

Lower Columbia River Partnership

Habitat Conservation and Restoration Program

Characterization of the Watershed and Overall Planning Effort

Physical, Biological, Social and Cultural Characteristics. The lower Columbia River and estuary is the final reach on the Columbia River's 1200 mile journey from Canada to the Pacific. This free flowing, tidally influenced stretch of the Columbia River, stretching 146 river miles from Bonneville Dam to the river's mouth, harnesses the second largest average flow in the nation at nearly 260,000 cubic feet per second. More than 925 feet wide at its narrowest point, the river widens to more than 5 miles near the mouth in Astoria. The river courses through a varied geography that includes steep walled canyons and bluffs, large floodplains, broad bays, and many islands and backwater sloughs.

The lower Columbia River and estuary continues to be the region's most important waterway. The river provides critically important permanent and migratory habitat to a wide range of species, including 12 salmonids listed as threatened or endangered under the Endangered Species Act, and a variety of other federally protected plants and animals. Over 175 species of birds use the river and estuary for food and habitat as do crab, oysters, clams, and many other aquatic species.

The lower Columbia River corridor is also home to 2 million people – many of who depend on the river for jobs, drinking water, energy, and recreation. While significantly diminished, commercial fishing remains an important industry. The river's ports are critical components of the regional economy handling nearly 30 million metric tons of cargo valued at more than \$13 billion per year. Bonneville Dam generates more than 1 million kilowatts for the regional energy grid. Six major pulp and paper mills nudge the river's shoreline. Recreational pursuits continue to grow in economic importance. Native American tribes remain active stakeholders in the river's management. With tribal help, the region is preparing to commemorate the 2003-2006 Lewis and Clark Bicentennial.

Description of Watershed Plan. Over a three year period from 1996-1999, the Lower Columbia River Estuary Partnership (Partnership) developed its Comprehensive Conservation and Management Plan (Management Plan) for the Lower Columbia River. A Management Committee representing more than 30 diverse interested developed the plan using an extensive and innovative public involvement process. US EPA and the states of Oregon and Washington formally adopted the Management Plan in 1999. The plan contains 43 diverse actions grouped into three broad categories (Habitat and Land Use, Education and Management, and Conventional and Toxic Pollutants). Each action includes a description of its environmental significance, how to implement the action, and environmental measurements.

The Partnership is one of 28 estuaries in the National Estuary Program, and with its Board of Directors and partners, is responsible for implementing the Management Plan. The 33 member Board of Directors is comprised of private economic, social, cultural, recreational, environmental, and education interests as well as public interests at the policy level including tribal government, federal and state agencies, local governments, and non-profit watershed and land conservation interests. In 2002 the Partnership passed its first USEPA implementation review.

Identification of Problems. The Partnership's Management Plan identifies seven priority issues facing the lower Columbia River and estuary. The priority issues are: biological integrity; institutional constraints; public awareness and stewardship; habitat loss and modification; toxic contaminants in fish tissue and sediments; conventional pollutants (such as elevated temperature, increased dissolved gas, bacteria, and sediment); and the impacts of human activity and growth.

While each priority issue is important, for example the river is 303d listed for a variety of parameters, habitat loss is the most significant and pressing problem. The lower Columbia River and estuary provide important habitat to a myriad of marine and estuarine organisms including twelve species of salmonids listed as threatened or endangered under the Endangered Species Act. The Partnership's Management Plan identifies over 50% of the habitat in the lower Columbia River as being lost or degraded. For some key wetland types, the number reaches nearly 75%. The habitat loss is

attributed to significant increases in developed land, flow changes related to dam operations, dike construction, tide gate installation, shoreline armoring, and channel deepening. Wetland areas promote networks of physical complexity such as shallow, dendritic channels and backwater sloughs. Juvenile salmonids are particularly dependent on these types of habitats for feeding, rearing and refuge as they migrate downstream. Habitat connectivity is also critically important, particularly to salmonids because they integrate habitat over very long distances. While large salmonid recovery efforts have been initiated at every level of government, much habitat based, no strategic, scientifically based effort to restore wetland habitat in the lower Columbia River currently exists.

Existing Efforts. Existing habitat restoration efforts are primarily opportunistic in nature and lack an approach that focuses on the overall ecosystem and the “salmon” perspective necessary to connect migration corridors. Several stumbling blocks have prevented development of a formal conservation and restoration program for the lower Columbia River and estuary:

1. The river’s ecosystem functions are poorly understood, particularly relative to salmonids.
2. Incomplete data exists on quantity and quality of existing habitat and the link to water quality.
3. A lack of accepted project selection criteria makes evaluating the merit of a restoration project relative to the ecosystem and listed species needs difficult.
4. No coordinating framework, management structure, or mutually-agreed upon goals make it hard to bring stakeholders together in a meaningful fashion.
5. Without baseline habitat data or habitat monitoring agreements it’s extremely difficult to characterize temporal changes and evaluate restoration project success.
6. Insufficient resources exist to implement conservation and restoration projects.

Why the Estuary Partnership? The Partnership is ready to proceed – all that stands between on-the-ground habitat results is funding. The Partnership has established the framework for implementing an ecosystem-based habitat conservation and a restoration program that provides structure, an ecosystem perspective, and the hands-on identification of local projects. In addition, the Partnership:

- **Has the science:** The Partnership focuses both on water quality and habitat and the interdependency of the two. We have completed a comprehensive habitat inventory and mapping project. Appendix C provides the results and a summary of the 2001 Habitat Restoration Workshop, and the habitat project evaluation and prioritization criteria.
- **Is a partnership:** many entities are poised to implement the actions of the Management Plan's, what is missing is funding: Building support for local entities is our most useful role.
- **Has the capacity:** We have the capacity to and do administer large grant programs.

In addition, this proposal specifically addresses many of the stumbling blocks to a strategic and coordinated conservation and restoration program. It establishes a comprehensive, ecosystem-based collaborative partnership within which to identify, prioritize, implement, and evaluate habitat conservation and restoration projects in the long-term and it provides the base funding to begin implementation of key projects. This proposal also complements a series of activities outside of this proposal that are addressing the remaining stumbling blocks including: NOAA Fisheries research on juvenile salmonid use of the estuary; the Partnership's focus on water quality and its project to develop high resolution habitat maps and data sets of the lower river and estuarine habitat; the habitat criteria developed in June 2001; and the project to develop monitoring protocols.

What will the Watershed Initiative Project Add? Why a Grant Program? Providing data and information about the water quality and habitat along with funds to local entities helps ensure that the local community will understand the project and feel connected to it. This significantly enhances the likelihood that the project will be sustained and it promotes local stewardship of our resources. A systematic approach that uses the best available understanding of the ecosystem and its relationship to salmonid use is critical to the implementation of an effective and realistic conservation and restoration program in the lower Columbia River and estuary.

The Project. We request \$1,290,000 from Watershed Initiative for the Lower Columbia River Partnership to institute conservation and habitat restoration projects in the lower Columbia River in two ways. The Initiative will establish a grants fund for conservation and restoration projects to build the capacity of local efforts and the Initiative will complete two pilot restoration projects.

Project Goals. To conserve the Columbia River estuarine ecosystem through collaborative private, local and state actions that implement on-the-ground conservation and restoration projects.

- To encourage conservation that supports the natural resource-based economies of the region, including forestry, farming, commercial and recreational fishing and tourism.
- To advance recovery and eventual de-listing of threatened and endangered species.
- To provide local, grassroots solutions to community challenges connected to conservation.

The Grants Program. Funds will awarded through a competitive grant process to non-profits, educational institutions, local and state governments and special purpose districts for the purpose of completing top priority conservation and restoration projects. The Partnership Science Work Group will develop criteria and a scoring system to ensure that priority conservation projects are funded. Applicants will be required to provide 25% local match and a monitoring and evaluation plan.

Grant scoring criteria will include elements such as:

- Importance of the resource. Land that contains priority habitat types, supports threatened or endangered species or larger ecosystem functions such as habitat connectivity, or is listed as a priority in local planning documents.
- Threat to the resource. Habitat that is imminently threatened with development, resource extraction, or another modification that would significantly diminish habitat value.
- Consistency with the Partnership Management Plan, as well as Lower Columbia Fish Recovery Board, Northwest Power Planning Council, and/or Willamette Riverkeeper plans.
- Local support and match and the project's readiness to proceed.

The Demonstration Projects Descriptions. Working with various local interests, the Partnership and its partners have identified pilot restoration projects in Oregon and Washington. In Oregon, the Rooster Rock Wetland project would enhance about 200 acres of wetland habitat in the upper portion of our study area at an estimated cost of \$100,000 to \$250,000. In Washington, the Deep River project will acquire and restore approximately 118 acres of spruce swamp, tidal riparian, forested floodplain habitat along the tidal portion of the Deep River. Total cost for this project is \$956,002; all but \$239,784 is secured. Both projects will improve water quality as well as critical habitat types important to listed salmonids. Appendix D describes these in projects detail.

Schedule and Budget. As soon as funds are provided for an eighteen month period. We request \$1,290,000 from the USEPA Watershed Initiative. We have *provided the required 25% match and an additional \$1,088,830* in project funds. See Appendix A for detail.

Milestones. By utilizing the framework and expertise of the Partnership's current grant program and habitat prioritization criteria already in place, the Partnership will be able to initiate this project immediately. Specific project milestones include:

- Month 1-3 Finalize grant criteria and RFP. Release RFP. Receive RFP proposals. Initiate pilots.
- Month 4-7 Prioritize and award grants. Sign contracts. Obligate 50% of funding.
- Month 7-10 Evaluate; second RFP; obligate 30% of funding. Receive reports. Manage program.
- Month 12-14 Evaluate, third RFP, obligate remaining 20% of funding. Manage program.
- Month 12-18 Conclude pilot projects. Evaluate, prepare and distribute field guide and website.

Monitoring & Evaluation. With funding secured from Bonneville Power Administration in 2002, the Partnership will implement a pilot project to develop habitat monitoring protocols specific to the lower Columbia River estuarine system. The project will develop a set of protocols that track

changes in estuarine and riverine habitat over time, and then to apply those protocols specifically to individual projects to evaluate their success.

Description of Staff, Management, Supporters and stakeholders for the watershed plan and the proposed project(s). Project Lead: Bruce Sutherland, Program Scientist.

Bruce has worked with the Partnership since April 1997. He has worked for the Washington Office of Marine Safety and for the Oregon DEQ in a variety of capacities, including as an aquatic biologist and coordinating the oil spill prevention and response program. Bruce has a B.S. in Biological Oceanography from the University of Washington and a M.S. in Marine Resource Management. Bruce coordinates the habitat assessment and mapping project; developing criteria for habitat restoration; developing list of potential restoration sites; overseeing data management interests; administering the mini-grant program; staffing the science work group; and implementing the long term monitoring. See Appendix E for additional staff.

Technical expertise. The habitat restoration projects, the grants criteria and evaluation will be managed by Bruce Sutherland with the Science Work Group providing the work. Members of include: land conservancies; Columbia River Inter-Tribal Fish Commission; Oregon Graduate Institute; Columbia Land Trust; Ducks Unlimited; Pacific Joint Coast Venture; Lower Columbia Fish Recovery Board; Oregon Watershed Enhancement Board; Ports; Agriculturalists; Oregon and Washington Departments of Fish and Wildlife; USEPA; NOAA Fisheries; US Fish and Wildlife Service; Army Corps of Engineers; Sea Resources; and Columbia River Estuary Study Task Force. See Appendix F.

Stakeholders – and supporters. Local governments (28); Columbia River Inter-Tribal Fish Commission; Oregon and Washington watershed councils, local conservation groups, schools, educators, land conservancies, Columbia Land Trust, Ducks Unlimited, Pacific Joint Coast Venture, Lower Columbia Fish Recovery Board; Oregon Watershed Enhancement Board; Ports; Agriculturalists; Oregon and Washington Departments of Fish and Wildlife; USEPA; NOAA Fisheries; US Fish and

Wildlife Service; Army Corps of Engineers; Sea Resources; and Columbia River Estuary Study Task Force. Additional key staff are included in Appendix F.

Outreach Activities. Transferring knowledge gained and enhancing public understanding.

All the projects undertaken will serve as demonstration projects for other habitat restoration and protection efforts required in the lower Columbia River and estuary, as well as tributary watersheds. The Partnership will produce a field guide to successful restoration projects, including photographs, goals, types of habitat, habitat values, project methodology, and contact information. The Partnership will maintain the field guide electronically to add new partners and projects.

Results. The Partnership proposes this Initiative because it immediately puts into action, the protection and restoration efforts identified through the Partnership's planning processes, as well as the processes and plans of key partners, including Oregon and Washington salmon recovery plans, and NOAA Fisheries recommended actions for habitat protection. Specific results include:

- Achieve 318 acres of habitat protection through two demonstration projects; our goal is to protect approximately 2,000 total acres through grant projects.
- Complete a collaborative strategy for habitat restoration to improve sustained restoration
- Implement an information campaign to raise awareness
- Involve citizens in project development or on the ground work
- Implement project monitoring and evaluation to track change over time and evaluate success

Broad Support. A collaboration of partners developed this project: the Columbia Land Trust; American Rivers; Columbia River Inter-Tribal Fish Commission; NOAA Fisheries; the Partnership; the Lower Columbia Fish Recovery Board and many others.

Innovation. This is one of the first strategic conservation and restoration programs targeted at the Lower Columbia River area. It incorporates habitat mapping technology and new understanding of

estuarine habitat relationships to salmonids to provide an ecosystem based approach to conservation and restoration. Isolated restoration efforts do not provide the most comprehensive and effective protection of the resources. In addition, the loss of habitat is an issue for many rural communities that extends far beyond the impact of species in the river: loss of habitat impacts commercial fishing industry (now down in some areas to just four days a year) to agriculture (where productive farmland is flooding more). The population is in decline as the natural resource based economy withers, and with it the local tax base. The Columbia Land Trust, a major partner of this program, is committed in its conservation projects to continue paying property taxes on the land. This program is tied directly to local communities and building sustainable use of resources.

Compatibility with other State and Federal – and Tribal – Programs. The Partnership Watershed Initiative is highly compatible with and integrates many federal and state programs. We are integrating the following major tribal, federal and state initiatives:

- National Estuary Program, Lower Columbia River Partnership
 - Carries out actions in the Partnership Management Plan related to habitat, species recovery, and species recovery coordination.
 - Seeks to conserve or restore 16,000 acres of habitat by 2010.
 - Appointed by the Governors to organize a policy level committee to coordinate responses to species recovery
 - Appointed by the Northwest Power Planning Council as a lead entity for subbasin planning
- Pacific Northwest Salmon Recovery Program
 - Washington’s Washington Salmon Recovery Plan, and the Lower Columbia Fish Recovery Board – representatives of which are on Partnership Board of Directors – which receives funding from the State Salmon Recovery Fund.

- Oregon's Oregon Plan for Salmon and Watersheds and the Oregon Watershed Enhancement Board – lead agency coordinating Oregon's species recovery efforts and Pacific Northwest Salmon Recovery Program
- Wy-Kan-Ush-Mi Wa-Kish-Wit (Spirit of the Salmon)
 - The Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes (the four Confederated Tribes of the Columbia River Inter-Tribal Fish Commission).
- Oregon Watershed Councils: Councils are grass roots entities focused on watershed protection.
- Watershed Resource Inventory Areas: Washington entities responsible for assessing the condition of specific watersheds.
- Northwest Power Planning Council Fish and Wildlife Plan
 - Develop a program to protect, mitigate and enhance fish and wildlife of the Columbia River Basin impacted by hydropower dams. Subbasin plans have a role in recovery planning for NOAA Fisheries and the US Fish and Wildlife Service, as well as a coordination function at the local and state levels.
- NOAA Fisheries Biological Opinion for the Federal Columbia River Hydropower System
 - Calls for restoration of 10,000 acres of tidal wetlands and other key habitats in the lower 46 river miles by 2010.
 - NOAA Fisheries provides targets for ESA-listed salmon populations to subbasin planning.

Interjurisdictional. The Partnership is a two state National Estuary Program. The Partnership is supported by the Governors and state agencies of Oregon and Washington. The Partnership has active involvement with the Columbia River Inter-Tribal Fish Commission which has supported the efforts of the Partnership before Congress and has served as Vice Chair of the Board. The study area includes 28 municipalities and 9 counties in both states.

List of Appendices

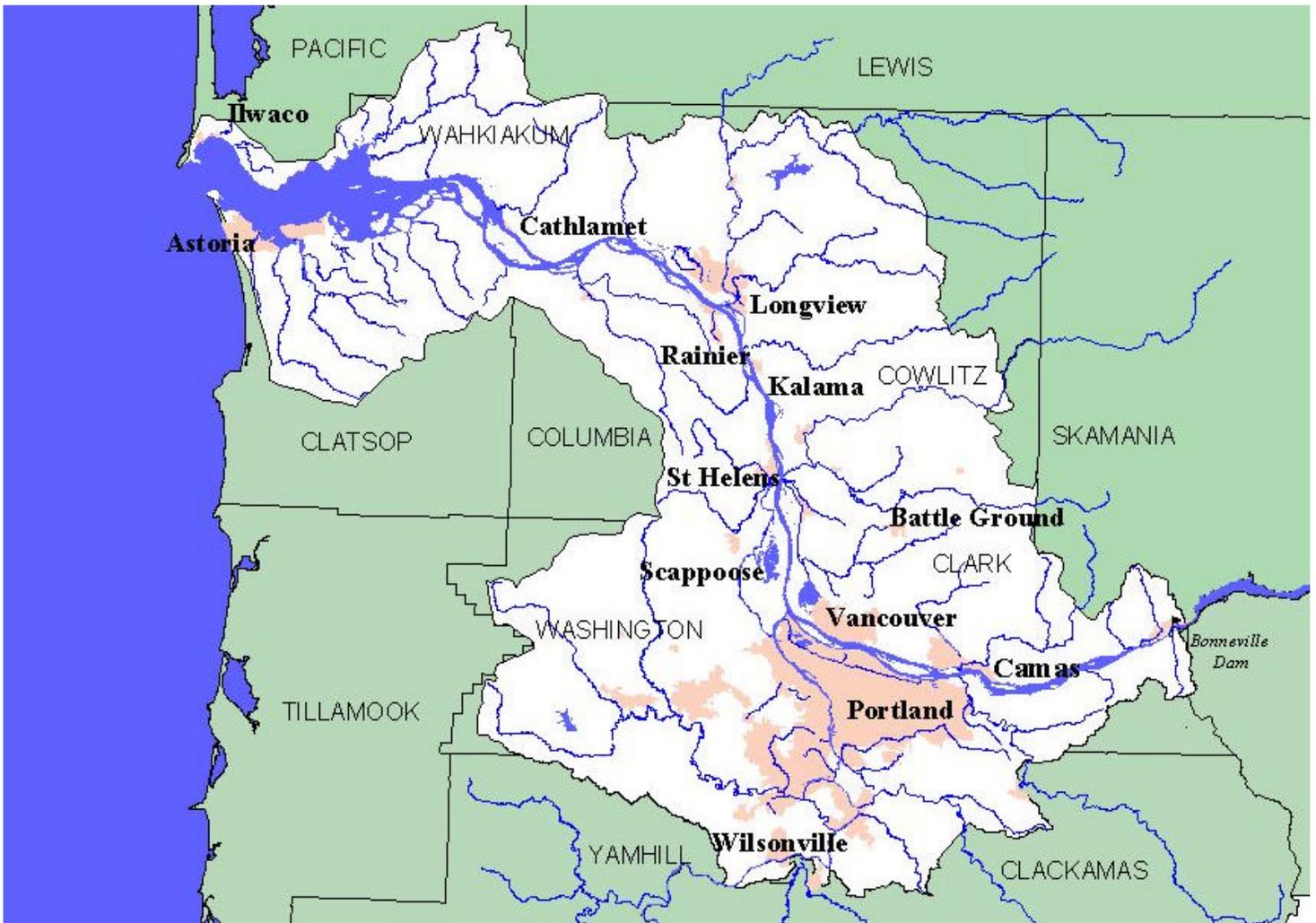
- A.** Watershed Initiative Budget Detail
- B.** Map of Study Area
- C.** Results of the habitat inventory and mapping project, a summary of the 2001 Habitat Restoration Workshop, and the habitat project evaluation and prioritization criteria
- D.** Descriptions Demonstration Projects
- E.** Additional Staff qualifications
- F.** Partnership Science Work Group Members
- G.** Partnership Board of Directors
- H.** Letters of Support

Appendix A

Lower Columbia River Estuary Partnership Watershed Initiative Budget Detail 2002-2003

	Watershed Initiative Funds	Required Non-Federal Match (25%)	Additional Non-Federal Project Contributions	Source of Non- Federal Funds	Total
Personnel					
1 FTE - Project Manager	\$59,300.00				\$59,300.00
Benefits	\$19,700.00				\$19,700.00
Supplies & Services	\$21,000.00				\$21,000.00
0.5 FTE		\$20,000.00		American Rivers	\$20,000.00
In Kind Personnel		\$53,300.00		Science Work Group - 20 mtgs	\$53,300.00
Demonstration Projects					
Rooster Rock	\$125,000.00		\$35,000.00	Oregon State Parks	\$160,000.00
Deep River	\$240,000.00	\$130,000.00	\$586,215.00	Columbia Land Trust	\$956,215.00
Willamette River restoration projects- metro area			\$36,915.00	City of Portland	\$36,915.00
Columbia Slough restoration projects			\$155,700.00	City of Portland; Portland Parks, Metro, Port, Private parties	\$155,700.00
Hyperspectral Imagery Analysis			\$75,000.00	BPA	\$75,000.00
Grants	\$600,000.00	\$200,000.00		Grant Recipients	\$800,000.00
Monitoring & Evaluation	\$80,000.00		\$200,000.00	BPA	\$280,000.00
Outreach					
Field Guide	\$50,000.00				\$50,000.00
Volunteer Support		\$15,000.00		Estuary Partnership	\$15,000.00
Web Support	\$5,000.00				\$5,000.00
Project Management	\$90,000.00	\$20,000.00		Estuary Partnership	\$110,000.00
Total	\$1,290,000.00	\$438,300.00	\$1,088,830.00		\$2,817,130.00

Appendix B



Lower Columbia River Partnership Study Area

Appendix C
**Results of the habitat inventory and mapping project, a summary of the 2001
Habitat Restoration Workshop, and the habitat project evaluation and
prioritization criteria**

Appendix C is provided on CD, included with package.

Appendix D

Demonstration Project Descriptions

DEEP RIVER CONSERVATION PROJECT

Deep River Phase 1 Summary

The ecological health of the Columbia River Estuary is a critical factor in the recovery of every listed salmonid species in the entire Columbia River watershed. The Deep River, a significant watershed within the Columbia River estuary, is utilized by 5 species of anadromous salmonids: Chinook, Chum, and Coho Salmon, Steelhead, and searun cutthroat. Chinook, Chum, and Steelhead are listed as threatened within the Columbia River. Searun cutthroat are proposed, and coho are a candidate species. Phase 1 will acquire and restore approximately 168 acres forested wetland/floodplain habitat. The following limiting factors are addressed by this project: floodplain connectivity, large woody debris, riparian condition and water quality. This project is part of ongoing restoration efforts in the area, and provides a significant contribution to large-scale (watershed) restoration efforts.

Restoration will include levee breaches, tidegate removal, ditch filling, and swale enhancement. Restoring tidal function to this portion of the estuary will improve water quality conditions both within the Deep River and the Columbia estuary. Reconnecting this floodplain property with the river will improve habitat and water quality, restore salmonid rearing habitat, and will increase basin productivity for all life history stages of salmonids. This project will also benefit upriver Columbia Basin salmonids dependent upon the Lower Columbia River estuary for juvenile nursery habitat.

Project Location

Project is adjacent to the Deep River, approximately ½ mile upstream from the confluence with the Lower Columbia River estuary. All properties are within Section 29, T 10 N, R 8 W

Project Benefit

Phase 1 of this project will protect, reconnect and restore 168 acres of riparian floodplain habitat to benefit salmon production in the entire Columbia River basin. This will increase watershed function, address limiting factors and provide large areas of nursery rearing habitat with abundant food and cover. This project is extremely significant for restoring biological function for this stream reach, for the Deep River watershed, Grays Bay area, and for the entire Columbia River basin. The project focuses on estuarine and riparian wetland habitats, which are crucial to salmon production for all fish in the Columbia River basin because of their high productivity and large capacity. Without a rich and productive nursery and rearing and overwintering habitat, the condition of juvenile salmon will be poor and their susceptibility to disease, predation and competition will be high resulting in lower survival rates. These habitats also provide an anchor point for stabilizing the entire system, since all the physical processes in a given watershed are result from a naturally functioning estuary. This project is a significant complement to previous projects in the area, and important in restoring salmonid production in this basin. The project will provide these benefits to Columbia River salmon immediately and for years to come.

Once restored, the emergent marshes and much of the forested areas will be inundated at least once per day, affording juvenile fish access to a variety of food sources and providing abundant cover. During low tides, fish will likely move into the deeper portions of the tidal channels and seek cover until the tide comes back in. Juvenile chinook will use these habitats in the spring months, and may rear their first winter here as well. Juvenile coho will move into this area in the spring and will over-summer and spend their first winter in this habitat. Sampling at a Gray's River site showed hundreds of age 0+ coho using the tidal channels during falling tide in late May. Steelhead may only use these habitats for a limited duration in the spring before they outmigrate. Chum salmon are not produced within the Deep River itself, but have a stronghold in the Gray's River, and it is very likely that outmigrating juveniles will benefit from work in the lower Deep River area. While chum salmon use of estuarine marshes is brief, they will have excellent foraging opportunities. Searun cutthroat use will overlap with that of chinook and steelhead, during the spring. Primary benefits will be rearing habitat and a dynamic and productive foraging area. Secondary benefits will be related to the improved functional condition of the lower Deep River system.

Long-term benefits associated with functional floodplains and wetlands include increased flood storage capacity, which reduces a stream's flashiness and leads to more natural sediment and organic transport systems. Functional wetlands also improve water quantity through subsurface recharge. This helps cool water temperatures and augment low flows, improving migration conditions. Reconnection of the riparian area improves in-stream habitat characteristics and further stabilizes sediment and organic dynamics. As the river system becomes more stable and is transporting more of the fine material out of the system, spawning habitat quality and subsequent egg survival will improve. Also, the restoration of this system will ultimately improve the quality and productivity of the Columbia River estuary.

Conservation of the core nursery and over-wintering habitat is the first key step to salmon recovery for this watershed. Restoration activities on the conserved lands will help salmon recovery by improving habitat condition and function. It is critically important to remove land use threats including logging, development and agricultural uses within the floodplain wetlands. This acquisition is a natural follow-up to Columbia Land Trust's first purchase of 116 acres at the confluence of the Grays River and Seal River where riparian forest has been protected and the floodplain connectivity has been restored. An additional 500+ acres were added last year, and a third phase is proposed this year. This proposed property acquisition and restoration in the Deep River would not only complement nearby efforts, but further expand the effectiveness of these efforts by restoring the most productive components of the Deep River system. Grays Bay is an important estuary for juvenile salmonids, and Columbia Land Trust and Ducks Unlimited have made these systems a conservation priority in the Lower Columbia Ecoregion. Phase 2 of the Deep River project will acquire underlying interest in all 105 acres of the Campbell Group property to complete dike breaching and road removal.

Project Development

This project was identified because fisheries biologists believe that estuarine habitat projects are among the most important in the Columbia Basin, benefiting many fish species. Also, the project addresses the top limiting factors in the watershed. The project complements other nearby projects, including the first Grays River restoration project, completed in August, 2001. This specific site was selected because it is in the ideal location, the historic habitat can be recreated and the properties are for sale. These properties were once spruce bogs with emergent marsh inclusions, and multiple tidal sloughs and channels. Historic alterations included diking the river bank, dredging a main drain and installing a tidegate, clearing the forest and filling low areas to facilitate development. The restoration plan for the Deep River project is to reverse the habitat alterations that have disconnected and degraded the habitat. The project design focuses on restoring all habitat factors degraded when these properties were originally disconnected from the river. The proximity of these properties to other conservation areas would create a floodplain core area that will be reconnected to flood pulse.

Community Support

Community support for salmon recovery has been building momentum over the past two years. These projects demonstrate a commitment to salmon recovery by focusing efforts, and also are wholly positive in that they are voluntary and offer some landowners an economic incentive for conservation. Also, these projects support the local economy by providing jobs for local contractors, and enhancing the recreational and aesthetic values of the area. The Columbia Land Trust has met with the local grange, members of the community, recreational users, agency personnel working in the watershed, members of the Lower Columbia Fish Recovery Board and a local county commissioner to discuss and review land trust activities. The response to conservation efforts has been very positive and supportive.

Ownership and Stewardship

The Columbia Land Trust will own, manage, and maintain the Fauver and Gollersrud properties. Columbia Land Trust will work with the Campbell Group to maintain the site for conservation until such a time when property ownership is transferred to the Land Trust. Restoration activities are designed such that significant management or maintenance will not be required. The Land Trust will establish a stewardship fund to provide for all long-term maintenance and management as needed. These funds will be available to assure the objectives of this project are met.

Property Acquisition Cost Estimate				
	Property	Property	Property	Total Properties
Property Name	Gollersrud	Fauver	Campbell	Leave shaded
Date to be Acquired	<i>Dec 2002</i>	<i>Dec 2002</i>	<i>Dec 2002</i>	areas blank
Acreage to be Acquired	43	50	75	168
VALUE DETERMINATION TYPE (Check one for each property)				
Appraised/reviewed value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Estimate of value	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Letter of opinion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PURCHASE TYPE (Check one for each property)				
Fee ownership	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(land/improvements) Less than fee ownership	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ACQUISITION COST ITEMS (Complete all that apply)				
Applicable taxes	2,200	1,190		3,390
Appraisal and review	11,000	6,000	6,000	23,000
Baseline inventory	2,000	2,000	2,000	6,000
Closing	500	400	0	900
Demolition				
Easement – access				
Easement – conservation				
Easement – other				
Easement – trail				
Fencing				
Hazardous substances	3,000	3,000	3,000	9,000
Improvements & structures				
Land	160,000	25,000		185,000
Noxious weed control				
Other				
(Specify) Closing fees	60	60	60	180
Relocation				
Rights – agriculture		75,000		75,000
Rights – development				
Rights – mineral				
Rights – other			150,000	150,000
Rights – timber				
Rights – water				
Signing	500	500	500	1,500
Survey	5,000	0	5,000	10,000
Title reports/insurance	630	510	300	1,440
Wetland delineation				
Column Sub-Total	184,890	113,660	166,860	465,410
Admin Costs (5% of Sub-Total)				23,270
TOTAL ACQUISITION COSTS				488,680

Restoration Cost Estimate

Item	Unit	Qty.	Total Cost	Description Needed	Description (60 characters max.)
Bulkhead removal	Linear ft			Optional	
Dike breaching/removal	Linear ft	15,111	151,111	Optional	Dike removal
Eel grass bed reestablishment	Sq ft			Optional	
Estuary planting	Sq ft		20,000	Optional	
Flushing/partial passage	Lump sum			Optional	
Levee construction	Cubic yds	29,185	126,889	Optional	Levee, ditch plug
Kelp forest reestablishment	Lump sum			Optional	
Landfill removal	Cubic yds			Optional	
Other	Lump sum	1	39,580	Describe	Mobilization, Clearing & Grubbing
Permits	Lump sum	1	2,000	Optional	
Plant removal/control	Lump sum			Optional	
Project success monitoring*	Lump sum		15,000	Describe	
Shoreline restoration	Lump sum			Optional	
Site maintenance	Lump sum			Describe	
Tidal channel reconstruction	Lump sum	7,111	17,778	Optional	
Tide gate removal	Lump sum	1	1,500	Optional	
Sales Tax					
Sub-Total			373,858		
Architecture, Engineering, & Admin. (30% of Sub-Total)			93,464		
TOTAL COSTS			467,322		

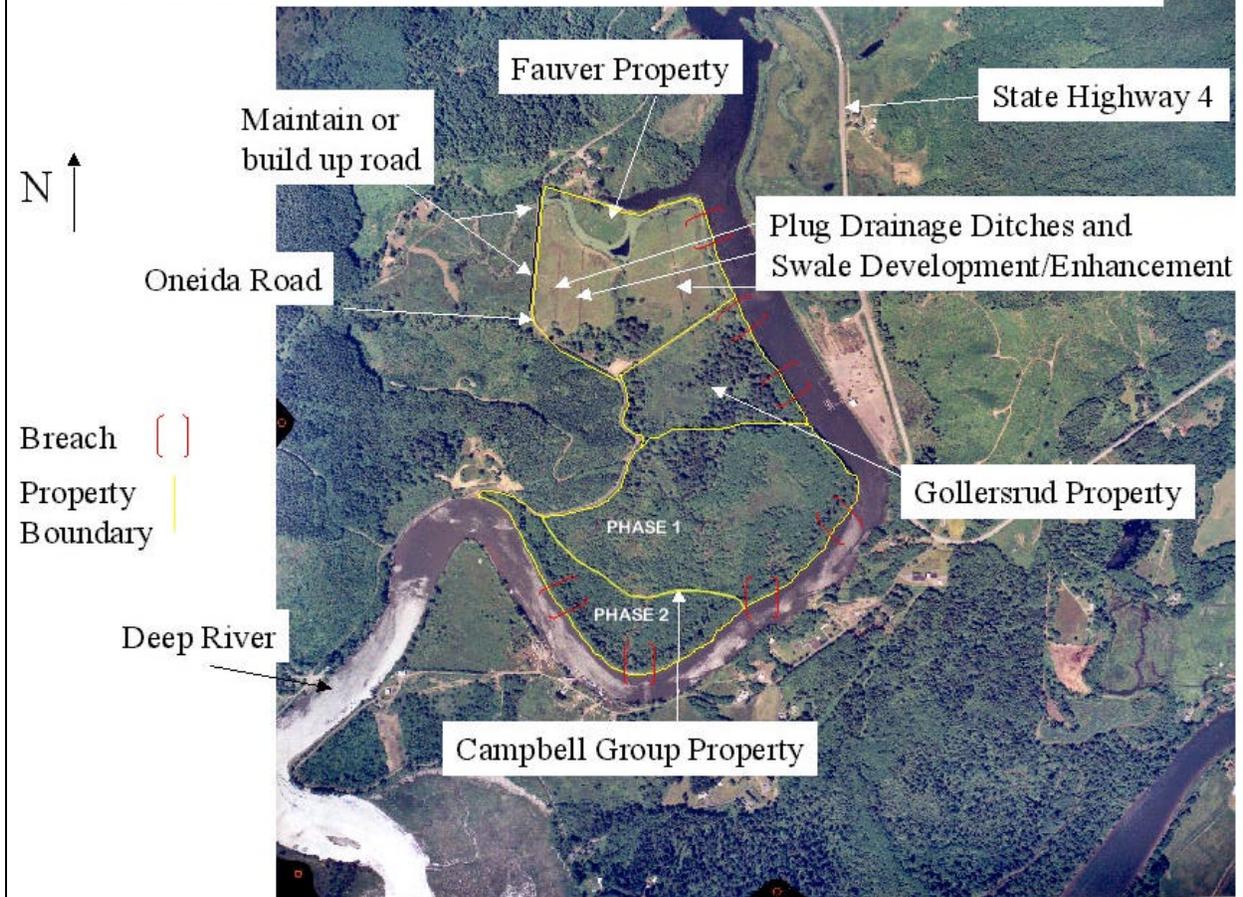
PROJECT TOTAL: \$956,002

SPONSOR MATCH: \$716,215

PROJECT NEED: \$239,787

LOWER COLUMBIA RIVER ESTUARY: DEEP RIVER

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ROOSTER ROCK WETLANDS

Location: Rooster Rock State Park approximately 10 miles east of Troutdale

Number of Acres: Approximately 200 acres

Description of Area: Rooster Rock State Park is a popular park on the Columbia River about 10 miles east of Troutdale, Oregon. It provides public beach access, picnicking, and small boat moorage for day use visitors. The park includes Mirror Lake which is separated from the Columbia River by Interstate 84. The lake is used for fishing and recreation and it contains some high quality emergent wetland habitats at its upstream end. Further upstream, where State Parks eliminated grazing of former pastures in the early 1990s, wetland and riparian habitats are dominated by reed canary grass, blackberry and other non-native species. These areas were historically subject to annual flooding from the Columbia River but I-84 cuts off flood flows and limits the river's influence on the lower reaches.

Description of Project: Improve hydrology to enhance and restore upstream habitats

Benefits: Improved flows will enhance return of native vegetation and improve habitat values for a variety of species and provide improved access and refugia for migratory salmonids.

Status: Oregon State Parks has strong interest in developing a restoration and enhancement project. Potential partners are being identified.

Estimated Cost: \$100,000 to \$250,000

Project Partners: Oregon State Parks, Pacific Joint Venture,

Steps to Implementation:

- Meet with project partners to agree on scope of project including goals and objectives and project management arrangements
- Conduct site survey
- Develop work plan
- Solicit bids to undertake necessary construction work
- Begin construction
- Complete construction
- Conduct needed restoration to include plantings of native plant species
- Construct public amenities such as wildlife viewing sites, nature trails, information kiosk(s)

Appendix E

Other Staff or Technical Resources

Jeffrey P. Breckel, Executive Director of the Lower Columbia Fish Recovery Board. Mr. Breckel has served as the Executive Director of the Lower Columbia Fish recovery Board since December 1998. The fifteen-member Board was established by state law in 1998 to provide local governments, tribes, and interested citizens an active role in salmon and steelhead recovery efforts in the lower Columbia region. The region encompasses all or portions of Clark, Cowlitz, Lewis, Skamania, and Wahkiakum counties. The Board is responsible for coordinating fish habitat restoration and preservation efforts, assessing conditions limiting the recovery of threatened or depressed fish stocks, assisting in the development and implementation of a regional fish recovery plan, leading watershed planning activities, and promoting public understanding and participation in recovery efforts. From 1988 to 1998, Mr. Breckel served as the senior policy advisor to the Department of Ecology and the Governor's Office on issues relating to nuclear waste management and disposal, Hanford cleanup activities, and commercial radioactive waste disposal. Mr. Breckel served as Executive Director of the Oregon and Washington Columbia River Gorge Commissions from 1978 to 1987. This bi-state program was responsible for overseeing the management and protection the natural, scenic, and cultural resources of the Columbia Gorge.

Glenn Lamb, Executive Director, Columbia Land Trust. Glenn Lamb currently serves as Executive Director of Columbia Land Trust, a private not-for-profit group that conserves vital habitat and signature landscapes together with the communities of the lower Columbia River region, from east of the Cascades to the Pacific Ocean in both Oregon and Washington. The Land Trust works with private land owners to put in place perpetual conservation plans. Glenn was a founding board member of the Land Trust in 1990, and served at various times as secretary, treasurer and president before becoming Executive Director in May, 1999. The Land Trust's three primary focus areas are land conservation, public outreach and organizational development. Through December 1999, the Land Trust has conserved over 1,000 acres at 19 locations. In March 2000 the land trust was awarded a grant of \$999,000 to acquire and/or restore over 4,500 acres of Columbia River wetlands. Glenn has worked in southwest Washington since 1987 in the fields of park and open space planning and acquisition, groundwater protection, and hazardous waste management. While with Clark County, WA and the city of Vancouver, WA, Glenn supervised a \$30 million open space acquisition program that added approximately 3,000 acres of land to Clark County's park and open space network. Glenn also coordinated Clark County's involvement with the Lower Columbia River EcoRegion Restoration projects, phase I and II, which brought nearly \$2,000,000 for restoration of Columbia River floodplains and wetlands. In his work at Columbia Land Trust, Glenn focuses on direct actions with private landowners to conserve the important lands and waters of our region. The Land Trust works with willing, voluntary landowners to conserve lands and to develop perpetual stewardship plans. Mr. Lamb earned a Master in Urban and Regional Planning from the University of Oregon and a B.A. in Natural Resource Management and Sociology from the University of Rochester, NY.

Debrah Richard Marriott , Executive Director - Chief Executive Officer. Debrah Richard Marriott joined the Partnership at its inception in December 1995. She came to Oregon from the State of Maine. While in Maine, she worked at the Maine Department of Environmental Protection, serving as the Director of the Bureau of Land Quality, Deputy Commissioner and concluded her tenure as Acting Commissioner. Prior to her appointment at the MeDEP, she served as Planning and Community Development Director for the City of Lewiston, Maine. Debrah holds a M.A. in Geography from the University of Oregon and a B.A. in Geography from the University of Maine. She is a member of the American Institute of Certified Planners.

Chris Hathaway, Director of Watershed Programs. Chris joined the program in October 1998. During his graduate work, he helped develop Inventory, Assessment, and Management Recommendations for the Coastal (Lake Michigan) Wetlands of Manitowoc County Wisconsin, and co-authored a statewide inventory and analysis of Wisconsin Watershed Councils. He worked for the Trout-Unlimited Kickapoo Watershed Conservation Project. Chris holds a M.S. in Water Resources Management from the University of Wisconsin and degrees in Political Science and English from the University of Oregon. Chris takes the lead in delivering programs that involve land use, and water quality, and land users. Chris is the project manager for the stormwater management projects, coordinates the Lower Columbia River Water Trail Project, works with watershed councils and local governments, and writes Partnership publications.

Appendix F Partnership Science Work Group Members

<p>Antônio M. Baptista, Ph.D. Oregon Graduate Institute of Science and Technology PO Box 9100 Portland OR 97291-1000 Ph: 503.690.1147 Fax: 503.690.1273 baptista@ccalmr.ogi.edu</p>	<p>Jeremy Buck US Fish and Wildlife Service Oregon State Office 2600 SE 98th Ave. Suite 100 Portland, OR. 97266 Ph: 503-231-6179 Fax: 503-231-6195 Jeremy_Buck@r1.fws.gov</p>	<p>Edmundo Casillas, Ph.D. Northwest Fisheries Science Center National Marine Fisheries Service, NOAA 2725 Montlake Blvd.E. Seattle Washington 98112 Ph: 206.860.3313 edmundo.casillas@NOAA.gov</p>
<p>Carl Dugger (State Agencies) WA Dept. of Fish & Wildlife 522 18th Street Washougal, Washington 98671-1516 Ph: 360.906-6729 Fax: 360.906-6776 ZABTPA36@aol.com DUGGERCD@DFW.WA.GOV</p>	<p>Chuck Henny USGS-Forest & Rangeland Ecosystem Science Center 3200 SW Jefferson Way Corvallis, Oregon 97331 Ph: 541.757.4840 Fax: 541.757.4845 hennyc@fsl.orst.edu</p>	<p>Si Simenstad Wetland Ecosystem Team University of Washington School of Fisheries Box 355020 Seattle, Washington 98195-5020 Ph: 206.543.7185 Fax: 206.685.7471 simenstd@u.washington.edu</p>
<p>Chauncey Anderson US Geological Survey 10615 SE Cherry Blossom Dr. Portland, OR. 97216 Ph: 503.251.3206 Fax: 503.251.3470 chauncey@usgs.gov</p>	<p>Rick Mishaga Environmental Manager Port of Portland PO Box 3529 Portland, Oregon 97208 Ph: 503.944.7317 Fax: 503.944.7333 Mishar@portptld.com</p>	<p>Ian Sinks (Environmental) Columbia Land Trust 1351 Officers' Row Vancouver, Washington 98661 Ph: 360.696.0131 Fax: 360.696.1847 glamb@columbiastrandtrust.org</p>
<p>Esther Lev (Conservation) 729 SE 33rd Portland, Oregon 97214 Ph: 503.239.4065 Fax: 503.239.4065 estherlev@aol.com</p>	<p>David Moryc American Rivers NW Regional Office 150 Nickerson Street, Suite 311 Seattle WA 98109 Ph: 206.213.0330 Fax: 206.213.0334 dmoryc@amrivers.org</p>	<p>Greg Pettit OR Dept. of Environmental Quality 1712 SW 11th Avenue Portland, Oregon 97201 Ph: 503.229.5983 Fax: 503.229.6924 greg.pettit@state.or.us</p>
<p>David Jay PhD Oregon Graduate Institute of Science and Technology PO Box 9100 Portland OR 97291-1000 Ph: 503-748-1372 djay@ese.ogi.edu</p>	<p>Cathy Tortorici (Federal Agencies) NOAA Fisheries 525 NE Oregon St., Suite 500 Portland, Oregon 97232-2737 Ph: 503.231.6268 Fax: 503.231.6265 cathy.tortorici@noaa.gov</p>	<p>John Marshall US Fish and Wildlife Service Oregon State Office 2600 SE 98th Ave. Suite 100 Portland, OR. 97266 Ph: 503-231-6179 Fax: 503-231-6195 John_Marshall@r1.fws.gov</p>
<p>Bob Willis US Army Corps of Engineers Portland District PO Box 2946 Portland, OR. 97208 Ph: 503-808-4760 Fax: 503-808-4756 Robert.e.willis@usace.army.mil</p>	<p>Matt Van Ess CREST 750 Commercial Street, Room 205 Astoria, OR. 97103 Ph: 503-325-0435 Fax: 503-325-0459 Mvaness@columbiaestuary.org</p>	<p>Allan Whiting CREST 750 Commercial Street, Room 205 Astoria, OR. 97103 Ph: 503-325-0435 Fax: 503-325-0459 awhiting@columbiaestuary.org</p>

<p>Robert Warren Sea Resources P.O. Box 187 Chinook, WA. Ph: 360-777-8229 Fax: 360-777-8254 Robert@searesources.org</p>	<p>Paul Lumley / Cat Black Columbia River Intertribal Fish Commission 729 NE Oregon, Suite 200 Portland, OR. 97232 Ph: 503-728-2945 Fax: 503-235-4228 lump@critfc.org</p>	<p>Jeff Weber / Tanya Haddad DLCD 800 NE Oregon Street, #18 Portland, OR. 97232 Ph: 503-731-4065 Fax: 503-731-4068 Jeff.weber@state.or.us</p>
<p>Alan Ruger / Bonneville Power Administration 905 NE. 11th Avenue PO Box 3621 Portland, OR. 97208-3621 Ph: 503-230-5813 Fax: 503-230-4564 Awruger@bpa.gov</p>	<p>Ronald Thom PNW National Laboratory 1529 W. Sequim Bay Road Sequim, WA. 98382 Ph: 360-681-3657 Fax: 360-681-3681 Ron.thom@pnl.gov</p>	<p>Donna Hale Washington Dept of Fish and Wildlife 2108 Grand Blvd Vancouver, WA. 98661 Ph: 360-696-6211 Fax: haledhh@dfw.wa.gov</p>
<p>Carey Smith Pacific Coast Joint Venture 9317 NE Highway 99 Suite D Vancouver, WA 98665 Ph: 360-696-7360 Fax: 360-696-7968 Carey_smith@fws.gov</p>	<p>Bruce Taylor Oregon Wetlands Joint Venture 1637 Laurel Street Lake Oswego, OR. 97034 Ph: 503-697-3889 Fax: 503-697-3268 btaylorwet@aol.com</p>	<p>Peter Huhtala CDOG (Columbia Deepening Opposition Group) P.O. Box 682 Astoria, OR. 97103 Ph: 503.325.8069 huhtala@teleport.com</p>
<p>Andrew Reasoner Ducks Unlimited Pacific Northwest Field Office 1101 SE Tech Center Dr. #115 Vancouver, WA. 98683 Ph: 360-885-2011 Fax: 360-885-2088 areasoner@ducks.org</p>	<p>Tim Counihan US Geological Survey 5501-A Cook-Underwood Rd. Cook, WA. 98605 Ph: 509-538-2299 x 281 Fax: 509-538-2483 Tim_counihan@usgs.gov</p>	<p>Gary Johnson Battelle Marine Sciences Lab 105 W. Main Street, Suite 202A Battle Ground, WA. 98604 Ph: 360-687-9628 Fax: 360-687-9642 Gary.Johnson@pnl.gov</p>
<p>Bruce Sutherland LCREP 811 SW Naito Parkway Portland, OR. 97204 Ph: 503-226-1565 X 226 Fax: 503-226-1580 Sutherland.bruce@lcrep.org</p>	<p>Jennie Boyd LCREP 811 SW Naito Parkway Portland, OR. 97204 Ph: 503-226-1565 X 226 Fax: 503-226-1580 Boyd.jennie@lcrep.org</p>	<p>Ian Waite US Geological Survey 10615 SE Cherry Blossom Dr. Portland, OR. 97216 Ph: 503.251.3463 Fax: 503.251.3470 iwaite@usgs.gov</p>
<p>Gary Wade Lower Columbia Fish Recovery Board 2127 8th Avenue Longview, WA. 98362 Ph: 360-425-3274 Fax: 360-425- gwade@tdn.com</p>	<p>Jennifer Burke Ore. Dept. of Fish and Wildlife 28655 Hwy 34 Corvallis, OR 97333 (541) 757 - 4263 x264 Fax: (541) 757 - 4102 burkej@fsl.orst.edu</p>	<p>Steve Waste Bonneville Power Administration 905 NE. 11th Avenue PO Box 3621 Portland, OR. 97208-3621 503-872-7748 Fax: smwaste@bpa.gov</p>
<p>Martin Ellenberg Washington Dept of Fish and Wildlife 2108 Grand Blvd Vancouver, WA. 98661 Ph: 360-696-6757 Fax: 360-906-6776 ellensme@dfw.wa.gov</p>	<p>*Geoff Dorsey US Army Corps of Engineers Portland District PO Box 2946 Portland, OR. 97208 Ph: 503-808-4769 Fax: 503-808-4756 geoffrey.l.dorsey@usace.army.mil</p>	<p>*Dick Vander Shaaf The Nature Conservancy 821 SE 14th Ave Portland, OR. 97214 Ph: 503-230-1221 Fax: dvandershaaf@tnc.org</p>

Appendix G

Board of Directors, Lower Columbia River Estuary Partnership

January 2003 – December 2003

Officers

Brad Witt
Chair

Open
Vice Chair

Debrah Richard Marriott
Secretary

Board Members

Tom Byler
OR Dept of Water Resources

Kathryn Van Natta
Northwest Pulp and Paper

Glenn Akins
Friends of Ridgefield Refuge

Holly Van Fleet
REI

David Lohman
Port of Portland

Mike Soderberg
Educator

Paul Lumley
*Watershed Manager, Columbia River
Inter-Tribal
Fisberies Commission*

Glenn Vanselow
*Executive Director, Pacific Northwest
Waterways Association*

Carl Dugger
*Area Habitat Biologist
Washington Department of Fish and
Wildlife*

Ron Shultz
*Executive Policy Advisor,
Governor Locke's Office*

Neal Coenen
*Salmon Advisor,
Governor Kitzhaber's Office*

Jon Westerholm
Salmon for All

Kathleen Sayce
*Manager, Science Consulting
Shorebank Pacific*

Brad Witt
*Secretary-Treasurer,
AFL-CIO*

Troy Clark
Smith & ByBee Lakes

Angela Jackson
Co-Founder, Headwaters to Ocean

Glenn Lamb
*Executive Director, Columbia Land
Trust*

Jeffrey Breckel
*Director, Washington Lower Columbia
Fish Recovery Board*

Margaret Magruder
*Coordinator, Lower Columbia River
Watershed Council*

Roger Falter
Chair, Clark County District

Llewellyn Matthews
*Executive Director, Northwest Pulp
and Paper Association*

Bill Feddeler
Washington Audubon

Steve Harvey
*Director, Cowlitz Wabkiakum
Council of Governments*

Dean Marriott
*Director, Bureau of Environmental
Services
City of Portland*

Bill Hutchison
*Tooze, Duden, Creamer
Frank & Hutchison*

Matt Van Ess
*Director,
Columbia River Estuary Study
Taskforce*

Ex Officio:

Dan Opalski/ Yvonne Vallette
US Environmental Protection Agency

Cathy Tortorici
NOAA Fisheries

Davis Moriuchi
Army Corps of Engineers

Jeremy Buck
US Fish and Wildlife Service

Sue Mauermann
*Regional Director,
Department of Ecology*

Stephanie Hallock
*Director,
Oregon Department of Environmental
Quality*

Debrah Richard Marriott
Executive Director, Partnership

Staff

Debrah Richard Marriott
Executive Director

Susan Elshire
Executive Assistant

Bruce Sutherland
Program Scientist

Chris Hathaway
Director of Watershed Programs

Tammy Sanders
Director of Education Programs

Jennie Boyd
Volunteer Coordinator

Sarah Bercume
Education Assistant

Vanessa Bird
Administrative Assistant

Jami Walker
Americorps

Meghan DeNiro
Education Assistant

Appendix H

List of Letters of Support (Letters Attached)

Nomination letter:

Copy of Letter from Governor Gary Locke, Washington, and Governor John Kitzhaber, Oregon

Supporters providing match:

American Rivers

City of Portland, Bureau of Environmental Services

Columbia Land Trust

Supporters:

Columbia River Estuary Study Taskforce (CREST)

Cowlitz-Wahkiakum Council of Governments (CWCOG)

Holly Van Fleet, Board Member, REI

Oregon Parks and Recreation Department

Oregon Wetlands Joint Venture

The Wetlands Conservancy

United States Environmental Protection Agency, Oregon Operations Office