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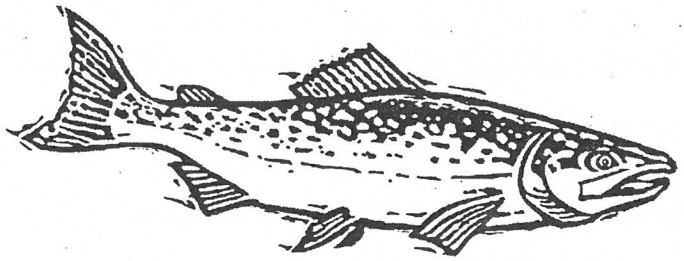
CITY *OF* PORTLAND

DRAFT FRAMEWORK FOR AN ENDANGERED SPECIES ACT RECOVERY PLAN

MAY 24, 2000



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DISCLAIMER

This is a draft framework that describes the outline of and a process for developing the City of Portland's Endangered Species Act Recovery Plan. The City will use the framework to develop a comprehensive plan to respond to the listings of steelhead and Chinook salmon and the proposed listing of cutthroat trout in the Willamette River and its tributaries.

This framework and the resulting recovery plan will be submitted to the National Marine Fisheries Service. Following a review by NMFS and implementation of changes resulting from that review, the recovery plan will guide City activities that affect listed species. The framework is designed to help the City create a plan that is adaptive and flexible enough to ensure the ability to learn from new scientific information and to guide future actions based on real world experience in the field

Finally, the plan will, whenever possible, be based on existing City activities. Although this draft is a start, it is not a comprehensive inventory of those activities or of current habitat conditions. The intent is to inspire additions, corrections, clarifications and other improvements, and to set out processes and strategies for developing an action-oriented, effective comprehensive recovery plan.

Table of Contents

Introduction

A. Vision for the Endangered Species Act Program

Our waters and land provide healthy habitat for native fish that have returned to our rivers and streams.

The people of Portland assume their share of responsibility for the welfare of fish, as demonstrated by their daily actions and practices.

The City of Portland provides its services in an environmentally sound manner and, as a result, the community is vastly improved.

In pursuing its vision, the City will:

- Be proactive, not reactive, to watershed health and fish protection.
- Push past the minimum standards set by the Endangered Species Act to help attain the goal of recovering native fish.
- Meet legal obligations in a good-faith effort to reaching properly functioning conditions.
- Empower, engage, and motivate the community and City government.
- Minimize disruption of critical City services that could be caused by legal or regulatory disputes.
- Demonstrate progress to the citizens of Portland and positive leadership in the region.
- Act strategically so that the greatest overall community, economic and environmental benefits are achieved.

B. Overview

In July 1998, the Portland City Council adopted a resolution to guide the City's response to the Endangered Species Act. The resolution called on the City to:

- Create an integrated, comprehensive city-wide approach;
- Work to support the recovery of native salmonids;
- Work proactively with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service;
- Work with local, regional and state partners;
- Engage the community in the ESA response.

The following annotated outline describes a framework that the City will use to define and implement its response to the Endangered Species Act and to the Council resolution. The City will use the framework to develop more detailed information for each of the topics described briefly below and incorporate that information into a final comprehensive recovery plan. The City will work extensively with independent scientists, stakeholders and the public in developing, reviewing, implementing and monitoring the plan

The first draft of the comprehensive plan based on this framework will be completed in February 2001. The goal is to complete the first draft in time to inform discussions on the city budget for the second half of the current biennium. The ESA framework and comprehensive plan will need to be developed proceed in coordination with the newly

described "Willamette Legacy Project," the Clean River Plan and other ongoing City initiatives.

The Portland City Council took a strong position from the date of the first listing. At that time, the City committed to actively do its share to assist fish recovery. The City established a process and organizational structure to respond to the needs of threatened steelhead and chinook salmon. The City evaluated existing programs and activities for their impact on fish and fish habitat and developed and is implementing work plans to reduce negative impacts and improve habitat conditions and functions.

The City also is embarked on the development of a locally defined plan that will go beyond minimizing the impacts of current activities to *promote* properly functioning conditions for fish. The plan will require the City to evaluate fish habitat conditions on a landscape scale and to use that evaluation to develop a variety of protection, restoration and mitigation strategies that are tailored to local circumstances and needs.

The City's comprehensive plan will consist of several different elements. The City will base the plan on science and include within it the incentives and regulations necessary to ensure habitat restoration. The plan will not apply identical approaches to each parcel of land, but instead will focus on how the fish use, or need to use, a particular stretch of the river or stream and provide for customized approaches based on that information.

The City will use a framework approach that will allow its plan to fit effectively into regional and state plans such as one that may come of the Willamette Chapter of the Oregon Plan (the Willamette Restoration Initiative) and the one being developed by the Northwest Power Planning Council (*Columbia River Basin Fish and Wildlife Program)*

The plan will provide increased protection in some areas and restoration in others. From a geographic perspective, the City's efforts will focus on three geographic areas: the mainstem Willamette, the tributary streams into the mainstem Willamette, and the Sandy River Basin, where Portland's primary water source is located. The City's upland approach will take form in programs that address, for example, stormwater and erosion control.

While it is unclear what specific regulatory tools (Habitat Conservation Plan, 4(d), or Section 7) the City will use to package its Endangered Species Act response, the City's response will address the following things:

The Mainstem Willamette

The City will develop an comprehensive plan for the entire stretch of the Willamette within its jurisdiction. The City will coordinate its framework so it is part of a regional and state response as well. The City plan will take a landscape view of the opportunities to improve conditions for ESA-listed fish. While applying uniform restoration standards in this highly developed section of the river is not realistic, the City is committed to making substantial contributions to recovery by focusing on the larger geographic area and to customizing its approach to best fit local conditions and available incentives.

The plan will package significant City programs that contribute to improving Willamette River conditions. These include efforts such as the Clean River Plan, the Combined Sewer Overflow Program, the Portland Harbor cleanup, improvements to land use planning, and the

Willamette River Greenway Plan that will be coordinated through the Willamette Legacy Project. That project will place all Willamette planning efforts into a unified framework. Through these processes, the City will evaluate opportunities to improve bank conditions, restore and protect riparian areas associated with the river, reduce pollution runoff and sewage spills, and address severely contaminated areas. These efforts will be guided by the ODF&W Lower Willamette River Fish Use Study, which will identify bank conditions and the distribution, abundance, migration, and feeding of native and introduced fish.

The plan also will identify connections to, and condition of, off channel fish habitats such as, Smith and Bybee Lakes, Oaks Bottom, and tributary streams and sloughs. We will conserve and restore those that offer the best chance to assist with fish recovery.

In June 1999, jointly with NMFS, the City sponsored a State of the Science workshop with leading regional fish biologists and other scientists. The purpose of the workshop was to establish baseline information about how salmonids use large low-gradient streams such as the lower Willamette River and to identify indicators of stream health.

The workshop results indicated that fish use the Willamette for migration, including resting of adults as they return from the ocean as well as for juvenile rearing. The extent and specifics of the rearing in the mainstem is still unclear. The City will invest substantial resources into research to better understand how the ESA-listed fish use the mainstem Willamette River habitat and will use the resulting scientific information to improve its plan.

Portland Tributaries

The City is gathering information about how salmon, steelhead and cutthroat use the tributaries to the Willamette within the City's boundary. Preliminary data indicates that fish spend more time in some of these streams, particularly Johnson Creek and perhaps Tryon Creek, than in the mainstem Willamette River. The City's approach in these tributaries will be to provide greater riparian protection through environmental zoning, restoration and culvert removal in key places, as well as continued implementation of important programs such as the Johnson Creek Floodplain Management Plan.

Upland Activities

The City will review its current programs, including stormwater, erosion control, infrastructure maintenance activities, and park and city land maintenance for opportunities to enhance and restore watershed functions. The City will complete biological assessments of key programs and change them to ensure they employ best management practices for fish while meeting other City objectives.

Sandy River Watershed

The City has completed a number of technical investigations and has established strong working relationships with public and private partners to address the challenges and seize the opportunities facing the Sandy River Watershed. About one-quarter of all Oregonians receive drinking water supply from the Bull Run, which is located in the Sandy River Watershed.

Affirming long-term access to the Bull Run water supply is critical for Portland. To do so, the City is committed to working collaboratively with NMFS and other partners to assess compliance options, prioritize the measures that will make the most important contributions to

recovery, and then to making the necessary long-term restoration commitments.

Implementation of the City's plan will make a valuable contribution to recovery in the Willamette and Lower Columbia rivers. The City has discussed its proposed framework with a number of key stakeholders. They have committed to help develop the framework into a comprehensive plan.

C. Recovery in an urban context

Streams in urban areas are nearly always located at the lowest point in a watershed, magnifying the effects of land use changes from headwater areas to their confluences with other rivers or estuaries. The Willamette River in downtown Portland reflects the results of land use practices from Cottage Grove to the Columbia River and beyond.

There is near universal acceptance that urban watersheds are degraded. While a return to historic conditions is not possible, the City of Portland believes that urban watersheds still perform important ecosystem functions. The City also believes that those functions can be enhanced and restored to the benefit of salmon and humans.

In fact, the City's hard work to respond to human needs like clean drinking water, flood control, jobs, recreation and other objectives can also result in cleaner rivers and streams and a healthier environment for salmon. For these reasons, and because urban streams function as part of larger biological systems, forgoing restoration of urban streams is not an option.

Using sound scientific principles as a foundation for a framework and a comprehensive plan. The City will merge traditional practices with strategies for ecosystem restoration. The result will be an important new role for urban communities -- assisting recovery of watersheds, streams and species instead of exacerbating their decline.

D. Summary of the framework concept

The City faces multiple natural resource planning and management challenges -- the ESA listings, the Portland Harbor cleanup, combined sewer overflows and others. The sheer scope of the challenge highlights the need to think and plan in an integrated, comprehensive way. Developing separate solutions to individual natural resource problems creates duplication, overlap, and far too few results. In some cases, efforts to recover one species or meet one City objective jeopardize other species or objectives.

The City's ESA Program developed a framework concept to guide the creation of a logical implementation structure for the City Council's response to the ESA and other natural resource challenges.

The framework will guide the creation of a comprehensive, citywide plan to meet the requirements of the Endangered Species Act in a fashion consistent with other City natural resource objectives. Those objectives include, but are not limited to the Clean Water Act, other federal laws, the City's Comprehensive Plan, the Clean River Plan, other city goals, and the policies of Metro and the State of Oregon.

The framework will be based on clearly defined scientific principles that will help guide Council decisions on the most effective actions. Finally, the framework will provide a reference point for evaluating progress.

The fundamental elements of the framework include:

- The *Vision*, which describes what the City of Portland is trying to accomplish with regard to ESA compliance, fish and wildlife and other desired benefits from the Willamette River and its tributaries within the City of Portland. The plan also will address ESA compliance for the City's drinking water supply system, located on the Bull Run River, which is part of the Sandy River Basin. The ESA vision will be integrated and coordinated with visions related to other City objectives (e.g., sustainability, livable neighborhoods, economic vitality, recreation, and wildlife).
- *Watershed Goals*, which describe more specifically what the City is trying to achieve with its fish recovery efforts. Watershed Goals clearly define the desired characteristics of fish populations that the program is striving to restore within Portland's watersheds. The goals also acknowledge and refer to other objectives the City needs to meet as an urban center of a metropolitan region (e.g., jobs, growth management, affordable housing, and recreation). These goals have the potential to support or conflict with fish recovery goals, and it is only through explicit acknowledgement, analysis, and planning that opportunities can be found and potential conflicts can be resolved.
- *Watershed Conditions*, which define ecological characteristics needed to achieve fish recovery. These are based on scientific analysis of the habitat conditions required to support healthy salmon populations and the description of "properly functioning conditions" from NMFS
- *Analysis and Planning* is the process of evaluating the Watershed Goals and Watershed Conditions to define strategies for achieving the Vision. The evaluation will entail describing baseline environmental conditions, identifying and evaluating existing environmental protection efforts, identifying gaps in existing programs, resolving conflicts between fish recovery and broader City goals, and prioritizing restoration and protection efforts. *Details of the process and analytical tools are still being developed*
- *Actions are the* implementation procedures, guidelines and strategies which guide or describe the specific steps leading to the desired ecological conditions.

A scientific foundation will link the components of the framework, explaining why certain management actions are likely to result in particular watershed conditions. The scientific foundation also will provides an understanding of why changed watershed conditions will restore fish populations in each of the different watersheds.

The framework will operate on two geographic levels; the City as a whole and recognized watersheds within the City. Citywide framework elements will guide a planning process to complete or update watershed level plans and to guide implementation and evaluation of actions and results.

The City's framework, although comprehensive from a City boundary perspective, will not address all fish and wildlife problems in the Willamette River Basin. Instead, the framework will allow the City to focus on addressing the ecological functions provided by the Willamette

River and its tributaries within the City's jurisdiction.

The City believes that its framework will be compatible with broader Willamette Basin fish and wildlife recovery plans. The City will work to ensure that the framework can link to and accommodate the needs of other programs in the basin that affect fish and wildlife. In fact, the City's framework will work best when it serves as part of a unified and coordinated plan for fish and wildlife activities across the metropolitan area and the Willamette Basin as a whole. In developing its framework, the City will do its best to maximize coordination and cooperation and avoid duplication both internally and externally.

E. Summary of Framework Implementation

1. Adopted comprehensive plan at the Citywide and watershed level

In early 2001, the Council will adopt a plan composed of a vision, goals, implementation standards, scientific principles and existing strategies for the City as a whole and for each of the City's watersheds. The plan will be based on the best available assessment information about current conditions and ongoing and planned activities that affect watershed.

2. Watershed assessments and plans

A watershed assessment and planning process will follow the adoption of the plan to improve existing information and strategies. The assessment and planning process will complete the plan at the watershed level and recommend implementation projects.

The assessment and planning process will be based on existing watershed plans and assessments, and will be coordinated through existing watershed councils and inter-jurisdictional coordinating committees.

Depending on the extent and quality of past assessment and planning, the work in a particular watershed could range from a relatively quick and straightforward review and compilation of existing assessments to a fundamental and extensive process. Refinement and updating of existing plans and assessments will focus and expand the degree to which they deal with salmonid issues and ESA compliance. When the enhanced watershed plans are complete, the Council will review them, and upon approval, adopt them into the comprehensive recovery plan.

In general, watershed assessment is a technical exercise designed to identify the biological potential of each watershed and the opportunities for habitat protection and restoration. Based on existing -- and new assessments where necessary -- City staff, private landowners, and other fish, wildlife and habitat managers will develop watershed plans.

Each plan will consist of a statement about the contribution the watershed will make to help achieve the City's vision, watershed-based goals, and proposed watershed strategies that are consistent with the citywide plan. The plans will focus on actions the *City* will undertake to contribute to recovery of salmon, rather than all the actions required by all watershed- and basin-wide partners. Proposed City actions will incorporate ongoing compliance work for projects that are in the process of obtaining Section 7 or 4(d) coverage.

3. Project review by scientists, the public, and the Council

The recovery plan will describe a review process in which scientists, the public and the Council will review, in some depth, a portion of or all of the strategies in the watershed plans each year. An important criterion for funding will be

consistency with the vision, goals and strategies in the comprehensive plan and in the relevant watershed plan, when adopted. Priority actions at the citywide and watershed level will become budget priorities.

4. Implementation, monitoring and evaluation
The recovery plan will include procedures for monitoring and evaluating the biological benefits gained by actions taken by the City and its partners. The procedures described will be based, as much as possible, on the City's existing monitoring and evaluation work, although additional monitoring will be required. The evaluation process will feed information back into the planning and project review process, with adaptive management mechanisms for revising strategies if they are not meeting watershed goals and creating desired watershed conditions.

Effect on existing City activities
Unless expressly modified by the provisions of this framework, existing City activities will continue to be in effect. As part of the watershed planning process described above, ongoing activities will be reviewed, together with proposals for new measures, for inclusion in the recovery plan. When a watershed plan is adopted, it will include both the new measures for that watershed and the existing measures that should continue.

F. The framework and ESA compliance
This section discusses five alternative approaches to comply with the ESA and contribute to the recovery of salmon and steelhead. These alternatives are not mutually exclusive. In fact, the framework and the resulting recovery plan will allow the City to implement several of them at the same time to address near-term compliance while developing a longer-term strategy

1. *No formal ESA compliance*
Historically, the only City activities operating with formal ESA review were those that required a federal action or permit. NMFS has recently proposed rules to determine what actions constitute a "take" under the ESA. Those rules likely will be finalized during the summer of 2000. In the meantime, the City has identified activities that may adversely affect listed salmon and steelhead and is modifying them to address potential adverse effects.

The City will continue to develop new programs and modify existing activities to make them as fish friendly as possible. Under this alternative the City could decide to pursue these programs and activities without formal ESA acknowledgment from NMFS. This alternative may not require significant additional effort. It also would avoid significant time associated with the formal ESA compliance activities.

The City could make a determination on a case-by-case basis that some actions would not adversely affect listed species or would not require ESA review. For example, the City's emergency code is consistent with NMFS's definition of emergencies. Therefore, it appears that emergency response actions do not need additional compliance coverage. Upland developments with adequate erosion and stormwater control might be another candidate for this alternative.

As part of this alternative, the City would use the watershed planning process described by the framework to determine what constitutes the best management practices to protect salmon and steelhead and a process to determine that there is no harm to listed species. City bureau staffs have considerable expertise in salmon and steelhead protection.

The City also could form an independent science advisory board that could review City actions. The independent review would assist with developing "fish friendly" practices and would be incorporated into federal permits for activities where the City desires or is required to have them.

This alternative may be feasible for programs and activities that do not involve a federal action (including federal permits or funding). All federal agencies are required to consult with NMFS on any federal action that may affect a listed species under Section 7 of the ESA. Local governments and private parties are not required to consult with NMFS.

There are several disadvantages to this approach. First, there is a risk that a third party could sue the City to require compliance with the ESA. A third party could also bring a lawsuit against a developer or others working under a city permit. The City would then be a party in such a suit. It may be difficult to conclusively prove that a City or private action harms listed salmon or steelhead. On the other hand, the threat of such a lawsuit poses significant uncertainty for any project sponsor. The City might reduce its legal exposure by seeking indemnification from private developers as part of any city permit.

Second, this alternative may make it more difficult to secure funds for fish friendly actions. Given the budget pressures facing the City, new discretionary programs may not have the same priority as actions that are required under the ESA.

Finally, it may also be difficult to demonstrate that all of the fish friendly projects add up to a comprehensive approach to support the City Council's goal of salmon and steelhead recovery.

2. *Compliance for individual programs*

Portland activities that require federal actions, permits, or funding are currently being addressed under Section 7 of the ESA. This section requires federal agencies to assess the effects of their actions on a listed species and consult with NMFS. If a federal action affects a listed species NMFS will prepare a biological opinion that may include measures to minimize the adverse effects or mitigate for those effects.

The East Bank Park Project required Section 7 consultation and ESA compliance because it required a federal permit. The Water Bureau is pursuing a Section 7 review for some of its activities. The stormwater program may be a candidate for Section 7. Erosion control regulations may also qualify for ESA compliance. There are a number of other individual projects that could use this alternative as well.

Local governments and private parties can also comply with the ESA if they follow pre-approved programs identified by NMFS. For example, the proposed 4(d) rule issued by NMFS identifies the Portland Bureau of Parks and Recreation's Integrated Pest Management Program as a model to avoid adverse effects on salmon and steelhead. The NMFS proposal also includes model programs for urban development, road maintenance, and habitat restoration.

If the final rule is substantially similar to the draft, the 4(d) rules could provide compliance coverage for certain City activities. The Parks IPM program would be in formal compliance with the ESA because of its direct reference in the 4(d) rule.

Habitat restoration projects that follow the Oregon Plan guidelines would be in compliance upon acceptance of these guidelines by NMFS.

The Portland Department of Transportation maintenance activities that are consistent with Oregon Department of Transportation road maintenance manual have the potential to be covered by the road maintenance exemptions, although this would require an memorandum of understanding with NMFS committing to accept ODOT maintenance practices for formal ESA compliance.

The urban development exceptions require further study before reaching definitive conclusions on their implications for the City.

In the 4(d) rule, NMFS cited Metro's Urban Growth Management Functional Plan as a possible framework for these urban development exceptions, pending further review and adequacy determination by NMFS. The City's ESA program is working with a wide range of City staff to determine the technical, legal, and policy ramifications of the potential urban development exceptions.

Individual programs and activities that are not covered by the current 4(d) proposal could seek approval under new 4(d) processes. They could also address ESA compliance through Section 10 of the ESA. These alternatives are discussed in more detail below. While it may be possible to use these sections of the ESA for individual projects this approach is likely to be quite time consuming.

There are disadvantages to this approach. Taking individual programs through an ESA review creates the potential for duplication. It is quite likely that NMFS will want to assess the cumulative effects of actions within a watershed. This could be difficult for individual activities. Pursuing individual compliance strategies may also overload NMFS staff and slow down projects.

Nonetheless, focusing on individual projects is still required because it creates the information and management options required for a comprehensive strategy. In addition, taking action on individual programs also provides evidence of good faith on behalf of the City while a comprehensive approach is being developed.

Improving individual activities also will help avoid jeopardizing the continued existence of the listed species by avoiding additional harm even if it may be difficult to demonstrate that the individual actions are contributing to the recovery of salmon and steelhead.

A final caveat: this approach does not appear to meet the vision of developing a comprehensive plan for the entire Willamette and Columbia within Portland's jurisdiction that was called for in the Council resolution.

3. ***Combine programs for ESA review***

There are a number of activities that are similar and that might be combined for ESA review. For example, the Stormwater Non-Point Discharge Permit and Best Management Practices, the Stormwater Manual, and the Erosion Control Program may be submitted to NMFS as a package for ESA compliance purposes. Another potential example could combine bank stabilization and habitat restoration projects.

This alternative addresses many of the effects of actions in a watershed. It also might avoid some of the duplication possible under alternative 2. It could reduce the workload for City and NMFS

staff. It is not clear how some of the City programs would secure ESA compliance. It would still be difficult to demonstrate that the individual actions are contributing to the recovery of salmon and steelhead.

4. ***Pursue Section 4(d) exemptions for a group of Portland programs***

NMFS states in its proposed 4(d) rule that it believes that, with appropriate safeguards, many state, local, and other programs "can be specifically tailored to minimize the impacts on listed salmonids to an extent that makes additional Federal protection unnecessary..."

The 4(d) rule provides a mechanism where entities can be assured that an activity they are conducting or permitting is consistent with ESA requirements and avoids or minimizes the risk of adversely affecting listed salmon and steelhead. NMFS sees several advantages to this approach. It will show other entities that practical and realistic salmon protection measures exist. It also allows NMFS to focus its enforcement activities on actions that have not yet adequately addressed the conservation needs of listed salmon and steelhead. (Federal Register Notice, Volume 65, Number 1, January 3, 2000, page 171).

Use the proposed 4(d) rule

The proposed 4(d) rule identifies a number of existing programs that adequately address salmon and steelhead protection. These programs are not requirements. Entities can voluntarily choose to follow them and seek exemptions from ESA review.

Four of these programs are potentially useful to urban activities. As discussed above, the Portland Parks and Recreation Integrated Pest Management program, Metro's Urban Growth Management Functional Plan, ODOT's road maintenance manual, and the Oregon Plan's habitat restoration procedures may provide a safe harbor for entities that choose to adopt them.

Some of the proposed exemptions will require additional review and approval by NMFS before they are available. For example, Metro's functional plan addressing urban density development has not been formally adopted by Metro. NMFS has said it will need to review the final Metro guidelines to determine whether they are adequate. It is possible that a combination of Portland programs could be addressed using this approach.

Pursue new 4(d) exemptions

The City could also pursue new 4(d) exemptions for a group of programs and activities. One example might be Portland's E-zone program. The environmental zone program is designed to protect riparian resources and functions. Another example might be the proposed projects identified in the Johnson Creek Predesign Program.

This approach could provide additional ways to have NMFS acknowledge that the City's activities comply with the ESA. It would allow the City to demonstrate what can be done in an urban watershed. It would also build on the innovative leadership shown in the Integrated Pest Management Program.

This approach would probably not cover all of the public and private activities within the City's jurisdiction. It also will take time to secure additional 4(d) exemptions. The current proposal took several years to develop. The 4(d) exemption may offer an efficient way to comply with the ESA for the relative handful of specific activities exempted under the 4(d), but does not provide a clear mechanism to address all other activities that are not specifically exempted.

In addition, this approach would not be applicable for species for which a 4(d) rule has not yet or may not been written (e.g., cutthroat trout), or if listed steelhead and salmon were to change from threatened to endangered status in the future. Finally, this approach would not provide a comprehensive framework to assess and demonstrate that the City is contributing to recovery of salmon and steelhead.

5. ***Develop a Habitat Conservation Plan***: Section 10 of the ESA provides a mechanism for non-federal entities to develop Habitat Conservation Plans to address fish and wildlife restoration. These plans typically provide a comprehensive approach that addresses a number of activities. An HCP can include mitigation measures to offset the incidental take that may be associated with some of the activities within the watershed.

HCPs are based on the best available scientific information and typically include sufficient scientific analysis to show that they can reestablish properly functioning conditions. The sponsor of the HCP must demonstrate that the Plan is enforceable and will be implemented. A Habitat Conservation Plan also typically includes a monitoring and evaluation component that provides a mechanism to adaptively manage the plan as more information is available. In return for these kinds of provisions, the sponsor can secure ESA coverage for up to 50 years. This could provide significant certainty for both public and private activities covered under the HCP.

Significant funding may be available to help develop these watershed plans. The Bonneville Power Administration and the Northwest Power Planning Council are encouraging the development of comprehensive watershed plans and may provide funding for such plans.

Developing an HCP would be time consuming; it could take two years or more to complete the work. Therefore, it may be important to pursue some of the alternatives above, including implementing interim mitigation actions, while an HCP is being developed. This would provide near-term progress and successes, maintain public attention, and provide fish and wildlife benefits. These components could be incorporated in the HCP as they are completed.

Some parties have expressed concerns that this approach could force developers to provide protections that go beyond the minimum requirements. This appears to be based on the view that the protections required under 4(d), Section 7, and Section 10 of the ESA are different.

Discussions with NMFS staff indicate that all ESA reviews will be based on whether an activity jeopardizes the continued existence of a listed species or significantly affects its ability to recover. In making this judgement it appears likely that NMFS will determine whether the program will result in properly functioning habitat conditions. If it does, it will likely be viewed in compliance with the ESA. If it does not, NMFS is not likely to approve it. Therefore, the level of protection required by each of the ESA tools (e.g. Section 4(d), Section 7, or a Section 10 HCP) are identical.

Conclusion

Regardless of the compliance strategy, the proposed framework is designed to ensure actions are based on ESA needs, the best available science and are monitored and evaluated for results. The framework will provide a useful tool to identify the most effective and appropriate compliance strategies for individual programs and activities and for the City as a whole.

Part 1 – Planning Assumptions

The City's recovery plan will not be developed or adopted in a policy or planning vacuum. To ensure that the plan enhances other City, regional and state objectives, it is expected that the Council will adopt a series of planning assumptions that will set sideboards for ESA-related activities. The final plan will contain a detailed description of these assumptions. The following list represents the kind of assumptions that likely will be included. The list of assumptions below is meant to be illustrative, not exhaustive.

Specific planning assumptions

As part of its plan, the Council will adopt a series of policy judgments and planning assumptions. The following list is an example of the planning assumptions the Council will consider.

1. Existing environmental protection efforts

The City's plan will incorporate and build on existing environmental protection efforts such as the Clean River Plan, Willamette Greenway. Environmental zone update, erosion control, Clean Water Act programs, revegetation and restoration programs, and other relevant efforts.

2. Geographic Scope

The initial and primary focus of the City of Portland's recovery plan is the land area within the City's jurisdictional boundary and the Sandy River Basin where the Bull Run water supply is located. The recovery plan will be organized at two levels, Citywide and by the following recognized watersheds: Balch Creek, Bull Run, Columbia Slough, Fanno Creek, Forest Park watersheds, Johnson Creek, Tryon Creek and the Willamette mainstem watershed within the City's boundary. The City will ascertain its issues and implement solutions to those issues before moving beyond its borders. Coordination with other jurisdictions is ongoing.

3. Upstream, estuary and ocean conditions

No single activity is sufficient to recover and rebuild fish and wildlife species in the Columbia River Basin. Successful recovery efforts must involve a broad range of strategies for habitat improvement, hydrosystem reform, upstream reservoir water management, artificial production, and harvest management. Effects and actions up and downstream from the Portland metropolitan area will have considerable impact on the success of Portland's recovery efforts.

Ocean conditions and regional climates in particular play a large role in the survival of anadromous fish and other species. The City's management actions will strive to help those species accommodate a variety of ocean and climatic conditions by providing a sufficient level of productivity and a wide range of biological diversity. Monitoring and evaluation actions should recognize and take

into account the effect of varying ocean and climate conditions and, to the extent feasible, separate out the effects of ocean-related, climate, upstream and downstream mortality from that caused in those parts of listed species' lifecycles that occur within the City's limits.

4. Habitat Protection

Efforts to improve fish and wildlife populations in the City will focus first on protecting habitat that supports or has the immediate potential to support populations that are healthy and productive. Next, the City will expand its protection and restoration efforts to adjacent habitats within the City that have been historically productive or have a likely probability of sustaining healthy populations through restoration or through improved fish access. Ultimately, the City will attempt to create a path of suitable habitat for fish that runs through the mainstem Willamette and connects to the City's tributaries.

5. Habitat Restoration

Increasing the abundance of single populations will not, by itself, result in long-term recovery. Restoration efforts must focus on developing ecosystem conditions and functions that will allow for expanding and maintaining diversity within and among species to sustain a system of robust populations in the face of environmental variation. The City will seek to make strategic investments in restoration activities to provide the most biological benefit in the shortest possible time frame.

6. Offsite Mitigation

The City of Portland is a densely populated urban area. In some cases, urban structures and needs will preclude traditional restoration activities. The City will use offsite mitigation where necessary to ensure a significant contribution to recovery. However, the City will always seek to avoid the need for mitigation, then, it will restore resources within the City first, to minimize any damage second, and finally, when absolutely necessary, the City will use offsite mitigation.

7. Scientific Approach

Management actions must be taken in an adaptive, experimental manner because ecosystems are inherently variable and highly complex. This includes using experimental designs and techniques as part of management actions, and using research and evaluation to measure the effects of management actions on the ecosystem.

8. Fish Harvest

The City recognizes that fish harvest can provide significant cultural and economic benefits. The City also recognizes that harvest activities may have a negative impact on recovery actions. The City will work with the Oregon Department of Fish and Wildlife to increase harvest opportunities consistent with sound biological management practices. The City believes that harvest rates should be based on population-specific adult escapement objectives designed to protect and recover naturally spawning populations.

9. Other federal obligations

The City must meet not only its obligations under the federal Endangered Species Act, but also its obligations under other federal laws and regulations as well. Those laws and regulations include, but are not limited to: NPDES, TMDL and other Clean Water Act obligations, Superfund, NEPA, FEMA, Army Corps of Engineers Navigation requirements; federal transportation mandates, upstream water management goals, ADA requirements, etc. Where possible, the City will seek to

implement management actions and strategies that meet multiple objectives simultaneously. The City also will work collaboratively with federal agencies to streamline and coordinate different federal regulatory and compliance processes.

10. Local, regional and state land use planning and other obligations

Wherever possible, this framework should strive to meet ESA and local, regional and state land use objectives simultaneously. Plans include, but are not limited to the Portland comprehensive plan; neighborhood, special district and other City plans; Metro 2040 Plan, state land use Goal 5, state mandated building codes, enforcement standards, state housing requirements, and public safety requirements.

11. Timeframe

It is expected that watershed plans developed through this framework will address a 20-year time period. The planning horizon should include a 20-year financial forecast. It is important to note however, that ecosystem degradation has been occurring for many decades. Restoring ecosystems will take decades as well. Movement towards goals and objectives and overall expectations for progress should be viewed in this context.

12. Effect on existing City activities

Unless expressly modified by the provisions of this framework, existing City activities will continue to be in effect. As part of the watershed planning process described above, ongoing activities will be reviewed, together with proposals for new measures, for inclusion in the recovery plan. When a watershed plan is adopted, it will include both the new measures for that watershed and the existing measures that should continue.

Part 2 -- Framework at the Citywide Level

A. Vision for the City of Portland

The citywide vision is the basis for the framework and ultimately the recovery plan. At each ecological level (citywide and watershed), it determines the watershed goals and conditions and, in turn, the selection of actions. The vision is a pragmatic statement of intent that drives the rest of the framework and the resulting plan.

It is presumed that the initial step toward developing a citywide vision will entail compiling visions from the variety of existing plans. The vision in the ESA plan will attempt to be consistent with those visions and the City's obligations to consider the needs of the economy, housing, jobs, people, etc. It is important to note that based on new experience and information, the City's vision may be adapted over time. The framework concept is designed to ensure adaptive management. Part of that is the ability to revisit the vision from time to time as appropriate.

1. Overall vision for the City of Portland

The vision of the ESA framework is guided by the Council resolution. The resolution included the following principles:

- The ESA program should be an integrated, comprehensive citywide approach.
- Work to support the recovery of native salmonids.
- Work with other regional and state partners.
- Engage the community and stakeholders in the development of the ESA response.

The existing vision for the Endangered Species Act Program is:

Our waters and land provide healthy habitat for native fish that have returned to our rivers and streams.

The people of Portland assume their share of responsibility for the welfare of fish, as demonstrated by their daily actions and practices.

The City of Portland provides its services in an environmentally sound manner and, as a result, the community is vastly improved.

In pursuing its vision, the City will:

- Be proactive, not reactive, to watershed health and fish protection.

- Push past the minimum standards set by the Endangered Species Act to help attain the goal of recovering native fish.
- Meet legal obligations in a good-faith effort to reaching "properly functioning conditions."
- Empower, engage, and motivate the community and City government.
- Minimize disruption of critical City services that could be caused by legal or regulatory disputes.
- Demonstrate progress to the citizens of Portland and positive leadership in the region.
- Act strategically so that the greatest overall community, economic, and environmental benefits are achieved.

The vision requires restoration of ecosystem function and habitats that have been altered or lost to ensure ecological resiliency and maintenance in the face of environmental and human variation.

This vision is tempered by the caveat that the return to historical conditions is not always possible. Implicit in this is the qualifier that the city is working for recovery of listed salmonids. That work will necessitate rehabilitating watersheds so they support fish and wildlife populations that are stable and self-sustaining.

The ESA Program expects to work with the Willamette Legacy Project to confirm the existing vision with the public this fall.

B. Watershed Goals

Watershed Goals clearly define the characteristics of fish populations that the recovery plan is striving to restore within Portland's watersheds. The goals also acknowledge and refer to other broader objectives that the City needs to meet as an urban center of a metropolitan region (e.g., economic vitality, growth management, affordable housing, and recreation). These broader goals have the potential to support or conflict with fish recovery goals, and it is only through explicit acknowledgement, analysis, and planning that potential conflict can be resolved.

Watershed Goals

Watershed goals are defined for the aquatic species that are listed or have the potential to be listed in the near future under the Endangered Species Act, i.e., chinook, steelhead, coastal cutthroat. Watershed goals for fish are measured in terms of the biological characteristics needed to achieve recovery, and are measured in terms of:

- Carrying Capacity
- Productivity
- Life History Diversity

Biological characteristics defined:

- Productivity – the rate at which members of distinct salmon populations reproduce;
- Carrying capacity – a parameter defining maximum population size at each life history stage based on habitat conditions, and
- Life history diversity – the variable use of spawning, rearing and migrating habitats through time and space.

Salmon performance (in terms of capacity, productivity, and life history diversity) then becomes a description of watershed conditions within which the salmon completes its life cycle. To the extent that salmon are an indicator of the health of the ecosystem, this information is useful for defining strategies for salmon and ecosystem recovery.

Watershed goals for fish recovery need to be placed within the context of broader City objectives. Many of their objectives, including those defined by federal and state environmental and land use goals, have elements that are consistent with fish recovery goals. It is important to acknowledge and link these consistent goals to meet them efficiently through coordinated efforts. Conversely, elements of transportation and housing goals may conflict with fish recovery goals. It is important to acknowledge these conflicting goals so the conflicts can be resolved in the analysis and planning section. Work already done by watershed councils and within existing watershed plans will be important resources in developing these goals.

C. Watershed Conditions

Watershed conditions are the characteristics of the ecosystem needed to reach the vision based on the information now available. They are intended to be empirically measurable, and will be reached through the "actions" described in the next section. The watershed conditions discussed in this section relate to the City as a whole and are therefore necessarily somewhat general. At the watershed level, conditions consistent with these, but much more specific to the unique characteristics of the particular watershed, will be adopted.

While the details of watershed plans will vary across the City, each watershed plan is expected to address the watershed conditions identified here and the conditions specific to that watershed. The conditions will be determined by NMFS' notion of "Properly Functioning Conditions." The outline provided by NMFS is incorporated in the objectives described briefly below.

Ultimately, it is expected that the City's plan will include a technical section in which habitat conditions will be discussed in detail. That detail section will contain, so far as is reasonably possible, specific measurements and targets for watershed conditions. What follows is a general description.

Properly functioning habitat conditions

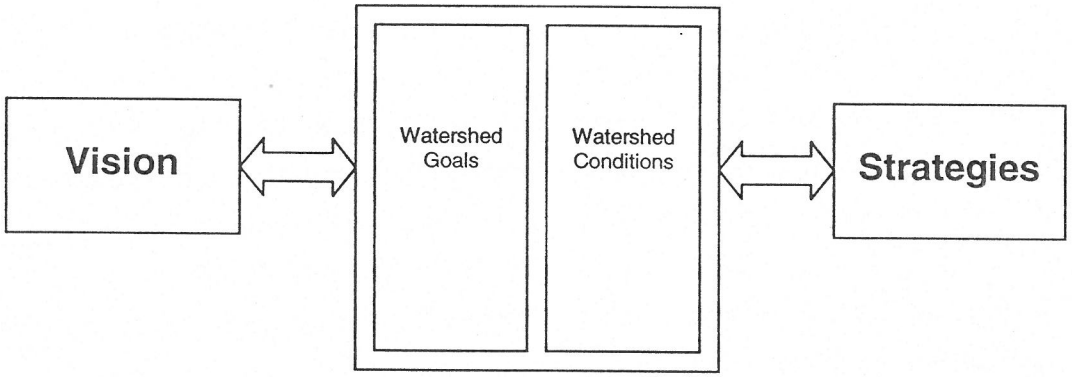
It is clear from the recent Federal Register Notice on the 4(d) rule and other documents prepared by the National Marine Fisheries Service that, at a minimum, NMFS will be looking for efforts to restore ecological systems that provide properly functioning conditions for the listed species. NMFS describes properly functioning habitat as conditions that:

> "...create and sustain the physical and biological features that are essential to conservation of the species, whether important for spawning, breeding, rearing, feeding, migration, sheltering, or other functions. Such features include water quantity; water quality attributes such as temperature, pH, oxygen content, etc.; suitability of substrate for spawning; freedom from passage impediments; and availability of pools and other shelters. These features are not static; the concept of proper function recognizes that natural patterns of habitat disturbance, such as through floods, landslides and wildfires, will continue. Properly functioning conditions are conditions that sustain

a watershed's natural habitat-affecting processes (bedload transport, riparian community succession, precipitation runoff patterns, channel migration, etc.) over the full range of environmental variation, and that support salmonid productivity at a viable population level. Specific criteria associated with achieving these conditions are listed with each habitat-related limit on take prohibitions." (Federal Register Notice, Volume 65, Number 1, January 3, 2000, page 174)

To ensure the City's watershed condition goals are consistent with the needs of NMFS and other regulatory agencies, the ESA plan's watershed conditions targets will need to be based on the description of *Properly Functioning Conditions*.

Figure 1. Watershed goals and conditions and their relation to the vision and strategies



Watershed Conditions Defined

Watershed conditions include measures that describe the notion of proper function used by the National Marine Fisheries Service to determine the potential effects of strategies on fish and wildlife and their habitats.

Properly functioning conditions (PFC) are those necessary to support the long-term survival of salmon, steelhead and cutthroat. It is the state in which all habitat factors in a watershed function together to produce a healthy aquatic ecosystem. The PFCs are identified by six environmental parameters. Each of these represents a significant pathway by which actions can have potential effects on anadromous fish and their habitat. The parameters are:

- Water Quality
- Habitat Access
- Flow/Hydrology
- Habitat Elements
- Channel Conditions and Dynamics
- Upland Conditions

In summary, these watershed conditions are intended to:

- Protect the habitat and ecological functions that are supporting existing populations or have been identified as supporting critical life history strategies;
- Restore and expand habitats and functions that have a likely probability of sustaining healthy populations by reconnecting or improving habitat; and,
- Emphasize restoration of ecological processes and functions as the means to achieve goals for specific fish and wildlife species and populations.

D. Analysis and Planning

Analysis and Planning is the process of evaluating the Watershed Goals and Watershed Conditions to define strategies for achieving the Vision. The evaluation will entail describing baseline environmental conditions, identifying and evaluating existing environmental protection efforts, identifying gaps in existing programs, resolving conflicts between fish recovery and broader City goals, and prioritizing restoration and protection efforts.

The specific analytical methods and decision making process are still being developed. They will be defined as information is compiled on a watershed basis and as the scope of analytical and decision-making needs become clearer. In short, however, the methods and process will, at a minimum, be based on comprehensive assessments and plans.

While the watershed goals and conditions describe the endpoint, the analysis and planning stage comprise the evaluation that is required to determine how to reach those goals. The analysis and planning stage is comprised of the following components:

- Watershed assessments -- The first step of the analysis is a thorough evaluation of baseline environmental conditions in each of the City's watersheds. The assessments will address all the fish population objectives under the Watershed Goals and the habitat characteristics under the Watershed Conditions. Much of this can be obtained through existing assessments and monitoring information. New effort will be limited to summarizing the available information and collecting information where data gaps exist (for example, many watersheds do not have adequate data on habitat conditions).
- Inventories of ongoing work -- The City has a number of strong programs already in place that address many of the issues important to salmon recovery. Programs like the Clean River Plan, erosion control, environmental zones and other protection and restoration programs form a solid foundation on which to build a salmon recovery plan.

  This inventory will:
  - ♦ List the existing protection and restoration programs;
  - ♦ Identify the issues addressed adequately by existing programs;
  - ♦ Determine where existing programs may need to be revised to address salmon recovery goals more successfully (e.g., E-zones and the Willamette Greenway are existing programs that are undergoing revision to better meet recovery goals, and;
  - ♦ identify any gaps that are not addressed by existing programs.
- Identification of gaps between goals and conditions -- The Watershed Goals and desired Watershed Conditions will be

compared to the baseline environmental conditions documented through the assessment phase. That comparison will identify the highest priorities for improving Portland watersheds to support salmon recovery.

- Scientific and economic analysis of policy options -- Considerable scientific analysis will be required to define appropriate goals and to select suitable strategies to reach those goals. Because of the complexity of ecosystems and salmon ecology, it is important that the scientific analysis be well developed and documented. Similarly, salmon recovery in an urban setting is a very expensive undertaking with considerable implications for the local economy. It is important that the options for approaching recovery are clearly laid out, their scientific foundation well established, and the economic implications of each option are accurately evaluated. It is highly likely that there will be circumstances in which scientific and economic recommendations conflict. In those situations, policy decisions must be supported by full and accurate descriptions of the scientific and economic implications of each policy choice.

E. Strategies and Actions

Strategies are plans of action to create the habitat conditions to meet watershed goals and thereby fulfill the vision. Specific strategies generally will be applied at the watershed level since each strategy has a specific impact on a specific location within a specific watershed. However, it is important that the strategies at the watershed level be consistent with citywide standards that guide actions toward the citywide vision and goals. Thus, at the citywide level, there are comprehensive standards and guidelines for implementation instead of specific strategies. The exception will be for strategies that transcend one or more of the watersheds, such as public involvement, planning, enforcement, data management, research, monitoring and evaluation.

The City's recovery plan ultimately will include a technical section in which each of the following citywide guidelines is discussed in further detail. What follows is a listing of the general categories of standards with some examples of what might be adopted in each category. The City recognizes that the standards and guidelines listed here are based on current and planned activities and may require adaptation and enhancement. A review of the guidelines once a comprehensive assessment of watershed conditions and ongoing activities is complete will identify needed improvements.

A. STRATEGIES

Citywide Guidelines for Strategies

1. Public Involvement

The City will engage the public in the development of its recovery plan. Draft policies will be submitted to affected parties for review. Existing citizen review committees for the Planning Bureau, the Bureau of Environmental Services and other City entities will be used, to the degree appropriate, to review ESA-related activities.

Education and involvement of the public will be a key strategies in recovering salmon. The ESA Program will coordinate with existing public involvement efforts (e.g., Clean River Works, watershed councils, water conservation) to address salmon recovery through these existing efforts. The ESA Program will use public interest in salmon to focus on avenues and campaigns not addressed by existing public involvement efforts (e.g., the Fish Friendly Pledge).

2. Coordination

The relationship of this program to other City objectives

The goals of the recovery plan will be linked to and and integrated with other existing City objectives, including the Comprehensive Plan, in particular Goal 8 of the Plan, and sustainability, economic development, and livability objectives.

Local, state and regional coordination

The recovery plan is a citywide effort involving all affected bureaus. All appropriate Bureaus will have a representative on the Steering Committee and participate fully in the work of this committee to provide a unified City response.

The City will work in partnership with watershed councils, Metro and other metropolitan jurisdictions, and participate in the Regional ESA Coordinators forum to ensure consistent regional efforts in salmon recovery.

The City will work with the regional Endangered Species Act communications group to ensure consistent public education, outreach and information is available across jurisdictional boundaries.

The City also will participate in the development of the Willamette Chapter of the Oregon Plan through its participation and active membership in the Willamette Restoration Initiative.

The City will participate in the Oregon Association of Clean Water Agencies, and other regional forums that address issues of concern in salmon recovery.

The City will coordinate with the Puget Sound Tri-County ESA effort to combine resources in addressing the challenging task of recovering salmon in an urban environment.

The City will involve NMFS, USFWS and other regulatory agencies early in the planning process to ensure that regulatory requirements are clearly understood and addressed effectively in its recovery plan.

3. Habitat Protection and Restoration Efforts

Habitat protection and acquisition

The City will place high priority on protecting existing high quality habitats within its boundaries through mechanisms such as revision of the E-zone codes, base zoning revisions, other Goal 5/Title 3 and floodplain protections, land acquisition and incentives.

The City will protect existing habitat functions throughout its watersheds to address anti-degradation policies.

The City will ensure its activities do not degrade habitat functions through clear and practical guidance such as an Instream Construction and Maintenance Manual.

The City will work with partners in the Sandy River Basin Agreement to protect existing high quality habitats within the basin.

Habitat restoration activities

The City will develop restoration guidelines that provide clear procedures and priorities for restoring habitat throughout Portland watersheds and the Sandy River Basin for salmon recovery.

These guidelines will be based on the "Habitat Restoration Limits on the Take Prohibitions" in the 4(d) rule, the *Oregon Plan Aquatic Habitat Restoration and Enhancement Guide,* BES Re-vegetation

Program guidance, and the Naturescaping Program.

Restoration priorities will be based on watershed and other assessments that identify key restoration needs.

4. Fish access

Restoring fish access to existing habitats within the City will be directed by Culvert Replacement Criteria that provide clear and objective guidelines for ranking culvert replacements that consider the amount and quality of habitat made accessible per dollar of expenditure.

5. New development and redevelopment, including brownfields

The City will revise its E-zone codes, the Stormwater Manual, and other appropriate development guidelines to ensure development follows the avoid/minimize/mitigate principles to protect salmon habitat.

The City will insure that Urban Renewal Districts take advantage of opportunities for habitat restoration and protection and water quality and quantity management in redevelopment projects.

The City will insure that opportunities to redevelop brownfields are acknowledged and pursued where biologically and economically appropriate.

6. Water quality and quantity management (i.e.: NPDES, TMDL, CSO control, etc.)

Existing water quality programs and activities such as the Stormwater NPDES Permit Activities, Wastewater Discharge Permits, and CSO control and Clean River Plan are reviewed and revised as needed to meet Oregon water quality standards, and to improve the degree to which they address water quantity and habitat issues. Strong programs which currently are limited in application (e.g., Parks Integrated Pest Management, Illicit Discharge Elimination Program, Downspout Disconnection Program) will be expanded to improve benefits . Flow augmentation and temperature management will be implemented, evaluated, and revised as needed to improve water quality in the Sandy River Basin.

7. Land management

Parks management guidelines

Integrated Pest management

Others to be added

8. Maintenance

NPDES Maintenance Guidelines

PDOT modification of ODOT practices in 4(d) rule

Instream construction and maintenance manual

Others?

9. Erosion control and other enforcement activities

Erosion Control Manual and Codes

Illicit Discharge Elimination Program

10. Watershed Assessment

ODF&W Stream Habitat Survey Protocol

NMFS guidance

11. Research, monitoring and evaluation

BES Monitoring Guidelines

Actions taken under the recovery plan will be monitored and evaluated using a standard protocol to ensure they achieve the biological objectives established at the citywide and watershed levels. In the

course of creating watershed plans, and in implementing the recovery plan, the City will work with interested parties to develop and recommend for funding specific monitoring and evaluation activities.

12. Data management and analysis

BES CIP Data Management Guidelines

All information collected as part of this program should be made freely accessible to all parties.

All information collected as part of this program should adhere to a set of common guidelines for data exchange and dissemination to be developed.

More to be developed

13. Economic analysis

ESEE guidelines

City sustainability guidelines

14. Fiscal reporting and financial accountability

Centralized City ESA Accounting Procedures

Quarterly reports on spending and results

Annual audit of ESA-related programs

Consistent with/based on BES CIP procedures

PDOT procedures?

Part 3 -- Watershed Plans

It is important to stress that the Endangered Species Act Program will seek whenever possible to incorporate existing watershed programs and plans into the recovery plan rather than recreate them. BES, local watershed councils and others have done considerable work on watershed planning within the City. Those entities also have great experience and expertise with local politics and conditions. The intent of the framework is to incorporate that local experience and expertise into a citywide recovery plan to demonstrate to NMFS how the City's combined activities are contributing to the recovery of listed species.

A. Ecological structure: Citywide and Watershed

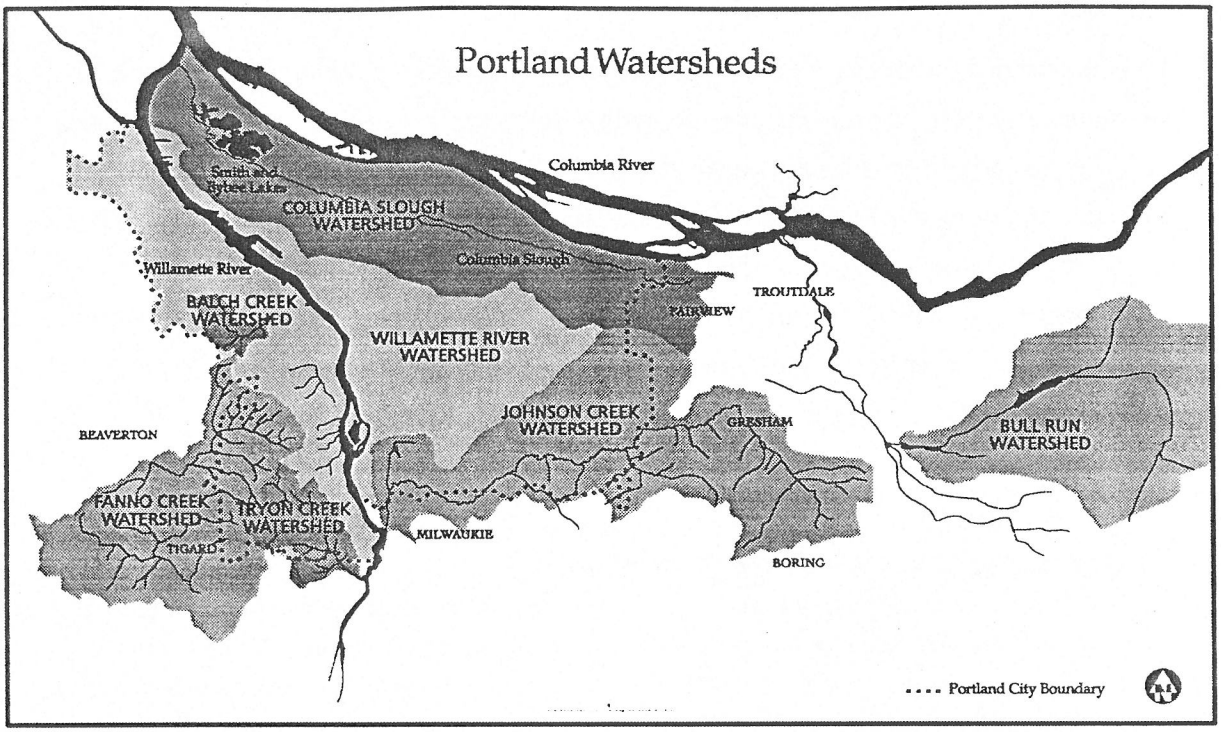
The City will adopt an ecologically based structure for its ESA plan that emphasizes the interrelationships the City's tributaries to the mainstem Willamette River and the interrelationship of the Bull Run River to the Sandy River Basin.

Portland has defined areas with distinct ecological character and termed them watersheds (see figure 2 -- map of city watersheds). Watersheds are distinct subdivisions of the landscape containing ecologically related subwatersheds. The watersheds are distinguished primarily on landscape drainage patterns

The City of Portland accepts as a hypothesis that these landscape patterns relate to biological population patterns . Populations within a watershed are more likely to be related to other populations within that watershed than to populations in other watersheds. Life history and other characteristics should group into patterns that reflect physical habitat structure. Each watershed consists of a set of ecologically related subwatersheds that are connected to larger hydrologic units. These watersheds are thus appropriate units around which to organize and evaluate recovery objectives and efforts.

The headwaters of a watershed are often distinct from the lower reaches and have been put into separate areas in other management plans. However, for purposes of natural resource planning it makes little sense to split watersheds. Instead, the framework treats each watershed as an integral component of a set of related watersheds forming the citywide system. Where portions of watershed fall into jurisdictions other than the City of Portland, the City will attempt to coordinate efforts. Figure 2 displays the watersheds of the City of Portland.

Figure 2 – City of Portland Watersheds



B. Elements of a watershed plan

Actions to implement the recovery plan principally will occur at the watershed level. Watershed planning will serve two related purposes in the recovery plan. First, plans at the watershed level will provide the ultimate direction for City-funded activities that affect fish and wildlife. Watershed plans also will provide an opportunity for the integration and coordination of existing City projects and programs and projects and programs funded by others.

Second, watershed plans will provide the context in which the Council, independent scientists and the public will review projects for City funding. The plans will provide adequate explanation or justification in light of existing projects and conditions in the relevant watersheds, and relate projects to goals and desired conditions at a watershed level. Once watershed plans are approved, the Council will be able to review the projects proposed for funding to determine if they are based on sound science and are consistent with the citywide framework.

To ensure the City is able to effectively prioritize actions across watersheds, watershed planning must be conducted with a relatively high level of uniformity. This does not mean that the goals, conditions and actions will be similar across all of the watersheds. In fact, quite the opposite is expected, and likely necessary, if the citywide vision is to be attained. Rather, the template, or structure of watershed plans will need to be relatively fixed to fulfill their envisioned role, to allow for consideration of their consistency with citywide objectives and guidelines, and to provide an adequate context for project review

by independent scientists, the public and the Council.

The City is aware that other regional jurisdictions are considering watershed assessments and planning as a possible vehicle for implementing habitat changes under the ESA and state land use laws. The City is also aware that the state of Oregon is developing watershed plans through the Oregon Plan. The City will maximize coordination and cooperation and avoid duplication with these efforts wherever possible.

The City intends that watershed assessments and plans developed under the framework for ESA purposes be coordinated with the relevant local, regional and state planning processes, and to the maximum extent possible be consistent with or even the same as plans developed for other purposes. To assure a consistent approach to watershed planning, the City will consult with other jurisdictions and interested parties and adopt a standard template for watershed assessments and plans.

For purposes of the framework a watershed plan must include the following three components:

- A *watershed assessment* providing a description of historical and existing conditions, an assessment of the biological potential of the basis and an identification of restoration opportunities;
- A clear and comprehensive *inventory of existing projects* and past accomplishments;
- A 10-to-15 year *management plan* that, among other things, addresses the watershed goals, watershed conditions and performance criteria identified above, and includes a monitoring and evaluation plan.

upon completion, watershed plans will be considered by the Council for adoption into the recovery plan and will be used as the basis for implementation decisions.

C. Participation criteria for watershed planning

The City expects that watershed plans will not only demonstrate their consistency with the Endangered Species Act, but also with other City obligations as well. To best accomplish this, the applicable regulatory entities should be included in the planning effort, particularly in the development of watershed plans. The City cannot compel these parties to participate, but it wants to ensure that these entities can voluntarily participate.

The City will encourage the participation of local, state, tribal, federal and private land managers and water owners and managers that have programs, authorities, and jurisdictions beyond that of the City. The City will evaluate outside parties' level of involvement in the planning process -- and the level of agreement that they have with the completed plan -- when it considers adopting a watershed plan into the recovery plan and in making its funding decisions.

In a practical sense, it will be important for those preparing the watershed plan to build support for the plan with those whose cooperation will be essential to successful implementation of the plan.

The City recognizes the major on-going efforts of City bureaus, other local agencies and community groups in developing watershed assessments and plans. Nothing in this

framework is intended to supplant or duplicate that work. To the fullest extent practicable (and consistent with the watershed assessment and planning template adopted by the City) the assessments and information prepared by the City's bureaus, other local agencies and community groups should serve as or be incorporated in the assessments prepared pursuant to this framework. The City also intends that the plans prepared by these entities be given full consideration in developing the watershed plans pursuant to this framework.

While it would be desirable if each of the bureaus that affect fish and wildlife reach agreement among themselves, the City acknowledges that every bureau will not be in agreement on all aspects of every watershed plan. In such cases, the City will require the bureaus to identify the disagreement, and for each bureau to submit with the plan: (a) a concise statement describing the nature of the disagreement, and (b) a description of how the plan would be best adapted to that bureau's interest.

D. Review of watershed plans

The City will request that independent scientists, such as the National Marine Fisheries Services' Technical Review Teams, the Oregon Plan's Independent Multidisciplinary Science Team, and/or the Northwest Power Planning Council's Independent Scientific Review Panel review watershed plans. Examples of questions that may be asked of the reviewers are:

- Does the watershed assessment contain the elements required by the criteria?
- Are the goals, and strategies in the management plan scientifically appropriate in light of the assessment and inventory?
- Are the goals, and strategies consistent with those established at the citywide level?
- Do the plans demonstrate that alternative management responses have been adequately considered?

The City then will engage in a public review of the watershed plans and of whatever report and recommendation received from the independent scientists. The City anticipates using established procedures to formally adopt watershed plans into the recovery plan under terms that will allow for the adaptation and modification of the plans as we learn from evaluations of actions.

Part 4 -- Framework at the Watershed Level

1. Watershed Plans

Each watershed "chapter" will include the following information. The final framework will flesh each of these subheads out with examples and text from the citywide guidelines section.

A. Description of the watershed
B. Current conditions in the watershed
C. A statement about the watershed's contribution to the citywide vision
D. Watershed Goals
   1. Fish Population Goals
      (a) Carrying capacity
      (b) Life history diversity
      (c) Productivity
   2. Other City Goals
      (a) Economic vitality
      (b) Housing
      (c) Recreation
      (d) Transportation
      (e) etc.
E. Watershed Conditions
   1. Water Quality
   2. Habitat Access
   3. Channel Conditions and Dynamics
   4. Flow/Hydrology
   5. Habitat Elements
   6. Upland Conditions
F. Analysis and Planning
   1. Watershed Assessment
   2. Inventories of ongoing work
   3. Identification of gaps between goals/conditions
   4. Scientific and economic analysis of policy options
   5. Public Involvement
G. Strategies and Actions
   1. Public involvement
   2. Citywide coordination
   3. Local, state and regional coordination
   4. Habitat assessment
   5. Habitat protection
   6. Habitat acquisition
   7. Habitat restoration
   8. Habitat access
   9. New development and redevelopment
   10. Water quality management (NPDES, TMDL, CSO control, stormwater, etc.)
   11. Land management
   12. Roadway maintenance
   13. Erosion control and other enforcement activities
   14. Research, monitoring and evaluation
   15. Data management and analysis
   16. Economic analysis
   17. Fiscal reporting and financial accountability

Part 5 -- Strategy Selection Process

This section describes a possible (but very rough) set of procedures, criteria and priorities to govern the review of strategies proposed in watershed plans. It contains guidance for bureau implementation, budget and contract management of City-supported strategies. Ultimately this section will be based on existing procedures used by City bureaus. To incorporate independent review and prioritization across watersheds and bureaus, some changes in procedure may be proposed.

Ultimately, the point of the framework is to provide a clear and rational basis for prioritizing and selecting strategies that best meet the City's obligations under the ESA. Until the comprehensive plan is complete, the City will rely on its existing prioritization tools and processes.

The annual budget process required by the City Charter will be used to review strategies at the watershed level. The recovery plan will describe a sequence in which all or some portion of the City's watersheds will be reviewed each year, beginning with Fiscal Year 2001. On such a schedule, this review will revisit each watershed at least once every three years. A separate group of strategies that are citywide in nature (or at least transcend beyond a single watershed), such as data collection, enforcement or fiscal review, will also be reviewed at least once every three years.

That is, the City will review all of the strategies proposed for a watershed together. Until the development of watershed plans, the review will evaluate whether strategies proposed for a particular watershed: (a) implement the vision, goals, strategies and implementation guidelines established at the citywide level, and (b) are consistent with each other and with available assessment information about the particular needs and opportunities in that watershed.

Once watershed plans are developed and adopted as described above, including a demonstration that the watershed plan is consistent with the goals at the citywide level, strategies proposed for City funding would need to demonstrate in the review that they are implementing those watershed plans. The review will be iterative, with City staff and independent scientists communicating directly with strategy proponents, and visiting the strategy areas in the watersheds as part of the review.

The general review process for a watershed plan is as follows:

1. Provide notice to the public that the City will commence its review of a specifically identified watershed.

2. When they exist, provide adopted watershed plans to the public and the scientists.

3. Solicit proposals to implement plan goals, objectives, and strategies of the watershed being reviewed.

4. City staff and independent scientists visit watersheds, receive presentations from project proponents and issue a preliminary report that is distributed for public comment.

5. Project proponents respond to the initial review.

6. Scientists and City staff provide a final report.

7. Council makes funding decisions.

To facilitate multi-year funding and contracting, the City will require strategies to identify specific tasks, objectives, deliverables and associated costs. The City will establish protocols to ensure that strategies stay within their approved scope and funding authorizations. The City may audit some or all of the strategies annually to ensure that they are remaining within approved scope and funding authorizations.

Finally, until the recovery plan is adopted and watershed plans meeting established guidelines are adopted into the plan, the review process will use existing management plans and the best available watershed information. This information will be organized in a "watershed summary" format that substantially follows the general watershed plan construction and participation guidelines identified above.

Each watershed summary will contain an "assessment information" component that collects and organizes existing information, a component identifying and discussing past activities and accomplishments in the watershed, and a summary of existing management plans and their goals.

These watershed summaries will provide a sufficient basis for funding near-term needs. However, the City expects that longer-term management plans and funding commitments will need to be established through watershed plans meeting the guidelines discussed above. The City will lead the effort to have those plans developed as soon as possible.

Part 6 -- Glossary

The definitions in this list have no legal significance and are provided only for clarification of terms used (or that may be used when it is fleshed out) throughout this document.

Adfluvial
Fish that live in lakes and migrate to streams or rivers to spawn.

Alluvial
Deposited by running water.

Anadromous fish
Fish such as salmon that hatch in fresh water, migrate to ocean water to grow and mature, and return to fresh waters to spawn.

Aquatic habitat
The water-based locality or geographic area in which a plant or animal species naturally lives or grows.

Artificial production
Spawning, incubating, hatching or rearing fish in a hatchery or other facility constructed for fish production.

Biological diversity (biodiversity)
Variety of plant and animal life co-existing in a specific habitat.

Biological objectives
Describes the types of ecological conditions needed to achieve the vision.

Conduit
Restricted natural passageway such as a stream; greater limitations than corridor.

Confluence
Junction or union of two or more streams; body of water produced by the union of several streams.

Corridor
Linear natural areas and habitats primarily reserved for wildlife needs.

Ecosystem
The living and nonliving components of the environment which interact or function together, including plant and animal organisms, the physical environment and the energy systems in which they exist.

Escapement
The number of salmon, steelhead and cutthroat that return to a specified point of measurement after all natural mortality and harvest have occurred. Spawning escapement consists of those fish that survive to spawn.

Estuary
The part of the wide lower course of a river where its current is met and influenced by the tides.

Flow
The volume of water, often measured in cubic feet per second, flowing in a stream.

Flow augmentation
Increased flow from release of water from storage dams.

Framework
A logical structure for recovery and mitigation measures, organized around a vision, set of goals and objectives for the program and an explicit statement of the program's scientific

basis for linking management strategies to regional and local objectives.

Habitat
Locality or geographic area in which a plant or animal species naturally lives or grows.

Harvest management
The process of setting regulations for the commercial, recreational and tribal fish harvest to achieve a specified goal within the fishery.

Implementation strategies, procedures and principles
Guide or describe broadly the kinds of actions that will maintain or move the system from its existing conditions to the needed conditions.

Indigenous
Native to the region.

Mitigation
The creation, restoration or enhancement of a wetland area to maintain the functional characteristics and processes of the wetland, such as its natural biological productivity, habitats, and species diversity, unique water features and water quality.

Morphology
A study of the form and structure of animals and plants.

Natural area
A landscape unit composed of plant and animal communities, water bodies, soil and rock; largely devoid of human-made structures; maintained and managed in such a way as to promote or enhance populations of wildlife.

Normative ecosystem
An ecosystem where specific functional norms or guidelines that are essential to maintain diverse and productive populations are provided.

Passage
The movement of migratory fish through, around, or over, dams, reservoirs and other obstructions in a stream or river.

Resident fish
Fish that do not migrate to the ocean but instead remain in freshwater for the entirety of their lives.

Riparian
Relating to the banks of a water body.

Spill
Releasing water through the spillway rather than through the turbine units at hydroelectric projects.

Vision
Describes what the program is trying to accomplish with regard to fish and wildlife and other desired benefits from the river.

Watershed
A topographically discrete unit or stream basin, including the headwaters, main channel, slopes leading from the channel, tributaries and mouth area.

Wetland communities
Land areas where excess water is the dominant factor determining the nature of soil development and the types of plant and animal species living at the soil surface. Wetland soils retain sufficient moisture to support aquatic or semi-aquatic plant life.

Appendix 1

Examples of the scientific basis for habitat goals and habitat conditions

The City will develop goals at the citywide and watershed levels. The goals will be developed as part of the watershed planning process. To ensure the goals are based on NMFS' definition of "properly functioning conditions" they will need to be based on scientific principles that NMFS understands and supports. This appendix provides a general scientific description of possible goals that will be used to define specific actions for the City.

A. *General scientific description of goals for habitat conditions*

1. Protect and restore freshwater and terrestrial properly functioning conditions for all life history stages of the listed species.
2. Protect and increase ecological connectivity between major habitat types, including aquatic areas, riparian zones, floodplains and uplands.
3. Allow biological diversity to increase among and within populations and species to increase ecological resilience to environmental variability.
4. Increase genetic connection and gene flow within the ecological system to facilitate development, expansion, and protection of normative population structure.
5. Manage human activities so that patterns of water runoff and flow tend more than at present toward the natural hydrographic pattern in terms of quantity, quality and fluctuation.

B. *General scientific description of goals for fish recovery*

1. Increase productivity, abundance, and life history diversity of fish and wildlife populations.
2. Habitat restoration should be structured to enhance connections between core and satellite populations of salmonids to ensure the development of a healthy population structure.
3. Expand habitat and ecosystem function that significantly increases the abundance, productivity and life history diversity of listed salmonids that ensures recovery.
4. Increase population productivity – Viable anadromous fish populations should exhibit sufficient productivity during freshwater life history

strategies to persist during times of extreme environmental conditions such as drought and poor ocean conditions.

5. Increase population abundance – Populations should be large enough to survive environmental variations of the magnitude observed in the past; from ocean condition fluctuations to local disturbances. Populations should be sufficiently abundant to provide important ecological functions in the environment they occupy.

6. Increase population diversity – Increase the ability of the environment to facilitate development of a range of life history solutions to address environmental variability.

Appendix 2

Summary of scientific principles

The scientific foundation for the framework provides an explicit scientific basis for developing watershed goals and watershed conditions, and for linking strategies, goals and visions at the watershed and citywide levels. In this part, the scientific foundation is briefly described. We anticipate that the recovery plan will include a technical section in which each of the following principles is discussed in detail.

Basic scientific principles
The scientific principles constitute the most basic technical elements of the framework. While these principles are themselves general in scope, the implementation strategies that follow are based upon them. The City and others will use these scientific principles, together with the objectives and more specific implementation principles, to evaluate the actions proposed to implement the framework.

Principle 1: Biological abundance, productivity and diversity reflect ecosystem structure and conditions.
Progress toward goals for fish and wildlife species is achieved by allowing the ecosystem to develop in a manner consistent with the biological needs of the target species and requires restoration or preservation of suitable habitat conditions throughout the life cycle of key species. Rather than attempting to engineer the biological system to accommodate human activities, these activities must be adjusted to operate within the biological system.

Principle 2: Ecosystems are dynamic, evolutionary and resilient.
Natural ecosystems are dynamic and constantly changing. The framework should anticipate and accommodate change, and must recognize that disturbances are an important part of development and maintenance of habitat. Efforts to stabilize and reduce disturbance will fundamentally alter habitats to the detriment of capacity, productivity and diversity of target species.

Principle 3: Ecosystems are structured hierarchically.
Any particularly described ecosystem is composed of smaller scale ecosystems and is also a component of larger-scale systems. At any point, the ecosystem reflects the behavior of smaller scale components and is constrained by the larger-scale system. Framework elements developed at any level need to be consistent with elements developed at larger and smaller scales. Thus the vision and objectives for the City will constrain and direct the vision and objectives for a watershed. Achieving the objectives at the citywide level will depend largely on the success of actions at the local levels.

Principle 4: Ecological structure and performance are defined with respect to specific biological communities and questions.
Ecosystems and their conditions are defined in relation to a community or assemblage of interacting species and not by individual species. Plants and animals do not exist as isolated elements. Instead, they interact closely with other species and the habitat to form a system. Their ability to survive, reproduce and evolve depends not only on the hydrology, geology and climate, but also on interactions with other individuals and species through competition, predation and natural selection. These interactions select and develop healthy, robust populations.

Principle 5: Biological diversity accommodates environmental variation.
Variation in biological characteristics helps species cope with environmental variation. A more diverse species or interrelated collection of species has a greater range of possible solutions to the challenges posed by variation in the environment. Biological variation is reflected in life history traits, behavior and physical features of each species. We should manage our activities to allow natural expression of biological diversity.

Principle 6: Ecosystem conditions develop primarily through natural processes.
Natural ecosystems are created, altered and maintained primarily by natural processes encompassing the entire life history of species of interest. Habitats develop in response to the local hydrology, geology and climate. Species and communities develop to match the resulting habitat template. Management to achieve goals for specific species implies allowing normal ecological processes to operate and develop an appropriate environment.

Principle 7: Ecological management is adaptive and experimental.
What is critical to fish and wildlife restoration in one period of time may not be critical in another as the ecosystem shifts in response to internal or external factors. As we learn about ecosystems, new strategies may be indicated. Monitoring and evaluation need to be built into management programs from the ground up, in order to provide and make use of relevant information about how actions actually affect ecosystem conditions and how those changes affect biological response.

Principle 8: Human actions modify ecosystem function and biological performance.
In highly developed ecosystems like the City of Portland, human actions and technology will continue to dominate the system. However, those actions can be managed in a manner more consistent with the needs of other species.

RESOLUTION NO. 35894

Declare the City of Portland's intent to create a Portland recovery plan for salmon and trout listed under the federal Endangered Species Act based on a comprehensive framework. (Resolution)

WHEREAS, the quality of our life in Portland is directly related to our protection and stewardship of natural resources such as our land, earth, air and water; and

WHEREAS, populations of chinook salmon and steelhead trout have declined significantly as the result of many factors, including habitat loss, reductions in water quality, and fish harvest. These factors have resulted in salmon and steelhead populations that are precariously close to the brink of extinction; and

WHEREAS, among the chinook salmon and steelhead trout populations listed as threatened species under the federal Endangered Species Act are those whose home streams drain into the Lower Columbia River, including the Willamette, Sandy and Bull Run rivers; and

WHEREAS, the success of protection and restoration efforts for chinook salmon and steelhead trout and other at-risk fish is dependent on a partnership between federal, regional, state and local government agencies, the private business sector, and the local community; and

WHEREAS, the City of Portland is the largest municipality within the Lower Columbia Basin and is in a position to assist in regional and state chinook salmon and steelhead trout recovery efforts; and

WHEREAS, in particular, the City's bureaus already are improving habitat and water quality in rivers, and their tributaries, flowing into the lower Columbia for the benefit of fish and the regional environment and are working to identify additional conservation and enhancement measures in which they can participate; and

WHEREAS, the City of Portland is committed to developing and cultivating a sustainable future for its community and wisely managing the resources upon which its environmental, social and economic health rely; and

WHEREAS, the activities of citizens and City government can affect the future of these threatened species; and

WHEREAS, the members of the Council of the City of Portland share our citizens' values of a healthy environment and responsibility for the preservation of our natural resources; and

WHEREAS, the City of Portland must find approaches that support the recovery of endangered species and at the same time meet other city and regional goals to secure the livability of our city and region; and

WHEREAS, Portland Future Focus calls for maintaining livability in Portland through an integrated planning process which focuses growth in appropriate places while protecting the natural environment and enhancing neighborhoods; and

WHEREAS, the City's bureaus have worked collaboratively to develop a framework for developing a recovery plan and have shared that framework with the communities stakeholders;

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Portland, Oregon,

(1) that with this resolution the City submits a comprehensive framework for developing a recovery plan for salmon and trout listed under the Endangered Species Act to the National Marine Fisheries Service;

(2) that the recovery plan will address the City's obligations under the Endangered Species Act and assist the City in meeting other objectives and obligations including, but not limited to, the Clean Water Act, State Land Use Goal 5 and other goals;

(3) that the City's multiple objective approach will require that all City bureaus proactively collaborate with the City's Endangered Species Act Program in the development of the recovery plan based on the framework;

(4) that the recovery plan will incorporate existing City natural resource management, protection, restoration and enhancement programs and projects;

(5) that City bureaus will coordinate their budgets for programs and projects that affect environmental health, habitat conditions, water quality and fish with the Endangered Species Act Program to avoid duplication and overlap;

(6) that the City will work in partnership with National Marine Fisheries Service in developing the recovery plan;

(7) that the City will engage area watershed councils, stakeholders and the public in the development of the recovery plan;

(8) that the City will work in partnership with other metropolitan jurisdictions, including Metro, and the States of Oregon and Washington to develop a regional recovery strategy that is consistent with regional growth management and livability policies; and

(9) that the City will strive to minimize uncertainty for its on-going activities and for its citizens during the time it takes to develop and implement a comprehensive recovery plan.

Adopted by the Council: JUN 14 2000
Commissioner Erik Sten
June 14, 2000

Gary Blackmer
Auditor of the City of Portland

By Deputy

Agenda No. 864

RESOLUTION NO. 35894

Title

Declare the City of Portland's intent to create a Portland recovery plan for salmon and trout listed under the federal Endangered Species Act based on a comprehensive framework. (Resolution)

INTRODUCED BY	DATE FILED: JUN 09 2000
Commissioner Erik Sten	Gary Blackmer Auditor of the City of Portland
NOTED BY COMMISSIONER	
Affairs	By: Britta Olson Deputy
Finance and Administration	For Meeting of:
Safety	
Utilities	**ACTION TAKEN:**
Works ES RJD	
BUREAU APPROVAL	
Bureau: Endangered Species Act Program	
Prepared by Jim Middaugh Date 6/8/00	
Budget Impact Review: ___ Completed ___ Not Required	
Bureau Head:	

AGENDA		FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:		
				YEAS	NAYS
Consent ✓	Regular	Francesconi	Francesconi	✓	
NOTED BY		Hales	Hales	✓	
City Attorney		Saltzman	Saltzman	✓	
City Auditor		Sten	Sten	✓	
City Engineer		Katz	Katz	—	