DRAFT Executive Summary of TC WAP 3-22-01 (dd)

The Thornton Creek Watershed Action Plan

Introduction:

The Draft Thornton Creek Watershed Action Plan was developed by the Thornton Creek Watershed Management Committee, funded by a Centennial Clean Water loan from the Washington State Department of Ecology to Seattle Public Utilities, and staffed by Seattle Public Utilities following guidelines found in WAC 400-12-100. The Watershed Management Committee began working together in mid-1997 and continues to oversee development of the Action Plan.

The Plan addresses the Thornton Creek watershed (drainage basin) which provides the natural drainage for 7,263 acres (11 square miles) in northwestern King County. It is an urban watershed, partially situated in the City of Seattle and partially in the recently incorporated City of Shoreline. There are about 76,000 people living in this watershed in some 33,362 dwelling units (1998). Over 90% of Thornton Creek's main channel -- more than 15 miles -- flows above ground through 700 back yards and over 15 parks and natural areas, on its way southeastward to it's mouth at Matthews Beach on Lake Washington. There are several tributaries, some named and some not, also primarily above ground. The watershed drains to the Thornton Creek system.

The Watershed Management Committee for this Watershed Action Plan began working at an exciting time: federal, state, and local governments have begun developing and requiring comprehensive and integrated approaches to address both water quality and water quantity issues in local watersheds. This Action Plan sets goals, objectives, and makes recommendations to improve management of water quantity and improve water quality from a range of issue viewpoints – stormwater; non-point pollution; habitat; education and stewardship; regulation and enforcement; implementation; and monitoring, analysis and evaluation. Each viewpoint is presented in a separate chapter. These viewpoints, collectively, address the comprehensive and interdependent mission and goals of the Watershed Management Committee for the Thornton Creek watershed.

Mission and Goals of the Watershed Management Committee:

Mission: to protect and restore the Thornton Creek ecosystem for the welfare of fish, wildlife and people; improve the quality of life in the watershed; and prevent further degradation as human population and development increase.

Goals:

1. Reduce stormwater-related flooding and damage to stream and wetland habitat, and increase infiltration.

2. Improve water quality by reducing non-point pollution in Thornton Creek and its watershed.
3. Protect and improve instream, riparian, and upland habitat for the survival of remaining native species.
4. Increase public awareness and develop stewardship of the watershed.

Goals, Objectives, and Recommendations of the Action Plan

The Action Plan includes seven chapters -- or viewpoints -- each with a goal:

Stormwater: To mimic natural flow patterns, minimize stormwater-related habitat damage, and reduce flooding.

Non-Point Pollution: Restore water quality in Thornton Creek, its tributaries, and wetlands to meet, or be better than, the state's water quality standards.

Habitat: To protect and improve habitat for native fauna and flora within the Thornton Creek Watershed, and to provide opportunities for people to connect with nature.

Education and Stewardship: To improve awareness of, foster pride in, encourage responsibility for, and create learning opportunities within the watershed.

Regulation and Enforcement: To ensure that present and future regulations affecting the Thornton Creek watershed are fully enforced.

Implementation: To ensure timely and effective implementation of the Thornton Creek Watershed Action Plan, consistent with priorities identified in the Plan and ongoing direction from interested citizens and stakeholders. Implementation should begin upon Department of Ecology concurrence with this Watershed Action Plan.

Monitoring, Analysis and Evaluation: To accurately gauge Action Plan effectiveness by gathering regular, reliable progress reports and data on the creek and watershed through a variety of methods, public and private, and make it available to all interested parties.

Objectives have been developed for each goal (27 total), and recommendations are made for each objective (130 total). Specific implementers for each recommendation have been suggested and concurrence from each implementer is being sought.

Costs and Timelines:

Preliminary estimates indicate that Implementation of this Action Plan is estimated to cost about $50M plus considerable and ongoing volunteer activity and time. While the Plan does not indicate a timeline, it is estimated that it will take from 10-20 years to implement the entire Action Plan.

Themes of the recommendations:

Recommendations in this Action Plan are divided into chapters based on viewpoints. To summarize the Plan, nine overall themes have been selected with references to chapters, their sections and recommendations.

1. The **"best available science" is neither adequate nor sufficiently available** to provide a foundation upon which sequenced projects and programs may be conducted toward achieving the mission of this Action Plan. Consequently, the Action Plan calls for a number of research studies, analysis of data, and data sharing organizations along with significant monitoring of current and forthcoming projects which are viewed as experimental and contributing to a shared developing knowledge base (see Stormwater A2, C2, D1; Non-Point Pollution, B1-B10, C5 ; Habitat A4, C5; Regulation & Enforcement C4; Monitoring, Analysis and Evaluation A1-A5.) These activities are considered essential to developing an adequate scientific basis for ongoing work while providing for a broader understanding of the issues and techniques appropriate for solving problems as they arise. The Action Plan anticipates that emerging new information could change the recommendations, priorities, and sequencing of this Plan and have provided for Plan updates (see Implementation D1).

2. Developing and **supporting habitat for wildlife** to meet the goals of this Action Plan **cannot be accomplished without also reducing the impacts of human development, both historic and in the future, upon the Thornton Creek system** and it's riparian corridor. Consequently, Stormwater is the first chapter of this Action Plan and stormwater management is viewed as a necessary precondition to improvement of habitat for wildlife and quality of life for humans over time. (Recommendations relating to riparian corridor improvements are found in the Habitat chapter and in the Regulation and Enforcement chapter.)

3. Throughout the Action Plan, recommendations highlight the need **to reduce the impacts of human development throughout the watershed** in a variety of ways. Several recommendations specifically relate to reducing the use of pesticides and herbicides (Non-point Section E). A number of recommendations specifically call for enforcement of existing regulations and strengthening of guidelines and regulations for construction and development or re-development in the Watershed (Habitat A1, A3; Regulation and Enforcement). Recommendations also highlight a number of programs and ideas for volunteer efforts to reduce human impacts and specifically request that existing voluntary

programs be targeted to the Thornton Creek watershed. (Stormwater Section E, Non-Point C7, Habitat A2, A6, C7; Education and Stewardship, Section A and D.)

4. Implementing this Action Plan in the Thornton Creek Watershed will require the active participation of citizens, community groups, schools and their students and faculties, and public agencies. The Plan specifically addresses the need to **improve communication between agencies, the Watershed Management Committee and the public** not only about the Plan itself (Education & Stewardship A3) but broadly about the watershed (Non-Point E2-E3; Education & Stewardship Section C, Habitat C2; Implementation C3, C4; Monitoring, Evalution & Analysis A5). The Plan recommends establishing, improving, and re-establishing **excellent contact and complaint/response facilities** for the public to use to reach agencies responsible for responding to crises or regulating activities. (Habitat, A5; Regulation & Enforcement A3, A4) The Plan also offers a number of recommendations to **support watershed educational institutions** in providing a watershed focus within existing curricula or special projects (Education & Stewardship, Section B).

5. **Staffing support is key to the success of this Action Plan**. The Plan recommends that Seattle Public Utilities become the lead agency for implementing this Plan, with assistance from the City of Shoreline as co-lead. (Implementation A3). The Plan recommends that ongoing support be found by Seattle Public Utilities (with partners if possible) for a Watershed Interpretive Specialist, 1 FTE (Education B1), a Thornton Creek Project Manager, 10 month FTE (Education B1), support for three Thornton Creek Project Positions, a Teacher “Schools Coordinator”, 0.5 FTE, a “Teacher Director”, 0.25 FTE, and a “Technology Coordinator”, 10-month internship (Education B1.) (Please note that the Thornton Creek Project Manager and additional Thornton Creek Project Positions are to be partially supported through a Memorandum of Agreement between Seattle Public Utilities and North Seattle Community College on behalf of the Thornton Creek Project on an annually renewable basis including a scope-of-work annually to implement this Plan.) The Plan also recommends developing a permanent, ongoing position of a Basin Steward/Watershed Coordinator, 1 FTE and develops a task list (see Implementation A4).

6. **Oversight of this Action Plan’s implementation is a key ingredient**. An Oversight Council is recommended (Implementation A1 and A2) and roles and responsibilities for this Council are mentioned throughout the Action Plan (see list on page X). The Basin Steward/Watershed Coordinator would provide staffing for the Council (Implementation A4).

7. This Plan attempts to balance recommended actions on public property (see, for instance, Habitat E1, Non-Point C4), with suggestions about how to support the efforts of voluntary participation by private property owners. Key to the success of this balanced approach is **mutual respect between public agencies and private property owners**. A number of partnership possibilities are

recommended. (See, for instance, Stormwater E2, Non-Point E4; Habitat A2, A3, A6, B3.)

8. Recommendations to **nurture plant life and restore the "green" balance** in the watershed ecology are included. (Habitat C5 - C8, and C9 and D1-D3.)

9. **Maintenance is a key priority** for all projects and programs related to mission of this Action Plan. Throughout the Plan there are recommendations relating to improving maintenance on both public and private property – stewardship of the watershed requires excellent "housekeeping". The Action Plan recommends **adaptive management** of all projects or programs relating to the watershed. This means that as each program or project is developed, it is to be monitored, evaluated, and conclusions about the project or program used both to modify the original (as needed) and to inform design of future projects or programs. Each action step, then, becomes part of the process of contributing to better understanding of the watershed and the Thornton Creek system. There are a number of recommendations that call for monitoring (see especially the Monitoring, Analysis, and Evaluation chapter), for careful review of pilot and experimental projects, and for "fine tuning" (retrofitting) existing projects while designing new projects or programs or developing new criteria based on the most contemporary information.

In general, the Thornton Creek Watershed Action Plan recommends a coordinated, shared, integrated approach to improving the watershed while clarifying roles and responsibilties of a range of interested parties from citizens to community groups to public agencies, each to do their part of the whole.

Where did the Action Plan Come From?

The Watershed Management Committee developed a great deal of information before drafting the Watershed Action Plan. The *Thornton Creek Watershed Characterization Report*, published in November 2000, accompanied by the *Thornton Creek Riparian Corridor Maps*, published September 1999, provide the first comprehensive overview of the watershed. As the Characterization Report was being developed, a number of milestones affecting the watershed have occurred including new studies of both the hydrology and biological viability of Thornton Creek, listing of Puget Sound chinook (salmon) populations as a threatened species under the Endangered Species Act by the National Marine Fisheries Service (3-16-99), Seattle City Council's adoption of new drainage policies in expanding the role of the former Drainage & Wastewater Utility in stormwater management (12-99), Seattle revised the Stormwater, Grading and Drainage Control Code (6-00) and developed new technical manuals, Seattle Public Utilities entered into a Memorandum of Agreement with Seattle Parks Department and began monitoring effectiveness of SPU Capital Improvement Projects and developing detailed maintenance plans and manuals for these projects located on DPR land, The City of Shoreline began to develop a

stormwater management program, and citizens challenged City of Seattle land use decision related to a general development plan proposed by the owners of the Northgate Shopping Center in the courts. So it has taken over three years to complete this draft of the Thornton Creek Watershed Action Plan.

The Watershed Management Committee

The Watershed Management Committee was appointed by Seattle Public Utilities to be as broadly representative as possible of the different viewpoints in the watershed. Not every member was able to survive the extended demands of this work, which was originally anticipated to take about two years. The following members have sustained their participation and developed this Action Plan:

Michael Brokaw, North Seattle Community College
Kathleen Carr, Meadowbrook Community Council
Naomi Chechowitz, Washington State Department of Transportation
Erik Davido, Thornton Creek Alliance
Peter Hayes, Thornton Creek Project, Lakeside School
Cheryl Klinker, NDSPC Open Space Workgroup
John Lombard, King County
Kerrie McArthur, Pentec Environmental, Chair
Steve McArthur, Resident
Pam Miller, Seattle Public Utilities
Judy Neumann, Victory Heights Community Council
Helen Ross, Seattle Audubon Society
Gabe Snedeker, City of Shoreline
Kristen Stouffer-Overleese, City of Shoreline
Richard Tinsley, Washington Native Plant Society
Janine VanSanden, Seattle Department of Parks and Recreation: Adopt-a-Park
Janet Way, Paramount Park Neighborhood Group
Bob Vreeland

Watershed Action Plans are created under the authority of the State Department of Ecology whose representative, Joanne Polayes has worked closely with the Watershed Management Committee and it's staff at Seattle Public Utilities throughout the development process.