaken only during the drier months of the year and shall be in accordance with all local ordinances. Undergrowth shall be retained to the extent feasible. Yarding methods which minimize soil disturbance shall be used.
3. Temporary Erosion Control Plan. This plan would identify the specific mitigating measures to be implemented during construction to protect the water from erosion, siltation, landslides and deleterious construction materials.

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4. Storm Water Control Plan. Except for individually owned duplex and single-family residences not within a "project," a permanent storm water control plan which take into consideration existing and projected development in surrounding areas and identifies the means of protecting water quality shall be required.
 - a. Storm Water Maintenance. A maintenance program for the storm drainage system, which identifies maintenance activities, schedules, and responsibilities shall be part of the storm water control plan.
 - b. Storm Water Plan Review. Authorization of all storm water systems shall be by the local jurisdiction with review by the appropriate state and federal agencies and the Squaxin Island Tribe.

For substantial developments that also lie within the canyon or railroad right-of-way, the following shall be required in addition to those above:

5. Supplemental Review. Copies of all Environmental Checklists and their attached plans and reports shall be circulated to the Squaxin Island Tribe, and appropriate state and federal agencies for review. Development proposals shall incorporate applicable recommendations from these agencies for preventing and mitigating adverse impacts on fish or wildlife resources and enhancing wildlife habitat.
6. Water Quality Assessment. A detailed assessment of the water quality impacts and proposed mitigation measures will be a required part of the Environmental Checklist.
7. Geotechnical Report
 - a. This report shall include a description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinions and recommendations of the adequacy of the site to be developed. This report shall be prepared by either a licensed civil engineer or an engineering geologist who is knowledgeable of regional geologic conditions and who derives his/her livelihood from employment in this field.

- b. Any area in which the investigation indicates the presence of geological hazards shall not be developed unless the report can conclusively demonstrate that these hazards would be overcome in such a manner as to prevent hazard to life or limb, hazard to property, adverse effects on the safety, use or integrity of the canyon ecology, and adverse impact on the natural environment. The burden of proof lies with the proponent.
- c. The requirement of this report may be waived by the administrator if the proposed development would not cause significantly adverse geological impacts, or there is adequate geological information available on the area proposed for development to determine the impacts of the proposed development and appropriate mitigation measures.

F. Permit Process

- 1. "Substantial development" located within the shoreline jurisdiction and not expressly exempted by WAC 173-14-040 will require a Substantial Development Permit.
- 2. Uses and activities exempted by the State Shoreline Management Act and WAC 173-14-040 shall still comply with the policies and regulations of this Management Unit.
- 3. When a Substantial Development Permit is required, the Administrator shall undertake a consolidated review of the project by the affected parties identified in Section E and seek to minimize the time in the permit process through close coordination with the applicant.

III. MIDDLE REACH MANAGEMENT UNIT--OLYMPIA

A. Scope/Boundary

The Middle Reach Management Unit--Olympia has been split into three sub-units based upon differing physical and jurisdictional boundaries. All lands identified below are governed by the provisions of the Shoreline Master Program and Act, except for the wetland buffer which shall be governed by the provisions of the local zoning ordinance. Lands within this Management Unit are as follows:

1. Black Lake Drainage Way and its adjacent fifty (50) foot buffer area.
2. Associated Wetlands of Black Lake and its adjacent fifty (50) foot buffer area.
3. Those lands extending from the outside Black Lake Drainage Way buffer to the two hundred (200) foot shoreline boundary or the edge of the 100-year flood plain whichever is greater.

B. Policies

These policies shall only apply to those areas described above.

1. Uses and activities should protect the shoreline from urban expansion by encouraging "planned" development concepts which accommodate innovation, creativity and design flexibility. Such "planned" developments would be characterized by lower intensity uses and activities along the shoreline and associated wetland which would provide a buffer and create environmental protection from competing upland activities.
2. Existing structures and uses should conform to the provisions of this management unit to the greatest extent possible.

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3. Development should be prohibited within the drainage way and its buffer except for road and utility crossings where no reasonable alternative exists.
4. Uses or activities which can be identified as detrimental to the waters of Black Lake Drainage Ditch or which would require a federal or state pollution discharge permit other than for storm water conveyance or aquaculture purposes should be prohibited.
5. Where conflicts arise between economic development and the protection, conservation and management of existing natural resources, the latter should be given priority.
6. Agricultural practices, including use of chemicals and animal keeping, should be conducted in a manner which protects water quality.
7. Recreational opportunities should be explored within the publicly-owned Black Lake Drainage Ditch and private property within the drainage way buffer where access easements can be obtained to the degree compatible with the conservation or restoration of the drainage ditch ecosystem. These opportunities should be discussed by the local park departments, affected state agencies, and adjacent property owners.
8. Projects to maintain the drainage ditch should incorporate features which enhance the habitat value of the ditch and associated wetland.
9. Preclude filling of the associated wetlands except for road and utility crossings where no reasonable alternative exists.

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10. Developments are encouraged to arrange their site design to:
 - a. Cluster required open space areas, small courtyards, plazas, or other pedestrian-oriented amenities within or adjacent to the shoreline setback,
 - b. Orient office spaces of industrial development adjacent to the creek, and
 - c. Use of wooden exterior, where possible, and/or paint of an earth tone of blue, brown, gray or green as a preferred architectural treatment.
11. Unsightly or inappropriate shoreline activities should not be located along the drainage ditch side of a parcel unless visually obscured from the water's edge by a combination of topography, dense plantings, earth berming, or a screening fence.

C. Use Regulations

1. Allowable uses and activities within the Black Lake Drainage Way, its buffer, the associated wetlands of Black Lake, and its buffer are as follows:
 - a. Primary Uses
 - (1) Aquaculture. Aquacultural activities relating to the fishing and harvesting of wild and planted stock for recreational and commercial purposes.
 - (2) Recreation. Low intensity and passive recreational facilities (viewpoints, unpaved trails, limited picnic facilities) including public- or privately-owned passive parks, wildlife refuges, or open spaces.
 - (3) Research and Education. Temporary, water-dependent and water related research and educational facilities.

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(4) Road and Railroad Design and Construction

- (a) Road. The continued use and maintenance of existing facilities is allowed. There shall be a preference for future improvements to be clustered immediately adjacent to the existing Mottman Road crossing in lieu of a new corridor crossing.

Future transportation corridors which cross the wetlands will be improved to minimum road standards of at least a collector roadway, a sixty (60) foot right-of-way, a public railroad crossing and eventual signalization at Black Lake Boulevard. Future transportation corridor crossings will only be allowed in the following prioritized locations:

- (i) Mottman Road--at grade
- (ii) 25th Avenue--elevated structure across the wetland

(NOTE: The elevated structure is the preferred alternative at 25th Avenue without providing additional roadway design alternative(s) and an environmental assessment of the potential impacts of the alternative design(s) upon the wetland and its habitat values.)

- (b) Railroads. The continued use and maintenance of the existing Burlington Northern Railroad line and the construction of new facilities outside the shoreline setback is allowed.
- (c) Pedestrian Facilities. The maintenance and use of trails are allowed.

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- (5) Utilities. The continued maintenance of existing facilities is allowed. The continued maintenance of the Black Lake Drainage Ditch is also allowed provided that such an activity includes features which increase the habitat value of the ditch and adjacent wetlands. Specific uses include storm water retention/detention ponds and conveyance facilities, sanitary sewer, water, gas, electricity, telephone, telecable, and other similar utilities. Storm water discharges to the creek shall utilize existing discharge points to the extent feasible.

Where creek crossings are determined to be necessary, they shall be located within the Mottman Road right-of-way crossing, or in the 25th Avenue (extended) corridor.

Future utility improvements which cross the drainage ditch and/or associated wetlands shall be allowed only within the corridors described below. Utility improvements may precede the roadway improvements with these corridors and where the utilities span the drainage ditch or former channel an aerial crossing shall be used. The prioritized utility corridors are as follows:

- (a) Mottman Road
- (b) 25th Avenue--in conjunction with the elevated structure or immediately adjacent to the existing utility easements.

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- b. Accessory Uses. The following uses are allowed only when shown to be clearly subordinate or incidental to the primary use; is the minimal area necessary to accomplish the proposed use; is in conformance with all appropriate local, state, and federal regulations; and is consistent with the following performance criteria:
- (1) Dredging. When allowed, this activity shall:
 - (a) Be a part of an approved fisheries or wildlife habitat improvement project.
 - (b) Be subject to the required plans, review and conditions of the "Special Plans" Section E.
 - (2) Forest Management Practices. When allowed, this activity shall be of limited scope such as selective tree harvesting for the preservation of view corridors or for trees affected by fire, disease or insects.
 - (3) Landfilling. When allowed, this activity shall be subject to the required plans, review, and conditions of the "Special Plans" Section E.
 - (4) Shoreline Protection. When allowed, this activity shall provide for bank protection devices or in-stream construction for the purpose of fisheries or wildlife enhancement.
- c. Nonconforming Uses. A use lawfully existing prior to the effective date of this Middle Reach Management Unit, the Shoreline Master Program for the Thurston Region, or any amendment thereto which is rendered nonconforming by the adoption of these regulations or an amendment thereof, may continue in a manner and to the extent that it existed upon the effective date of the Management Unit or amendment respectively.

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2. Allowable uses and activities not located in the preceding areas to the boundary of the shoreline jurisdiction are as follows:
 - a. Primary uses and their customary accessory uses (subject to "b" below):
 - (1) Sales
 - (2) Service
 - (3) Storage
 - (4) Manufacturing
 - (5) Residential
 - (6) Parks, open space and recreation facilities
 - (7) Uses of a similar nature as determined by the local administrator.
 - b. Uses or activities which can be identified as detrimental to the water quality of the Black Lake Drainage Ditch and the associated wetlands of Black Lake, or which would require a federal or state pollution discharge permit other than for storm water conveyance or aquaculture purposes are prohibited.

D. Dimensional Standards

Other than those standards below, dimensional standards within this unit shall be pursuant to the underlying zoning.

1. Drainage Way Buffer. For properties abutting the publicly-owned Black Lake Drainage Way, a fifty (50) foot undisturbed native vegetative buffer shall be retained.
 - a. The administrator may require a vegetation enhancement plan for those locations within the buffer where substantial native vegetation is lacking.
 - b. All vegetation enhancement plans for the publicly-owned Black Lake Drainage Way buffer shall be designed to increase wildlife or aquatic habitat by including riparian species similar to those listed in Suggestions for Stream Bank Revegetation in Western Washington.
 - c. When an adjacent property owner desires to landscape the abutting publicly-owned drainage way, the vegetation enhancement plan shall be reviewed and approved by the Thurston County Public Works Department.
 - d. The standards of subsection 2 below supersede the provisions of this section.
 - e. The administrator may reduce the drainage way buffer when the existing lot of record is less than one hundred (100) feet in depth. In this case, the buffer shall not be greater than fifty percent (50%) of the parcel depth but in no case reduced beyond twenty-five (25) feet.

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- f. Properties which contain material storage yards, truck service roads, railroad lines, equipment or vehicle parking, or similar activities shall be screened from the drainage ditch. A sight screening will be located in a ten (10) foot strip immediately upland of the drainage ditch buffer by providing a combination of view obstructing vegetation, earth berm, wall, or fencing.
2. Wetland Buffer. For properties abutting the associated wetlands of Black Lake, a fifty (50) foot undisturbed native vegetation buffer shall be retained.
 - a. Land uses and activities which encroach into the required buffer area on the effective date of the implementing ordinance shall retain the existing buffer with no further clearing or habitat destruction.
 - b. Vegetation enhancement plans shall be designed to increase wildlife or aquatic habitat by including riparian species similar to those listed in Suggestions for Stream Bank Revegetation in Western Washington.
 - c. A vegetation enhancement plan and a wetland assessment shall be prepared for the associated wetland and/or its buffer, and reviewed by the appropriate state and federal agencies.
 - d. The standards of this section supersede the provisions of subsection 1 above.
3. Density. That portion of a parcel containing a wetland shall be subtracted from the gross parcel size to determine residential density. Where the entire parcel lies within a wetland, one dwelling unit per lot of record may be transferred to an adjacent upland parcel.
4. Building Height. Thirty-five (35) feet within shoreline jurisdiction.

E. Special Plans

Substantial developments within the shoreline jurisdiction will be required to submit these special plans or studies and undergo the special review as follows:

1. Environmental Checklist. No categorical exemptions shall exist within the shoreline setback. All developments requiring a local permit shall prepare an Environmental Checklist.
2. Clearing and Grading Plan. This plan shall specifically identify vegetation to be removed, a schedule for vegetation removal and replanting, and the method of vegetation removal. Clearing and grading activities shall be undertaken only during the drier months of the year and shall be in accordance with all local ordinances. Undergrowth shall be retained to the extent feasible. Yarding methods which minimize soil disturbance shall be used.
3. Temporary Erosion Control Plan. This plan shall identify the specific mitigating measures to be implemented during construction to protect the water from erosion, siltation, landslides and deleterious construction materials.
4. Storm Water Control Plan. Except for individually owned duplex and single-family residences not within a "project," a permanent storm water control plan shall take into consideration existing and projected development in surrounding areas and identify the means of protecting water quality.
 - a. Storm Water Maintenance Agreement. A maintenance program for the storm drainage system, which identifies maintenance activities, schedules, and responsibilities shall be part of the storm water control plan.
 - b. Storm Water Plan Review. Authorization of all storm water systems shall be by the local jurisdiction with review by the appropriate state and federal agencies and the Squaxin Island Tribe.

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Substantial developments also lying within the drainage way buffer shall also submit the following:

5. Supplemental Review. Copies of all Environmental Checklists and their attached plans or reports shall be circulated to the Squaxin Island Tribe and appropriate state and federal agencies for review. Development proposals shall incorporate applicable recommendations from these agencies for preventing and mitigating adverse impacts on fish or wildlife resources and enhancing wildlife habitat.
6. Water Quality Assessment. A detailed assessment of the water quality impacts and proposed mitigation measures will be a required part of the Environmental Checklist.
7. Geotechnical Report
 - a. This report shall include a description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinions and recommendations of the adequacy of the site to be developed. This report shall be prepared by either a licensed civil engineer or an engineering geologist who is knowledgeable of regional geologic conditions and who derives his/her livelihood from employment in this field.
 - b. Any area in which the investigation indicates the presence of geological hazards shall not be developed unless the report can conclusively demonstrate that these hazards would be overcome in such a manner as to prevent hazard to life or limb, hazard to property, adverse effects on the safety, use or integrity of the canyon ecology, and adverse impact on the natural environment. The burden of proof lies with the proponent.

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- c. The requirement of this report may be waived by the administrator if the proposed development would not cause significantly adverse geological impacts, or there is adequate geological information available on the area proposed for development to determine the impacts of the proposed development and appropriate mitigation measures.

Substantial developments proposed within the associated wetlands of Black Lake or its buffer shall also submit the following:

8. Vegetation Enhancement Plan. This report shall contain a list of deliberate and controlled alterations to the vegetation which may be allowed and which are intended to result in a net increase in wildlife or aquatic habitat value.
9. Wetland Assessment
 - a. This study shall determine the edge of the wetland and contain details on habitat value, hydrology, vegetation type, and/or water quality studies. It shall also include specific recommendations for mitigating measures which could be required as a condition of project approval. The recommendations may include, but are not limited to, construction techniques, or design, drainage, density specifications, and buffers. This analysis shall be prepared by persons who are educated in their respective field of expertise and derive his/her livelihood from employment as a consultant in that specialized field.
 - b. The Administrator may waive the requirement for said report if the proposed development would not cause significantly adverse biological and hydrological impacts, or there is adequate information available on the area proposed for development to determine the impacts of the proposed development and appropriate mitigating measures.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

F. Permit Process

1. "Substantial development" located within the shoreline jurisdiction and not expressly exempted by WAC 173-14-040 will require a Substantial Development Permit.
2. Uses and activities exempted by the State Shoreline Management Act and WAC 173-14-040 shall still comply with the policies and regulations of this management unit.
3. When a Substantial Development Permit is required, the Administrator shall undertake a consolidated review of the project by the affected parties identified in Section E and seek to minimize the time in the permit process through close coordination with the applicant.

IV. UPPER REACH MANAGEMENT UNIT--TUMWATER

A. Scope/Boundary

All lands identified below are governed by the provisions of the Shoreline Master Program and Act. All boundaries shall be interpreted consistent with the surveyed associated wetland boundaries shown in the Percival Creek Corridor Plan, Volume 2, 1986. Lands within this Upper Reach Management Unit are as follows:

1. The Black Lake Drainage Ditch;
2. Those lands extending two-hundred feet from the outside edge of the Black Lake Drainage Ditch; and
3. The associated wetlands of Black Lake, or the edge of the 100-year flood plain, whichever is greater.

B. Policies

These policies shall only apply to those areas described above.

1. Uses and activities should protect the wetlands from urban expansion by encouraging "planned" development concepts which accommodate innovation, creativity and design flexibility. Such "planned" developments would be characterized by lower intensity uses and activities along the shoreline and associated wetland which would provide a buffer and create environmental protection from competing upland activities.
2. Existing structures and uses should conform to the provisions of this management unit to the greatest extent possible.

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3. Uses or activities should provide an upland buffer and other means adjacent to the drainage way and associated wetlands as necessary to protect habitat and water quality.
4. Uses or activities which can be identified as detrimental to the water quality of the Black Lake Drainage Ditch or which would require a Federal or State Discharge Permit, other than for storm water conveyance or aquaculture purposes, should be prohibited.
5. Where conflicts arise between economic development and the protection, conservation, and management of existing natural resources, the latter should be given priority.
6. Agricultural practices, including use of chemicals and animal keeping, should be conducted in a manner which protects water quality.
7. Recreational opportunities should be explored within the publicly-owned Black Lake Drainage Ditch and the shoreline jurisdiction, where access easements can be attained and to the degree compatible with the conservation or restoration of the drainage ditch ecosystem. These opportunities should be discussed by the local park departments, affected state agencies, and adjacent property owners.
8. Projects to maintain the Black Lake Drainage Ditch should incorporate features to enhance the habitat value of the ditch and associated wetland.

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9. Filling of the associated wetlands should be precluded, except when consistent with all other management unit policies and where no reasonable alternative exists for:
 - a. Road and utility crossings; and
 - b. Wetland enhancements or public recreational paths and trails.
10. Developments are encouraged to arrange their site design to:
 - a. Cluster required open space areas, small courtyards, plazas, or other pedestrian-oriented amenities adjacent to the drainage way or wetland buffers;
 - b. Orient office spaces of industrial development towards the drainage way or wetlands; and
 - c. Use compatible natural exterior surfaces and colors as a preferred architectural treatment.

C. Use Regulations

1. Allowable uses and activities located within the Black Lake Drainage Ditch, its buffer, the Associated Wetland of Black Lake, and its buffer are as follows:
 - a. Primary Uses
 - (1) Aquaculture. Aquacultural activities relating to the fishing or harvesting of wild and planted stock for recreational and commercial purposes.
 - (2) Fencing. This shall be constructed in a manner not to severely impede the movement of wildlife.

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- (3) Recreation. Low intensity and passive recreational facilities (viewpoints, unpaved trails, limited picnic facilities) including public- or privately-owned passive parks, wildlife refuges, or open spaces.
- (4) Research and Education. Temporary, water-dependent and wetland-oriented research and educational facilities.
- (5) Road Design and Construction. The continued use and maintenance of existing facilities is allowed.

Future transportation corridors which cross the wetlands will be improved to minimum road standards of at least a collector roadway, and include a sixty (60) foot right-of-way, a public railroad crossing and eventual signalization at Black Lake Boulevard. Future transportation corridor crossings will only be allowed in the following prioritized locations:

- (a) 34th Avenue--at grade
- (b) 25th Avenue--elevated structure across the wetland

(NOTE: The elevated structure is the preferred alternative at 25th Avenue without providing additional roadway design alternative(s) and an environmental assessment of the potential impacts of the alternative design(s) upon the wetland and its habitat values.)

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

- (6) Utilities. The continued maintenance of existing facilities is allowed. The continued maintenance of the Black Lake Drainage Ditch is also allowed provided that such an activity includes features which increase the habitat value of the ditch and adjacent wetlands. Specific uses include storm water retention/detention ponds, and conveyance facilities, sanitary sewer, water, gas, electricity, telephone, telecable, and other similar utilities. Storm water discharges to the creek shall utilize existing discharge points to the extent practical.

Future utility improvements which cross the drainage ditch and/or associated wetlands shall be allowed only within the corridors described below. Utility improvements may precede the roadway improvements within these corridors and where the utilities span the drainage ditch or former channel, an aerial crossing shall be used. The prioritized utility corridors are as follows:

- (a) 34th Avenue
- (b) 25th Avenue--In conjunction with the elevated structure or immediately adjacent to the existing utility easements.
- (c) 29th Avenue--Only if no reasonable alternative exists.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

- b. Accessory Uses. The following uses are allowed only when shown to be clearly subordinate or incidental to the primary use; is the minimal area necessary to accomplish the proposed use; is in conformance with all appropriate local, state, and federal regulations; and is consistent with the following performance criteria:
- (1) Dredging or Excavation. When allowed, this activity shall:
 - (a) Include fisheries and wildlife habitat enhancement efforts approved by appropriate state and federal agencies.
 - (b) Be subject to the required plans, review and conditions of the "Special Plans" Section E.
 - (2) Forest Management Practices. When allowed, this activity shall be of limited scope such as selective tree harvesting for the preservation of view corridors or for trees affected by fire, disease or insects.
 - (3) Landfilling. When allowed, this activity shall be subject to the required plans, review, and conditions of the "Special Plans" Section E.
 - (4) Shoreline Protection. When allowed, this activity shall provide for bank protection devices or in-stream construction for the purpose of fisheries or wildlife enhancement.
- c. Nonconforming Uses. A use lawfully existing prior to the effective date of this Upper Reach Management Unit, the Shoreline Master Program for the Thurston Region, or any amendment thereto which is rendered nonconforming by the adoption of these regulations or an amendment thereof, may continue in a manner and to the extent that it existed upon the effective date of the Management Unit or amendment respectively.

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

2. Allowable uses and activities located within the 200 feet shoreline jurisdiction and not within the associated wetland and its buffer, or the Black Lake Drainage Ditch and its buffer, are as follows:
 - a. Primary uses and their customary accessory uses (subject to "b" below)
 - (1) Sales
 - (2) Service
 - (3) Storage
 - (4) Manufacturing
 - (5) Residential
 - (6) Parks, open space and recreation facilities
 - (7) Uses of a similar nature as determined by the local administrator.
 - b. Uses or activities which can be identified as detrimental to the water quality of the Black Lake Drainage Ditch and the associated wetlands of Black Lake or which would require a federal or state pollution discharge permit, other than for storm water conveyance or aquaculture purposes, are prohibited.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

D. Dimensional Standards

Other than those standards below, dimensional standards within this Management Unit shall be pursuant to the underlying zoning.

1. Drainage Ditch Buffer. For properties abutting the Black Lake Drainage Ditch, a fifty (50) foot undisturbed native vegetation buffer shall be retained, as measured from the ordinary high-water mark.
 - a. The administrator may require a vegetation enhancement plan for those locations within the buffer where substantial native vegetation is lacking.
 - b. All vegetation enhancement plans shall be designed to increase wildlife or aquatic habitat by including riparian species similar to those listed in Suggestions for Stream Bank Revegetation in Western Washington.
 - c. When an adjacent property owner desires to landscape the public-owned Black Lake Drainage Way, the vegetation enhancement plan shall be reviewed and approved by the Thurston County Public Works Department.
 - d. The provisions of subsection 2 below shall supersede this section.
2. Wetland Buffer. For properties within the Shoreline jurisdiction, abutting the associated wetlands of Black Lake, and within shoreline jurisdiction, a fifty (50) foot undisturbed native vegetation buffer shall be retained.
 - a. Land uses and activities which encroach into the required buffer area on the effective date of the implementing ordinance shall retain the existing buffer with no further clearing or habitat destruction.
 - b. Vegetation enhancement plans shall be designed to increase wildlife or aquatic habitat by including riparian species similar to those listed in Suggestions for Stream Bank Revegetation in Western Washington.

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- c. The administrator may reduce the wetland buffer when lots of record are less than two hundred (200) feet in depth from the front property line to the wetland edge. In this case, the buffer shall not be greater than fifty percent (50%) of parcel depth, but in no case reduced beyond twenty-five (25) feet. Further, in this case, a vegetation enhancement plan shall be provided for the wetland and/or its buffer.
3. Density. That portion of a residentially-zoned parcel containing a part of the associated wetlands of Black Lake shall be calculated based upon one (1) dwelling unit per ten (10) acres. The Wetland Buffer shall be calculated based upon the underlying zoning district.
4. Building Height. Thirty-five (35) feet within shoreline jurisdiction.

E. Special Plans

Substantial developments within the shoreline jurisdiction will be required to submit these special plans or studies and undergo the special review as follows:

1. Environmental Checklist. There shall be no categorical exemptions under the State Environmental Policy Act for land subject to these regulations. Therefore, all developments requiring a local permit shall prepare an Environmental Checklist.
2. Clearing and Grading Plan. This plan shall specifically identify vegetation to be removed, a schedule for vegetation removal and replanting, and the method of vegetation removal. Clearing and grading activities shall be undertaken only during the drier months of the year and shall be in accordance with all local ordinances. Undergrowth shall be retained to the extent feasible. Yarding methods which minimize soil disturbance shall be used.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

3. Temporary Erosion Control Plan. This plan shall identify the specific mitigating measures to be implemented during construction to protect the water from erosion, siltation, landslides and deleterious construction materials.
4. Storm Water Control Plan. Except for individually owned duplex and single-family residences not within a "project," a permanent storm water control plan shall take into consideration existing and projected development in surrounding areas and identify the means of protecting water quality.
 - a. Storm Water Maintenance Agreement. A maintenance program for the storm drainage system, which identifies maintenance activities, schedules, and responsibilities shall be part of the storm water control plan.
 - b. Storm Water Plan Review. Approval of all storm water systems shall be by the local jurisdiction with review by appropriate state and federal agencies and the Squaxin Island Tribe.
5. Supplemental Review. Copies of all Environmental Checklists and their attached plans or reports shall be circulated for review to the Squaxin Island Tribe, appropriate state and federal agencies and the adjacent municipal jurisdiction within the corridor. Development proposals shall incorporate applicable recommendations from these agencies for preventing and mitigating adverse impacts on fish or wildlife resources and enhancing wildlife habitat.
6. Water Quality Assessment. A detailed assessment of the water quality impacts and proposed mitigation measures will be a required part of the Environmental Checklist.

F. Permit Process

1. "Substantial development" located within the shoreline jurisdiction and not expressly exempted by WAC 173-14-040 will require a Substantial Development Permit.
2. Uses and activities exempted by the State Shoreline Management Act and WAC 173-14-040 shall still comply with the policies and regulations of this management unit.
3. When a Substantial Development Permit is required, the Administrator shall undertake a consolidated review of the project by the affected parties identified in Section E and seek to minimize the time in the permit process through close coordination with the applicant.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

V. UPPER REACH MANAGEMENT UNIT--THURSTON COUNTY

A. Scope/Boundary

All lands identified below are governed by the provisions of the Shoreline Master Program and Act. All boundaries shall be interpreted consistent with the surveyed associated wetland boundaries shown in the Percival Creek Corridor Plan, Volume 2, 1986, as shown on the Upper Reach Corridor Map in Section 8 VII. Lands within this Upper Reach Management Unit are as follows:

1. The Black Lake Drainage Ditch;
2. Those lands extending two-hundred feet from the outside edges of the Black Lake Drainage Ditch; and
3. The associated wetlands of Black Lake, or the edge of the 100-year flood plain, whichever is greater.

B. Policies

These policies shall only apply to those areas described above.

1. Uses should protect the wetlands from urban expansion by encouraging "planned" development concepts which accommodate innovation, creativity and design flexibility. Such "planned" developments would be characterized by lower intensity uses and activities along the shoreline and associated wetland which would provide a buffer and create environmental protection from competing upland activities.
2. Existing structures and uses should conform to the provisions of this management unit to the greatest extent possible.

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

3. Uses or activities should provide an upland buffer and other means adjacent to the drainage way and associated wetlands as necessary to protect habitat and water quality.
4. Uses or activities which can be identified as detrimental to the water quality of the Black Lake Drainage Ditch or which would require a Pollution Discharge Permit other than for storm water conveyance or aquaculture purposes should be prohibited.
5. Where conflicts arise between economic development and the protection, conservation, and management of existing natural resources, the latter should be given priority.
6. Agricultural practices, including use of chemicals and animal keeping, should be conducted in a manner which protects water quality.
7. Recreational opportunities should be explored within the publicly-owned Black Lake Drainage Ditch and the shoreline jurisdiction, where access easements can be attained and to the degree compatible with the conservation or restoration of the drainage ditch ecosystem. These opportunities should be discussed by the local park departments, affected state agencies, and adjacent property owners.
8. Projects to maintain the Black Lake Drainage Ditch should incorporate features to enhance the habitat value of the ditch and associated wetland.
9. Filling of the associated wetlands should be precluded, except when consistent with all other management unit policies and where no reasonable alternative exists for:
 - a. Road and utility crossings; and
 - b. Wetland enhancements or public recreational paths and trails.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

10. Developments are encouraged to arrange their site design to:
 - a. Cluster required open space areas, small courtyards, plazas, or other pedestrian-oriented amenities adjacent to the drainage way or wetland buffers;
 - b. Orient office spaces of industrial development towards the drainage way or wetlands; and
 - c. Use compatible natural exterior surfaces and colors as a preferred architectural treatment.

C. Use Regulations

1. Allowable uses and activities located within the Black Lake Drainage Ditch, its buffer, the Associated Wetland of Black Lake, and its buffer are as follows:
 - a. Primary Uses
 - (1) Aquaculture. Aquacultural activities relating to the fishing and harvesting of wild and planted stock for recreational and commercial purposes.
 - (2) Fencing. This use shall be constructed in a manner not to severely impede the movement of wildlife.
 - (3) Recreation. Low intensity and passive recreational facilities (viewpoints, unpaved trails, limited picnic facilities) including public- or privately-owned passive parks, wildlife refuges, or open spaces.
 - (4) Research and Education. Temporary, water-dependent and wetland-oriented research and educational facilities.

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

- (5) Road Design and Construction. The continued use and maintenance of existing facilities is allowed.

Future transportation corridors which cross the wetlands will be improved to minimum road standards of at least a collector roadway, and include a sixty (60) foot right-of-way, a public railroad crossing and eventual signalization at Black Lake Boulevard. Future transportation corridor crossings will only be allowed in the following prioritized locations:

- (a) 34th Avenue--at grade
- (b) 25th Avenue--elevated structure across the wetland

(NOTE: The elevated structure is the preferred alternative at 25th Avenue without providing additional roadway design alternative(s) and an environmental assessment of the potential impacts of the alternative design(s) upon the wetland and its habitat values.)

- (6) Utilities. The continued maintenance of existing facilities is allowed including the Black Lake Drainage Ditch provided that such an activity includes features which increase the habitat value of the ditch and adjacent wetlands. Specific uses include storm water retention/detention ponds and conveyance facilities, sanitary sewer, water, gas, electricity, telephone, telecable, and other similar utilities. Storm water discharges to the creek shall utilize existing discharge points to the extent practical.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

Future utility improvements which cross the drainage ditch and/or associated wetlands shall be allowed only within the corridors described below. Utility improvements may precede the roadway improvements within these corridors and where the utilities span the drainage ditch or former channel an aerial crossing shall be used. The prioritized utility corridors are as follows:

- (a) 34th Avenue
 - (b) 25th Avenue--In conjunction with the elevated structure or immediately adjacent to the existing utility easements.
 - (c) 29th Avenue--Only if no reasonable alternative exists.
- b. Accessory Uses. The following are allowed only when shown to be clearly subordinate or incidental to the primary use; is the minimal area necessary to accomplish the proposed use; conforms to all appropriate local, state, and federal regulations; and to be subject to the following performance criteria:
- (1) Dredging. When allowed, this activity shall:
 - (a) Include fisheries and wildlife habitat enhancement efforts approved by appropriate state and federal agencies.
 - (b) Be subject to the required plans, review and conditions of the "Special Plans" Section E.
 - (2) Forest Management Practices. When allowed, this activity shall be of limited scope such as selective tree harvesting for the preservation of view corridors or for trees affected by fire, disease or insects.

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

- (3) Landfilling. When allowed, this activity shall be subject to the required plans, review, and conditions of the "Special Plans" Section E.
 - (4) Shoreline Protection. When allowed, this activity shall provide for bank protection devices or in stream construction for the purpose of fisheries or wildlife enhancement.
 - c. Nonconforming Uses. A use lawfully existing prior to the effective date of this Upper Reach Management Unit, the Shoreline Master Program for the Thurston Region, or any amendment thereto which is rendered nonconforming by the adoption of these regulations or an amendment thereof, may continue in a manner and to the extent that it existed upon the effective date of the Management Unit or amendment respectively, subject to Section One Part V, E of the aforementioned Master Program.
2. Allowable uses and activities located within the shoreline jurisdiction and not within the associated wetland and its buffer, or the Black Lake Drainage Ditch and its buffer, are as follows:
 - a. Primary uses and their customary accessory uses (subject to "b" below)
 - (1) Sales
 - (2) Service
 - (3) Storage
 - (4) Manufacturing
 - (5) Residential
 - (6) Parks, open space and recreation facilities
 - (7) Uses of a similar nature as determined by the local administrator.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

- b. Uses or activities which can be identified as detrimental to the water quality of the Black Lake Drainage Ditch and the associated wetlands of Black Lake or which would require a pollution discharge permit other than for storm water conveyance or aquaculture purposes are prohibited.

D. Dimensional Standards

Other than those standards below, dimensional standards within this Management Unit shall be pursuant to the underlying zoning.

1. Drainage Ditch Buffer. For properties abutting the Black Lake Drainage Ditch, a fifty (50) foot undisturbed native vegetation buffer shall be retained, as measured from the ordinary high-water mark.
 - a. The administrator may authorize a vegetation enhancement plan for those locations within the buffer where substantial native vegetation is lacking.
 - b. All vegetation enhancement plans shall be designed to increase wildlife or aquatic habitat by including riparian species similar to those listed in Suggestions for Stream Bank Revegetation in Western Washington.
 - c. When an adjacent property owner desires to landscape the public-owned Black Lake Drainage Way, the vegetation enhancement plan shall be reviewed and approved by the Thurston County Public Works Department.
 - d. The provisions of subsection 2 below shall supersede this section.

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

2. Wetland Buffer. For properties abutting the associated wetlands of Black Lake, a fifty (50) foot undisturbed native vegetation buffer shall be retained.
 - a. Land uses and activities which encroach into the required buffer area on the effective date of the implementing ordinance shall retain the existing buffer with no further clearing or habitat destruction.
 - b. Vegetation enhancement plans shall be designed to increase wildlife or aquatic habitat by including riparian species similar to those listed in Suggestions for Stream Bank Revegetation in Western Washington.
 - c. The administrator may reduce the wetland buffer when lots of record are less than two hundred (200) feet in depth from the front property line to the wetland edge. In this case, the buffer shall not be greater than fifty percent (50%) of parcel depth, but in no case reduced beyond twenty-five (25) feet. Further, in this case, a vegetation enhancement plan shall be provided for the wetland and/or its buffer.
3. Density. That portion of a residentially-zoned parcel containing a part of the Associated Wetlands of Black Lake shall be calculated based upon one (1) dwelling unit per ten (10) acres. The Wetland Buffer shall be calculated based upon the underlying zone district.
4. Building Height. Thirty-five (35) feet within shoreline jurisdiction.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

E. Special Plans

Substantial developments within the shoreline jurisdiction will be required to submit these special plans or studies and undergo the special review as follows:

1. Environmental Checklist. There shall be no categorical exemptions under the State Environmental Policy Act for land subject to this management unit. Therefore, all developments requiring a local permit shall prepare an Environmental Checklist.
2. Clearing and Grading Plan. This plan shall specifically identify vegetation to be removed, a schedule for vegetation removal and replanting, and the method of vegetation removal. Clearing and grading activities shall be undertaken only during the dryer months of the year and shall be in accordance with all local ordinances. Undergrowth shall be retained to the extent feasible. Yarding methods which minimize soil disturbance shall be used.
3. Temporary Erosion Control Plan. This plan would identify the specific mitigating measures to be implemented during construction to protect the water from erosion, siltation, landslides and deleterious construction materials.
4. Storm Water Control Plan. Except for individually owned duplex and single-family residences not within a "project," a permanent storm water control plan which take into consideration existing and projected development in surrounding areas and identifies the means of protecting water quality shall be required.
 - a. Storm Water Maintenance Agreement. A maintenance program for the storm drainage system, which identifies maintenance activities, schedules, and responsibilities shall be part of the storm water control plan.
 - b. Storm Water Plan Review. Authorization of all storm water systems shall be by the local jurisdiction with review by the appropriate state and federal agencies and the Squaxin Island Tribe.

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

5. Supplemental Review. Copies of all Environmental Checklists and their attached plans or reports shall be circulated for review to the Squaxin Island Tribe, the appropriate state and federal agencies and the adjacent municipal jurisdiction within the corridor. Development proposals shall incorporate applicable recommendations from these agencies for preventing and mitigating adverse impacts on fish or wildlife resources and enhancing wildlife habitat.
6. Water Quality Assessment. A detailed assessment of the water quality impacts and proposed mitigation measures will be a required part of the Environmental Checklist.

F. Permit Process

1. "Substantial development" located within the shoreline jurisdiction and not expressly exempted by WAC 173-14-040 will require a Substantial Development Permit.
2. Uses and activities exempted by the State Shoreline Management Act and WAC 173-14-040 shall still comply with the policies and regulations of this management unit.
3. When a Substantial Development Permit is required, the Administrator shall undertake a consolidated review of the project by the affected parties identified in Section E and seek to minimize the time in the permit process through close coordination with the applicant.

VI. DEFINITIONS

ADJACENT LANDS: Lands immediately adjacent to and abutting lands under permit jurisdiction of the Shoreline Management Act which extend landward to the extent necessary to control direct and significant impact to shorelands and to implement the management policy articulated in the Act, the Department of Ecology guideline, and the local Master Program. The inland extent will necessarily vary with the particular management objectives and the shoreline setting.

ADMINISTRATOR: Person appointed by the legislative body to administer the provisions of these regulations within the boundaries of that jurisdiction.

ASSOCIATED WETLANDS: Those lands or wetland areas which influence or are influenced by and are in proximity to any stream, river, or tidal water, or combination thereof, subject to the Shoreline Management Act (WAC 173-22-030 and 040).

ASSOCIATED WETLANDS OF BLACK LAKE: Those wetlands lying to the northeast of Black Lake and adjoining Black Lake Drainage Ditch. Generally identified in Figure 6, Percival Creek Corridor Study, Volume 2, 1986.

BLACK LAKE DRAINAGE DITCH: That human-made ditch constructed from the north end of Black Lake and extending in a northeasterly direction approximately 11,200 lineal feet to the intersection with the Burlington Northern Railroad right-of-way. Formerly a part of the Consolidated Drainage Ditch District #101.

BLACK LAKE DRAINAGE WAY OR DRAINAGE WAY: Those dry lands along both banks of the Black Lake Drainage Ditch which were part of the Drainage District #101 and are now publicly-owned.

CANYON OR PERCIVAL CREEK CANYON: Lands along Percival Creek which extend upstream from Percival Cove to the Mottman Road crossing of the Black Lake Drainage Ditch. This area also extends from the centerline of the creek to the top of the bank, and includes the Burlington Northern Railroad right-of-way.

CANYON REACH MANAGEMENT UNIT--OLYMPIA: That portion of the Percival Creek Canyon located within the City of Olympia.

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

CANYON REACH MANAGEMENT UNIT--TUMWATER: That portion of the Percival Creek Canyon located within the City of Tumwater.

CORRIDOR OR PERCIVAL CREEK CORRIDOR: Those lands adjacent to Percival Creek and the Black Lake Drainage Ditch, including those areas extending upland from the centerline of the creek to the nearest paralleling road or railroad and extending from Percival Cove to Black Lake.

DRAINAGE DITCH BUFFER: A required area, 50 feet in width, of undisturbed natural vegetation outside of and adjacent to each edge of the drainage ditch for the purpose of protecting the drainage ditch and maintaining its natural hydrological, biological, visual and cultural functions and values.

DRAINAGE WAY BUFFER: A required area of undisturbed natural vegetation outside of and adjacent to the drainage way for the purpose of protecting the drainage way and maintaining its natural hydrological, biological, visual and cultural functions and values.

ENVIRONMENT, MASTER PROGRAM ENVIRONMENT OR SHORELINE ENVIRONMENT: The categories of shorelines of the state established by the Shoreline Master Program for the Thurston Region to differentiate between areas whose features imply differing objectives regarding their use and future development. These existing Environments are: Urban, Rural, Conservancy and Natural.

ENVIRONMENTAL MANAGEMENT DISTRICT: An area which has been designated by the local government as meeting certain criteria for which a special management plan, policies and regulations are prepared.

LOT OF RECORD: A lot shown as a part of a recorded subdivision or any parcel of land described by metes and bounds in a recorded deed, record of survey or other appropriate document recorded in the office of the County Auditor.

MANAGEMENT UNITS: Those portions of the Percival Creek Corridor which has been segregated into areas which have a predominance of similar features, land use ownership patterns and/or jurisdictional boundaries.

MIDDLE REACH MANAGEMENT UNIT: Those lands upstream from the Mottman Road crossing of the Black Lake Drainage Ditch to 25th Avenue extended and within the City of Olympia.

SECTION EIGHT – PERCIVAL CREEK CORRIDOR

SHORELINE ENVIRONMENTAL MANAGEMENT DISTRICT: An area of the Region which contains a unique combination of physical features and/or resources which could not be safeguarded adequately simply by the preceding provisions of the Master Program; where the jurisdiction of the Shoreline Management Act is too restrictive and the activities upon adjacent lands may be critically important to the viability of the resource; where diverse uses would be conflicting and incompatible without management techniques specifically designed for that area; where the uniqueness of the area demands an even greater degree of environmental protection, then a local government may establish a special Shoreline Environmental Management District as an amendment to the Shoreline Master Program for the Thurston Region.

SHORELINE MANAGEMENT ACT JURISDICTION OR SHORELINE JURISDICTION: Those lands lying within the following locations:

- a. Two hundred feet on both sides of creek or drainage ditch;
- b. A 100-year flood plain; and/or
- c. An associated wetland.

TOP OF THE CANYON: A significant break in the slope less than 30 percent (16.7 degrees) and at least 15 feet wide. At the confluence of Percival Creek (from Trospen Lake) and the Black Lake Drainage Ditch, the "top of the canyon" for Percival Creek shall be a line drawn from the highest most point along the east bank to the corresponding side on the west bank.

UPPER REACH MANAGEMENT UNIT: Those lands upstream from 25th Avenue extended along the Black Lake Drainage Ditch to Black Lake and within the City of Tumwater and Thurston County.

WETLAND BUFFER: A required area within the shoreline jurisdiction, 50 feet in width, of undisturbed natural vegetation outside of and adjacent to the wetland edge for the purpose of protecting the wetland from intrusion and maintaining its natural hydrological, biological, visual and cultural functions and values.

SECTION EIGHT -- PERCIVAL CREEK CORRIDOR

WETLAND EDGE: The line around a wetland where the prevalence of hydrophytes, or wetland plants, ceases. For the purposes of defining the wetland edge, the prevalence of hydrophytes ceases at the point where the combined percent of hydrophytes in the overstory, understory and ground cover falls below fifty percent (50%).

WETLANDS: Wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. The single feature that most wetlands share is soil or substrate that is at least periodically saturated with or covered by water. The water creates severe problems for all plants and animals except those that are adapted for life in water or in saturated soil. (Classification of Wetlands and Deep Water Habitats of the United States, 1979) (NOTE: Not the same as the Shoreline Management Act definition.)







SECTION EIGHT – PERCIVAL CREEK CORRIDOR

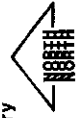
VII. PERCIVAL CREEK CORRIDOR MAPS

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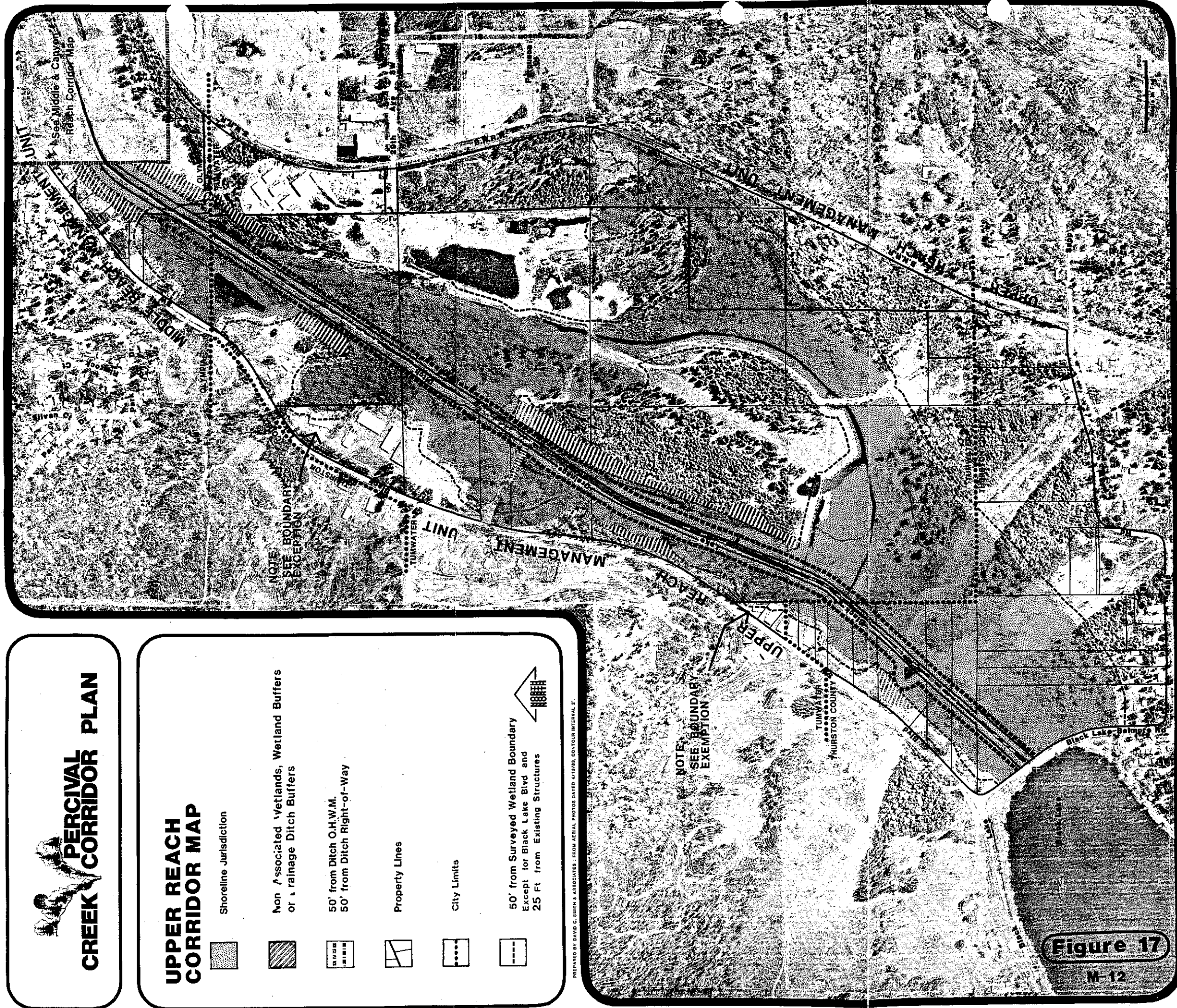
PERCIVAL CREEK CORRIDOR PLAN

UPPER REACH CORRIDOR MAP

-  Shoreline Jurisdiction
-  Non Associated Wetlands, Wetland Buffers or Rainage Ditch Buffers
-  50' from Ditch O.H.W.M.
50' from Ditch Right-of-Way
-  Property Lines
-  City Limits
-  50' from Surveyed Wetland Boundary
Except for Black Lake Blvd and
25 Ft from Existing Structures










PREPARED BY DAVID G. SMITH & ASSOCIATES : FROM AERIAL PHOTOS DATED 4/19/89, CONTOUR INTERVAL 2'





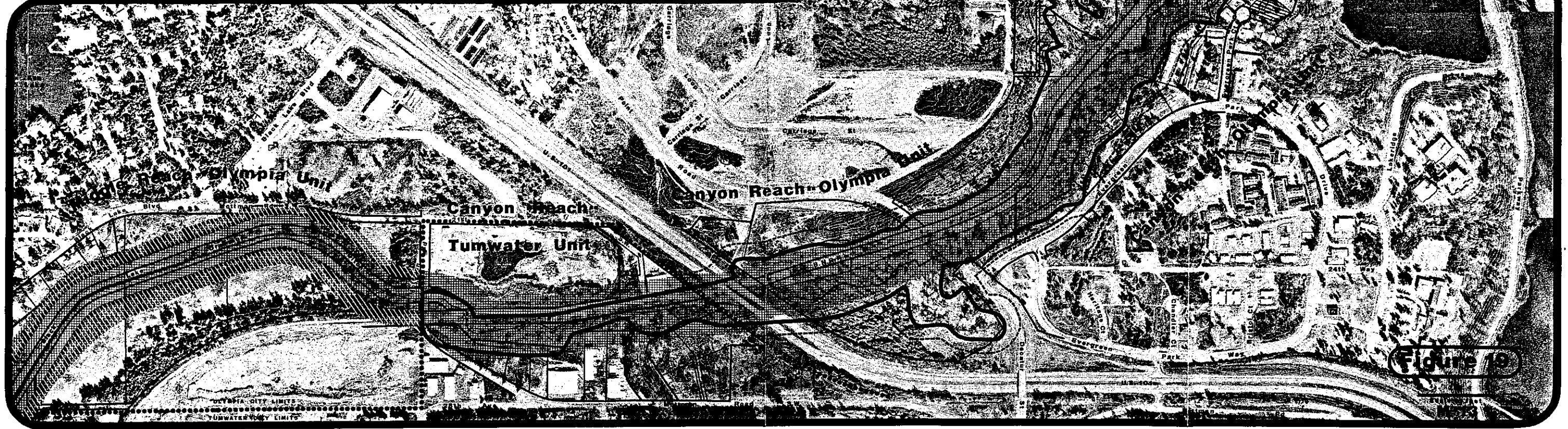
PERCIVAL CREEK CORRIDOR PLAN

-  Top of Canyon
-  Shoreline Jurisdiction
-  50' from Ditch Right-of-Way
-  Management Unit Boundary
-  Non-Associated Wetlands, Wetland Buffers or Drainage Ditch Buffers
-  City Limits
-  Property Lines

CANYON & MIDDLE REACH CORRIDOR MAP



PREPARED BY DAVID C. SMITH & ASSOCIATES; FROM AERIAL PHOTOS DATED 4/13/83; CONTOUR INTERVAL 3'



SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

SUMMARY

This "special area management plan" was prepared by an advisory committee appointed by the Mayor of Tumwater and was subject to review by the Planning Commission prior to action by the City Council. It supplements and amends the Shoreline Master Program for the Thurston Region. The "Use Regulations and Standards" of the plan are implemented under authority of the Washington Shoreline Management Act. This plan is an addition to zoning and other regulations of the City of Tumwater which apply to the area. (See Tumwater Zoning map in Section 5.)

This plan directly governs only the shorelines as defined by the Act which lie along the Deschutes River within the City of Tumwater between Interstate 5 and Henderson Boulevard. However, recommendations are included for adjacent lands of special importance, including the remainder of the valley floor and overlooking bluffs, shorelines of other jurisdictions within the area, and Tumwater's portion of the Capitol Lake shoreline downstream from Interstate 5.

The plan reflects an effort by the City to develop a vision for those lands bordering the river throughout its course through Tumwater. This vision for the Deschutes River has been prepared in an effort to ensure that the river and the surrounding lands will continue to be a resource in which the citizens of Tumwater can take pride for generations to come. As set forth in more detail in the plan, an attempt has been made to strike a balance among protection and enhancement of the river as a natural resource, public access for enjoyment of the river by the community, and opportunities for development of adjacent lands.

The planning area is generally divided into four areas. (See Proposed Shoreline Jurisdictions map in Section 5.) The "North Reach" from Interstate 5 to Capitol Boulevard, where recreation is the prominent land use, but opportunities for development within the context of a "historic area master plan" are also highlighted. The "Middle Reach" between Capitol Boulevard and the vicinity of the Valley Athletic Club is an area where intensive development is to occur along an urban shoreline. The "South Reach" extending to Henderson Boulevard is an area reserved primarily for the golf course, other recreation, fish and wildlife habitat, and open space. In addition, this plan provides for residential development upstream from the brewery so long as it is specially designed for compatibility with the river ecosystem.

SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT PLAN (SAMP) FOR THE TUMWATER VALLEY

The fourth area is a "riverine corridor" varying in width from 50 to 500 feet and extending along each bank of the river throughout all three reaches. In combination with the three reaches, this corridor is an area intended to enhance the fish and wildlife habitat in the area and to buffer the river from the adjoining urban land uses. As such, the corridor is subject to special standards, including provisions for restoration and enhancement of the riparian environment.

FINDINGS AND CONCLUSIONS

1. It is in the public interest and welfare to guide development of the shoreline of the Deschutes River.
2. The Deschutes River is a natural resource of regional significance.
3. The shoreline of the river is an area of national historic importance.
4. The river is a community asset which forms the heart of the community of Tumwater.
5. This plan will serve to protect and enhance the ecological value of the river and its shorelines.
6. This plan will provide an opportunity for development of the area in a manner consistent with the goals of the City of Tumwater.
7. Adoption of this plan will ultimately increase the public's access to and enjoyment of the river and its shorelines.
8. In general, the current land use pattern along the shoreline and the valley floor should remain intact.

SECTION NINE — DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

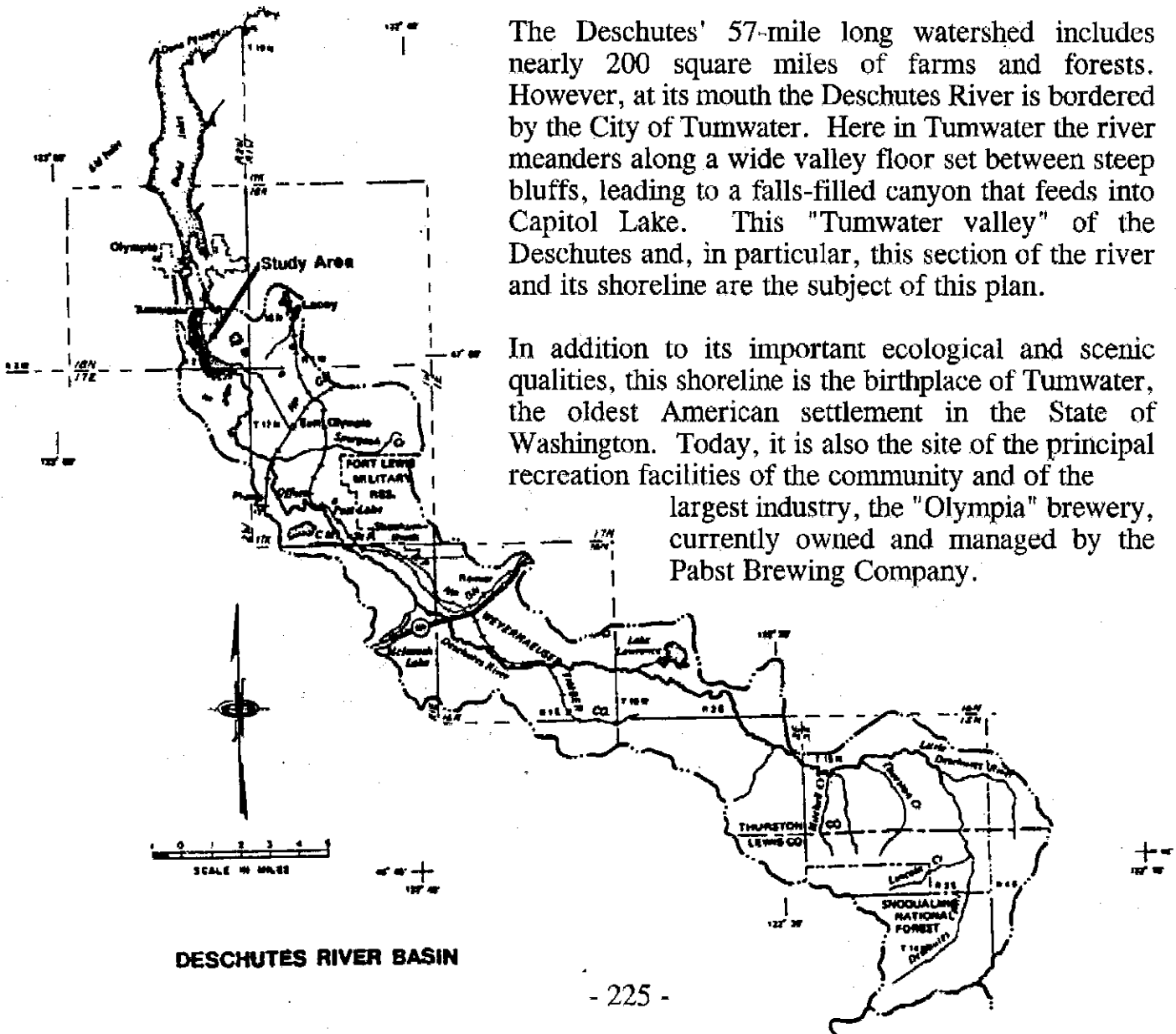
SECTION 1

INTRODUCTION

The Deschutes River forms in the Bald Hills of the Mount Baker-Snoqualmie National Forest in Lewis County, Washington. It then flows northwesterly to reach the saltwater of Puget Sound at Budd Inlet. Most of the river's course lies within Thurston County at the southern limit of a rapidly developing Puget Sound metropolis centered at Seattle.

The Deschutes' 57-mile long watershed includes nearly 200 square miles of farms and forests. However, at its mouth the Deschutes River is bordered by the City of Tumwater. Here in Tumwater the river meanders along a wide valley floor set between steep bluffs, leading to a falls-filled canyon that feeds into Capitol Lake. This "Tumwater valley" of the Deschutes and, in particular, this section of the river and its shoreline are the subject of this plan.

In addition to its important ecological and scenic qualities, this shoreline is the birthplace of Tumwater, the oldest American settlement in the State of Washington. Today, it is also the site of the principal recreation facilities of the community and of the largest industry, the "Olympia" brewery, currently owned and managed by the Pabst Brewing Company.



SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT PLAN (SAMP) FOR THE TUMWATER VALLEY

This plan provides an outline for the future of this important resource. It reflects the vision of the community toward this key feature of the City. As such, it incorporates a philosophy of balancing opportunities for urban development with protection and preservation of unique and sensitive natural resources. Therefore, this plan provides for relatively intensive urban land uses while ensuring protection and enhancement of the river through stringent development standards.

If this plan is followed, the City will continue to encourage development in its historic northern commercial core. But the City will also endeavor to preserve the natural resource that is the river and to provide nearby open spaces for enjoyment by the whole community. This duality reflects a recognition by the people of Tumwater of the trade-offs and hard choices that are required in all community planning.

THE DEVELOPMENT AND SCOPE OF THIS PLAN

The Deschutes Special Area Management Plan is a response to the community's interest in defining the future of the Tumwater valley. Specifically, it is an outgrowth of a recommendation included in a recreation plan for the river prepared by the Deschutes Corridor Advisory Committee in 1986. That plan recommended a reevaluation of the shoreline regulations affecting the valley to ensure appropriate opportunities for recreation and for development. (See Current Shoreline Jurisdictions map in Section 5.)

This management plan was drafted by a five-member citizens committee appointed by the Mayor of Tumwater in 1989. It was funded jointly by the City of Tumwater and by a Coastal Zone Management grant from the Washington State Department of Ecology. The plan is to be adopted by the City Council as a supplement to the city's comprehensive plan, and as a special management area amendment of the Shoreline Master Program for the Thurston Region.

There are five principal sections to this plan. The first section sets forth the history and present status of the valley. The second summarize other documents and studies which have focussed on the river and surrounding area. The third outlines the community's plan for the future of the valley, with special attention to the river and its shorelines. The fourth section is a set of regulations intended to support converting the community's vision into reality. And the final section is a set of maps describing the valley and the respective shoreline reaches.

SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

BACKGROUND

Cultural History

For at least five centuries the Nisqually and Squaxin Indians and other tribes harvested shellfish and salmon at the mouth of the Deschutes River below Tumwater Falls. The area's abundant natural resources also attracted new residents. In 1831 Fort Nisqually was established by the British Hudson's Bay Company in the southern reaches of Puget Sound. In 1845 that foothold drew Michael T. Simmons, George Bush and their party of twenty-seven other Missourians to the area.

The presence of these few Americans on the "Tenalquot" (Deschutes) River gave weight to the United States' effort to place the northern boundary of the nation on the forty-ninth parallel. This settlement grew into New Market, the first American settlement on Puget Sound. The adjacent Stehtsasamish Falls, as it was known by the Indians, or Tumbling Water of the "Tum-chuck" area, would later be the namesake of a modern city, "Tumwater."

These first settlers wasted little time building the foundation for that city. In its first few years the community could boast of a log and plank mill, a grist (flour) mill, and a few cabins. In addition, the Tumwater Falls area was the jumping off point for further settlement of the southern Puget Sound.

In 1850, Clanrick Crosby arrived at New Market and acquired the sawmill. To serve the booming Olympia-New Market area, Ira Ward, Nelson Barnes, and Smith Hays added another sawmill in 1852 at the upper falls. Ward and Hays were also to later operate the Tumwater Flouring Mill on the middle falls of the river. In 1853, when Thurston County's population was approaching one thousand citizens, Governor Isaac Stevens passed through New Market on his way to assume his new post in Olympia as the first governor of the Washington Territory. The home of Clanrick's nephew, Nathaniel Crosby III, who ran a nearby general store, was built in 1858. This structure now occupies a prominent site in Tumwater Historical Park. At the end of the decade the "Long Bridge" was built near where Interstate 5 now spans the river. This bridge incorporated a rotating section to create a twenty-foot passage for ships.

SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT PLAN (SAMP) FOR THE TUMWATER VALLEY

During the next few years, more homes, another store, a church and a school sprang up on the hills overlooking the falls. The river powered what had become the manufacturing center of the northwest. The Boston Street bridge spanned the river near what is now Custer Way. By 1878, a narrow gauge railroad extended through New Market from Olympia to Tenino. By 1886, a "Main Street" with a new general store, two hotels, a dance hall, and a post office had developed along the present-day Deschutes Way, and a new bridge to Olympia was under construction. S. N. Cooper had founded a mill and glazing shop where the Historical Park is now located.

In 1890 electricity and streetcars came to the area when the Olympia Electric Light and Power Company acquired the flour mill on the middle falls. Fifteen years later the company was to build a new powerhouse at the lower falls, the foundation of which still occupies much of the channel. Among other services, these streetcars delivered "tourists" to the Stevens Elk Farm established by Isaac Stevens' son at the upper falls. The "elk farm" site is now the core of Tumwater Falls Park. Near the turn of the century Union Pacific brought full-scale railroad service to the community.

In 1895, Leopold B. Schmidt purchased the Carter and Biles Tannery on the east side of the south basin of what is now Capitol Lake. Here Schmidt founded the Capital Brewing Company to take advantage of the high-quality artesian water. By 1896 locals had quaffed their first glasses of Pale Export. In 1902, the brewery was renamed the "Olympia Brewing Company." In 1906 Schmidt built the six-story Italianate brewhouse at the lower falls and added his home overlooking the site, both of which still stand today. The preceding year had seen the construction of the Henderson House, which now houses the Tumwater Museum in the Historical Park.

Following the enactment of prohibition in 1914, and the failure of "Appleju", the old brewery was utilized by other entrepreneurs as a paper mill, to manufacture airplane parts, and for metal cabinetry. In 1933, at the end of prohibition, the brewery was reborn on the present site overlooking the upper falls. In 1964, the company bought back the "Old Brewhouse" for use as a warehouse. Since 1983, the brewery has been owned and managed by the Pabst Brewing Company, which purchased the entire facility including its golf course.

Other relatively recent developments have significantly altered the face of this area. In 1950 an earth-filled dam was constructed in Olympia converting the Deschutes River from an intertidal estuary into a freshwater lake. In 1952, a fish ladder was constructed at the falls to provide a route for salmon and other anadromous fish to bypass the falls of the Deschutes River. Holding pens were added in 1961 at the Falls Park.

SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT PLAN (SAMP) FOR THE TUMWATER VALLEY

In 1957, a new interstate freeway, "I-5," ripped through the heart of Tumwater, resulting in the destruction or relocation of many of the "New Market" buildings along the City's former main street. In 1963 Tumwater Falls Park was completed. Owned and managed by the private Olympia-Tumwater Foundation, this scenic park opened the falls area to the community for recreation. By 1970, the Tumwater Valley Golf Course had brought the cry of "fore" to the river's edge. The Henderson House opened as a museum in 1981, while the Tumwater Historical Park was opened in July of the following year. Like the Crosby House and the Historical Park itself, the Henderson House is in the Tumwater Historic District.

Topography

The Deschutes River begins its trip to the Sound at 3,500 feet above sea level in the Bald Hills south of Thurston County. After flowing for over 50 miles through a rural, lightly populated area of fields and forest, it enters the City of Tumwater as it passes under Henderson Boulevard. For the next two miles the river meanders along a half-mile wide valley floor. At only 100 feet above sea level, the valley is bordered by bluffs almost 100 feet high. In this stretch between Henderson Boulevard and the dam at the upper falls, the river has a gentle gradient with a decline of only twenty feet.

However, below Capital Boulevard, the river begins a rapid descent through the canyon of Tumwater Falls to Capitol Lake. In this last four hundred feet before reaching the lake, the river drops 89 feet to a point only eleven feet above sea level. The lower falls accounts for over twenty feet of this rapids. In contrast with the upper section, this stretch of the river is bounded by steep canyon walls cut through a basalt sill.

Groundwater, Geology and Soils

Most of the Tumwater Valley is comprised of unconsolidated out-wash from the Vashon glacier. The upper section is classified as "pastoral," that is, it has a gradient of 0 to 5 feet per mile with a fairly wide, flat floodplain valley and a meandering river, with bed materials composed of sand and silts. Although the meandering river once was gradually widening this valley, today meander shift is controlled by rip-rap from the point where the river enters the Tumwater Valley Golf Course.

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The canyon area is classified as a "boulder geohydraulic zone" with a narrow steep-sided valley, a fixed stream course, and a gradient of over 25 feet per mile. Here the stream bed is characterized by boulders and cobbles, while finer sediments are deposited in the south basin of Capitol Lake. The south basin of Capitol Lake functions primarily as an "estuary," but due to the dam between Capitol Lake and Budd Inlet, tidal effects are nil. In the Lake's south basin, the river has a branched stream course with bed material of fine sands and silts.

According to the soil survey of Thurston County, the dominant soil along the river is Puyallup silty loam, an alluvial flood plain soil found throughout the valley floor. Also found in isolated areas on the valley floor are Pilchuck loamy sand and Puget silt loam. These soils are characterized by excessive and poor drainage, respectively. Also present due to extensive excavation and fill for the industrial and golf course sites, are "xerorthents," areas of disturbed soil conditions. (Accounts indicate that up to 5 million yards of sand and soil were transported during construction of the golf course.) The falls canyon is bordered by lands covered with Indianola loamy sand, a deep, well-drained soil formed from glacial drift.

The general erodibility of these soils has permitted the river to regularly shift its course. Where not artificially obstructed, this process continues. The Stream Corridor Management Study identified three principal erosion sites along the south bank of the river between the golf course and Henderson Boulevard and one on the west bank immediately downstream from the 'E' Street Bridge. According to this report, these eroding banks vary in length from 150 to 600 feet and are up to 35 feet in height. The most severe site is located immediately south of the Pioneer Park site and is estimated to annually recede four feet and to produce nearly 30,000 cubic feet of sediment each year.

This area is principally underlain by basalt. Both the City and the brewery draw water from the aquifer via wells scattered about the valley floor. These wells, with depths of from 80 to 300 feet, yield over 460 gallons per minute. "It's the water" from these wells that provide the basis for the brewery's famous slogan. This and other more shallow aquifers appear to be directly linked to the hydrologic cycle of the river.

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Stream Flow, Water Quality and Flooding

The headwaters of the Deschutes have no summer snow pack and little winter accumulation, thus rainfall is the dominant factor in the flow of the river. Average winter flows may reach 1,000 cubic feet per second in December, while summer flows normally drop as low as 100 cubic feet per second. However, peak discharges as measured at 'E' street have reached 8,500 cubic feet per second on January 15, 1974, and over 9,600 cubic feet per second on January 9, 1990.

Continued development of the watershed and concurrent removal of vegetation suggests that record flooding may be expected in the future. (See Flood Plain Designations map in Section 5.) According to the Federal Emergency Management Agency's flood risk study of the river, flows of over 10,000 cubic feet per second may be experienced. Structural flood control measures are few. The upper falls dam has no significant effect on flooding and minimal levees at the brewery have failed to provide protection from major floods.

In addition to flooding problems, the river has a long history of high siltation levels resulting from upstream land uses which effect the fishery by degrading spawning beds, which reduce recreation potential, and result in filling of Capitol Lake and Budd Inlet. Adjoining land uses, including four brewery outfalls, also contribute waste materials and water to the river.

State regulations protect minimum flows in the river from diversion. These regulations prohibit diversion of water from the river which would reduce flows below 400 cubic feet per second at the falls during most months, and prohibit any diversion of water from the river between May and October. (See Washington Administrative Code 173-513.)

Land Use

Throughout Tumwater the shoreline of the Deschutes River is devoted primarily to recreation. These recreation facilities include:

Tumwater Historical Park - a 17-acre public park on the western shore of the south basin of Capitol Lake.

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Tumwater Falls Park - a privately-owned 5-acre park extending along both banks from the lower falls to below Capitol Boulevard. Although privately owned and managed by the Olympia-Tumwater Foundation, this facility is open to the public for recreation and relaxation.

The Tumwater Valley Golf Course - an eighteen-hole golf course open to the public, with a driving range, pro-shop, and restaurant. The golf course doubles as the site of the brewery's well field.

Tumwater Athletic Club - an indoor and outdoor fitness center west of the golf course.

Tumwater Pioneer Park - a new 85-acre city park site west of Henderson Boulevard now being designed and developed for a variety of recreation opportunities.

Other major land uses in the area include:

The Pabst "Olympia" Brewery with production and warehousing facilities along the eastern shore in the vicinity of Tumwater Falls.

The Palermo neighborhood of four dozen homes immediately south of the athletic club. This is the only residential area within the valley.

The City's 20-acre watershed property and well field south of Palermo, which includes a half-acre mini-park and playground.

Single-family homes occupying the bluff tops overlooking the upper section of the valley.

Fish and Wildlife Habitat

Historically, the lower falls formed a natural barrier to many anadromous fish. However, a fish run bypassing the falls was constructed in 1954 by the Department of Fisheries. Since then the Deschutes River has been used by chinook and coho salmon and steelhead and cutthroat trout. Consequently, as well as being a source of sea-going salmon, the entire stream is used by sport fishermen with concentrated use during steelhead and salmon runs. The Fisheries Department has also developed facilities at the upper falls for capture and artificial spawning of adult chinook and coho salmon.

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Good quality and quantities of spawning habitat are present in the upper river, as is rearing habitat associated with woody debris and root masses. In the Tumwater valley, stream side cover is minimal, except for the section of the river upstream from the golf course. The river bottom is mainly gravel with finer material in slower pools. In the vicinity of the golf course, extensive stream bank areas have been contoured and rock-riprapped for upland protection, resulting in a channelized river.

The Olympic mud minnow (*Novumbra hubbsi*) is also found in the Deschutes River. This rare fish only occurs in a few streams in southwestern Washington. It occupies oxbow lakes, such as those found immediately downstream from Henderson Boulevard.

A detailed inventory and analysis of upland habitat in the area has not been conducted. Most of the remaining undeveloped property is along the bluffs where second growth deciduous and coniferous forest provide cover for small mammals, birds, and other wildlife. However, substantial undeveloped areas do remain in the vicinity of the new park site at Henderson Boulevard. An extensive list of species that may occur in the vicinity of the river is to be found in the Deschutes Corridor Recreation Plan.

Only generalized maps of wetlands have been prepared for the valley. (Copies are available from the Thurston Regional Planning Council or the City of Tumwater.) A more detailed wetlands inventory is anticipated in the near future.

TRANSPORTATION AND UTILITIES

The corridor is served by the Union Pacific rail line with tracks running along the base of the northeastern bluff from Henderson Boulevard past the brewery and on through a 665-foot tunnel under Capital Boulevard to Olympia. A siding is located at the brewery. This route is a "class 3" railroad with a maximum speed of 40 miles per hour and carries an average of 28 trains per week. This is currently the primary railroad line serving the Port of Olympia and West Bay industrial area in Olympia.

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The valley's shorelines are relatively free of streets and roads. Henderson Boulevard, a minor arterial, borders the eastern edge of the planning area. Capitol Boulevard, a major arterial, bridges the river at the brewery. The Custer Way and Boston Street bridges are just north of that site. Interstate 5 forms the northern terminus of the planning area. Streets within the valley floor are limited to the entrance to the Valley Athletic Club and the Tumwater Valley Golf Course, and the "E" Street bridge leading to the brewery warehouse southeast of Capitol Boulevard.

Other facilities in the valley include the well fields of the brewery and the City, and a pumping station south of the Palermo neighborhood. Local water and sewer service is provided in the valley to support existing development.

AESTHETIC CHARACTER

Although located in an urban and rapidly developing setting, much of the valley has retained a relatively rural and open setting. Few structures are visible from the valley floor south of "E" Street. Only two golf course bridges and a private vehicular bridge span the river in the first mile and one-half below Henderson Boulevard. The only substantial residential development is in the Palermo neighborhood. Although development of the golf course altered the course of the river and the landscape, open space has been retained.

Aside from the bridges, the Tumwater Falls Restaurant and portions of the brewery, few of the nearby commercial structures are visible from the within the falls canyon. The south basin of Capitol Lake is surrounded by a bluff on the east that remains in a relatively natural state, the historic old brewhouse is to the south, and the Tumwater Historical Park occupies the bank to the west. Only to the north, where Interstate 5 spans the channel between the southern and middle basins of Capitol Lake, and at the brewery itself, are the intense noise and massive structures of an urban area in evidence.

OWNERSHIP

All of the riverbank and most of the shoreline area is in the hands of three major landowners, the Pabst Brewery, the Olympia-Tumwater Foundation, and the City of Tumwater. (See the General Ownership map in Section 5.) The brewery's property includes both its industrial site astride Capitol Boulevard, and the recreation facilities of the Tumwater Valley Golf Course and the Valley Athletic Club. The area bordering Tumwater Falls was donated by the

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Schmidt family to the Olympia-Tumwater Foundation in 1983. Capitol Lake itself is owned by the State of Washington and managed by the Department of General Services. The remainder of the area is in small private ownerships.

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SECTION 2

APPLICABLE PLANS, STUDIES AND REGULATIONS

This section of the plan provides a summary of elements of other public plans and policies related to the Deschutes River Special Area Management Plan. In general, only those provisions particularly relevant to the planning of the corridor are included here. Many goal and policy statements which relate in a more general manner are not listed. Summarized are the Tumwater Comprehensive Plan and other city plans, the policies of adjacent jurisdictions, and those of state and federal agencies. Note that in many cases there is extensive overlap among the subjects of these documents.

TUMWATER COMPREHENSIVE PLAN (1977)

An advisory committee began preparation of the City's Comprehensive Plan in 1973. It was adopted by the City Council in 1977. Since then it has been repeatedly amended. The plan is comprised of two principal sections; a goals and policies outline, and a set of neighborhood development guidelines. General goals in the Plan include:

To develop the land uses necessary to the community within the constraints of land capability, services, and community desires.

To provide for the recreational and open space needs of all residents of the community while conserving and utilizing open space resources wisely.

These goals are to be achieved through a number of means.

! Identification and preservation of "prime scenic vistas", "wildlife habitat areas," and areas of historical and geological significance.

The plan calls for further study of the City's water bodies, including the Deschutes River, and for evaluation and protection of historic sites. Proposed is a "master plan" and appropriate zoning for the historic New Market area near the mouth of the Deschutes.

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- ! Concentration, landscaping and greenbelt buffering of industrial areas.

Industry is to have minimal impact on other land uses, a low visual profile, and be near arterial routes, freeways, and rail facilities. Existing industrial areas are to remain in that use.

- ! Adherence to the Thurston Shoreline Master Program.

- ! Improvement of parks and acquisition of new sites.

These areas are to be readily accessible and "highly useable." Sites of historic and cultural importance are to be preserved. Areas not suited to development are to be preserved as open space and not used for active recreation that would disturb natural systems.

- ! Construction of a new road linking Airdustrial Way and Israel Road with Henderson Boulevard south of the river corridor. Completion of this project is planned for 1993.

- ! Development of pedestrian and bicycle networks throughout the city.

Among other routes, an "In Town Scenic Bikeway" is proposed.

With respect to this bikeway, the plan explains:

A portion of this route presently exists along the Tumwater Valley Road. We propose that this continue north through the Tumwater Falls Park and Deschutes Way [Historical] Park and eventually connect to the Deschutes Parkway which extends around Capitol Lake, into Olympia. This would be in keeping with the proposed Capitol Lake Restoration and Recreational Development Plans for the area. It would also create the beginning of a possible "linear green belt" along the Deschutes River.

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The Comprehensive Plan of the City also includes recommendations for the use of specific parcels within the Tumwater Valley.

The Tumwater Historical Park, as well as Tumwater Falls Park, should be protected for park and open space purposes. The Crosby House and the Henderson House are of historical value to the City of Tumwater and should be protected and recognized for their historical significance.

The City should support the Capitol Lake Restoration and Development Project, and plan for an appropriate use of any new property created as a result of dredging.

The area below the railroad tracks on the east bank of Capitol Lake should be retained as an undeveloped natural area.

The property located between "C" and "D" Street may be suited for a combination of residential and low level commercial use.

The property to the west of the Deschutes River and east of Capitol Boulevard, lying south of extended "E" Street and north of "M" Street, situated on the bluff overlooking the brewery warehouse and marshalling yard should be predominately commercial with activities that would complement the brewery activities and make use of available City services.

The area presently occupied by the recreation and associated commercial activities of the brewery is located astride the Deschutes River and largely within the flood plain. This land should be placed in designation which will recognize and encourage the preservation of the green open space area, but will not hamper other uses which would be possible under the shoreline controls. Land use controls appropriate to the hydrologic, geologic, and soil suitability hazards should be established and applied. The City should consider retaining the floodway as open space and strictly control development in that area.

The area south of the water storage tanks between the railroad tracks and Cleveland Avenue is a stable residential neighborhood with potential for future residential uses.

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A strip of land which would be preserved in its natural state should be designated along the west side of Cleveland Avenue and along the northerly lot lines of those residences located along the north side of Roberts Avenue. This strip will act as a buffer of natural open area between the industrial area and the residential atmosphere east of Cleveland Avenue and south of Roberts Avenue.

The middle portion of the valley is far enough away from existing industrial activities to minimal conflicts between industry and housing. Vehicular access for this area should be carefully designed to avoid adversely effecting established residential areas.

The land located along the floor of the upper valley is an environmentally sensitive area which should be protected from intensive industrial uses or development. The flood hazard area should be recognized and preservation of natural open space encouraged. Detailed on-site studies may be necessary for proposed developments to insure that the water resource of the valley is continually protected.

The City welcomes the development of portions of the valley floor for open space recreational activities and encourage the maintenance of existing recreational uses.

The road system should be improved, widened and traffic control measures considered where necessary to provide a quality service roadway for those vehicles going from Yelm Highway to Airdustrial Way.

Any commercial activities along the Yelm Highway and Henderson Boulevard should be clustered to prevent strip development and should be limited to compatible neighborhood commercial uses.

The City should recognize the view potential of properties overlooking the Deschutes River valley and should encourage quality construction and development. New developments should be sited to prevent the obstruction of views of existing units.

The floor or bottomland of the upper Tumwater valley and associated environmentally sensitive areas should be considered for recreational and other compatible uses, with a recognition of the flood hazard and the area's important open space and ground water resources.

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The comprehensive plan provides specific guidance regarding development of the commercial historic area:

An overall development master plan should be commissioned by the City of Tumwater to provide very specific direction for the redevelopment of the New Market area. The purpose of the plan would be to provide the "blueprint" for public and private development, and investment in the [Historical] park area, so it will occur in an orderly and coordinated fashion. This plan should include layout and architectural style of buildings; and the design of parking areas, pedestrian walkways, access roadways, lighting, signing, etc.

Specific policy direction would need to be given by the City Council to the preparers of the plan regarding the extent to which structures would be required to be actual historic reproductions in their original locations based on the records of the New Market settlement, as opposed to interpretations of the style of architecture indigenous to the area during the original development of the New Market town site.

Ideally, the plan would be specific enough that a private or public developer would know from the beginning what type, size and style of building (s)he would need to build in order to locate within the area, and would be able to adapt the interior and, to a certain degree, the exterior of the building for their individual needs.

Tumwater Comprehensive Parks and Open Space Plan (1987)

The City's parks and open space plan examines the existing park and recreation facilities of the community and includes recommendations for improvements and land acquisition.

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Deschutes River Corridor

The Deschutes River Corridor should be the centerpiece for Tumwater's parks and recreation efforts. Recreational uses along the corridor currently include rafting, canoeing, boating, fishing, swimming and picnicking. The City's opportunity to unify these and other recreational pursuits along the corridor for future generations should not be lost. Efforts need to be taken by the City to create and preserve a greenbelt system and increase public access and enjoyment of the corridor.

Tumwater Historical Park

The maintenance of this popular area and further development of the Historic Commercial District should remain a high priority. Pedestrian and bicycle access should be improved from the south side of the Historical Park.

New Facilities

Land should be purchased for a community park in south Tumwater with a more active orientation. The City should contract with the Valley Athletic Club to provide reduced-fee access to its swimming pool for Tumwater residents.

To preserve natural areas of ecological significance, the plan recommends that the City "endeavor to maintain significant riparian zones along the Deschutes River, Percival Creek, and other waterways in the City."

To identify and preserve areas and artifacts of historic significance in accordance with the Historic Preservation element of the Comprehensive Plan, the City should "continue to support and develop the Henderson House Museum;" and should "encourage development of the Tumwater Historic Commercial District."

Deschutes Corridor Recreation Plan (TRPC, 1986)

The Deschutes Corridor Recreation Plan was prepared at the request of the Thurston Regional Planning Council. It analyzes the present and future recreation potential of the river corridor from Capitol Lake upstream past Henderson Boulevard to beyond Rich Road. This document, which was prepared by a committee of technical advisors and citizens, is the

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foundation for this special area management plan. Among the recommendation in the recreation plan are to:

- ! Provide a publicly-owned multiple use recreational site in the vicinity of the Henderson Boulevard bridge. This facility should provide a raft launch/take out, and swimming and fishing use at moderate levels.
- ! Continue to use Tumwater Falls Park as the primary final raft take-out site for the Deschutes "Water Trail."
- ! Develop a multi-purpose "water play" facility somewhere on the river; including swimming and wading opportunities.
- ! Encourage continued public access to Tumwater Falls Park for nature enjoyment.
- ! Amend the shoreline designation below Henderson Boulevard from Conservancy to Rural or to a custom shoreline designation which will allow appropriate recreational development while protecting natural resources.
- ! In the Old Brewery area at the foot of Tumwater Falls, Tumwater's Historic Commercial zone should allow intense, carefully designed commercial development and encourage public access to the area. Such development in this urbanized site would be consistent with the mix of uses needed to enhance public enjoyment of the corridor.
- ! Identify and sign emergency raft take-out locations roughly every one and one-half to two mile along the river (two rafting hours).
- ! Pursue extension of the Capitol Lake path network into the Tumwater Valley to Henderson Boulevard. Note: Connection of the Tumwater Falls Park trail system to the Capitol Lake network is not recommended because it would encourage through foot traffic that could disrupt the more passive use of the Tumwater Falls trails.
- ! Establish a pedestrian loop trail on the east side of Capitol Lake from Tumwater Historical Park to Capitol Lake Park in Olympia; link the pedestrian pathway along Deschutes Way to Capitol Boulevard; and link the pedestrian pathway along Capitol Lake to Capitol Way.

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- ! Provide bicycle access from downtown Olympia to Tumwater Falls.
- ! Encourage continued access to and along the river for fishing. Identify and secure foot access sites for "dispersed day use" which can also serve as fishing access. Provide new fishing access, continued access at existing parks, and signs to identify this access. Encourage continued fishing access at publicly and privately-owned sites on Capitol Lake.
- ! Provide boat access to Capitol Lake to enhance fishing and recreational boating.

Tumwater Stormwater Comprehensive Plan (draft, 1986)

This is a facilities plan of the City. Of particular interest are two purposed "water quality structures" (oil separators) on lines feeding to the Deschutes River; one near Barnes Lake, and another on Israel Road.

Capitol Lake Action Plan (1988)

This plan was prepared by a multi-jurisdiction committee of city, county and state administrators. Among their recommendations are:

- ! Preparation of a State Department of General Administration report on the feasibility of implementing a stream management plan for the Deschutes River to limit sediment introduced in the lake.
- ! Continued maintenance dredging of the lake.
- ! Development and adoption of inter-jurisdictional agreements that define how and where tree cutting and vegetation removal will be done along the lakeshore and hillsides of the lake.

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- ! Establishment of a long-term water quality and rainfall monitoring program along the Deschutes River.
- ! Jurisdictional stormwater planning that addresses strategies minimizing the impacts of storm water on the water quality of the lake.
- ! Implementation of a program of maintenance of storm water facilities, such as the oil/water separators along the I-5 corridor.
- ! More aggressive enforcement against illegal discharges in the Deschutes River.
- ! Working with timberland owners in the upper Deschutes River basin to assess the effect of logging on the water quality of the Deschutes River and Capitol Lake.
- ! Mapping the extent of logging in the upper Deschutes basin and making recommendations for the future.
- ! Designating the Deschutes River as a high priority area for work by the Thurston County Conservation District.
- ! Establishing a stream corridor conservation team to work with farmers along the Deschutes River to reduce environmental impacts.
- ! Correcting erosion problems along the Deschutes River.
- ! Studying the impact of wetlands of the upper Deschutes basin on water quality.

Thurston County Parks and Recreation - Comprehensive Plan 2010 (1989)

This version of the county's parks plan was recently adopted by the County Commissioners. Priority Four of the long-term goals is to actively seek the lease or stewardship of the shorelines of Thurston County and undertake a program of implementing public access to the water ways and shorelines consistent with the Shoreline Master Program. This plan also lists fifty acres with a creek and flat lands on the Deschutes River near Tumwater's new park site as a "prospective" county park site.

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Metropolitan Area Bicycle Plan (TRPC, 1987)

This regional plan recommends that recreational and scenic bikeways be identified and improved to meet demands for both short and long trips. The system should provide continuous and/or direct bikeways between all jurisdictions and major activity centers, such as residential areas, parks, public and private recreation facilities, and commercial and commuter destinations.

Transportation System Plan for the Thurston Metropolitan Area (TRPC, 1984)

An update of a 1975 plan, this multi-jurisdictional plan includes goals and policies to guide transportation activities within each of the local jurisdictions and includes recommendations for various programs and improvement projects. The plan identifies transportation problems associated with eight broad travel corridors in the county. The following proposed improvements would affect the Deschutes River area.

- ! Interstate 5 and State Route 101 interchange improvements (now in progress).
- ! Capitol Boulevard signalization and channelization improvements.
- ! Yelm Highway and Henderson Boulevard intersection signalization and channelization improvement.
- ! Extension of Israel and Industrial Roads to Henderson Boulevard as a two lane road.
- ! Further study of widening Henderson Boulevard to four lanes from 70th Avenue/Israel Road to the Yelm Highway.

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STUDIES AND REPORTS

In addition to planning documents, a number of other studies and reports have been prepared which relate to the Deschutes River and the Tumwater valley. Relevant conclusions of each are summarized below.

Capitol Lake Restoration Analysis (Entranco Engineers, 1983)

Among other steps to improve the lake, this report recommends:

- ! Control of sedimentation through land use management and bank protection in the Deschutes watershed.
- ! Abandonment of the south basin sediment trap and, if appropriate, conversion of that basin to a river environment.
- ! Preparation of a Deschutes River watershed management plan directed toward nutrient and sediment-loading control. Long-term surveillance and monitoring is recommended. No position is taken on the cost-effectiveness of in-stream bank protection measures. Instead, pilot programs are recommended.
- ! The Thurston County Conservation District is recommended as the lead agency from these programs.
- ! Continued control of point source discharges from the brewery via the Department of Ecology's discharge permit process.

Capital Lake Recreation Plan - Design Report (CH₂M Hill, 1976)

This report recommended preservation of the unique biology and wildlife habitat in the Capitol Lake south basin, in combination with intensive use of the park site and associated historic structures. A foot-bridge near the old brewhouse to a crushed-rock trail along the east side of the basin was also proposed, with a return bridge suspended below the freeway.

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The adopted goals of the Capitol Lake Executive Committee included preservation of the visual quality, wildlife, active and passive uses and other environmental characteristics of the lake; preservation of the biological processes within the south basin of the lake, except in the areas required for desilting operations; conservation of the terrestrial vegetation within the entire visual basin of Capitol Lake; and encouragement of land uses that will decrease sediment loading within the Deschutes River basin.

Wetlands and Stream Corridors Program (TRPC, 1987) (Note: This program has not been officially adopted by City of Tumwater.)

This advisory committee to the Thurston Regional Planning Council recommended the following goals and policies:

Acknowledgment that wetlands, stream corridors and ponds are valuable for their natural functions.

That wetlands, stream corridors and ponds be view as systems and not as isolated units.

Recognition that the management of upland areas will affect the natural functions of these areas.

Maintenance of these areas in "substantially" their natural condition.

Maintenance and improvement of the quality of water entering these areas.

Limitation of vegetation removal and prohibition of draining and filling, except for valid public purposes. (And mitigation when this exception is applied).

Regular monitoring and data gathering.

Restoration of degraded natural systems where feasible.

In urban areas, new development or redevelopment should restore or enhance the natural functions of the buffer within the limited land available. Mitigation measures should include provisions such as public access, where consistent with adopted recreation/open space plans and where compatible with the other natural functions; enhancements and additional buffer planting.

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Surface water management programs should seek to improve and maintain surface water quality at standards which support fisheries and shellfish resources, including minimizing stormwater volumes, in-stream sedimentation from off-site construction, and pollution.

Stormwater release rates should replicate natural flows.

Highest quality areas should be preserved by means of (in decreasing priority order) the use of open space taxation incentives, federal and state resource agency assistance, non-profit foundation initiatives, and public acquisition.

Property rights of owners should be balanced with the public interest and lands acquired when a resources is altered to serve a public purpose.

Inter-jurisdictional watershed plans should be prepared for each watershed.

Low impact uses which do not degrade natural functions should be allowed.

The impacts of adjacent development should be minimized.

An undisturbed buffer of natural vegetation adjacent to such areas should be required.

Buffer area land uses must be consistent with the buffer purpose.

Timber production lands being converted to another use should retain an undisturbed buffer area.

The most sensitive streams, wetlands, and ponds should be identified and protected.

This resource should be monitored and data gathered.

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Access into these areas for passive recreation and education where compatible with the resources should be encouraged.

The impact of unavoidable transportation and utility crossings should be minimized.

REGULATIONS

The following subsection summarizes the principal government regulations which now apply in the Tumwater valley.

Shoreline Management Act of 1971 (RCW 90.58)

It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a manner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting generally public rights of navigation and corollary rights incidental thereto. The Act declares the interest of all the people shall be paramount in the management of shorelines of state-wide significance.

Master programs for shorelines are to give preference to uses in the following order. Uses which:

- (1) Recognize and protect the state-wide interest over local interest;
- (2) Preserve the natural character of the shoreline;
- (3) Result in long-term over short-term benefit;
- (4) Protect the resources and ecology of the shoreline;

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- (5) Increase public access to publicly owned areas of the shorelines;
- (6) Increase recreational opportunities for the public in the shoreline;
- (7) Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

The public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state are to be preserved to the greatest extent feasible consistent with the best interest of the people generally. To this end uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state's shoreline. Alterations of the natural condition of the shorelines of the state, in those limited instances when authorized, shall be given priority for single family residences, ports, shoreline recreational uses including but not limited to parks, marinas, piers, and other improvements facilitating public access to shorelines of the state, industrial and commercial development that will provide an opportunity for substantial numbers of the people to enjoy the shorelines of the state.

Shorelines and wetlands of the state are to be classified and these classifications are to be revised when circumstances warrant regardless of whether the change in circumstances occurs through man-made causes or natural causes. Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize any resultant damage to the ecology and environment of the shoreline area and any interference with the public's uses of the water.

The act is supplemented by **Guidelines for the Shoreline Management Act of 1971** (WAC 173-16, 1972), which provide additional detail regarding appropriate shoreline land uses and activities, as well as procedures for preparing, adopting, and implementing a local shoreline master program.

Shoreline Master Program for the Thurston Region (1984)

The region's master program provides the local policy framework for this management plan and presents policies and regulations which form an umbrella over the Deschutes Management Plan. Specifically this management plan is a "special area management plan" and supplements and amends the regional program.

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Tumwater Zoning Ordinance (Title 10, 1988)

Property within the corridor is divided into land use zones such as, Residential Low Density, Commercial Low Intensity, Historic Commercial, and Greenbelt. (See Tumwater Zoning map in Section 5.) In addition, two overlays, the floodplain and limited zones, apply to much of the area. (See Flooplain Designations map in Section 5.) In combination with shoreline designations, these zones are the primary land use regulation tools of the City. The policies behind each zone, as stated in the ordinance, are:

The intent of the R-L residential low-density zone district is to preserve and establish peaceful low-density neighborhoods free from uses other than those which prove to be compatible and convenient to the residents of such a district.

The intent of the C-L commercial low-density zone district is to establish and preserve an area suitable for transitional uses between more intensive commercial activities and residential uses. The uses are intended to be those which provide professional and personal services, and general retail sales which generate small numbers of people and small volumes of traffic.

Recognizing that Tumwater was the first American settlement on Puget Sound, and one of the industrial and commercial centers of Washington Territory, the H-C historic commercial zone district is created to help reestablish and preserve the built environment of the Tumwater historic district as it once existed, thereby promoting the general welfare of the citizens of Tumwater, and the economy of Tumwater by developing and maintaining the City's commerce and vacation/travel industry.

The intent of the G-B greenbelt area zone district is to assure permanent open space within public utility easement corridors, land preserves, watershed areas, settling basins, natural greenbelts and land use buffers, wherein intensive urban development would adversely affect public uses and natural environment benefits.

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It is the purpose of the F-P floodplain zone district to promote the public health, safety and general welfare, and to minimize the flood losses by provisions designed to:

- A. Restrict or prohibit uses which are dangerous to human health, safety or property in times of flood, or cause increased flood heights or velocities;
- B. Require that uses vulnerable to floods, including public facilities which serve such uses, be provided with flood protection at the time of initial construction; and
- C. Alert individuals as much as possible of lands which are unsuitable for intended purposes because of flood hazard.

It is the purpose of the limited zone district (an overlay zoning district) to identify certain areas of the city which may require a more detailed review of development proposals in order to assure protection of community interests, when the magnitude of environmental concerns, such as water quality, topography, noise and traffic, calls for the application of this zone.

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SECTION 3

THE PLAN

A VISION FOR THE FUTURE

This subsection of the plan describes the "vision" that the City has of the Tumwater valley's future. It does not require that all development be consistent with that vision. Instead, it is a description of a preferred future that has guided preparation of this management plan.

Ideally, the Deschutes River corridor will continue to be the centerpiece of the City of Tumwater. In general, the valley will remain an area of open spaces, with very few intensive land uses being added, and with substantial opportunities for the public to enjoy this community resource. The upriver (southeastern) portion of the valley will be conserved, with most of the area in recreational open space combined with natural lands. In contrast, the central reach of the river near the brewery will be bordered by intensive urban uses, including industry, with human activity in evidence everywhere. The shorelines of the falls and Capitol Lake will provide direct access to the river and some respite from this urban environment.

A trip up this "Deschutes River of the future" would reveal the following setting:

The south basin of Capitol Lake has gradually been filled by silt. The basin includes extensive wetlands and a branched stream course. The Historical Park occupies the west bank. This park continues to include the Henderson House and the Crosby House, along with other landmarks highlighting the significance of the New Market area. Occupying the east bank, will be the Old Brewhouse structure, restored to its previous grandeur and available for commercial and other uses. Access may be available from the west side of the river via the lower falls area, as well as access directly from Custer Way. A natural area will be located in the eastern portion of the south basin of Capitol Lake with new pedestrian paths providing access to the middle basin of Capitol Lake.

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The falls and canyon area will still be available to the public for quiet walks and scenic enjoyment. This area will continue to feature the Tumwater Falls Restaurant and the Falls Park, and possibly a new replica of one of the original historic mills.

Above Capitol Boulevard industrial activity will continue and may increase east of the river. Areas to the west of Valley Drive to the Athletic Club will be available for active recreation. The golf course will remain much as it is today. The riverside will be an environment of native vegetation providing wildlife habitat and high-quality fishing opportunities. Near Henderson Boulevard will be a new city park, with nature trails and meadows near the river and athletic fields and parking being located to the north closer to the railroad tracks.

Throughout its length the banks of the river will remain in their present state or have been enhanced for fish and wildlife habitat. The trees on the bluffs overlooking the valley will remain in place. Any structures at the tops of the bluffs will be set back out of sight of the river or designed to minimize their visual impact on the valley.

Except in the vicinity of the falls and for handicapped access, public access paths to the river will be unpaved. All river access paths will be for pedestrian use only. The paths adjacent to the falls will continue to be used for contemplative strolling, not for jogging or bicycling. Upstream from Capitol Boulevard, only minimal 'dead end' paths will added to provide public access to the river.

Above the falls, no new bridges will be constructed, although existing bridges may have to be widened or relocated. Recreation paths running the length of the valley will link Capitol Lake, Henderson Boulevard and the Palermo neighborhood. These paths will be located away from the river, generally along existing roads and the railroad tracks.

The Palermo neighborhood will remain the only substantial housing area in the valley. However, scattered homes may be located along less steep portions of the bluffs or suitable areas at the foot of the bluffs.

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Policies

The following policies have guided the development of this plan and should be used to guide further decisions that relate to the valley.

- ! To permit all existing land uses in the valley to continue, even if inconsistent with this plan, so long as they do not present a significant hazard to public safety or are not discontinued for extended periods.
- ! To encourage the continuation of uses of land which preserve open space in the valley, including the golf course and privately and publicly-owned parks.
- ! To protect and enhance fish, wildlife, and native plant habitat in the river and the valley.
- ! To give water-dependent and water-enjoyment activities and land uses, especially in-stream uses such as rafting and fishing, the highest priority in all decisions relating to the river and its shorelines.
- ! To provide all existing businesses and industries with opportunities for reasonable expansion or rehabilitation, consistent with natural resource protection principles.
- ! To preserve natural vegetation along the river and upon the bluffs bordering the valley.
- ! To limit bluff-top development, including roads; and to ensure designs which minimize visual and noise impacts on the river and shoreline areas.
- ! To support the long term viability and continuity of the Palermo neighborhood.
- ! To accommodate all public works projects now planned or in progress except the Trosper-Yelm Highway bridge.
- ! To limit over-water construction to only pedestrian access and crossing structures and those projects specified in a historic area master plan.

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- ! To prohibit the destruction or degradation of wetlands as defined by the City; and to permit encroachment upon wetland areas only as specified in this plan and only if accompanied by creation of substitute wetlands or by other mitigation measures satisfying state and federal standards.
- ! To encourage the natural ecological succession of the south basin of Capitol Lake.
- ! With rare exceptions as noted in this plan, to discourage over-water construction and development which directly abuts the river.

Land Uses

This plan does not set forth specific categories of uses for lands within the valley or shorelines of the river. Instead, the shorelines of the river are placed in general "reaches" which prescribe design guidelines and regulate the intensity of development in each area. (See Section 4). Preferred land uses are described in the vision statement above.

Throughout its length, an area immediately adjacent to the river is designated as a riverine corridor. This corridor varies in width from less than 100 feet to 600 feet or more. Its purpose is to protect and enhance the natural resource values of the river and its shorelines. This goal is to be achieved by protecting the river from surrounding development and enhancing the riparian habitat, while providing appropriate public access.

SPECIAL SITES

The Old Brewhouse

To enhance the prospect of rehabilitating this historic structure on the south basin of Capitol Lake, viable commercial use of the old brewhouse is encouraged and will be permitted. However, the principal access to the site should be from the east side of the river. Adequate parking should be provided on the east bank for all but the most unusual circumstances, or special provisions made for transporting people to the brewhouse.

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If necessary, a new bridge below the falls may be added within the context of a Historic Area Master Plan. Overflow parking may be located on the west bank with alternate access provided via improvements to the present pedestrian bridge at the upper falls or via this new bridge. However, in any case, redevelopment of the brewhouse shall not interfere with continued use of traditional fishing sites.

Simmons Mill Replica

In general, the Shoreline Master Program for the Thurston Region prohibits constructing buildings over non-marine waters, such as the Deschutes River. This special area management plan for the Deschutes grants an individual and specific exception for construction of replicas or architectural interpretations of the Simmons Mill or other structures along the falls to the extent they were originally located over water. These structures are to be primarily for educational, cultural and recreational purposes and are not to have any substantial commercial function.

Tumwater Valley Golf Course

This privately-owned 18-hole golf course along the river provides the community with a scenic recreational opportunity, access to the river, and invaluable open space in the center of the city. The continued operation of the golf course is encouraged by this plan. The City will work with the golf course management to ensure the viability of this segment of the local economy, while seeking to incorporate the course into the overall plan for the Deschutes River shoreline.

Pioneer Park

The newest park of Tumwater is now being designed for a site west of Henderson Boulevard. This corridor management plan specifically provides for development of that park in a manner consistent with the general approach recommended by the firm of Jongejan-Gerrard-McNeal and as endorsed by the citizens of Tumwater. This management plan permits elimination or degradation of any wetlands as required for construction consistent with the final design for the park so long as the riparian habitat associated with the river is not degraded. Further, any such action must be accompanied by steps to mitigate the environmental impact. However, such an action must be in a manner consistent with state and federal regulations.

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Transportation and Utilities

In general, transportation and utility structures in and adjacent to the valley will remain as presently established. Rail access as existing from the southern city limit will continue through to the City of Olympia, with improvements permitted as necessary for commercial viability of present users of the rail line or for the rail line itself.

The City will take steps as necessary to protect City and brewery-owned well fields in the valley. However, the City's watershed area may be utilized on a limited basis as an area for recreation.

Only new local access roads may be constructed within the shoreline area. New arterials and bridges will not be constructed. However, substantial widening and other improvement of existing arterials, bridge and highways may occur as necessary to achieve the City's transportation goals.

Any recreation paths in the corridor will be located away from the river near the edge of the valley floor. Any paths to or along the river will be designed to encourage only limited passive use, that is, they will not be paved, will meander, will be narrow, and generally will not be in the form of through routes.

A list of public works projects relating to transportation and utilities as now planned by the City of Tumwater is to be found in the Appendix to this plan.

Regulations

In general, many of the regulations and standards of the Shoreline Master Program for the Thurston Region will continue to apply to the area. However, the map and regulations which define permitted land uses in the shoreline area have been substantially modified to provide new opportunities for urban development. At the same time, additional more stringent standards are added by this plan to protect the river from nearby development.

In certain instances, special exceptions are grant from ordinary standards to acknowledge a unique and beneficial development proposal. These special exceptions are set forth below.

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Specially permitted uses:

Brewhouse access bridge - A new local access bridge may be constructed below the falls if necessary to achieve rehabilitation of the old brewhouse. This structure must be designed in accordance with a yet-to-be-drafted Historic Area Master Plan.

Golf courses - Golf courses and driving ranges are deemed to be appropriate and permitted recreational land uses in the south reach of the river, including within the riverine corridor. This Plan and the accompanying regulations are to be interpreted accordingly.

Historic mill replica - Over-water historic replicas of one of the original mills may be constructed in the falls area, but only if such structures are designed in accordance with a Historic Area Master Plan, provide an educational function, enhance the aesthetic quality of the area, and do not harm the river fishery.

Riparian habitat - Areas immediately adjacent to the river are to be managed principally to enhance fish and wildlife habitat. Natural vegetation should be maintained or planted on all stream banks except where removal is necessary for a permitted activity or for public safety.

River access points - Public and private access is to be provided to the river. However, access facilities are to be designed to minimize the impact of human intrusion upon the riparian habitat associated with the river.

Wetlands - Filling, destruction, or degradation of identified wetlands as defined in the Wetland Protection Standards of the City which are within the shoreline area is prohibited, except as specifically provided for by this plan.

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OTHER RECOMMENDED ACTIONS

In addition to the regulations of this plan which apply directly to the shorelines of the Deschutes River, there are provisions which will be implemented by other means. These actions will include:

- ! Amending the zoning and other ordinances of the City of Tumwater to implement the vision, purposes, and overall concept of this plan.
- ! Pursuing application of appropriate clearing and grading and hillside development regulations to the bluffs bordering the Tumwater Valley.
- ! In light of this plan, reconsidering land use zoning presently applied to the valley.
- ! Adopting this plan as a supplemental document or amendment to the City's comprehensive plan with regard to development within the valley.
- ! Applying the most stringent regulations applicable to development proposed within this special management area.
- ! Taking this plan into account in all public works, transportation, recreation and other specialized planning by the City.
- ! Participating in any and all Capitol Lake and Deschutes River Basin studies and planning efforts.
- ! Applying all of the policies of this plan as if extending further up or downstream until such time as those areas are subject to a new special area management plan.
- ! Conducting a wetland inventory within the Deschutes shoreline area in cooperation with local property owners and state agencies.
- ! Conducting a program of public education to increase awareness of the Deschutes River as a community resource. This program should place a special emphasis on property management and practices which will protect and enhance fish and wildlife habitat associated with the river.

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- ! Preparing a Historic Area Master Plan as defined in the following section.

- ! Preparing or participating in preparation of a Deschutes Riparian Habitat Plan as defined in the following section.

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SECTION 4

SHORELINE REGULATIONS

PURPOSE

The purpose of the following regulations is to implement the public policies stated in this plan and to aid in achieving the goals and vision of the community as set forth above. These regulations supplement those of the Shoreline Master Program and are intended to complement the planning and land use zoning of the City of Tumwater.

ADMINISTRATION AND INTERPRETATION

These regulation are to be interpreted consistent with the goals and polices of the Shoreline Management Act and the Shoreline Master Program of Thurston County. Except as otherwise specified herein, the definitions set forth in the Thurston Region Shoreline Master Plan shall apply to this section.

The shoreline designations of this special area management plan are based on site characteristics and, if in conflict, replace the former designations in the Shoreline Master Program for the Thurston Region. The boundaries of these designations are to be determined by reference to and interpretation of the Official Deschutes Special Area Shorelines Map on file with the Community and Economic Development Department of the City of Tumwater, and by reference to the content and intent of this plan. Boundaries established with reference to the river or other physical features shall be interpreted as being modified automatically as the course of the river changes over time and as such features are identified.

All references to the Shoreline Master Program refer to the Thurston Region Shoreline Master Program as currently adopted by the City of Tumwater or hereafter amended. All references to the "administrator" refer to the shoreline master program administrator as designated by the Tumwater City Council.

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References to "top of bluff" or similar terms shall be interpreted as applying to a significant natural break in the slope above a slope of 30 percent or greater with a width of greater than fifteen feet and a slope of less than 15 percent. Intermediate benches or other anomalies between slopes of greater than 15 percent shall not constitute the top of the bluff.

SCOPE

The following design standards and use regulations apply to the lands that underlay the waters of the Deschutes River and to all adjacent lands now or hereafter subject to the jurisdiction of the City of Tumwater pursuant to the Shoreline Management Act of the State of Washington.

BOUNDARIES

For purposes of this plan, the areas within shoreline jurisdiction has been divided into three subareas and one overlay area. These generally are:

South Reach: All shoreline areas lying downstream from the centerline of Henderson Boulevard and upstream from a line extending easterly from the southwest corner of the Palermo neighborhood, then north of the existing driving range to the railroad track then southerly along the track to a line extending the Yelm Highway westerly from the 100-year flood plain of the Deschutes River to the track.

Middle Reach: All shoreline areas lying downstream from the above-described Palermo-Yelm Highway line and upstream from the centerline of Capitol Boulevard.

North Reach: All shoreline areas lying downstream from the centerline of Capitol Boulevard and upstream from the centerline of I-5.

Riverine Corridor: All shoreline areas within a given distance of the Deschutes river as shown on the Official Map and defined as follows:

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Within the North reach the width of this corridor extends to the bluff top plus twenty-five feet, to the nearest existing paved roadway or parking lot (not including pedestrian paths), to the foundation of any existing building, or to a distance of 150 feet landward from the mean high-water mark, whichever distance is the lesser.

Within the Middle Reach the corridor extends to the golf course access road and existing parking lots on the west, to the east it extends to a distance of 100 feet or the nearest paved road or parking lot, whichever distance is greater.

Within the South reach, the riverine corridor extends to a distance of 200 feet, the 100-year floodway, or any contiguous City-defined wetlands, whichever distance is greater, but in no case shall the riverine corridor extend to an elevation of more than fifty feet above the ordinary high water mark of the adjacent section of river. (The 100-year floodway is that area calculated to be capable of carrying the floodwaters estimated to have 1% chance of occurring in any given year with only a one-foot increase in flood levels if all of the remaining floodplain were filled.)

NONCONFORMING USES AND STRUCTURES

A use lawfully existing upon the effective date of this Plan or any amendment hereto which does not conform with the provisions of this Plan may continue in the manner and to the extent that it existed upon such date. Nonconforming uses and structures shall be subject to these regulations in accordance with the application of shoreline regulations to such uses and structures as set forth in the Shoreline Master Program.

DESCHUTES SHORELINE STANDARDS

Each and every development which is subject to substantial shoreline development permit requirements will be required to comply with the following standards.

Bank Vegetation. If not existing, indigenous (native) vegetation or vegetation consistent with a Deschutes Riparian Habitat Plan shall be planted within twenty-five feet of the ordinary high water mark wherever and whenever the City has the authority to impose such a requirement.

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Dams. No new dams or weirs will be permitted.

Floodplain Standards. Floodplain and floodway standards and regulations shall be strictly applied and enforced. Levees and channels shall not be permitted as floodproofing measures; however flood overflow channels may be utilized as impact mitigation measures if such channels incorporate habitat and natural appearance enhancement features. All open spaces shall be designed and operated to permit flooding during flood emergencies.

Habitat Enhancement. All development affecting fish or wildlife habitat shall include components which will enhance or restore the value of habitat for fish and wildlife in accordance with any Deschutes Riparian Habitat Plan adopted by the City. In the absence of such a plan, habitat enhancement measures shall be proposed by the applicant. Examples of habitat enhancement measures include planting of riparian vegetation, wetland and pond creation, bird nesting areas, restoration of natural topography or stream channels, and fishery improvements.

Habitat Preservation. A policy of no habitat loss within the riverine corridor shall be applied in administering this special area management plan. Lands and waters which are identified as providing significant habitat for fish and wildlife shall be preserved. At minimum, these shall include that area of the river between its ordinary high water marks, Class I, II, and III wetlands, off-channel ponds and other fish spawning waters, forested wetlands, waterfowl nesting areas. Any such habitat destroyed by otherwise permitted development, such as bridge construction, must be mitigated by replacement at a ratio of at least one to one by area with consideration of both quality and quantity of that habitat. In determining the appropriate substitute ratio the Administrator shall consider the reasonably anticipated success and failure rates of the proposed method of substitution, the comments of state agencies and others with expertise in the field, and the experience and qualifications of the party(s) preparing and implement the habitat substitution plan.

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New Water Amenities. Any development which proposes to utilize or create a water amenity shall design all or part of it to provide emergent wetlands, fish-spawning areas, or waterfowl habitat.

Shoreline Design. Each development shall be designed with regard for its unique relationship to the river and with consideration of public access and public view corridors.

Views. Public and private views of the river shall be maximized, and to the extent practical, existing views shall be preserved.

SPECIAL PLANS AND STUDIES

Proponents of substantial developments within the shoreline jurisdiction shall be required to submit the following special plans or studies and to undergo the following special review. Such studies shall not be required to address subject areas or sites not reasonably anticipated to be affected by the proposed development. However, this limitation shall not be interpreted to preclude requiring analysis of cumulative impacts of a development. Where deemed appropriate by the reviewing authority because of scale or complexity of the development or of environmental impacts, the City may require that any of the following studies or plans be prepared by a professional or expert with training or experience in the field. Notice of any proposed substantial development within the riverine corridor shall be provided to all interested parties.

1. No categorical State Environmental Policy Act exemptions shall exist within the shoreline jurisdiction. All developments requiring a city-issued permit shall prepare and submit a **SEPA checklist**. This checklist shall include a wetland inventory and a detailed assessment of surface and groundwater impacts, if any.
2. A **clearing and grading plan** specifically identifying vegetation to be removed, a schedule for vegetation replanting, and the method of vegetation removal shall be submitted. Vegetation shall be retained whenever feasible or as required by this plan. Soil disturbance shall be minimized.

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3. An **erosion control plan** identifying measures to protect the river and associated wetlands from erosion, siltation, landslides and construction materials shall be submitted.
4. A permanent **stormwater control plan** which identifies the means of protecting water quality shall be submitted. This plan shall include provisions and schedules for maintenance of the stormwater system. Opportunities for review of such plan shall be provided to the Department of Fisheries and the Squaxin Indian Tribe.
5. A **habitat management plan** outlining proposed measures for protecting, restoring and enhancing fish, wildlife and plant habitats on the site and in areas influenced by the development shall be submitted. This plan shall address and be consistent with any Deschutes Riparian Habitat Plan adopted by the City.
6. A **design plan** shall be submitted outlining the manner in which the development will conform with and complement the aesthetics of the riverfront, the riverine corridor and, if within the North Reach, the historic character of the area.
7. If within an identified **geologically hazardous area**, a description of the hazard shall be submitted, along with a design demonstrating that such hazard will not present a risk to health or property, public safety and welfare, riparian habitat, or the shoreline area.
8. If within the buffer area of an identified wetland as defined in the Wetland Protection Standards of the City, a **wetland delineation and study** recommending mitigating measures and wetlands vegetation enhancement options.

Where a **Historic Area Master Plan** is required prior to any particular development, such plan shall be defined as one which has been prepared by the City of Tumwater for the "New Market" area in the North Reach pursuant to the Comprehensive Plan of the City of Tumwater. At minimum, to be a "historic area master plan" satisfying the purposes of this special area management plan, such plan must incorporate input from the public and from experts in the field of historic area design. The plan must include elements or provisions addressing aesthetics, vegetation, fish and wildlife habitat, historic and prehistoric archaeological significance, public access, environmental sensitivity, architecture and community design, traffic, and public education. The plan must be sufficiently detailed to determine whether specific proposed structures, uses, and structural revisions are in

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accordance with such plan. The plan must address at least that shoreline area extending from and including the Capitol Boulevard Bridge to Interstate 5.

Where referenced in this section, a **Deschutes Riparian Habitat Plan** shall be defined as a plan prepared by a public entity which recommends appropriate means of preserving, protecting, enhancing and restoring plant, fish and wildlife habitat associated with the Deschutes River. This habitat plan shall address existing and potential riparian habitat throughout the shoreline area from Henderson Boulevard to Interstate 5. It shall include a study of the ecology of the river as an integrated unit. The plan should include elements addressing indigenous plants and animals, the hydrologic function of the river, river hydraulics, private and public access, water quality, channel migration, wetlands, a recommended planting list, and maintenance provisions. Participation by all interested parties in preparation of the plan should be assured.

USE REGULATIONS

General regulations - except as otherwise specified, the policies, general regulations and environmental designations and regulations of the Rural Environment as set forth in the Shoreline Master Program shall apply within the Deschutes Special Management Area. All uses within the shoreline jurisdiction are also subject to limitation by the provisions of the Tumwater Zoning Ordinance.

Permitted Primary Uses:

South Reach

Only those uses of land set forth below are permitted within the South Reach:

Agriculture - all types if consistent with the policies and general regulations of the Shoreline Master Program.

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Aquaculture - all activities related to the hatching, rearing, fishing and harvesting of wild and planted fish for recreational, ceremonial and commercial purposes. No associated structure shall be constructed within the riverine corridor unless water-dependent.

Boating facilities - Raft entry and removal points and boat launching ramps in accordance with Shoreline Master Program policies and regulations.

Commercial Development - Home occupations as defined in the zoning ordinance of the City of Tumwater.

Forest Management - only selective logging of designated trees constituting no more than 30% of the existing stand in any five-year period.

Industrial Development - prohibited.

Landfilling - none within wetlands as defined in the Wetland Protection Standards of the City (except as specifically set forth elsewhere in this plan with regard to development of Pioneer Park); other landfilling shall be in accordance with the Shoreline Master Program.

Mining and Drilling - by conditional use permit only in accordance with the Shoreline Master Program.

Outdoor Advertising Signs - permitted in accordance with Shoreline Master Program.

Parking and Loading - permitted in accordance with Shoreline Master Program.

Recreation - low and medium intensity recreation and passive facilities, including golf courses.

Research and education - water or wetland dependent or oriented research and education facilities

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Residential Development - Residential densities not exceeding two units per gross acre; residences and associated impervious surfaces shall not exceed 20%; all associated land clearing and grading shall be in accordance with the Shoreline Master Program; minimum lot dimensions shall be as set forth in the Tumwater Zoning Ordinance.

Roads, bridges, railroads, and transportation - continued use, maintenance and expansion or widening of existing facilities; new roads solely for local access to service permitted uses; paved paths for pedestrian, bicycle and golfing access are permitted outside the riverine corridor; new bridges, except for relocation of pedestrian or golf cart bridges, are prohibited.

Shoreline Protection - permitted subject to Shoreline Master Program.

Solid waste Disposal - Garbage cans, drop boxes and similar small collection containers only.

Utilities - Existing facilities, facilities listed in the Appendix, and facilities, including water supply wells, which are designed to service permitted primary and accessory uses located at least in part within the areas subject to this Plan.

Middle Reach

Only those uses of land set forth below are permitted within the Middle Reach:

Agriculture - all types if consistent with the policies and general regulations of the Shoreline Master Program.

Aquaculture - all activities related to the hatching, rearing, fishing and harvesting of wild and planted fish for recreational, ceremonial and commercial purposes. No associated structure shall be constructed within the riverine corridor unless water-dependent.

Boating facilities - Raft entry and removal points and boat launching ramps in accordance with Shoreline Master Program policies and regulations.

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Commercial Development - Water and non-water-dependent commercial uses which are designed in a manner which allow substantial numbers of people to access and enjoy the shoreline area, and which do not discourage public enjoyment of the shoreline. Associated treatment, storage or accumulation of toxic, dangerous or hazardous substances in quantities which if introduced into the river or riverine corridor would cause significant harm to the riparian environment or the public health shall not be permitted.

Forest Management - only selective logging of designated trees constituting no more than 30% of the existing stand in any five-year period.

Industrial Development - All industrial development is prohibited west of the river. East of the river, industrial development is permitted subject to conditional use permit in accordance with zoning provided such use does not impose any substantial risk of introduction into the riparian environment of toxic or other hazardous substances known to be harmful to humans, fish, plants or wildlife. Whether a substantial risk exists shall be evaluated with due regard for existing and anticipated technology, for control and prevention measures proposed or in place, for emergency response capabilities of the operator and the responsible agencies, for transportation and utility facilities associated with the industry, and for the policies of the City of Tumwater with regard to economic development. The test of substantial risk shall not be deemed to be whether such risk is measurable or quantifiable, but rather whether under foreseeable circumstances damage could result to the riparian environment which is not reparable without significant effort or expenditure.

Landfilling - none within wetlands as defined in the Wetland Protection Standards of the City; other landfilling shall be in accordance with the Shoreline Master Program.

Mining and Drilling - by conditional use permit only in accordance with the Shoreline Master Program.

Outdoor Advertising Signs - permitted in accordance with Shoreline Master Program.

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Parking and Loading - permitted in accordance with Shoreline Master Program.

Recreation - low, medium, and high intensity recreation and passive facilities, including athletic clubs and associated uses.

Research and education - permitted subject to Shoreline Master Program policies and general regulations.

Residential Development - Residential densities not exceeding four units per gross acre; residences and associated impervious surfaces shall not exceed 30%; all associated land clearing and grading shall be in accordance with the Shoreline Master Program; minimum lot dimensions shall be as set forth in the Tumwater Zoning Ordinance.

Roads, bridges, railroads, and transportation - continued use, maintenance and expansion or widening of existing facilities; new roads solely for local access to service permitted uses; paved paths for pedestrian, bicycle and golfing access are permitted outside the riverine corridor; new bridges are prohibited, except for conversion of 'E' Street to a through public street and pedestrian or golf cart bridge relocation.

Shoreline Protection - permitted subject to Shoreline Master Program.

Solid waste Disposal - Garbage cans, drop boxes and similar collection and storage containers only.

Utilities - Existing facilities, facilities listed in the Appendix and facilities designed to service permitted primary and accessory uses.

North Reach

Only those uses of land set forth below are permitted in the North Reach:

Agriculture - any type if consistent with the policies and general regulations of the Shoreline Master Program.

SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

Aquaculture - all activities related to the hatching, rearing, fishing and harvesting of wild and planted fish for recreational, ceremonial and commercial purposes. No associated structure shall be constructed within the riverine corridor unless water-dependent.

Boating facilities - Raft entry and removal points and boat launching ramps in accordance with Shoreline Master Program policies and regulations.

Commercial Development - Water and non-water-dependent commercial uses which are designed in a manner which allows substantial numbers of people to access and enjoy the shoreline area, and which do not discourage public enjoyment of the shoreline. Associated treatment, storage or accumulation of toxic, dangerous or hazardous substances in any significant quantity shall not be permitted. All commercial structures shall be set back at least 25 feet from the riverine corridor boundary unless such structure is specifically provided for in a historic area master plan. The hearing examiner of the City may permit encroachment within this setback upon a determination that no substantial part of such structure would be visible from any existing or planned path adjacent to the river.

Forest Management - only selective logging of designated trees constituting no more than 30% of the existing stand in any five-year period.

Industrial Development - continued use and maintenance of existing facilities is permitted; expansion of existing facilities is permitted subject to conditional use permit in accordance with zoning provided such use does not impose an unreasonable risk of contamination of the riverine environment with toxic or other hazardous substances known to harmful to humans, fish, or wildlife. The acceptable degree of such risk shall be evaluated with due regard to existing and anticipated technology and to transportation and utility facilities associated with the industry, and for the policies of the City of Tumwater with regard to economic development. However, such expansion shall not result in any new structure being located closer than 25 feet to the riverine corridor boundary.

**SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY**

Landfilling - none within wetlands as defined in the Wetland Protection Standards of the City; other landfilling shall be in accordance with the Shoreline Master Program.

Mining and Drilling - mining is prohibited; drilling by conditional use permit only in accordance with the Shoreline Master Program.

Outdoor Advertising Signs - permitted in accordance with Shoreline Master Program, however, such structures shall not be visible from any point within 25 feet of the ordinary high water mark between the upper falls and the foot of the lower falls.

Parking and Loading - permitted in accordance with Shoreline Master Program.

Recreation - low intensity recreation and passive facilities, including playgrounds, passive parks, and associated facilities.

Research and education - water and wetland dependent or oriented facilities subject to Shoreline Master Program policies and general regulations.

Residential Development - Residential densities not exceeding four units per gross acre; residences and associated impervious surfaces shall not exceed 30%; all associated land clearing and grading shall be in accordance with the Shoreline Master Program; minimum lot dimensions shall be as set forth in the Tumwater Zoning Ordinance.

Roads, bridges, railroads, and transportation - continued use, maintenance, expansion and widening of existing facilities (including the addition of pedestrian bridge under I-5); new roads solely for local access to service permitted uses; paved paths for pedestrian and bicycle access are permitted; except as follows, bridges are prohibited - any bridge necessary to achieve rehabilitation of the "old brewhouse" may approved by conditional use permit but such structure shall only be permitted if in accordance with a historic area master plan. Pedestrian bridge construction and relocation shall be subject to conditional use permit approval.

SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

Shoreline Protection - permitted subject to Shoreline Master Program.

Solid waste Disposal - Garbage cans, drop boxes and similar collection and storage containers only.

Utilities - Existing facilities, facilities listed in the Appendix of this plan and those facilities designed to service permitted primary and accessory uses.

Riverine Corridor

Interpretation:

The purpose of the riverine corridor is to buffer the river and associated wetlands and other riparian habitat from the impacts of nearby urban development and activities, to ensure preservation of existing habitat and water quality, and to provide opportunities for restoration and enhancement of the river and associated riparian environment. Whenever possible consistent with the policies of this plan, this section shall be interpreted to permit existing land uses and land management practices to continue.

Notwithstanding the provisions of the South, Middle, and North Reach regulations, no use should be permitted within the riverine corridor which will degrade the natural functions of the river. These functions include controlling siltation, minimizing turbidity, protecting nutrient reserves, maintaining stream flows, preserving natural flood storage capacity, providing habitat for fish and wildlife, and providing groundwater recharge.

The riverine corridor overlays the South, Middle, and North Reaches of the Deschutes shoreline. The design guidelines, regulations and use limitations of the riverine corridor are imposed within each reach in addition to the provisions of the respective reach. Where the provisions of this subsection conflict with or differ from any setback or stream buffer standard as specified in the respective reach or in the Shoreline Master Program, the more stringent shall apply. The more stringent shall be construed to be that standard which advances the policy of protecting the fishery and wildlife habitat of the Deschutes River.

SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT PLAN (SAMP) FOR THE TUMWATER VALLEY

Riverine design guidelines and regulations:

The following general standards shall apply throughout the riverine corridor.

Access - Within any single property or any one-quarter mile segment of the river, up to 20% of the riverine area may be designed and managed to provide for either public or private access to the river. Such access provisions may include paths, landscaped areas, picnic facilities, view corridors, etc. The selection of such areas shall be in accordance with policies and standards regarding wetland and habitat protection. Brush and other understory vegetation may be cleared consistent with this standard. If necessary for the intended purpose, non-native vegetation may be planted in these areas in place of indigenous vegetation.

Appearance - New development within or adjacent to the riverine corridor shall be designed to avoid an unsightly appearance from the river and to enhance the aesthetic appearance of the corridor or shall be screened from view from the river by vegetation. Determination of the appropriate design shall include consideration of the policies of this plan and the purposes of each reach as set forth in Chapter 3.

Bank stabilization - Outward from the ordinary high water mark, a minimum 25-foot wide strip of rooted vegetation for bank stabilization and wildlife habitat shall be maintained where in existence.

Dams - New dams and weirs are prohibited.

Drainage - all drainage and stormwater control systems associated with new development, including roads and parking lots, shall be designed to minimize degradation of the water quality of the river and associated wetlands.

Floodway management - as mitigation for other development, engineered construction of flood overflow channels and other flood control features may be incorporated into the riverine corridor. Such features shall be designed to enhance fish and wildlife habitat and the natural appearance of the corridor as well as to achieve flood control purposes. Levees are prohibited.

SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

Habitat mapping - Lands and waters in the shoreline which provide a good potential for fish and wildlife habitat improvement shall be designated on maps. The objective of this designation is to invite development plans which demonstrate improvement to such habitat, and which are in accordance with the Deschutes Riparian Habitat Plan if one has been adopted.

Habitat substitution - Where fish and wildlife habitat is unavoidably destroyed, areas as necessary to achieve habitat of comparable value shall be provided to compensate for the functional values that were lost to these species. In determining the appropriate substitute ratio the Administrator shall consider the reasonably anticipated success and failure rates of the proposed method of substitution, the comments of state agencies and others with expertise regarding habitat substitution, and the experience and qualifications of the party(s) preparing and implementing the habitat substitution plan; but in no case shall such ratio be less than one to one by area.

Over-water structures - All over-water construction shall be subject to conditional use permits. Such construction is limited to pedestrian bridge relocation, existing bridge expansion or replacement, and structures (including bridges) specified in a historic area master plan.

Pesticides - Introduction of pesticides shall be limited to those measures necessary to maintain existing vegetation, protect structures, or to eradicate nonindigenous species. In all instances best management practices shall be employed. Other pesticides may be introduced into the corridor for public health reasons by conditional use permit only, except as deemed necessary for emergency purposes by the administrator.

New development mitigation - All new development shall be located and designed to promote flood protection, fish and wildlife habitat, appropriate access to the river, and the general purposes of this plan.

Side-channels and pools - Where side channels and pools are identified as existing or potential fish spawning waters, development proposal shall be designed to protect such areas. Developments may be required to enhance, improve or create such habitat as a condition of approval of substantial development.

SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

Vegetation - Except with respect to maintenance of existing vegetation, including maintenance by replacement with comparable vegetation serving a similar purpose as existing vegetation, only indigenous species or vegetation consistent with a Deschutes Riparian Habitat Plan shall be planted within the riverine corridor. The requirement of indigenous vegetation shall not apply to those areas utilized as access pursuant to the "20% access" exception set forth above, however such areas shall be subject to the provisions of any Deschutes Riparian Habitat Plan.

Permitted Uses:

Only those uses of land set forth below are permitted within the riverine corridor:

Agriculture - prohibited except those activities comparable to existing agriculture on the same site and only if operated in accordance with best management practices with respect to stream quality as recommended by the Soil Conservation Service.

Aquaculture - all activities related to the hatching, rearing, fishing and harvesting of wild and planted fish for recreational, ceremonial and commercial purposes. No associated structure shall be constructed within the riverine corridor unless water-dependent.

Boating facilities - Raft entry and removal points and boat launching ramps in accordance with Shoreline Master Program policies and regulations.

Commercial Development - Prohibited - no toxic, dangerous or hazardous substances in any quantity shall be stored or collected within 50 feet of the riverine corridor. For purposes of this plan water supply wells shall not be considered commercial development.

Dredging - only as an accessory use to another permitted use or as necessary to protect or maintain public facilities or the resources of Capitol Lake, and only in a manner consistent with the Shoreline Master Program. In every case, a conditional use permit shall be required to remove more than five cubic yards of debris or other organic matter (living or dead) from between the ordinary high water marks. Such activity shall be permitted only when debris or organic matter is a threat to persons or property or contributes to the dangerous restriction of the flow of floodwater.

SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

Forest Management - selective cutting of up to 20% of standing timber in any acre in a five year period is permitted, however, no tree with a circumference greater than 30 inches at a distance of five feet above the ground shall be cut except upon a determination by the administrator that the tree represents a substantial hazard to the public or private property or welfare, or upon a determination that the tree has no aesthetic or fish or wildlife habitat value. (Trees with multiple trunks shall be measured at the narrowest point below the split in the trunk.) The administrator may refer such question to a forester or other expert in the field. Upon approving such activity, the administrator may require as a condition of cutting that the tree be replaced and/or the fallen tree be placed in a particular location to enhance riparian habitat. In addition to other penalties, such conditions may be imposed for violation of this provision.

Industrial Development - prohibited.

Landfilling - none within wetlands as defined in the Wetland Protection Standards of the City, except as specified elsewhere in this plan; other landfilling shall be in accordance with the Shoreline Master Program.

Mining and Drilling - prohibited; drilling by conditional use permit only in accordance with the Shoreline Master Program.

Outdoor Advertising Signs - prohibited.

Parking and Loading - parking is prohibited, however existing parking areas may be improved so long as stormwater and run-off impacts are mitigated; in addition, where otherwise permitted, parking shall be set back at least fifty feet from the ordinary high water mark, loading facilities are permitted only in association with boat ramps and other river access.

SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

Recreation - low intensity recreation, including golf courses, and passive facilities.

Research and education - water and wetland dependent or oriented facilities subject to Shoreline Master Program policies and general regulations.

Residential Development - Prohibited within the riverine corridor; residential housing units attributable to densities otherwise associated with the riverine corridor may be transferred to contiguous non-riverine corridor lands.

Roads, bridges, railroads, and transportation - continued use, maintenance and expansion or widening of existing facilities; new roads solely for local access to service permitted uses, all such roads shall be setback at least fifty feet from the ordinary high water mark; paved paths for pedestrian and bicycle access are permitted only in the middle and north reaches of the riverine corridor; except as follows, new bridges are prohibited, any bridge necessary to achieve rehabilitation of the "old brewhouse" may be approved by conditional use permit if such structure is in accordance with a historic area master plan; pedestrian and golf cart bridge relocation shall be subject to conditional use permit approval.

Shoreline Protection - permitted subject to Shoreline Master Program; where structural stabilization measures are necessary the design shall include overplanting with vegetation and the deliberate enhancement of fish habitat.

Solid waste Disposal - prohibited.

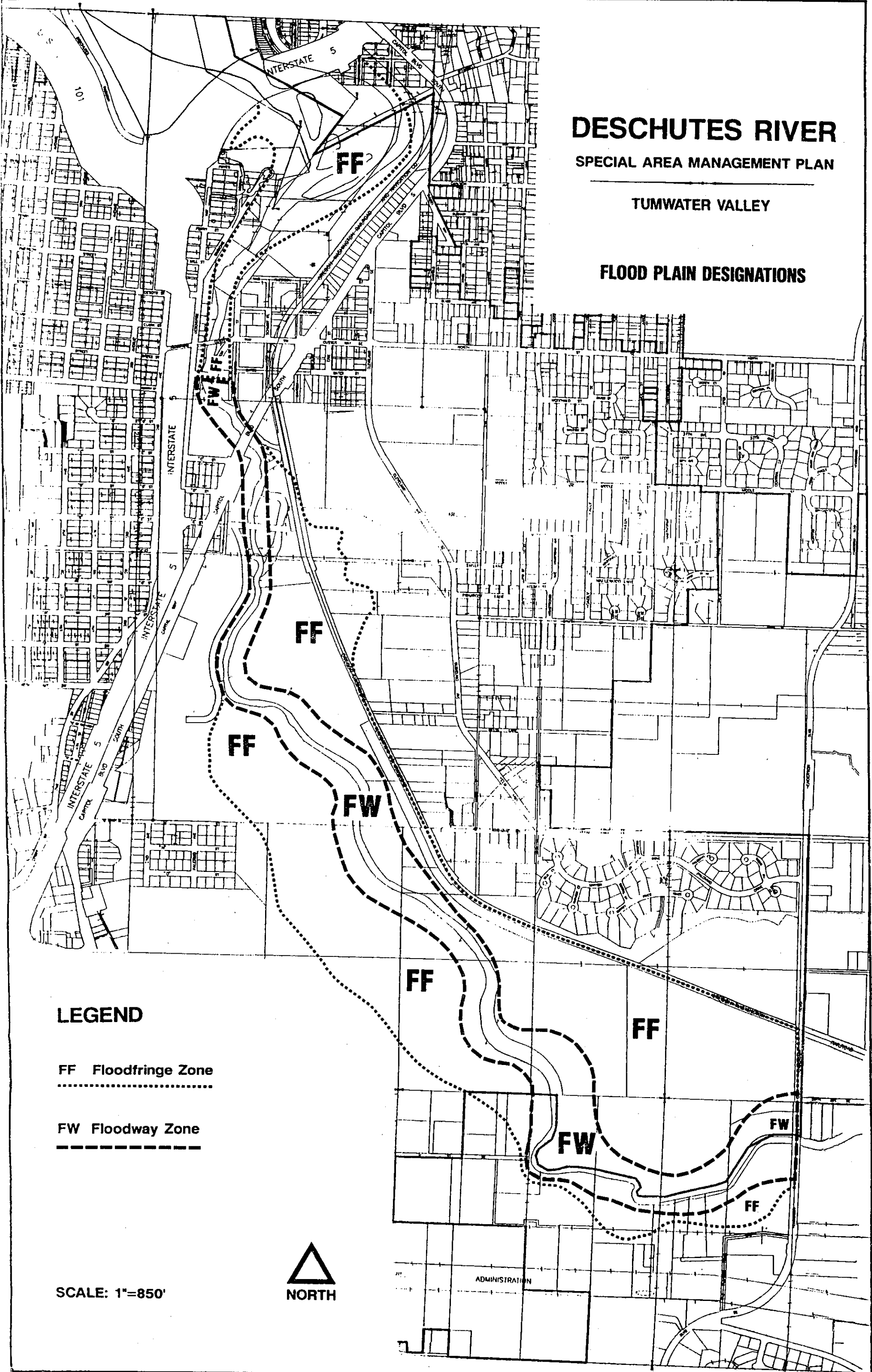
Utilities - Existing facilities, facilities listed in the Appendix, and, if no alternative siting is available, facilities, including water supply wells, which are designed to service permitted primary and accessory uses located at least in part within the area subject to this plan.

DESCHUTES RIVER

SPECIAL AREA MANAGEMENT PLAN

TUMWATER VALLEY

FLOOD PLAIN DESIGNATIONS



LEGEND

FF Floodfringe Zone

FW Floodway Zone

SCALE: 1"=850'

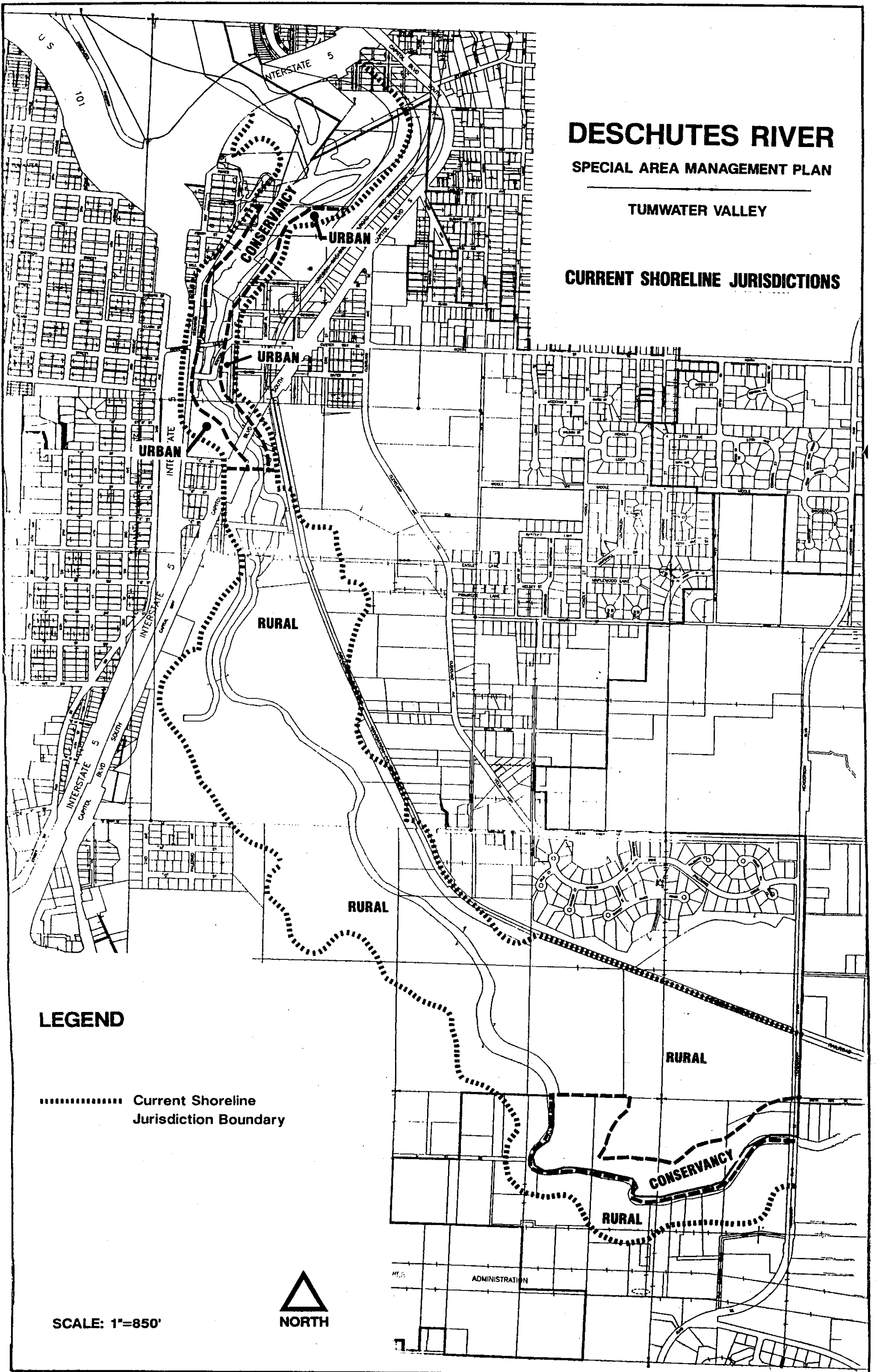


DESCHUTES RIVER

SPECIAL AREA MANAGEMENT PLAN

TUMWATER VALLEY

CURRENT SHORELINE JURISDICTIONS



LEGEND

----- Current Shoreline
Jurisdiction Boundary

SCALE: 1"=850'



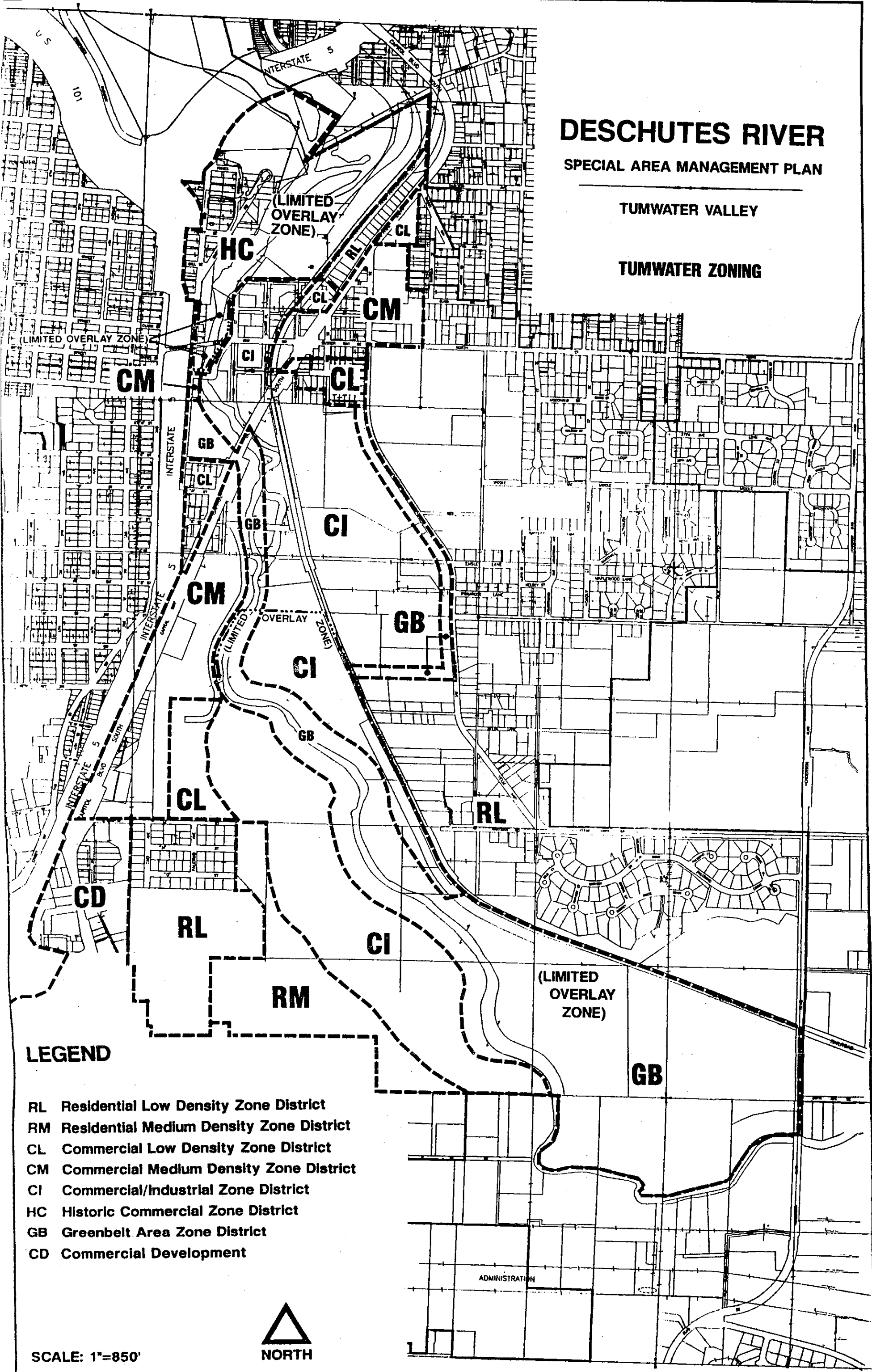
NORTH

DESCHUTES RIVER

SPECIAL AREA MANAGEMENT PLAN

TUMWATER VALLEY

TUMWATER ZONING



LEGEND

- RL Residential Low Density Zone District
- RM Residential Medium Density Zone District
- CL Commercial Low Density Zone District
- CM Commercial Medium Density Zone District
- CI Commercial/Industrial Zone District
- HC Historic Commercial Zone District
- GB Greenbelt Area Zone District
- CD Commercial Development

SCALE: 1"=850'



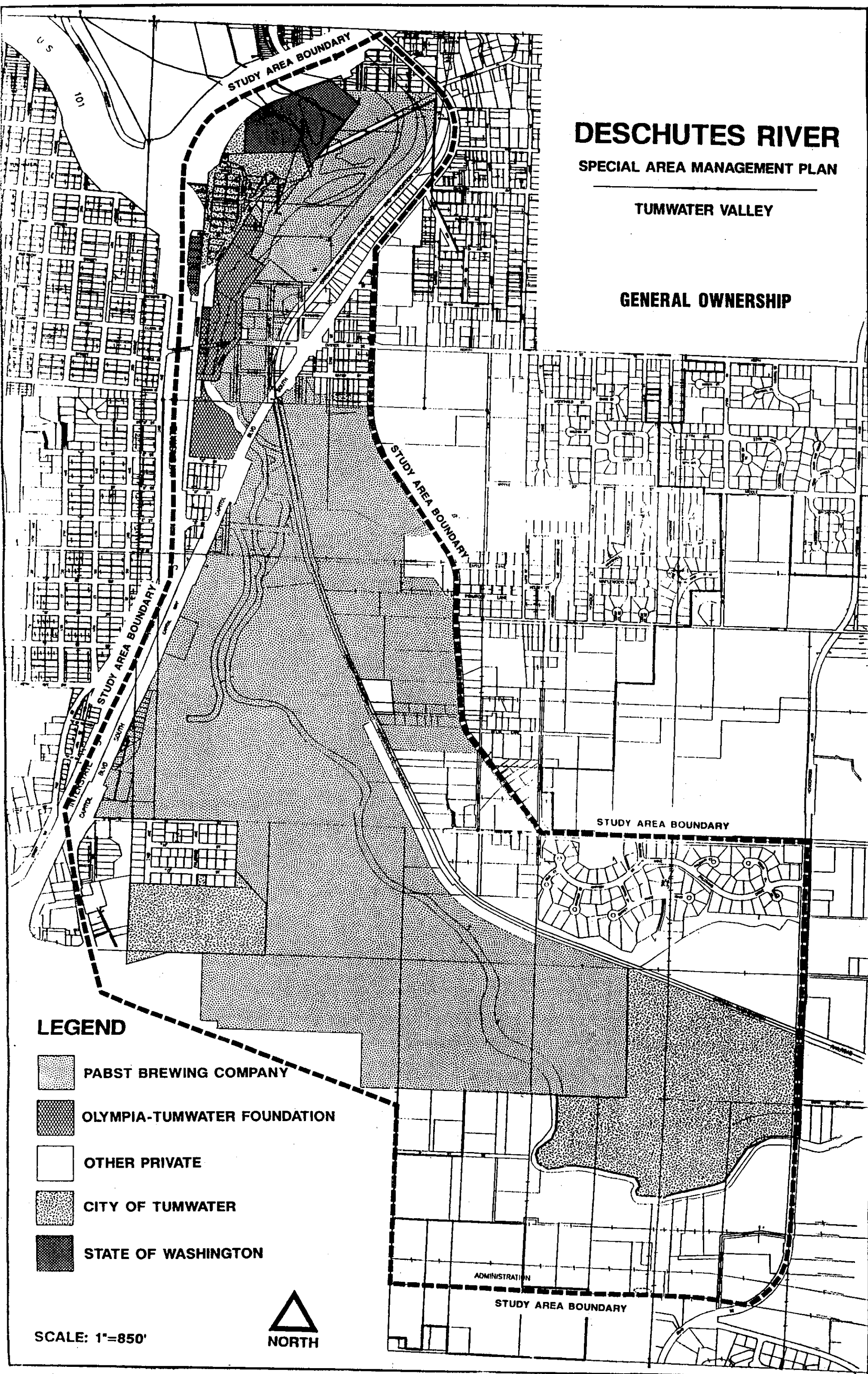
ADMINISTRATION

DESCHUTES RIVER






SPECIAL AREA MANAGEMENT PLAN

TUMWATER VALLEY

GENERAL OWNERSHIP



LEGEND

-  PABST BREWING COMPANY
-  OLYMPIA-TUMWATER FOUNDATION
-  OTHER PRIVATE
-  CITY OF TUMWATER
-  STATE OF WASHINGTON

SCALE: 1"=850'



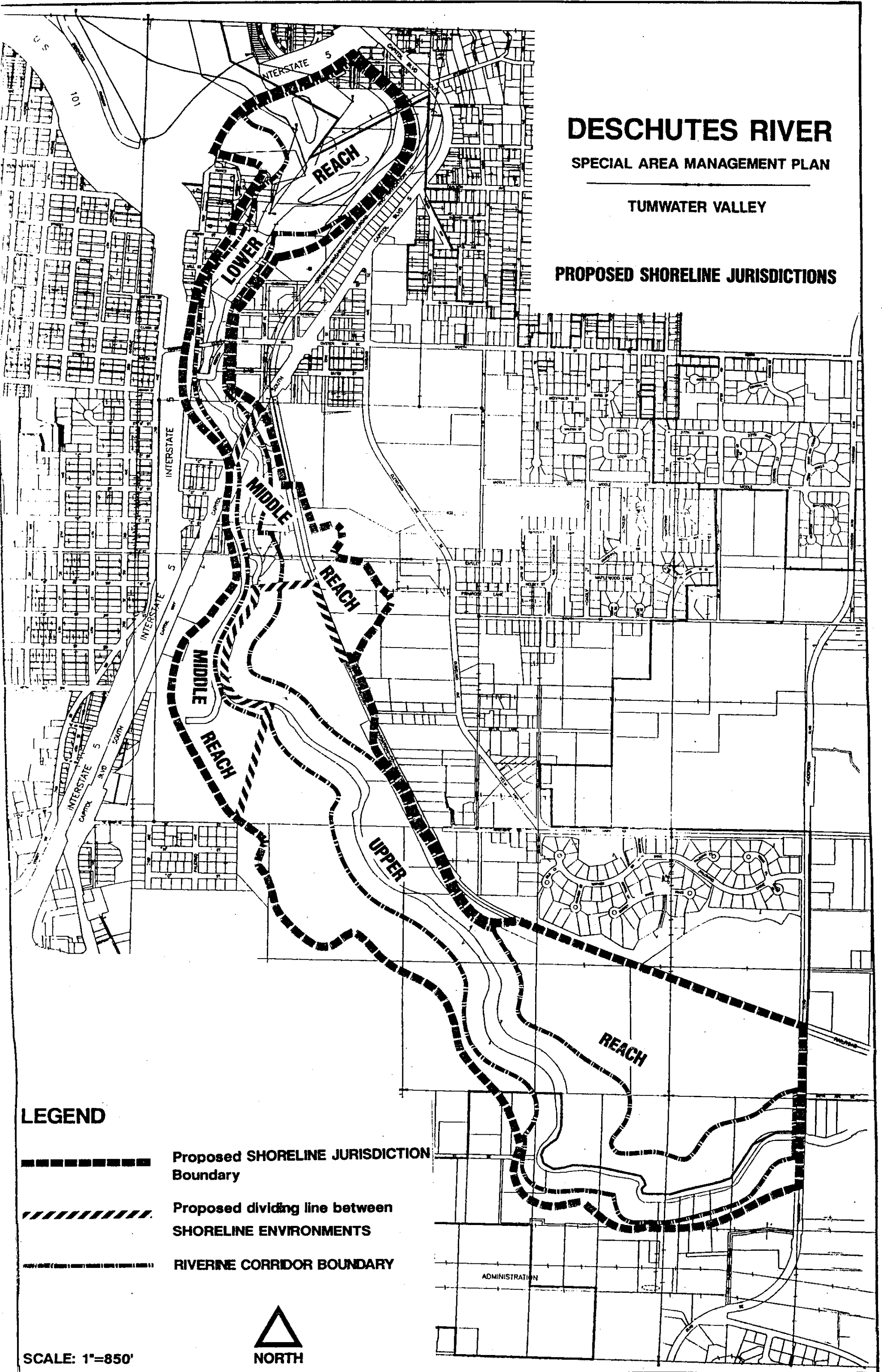
NORTH

DESCHUTES RIVER

SPECIAL AREA MANAGEMENT PLAN

TUMWATER VALLEY

PROPOSED SHORELINE JURISDICTIONS



LEGEND

- Proposed SHORELINE JURISDICTION Boundary
- Proposed dividing line between SHORELINE ENVIRONMENTS
- RIVERINE CORRIDOR BOUNDARY

SCALE: 1"=850'



SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

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SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

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PLAN (SAMP) FOR THE TUMWATER VALLEY

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SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

APPENDIX

City of Tumwater Public Works
Improvements Planned for Deschutes River Shoreline Area

Street and Roads

Widening of Henderson Boulevard and Henderson bridge of Deschutes River to four lanes. See Transportation System Plan for Thurston Metropolitan Region, 1984.

NOT APPROVED BY THIS PLAN - Arterial connection and bridge of Deschutes River between Trospen Interchange and Yelm Highway.

Sewage Collection and Treatment

Sanitary sewer main along golf course access road generally as shown on Figure 6.1 of the 1989 Comprehensive Sanitary Sewer Plan, including crossing at Capitol Boulevard bridge (with lift station outside riverine corridor).

Sanitary sewer mains along Union Pacific railroad tracks and bluff south of river at Henderson generally as shown on Figure 6.1 of the 1989 Comprehensive Sanitary Sewer Plan (all lines to be outside riverine corridor).

Stormwater Collection and Treatment

Addition of stormwater pipe (36") to channel and water quality structure (oil separator) in association with Munn Lake drainage improvements. See Basin G of Tumwater Stormwater Comprehensive Plan.

Water quality structure (oil separator) in association with Trospen Lake/Capitol Boulevard drainage improvements.

Water System

Installation of Henderson Boulevard water main with crossing at Henderson Bridge as described in 1979 Comprehensive Water Plan.

SECTION NINE X DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

Extension of water main west from Hartman Street and Yelm Highway with underground crossing of Deschutes River as set forth in Chapter 7 of the 1986 Comprehensive Water Plan Update.

Improvement of Palermo well field, including possibility of new wells, as outlined in Chapter 7 of the 1986 Comprehensive Water Plan Update.

SECTION NINE – DESCHUTES RIVER SPECIAL AREA MANAGEMENT
PLAN (SAMP) FOR THE TUMWATER VALLEY

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SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

I. INTRODUCTION

The Deschutes River originates in the Bald Hills of Thurston County 3,500 feet above sea level. It travels fifty miles northwest through farmland and housing developments and ends at the base of Tumwater falls. The Deschutes River Riparian Habitat Plan addresses the northernmost part of the river, from the Henderson Blvd. bridge to the I-5 bridge over Capitol Lake.

A. Purpose of Plan

The City of Tumwater undertook the Deschutes River Riparian Habitat Plan (DRRHP) in compliance with a recommendation in the Deschutes River Special Area Management Plan (SAMP), which is part of the Shoreline Master Program for the Thurston Region. The Deschutes River SAMP defines the DRRHP as follows:

A Deschutes Riparian Habitat Plan shall be defined as a plan prepared by a public entity which recommends appropriate means of preserving, protecting, enhancing and restoring plant, fish and wildlife habitat associated with the Deschutes River.

The City received a Coastal Zone Management grant from the Washington State Department of Ecology to undertake this project.

B. Effect of Plan

Because the DRRHP is an amendment to the Shoreline Master Plan, a property owner must, as a condition of receiving a shoreline development permit, complete any required DRRHP site projects located on the tax lot on which the proposed development is located. The projects can be undertaken at any time (e.g. by community groups in conjunction with the property owners) even if no development is planned.

C. Organization of Plan

This plan has three parts. Part one is an introduction to riverine ecosystems which gives a background on hydrology, fisheries, wildlife issues, erosion, rivers as integrated units, and wetlands. It also addresses public and private access issues. Part two is a list and descriptions of the habitat rehabilitation site projects. It includes the purpose for each

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

project, how each project will be implemented, a list of plants, any special challenges a site may present and maps of each site. Additional suggested habitat improvements are included for some sites. Part three discusses the logistics of undertaking these projects. This part describes several community groups concerned with local ecology and interested in performing riparian projects; suggests where to find native plants for the re-vegetation projects; discusses permits necessary before beginning the projects; and lists the current land owners.

II. THE RIVERINE ECOSYSTEM

A. The Riparian Zone As An Integrated Unit

A riparian zone consists of a band of vegetation bordering a body of water. In the case of this document, the body of water is the portion of the Deschutes River running from Henderson Boulevard to Interstate 5. A strong riparian zone plays several vital roles in the stabilization and health of a river ecosystem. A healthy riparian zone helps moderate high and low river flows by capturing rainfall and runoff with foliage and roots, then releasing it slowly. It provides aquatic habitat by supplying large woody debris and overhanging vegetation. It also provides a multi-story habitat for terrestrial wildlife which live in all levels of the riparian zone from rotting leaves to the forest crown. Finally, it protects the river from contaminants by filtering out contaminants from runoff water with soil and by taking them up into roots.

Human activities along the river can damage or destroy the riparian zone by covering it over with sod or concrete and through people carelessly trampling vegetation and fish spawning beds while fishing.

B. Hydrology

The majority of water flow in the Deschutes River comes from rainfall. In the summer months, the flow falls lower than 100 cubic feet per second while winter flows typically rise to around 1000 cubic feet per second. During the flood of January 9, 1990, the river rose to 9,600 cubic feet per second. If development continues to increase along the river, floods may exceed 10,000 cubic feet per second in the near future.¹

Hydrology and Fisheries:

Although flows vary from season to season, they must remain fairly constant to support a healthy riverine ecosystem. Very low water levels during salmon runs and spawning season make travel difficult or impossible for migratory fish. They also make life for non-migratory fish difficult. Many non-migratory fish live in shallow riffle areas and depend on these areas to provide them with nourishment. When the water level drops, these areas become uninhabitable.

¹ Development increases flood levels by eliminating vegetation and increasing impervious surfaces. The reasons why these actions increase flood levels will be discussed in the section on vegetation and public access.

Water levels which are too high damage or destroy habitat and kill fish in their rushing waters. Fish can escape these flood waters by swimming into side channels or wetlands connected to the river.

Hydrology and Vegetation:

Healthy riparian zones moderate the river flow by catching rainfall and runoff and releasing it slowly. The leaves catch the rainfall which evaporates or is released slowly through several stories of vegetation to the ground. Here some of the water is absorbed by decaying leaves, some by roots, and some by the soil. The remainder runs off into the river. Plant leaves transpire off the water absorbed by the roots, but the water absorbed by the soil and the decaying leaves enters the ground water table. The high ground water table helps keep the river levels up during dry seasons.

Trees, logs and stumps may fall into the river from the riparian zone, increasing the roughness of the channel and reducing the velocity of the flow.

Hydrology and Erosion:

During heavy rains, even a healthy riparian zone and river system will not prevent flood erosion. However, under natural river conditions flood erosion creates good in-stream habitat. Flood waters wash out gravel banks, creating spawning beds. They wash trees, logs, and stumps into the river, creating hiding, resting, and feeding places. Finally, they partially wash out banks, causing trees to lean out over the water, cooling it and creating feeding and hiding places.

Under natural conditions, a river may have any or all of the following: side channels, meanders, ox bows, associated wetlands, and flood plains. These features slow and temporarily store flood waters coming down the river and offer fish and other water dwellers a refuge from rushing flood waters. So, the river can flood and cause some erosion without destroying habitat and killing river dwellers. However, armoring the river banks with rip-rap, straightening the river channel, and eliminating riparian vegetation reduces or eliminates the river's natural flood control methods. Under these conditions, flood waters rush down the river with unnaturally high volume and force. The river transfers this energy to any part of the river which is not armored, causing severe bank erosion, washing out spawning beds and in-stream habitat (such as woody debris and even overhanging vegetation) and killing in-stream fauna. Flood waters may also wash armoring along the bank into the main channel. This decreases the channel capacity and creates greater erosion forces on the bank.

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

C. Wetlands

Wetlands serve several major functions in a river ecosystem. They provide in-stream fauna a place out of the current during floods and they filter out harmful chemicals before such chemicals reach the river. During normal flow periods, they provide a habitat rich in nutrients for vegetarian and carnivorous fish. They are ideal rearing grounds for juvenile fish.

D. Vegetation

In addition to reducing channel instability, vegetation contributes very significantly to the food production, habitat and water quality of river ecosystems.

Vegetation and the Fisheries Nutrient Cycle:

In slow moving areas of the Deschutes, the aquatic ecosystem depends largely on the detrital food chain. Energy from decaying vegetation fuels this system. Microorganisms break down this vegetation and release nutrients into the river. Insects and insect larva eat the broken-down plant material and plants take up the released nutrients. Larger animals then feed on these insects and plants.

The grazing cycle does not produce as much energy as the detrital cycle but it too adds energy to the river ecosystem. During the grazing cycle, algae in the river and leaves on the bank provide food for grazing invertebrates who then provide food to carnivores (other invertebrates or vertebrates).

Vegetation and Fish Habitat:

As well as providing food, vegetation provides essential habitat for aquatic animals. Large woody vegetation, such as trunks or root balls, which falls into the river provides three habitat advantages. First, it creates an object for fauna to hide under and around. Second, currents eddying around it create scour holes where trout and steelhead rest and feed. Third, it creates riffles where invertebrates feed and provide food for larger fauna.²

² Ninety percent of energy production takes place in riffle areas. Riffles in the river oxygenate the water allowing invertebrates to metabolize more efficiently. Thus, they grow and reproduce more rapidly, providing vertebrates and large invertebrates with food.

Overhanging vegetation also provides important habitat for aquatic organisms. Like woody debris, overhanging vegetation provides places for fish to hide and to feed.³ It also provides a corridor for fish to travel up or down stream. Fish do not like to cross sections of open water because they make easy targets for fish-eating birds.

Tall trees along the river bank, such as fir and cedar, shade the river and keep it cool so the water can hold more oxygen.⁴ When water has a high oxygen content, fish and other aquatic animals can breathe more easily.

Vegetation and the Wildlife Nutrient Cycle:

The terrestrial environment, like the aquatic environment, depends upon healthy vegetation to provide the base for its detrital and grazing cycles. The detrital cycle provides the majority of the energy in the terrestrial system. Insects and fungi break down fallen leaves and wood into nutrients which the plants take up. Larger organisms eat the insects and fungi and the energy continues up the food chain. The fungi also improve soil structure which is essential for nutrient uptake in plants.

The grazing cycle depends on the solar energy captured by plants. Insects and other invertebrates feed on plants and each other. Vertebrates then feed on these animals and each other, carrying the solar energy up the food chain.

These two cycles interconnect. For example, squirrels graze on the cones of trees and are eaten by hawks and owls; but they also eat fungi and occasionally live in decaying logs and trees.

Vegetation and Wildlife Habitat:

A healthy riparian zone provides multi-story habitat for terrestrial wildlife. Each of these stories provides habitat for a different community of animals and plants. The duff (leaf litter and fallen logs) provides habitat for insects and various arthropods,

³ Overhanging vegetation provides food to fish in the form of insects which fall from the branches into the river. In addition, leaves falling from overhanging vegetation provide energy and nutrients to the detritus cycle.

⁴ These very tall trees also provide the best in-stream debris because they are very large and won't move as easily during floods. They also do not rot as quickly as alders or willows.

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

amphibians and small mammals. The detritus cycle arises from this story and helps support the rest of the stories. The understory consists of low shrubs and ferns. It provides berries and seeds for birds and small mammals, as well as hiding places and dens. The trunks and snags provide nesting and roosting sites and insects for birds and small rodents. The crown provides habitat for insects, spiders, birds and small mammals. This area captures energy from the sun and puts it into the ecosystem. Insects, birds and small mammals eating the leaves and cones take the stored energy and disperse it when they die or are eaten. This is the base of the grazing cycle.

Vegetation and Water Quality:

As well as providing habitat and food, a healthy riparian zone acts as a water filter. Many types of contaminants can enter the river and damage its ecosystem. An overabundance of silt can enter the river through excessive erosion and cover spawning beds.⁵ Fertilizers, pesticides, and herbicides enter the river from nearby lawns and poison and deoxygenate the water.⁶ Heavy metals and oils can enter the river from street and parking lot runoff and poison the ecosystem at the base of its food chain.⁷

A healthy riparian zone can filter out these contaminants and hold them in a benign state. Riparian zones resist excessive erosion by holding the soil in place with a root structure. This keeps silt from covering over spawning beds and wiping out salmon runs. Plants take up fertilizers, pesticides and herbicides into their systems and hold them there until

⁵Normally erosion is good for fish habitat, but when it occurs at too high a rate the river begins to fill with silt, which destroys spawning beds. Spawning beds must have gravel that is fine enough so that fish can make nests in it and the gravel will not crush the eggs buried beneath it, but coarse enough to allow water to flow freely through it so the eggs receive oxygen. When silt fills in a spawning bed it prevents the flow of water to eggs and so suffocates them.

⁶ Pesticides can poison aquatic fauna directly by interfering with their metabolism. Herbicides can kill fauna by interfering with their metabolism and by killing plants they feed on. Fertilizers can kill aquatic fauna by promoting explosive plant growth (algae blooms). The algae take up oxygen in the water and suffocate fauna.

⁷ Heavy metals and other pollutants from street and parking lot runoff settle into the detritus at the bottom of the river, stream or wetland. When animals eat this material they concentrate it within their bodies. When larger animals eat the smaller animals they concentrate the pollutants further. At the top of the food chain these pollutants become very concentrated and fish become inedible (and often die).

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

they die. As the plants decay, they return these substances to the soil slowly and in less harmful forms. Riparian zones also filter out oils and heavy metals from street and parking lot runoff. These pollutants are held by the soil and, to a small degree, by plants so they do not travel into the river and poison the aquatic fauna and disrupt the detrital cycle.

E. Public Access

People use the river and its adjacent land for many activities. Each of these activities has a slightly different impact on the ecosystem. Some activities, such as walking, canoeing, and picnicking⁸, have very small impacts on the environment. These small impact activities result in disturbing some wildlife and trampling some vegetation; but, if the area is not overused, these activities should have little impact.

Some human activities taking place along the river have a greater impact on the riverine environment. For example, planting a well kept lawn up to or almost up to the river's edge eliminates most benefits of a riparian zone and can create runoff problems (especially if the lawn is fertilized or sprayed for pests). A parking lot near the river can create serious runoff problems and permanently eliminate any benefits of a riparian zone. Water running off the pavement can cause unnaturally high levels of erosion in areas downstream and carry pollutants into the river's aquatic ecosystem. Fishermen can do serious harm by wading through spawning beds and trampling sensitive shoreline areas. The cumulative effect of these high impact activities can destroy a river ecosystem if they are not carefully controlled.

⁸ Picnicking can be very high impact if a lawn is put in to accommodate it. Lawn may create all the problems associated with pesticides, herbicides, and fertilizers. It may also increase runoff and decrease wildlife habitat.

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

III. SITE PROJECTS

This part of the plan consists of a series of re-vegetation plans for specific sites. Locations of sites are shown on map #1. Each site plan lists a Purpose, Implementation, Plant List, Special Comments, and has a site map. Sites with a site number ending with a 0 (zero) are required to be completed as a condition of receiving a shoreline permit for development of the property on which the site project is located. Several site plans also have a suggestion section. The activities described in the suggestion section are not mandatory but are highly recommended.

Sites with a site number ending with a 5 (ex. Site 5 or Site 145a) are suggested sites. All the activities described for these sites are recommended but not mandatory.

The Purpose lays out the goals which are intended to be accomplished by the re-vegetation project.

The Implementation is meant to serve as a guide for re-vegetation. This can be followed exactly or with minor modifications (such as plant substitutions). Any modifications must carry out the goals laid out in the Purpose.

The Plant Lists contain plants which should be used in re-vegetating each site. Native plants not on this list may be substituted as long as they accomplish the goals laid out in the Purpose.

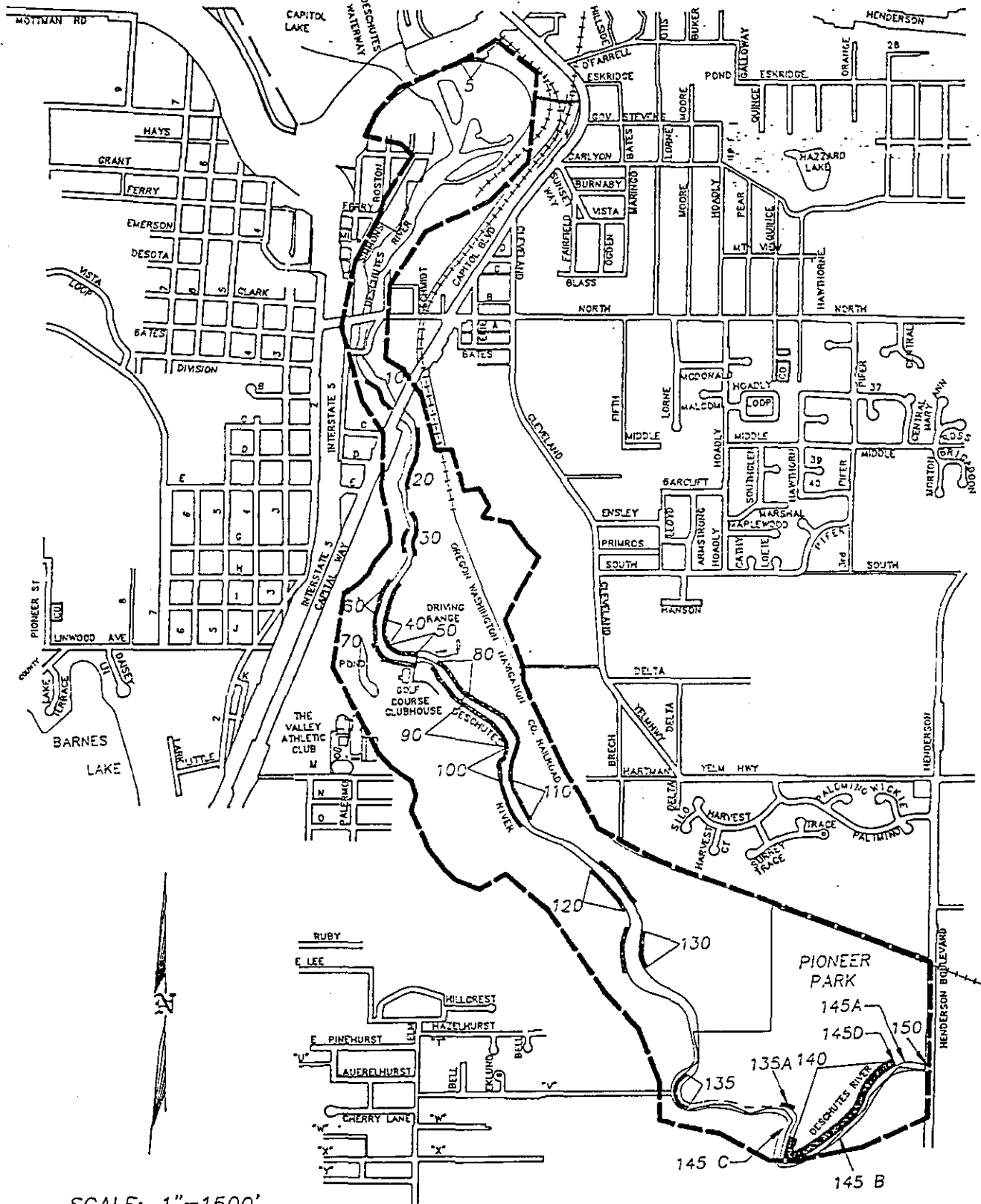
Special Comments describes any complications or special circumstances that should be considered in re-vegetating a site.

The maps in this part are meant as graphic portrayals of the Implementation. They are not drawn to scale, but are intended to clarify and expand upon the Implementation. Like the Implementation section, they may be modified as long as any modifications carry out the goals laid out in the Purpose section.

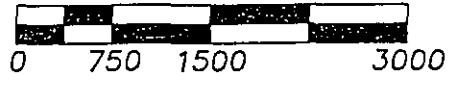
Generally, the following rules of thumb should be applied when completing a site project:

- * Plant beginning near the water's edge and work back up the bank to avoid trampling new plantings during the project.
- * Where both taller trees and an understory are recommended, plant the taller trees first. Once they are established (several years), return and plant the understory.
- * Some loss of plantings can be expected due to floods, drought, trampling, etc. Provisions should be made prior to starting the project to return each year for three years and replace damaged or lost plants.

MAP NO.1 SITE LOCATIONS FOR RIPARIAN HABITAT IMPROVEMENT PROJECT



SCALE: 1"=1500'



SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

A. Site 5 (Suggestion Site)

Purpose:

- * *To provide overhanging vegetation under which fish can hide.*
- * *To shade the river.*

Implementation:

- * *Plant a 10 foot wide strip of willows and Red-osier dogwood along the river's edge in the rip-rap.*

Plant List:

- * *Willows: Salix spp.*
- * *Red-osier dogwood: Cornus stolonifera*

Special Comments:

- * *Permission from the Washington State Department of Transportation will need to be obtained before undertaking any re-vegetation of this area.*

B. Site 10

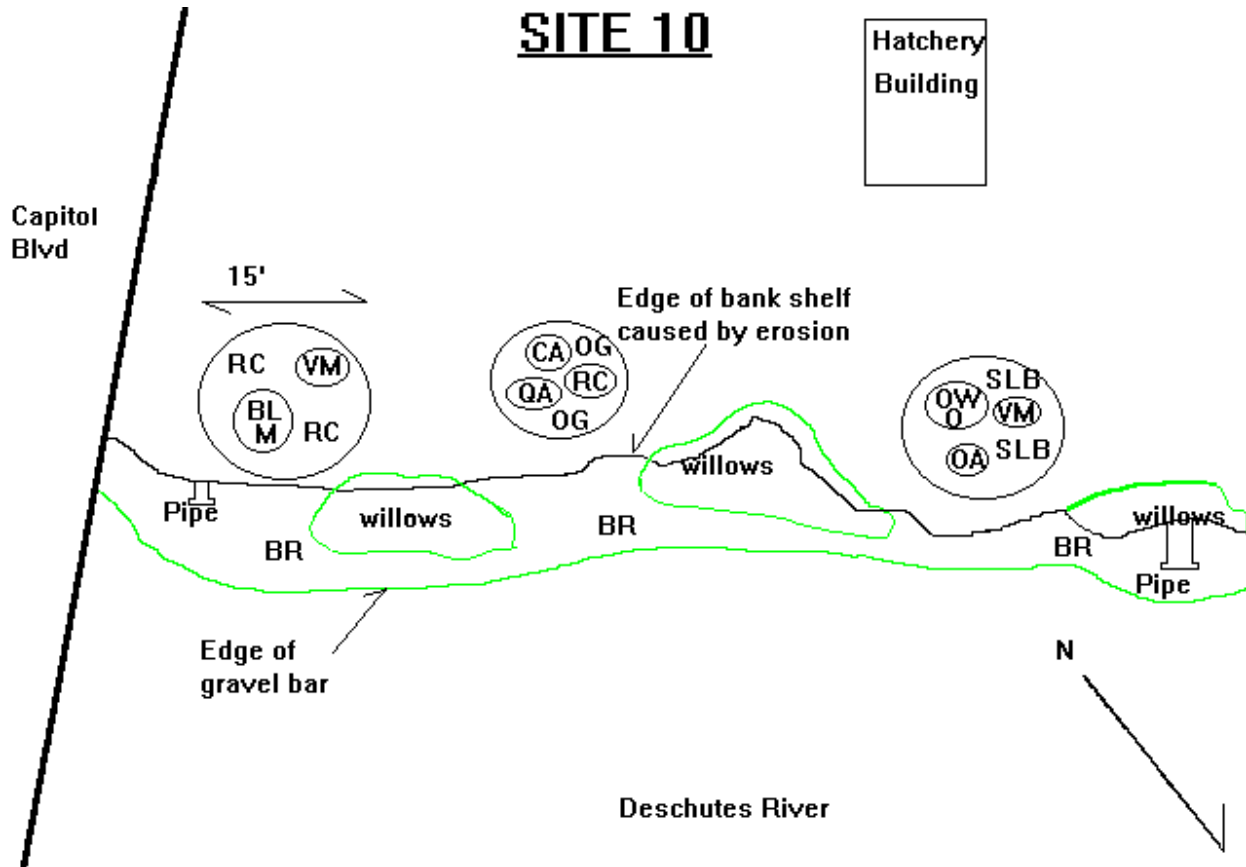
Purpose:

- * *To provide overhanging vegetation for fish cover.*
- * *To provide stability to the bank.*
- * *To provide shade to the river*
- * *To provide detritus to the river food cycle.*
- * *To allow people access to the river.*

Implementation:

- * *Plant islands of willows approximately 30 feet apart. Each island should stretch from 5 to 10 feet along the bank and 4 to 5 feet back from the bank.*
- * *The deciduous trees should be planted 5 to 10 feet back from the bank. The groups should be planted 30 to 35 feet apart.*
- * *Plant the low-growing shrubs in circles with 10 to 15 foot diameters.*
- * *Plant the aquatic plants along the waterline and on the sand and gravel bars. They should be interspersed among each other rather than planted in separate clumps.*

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



Symbols

- | | |
|------------------------------------|-------------------------|
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| BLM = Bigleaf Maple | OWO = Oregon White Oak |
| BR = Hardstem and Softstem Bulrush | QA = Quaking Aspen |
| CA = Western Crabapple | RC = Western Red Cedar |
| CS = Cascara | RE = Red Elderberry |
| CW = Black Cottonwood | S = Sedges |
| DF = Douglas Fir | SB = Scotch Broom |
| DW = Red-osier Dogwood | SLB = Salmonberry |
| E = Existing Vegetation | SNB = Snowberry |
| H = Black Hawthorn | SS = Sitka Spruce |
| HS = Hardhack Spirea | TB = Thimbleberry |
| IP = Indian Plum | VM = Vine Maple |
| MO = Mock Orange | WH = Western Hemlock |
| 9 = Ninebark | WP = Western Paperbirch |
| * = Willows | WR = Wild and Wood Rose |

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Plant List:

- * *Bigleaf maple: Acer macrophylla*
- * *Vine maple: Acer circinatum*
- * *Oregon ash: Fraxinus latifolia*
- * *Willows: Salix spp.*
- * *Red flowering current: Ribes sanguineum*
- * *Tall Oregon grape: Berberis aquifolium*
- * *Hardstem bulrush: Scirpus acutus*
- * *Small fruited bulrush: Scirpus microcarpus*
- * *Cattails: Typha spp.*
- * *Snowberry: Symphoricarpos albus*

Special Comments: *NONE*

C. Site 20

Purpose:

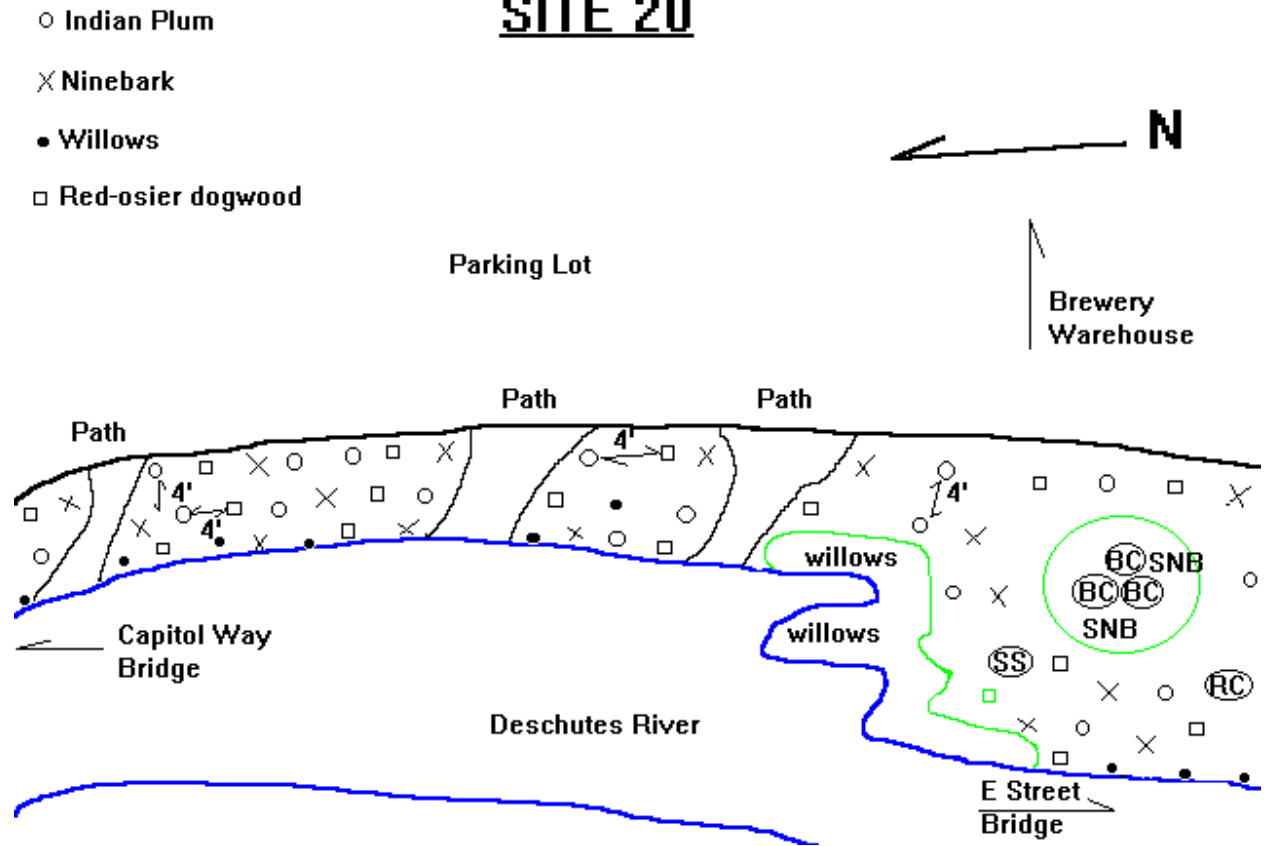
- * *To provide overhanging vegetation for fish cover.*
- * *To provide food and habitat for birds and small mammals.*
- * *To shade the river.*
- * *To provide detritus to the aquatic ecosystem.*
- * *To allow fishermen access to the river.*

Implementation:

- * *Red-osier dogwood, Indian plum, Ninebark and willows should be planted throughout this site. They should be planted 4 feet apart and off center.*
- * *Leave three 4 foot wide paths through the shrubs. These paths can be graveled for fishing access.*
- * *On the north end of the bar plant a band of willows.*
- * *In the center of the bar plant 3 Bitter cherry trees. Snowberry should be planted around these trees in a 15' diameter circle.*
- * *Plant a Sitka spruce 10 feet from the shoreline on the bar.*
- * *Plant a Western red cedar 10 feet from the shoreline on the bar.*

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

SITE 20



Symbols

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SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Plant List:

- * *Red-osier dogwood: Cornus stolonifera*
- * *Indian plum: Osmoronia cerasiformis*
- * *Willows: Salix spp.*
- * *Sitka spruce: Picea sitchensis*
- * *Western red cedar: Thuja plicata*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Ninebark: Physocarpus capitatus*
- * *Bitter cherry: Prunus emarginata*

Special Comments:

- * *After planting, it is suggested to install temporary barriers along the footpaths to protect the plantings from being trampled. It is also suggested that signs be placed on the barriers indicating that it is a plant restoration site.*
- * *If any large scale development takes place along the river, at least 10 feet of the parking lot must be taken up and two more rows of Western red cedar and Douglas fir, and Western hemlock (two rows total) must be planted. Snowberry and ferns should be planted under these trees.*

SITE 20 SUGGESTIONS:

Purpose:

- * *To create riffles and scour holes in which fish can rest and feed.*
- * *To educate the public about riparian zones.*
- * *To provide shade for the river.*
- * *To improve esthetics of the parking lot.*
- * *To provide habitat to birds.*

Implementation:

- * *Put large root balls or boulders in the river and anchor them to the bank.*
- * *Create a 3 foot wide trail through the vegetation all the way from the Capitol Boulevard bridge to the "E" Street bridge.*
- * *Place decks over the river at three points along the bank.*
- * *Put interpretive signs along the trail explaining river ecology and the purpose of the re-vegetation project.*

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *Take up 3 to 6 squares of pavement throughout the Pabst Brewing Co. (Olympia Brewery) parking lot. These squares should be between 5 by 5 feet and 10 by 10 feet in area. Plant a mixture of Oregon white oak, Vine maple, and Quaking aspen along with Pacific yew, Douglas fir and Western hemlock. Below the trees, plant Snowberry, Sword fern, Evergreen huckleberry, Salal, and Tall Oregon grape.*

Plant List:

- * *Oregon white oak: *Quercus garryana**
- * *Vine maple: *Acer circinatum**
- * *Quaking aspen: *Populus tremuloides**
- * *Pacific yew: *Taxus brevifolia**
- * *Douglas fir: *Pseudotsuga menziesii**
- * *Western hemlock: *Tsuga heterophylla**
- * *Snowberry: *Symphoricarpos albus**
- * *Sword fern: *Polystichum munitum**
- * *Evergreen huckleberry: *Vaccinium ovatum**
- * *Salal: *Gaultheria shallon**
- * *Tall Oregon grape: *Berberis (Mahonia) aquifolium**

Special Comments:

- * *Careful attention will need to be paid to how the placement of root balls or boulders will affect the flow of the river. Incorrect placement could cause severe erosion problems, especially along the park bank.*

D. Site 30

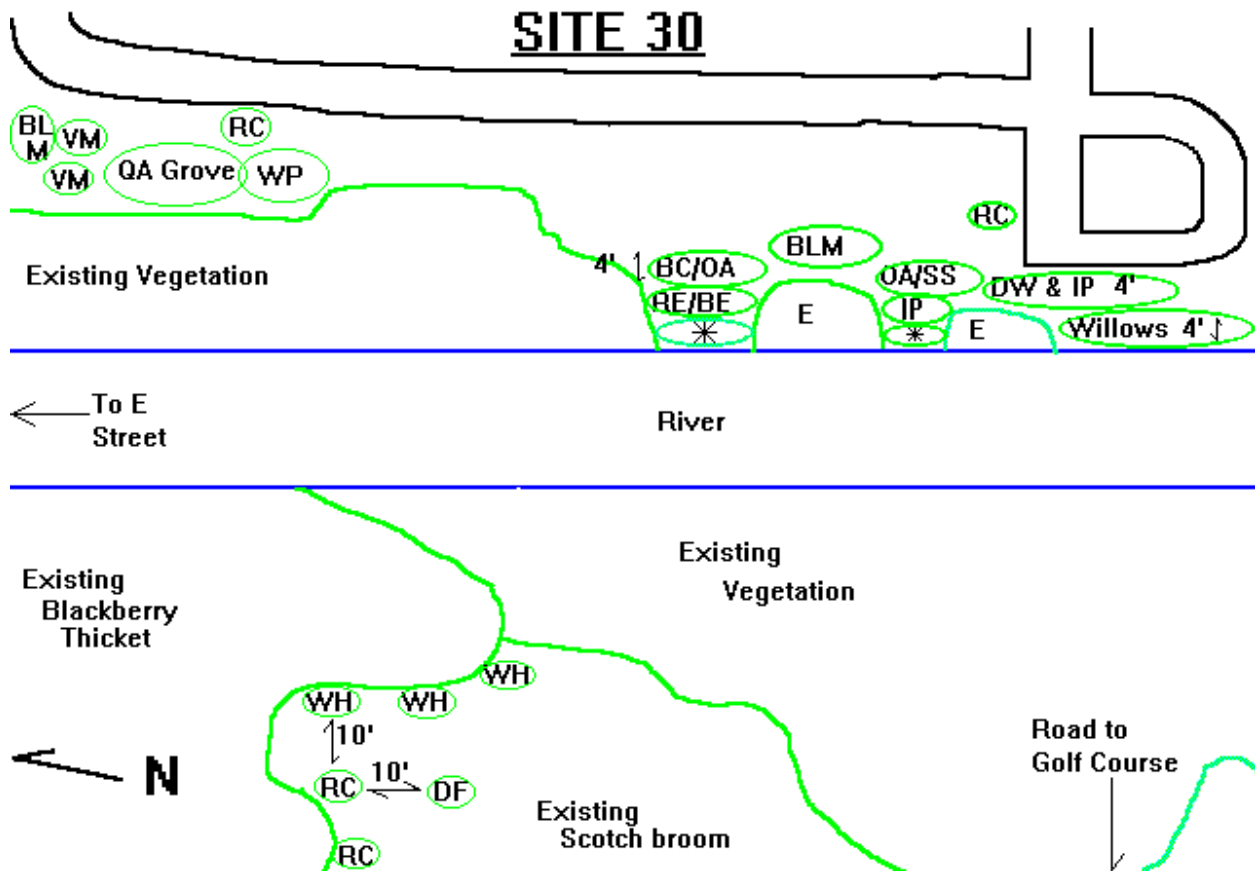
Purpose:

- * *To provide overhanging vegetation for fish cover.*
- * *To provide habitat and food for birds and small mammals.*
- * *To shade the river.*
- * *To provide detritus to the river.*

Implementation:

- * *Bigleaf maple and Vine maples should be planted 5 to 10 feet back from the north bend in the access road.*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



Symbols

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SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *A grove of Quaking aspen and another of Paperbirch should be planted just down from the maples. A Western red cedar should be planted between the aspen and birches.*
- * *Willows should be planted in 4 foot wide strips along the bank at any point where there is no native vegetation. Behind the willows, Indian plum, Red-osier dogwood, and Red and Blue elderberry should be planted in 4 foot wide strips.*
- * *Bitter cherry, Oregon ash and a very few Sitka spruce should be planted in 5 to 10 foot sections behind the above shrubs.*
- * *Near the end of the access road a Western red cedar should be planted.*
- * *Bigleaf maple should be planted 10 feet back from the access road wherever there is no existing native vegetation.*
- * *On the north bank, plant Western red cedar, Western hemlock and Douglas fir along the border of the existing berry patch, just upriver from the "E" Street bridge.*
- * *All Scotch broom should be removed from the site, particularly the patch just up river from the above-mentioned berry patch. As it is removed, it should be replaced with Snowberry and/or other native shrubs.*

Plant List:

- * *Bigleaf maple: Acer macrophylla*
- * *Vine maple: Acer circinatum*
- * *Quaking aspen: Populus tremuloides*
- * *Western red cedar: Thuja plicata*
- * *Western paperbirch: Betula papyrifera var. subcordata*
- * *Bitter cherry: Prunus emarginata*
- * *Oregon ash: Fraxinus latifolia*
- * *Red elderberry: Sambucus racemosa*
- * *Blue elderberry: Sambucus caerulea*
- * *Willows: Salix spp.*
- * *Sitka spruce: Picea sitchensis*
- * *Indian plum: Osmoronia cerasiformis*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Western hemlock: Tsuga heterophylla*
- * *Douglas fir: Pseudotsuga menziesii*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Special Comments:

- * *The Scotch broom is very well-established and will take a great deal of time to eradicate, perhaps several years. Therefore, if small scale development takes place on this land, the development can begin before the Scotch broom is eradicated, as long as the developers eradicate it and replace it with Snowberry and/or other native shrubs within 5 years. The Washington State Department of Natural Resources, Division of Land and Water Resources, Natural Area Preserve Program has information on eradicating Scotch broom.*

SITE 30 SUGGESTIONS:

Purpose:

- * To create riffles and scour holes in which fish can rest and feed.

Implementation:

- * *Place 3 or 4 large logs, preferably cedar or Douglas fir, in the river at about 75 foot intervals.*

Special Comments: *NONE*

E. Site 40

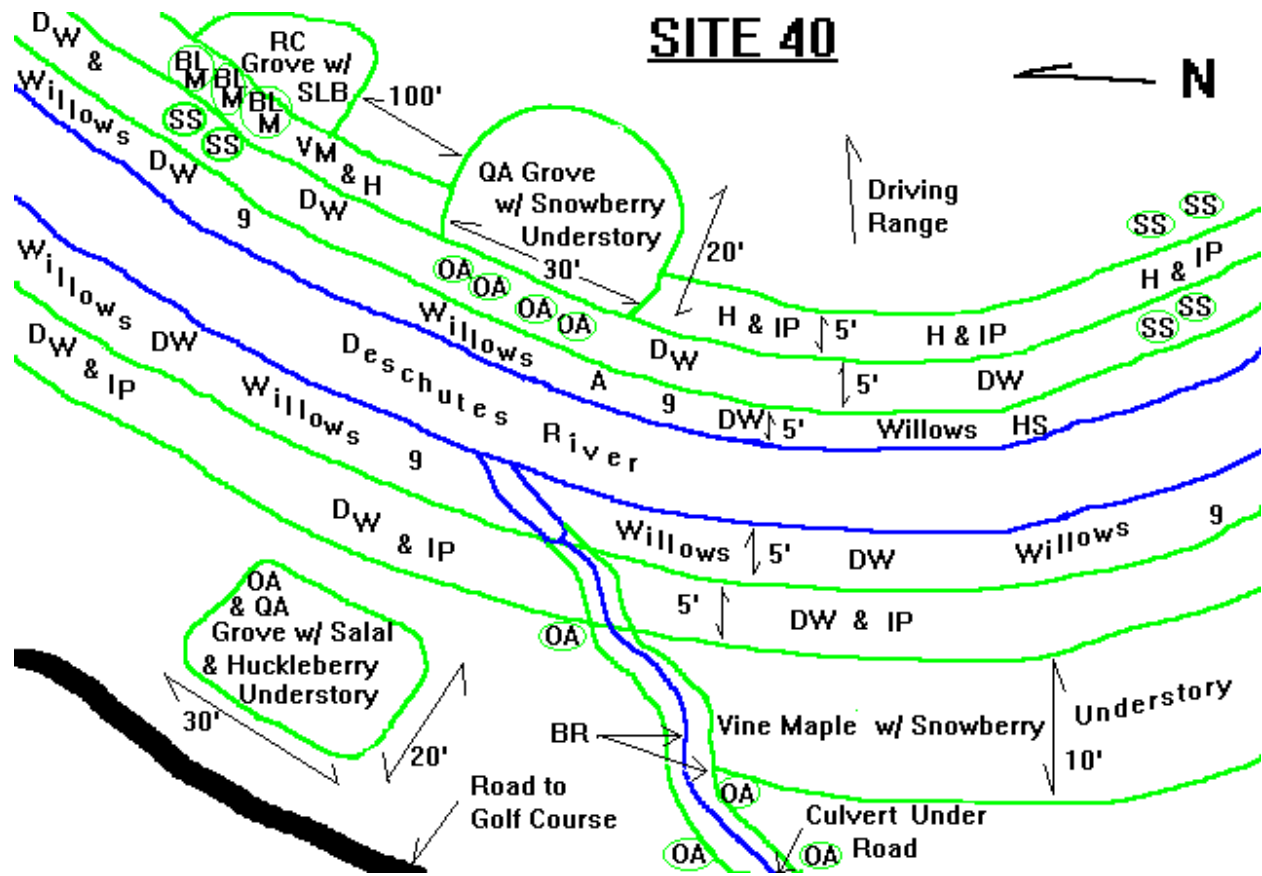
Purpose:

- * *To provide overhanging vegetation for fish cover.*
- * *To provide food and habitat to terrestrial wildlife.*
- * *To provide detritus to the river.*
- * *To shade the river.*
- * *To help purify creek water entering the river.*

Implementation:

- * *Willows, Red-osier Dogwood, Ninebark, and alders should be planted all along the edge of both river banks in a strip 4 feet wide.*
- * *On the east bank, Red-osier dogwood should be planted in a 4 foot wide strip immediately behind the above-mentioned strip. Sitka spruce and Oregon ash should be planted in this strip, but they should be planted in groups of two or three trees and these groups should be 100 feet apart.*

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



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SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *A strip of Vine maple, Hawthorn, Indian plum, and Snowberry 4 feet wide should be planted immediately behind the strip of Dogwood. Bigleaf maple and Quaking aspen can be planted in this strip, but they should be planted behind the Sitka spruce or Oregon ash mentioned in the previous paragraph.*
- * *A 30 foot by 20 foot grove of Western red cedar and another of Quaking aspen should be planted behind the taller trees mentioned in the two preceding paragraphs. These groves should have understories of Snowberries and fern. They should be 100 feet apart.*
- * *Directly across the river from the Quaking aspen grove, plant a grove of Oregon ash and Quaking aspen with a Salal and Huckleberry understory.*
- * *Hardstem and Softstem bulrushes and sedges should be planted along the edge of the small creek entering the river on the west bank. Oregon ash should be planted along the banks of this creek.*
- * *South of this small creek, behind the band of dogwood plant a band of Vine maple with an understory of Snowberry. This band should be a least 10 feet from the road.*

Plant List:

- * *Vine maple: *Acer circinatum**
- * *Black hawthorn: *Crataegus douglasii**
- * *Red-osier dogwood: *Cornus stolonifera**
- * *Western red cedar: *Thuja plicata**
- * *Bigleaf maple: *Acer macrophylla**
- * *Snowberry: *Symphoricarpos albus**
- * *Quaking aspen: *Populus tremuloides**
- * *Sitka spruce: *Picea sitchensis**
- * *Ninebark: *Physocarpus capitatus**
- * *Red flowering current: *Ribes sanguineum**
- * *Indian plum: *Oemleria cerasiformis**
- * *Oregon ash: *Fraxinus latifolia**
- * *Willows: *Salix spp.**
- * *Hardstem bulrush: *Scirpus acutus**
- * *Softstem bulrush: *Scirpus validus**
- * *Sedges: *Carex spp.**
- * *Salal: *Gaultheria shallon**
- * *Evergreen huckleberry: *Vaccinium ovatum**

Special Comments: *NONE*

SITE 40 SUGGESTIONS:

Purpose:

- * *To provide riffles in the river in which fish can feed and rest.*

Implementation:

- * *Place 3 to 5 very large boulders in the river at 10 to 60 foot intervals.*

Special Comments:

- * *Before placing the boulders, the river banks should be evaluated to see if they can withstand increased force in case the boulders direct water towards the banks.*

F. Site 50

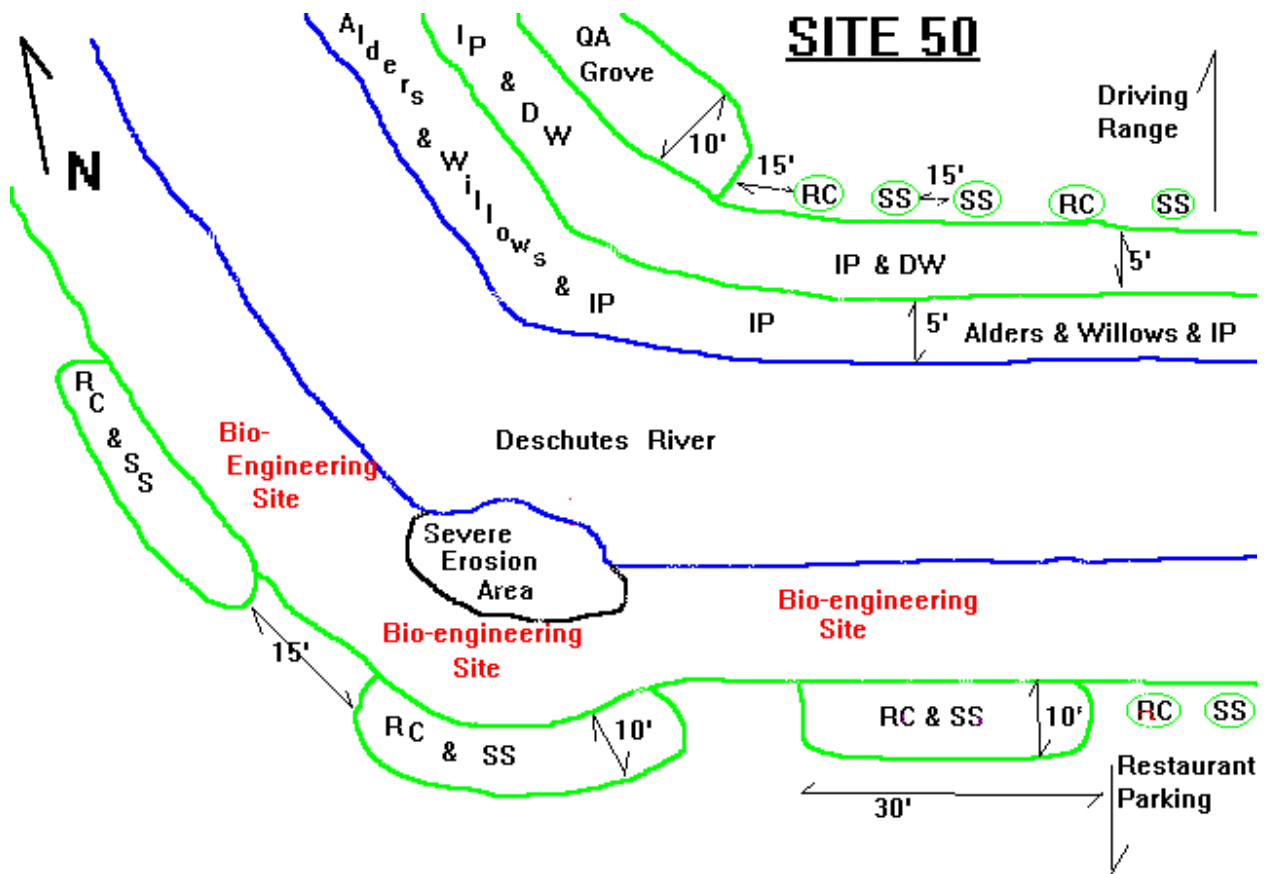
Objective:

- * *To provide overhanging vegetation for fish cover.*
- * *To provide food, habitat and detritus to aquatic and terrestrial fauna.*
- * *To shade the river.*
- * *To filter runoff water entering the river.*
- * *To inhibit erosion.*

Implementation:

- * *Plant a 5 foot wide band of willows, Indian plum and alders along the edge of the bank nearest the driving range.*
- * *Plant a 5 foot wide band of Red-osier dogwood and Indian plum behind the alder-willow band.*
- * *Behind the Red-osier dogwood, plant 10 by 30 foot strips of Western red cedar and Sitka spruce.*
- * *Just downstream of the Sitka spruce and cedar, plant a strip of Quaking aspen 10 feet wide and 30 feet long.*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



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SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *On the bank nearest the restaurant parking lot, plant 10 foot wide by 30 foot long strips of Western red cedar and Sitka spruce between the parking lot and the river. The strips should be 15 to 20 feet apart and 10 to 15 feet from the edge of the parking lot.*
- * *Just downriver from the pedestrian bridge, plant Western red cedar and Sitka spruce every 15 feet (this will be 2 to 3 trees on the restaurant side of the bridge and 5 to 7 trees on the driving range side of the river).*

Plant List:

- * *Bigleaf maple: Acer macrophylla*
- * *Sitka spruce: Picea sitchensis*
- * *Western red cedar: Thuja plicata*
- * *Indian plum: Osmoronia cerasiformis*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Red alder: Alnus rubra*
- * *Willows: Salix spp.*

Special Comments:

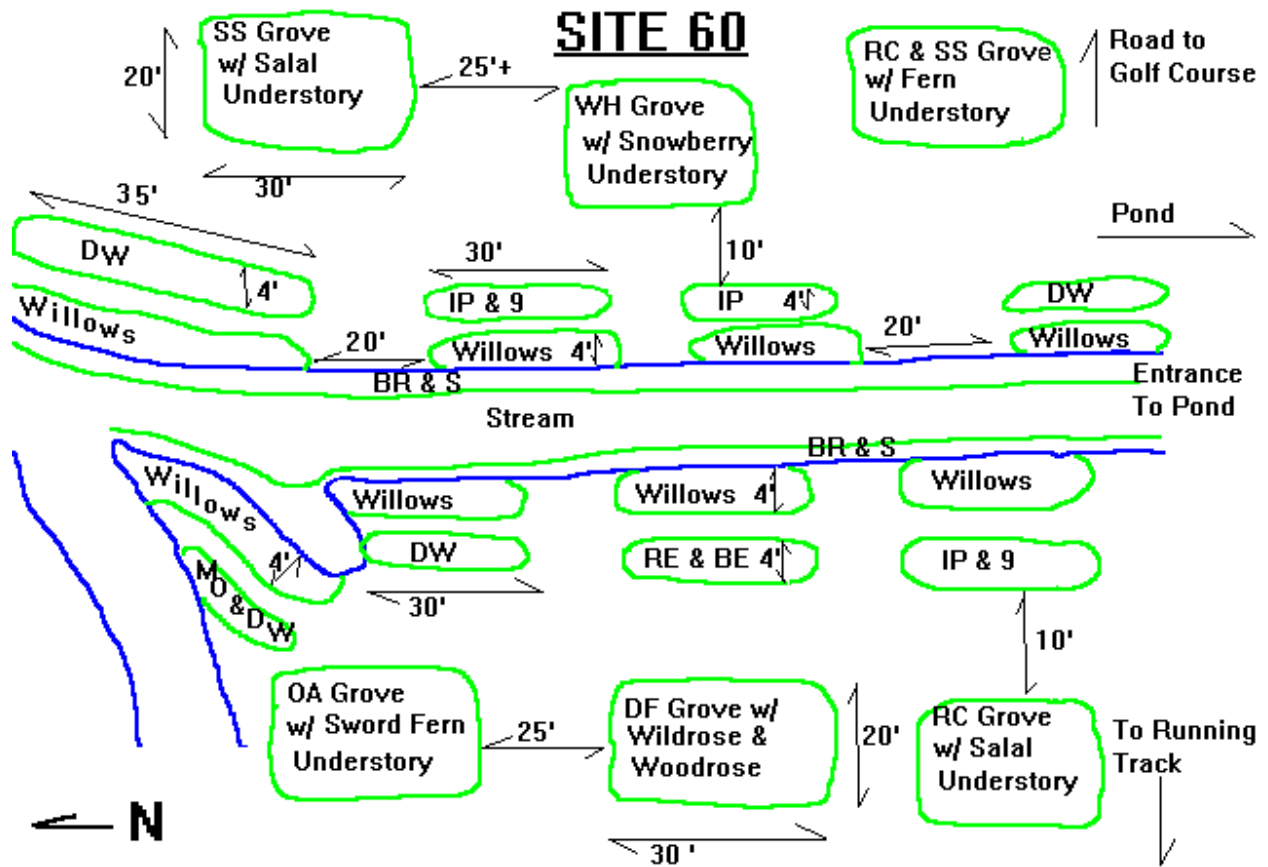
- * *The bank nearest the restaurant is eroding and will continue to erode rapidly unless it is protected. Bioengineering would be the best option for habitat and might be less expensive than a massive armoring project. The Thurston Conservation District should be consulted on plans for this bioengineering project.*
- * *For safety reasons, trees should be planted no closer than 10 feet from the restaurant parking lot.*

G. Site 60

Purpose:

- * *To provide overhanging vegetation for fish cover.*
- * *To filter runoff water.*
- * *To provide detritus.*
- * *To shade the creek.*
- * *To provide food and habitat for terrestrial fauna.*
- * *To maintain access to the creek.*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



Symbols

- A = Red alder
- BC = Bitter Cherry
- BE = Blue Elderberry
- BLM = Bigleaf Maple
- BR = Hardstem and Softstem Bulrush
- CA = Western Crabapple
- CS = Cascara
- CW = Black Cottonwood
- DF = Douglas Fir
- DW = Red-osier Dogwood
- E = Existing Vegetation
- H = Black Hawthorn
- HS = Hardhack Spireae
- IP = Indian Plum
- MO = Mock Orange
- 9 = Ninebark
- * = Willows

- OA = Oregon Ash
- OG = Oregon Grape
- OS = Ocean Spray
- OWO = Oregon White Oak
- QA = Quaking Aspen
- RC = Western Red Cedar
- RE = Red Elderberry
- S = Sedges
- SB = Scotch Broom
- SLB = Salmonberry
- SNB = Snowberry
- SS = Sitka Spruce
- TB = Thimbleberry
- VM = Vine Maple
- WH = Western Hemlock
- WP = Western Paperbirch
- WR = Wild and Wood Rose

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Implementation:

- * *Plant Hardstem and Softstem bulrushes and sedges all along the stream bank.*
- * *Plant strips of willows 4 feet wide by 15 to 20 feet long along the bank. Leave 10 feet between strips.*
- * *Plant 4 foot by 15 to 20 foot strips of low growing shrubs directly behind the willow strips.*
- * *Plant the 20 by 30 foot islands of conifers 10 feet back from the strips of shrubs. These islands need to have understories of Salal, Snowberry, fern, Wild and Wood rose. These islands should be planted at least 20 feet apart.*

Plant List:

- * *Red-osier dogwood: Cornus stolonifera*
- * *Ninebark: Physocarpus capitatus*
- * *Snowberry: Symphoricarpos albus*
- * *Ferns: Athyrium filix-femina*
- * *Salal: Gaultheria shallon*
- * *Indian plum: Osmoronia (Oemleria) cerasiformis*
- * *Red elderberry: Sambucus racemosa*
- * *Blue elderberry: Sambucus caerulea*
- * *Mock orange: Philadelphus lewisii*
- * *Willow: Salix spp.*
- * *Sitka spruce: Picea sitchensis*
- * *Western hemlock: Tsuga heterophylla*
- * *Western red cedar: Thuja plicata*
- * *Douglas-fir: Pseudotsuga menziesii*
- * *Oregon ash: Fraxinus latifolia*

Special Comments:

- * *Reed canary grass in this area should be removed manually rather than with sprays. This will be a long term project. The best way to eliminate this grass is to shade it out. As the trees grow, they will accomplish this naturally. However, this will take decades. In the meantime, the grass should be manually eliminated and replaced. Mulching around plantings after removing grass can discourage the grass from returning.*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *No future spraying should be done within 30 feet of the creek or pond.*
- * *This site could be handed over to a land trust for restoration and care.*

H. Site 70

Purpose:

- * *To provide detritus.*
- * *To provide food and habitat for terrestrial wildlife.*
- * *To provide overhanging vegetation for fish and amphibian cover.*
- * *To filter pollution from runoff water.*
- * *To shade the pond.*
- * *To allow access and viewing of the pond.*

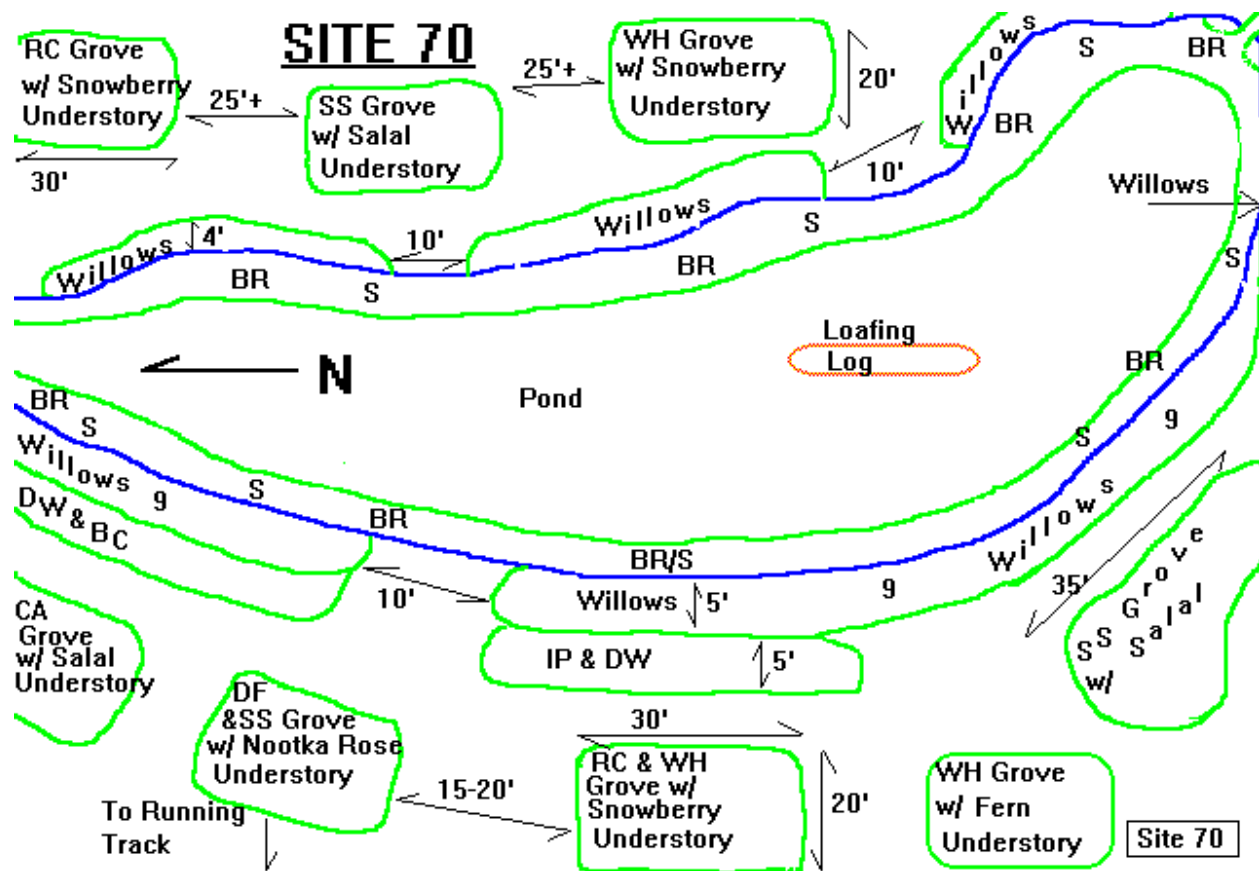
Implementation:

- * *Plant strips of willows and Ninebark 15 to 20 feet long and 4 feet wide along the whole shore. Space these islands 10 feet apart.*
- * *Behind the strips on the west shore, plant strips of Red-osier dogwood, Indian plum, and Bitter cherry which are equal in area to the willow strips.*
- * *Plant islands of coniferous trees 10 to 20 feet back from the rear edge of the shoreline vegetation. Occasional deciduous trees may be planted throughout the islands of conifers. These islands should have understories composed of native shrubs including Snowberry, Salal, and Nootka rose.*
- * *Bulrushes, cattails, and sedges should be planted all around the pond's shore.*

Plant List:

- * *Vine maple: *Acer circinatum**
- * *Snowberry: *Symphoricarpos albus**
- * *Willows: *Salix spp.**
- * *Salal: *Gaultheria shallon**
- * *Oregon ash: *Fraxinus latifolia**
- * *Oregon white oak: *Quercus garryana**
- * *Red-osier dogwood: *Cornus stolonifera**
- * *Bitter cherry: *Prunus emarginata**
- * *Western crabapple: *Malus (Pyrus) fusca**
- * *Quaking aspen: *Populus tremuloides**
- * *Nootka rose: *Rosa nutkana**

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



Symbols

- | | |
|------------------------------------|-------------------------|
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| BLM = Bigleaf Maple | OWO = Oregon White Oak |
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| CW = Black Cottonwood | S = Sedges |
| DF = Douglas Fir | SB = Scotch Broom |
| DW = Red-osier Dogwood | SLB = Salmonberry |
| E = Existing Vegetation | SNB = Snowberry |
| H = Black Hawthorn | SS = Sitka Spruce |
| HS = Hardhack Spirea | TB = Thimbleberry |
| IP = Indian Plum | VM = Vine Maple |
| MO = Mock Orange | WH = Western Hemlock |
| 9 = Ninebark | WP = Western Paperbirch |
| * = Willows | WR = Wild and Wood Rose |

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *Black hawthorn: Crataegus douglasii*
- * *Mock orange: Philadelphus lewisii*
- * *Hardstem bulrush: Scirpus acutus*
- * *Soft stem bulrush: Scirpus validus*
- * *Sitka spruce: Picea sitchensis*
- * *Western hemlock: Tsuga heterophylla*
- * *Western red cedar: Thuja plicata*
- * *Douglas fir: Pseudotsuga menziesii*
- * *Cattails: Typha latifolia*
- * *Sedges: Carex spp.*
- * *Ninebark: Physocarpus capitatus*

Special Comments:

- * *This pond is not currently inhabited by fish or amphibians. However, it has very high potential for fish and wildlife habitat.*
- * *There is a sewer line running through this area along the road. A map indicating exactly where the sewer line is located should be obtained before undertaking any re-vegetation on this site.*
- * *This site could be handed over to a land trust to be cared for and restored.*
- * *After planting, it is suggested to install temporary barriers along the footpaths to protect the plantings from being trampled. It is also suggested that signs be placed on the barriers indicating that it is a plant restoration site.*

SITE 70 SUGGESTIONS:

Purpose:

- * *To provide nesting sites for birds.*

Implementation:

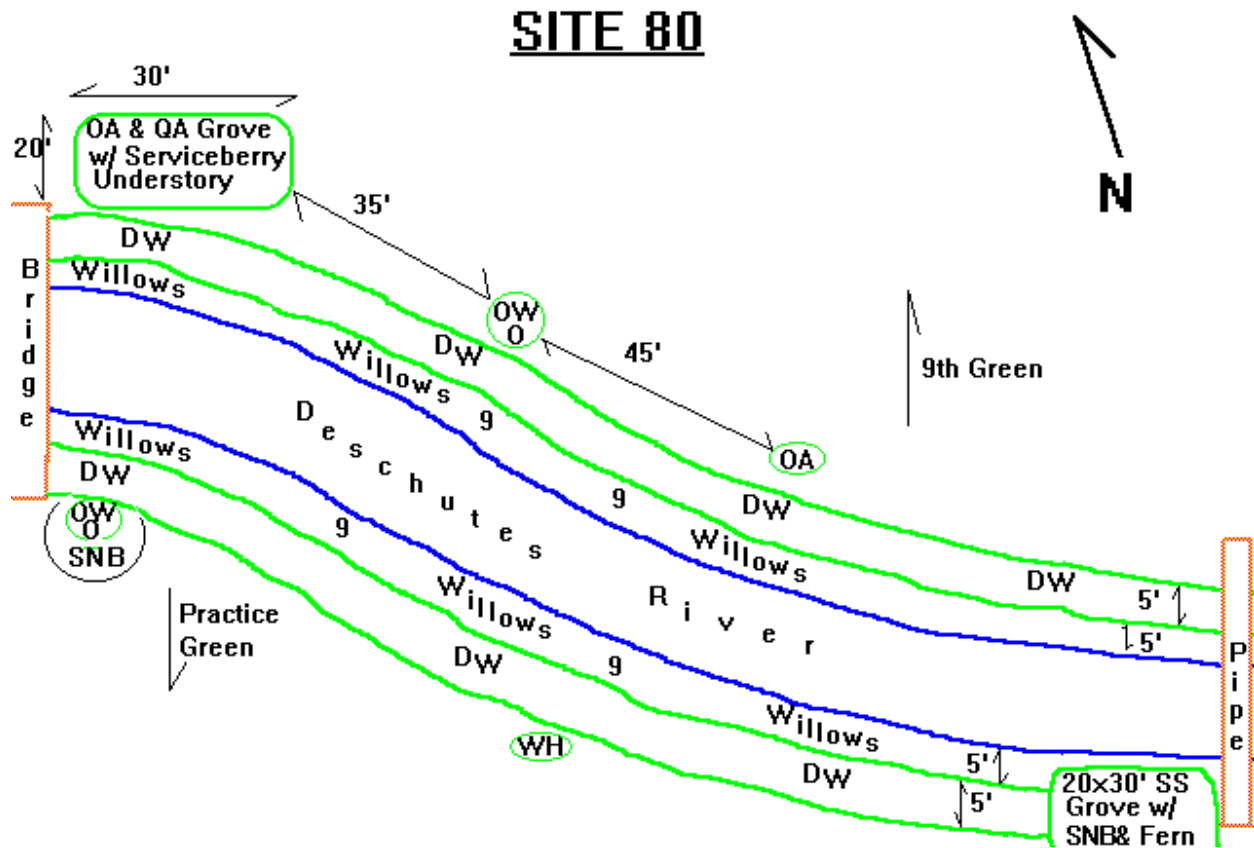
- * *Put up tall poles and place nesting boxes on them.*

I. Site 80

Objective:

- * *To provide overhanging vegetation for fish cover.*
- * *To provide food and habitat to wildlife.*

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



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| CW = Black Cottonwood | S = Sedges |
| DF = Douglas Fir | SB = Scotch Broom |
| DW = Red-osier Dogwood | SLB = Salmonberry |
| E = Existing Vegetation | SNB = Snowberry |
| H = Black Hawthorn | SS = Sitka Spruce |
| HS = Hardhack Spirea | TB = Thimbleberry |
| IP = Indian Plum | VM = Vine Maple |
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SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *To provide detritus and food to aquatic fauna.*
- * *To stabilize the banks.*
- * *To shade the river where possible.*
- * *To maintain a view from the clubhouse to the 18th hole.*

Implementation:

- * *Plant a 4 foot wide band of willows and Ninebark along both sides of the river. Doughnut shaped pieces of biodegradable fabric may need to be placed around each plant to keep the grass down.*
- * *Plant a 4 foot wide band of Red-osier dogwood behind the band of willows.*
- * *Plant an Oregon white oak 10 feet upstream from the foot bridge. Plant Snowberry around the base of the tree.*
- * *Across the river from the above Oregon white oak, plant a 20 by 30 foot grove of Oregon ash and Quaking aspen with Serviceberry understory.*
- * *Plant a grove of Sitka spruce and Western red cedar with a fern and Snowberry understory 15 feet downstream of the pipe bridge on the west bank.*
- * *Plant 3 to 5 Quaking aspen 10 feet upstream from the pipe bridge.*
- * *Plant one Oregon white oak and one Oregon ash between the Quaking aspen/Oregon ash grove and the pipe bridge.*
- * *Plant a single Western hemlock between the Oregon white oak and the Sitka spruce/Western red cedar grove.*

Plant List:

- * *Red-osier dogwood: Cornus stolonifera*
- * *Willows: Salix spp.*
- * *Oregon ash: Fraxinus latifolia*
- * *Quaking aspen: Populus tremuloides*
- * *Serviceberry: Amelanchier alnifolia*
- * *Oregon white oak: Quercus garryana*
- * *Snowberry: Symphoricarpos albus*
- * *Western red cedar: Thuja plicata*
- * *Ferns: Athyrium filix-femina*
- * *Western hemlock: Tsuga heterophylla*
- * *Ninebark: Physocarpus capitatus*

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Special Comments:

- * *The banks of this site are inundated with Reed canary grass. This grass currently keeps debris from washing onto the golf course. It should be removed and replaced in such a way that does not leave the bank vulnerable to flood damage.*

J. Site 90

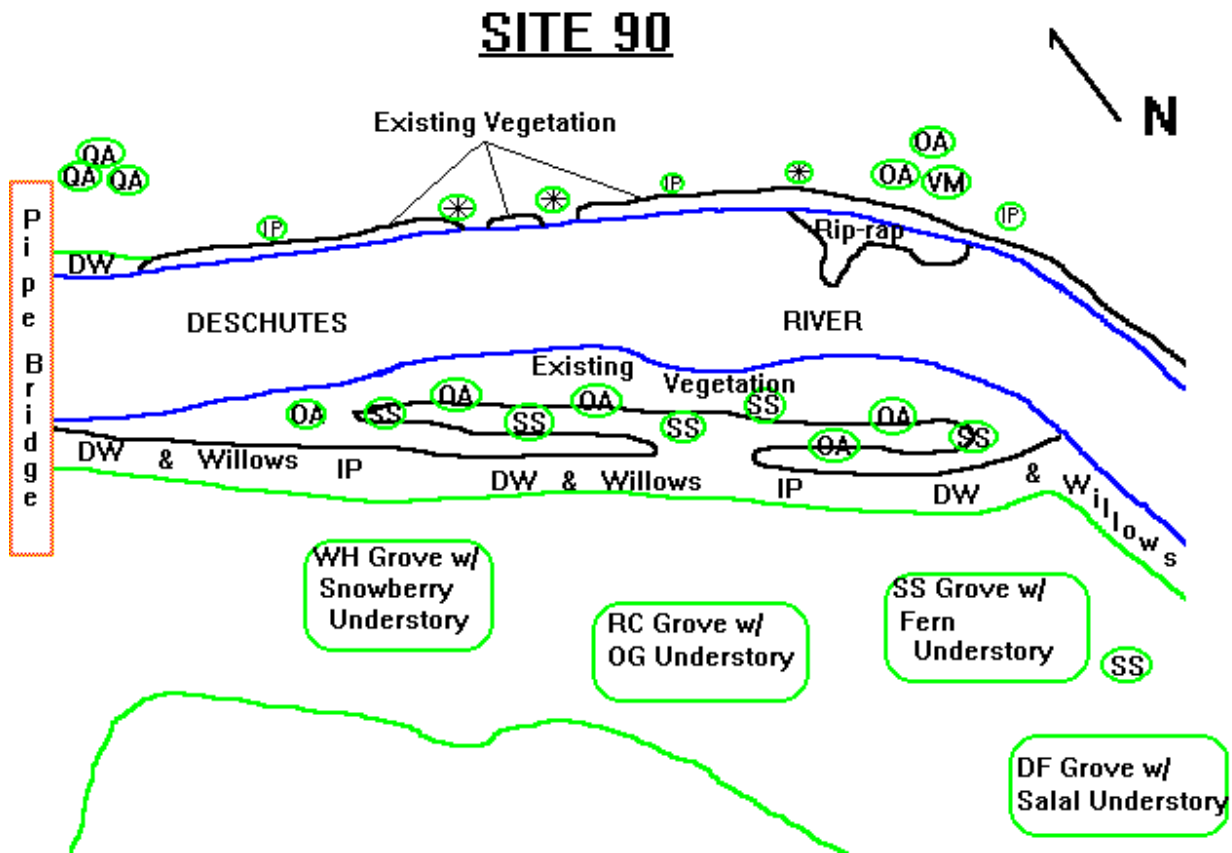
Purpose:

- * *To provide overhanging vegetation for fish cover.*
- * *To provide stability to the bank.*
- * *To provide food and habitat to terrestrial wildlife.*
- * *To shade the river.*
- * *To maintain air flow throughout the golf course.*

Implementation:

- * *Plant dogwoods and willows in a band 4 to 10 feet wide behind the existing willow, alder, dogwood thicket and along the west bank.*
- * *Plant Oregon ash and Sitka spruce throughout the middle of the willow and dogwood thicket on the west bank. They should be planted at least 10 feet apart.*
- * *Behind the willow and dogwood thicket, plant a 20 by 30 foot Western hemlock grove with a Snowberry understory.*
- * *Plant a 20 by 30 foot Douglas fir grove with Salal understory.*
- * *Near the Douglas fir grove plant a Sitka spruce grove with Sword fern understory.*
- * *Between the Western hemlock grove and the Sitka spruce grove, plant a Western red cedar grove with a Thimbleberry understory.*
- * *On the east side of the pipe bridge plant 3 Quaking aspen.*
- * *Along the east bank, between the pipe bridge and the existing vegetation, plant a 4 foot wide strip of dogwoods.*
- * *Plant willows on 20 foot centers just behind the existing foliage along the entire east bank. Between these, plant Red-osier dogwood, Ninebark, and Indian plum.*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



Symbols

- | | |
|------------------------------------|-------------------------|
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| CA = Western Crabapple | RC = Western Red Cedar |
| CS = Cascara | RE = Red Elderberry |
| CW = Black Cottonwood | S = Sedges |
| DF = Douglas Fir | SB = Scotch Broom |
| DW = Red-osier Dogwood | SLB = Salmonberry |
| E = Existing Vegetation | SNB = Snowberry |
| H = Black Hawthorn | SS = Sitka Spruce |
| HS = Hardhack Spirea | TB = Thimbleberry |
| IP = Indian Plum | VM = Vine Maple |
| MO = Mock Orange | WH = Western Hemlock |
| 9 = Ninebark | WP = Western Paperbirch |
| * = Willows | WR = Wild and Wood Rose |

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *Plant 2 Oregon ash and a Vine maple in a group behind the area of rip rap which has fallen into the river.*

Plant List:

- * *Quaking aspen: Populus tremuloides*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Red alder: Alnus rubra*
- * *Willows: Salix spp.*
- * *Oregon ash: Fraxinus latifolia*
- * *Vine maple: Acer circinatum*
- * *Sitka spruce: Picea sitchensis*
- * *Western hemlock: Tsuga heterophylla*
- * *Snowberry: Symphoricarpos albus*
- * *Sword fern: Polystichum munitum*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Ninebark: Physocarpus capitatus*
- * *Thimbleberry: Rubus parviflorus*
- * *Tall Oregon grape: Berberis aquifolium*
- * *Indian plum: Osmoronia cerasiformis*

Special Comments: *NONE*

SITES 90-110 SUGGESTIONS:

Purpose:

- * *To allow wildlife free movement (so it can migrate to better food sources and different habitats).*
- * *To educate people on the importance of healthy riparian zones.*
- * *To provide scour holes and riffles in which fish can feed and rest.*

Implementation:

- * *Run 10 foot wide corridors of mixed deciduous and coniferous trees with low growing shrubs from the vegetation along the river to the large islands of trees.*
- * *Put interpretive signs at the trees nearest the riparian zone and beside the foot bridges. These signs should describe the importance and functions of healthy riparian zones.*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *Put root balls in the river at 60 to 100 foot intervals. These root balls should be anchored to the bank or into the river bed unless they are large enough that they will not move during floods. Do not place them near the bridges.*

Plant List:

- * *Vine maple: Acer circinatum*
- * *Oregon ash: Fraxinus latifolia*
- * *Oregon white oak: Quercus garryana*
- * *Quaking aspen: Populus tremuloides*
- * *Western hemlock: Tsuga heterophylla*
- * *Douglas fir: Pseudotsuga menziesii*
- * *Western redcedar: Thuja plicata*
- * *Snowberry: Symphoricarpos albus*
- * *Salal: Gaultheria shallon*
- * *Sword fern: Polystichum munitum*
- * *Evergreen huckleberry: Vaccinium ovatum*

Special Comments:

- * *The corridors of vegetation must not interfere with normal golf course activities.*

K. Site 100

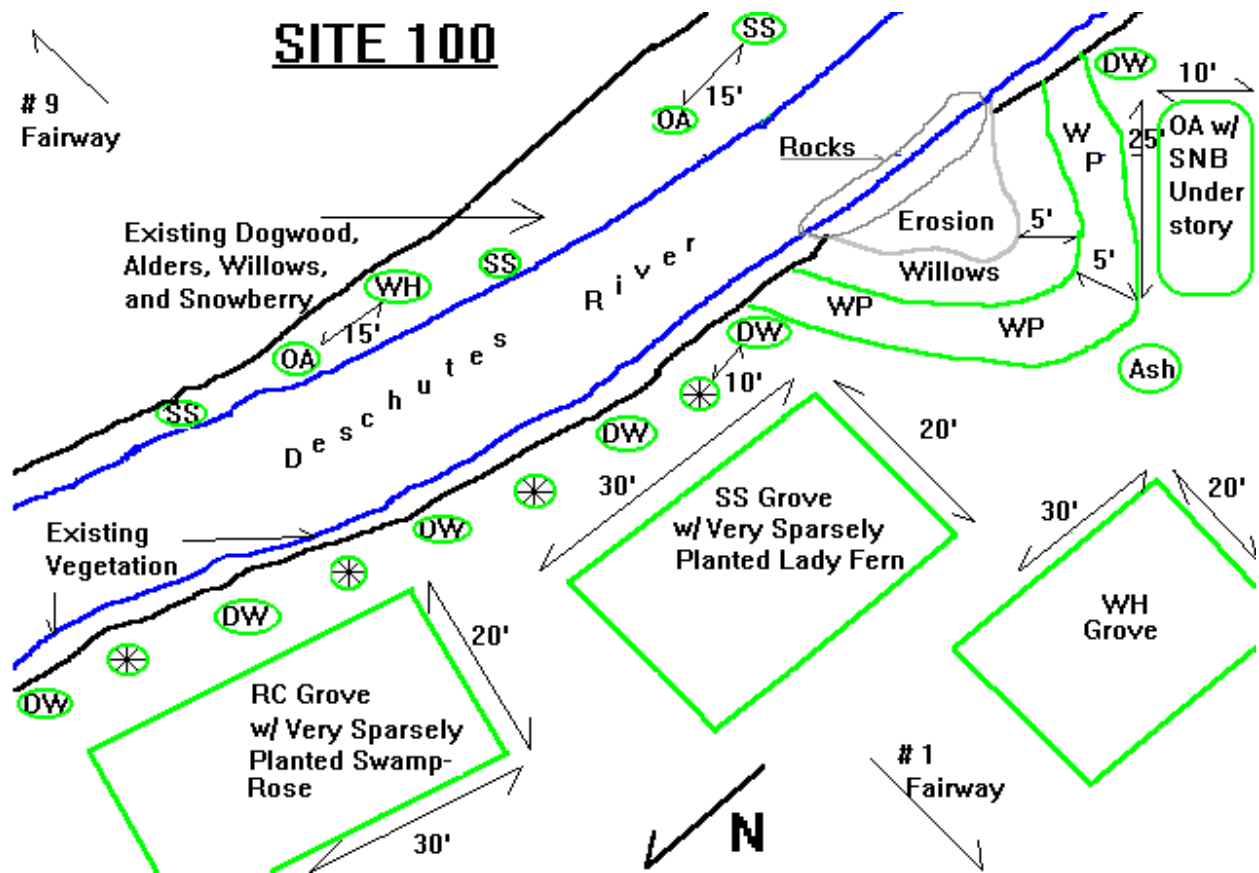
Purpose:

- * *To shade the river.*
- * *To provide overhanging vegetation for fish cover.*
- * *To inhibit erosion.*
- * *To provide food and habitat to terrestrial wildlife.*
- * *To maintain air flow through the golf course.*

Implementation:

- * *Plant willows and dogwoods on 10 foot centers along the west bank behind the existing vegetation.*
- * *Plant a 20 by 30 foot Sitka spruce grove with Lady fern sparsely planted below the trees behind the willow/dogwood strip along the bend of river.*
- * *Plant a 20 by 30 foot Western red cedar grove with no understory behind the Sitka spruce grove.*

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



Symbols

- | | |
|------------------------------------|-------------------------|
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| CS = Cascara | RE = Red Elderberry |
| CW = Black Cottonwood | S = Sedges |
| DF = Douglas Fir | SB = Scotch Broom |
| DW = Red-osier Dogwood | SLB = Salmonberry |
| E = Existing Vegetation | SNB = Snowberry |
| H = Black Hawthorn | SS = Sitka Spruce |
| HS = Hardhack Spirea | TB = Thimbleberry |
| IP = Indian Plum | VM = Vine Maple |
| MO = Mock Orange | WH = Western Hemlock |
| 9 = Ninebark | WP = Western Paperbirch |
| * = Willows | WR = Wild and Wood Rose |

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *Plant a 20 by 30 foot Western hemlock grove with Swamp rose sparsely planted below the trees just downriver from the Sitka spruce grove.*
- * *For the erosion site in this area, rock the toe using variously shaped and sized rocks. Lightly rock the eroding bank and plant it with willows. Along the top of the bank, plant a 4 to 6 foot strip of willows. Behind the willows, plant a 4 to 6 foot strip of Western paperbirch.*
- * *Behind the Western paperbirch, on the upstream side, plant a 10 by 25 foot Oregon ash grove with a Snowberry understory.*
- * *Plant willows or dogwoods in any gaps in the existing vegetation along the east bank.*
- * *Plant Sitka spruce, Oregon ash, and Western hemlock 10 to 15 feet apart throughout the wide band of existing vegetation on the east bank.*

Plant List:

- * *Willows: Salix spp.*
- * *Sitka spruce: Picea sitchensis*
- * *Oregon ash: Fraxinus latifolia*
- * *Western hemlock: Tsuga heterophylla*
- * *Western red cedar: Thuja plicata*
- * *Swamp rose: Rosa pisocarpa*
- * *Sword fern: Polystichum munitum*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Western paperbirch: Betula papyrifera var. subcordata*
- * *Western hemlock: Tsuga heterophylla*
- * *Snowberry: Symphoricarpos albus*

Special Comments:

- * ***A set of shallow wires runs back from and along the bank in this section. There is also an irrigation system in this area. The greenskeeper has a map of these wires and pipes. This map should be examined carefully before attempting to plant this site.***

SITE 100 SUGGESTIONS: SEE SUGGESTIONS FOR SITES 90-110 ON PAGE 290.

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

L. Site 110

Purpose:

- * *To shade the river.*
- * *To provide overhanging vegetation for fish cover.*
- * *To inhibit erosion.*
- * *To provide food and habitat to terrestrial wildlife.*
- * *To maintain airflow through the golf course.*

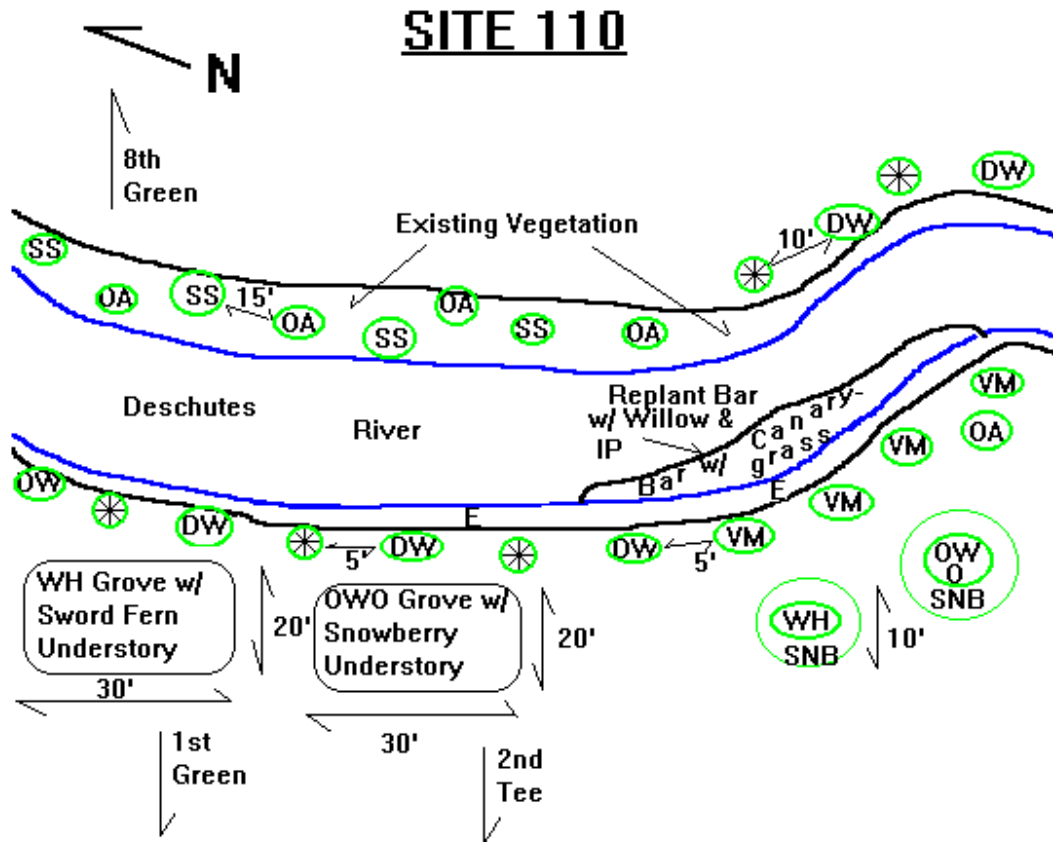
Implementation:

- * *Plant willows and dogwoods on 5 foot centers behind the existing vegetation on the west bank.*
- * *Replace the Reed canary grass growing on the bar along the west bank with Ninebark and willows.*
- * *Plant a long narrow grove of Western hemlock directly behind the dogwoods and willows. Plant ferns as an understory.*
- * *Plant a long narrow grove of Oregon white oak just upriver from the Western hemlock grove. Plant a Snowberry understory.*
- * *Plant Sitka spruce and Oregon ash throughout the wide area of existing vegetation on the east bank.*
- * *Plant dogwood and willows on 10 foot centers behind the narrow band of existing vegetation on the east bank.*
- * *Do not spray pesticides or fertilizers within 30 feet of the river.*
- * *Plant an Oregon white oak 50 to 100 feet upriver from the Oregon white oak grove. Plant a 10 foot diameter circle of Snowberry around the tree.*
- * *Plant an Oregon ash about 20 feet upriver from the Oregon white oak. Plant a 10 foot diameter circle of Snowberry around the tree.*

Plant List:

- * *Sitka spruce: Picea sitchensis*
- * *Oregon ash: Fraxinus latifolia*
- * *Willows: Salix spp.*
- * *Red-osier dogwood: Cornus stolonifera*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



Symbols

- | | |
|------------------------------------|-------------------------|
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| HS = Hardhack Spireae | TB = Thimbleberry |
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| MO = Mock Orange | WH = Western Hemlock |
| 9 = Ninebark | WP = Western Paperbirch |
| * = Willows | WR = Wild and Wood Rose |

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * Vine maple: *Acer circinatum*
- * Western hemlock: *Tsuga heterophylla*
- * Oregon white oak: *Quercus garryana*
- * Western red cedar: *Thuja plicata*
- * Snowberry: *Symphoricarpos albus*

Special Comments:

- * *A set of shallow wires runs along the bank in this section. There is also an irrigation system in this area. The greenskeeper has a map of these wires and pipes. This map should be examined carefully before attempting to plant this site.*

SITE 110 SUGGESTIONS: SEE SUGGESTIONS FOR SITES 90-110 ON PAGE 290.

M. Site 120

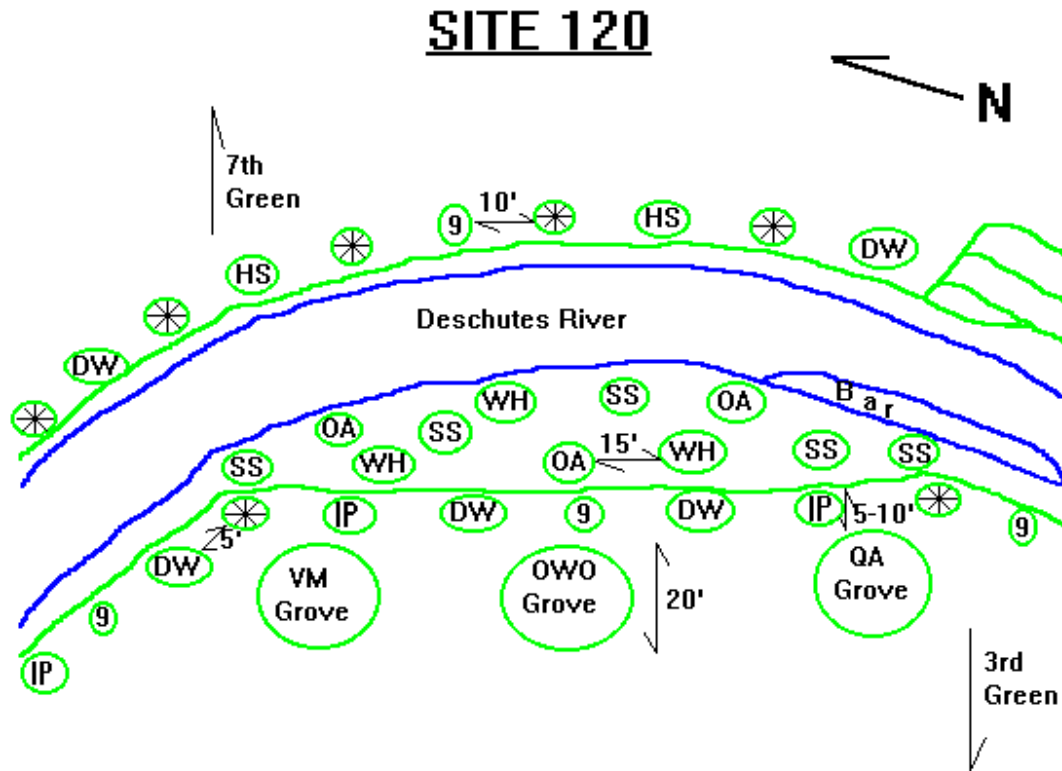
Purpose:

- * *To shade the river.*
- * *To provide overhanging vegetation for fish cover.*
- * *To inhibit erosion.*
- * *To provide food and habitat to terrestrial wildlife.*
- * *To maintain airflow through the golf course.*
- * *To maintain a view across the river.*

Implementation:

- * *Plant dogwood, Indian plum, Ninebark, and willows on 5 foot centers behind the band of existing vegetation on the west bank.*
- * *Plant Sitka spruce, Oregon oak, and Western hemlock on 10 foot centers throughout the wide band of vegetation on the west bank.*
- * *Plant a 20 foot diameter circle of Vine maples behind the existing vegetation on the west bank.*
- * *Plant a 20 foot diameter circle of Oregon white oak behind the existing vegetation on the west bank.*
- * *Plant a 20 foot diameter circle of Quaking aspen behind the existing vegetation on the west bank.*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



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| HS = Hardhack Spireaea | TB = Thimbleberry |
| IP = Indian Plum | VM = Vine Maple |
| MO = Mock Orange | WH = Western Hemlock |
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SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *Plant willows, Hardhack spiraea, and dogwoods on 10 foot centers behind the existing vegetation on the east bank.*
- * *Plant willows in any gaps in the existing vegetation along the east bank.*

Plant List:

- * *Willows: Salix spp.*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Hardhack spiraea: Spiraea douglasii*
- * *Red alder: Alnus rubra*
- * *Oregon ash: Fraxinus latifolia*
- * *Quaking aspen: Populus tremuloides*
- * *Sitka spruce: Picea sitchensis*
- * *Western red cedar: Thuja plicata*
- * *Western hemlock: Tsuga heterophylla*
- * *Vine maple: Acer circinatum*
- * *Indian plum: Osmoronia cerasiformis*
- * *Oregon white oak: Quercus garryana*

Special Comments:

- * ***A set of shallow wires runs along the bank in this section.*** *There is also an irrigation system in this area. The greenskeeper has a map of these wires and pipes. This map should be examined carefully before attempting to plant this site.*
- * *Irrigation pipes run along the east bank on this site. When planting, a golf course employee should be present to help point out the location of the pipes so they are not damaged during the re-vegetation process.*

SITE 120 SUGGESTIONS:

Purpose:

- * *To stabilize the gravel bar below the #4 tee bridge.*
- * *To create feeding, resting and hiding places for fish.*

Implementation:

- * *Plant willows throughout the bar.*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Plant List:

- * *Willows: Salix spp.*

Special Comments: NONE

N. Site 130

Purpose:

- * *To better shade the river.*
- * *To provide more overhanging vegetation for fish cover.*
- * *To provide better and more diversified terrestrial habitat.*
- * *To filter chemicals from runoff.*

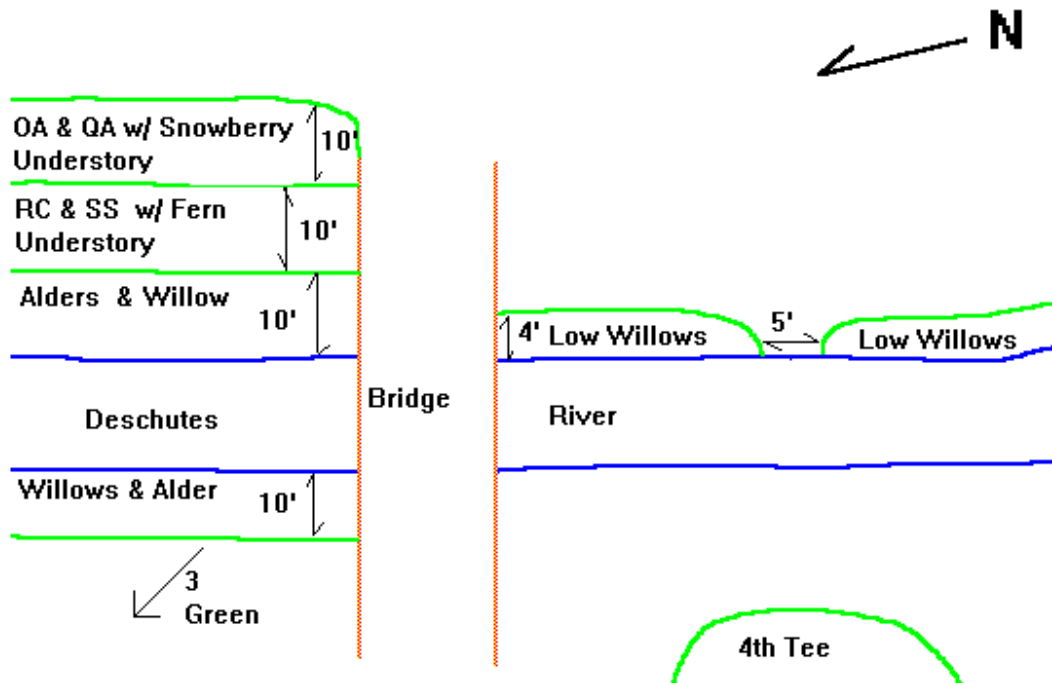
Implementation:

- * *Plant 2 strips of low growing willows across the river from the number 4 tee. The first strip should run from the foot bridge along the river bank for 15 to 25 feet. A 5 to 10 foot space should be left between this strip and the next strip which should run along the bank until it joins the existing willows up river.*
- * *Plant willows and alders along the east bank behind the existing band to fill out the existing band of willows and alders to 10 feet wide 60 feet long.*
- * *Plant a 10 foot by 60 foot long strip of Oregon ash and Quaking aspen behind the existing alders on the east bank.*
- * *Plant a 10 foot wide by approximately 60 foot long strip of Western red cedar and Sitka spruce behind the above-mentioned strip.*
- * *Plant willow and alder along the edge of the bank just downriver from the foot bridge on the west bank. This strip should be 10 feet wide and 60 feet long.*

Plant List:

- * *Sitka spruce: Picea sitchensis*
- * *Oregon ash: Fraxinus latifolia*
- * *Willow: Salix spp.*
- * *Red alder: Alnus rubra*
- * *Quaking aspen: Populus tremuloides*
- * *Western red cedar: Thuja plicata*

SITE 130



Symbols

A = Red alder	OA = Oregon Ash
BC = Bitter Cherry	OG = Oregon Grape
BE = Blue Elderberry	OS = Ocean Spray
BLM = Bigleaf Maple	OWO = Oregon White Oak
BR = Hardstem and Softstem Bulrush	QA = Quaking Aspen
CA = Western Crabapple	RC = Western Red Cedar
CS = Cascara	RE = Red Elderberry
CW = Black Cottonwood	S = Sedges
DF = Douglas Fir	SB = Scotch Broom
DW = Red-osier Dogwood	SLB = Salmonberry
E = Existing Vegetation	SNB = Snowberry
H = Black Hawthorn	SS = Sitka Spruce
HS = Hardhack Spirea	TB = Thimbleberry
IP = Indian Plum	VM = Vine Maple
MO = Mock Orange	WH = Western Hemlock
9 = Ninebark	WP = Western Paperbirch
* = Willows	WR = Wild and Wood Rose

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Special Comments:

- * *Snowberry, Salmonberry and/or ferns could be planted as an understory for the Oregon ash grove and strips of Red cedar and Sitka spruce.*
- * *Any work done on the golf course will need to be overseen by golf course staff.*
- * *Any vegetation on the bank opposite the number 4 tee must be lower than tee level.*

O. SITE 135 (suggestion site):

Purpose:

- * *To maintain fish habitat.*

Implementation:

- * *Do not remove any woody debris from this bend.*

Special Comments: *NONE*

P. Site 135a (suggestion site):

Purpose:

- * *To create and maintain fish habitat.*

Implementation:

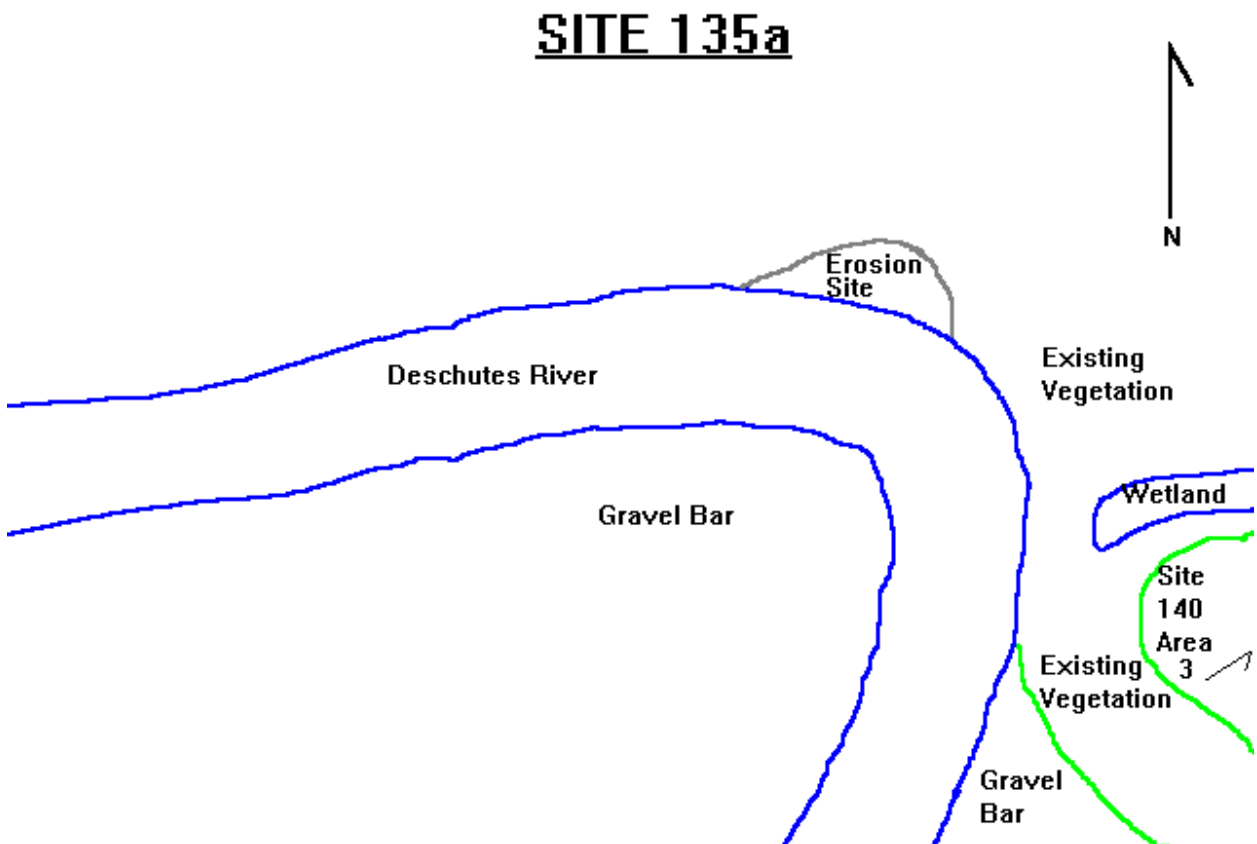
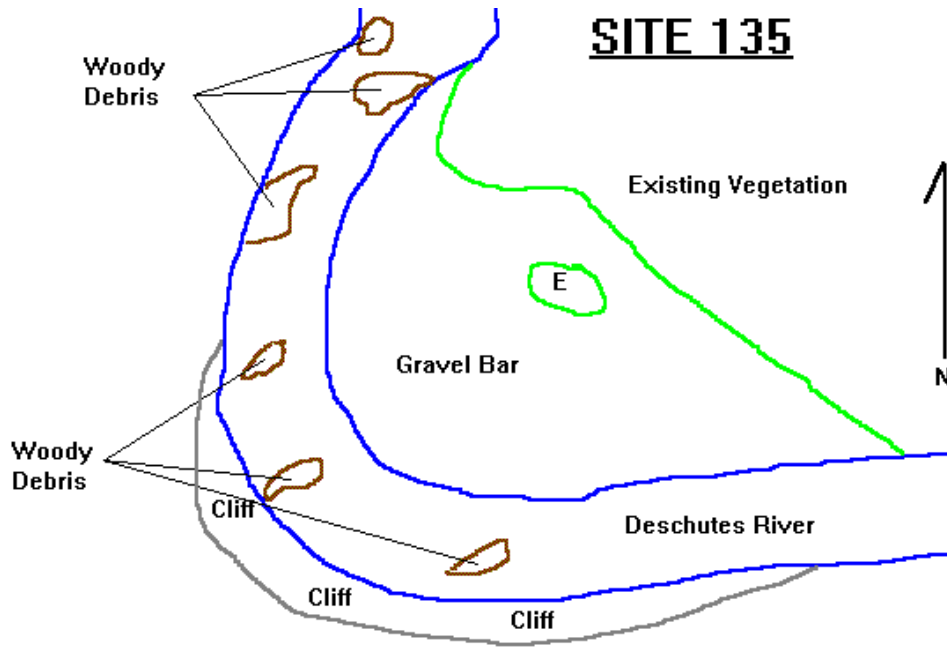
- * *Let the erosion site in this area continue to erode.*

Special Comments: *NONE*

Q Site 140

Purpose:

- * *To improve wildlife habitat.*
- * *To better shade the river.*



SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Implementation:

Area 1:

- * *Remove all existing Scotch broom.*
- * *Plant a six foot wide strip of alders and willows all along the bank.*
- * *Behind the alders, plant a 10 foot strip of Western hemlock and Sitka spruce with an understory of Salmonberry and Thimbleberry.*
- * *Behind the above band, plant a band of Western red cedar and Western hemlock with a fern understory.*
- * *Behind the cedar/hemlock band, plant a 10 foot band of Douglas fir with Salmonberry, Thimbleberry and fern understory.*
- * *Behind the Douglas fir band, plant Snowberry and Black hawthorn.*

Area 2:

- * *Behind the existing willows, plant a 10 to 20 foot band of Black cottonwood and Sitka spruce with a Salmonberry understory.*
- * *Behind the cottonwood and spruce band, plant a Quaking aspen, Bitter cherry, and Cascara grove with Serviceberry understory.*

Area 3:

- * *Plant 2 wide bands of Western paperbirch and Black cottonwood all along the edges of this clearing bordering the existing willow and alder stands.*

Plant List:

- * *Snowberry: Symphoricarpos albus*
- * *Black hawthorn: Crataegus douglasii*
- * *Douglas fir: Pseudotsuga menziesii*
- * *Salmonberry: Rubus spectabilis*
- * *Thimbleberry: Rubus parviflorus*
- * *Ferns: Athyrium filix-femina*
- * *Western red cedar: Thuja plicata*
- * *Western hemlock: Tsuga heterophylla*
- * *Bigleaf maple: Acer macrophylla*

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *Sitka spruce: Picea sitchensis*
- * *Willows: Salix spp.*
- * *Red alder: Alnus rubra*
- * *Black cottonwood: Populus trichocarpa*
- * *Quaking aspen: Populus tremuloides*
- * *Bitter cherry: Prunus emarginata*
- * *Cascara: Rhamnus purshiana*
- * *Serviceberry: Amelanchier alnifolia*
- * *Western paperbirch: Betula papyrifera var. subcordata*

Special Comments:

- * *There is currently a band of willows and alders growing along the river bank throughout this area. This band is healthy and wide in some places. In a few places it is thin or nonexistent. These areas should be replanted.*
- * *The width of the band of alders and willows varies. Bands of trees planted behind it should follow the meandering of its edge.*

R. Site 145 (suggestion site):

Purpose:

- * *To create areas for fish to feed, hide and rest.*

Implementation:

- * *Place large organic debris in the river. Anchor debris which is small enough to wash away in high flows. Large root balls and boulders would work well here.*

Special Comments: *NONE*

S. Site 145a (suggestion site):

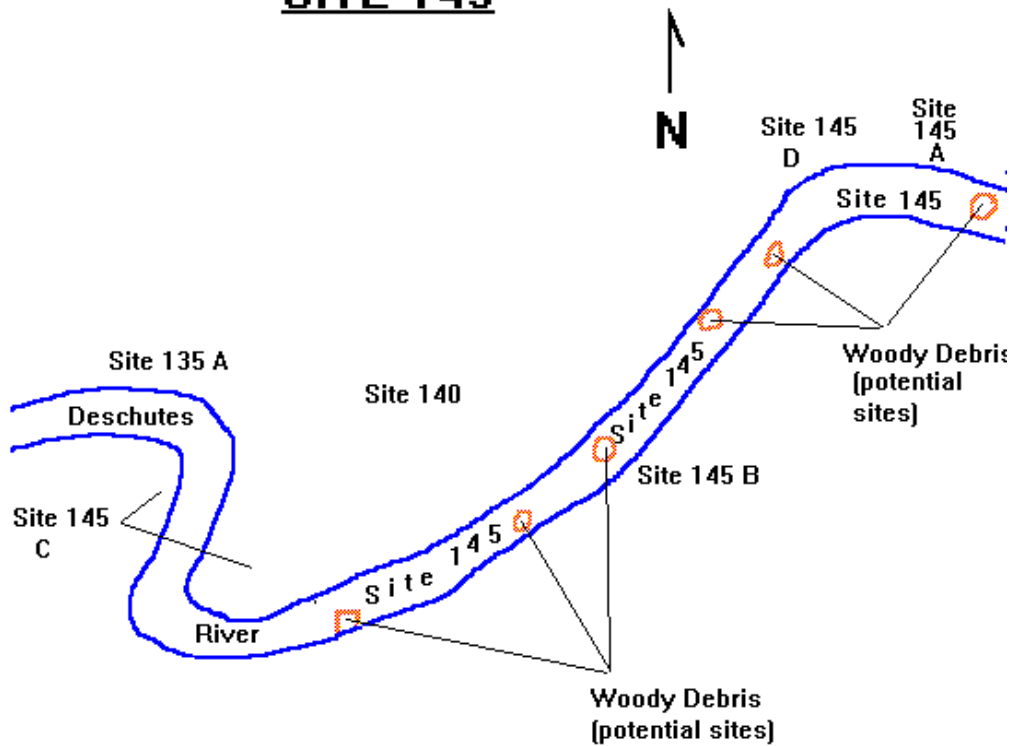
Purpose:

- * *To create a better environment for native vegetation.*
- * *To create overhanging vegetation to shade the river and under which fish can hide.*

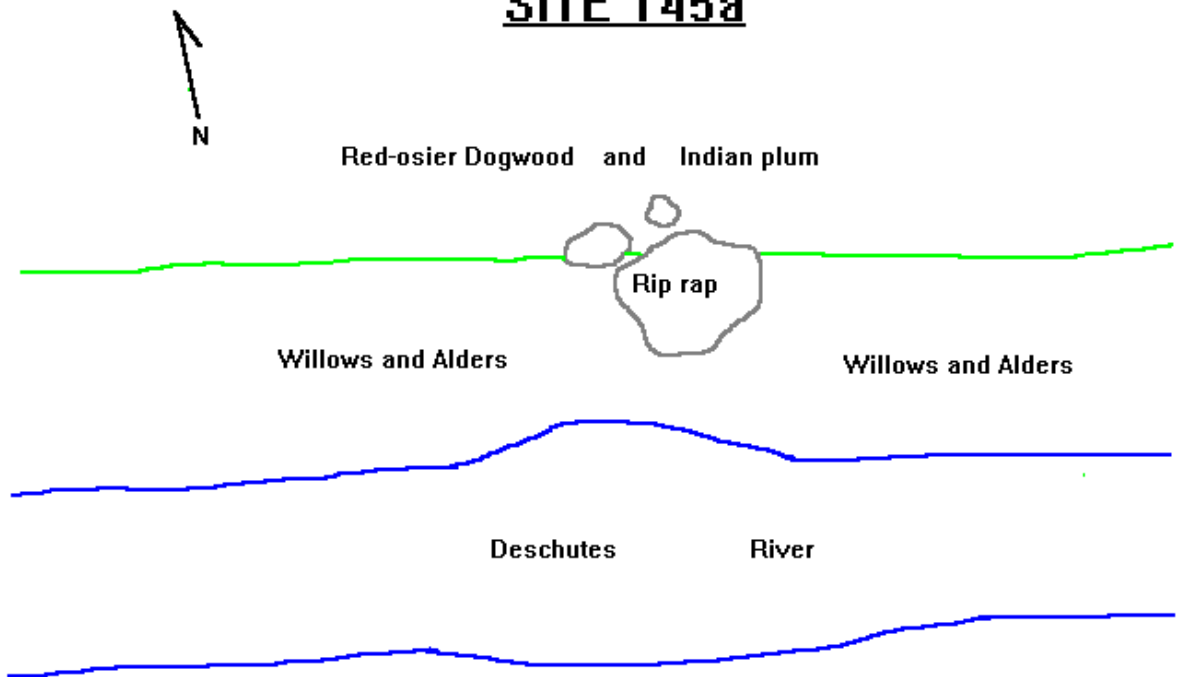
Implementation:

- * *Break up the large piece of concrete rip-rap and remove the pieces.*

SITE 145



SITE 145a



SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

- * *Plant the area with willows and alders along the bank.*
- * *Behind the willow/alder strip, plant a 5 to 10 foot wide strip of Red-osier dogwood and Indian plum.*
- * *Behind the dogwood/Indian plum strip, plant a 10 foot wide strip of Sitka spruce with a Thimbleberry understory.*

Plant List:

- * *Willows: Salix spp.*
- * *Red alder: Alnus rubra*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Sitka spruce: Picea sitchensis*
- * *Thimbleberry: Rubus parviflorus*

Special Comments:

- * *Thurston Conservation District is considering a revegetation project in this area. Any work on this site should be coordinated with the District. Contact: Jeff Swotek, 754-3588, 2407 Pacific Avenue S.E., Olympia, WA.*

T. Site 145b (suggestion site):

Purpose:

- * *To prevent erosion.*
- * *To provide overhanging vegetation under which fish can hide.*
- * *To shade the river.*

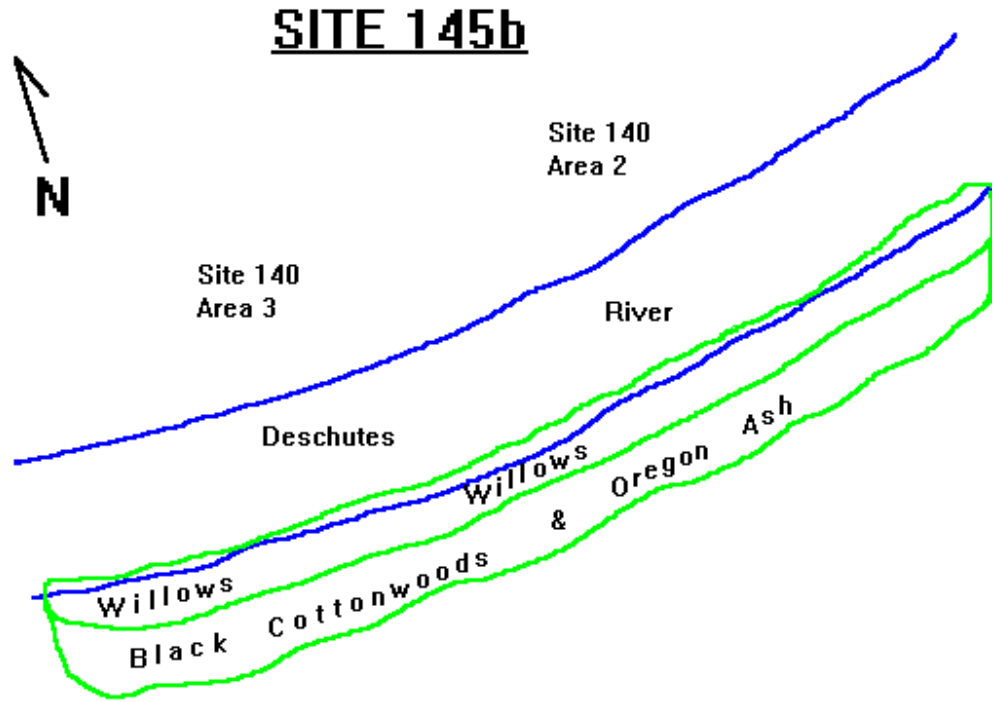
Implementation:

- * *Plant willows along the face of the bank on the County side of the river just south of the southern-most gravel bar.*
- * *Plant Oregon ash and Black cottonwood behind the willows.*

Plant List:

- * *Willows: Salix spp.*
- * *Sitka spruce: Picea sitchensis*
- * *Black cottonwood: Populus trichocarpa*

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN



SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Special Comments: *NONE*

U. Site 145c (suggestion site):

Purpose:

- * *To provide nesting sites for birds.*
- * *To maintain fish habitat.*

Implementation:

- * *Place several nesting boxes throughout this area.*
- * *Do not remove any woody debris from this area.*

Special Comments: *NONE*

V. Site 145d (suggestion site):

Purpose:

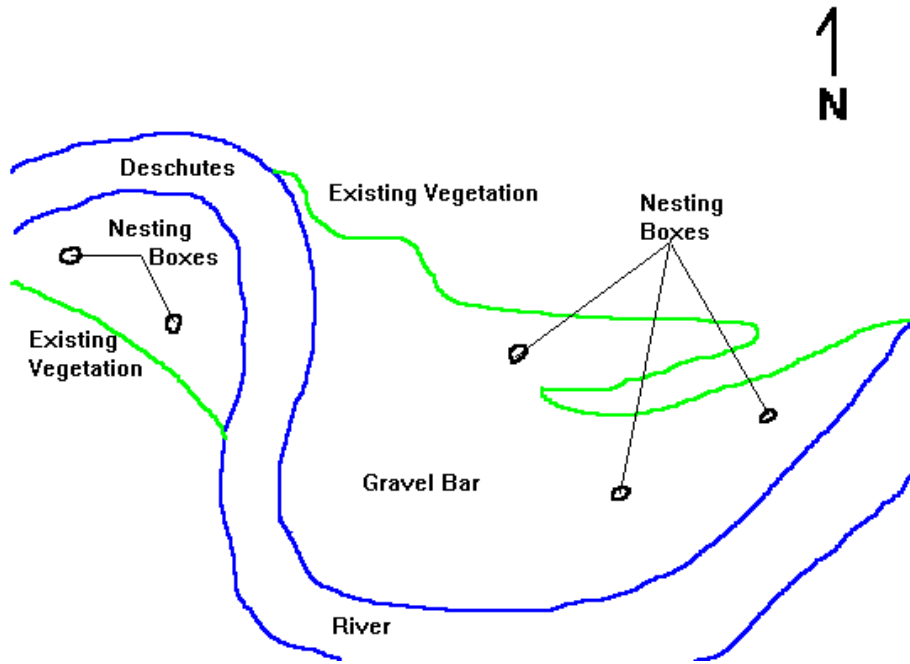
- * *To create areas for fish to feed, hide and rest.*
- * *To prevent erosion.*
- * *To provide detritus to the river.*

Implementation:

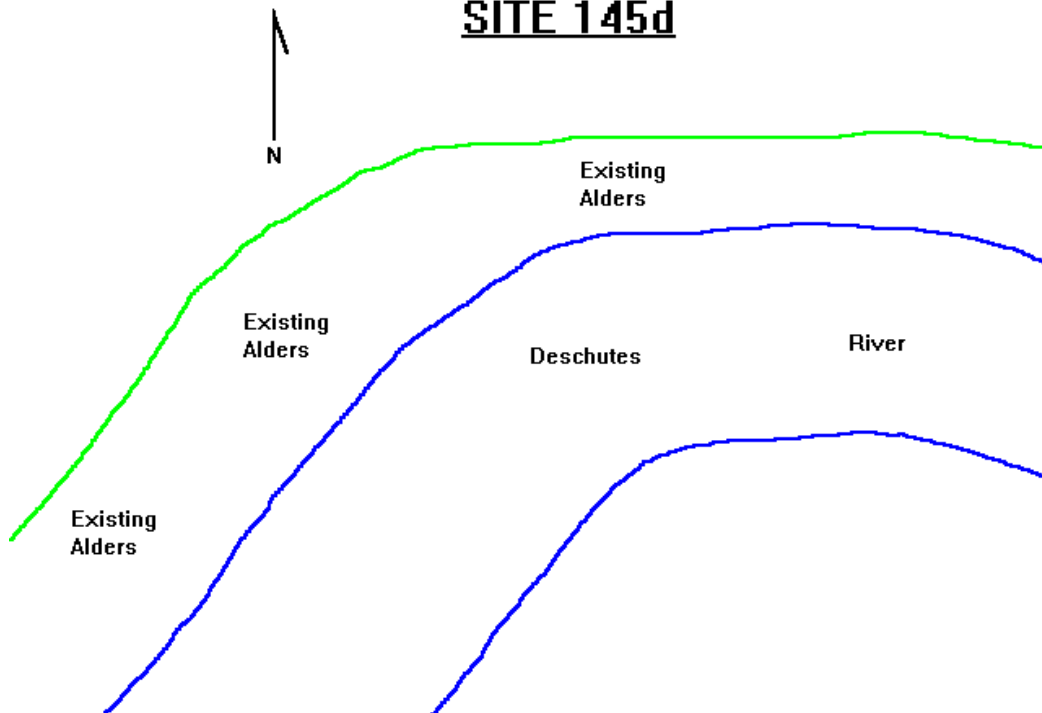
- * *Put large logs, root balls and/or boulders in the stream. Place them such that they do not direct the current toward either shore.*
- * *Monitor the alders throughout this strip regularly. If they appear to be falling into the river, cut them off at a height of 5 feet above ground. Cable the tops of the trees to the remaining 5 foot tall stump and let them fall into the river.*

Special Comments: *NONE*

SITE 145c



SITE 145d



SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

W. Site 150

Purpose:

- * *To provide overhanging vegetation for fish cover.*
- * *To stabilize the bank.*
- * *To provide food and habitat for wildlife.*

Implementation:

- * *Plant a 5 to 10 foot strip of willows along the bank. This strip should extend around the hole caused by currents flowing around the bridge support.*
- * *Plant a 5 to 10 foot strip of Red-osier dogwood and Indian plum behind the willow strip.*
- * *Remove the existing Reed canary grass.*
- * *Plant a 20 foot wide strip of Vine maple.*
- * *Beneath the Vine maples plant an understory of Snowberry, ferns and Salmonberry.*

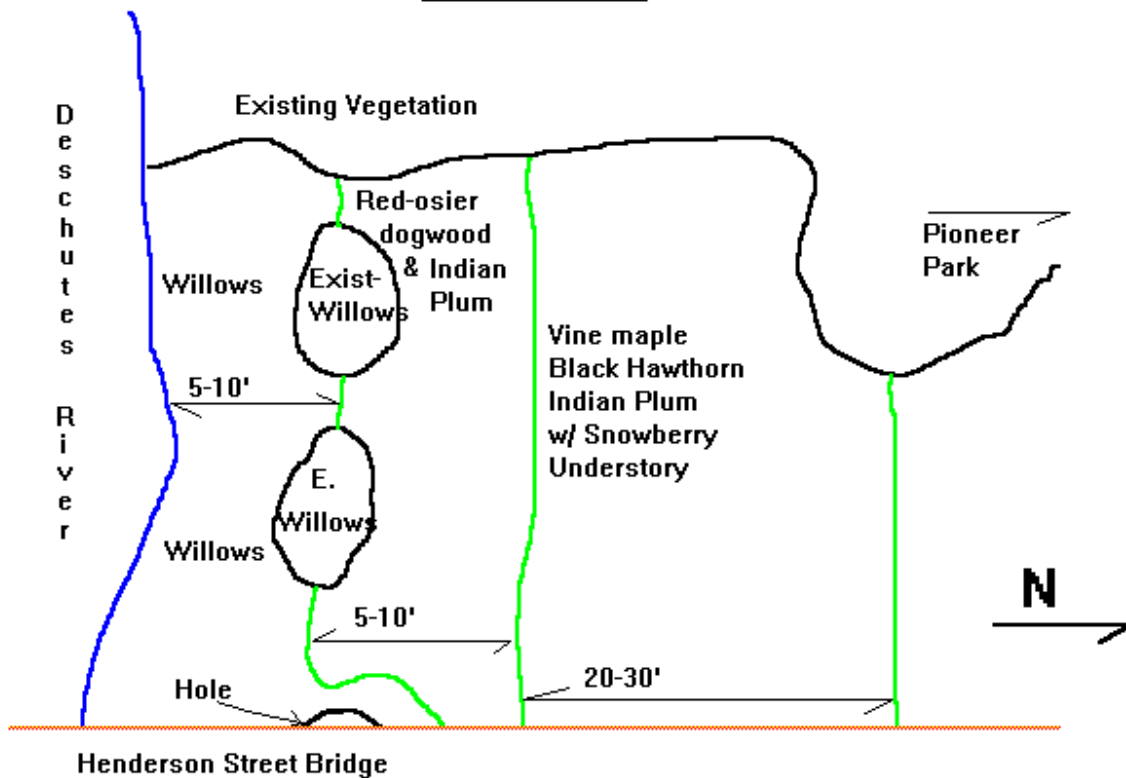
Plant List:

- * *Snowberry: Symphoricarpos albus*
- * *Ferns: Athyrium filix-femina*
- * *Salmonberry: Rubus spectabilis*
- * *Red-osier dogwood: Cornus stolonifera*
- * *Indian plum: Osmoronia cerasiformis*
- * *Willows: Salix spp.*
- * *Vine Maple: Acer circinatum*

Special Comments:

- * *Wires run over this site, so no tall trees can be planted here.*

SITE 150



Symbols

A = Red alder	OA = Oregon Ash
BC = Bitter Cherry	OG = Oregon Grape
BE = Blue Elderberry	OS = Ocean Spray
BLM = Bigleaf Maple	OWO = Oregon White Oak
BR = Hardstem and Softstem Bulrush	QA = Quaking Aspen
CA = Western Crabapple	RC = Western Red Cedar
CS = Cascara	RE = Red Elderberry
CW = Black Cottonwood	S = Sedges
DF = Douglas Fir	SB = Scotch Broom
DW = Red-osier Dogwood	SLB = Salmonberry
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H = Black Hawthorn	SS = Sitka Spruce
HS = Hardhack Spireae	TB = Thimbleberry
IP = Indian Plum	VM = Vine Maple
MO = Mock Orange	WH = Western Hemlock
9 = Ninebark	WP = Western Paperbirch
* = Willows	WR = Wild and Wood Rose

IV. ADDITIONAL INFORMATION

This part of the plan provides additional information to assist groups in completing the site projects included in this plan. For additional assistance, contact the Policy and Planning Department, City of Tumwater, 555 Israel Road SW, Tumwater, WA, (206) 754-4160.

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

Technical assistance is also available by contacting the Thurston Conservation District, 2407 Pacific Avenue SE, Olympia, WA, (206) 754-3588.

This part of the plan is composed of four sections. Section 1 suggests places and ways of obtaining native plants. Section 2 lists and describes several community groups which might be interested in assisting in carrying out the site projects. Section 3 describes permits necessary for undertaking the site projects. Section 4 shows current land ownership along the Deschutes River in Tumwater.

A. Section 1. Where to Get Native Plants

Following is a list of places to obtain native plants. It is not an exhaustive list but offers some places to start looking.

Government Agencies:

1. Washington State Department of Natural Resources: Webster Nursery, 206-753-5305. The Webster Nursery sells only conifers. They do not keep a large variety of trees in stock at all times, so call ahead of time to make sure they have the desired trees.
2. Thurston Conservation District: 206-753-9448. The Conservation District takes orders for plants year round. Then, once a year they sell these plants.

Private Companies:

1. Weyerhaeuser Timber Company: Weyerhaeuser sells conifers and several varieties of deciduous trees. They need a 5 to 10 day lead time for orders.
2. Hortus Northwest: A Pacific Northwest Native Plant Directory and Journal, edited by Dale Shank. This annual journal contains a directory of nurseries which sell native plants. To receive a copy send \$ 9.00 to Hortus Northwest, PO Box 955, Canby, OR 97013
3. Briggs Nursery, Inc., 4407 Henderson Boulevard, Olympia, WA 98501, (206) 352-5405.

SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

4. Storm Lake Growers, Snohomish, WA (206) 794-4842 (wholesale only).
5. Pacific Wetland Nursery, 7035 Crawford Drive, Kingston, WA 98346, (206) 297-7575.
6. Watershed Garden Works, Gig Harbor, WA (206) 857-2785 or 2039 - 44th Ave., Longview, WA 98632, (206) 423-6456.
7. Sound Native Plants, PO Box 10155, Olympia, WA 98502, (206) 866-1046.
8. IFA Nursery, 135 Nisqually Cutoff Road, Olympia, WA (206) 456-5669.

Rescuing Plants:

1. When developers develop land, they often remove the plants on the development site. These plants can be used on re-vegetation sites if they are removed and handled properly.

B. Section 2. Volunteer Groups Concerned with Riparian Zones

Following is a list and brief description of several non-profit groups which work on rehabilitating and preserving ecologically sensitive areas. This list is not comprehensive but it offers a place to start looking for community participation in site restoration projects.

Olympia, Lacey and Thurston County Stream Teams:

Stream Team is a volunteer group made up of community members of all ages and walks of life. They do stream clean-up, re-vegetation projects, monitoring stream health, and species census among other activities. The goal of Stream Team is to involve the community in enhancing local water resources. For more information contact Wendy Burt at the City of Olympia: 206-753-8598, City of Olympia, Public Works, Water Resources, P.O. Box 1967, Olympia, WA 98506; Susie Vanderberg, Thurston County, Public Works Department, (206) 754-4681; or Jared Burbidge, City of Lacey, Public Works Department, (206) 491-5600.

Project GREEN:

Project GREEN is a volunteer group composed of students and their teachers. Project GREEN activities include water quality monitoring, studying watershed ecology, community service/action projects, and student congress among others. The main goal of GREEN is to educate and activate young people about water issues. For more

SECTION TEN -- DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

information contact Lisa Bryce Lewis at 206-943-3445, 1303 7th Ave. SW, Olympia, WA 98502-5316

Washington Senior Environmental Corp:

The Senior Environmental Corp is made up of volunteers over 55 years of age. They will undertake most environmentally oriented projects. They concentrate on public outreach and education, and monitoring projects rather than physical labor projects. For more information contact Pamela Jane Morgan at 206-438-7630.

Washington Ecology Youth Corp:

The State of Washington founded the Washington Youth Corp in 1983 to conserve natural resources and to provide job training for young people 18 to 25 years of age. The Corp developed Surface Water Action Teams (SWAT) to work on water quality projects including non-point pollution problems and bioengineering projects. Community groups or government entities must sponsor the projects; they may not be sponsored by private individuals. Before the Corp can undertake a project, the sponsor must provide specifications of the project, any materials needed, any large or specialized equipment and any specialized technical expertise. For information, contact Kirk Thomas at (206) 459-6139.

C. Section 3. Obtaining Permits for Projects

Following is a brief description of the permits that may be necessary for undertaking site restoration projects and where to apply for these permits. More detailed information may be obtained through the City of Tumwater's Development Services Department and the Washington State Department of Fisheries.

Shoreline Permits:

Some of the re-vegetation projects in this plan may require a shoreline permit. These permits are acquired through the City of Tumwater's Development Services Department. They may require several months to process, so paperwork should be filed early. To find out if a shoreline permit is required for a particular site project, contact Bob Boothe, 754-4180, City of Tumwater, Development Services, 555 Israel Rd. SW, Tumwater, WA, 98501.

State Environmental Policy Act:

Site projects that involve regrading or excavation of more than 100 cubic yards of soil may be subject to consideration under the State Environmental Policy Act (SEPA). Completion of a SEPA checklist may be required. Contact person: Bob Boothe, 754-4180, City of Tumwater, Development Services, 555 Israel Rd. SW, Tumwater, WA 98501.

Hydraulics Permits:

Any of the site projects which will divert, obstruct or change the natural flow of the river; involve regrading the river bank; or involve working below the river's ordinary high water mark may require a hydraulics permit from the Washington State Department of Fisheries or Wildlife. If required, a hydraulics permit application process will include submission of a written plan and a site visit. To determine if a hydraulics permit is required for a particular site project, contact Jim Frazier, 902-2571, Washington State Department of Fisheries, Olympia, WA.

D. Section 4. Contacting Landowners

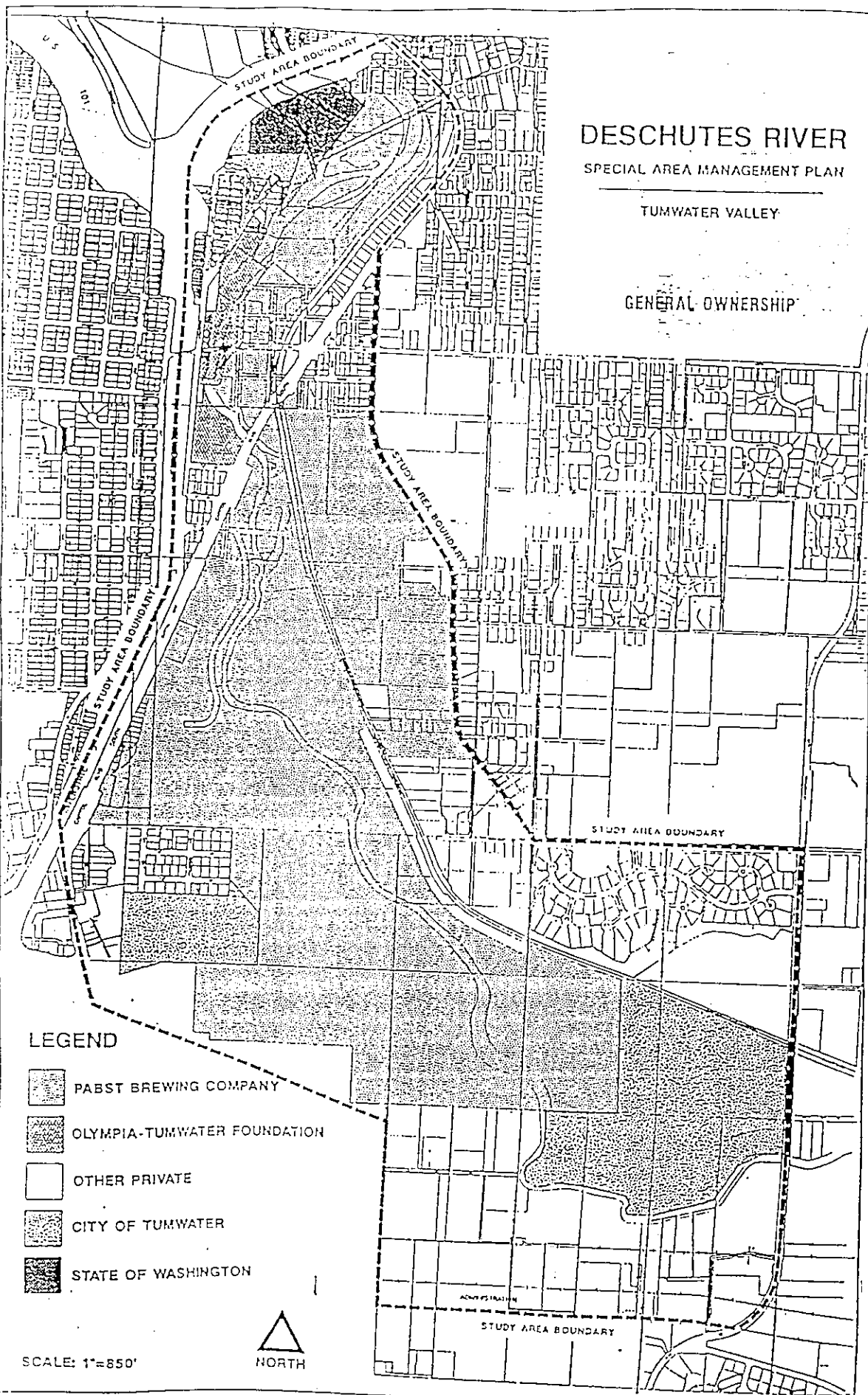
Community groups interested in carrying out one or more of these projects should work closely with the land holders. Current land ownership is shown on the Land Ownership Map. If a group needs assistance in contacting land owners, they may request assistance from Tumwater City Staff. (See Ownership map.)

DESCHUTES RIVER






SPECIAL AREA MANAGEMENT PLAN

TUMWATER VALLEY

GENERAL OWNERSHIP



LEGEND

-  PABST BREWING COMPANY
-  OLYMPIA-TUMWATER FOUNDATION
-  OTHER PRIVATE
-  CITY OF TUMWATER
-  STATE OF WASHINGTON

SCALE: 1"=850'



SECTION TEN --DESCHUTES RIPARIAN HABITAT REHABILITATION PLAN

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SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

Authors Note: For a complete text of the Olympia Urban Waterfront Plan (1993) from which the following can be found, please contact Thurston Regional Planning Council at 786-5480.

I. VISION FOR THE URBAN WATERFRONT

Olympia's identity has always been linked to the urban waterfront. For both the native tribes and the earliest European settlement, the waterfront was the *raison d'etre*. Today, people think of the waterfront and the Capitol dome when they think of Olympia. These two things are the focal points for downtown, the City, the region, and the State. The waterfront is a place where pedestrians can promenade, go to restaurants, a place with open spaces, the home of water-dependent industries such as a marine terminal, transfer facilities, and marinas. People also go to the waterfront to enjoy the views, and participate in active water recreation, such as boating.

Historically, urban Budd Inlet was home to a working waterfront and an important fishery. Early photos show shipping and industry against the backdrop of the still waters of Budd Inlet, with the forested ridgetops, hills and mountains beyond.

A. What will the waterfront be like in the future?

Future activity on the waterfront will have that character, too. New development will strengthen the identity of this important place where people, wildlife, pleasure boats, commerce, ships, and industry will exist in harmony with the environment and with one another. Larger areas of the waterfront will be accessible to the public, both along the shoreline, and on piers over-the-water. All traces of industrial pollution from past activities will be gone, and the legacy of the salmon fishery will be restored.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

Today, pieces of land along the Percival Landing, East Bay, and West Bay shorelines are not occupied by buildings as they were in the past. This provides us with great opportunity to build on this dynamic mix of a waterfront that welcomes people, where the water is visible and accessible, where jobs are provided, and the environment is healthy.

Physical development will be compatible with our community's goals of economic development, environmental protection, and increased tourism, while preserving marine habitat, views and open water. The valued industry will remain on West Bay, and the Port ocean terminal will continue to add a modest international flavor to our waterfront. The East Bay shoreline will continue to develop as a mixed-use shoreline, which will provide marine-related services, offices, and restaurants, will be connected and interwoven with a continuous pedestrian promenade connected with a park on East Bay Drive. West Bay may see new uses such as offices, restaurants, marinas, and pleasure boat facilities, in addition to the traditional industry. The Percival Landing area may be home to more commercial building, too.

In addition to commercial and recreational activity, the waterfront may also play a role in passenger transportation in the future. Ferry boats may again be used to transport people across Budd Inlet and around the Sound, particularly as our roads are filled with automobiles. The Olympia waterfront will be an attraction to both local residents and visitors into the next century.

The environmental health of the Inlet has become the highest priority. The Squaxin Island Tribe will continue to fish in the Inlet, as is its history and its right. The salmon will return in larger numbers than have been seen for a long time. Education about the marine environment may be provided at a marine science center on the Inlet. Efforts to restore the environment will be made visible to the people that live work, and visit here.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

B. How does this SAMP promote this Vision?

It carries out the vision of the Olympia Comprehensive Plan, the Shoreline Master Program, and parts of the Port Comprehensive Plan in a detailed way that pertains to over-the-water construction. With our history and legacy of over-the-water development for commerce and industry, it provides places for this desired mix of activities, and encourages people-oriented activities to happen while preserving the habitat and retaining most of the open water and views. It places high priority on both commerce and the environment. It asks that the environment be restored and that the waterfront be attractive as well as functional.

The SAMP requires that when over-the-water development occurs, that safe public access be provided, and environmental impacts be mitigated. It requires that where possible, buildings be placed upland rather than over-the-water, to save the open water as open space, for fish and wildlife habitat, and for boating and shipping. But, where necessary, over-the-water development can occur in a safe and aesthetically pleasing manner. It recognizes that certain uses must be over-the-water because of the nature of the use. It gives all of the voices and interests a place on the waterfront. It asks that we learn from the past and develop in a manner that is attractive, contributes to economic development, and preserves the waterfront for future generations.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

II. PURPOSE OF SAMP

The purpose of this SAMP is to permit limited over-the-water development which is compatible with the vision, needs, and values of the community, and which does not degrade the marine habitat of Budd Inlet.

The SAMP provides policies and regulations which apply to the shorelines of Budd Inlet within the City of Olympia, and which are tailored to the unique physical characteristics and development objectives of this concentrated urban area.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

III. BOUNDARY AND JURISDICTION OF SAMP

- A. The policies and regulations in this SAMP apply in addition to the existing Shoreline Master Program for the Thurston Region (SMP). Where specific conflicts occur, the SAMP governs, except where explicitly stated. Policies and regulations apply to shoreland over-the-water construction and uses within the described boundaries of the SAMP.

Those areas between ordinary high water mark (ohwm) and the outer harbor line within the City of Olympia except shorelands lying northward of the south line of Block 1 of Simenson's subdivision of Block A, Sebree's Addition of Olympia, 1890 (residential area of East Bay Drive.

- B. Amendment Process for Olympia SAMP

The amendment process is intended to be flexible, timely, and responsive.

- (1) Initiation

The amendment process may be initiated by the City of Olympia or the Port of Olympia. Because the City is the regulatory agency, and the Port is the single major property owner on the urban waterfront, all SAMP amendments should be jointly undertaken by the City and the Port. The Port and City have agreed to revise the UWP, as necessary and mutually agreed upon, upon completion of the Port's Strategic Plan (or shortly thereafter).

- (2) Amendment Process and Scope

The amendment process should be jointly scoped by the City and the Port. Process and scope should be determined on a case by case basis after consideration of the pertinent issues, the identified problem, and possible alternative solutions.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

(3) Public Participation

The process should be designed to ensure participation by area residents and affected parties.

(4) Review and Adoption of SAMP Amendments

All proposed SAMP amendments should be jointly reviewed and adopted by the City of Olympia and the Port of Olympia.

(5) Department of Ecology (Ecology) review

Olympia SAMP amendments will be submitted to Ecology after local (City) adoption for final state adoption. Washington Administrative Code 173-19-061 outlines the following approval of master programs and amendments by local government procedures.

Prior to submission of a new or amended master program to the department, local government shall:

- (a) Conduct at least one public hearing to consider the proposal;
- (b) Publish notice of the hearing a minimum of once in each of the three weeks immediately preceding the hearing in one or more newspapers of general circulation in the area in which the hearing is to be held. The notice shall include:
 - (i) Reference to the authority under which the action is proposed;
 - (ii) A statement or summary of the proposed changes to the master program;
 - (iii) The date, time, and location of the hearing, and the manner in which interested persons may present their views thereon; and
 - (iv) Reference to the availability of the proposal for public inspection at the local government office or upon request;

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

- (c) Consult with and solicit the comments of any federal, state, regional, or local agency, including tribes, having any special expertise with respect to any environmental impact;
- (d) Where amendments are proposed to a county or regional master program which has been adopted by cities or towns, the county shall coordinate with those jurisdictions and verify concurrence with or denial of the proposal. The procedural requirements of this section may be consolidated for concurring jurisdictions;
- (e) Solicit comments from the department on the proposal;
- (f) Assure compliance with chapter 43.21C RCW, the State Environmental Policy Act; and
- (g) Approve the proposal.

IV. OVERALL POLICIES FOR SAMP

The following policies apply to all development or uses within the SAMP.

A. Policy Intent

The intent of these SAMP policies is to provide a vision and framework to evaluate and balance the health and viability of marine habitat in Budd Inlet, to protect water quality, to allow water-dependent uses and public access to the shoreline, to retain the open space of water, and to protect views. It acknowledges the importance of each of these issues, yet places priority on the viability of the Budd Inlet ecosystem.

Over-the-water development should only be allowed when it is demonstrated that it cannot exist upland.

B. Compatibility with Upland Uses

Any development or use permitted over-the-water should be compatible with adjacent upland uses.

C. Upland Support Facilities

Over-the-water development should only be allowed if adjacent uplands can accommodate necessary support functions such as but not limited to, parking, circulation, access, or others as necessary. Support facilities for over-the-water uses should be located upland unless the intrinsic nature of the support facility requires that it be located over-the-water.

D. Categories of Allowed Uses

For new development, only uses that are water-dependent or non-commercial water-enjoyment should be permitted over-the-water. Existing over-the-water commercial water-enjoyment uses should be permitted to remain and to expand.

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E. View Protection

Key views, as mapped in Figure 1, page 365, should be protected when considering over-the-water development.

F. Public Access

Safe public access should be required of all over-the-water uses or developments. All public access should be marked with signs approved by the City of Olympia.

Shoreline public access is the physical ability of the general public to reach and touch the water's edge, and/or the ability to have a view of the water from upland locations. As a guideline for permitting requirements, four types of marine public access are identified. These types of public access will be considered in relation to the physical and operational requirements of the proposed over-the-water development, and how best to incorporate safe public access into the development.

Type I: Provides direct physical connection to the water's edge including floats, docks, and boat launches. Access itself is located either up to the shoreline, or floating over-the-water.

Type II: Provides immediate proximity to the water's edge, but does not provide the physical ability to touch the water.

Type III: Provides unobstructed and proximate (very near) view of waterward side of the project.

Type IV: Provides visual access to the waterfront (but not the waterside of the project) and shoreline interpretation.

Quantity and quality of public access required should relate to the unique features of the site.

All required public access should be clearly labelled with signs that are approved by the City of Olympia.

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G. Nonconforming Uses

- (1) Existing nonconforming over-the-water structures and uses that can be classified as water-dependent, water-related, or water-enjoyment should be permitted to continue operation and provided with standards of greater flexibility than is provided for in Section V., Administrative Procedure, of this Shoreline Master Program for the Thurston Region to remodel or reconstruct but not expand the area of coverage over-the-water.
- (2) Nonconforming over-the-water structures and uses that can not be classified as water-dependent, water-related, or water-enjoyment should conform to existing nonconforming standards provided for in Section V., Administrative Procedures, of this Shoreline Master Program for the Thurston Region.

H. Allowed Uses

The following uses should be allowed over-the-water throughout the SAMP if they are compatible with the adjacent upland zoning.

(1) Utilities

Utility outfalls should be permitted. Existing utility outfalls should be encouraged to upgrade with features that mitigate environmental impacts and enhance water quality. New utility outfalls should be permitted provided that adverse environmental impacts can be mitigated.

(2) Marine education and research facilities.

(3) Dredging necessary to clean up any toxic sediment in this SAMP, if the dredging is being conducted as a part of a clean-up action which is approved and overseen by the Department of Ecology.

This regulation supersedes Section 3.VI. Dredging C.4. of the Shoreline Master Program for the Thurston Region.

(4) Water taxi facilities.

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I. Mitigation and Enhancements

Marine habitat is degraded and limited in area and function at present in urban Budd Inlet. Therefore the following mitigation and enhancement policies apply.

- (1) All adverse impacts to fish and wildlife habitat, its functions, values, and acreage, should be mitigated and enhancements made such that the net result of the project is not worsening of such conditions.
- (2) Guidelines and standards for mitigation and enhancements should be established in order of preference.
- (3) A project proposal that includes a less preferred mitigation approach should meet a comprehensive set of standards that assure the public interest is served by the proposal such that the net result is not net loss of habitat function, value, or acreage.
- (4) The applicant is financially responsible for additional mitigation and enhancement action should any element of the Mitigation and Enhancement Plan fail. (See Section 5, Use Regulations and Review Criteria, b(10)(c), for a description of a Mitigation and Enhancement Plan.)
- (5) The City of Olympia should establish a Habitat Advisory Committee, consisting of experts in the disciplines of fish or wildlife habitat, to review required habitat Mitigation and Enhancement Plans in a consistent and coordinated manner and make recommendations regarding approval to the Olympia Environmental Review Officer (ERO).

Prior to adoption of a Comprehensive Habitat Plan for Budd Inlet, the Habitat Advisory Committee shall use its best judgment in review and recommendations. After adoption of a Comprehensive Habitat Plan, all recommendations shall be based on that Plan.

The ERO and Olympia Project Planner shall provide evidence regarding why a Habitat Advisory Committee recommendation was rejected or modified, if that occurs.

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The City should review the Habitat Advisory Committee two years after it is established to determine if modifications are needed in structure or function in order to meet the Intent of this policy.

- (6) Where habitat is altered, the project applicants should restore or create equivalent areas of habitat in order to compensate for habitat losses.
- (7) The City should approve a Mitigation and Enhancement Plan as a condition of issuance of any permit which impacts habitat.
- (8) Mitigation should generally be implemented concurrently with the regulated activity under the permit.
- (9) In general, on-site mitigation should be required.
- (10) If adverse impacts cannot be mitigated, permits should be denied.

J. Habitat Enhancement

Habitat enhancement efforts should be consistent with a City of Olympia adopted a Comprehensive Habitat Plan of Budd Inlet. If enhancement of fish habitat is possible beyond those required to achieve full mitigation (that is, those efforts beyond no net loss), then planning and development of incentives for such enhancement should be considered.

K. Over-the-water Design Guidelines

Design of over-the-water construction and development should include measures which minimize impacts on habitat.

L. Special Analyses

Due to the highly complex nature of over-the water construction, special analyses of views, the needs for the proposed development to be over-the-water, and others may be required. These analyses should be prepared by qualified experts as part of the application process for all developments in order to identify and mitigate probable environmental impacts.

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V. SAMP USE REGULATIONS AND REVIEW CRITERIA

A. Permit Process

Any over-the-water construction or development is required to obtain a City of Olympia Shoreline Conditional Use Permit through the normal procedures stipulated in the SMP and the Shoreline Management Act. In addition, such projects may also be required to secure other local, state or federal permits, depending upon the nature of the project. Any special plans or analyses required must be filed prior to or as part of the permit application, and must be consistent with State Environmental Policy Act requirements.

B. Uses

(1) Allowed Conditional Uses

The following uses may be allowed throughout the SAMP in all Management Units:

(a) Allowed uses SAMP-wide

- (i) Utility outfalls are allowed. Existing utility outfalls and other facilities that are to be upgraded shall include features that mitigate environmental impacts and enhance water quality. New utility outfalls shall be permitted provided that any adverse environmental impacts they create can be mitigated.
- (ii) Marine education and research facilities.
- (iii) Dredging necessary to clean up any toxic sediments in this SAMP.

This regulation supersedes Section III.VI. Dredging C.4. of the Shoreline Master Program for the Thurston Region.

- (iv) Water taxi facilities.

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- (b) Uses Allowed in the individual Management Units;
- (c) Unforeseen Conditional Uses

Other uses may be allowed which are not specified but which meet the vision and intent of the SAMP and of the specific Management Unit in which a development is proposed.

C. Review Criteria

- (1) All proposed conditional uses must meet the following review criteria which is specified in WAC 173-14-140(1), as follows:
 - (a) That the proposed use is consistent with the policies of the Shoreline Management Act and the SMP;
 - (b) That the proposed use will not interfere with the normal public use of public shorelines;
 - (c) That the proposed use of the site and design of the project is compatible with other permitted uses within the area;
 - (d) That the proposed use will cause no unreasonably adverse effects to the shoreline environment in which it is to be located; and
 - (e) That the public interest suffers no substantial detrimental effect.
- (2) Unforeseen Conditional Uses must meet the vision and intent of the SAMP and the management unit for which a specific development is proposed.

D. Development Standards

The following mandatory standards apply to uses and development within the entire SAMP. These general regulations must be met by all over-the-water developments in addition to the criteria for the particular Management Unit where the development is proposed. The following development standards apply to any "Substantial Development" within the SAMP:

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(1) Intent

The open space of water and mud flats in Urban Budd Inlet shall be protected. Also, marine habitat shall be protected, and where possible, improved. Therefore, over-the-water development shall only be allowed when the proposed development cannot be placed upland. Public access, view protection, and the environmental health of the Inlet are the highest priorities.

(2) Compatibility with Upland Uses

Any development or use permitted over-the-water shall be compatible with the adjacent upland uses.

(3) Impacts on Upland Uses

Over-the-water construction shall be designed to avoid blocking key views, and shall not project excessive glare, or in other ways adversely impact adjacent upland uses.

(4) Upland Support Facilities

Over-the-water development should only be allowed if adjacent uplands can accommodate necessary support facilities, such as parking, circulation and access. Support facilities for over-the-water uses shall be located upland.

(5) Categories of Allowed Uses

For new development, only water-dependent, or non-commercial water-enjoyment uses shall be permitted over-the-water. Existing over-the-water water-dependent, water-related, and water-enjoyment uses should be permitted to remain and to expand.

(6) View Protection

All over-the-water development shall be designed to protect key views (mapped in Figure 9 of the Urban Waterfront Plan (see attached map), and if possible enhance view access.

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(7) Public Access

Safe public access shall be required of all over-the-water uses or developments. All public access shall be marked with signs approved by the City of Olympia.

Shoreline public access is the physical ability of the general public to reach and touch the water's edge, and/or the ability to have a view of the water from upland locations. As a guideline for permitting requirements, four types of marine public access are identified. These types of public access will be considered in relation to the physical and operational requirements of the proposed over-the-water development, and how best to incorporate safe public access into the development.

Type I: Provides direct physical connection to the water's edge including floats, docks, and boat launches. Access itself is located either up to the shoreline, or floating over-the-water.

Type II: Provides immediate proximity to the water's edge, but does not provide the physical ability to touch the water.

Type III: Provides unobstructed and proximate (very near) view of waterward side of the project.

Type IV: Provides visual access to the waterfront (but not the waterside of the project) and shoreline interpretation.

Quantity and quality of public access required shall relate to the unique features of the site.

All required public access shall be clearly labelled with signs that are approved by the City of Olympia.

(8) Signage

All required public access must be clearly labeled with signs that are approved by the City of Olympia.

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(9) Nonconforming Uses

Nonconforming uses are subject to the regulations for nonconforming uses in Section V, Administrative Procedures, of this Master Program; except for structures and uses that are water-dependent, or water-enjoyment, where the following regulations apply:

- (a) Resumption of discontinued or abandoned nonconforming use or structure. A nonconforming use or structure, when abandoned or discontinued, shall not be resumed. Discontinuance or abandonment is presumed to occur when the land or structure is not used for a particular use for two years. Any person wishing to appeal a staff determination that discontinuance or abandonment has occurred may appeal to the legislative body within ten (10) days of the determination by filing an appeal with the local government department responsible for administering the Program.
- (b) Reconstruction of a nonconforming structure. In the event that a nonconforming structure is destroyed by fire, explosion, natural catastrophe, or act of public enemy, nothing in this SAMP shall prevent the reconstruction of the nonconforming structure provided that reconstruction must be completed within two years after destruction.
- (c) Conversion of a Nonconforming Use. A non-conforming use may not be converted to a prohibited use.

(10) Mitigation and Enhancements

- (a) All adverse impacts to fish and wildlife habitat shall be mitigated and enhancements made such that there is no net loss in habitat function, values, and acreage.
- (b) Mitigation, in the descending order of preference, is as follows:
 - (i) Avoidance of the impact altogether by not taking a certain action or part of an action;

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- (ii) Compensating for impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
 - (iii) Rectifying the impact by repairing, rehabilitating or restoring the affected environment;
 - (iv) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the operation;
 - (v) Compensating for the impact by replacing, enhancing, or providing substitute habitat resources, or utilizing mitigation banking opportunities if available.
- (c) Prior to local government approval of a proposal which includes less preferred mitigation, the applicant shall prepare a Mitigation and Enhancement Plan which shall demonstrate that:
- (i) The more preferred mitigation options above are not feasible.
 - (ii) No overall net losses will occur in habitat functions, values, and acreage;
 - (iii) The restored, created, or enhanced habitat will be as persistent as the habitat it replaces;
 - (iv) The applicant has sufficient scientific expertise, supervisory capability, and financial resources to carry out the proposals;
 - (v) The applicant has the capability for monitoring the site for a period of time adequate to determine its long-term success;
 - (vi) A contingency plan is available that identifies actions to be taken if the implemented mitigation is unsuccessful;
- (d) Since the applicant is financially responsible for additional mitigation action should any element of the Mitigation Plan and Enhancement fail,

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a bond or other form of security shall be required. The amount and form of security shall be determined on a case by case basis determined by the City.

- (e) Upon adoption by the City of Olympia and State Department of Ecology of an Urban Waterfront Plan, the City shall establish a Habitat Advisory Committee to review required habitat Mitigation and Enhancement Plans in a consistent and coordinated manner and to make recommendations regarding approval to the Olympia Environmental Review Officer (ERO). It shall consider mitigation and enhancement in the context of the estuarine ecosystem, to ensure habitat viability and persistence. This Committee shall consist of experts in environmental, fish or wildlife habitat disciplines who have an interest in the Olympia urban waterfront. The Committee should have six to eight members, depending on the nature of the project. It is the responsibility of the Environmental Review Officer to determine what technical expertise would be valuable in a particular project, but membership on the Committee shall include at least the following:
 - (i) City of Olympia, Environmental Review Officer, Chair (non-voting member).
 - (ii) A representative from the Port of Olympia (voting member).
 - (iii) A representative from the Squaxin Island Tribe (voting member).
 - (iv) The Olympia project planner for the specific development (non-voting member).

In addition, at least two of the following agencies shall be represented: The Department of Fisheries, Department of Wildlife, Department of Natural Resources or Department of Ecology (voting members).

The Habitat Advisory Committee shall meet as necessary to review development proposals. Recommendations of the Committee may be by consensus or majority and minority opinion. All Committee recommendations - including minority reports - shall be forwarded on

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to the City Hearing Examiner unaltered, irrespective of any determination made by the Environmental Review Officer.

- (f) The City of Olympia shall establish a Habitat Advisory Committee, as outlined in Section 5 d.10.(e) above.

Prior to adoption of a Comprehensive Habitat Plan for Budd Inlet, the Habitat Advisory Committee shall use its best judgment in review and recommendations. After adoption of a Comprehensive Habitat Plan, all recommendations shall be based on that Plan.

The ERO and Olympia Project Planner shall provide evidence regarding why a Habitat Advisory Committee recommendation was rejected or modified, if it occurs.

The City shall review the Habitat Advisory Committee two years after it is established to determine if modifications are needed in structure or function in order to meet the Intent of this policy.

- (g) Where habitat is altered, the project applicants shall restore or create equivalent areas of habitat in order to compensate for habitat losses.

Equivalent areas shall be determined by the ERO based upon the recommendations of the Habitat Advisory Committee.

- (h) The City shall approve a Mitigation and Enhancement Plan as a condition of issuance of any permit which impacts habitat. Mitigation and Enhancement Plans shall include a set of performance standards, which shall serve to focus evaluation of the project on objective characteristics of its success or failure. Mitigation and Enhancement Plans shall be approved by the ERO based upon the recommendation of the Habitat Advisory Committee.

- (i) Mitigation and enhancement shall be implemented no later than concurrently with the regulated activity under the permit. If the likelihood of success is substantially doubtful, mitigation and enhancement shall be implemented prior to the regulated activity under the permit.

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- (j) In general, on-site mitigation and enhancement shall be required. If on-site mitigation and enhancement opportunities are limited to the point of being not feasible, then off-site mitigation and enhancement will be considered.
- (k) If adverse impacts cannot be mitigated, permits can be denied.

(11) Habitat Enhancement

Habitat Enhancement may be required consistent with requirements of a Comprehensive Habitat Plan of Budd Inlet, when available. If enhancement of fish habitat is possible beyond those required to achieve full mitigation (that is, those efforts beyond no net loss), then planning and development incentives for such development should be considered.

(12) Over-the-Water Design Standards

Over-the-water development must be designed to minimize habitat impacts through creative design means that could include, but are not limited to:

- (a) Adjustment of horizontal location of development to allow more light to reach and penetrate the water.
- (b) Use of materials which allow light to reach and penetrate the water.
- (c) Minimal water coverage.
- (d) Alternative mitigation or design concepts prior to selection of final design.
- (e) Other methods as necessary or appropriate.

(13) Special Analyses

All over-the-water development shall be required to submit the following special analyses prior to or as part of its Shoreline Conditional Use Permit application. Pursuant to SEPA, copies of all Environmental Checklists and

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reports shall be circulated to the Squaxin Island Tribe and appropriate State and Federal agencies for review.

- (a) Environmental Checklist. No categorical exemptions shall exist within the SAMP. All Shoreline Conditional Permit applications shall include an Environmental Checklist.
- (b) Over-the-Water Needs Analysis. This analysis would demonstrate the need for the proposed development to be constructed over-the-water. This analysis would further demonstrate that options which would not require over-the-water construction are not reasonable and the use must be water-dependent, water-related, or water-enjoyment. The needs analysis is not intended to review uses, rather if it is necessary to construct a proposed use over-the-water.
- (c) View Protection Analysis. Identification of key views from the site and which views, if any, will be lost or impacted by the proposed development. This analysis shall also include alternative proposals which would eliminate or mitigate view impacts.
- (d) Mitigation and Enhancement Plan. Description of the Mitigation and Enhancement Plan is outlined in Section 5, Use Regulations and Review Criteria, b(10)(c), of this document.

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VI. MANAGEMENT UNITS--POLICIES AND REGULATIONS

The policies, regulations, and standards in this section apply only to the individual Management Units within which they are described. These policies apply in addition to Section 4, "Overall Policies for SAMP", and Section 5, "Use Regulations and Review Standards", of this SAMP.

A. SAMP Management Unit Boundaries

The SAMP is divided into individual Management Units which were derived according to geographic and land use similarities. The Management Units contain policies and regulations that apply in addition to the overall policies and regulations that apply to the entire SAMP.

The Management Units are illustrated in Figure 10, of the Urban Waterfront Plan (see attached map).

The following legal descriptions mark the boundaries separating the Management Units. The letter descriptions below correspond with demarcations shown in Figure 10, of the Urban Waterfront Plan (see attached map).

- (1) The south line of Block 1 of Simenson's Subdivision of Block A, Sebree's Addition of Olympia, 1890.
- (2) The south line of East Bay Waterway extended westerly, as shown on the Fourth Supplemental Map of Olympia Tidelands, Auditor's File.
- (3) The south line of a parcel leased to Silverster, Inc. by the Port of Olympia as it existed in April 1990.
- (4) The north line of Corky Avenue ("C" Avenue) extended westerly.
- (5) East line of Deschutes Waterway.
- (6) Northwest corner of Deschutes Waterway, approximately 800' from the 4th Avenue Bridge right-of-way as it existed in July, 1990.

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- (7) Southern boundary of vacated Dickinson Avenue.
- (8) Northern edge of the West Side Waterway.
- (9) Olympia City Limits as of July 1, 1991 or as hereafter amended by annexation.

B. Management Units

(1) Lower East Bay Management Unit

(a) Purpose and Intent

The priorities in this Management Unit are to protect fish and wildlife habitat, to halt further environmental degradation of this area, and to retain existing open water and views of the Olympic Mountains.

To allow upland and limited over-the-water public access for recreation and tourist-oriented non-commercial development that has a minimal impact on the shoreline, tidelands, and bedlands of the Inlet.

(b) Policies

Because shallow water depth and degraded fish and wildlife habitat limit over-the-water development potential, waterfront development should occur on undeveloped upland, except for minimal non-commercial pedestrian piers. Open water and key views should be protected and retained.

Other over-the-water buildings or other structures should not be permitted in this Management Unit.

(c) Use Regulations

In addition to development and uses permitted in all Management Units, the following uses are permitted in this Management Unit:

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(i) Primary Uses

Non-commercial pedestrian piers.

(d) Development Standards

(i) View Access

Piers shall be designed to retain open water and be located to minimize view blockage of view corridors, which are mapped in Figure 9 of the Urban Waterfront Plan (see attached map).

(ii) Park Development

Piers shall only be developed as part of a public park.

(iii) Limitation on Dredging

No dredging shall be allowed to provide for development of pedestrian piers in this Management Unit. *This regulation supersedes and restricts dredging activities to a greater extent than Section 3, VI of the Shoreline Master Program for the Thurston Region.*

Dredging is permitted to improve marine habitat.

(2) Upper East Bay Management Unit

(a) Purpose and Intent

Marina services, public access, retention of the open water, and view protection (of open water and Olympia mountains) are priorities in this Management Unit.

To locate all future over-the-water development in this Management Unit south of the existing breakwater (northernmost pier) with the exception of a boat haul-out facility, which could be located anywhere in this Management Unit.

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To allow dredging necessary to clean up any toxic sediments in this Management Unit.

To provide for continued development of existing marina and pedestrian-oriented activities, water dependent commercial development, and to provide for a passenger ferry terminal if specific conditions can be met.

To allow existing over-the-water commercial water-enjoyment uses (such as restaurants) to remain and expand.

(b) Policies

- (i) Existing open water and key views should be protected and retained.
- (ii) Water-dependent commercial activities should be allowed.
- (iii) Marinas should be encouraged to expand within existing moorage basins where physical improvements are established, and in a manner which protects key views.
- (iv) New covered moorage should not be allowed in this Management Unit. New covered moorage will be re-considered for this management unit if it is determined through the Port's Strategic Planning Process to be publicly desirable.
- (v) Commercial boat haul-out and repair facilities should be allowed over-the-water to the extent reasonably necessary based on the intrinsic nature of the operation. Only minimal dredging should be allowed to accomplish the use.
- (vi) Non-commercial shoreline public access, including public pedestrian piers, docks, and landings, should be encouraged.
- (vii) A passenger ferry terminal may be allowed if special conditions can be met and specific impacts can be adequately mitigated.

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- (viii) Existing over-the-water commercial water-enjoyment uses to remain and to expand. No new over-the-water commercial water-enjoyment uses should be allowed.
- (ix) Dredging necessary to clean up any toxic sediments in this Management Unit, as specified in Section 4.h.(3) of this SAMP.
- (x) Provision of shoreline public access should be required of any over-the-water development. Refer to public access policies in Section 4, "Overall Policies for SAMP", f. "Public Access".

(c) Use Regulations

In addition to development and uses permitted in all Management Units the following uses are permitted in this Management Unit:

(i) Primary Uses

- a) Marinas, provided they are developed within the existing moorage basin.
- b) Commercial boat haul-out and repair, when:
 - 1) Only minimal dredge is required to accomplish this use.
- c) Pedestrian piers, docks and landings; provided that such development would pose no impediment to port cargo handling activities.
- d) Passenger ferry terminal, provided that there is:
 - 1) No impediment to port cargo activity;
 - 2) Protection of public health and safety;
 - 3) Connection to upland transit;
 - 4) No requirement for new dredging area in this Management Unit; and *This regulation supersedes and restricts Section 3, VI of the*

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Shoreline Master Program for the Thurston Region.

- e) New covered moorage shall not be permitted in this Management Unit.
- f) Existing over-the-water water-enjoyment uses (restaurants), and expansion shall be allowed.
- g) Dredging necessary to clean up any toxic sediments in this Management Unit, as specified in Section 4, "Overall Policies for SAMP", h,(3) of this SAMP.

(ii) Accessory Uses

Uses that are clearly subordinate to, directly supportive of, and customarily incidental to the primary use or structure are allowed. Such uses include refueling and sewage pump-out facilities.

Other retail and restaurant establishments are prohibited.

(d) Development Standards

(i) Height

The maximum height allowed for ferry terminals is thirty-five feet (35') and 20 feet (20') for other uses, measured from the ordinary high water mark (ohwm).

(ii) Public Access

Provision of public access is required in any over-the-water development.

Quantity and quality of public access shall relate to the unique features of the development site. Refer to public access

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requirements in Section 5, "SAMP Use Regulations and Review Criteria", d, 7.

(3) Port Terminal Management Unit

(a) Purpose and Intent

Priority should be given to marine industries and transportation in this Management Unit.

To provide areas for the Port of Olympia to develop and upgrade its water-dependent industrial facilities as necessary to support shipping and commerce, or for the development of a passenger ferry terminal.

Over-the-water construction (industrial and commercial) should be permitted to the extent that it is required to meet water-dependent needs.

To provide shoreline public access.

(b) Policies

(i) Water-dependent construction should be allowed over-the-water to the extent reasonably necessary to meet the needs of water-dependent uses (industrial and commercial) that cannot be accommodated upland.

(ii) A passenger ferry terminal may be allowed if special conditions and specific impacts can be adequately mitigated.

(iii) Provision of shoreline public access should be required in any over-the-water development. Refer to public access policies in Section 4, "Overall Policies for SAMP", f. "Public Access".

(iv) Covered moorage should be allowed in this Management Unit if associated with an upland water-dependent marine repair business, coverage is kept to a minimum, it is designed in an

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aesthetically pleasing manner, and is demonstrated as key to the operation of the upland industry.

(c) Use Regulations

In addition to development and uses permitted in all Management Units the following allowable uses and activities are permitted in this Management Unit:

(i) Primary Uses

- a) Water-dependent industrial and commercial uses; provided the use cannot fulfill their necessary function upland.
- b) Passenger ferry terminal; provided that there is:
 - 1) No impediment to port cargo activity;
 - 2) Protection of public health and safety; and
 - 3) Connection to upland transit.
- c) New covered moorage; provided that:
 - 1) It is associated with an upland water-dependent marine repair business;
 - 2) The coverage is kept to a minimum;
 - 3) It is designed in an aesthetically pleasing manner; and
 - 4) Is demonstrated as key to the operation of an upland industry.

(ii) Accessory Uses

Uses that are clearly subordinate to, directly supportive of, and customarily incidental to a primary use or structure are allowed.

(d) Development Standards

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(i) Height

Maximum height allowed in this Management Unit is thirty-five feet (35') above ordinary high water mark (ohwm) for buildings, shelters, and containers. There is no height limit for outdoor conveyance and transfer systems.

(ii) Public Access

Provision of public access is required in any over-the-water development.

Quantity and quality of public access shall relate to the unique features of the development site. Refer to public access requirements in Section 5, "SAMP Use Regulations and Review Criteria", d., 7.

(4) Percival Landing Management Unit

(a) Purpose and Intent

To retain the open water and the protection of existing views of the open water and the Olympic Mountains are priorities in this Management Unit.

To provide for recreational and tourist-oriented development that focuses on pedestrian public access, transportation and small boat marine facilities.

To allow existing over-the-water uses (water-dependent, water-related, and water-enjoyment) to remain and to expand.

Because all existing marinas in this Management Unit are built out to the Outer Harbor Line, and no over-the-water development can expand beyond the Outer Harbor Line, existing marinas should expand by reconfiguring within existing moorage basins.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

(b) Policies

- (i) The open space of water should be protected and retained.
- (ii) Key views of the open water and Olympic Mountains should be protected and retained.
- (iii) The completion and/or reconfiguration of existing marinas within existing moorage basins should be allowed in a manner that protects key views.
- (iv) Existing covered moorage should be permitted to remain; however, no new covered moorage should be allowed in this Management Unit.
- (v) A passenger ferry terminal may be allowed if special conditions can be met and specific impacts can be adequately mitigated.
- (vi) New over-the-water non-commercial water-enjoyment uses , such as piers, docks, and landings, should be allowed. All such new construction should include measures to improve public access and enhance fish and wildlife habitat.
- (vii) Expansion of boating clubs over decking permitted as of the date of the adoption of these amendments to the Shoreline Master Program. Existing commercial water-enjoyment uses should be allowed to remain and to expand.
- (viii) Provision of shoreline public access should be required in any over-the-water development. Refer to public access policies in Section 5, "Overall Policies for SAMP", f. Public Access.

(c) Use Regulations

In addition to development and uses permitted in all Management Units, the following uses are permitted in this Management Unit:

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

(i) Primary Uses

- a) Marinas, including existing covered moorage.
- b) Non-commercial water-enjoyment uses, such as pedestrian piers, docks, or landings; provided that any expansion, reconstruction or modification of existing pedestrian public access shall be required to undertake habitat mitigation and enhancement efforts.
- c) Passenger ferry terminal; provided that there is:
 - 1) No impediment to port cargo activity;
 - 2) Protection of public health and safety;
 - 3) Connection to upland transit; and
 - 4) No requirement for new dredging area in this Management Unit.

This regulation supersedes and restricts the Dredging Section of the SMP (Section 3.VI).

- d) Expansion of boating clubs over decking permitted as of the date of the adoption of these amendments to the Shoreline Master Program.
- e) Existing over-the-water commercial water-enjoyment uses, and expansion of such uses. No new over-the-water commercial water-enjoyment uses should be allowed.

(ii) Accessory Uses

Uses that are clearly subordinate to, directly supportive of, and customarily incidental to the primary use or structure are allowed.

(d) Development Standards

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

(i) Height

The maximum height allowed for ferry terminals is thirty-five feet (35') and twenty feet (20') for all other uses, measured from the ordinary high water mark (ohwm).

(ii) Public Access

Provision of safe public access is required in any over-the-water development.

Quantity and quality of public access shall relate to the unique features of the development site. Refer to public access requirements in Section 5, "SAMP Use Regulations and Review Criteria, d, 7.

(5) Port Lagoon Management Unit

(a) Purpose and Intent

This Management Unit contains a continuous area of nearshore shallow water salmonid habitat, which is critical to juvenile salmon as they migrate out of Capitol Lake into marine water. This habitat is also of critical importance due to its limited area. Therefore, habitat protection is the highest priority in this Management Unit, and over-the-water development should be very limited.

To provide for vehicular and pedestrian bridge access across the mouth of the Deschutes River and for continued rail access to the West Bay Industrial Area.

To protect the habitat quality in the existing Port-owned wildlife lagoon.

To permit limited over-the-water pedestrian shoreline public access.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

(b) Policies

- (i) Priority should be placed on the continued health and viability of salmonid habitat in this Management Unit.
- (ii) Improvements to existing bridges, or construction of new bridges along the 4th and 5th Avenue corridors should be permitted and should include pedestrian as well as vehicular facilities.
- (iii) Protection of the wildlife habitat of the lagoon and operations of the rail line should take precedence over other potential uses of the area, such as pedestrian public access.
- (iv) Limited over-the-water public access along Budd Inlet should be permitted east of the railway provided it does not hinder fish, wildlife, or railroad operations.

(c) Use Regulations

In addition to development and uses permitted in all Management Units the following allowable uses and activities are permitted in this Management Unit:

(i) Primary Uses

- a) Transportation thoroughfares, as described in the Road and Railroad Design and Construction Section of the SMP provided the use cannot fulfill its necessary function upland. Safe pedestrian facilities associated with the 4th and 5th Avenue Bridges are allowed.
- b) A pedestrian walkway along Budd Inlet East of the railway, provided that the use:
 - 1) Does not hinder wildlife in the lagoon;
 - 2) Does not hinder the operations of the railroad;
 - 3) Poses no threat to public health and safety; and

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

- 4) Conforms to the covenant of the U.S. Fish and Wildlife Conservation easement for the lagoon.
- c) To protect existing critical fish and wildlife habitat, no additional over-the-water uses are permitted in this Management Unit.
- (d) Development Standards
 - (i) Height

The maximum height allowed in this Management Unit is twenty feet (20') above the ordinary high water mark (ohwm) for structures, except for transportation thoroughfares, for which there is no height limit.
 - (ii) Public Access

Safe public pedestrian access across the mouth of the Deschutes River is required as part of any new or modified 4th or 5th Avenue Bridge construction.

Safe non-commercial public access may be provided except when to do so would adversely impact the wildlife lagoon, salmonid habitat or railroad operations, or if it would violate the U.S. Fish and Wildlife conservation easement for the lagoon.

Quantity and quality of public access shall relate to the unique features of the development site. Refer to public access requirements in Section 5, "SAMP Use Regulations and Review Criteria, d, 7.
- (6) West Bay Industrial Management Unit
 - (a) Purpose and Intent

Priority should be placed on the continued health and viability of salmonid habitat in this Management Unit.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

To encourage the continued viability of existing industry by prohibiting non-industrial uses over-the-water in this Management Unit.

To provide for water-dependent industrial development in a manner that is consistent with fish and wildlife habitat protection and enhancement, and to encourage transportation options that make water-related industry more water dependent.

(b) Policies

- (i) Over-the-water development should only be allowed when it can be demonstrated that it will not negatively impact the continuous nearshore shallow water salmonid habitat strip in West Bay which is critical to the Deschutes River and Percival Creek fish runs.
- (ii) Over-the-water development in this Management Unit should be devoted to industrial uses which maintain viability of existing industries and do not increase land use conflicts between industrial and non-industrial uses.
- (iii) Over-the-water construction should be allowed to facilitate water-borne transfer of products to and from the West Bay industrial area, particularly if these facilities make the water-related industries more water dependent.
- (iv) Safe public access should be required in any over-the-water development.

Provision of shoreline public access should be required in any over-the-water development. Refer to public access policies in Section 4, "Overall Policies for SAMP", f.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

(c) Use Regulations

In addition to development and uses permitted in all Management Units, the following uses are permitted in this Management Unit:

(i) Primary Uses

a) Transfer facilities provided that:

- 1) Salmonid habitat will not be negatively impacted;
- 2) the facility will serve existing upland water-related uses to make them more water dependent; or
- 3) the facility will serve water-dependent industrial uses;
- 4) the facility cannot be provided upland;
- 5) public access and adequate upland parking will be provided.

(d) Development Standards

(i) Height

Maximum height allowed in this Management Unit is thirty-five feet (35') for buildings, shelters, and containers measured from the ordinary high water mark (ohwm). There is no height limit for outdoor cargo transfer systems.

(ii) Public Access

Provision of public access is required in any over-the-water development.

Quantity and quality public access shall relate to the unique features of the development site. Refer to public access

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

requirement in Section 5, "SAMP Use Regulations and Review Criteria", d, 7.

(7) Northern West Bay Management Unit

(a) Purpose and Intent

Priority should be placed on the continued health and viability of salmonid habitat in this Management Unit.

Because this Management Unit is north of the turning basin, the critical habitat area is larger than further south on West Bay. Because of the larger habitat area and greater water depths, over-the-water development policies and regulations should be less restrictive than in the Management Units to the south.

To provide for existing industry and new water-dependent industrial and commercial development in a manner that is consistent with fish and wildlife habitat protection, and to encourage transportation options for the community. Dredging for over-the-water development should only be allowed in this Management Unit after a Habitat Advisory Committee is established by the City.

To provide for non-commercial public access in a manner that does not adversely impact water-dependent industrial uses.

To allow existing commercial water-enjoyment uses to continue and to expand.

(b) Policies

(i) Over-the-water development should only be allowed when it can be demonstrated that adverse impacts on fish habitat can be appropriately mitigated pursuant to the best available scientific data to be reviewed by the Habitat Advisory Committee. If enhancement of fish habitat is possible, the City should consider possible planning or development incentives for such development.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

- (ii) Over-the-water development in this Management Unit should be devoted to industrial and commercial uses which maintain and enhance the over-the-water transfer of goods, services, or people.
- (iii) Over-the-water development should be allowed to facilitate water-borne transfer of products or people to and from the Northern West Bay Management Units if the over-the-water facility is water-dependent.
- (iv) Safe public access should be required in any over-the-water development.

Provision of shoreline public access should be required in any over-the-water development. Refer to public access policies in Section 4, "Overall Policies for SAMP", f. "Public Access".

- (v) Dredging to accomplish over-the-water development should only be allowed after the City establishes a Habitat Advisory Committee.

This policy supersedes and restricts the Dredging Section of the Shoreline Master Program for the Thurston Region (Section 3.VI).

- (vi) Existing commercial water-enjoyment uses should be able to continue and to expand.

(c) Use Regulations

In addition to development and uses permitted in all Management Units, the following uses are permitted in this Management Unit:

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

(i) Primary Uses

- a) Terminal transfer facilities for marine commerce and industry.
- b) Tug and barge facilities
- c) Marinas
- d) Boat launch facilities
- e) Marine construction, repair, and dismantling
- f) Passenger ferry terminals
- g) Public access piers and private and public docks
- h) Existing commercial water-enjoyment uses, and expansion of such uses

(ii) Dredging for Over-the-Water Development

Dredging to accomplish over-the-water development shall be prohibited until a Habitat Advisory Committee is established by the City of Olympia. (See Section 4, Overall Policies of SAMP, (i), and Section 5, Use Regionations and Review Criteria, (10) above.

This policy supercedes and restricts the Dredging Section of the Shoreline Master Program for the Thurston Region (Section 3.VI).

(iii) Accessory Uses

Uses that are clearly subordinate to, directly supportive of, and customarily incidental to the primary use or structure are allowed. Such uses include refueling and sewage pump-out facilities.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

Other over-the-water retail and restaurant establishments are prohibited.

(d) Development Standards

(i) Height

Maximum height allowed in this Management Unit is twenty feet (20') above ordinary high water mark (ohwm) unless extenuating circumstances require a taller development. Bulk should be minimized and limit view blockage. There is no height limit for outdoor cargo transfer systems.

(ii) Public Access

Provision of safe public access is required in any over-the-water development.

Quantity and quality of public access shall relate to the unique features of the development site. Refer to public access requirements in Section 5, "SAMP Use Regulations and Review Criteria," d, 7.

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

VII. DEFINITIONS

A. Accessory Use

A building, part of a building or structure, or use which is subordinate to, directly supportive of, and which is customarily incidental to that of the primary building, structure, or use on the same lot.

B. Enhancement

Measures taken which result in a net gain in the functions, values, and acreage of habitat in Budd Inlet.

C. Mitigation

Measures required to compensate for adverse impacts to fish and wildlife habitat such that the net effect is up to no net loss in habitat function, value, and acreage. Habitat enhancement may be necessary to achieve the required no net loss. Please refer to Section 5, item (10), for an in-depth regulation which establishes priorities for mitigation and enhancements.

D. Over-the-Water

The location of a structure or development above the surface of the water, including pilings, cantilevers, or floats. In Budd Inlet, that includes those areas waterward of ordinary high water mark.

E. Public Access

The physical ability of the general public to reach and touch the water, or failing that possibility, to be immediately over the water, and/or the ability to have a view of the water from upland locations.

F. Water-Dependent Use

A use or a portion of a use that cannot logically exist in any other location and is dependent on the water by reason of the intrinsic nature of its operation. Water-dependent uses include, but are not limited to:

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

- (1) Aquaculture
- (2) Boat launch facilities
- (3) Ferry Terminals
- (4) Hydroelectric power plants
- (5) Marinas
- (6) Marine construction, dismantling, and repair
- (7) Marine and limnological research facility
- (8) Private and public docks
- (9) Terminal and transfer facilities for marine commerce and industry
- (10) Water intakes and outlets
- (11) Log booming
- (12) Tug and barge facilities.

G. Water-Enjoyment Use

A recreational use such as a park, pier, or other use facilitating public access as a private character of these; or, a use that provides for passive and active interaction of a substantial number of people with the shoreline for leisure and enjoyment as a general character of the use, and which, through location, design, and operation assure the public's ability to interact with the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the public. Most, if not all of the shoreline-oriented space in the facility, must be devoted to the specific aspects of the use that fosters shoreline interaction. Water-enjoyment uses include, but are not limited to:

- (1) Restaurants
- (2) Museums
- (3) Bicycle and walking trails
- (4) Boardwalks.

H. Water-Related Use

A use or a portion of a use which is not intrinsically dependent on a waterfront location, but whose operations cannot occur economically without a shoreline location or without close proximity to water-dependent uses. Water-related uses include, but are not limited to:

SECTION ELEVEN -- OLYMPIA SPECIAL AREA MANAGEMENT PLAN (SAMP)

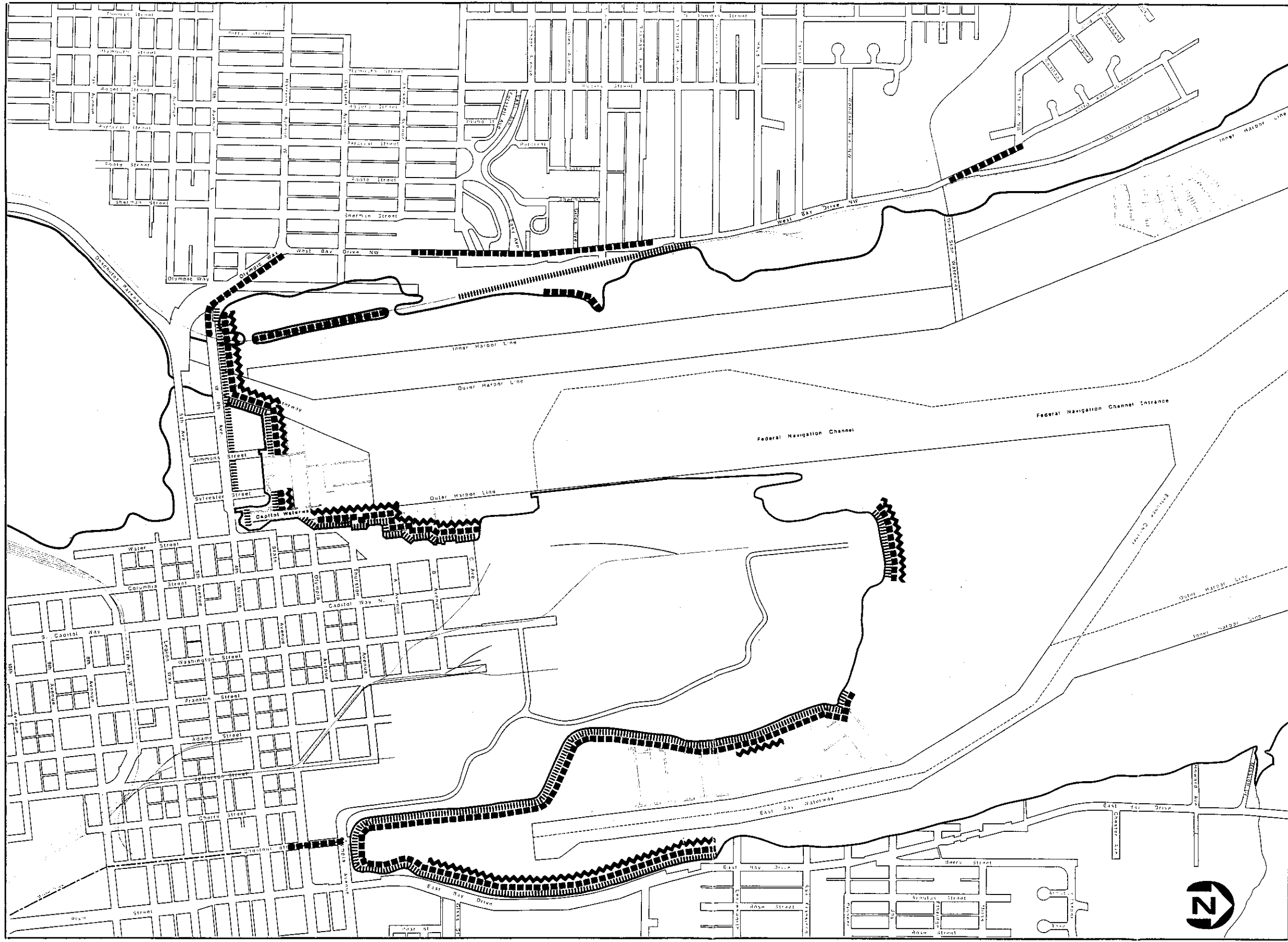
- (1) Warehousing and storage facilities
- (2) Support services and fish hatcheries
- (3) Seafood processing plants
- (4) Wood products manufacturing
- (5) Log storage
- (6) Watercraft sales
- (7) Boating supplies.

I. Unspecified Use

Uses which are not readily classified within an existing use or development category.

J. Conditional Use

A use which is classified as a conditional use or is not classified within the Shoreline Master Program for the Thurston Region.



VIEWS MAP




- 
 View of Budd Inlet
- 
 View of Capitol
- 
 View of Olympics

Figure 9

URBAN WATERFRONT PLAN

Legend

SHORELINE MASTER PROGRAM
THE THURSTON REGION

OLYMPIA SPECIAL AREA
MANAGEMENT PLAN

1 LOWER EAST BAY
MANAGEMENT UNIT

2 UPPER EAST BAY
MANAGEMENT UNIT

3 PORT TERMINAL
MANAGEMENT UNIT

4 PERCIVAL LANDING
MANAGEMENT UNIT

5 PORT LAGOON
MANAGEMENT UNIT

6 WEST BAY INDUSTRIAL
MANAGEMENT UNIT

7 NORTHERN WEST BAY
MANAGEMENT UNIT

a-i See descriptions in
SHORELINE MASTER
PROGRAM

AUTHOR'S NOTE:

See pages 307 and 308, where
a=(1), b=(2), c=(3), d=(4), e=(5),
f=(6), g=(7), h=(8), and i=(9)

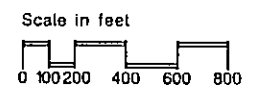
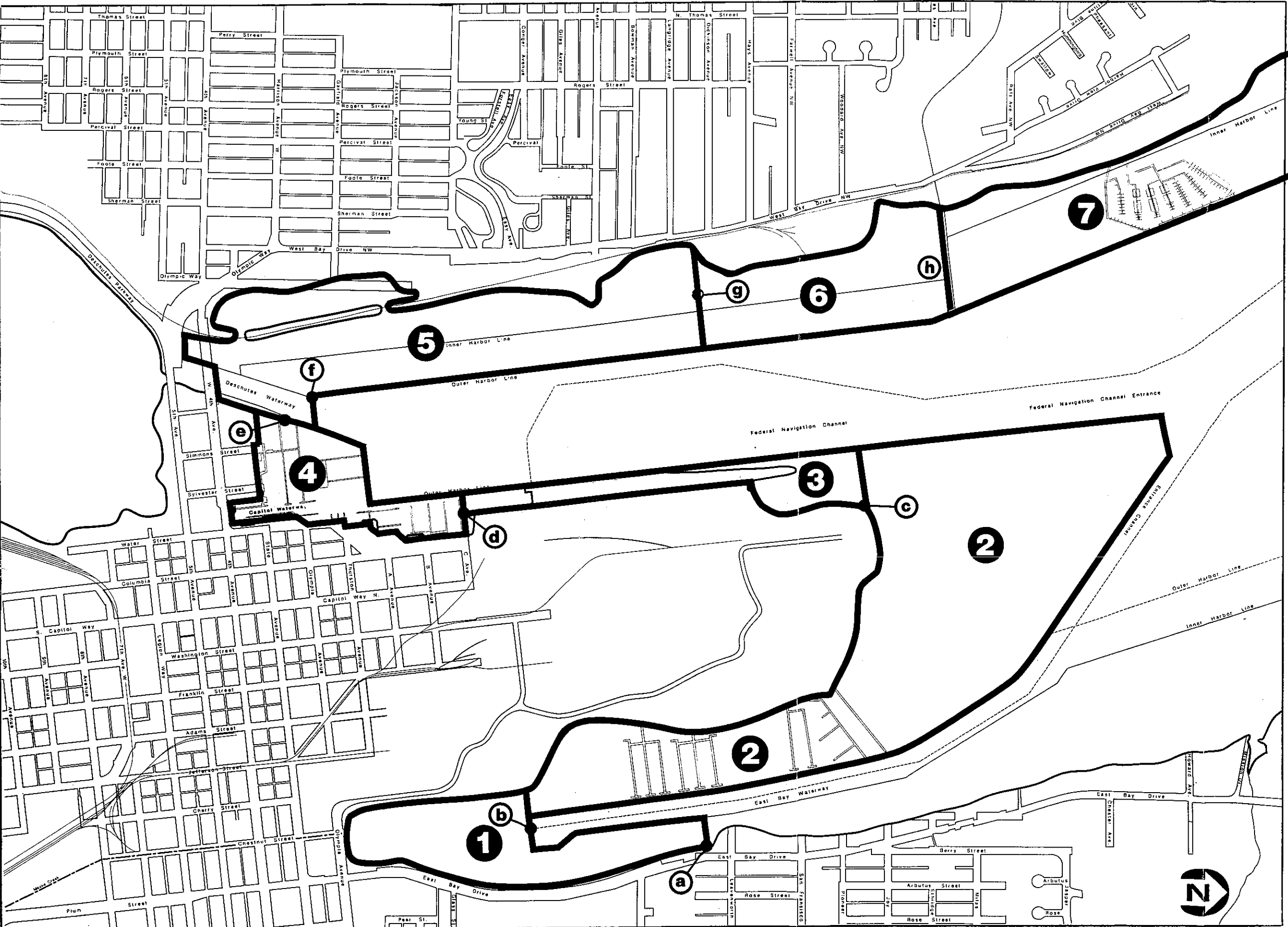


Figure 10



URBAN WATERFRONT PLAN