

W. G. a.

AGENDA COVER MEMO

Date: April 21, 2004
To: Lane County Board of Commissioners
Dept.: Public Works/Parks Division
Presenter: Todd Winter, Interim Parks Manager

Agenda Item Title: IN THE MATTER OF ALLOWING THE PARKS DIVISION TO COORDINATE WITH FRIENDS OF BUFORD PARK & MT. PISGAH TO SUBMIT GRANT PROPOSALS AND, IF AWARDED, TO ACCEPT THREE GRANTS FOR THE PURPOSE OF HABITAT ENHANCEMENTS IN THE SOUTH MEADOW AREA WITHIN HOWARD BUFORD RECREATION AREA; AND DELEGATING AUTHORITY TO THE COUNTY ADMINISTRATOR TO SIGN THE RESPECTIVE GRANT AGREEMENTS.

I. MOTION

Adopt order authorizing the Parks Division to coordinate with Friends of Buford Park & Mt. Pisgah to submit three grant proposals to, and, if awarded, to accept three grants from Oregon Watershed Enhancement Board, National Oceanic Atmospheric Administration, and U.S Fish & Wildlife Service in substantially the form of the attached proposal for the Purpose of Habitat Enhancement in the South Meadow Area of Howard Buford Recreation Area.

II. ISSUE OR PROBLEM

The Parks Division's capital improvement budget is inadequate to meet all park improvement, development and enhancement needs thus requiring the County to maximize funding from other sources. The adopted South Meadow Management Plan establishes clear goal and strategies for habitat restoration on this site within Howard Buford Recreation Area (HBRA), but outside grant funds are necessary to advance these goals.

III. DISCUSSION

A. Background

On November 30, 1998, Lane County entered into a Landowner Agreement with U.S. Fish & Wildlife Service and Friends of Buford Park & Mt. Pisgah to improve habitat on Howard Buford Recreation Area; the agreement was amended on February 14, 2000, to add the South Meadow area and jointly develop a South Meadow management plan. The Board of County Commissioners on January 9, 2002, adopted the South Meadow Management Plan and authorized the Parks Division to collaborate with Friends of Buford Park & Mt. Pisgah to apply for grants to provide habitat enhancements to the South Meadow area of Howard Buford Recreation Area. The Board of Commissioners later in 2002, and again in 2003, approved acceptance of two separate grants for this project from Oregon Watershed

Enhancement Board, one from the U.S. Fish and Wildlife Service, and one from the National Oceanic Atmospheric Administration.

In a related decision, the Board of Commissioners on December 17, 2002, approved a contract between Lane County and Friends of Buford Park & Mt. Pisgah (FBP) for FBP to provide grant management services. Under the contract, FBP solicits grant funding park enhancement projects that Lane County has previously approved, such as the South Meadow project. On April 16, 2003, the Board of Commissioners approved acceptance of a \$287,210 grant from OWEB to implement floodplain habitat enhancements, including reopening and restoring flows to blocked side channels. Permits were secured in Summer 2003, and most Phase I project objectives have been accomplished.

The new grants would fund Phase II of the project for 2005-2006.

B. Analysis

The South Meadow (aka South Pasture) area is an approximately 200-acre floodplain site located within Lane County's Howard Buford Recreation Area (HBRA) along the Coast Fork of the Willamette River. Lane County entered into a Landowner Agreement with the U.S. Fish and Wildlife Service and the Friends of Buford Park on November 30, 1998, for a period of ten (10) years and Amendment #1 was signed on February 14, 2000. The agreement in part states:

"I. South Pasture [Meadow] Project Area: ...Actions may include removal of exotic vegetation (such as scotch broom and blackberry), planting of native riparian forest trees, and the restoration of overflow channels (subject to the necessary permits and approvals). At the sole discretion of Lane County, low intensity educational and recreational use compatible with the HBRA Master Plan will continue in this area."

The South Meadow Management Plan has three goals:

- Goal A:** Restore the ecological integrity of the floodplain.
- Goal B:** Provide recreational opportunities compatible with ecological stewardship.
- Goal C:** Provide educational opportunities compatible with ecological stewardship.

Under the auspices of the grant management services agreement, Friends of Buford Park & Mt. Pisgah will seek \$499,395 from Oregon Watershed Enhancement Board, \$40,000 from National Oceanic Atmospheric Administration, and \$20,000 from U.S. Fish & Wildlife Service to implement enhancements called for in the adopted South Meadow Management Plan. If fully funded, Lane County Parks and Friends of Buford Park will:

- 1) implement Phase II permitted floodplain restoration measures to increase by five acres seasonal backwater habitat and increase side channel complexity;
- 2) propagate and plant genetically local native forbs, shrubs and trees,
- 3) irrigate approximately 15,000 trees/shrubs/grasses planted in 2004 on 16 acres;

- 4) monitor wildlife and restored channel behavior;
- 5) control exotic weeds, and
- 6) build interpretive floodplain forest trail, and
- 7) lead educational tours/work parties.

All necessary permits, which were secured in 2003, authorized both (completed) Phase I and proposed Phase II hydrologic modifications.

BENEFITS:

Planting a diversity of native plant communities will provide enhanced habitat for larger populations of a greater number of native wildlife and plant species. This will provide enhanced recreational experience for the many visitors to the Howard Buford Recreation Area.

Phase II hydrologic restoration of historic side channel habitat will yield multiple benefits, including:

- 1) enhanced connectivity between the river's main (low flow) channel and its floodplain and side channels;
- 2) provision of critical habitat for threatened Spring Chinook salmon, other fish and other aquatic species,
- 3) flood detention and storage, and
- 4) improved water quality on the Coast Fork Willamette (a water quality limited stream for temperature, bacteria, and toxics).

In summary, if awarded, the grants will advance the goals of the adopted South Meadow Management Plan.

Answers to questions from Administrative Procedures Manual, Chapter 1, Section 2a, Issue 1, Item IV (B), regarding grants:

1. **What is the match requirement, if any, and how is that to be covered for the duration of the grants?** OWEB, the proposed primary funding source, requires a minimum 25% match. If OWEB awards the requested \$499,395, the required match would be just under \$125,000. Below is a table summarizing cash and in-kind funding sources that will be sought to meet or exceed the necessary \$125,000 match. Friends of Buford Park & Mt. Pisgah (FBP), acting through the grant management services contract, will seek to secure these grants and in-kind commitments. Already, FBP has pledged to expand its current in-kind contribution of volunteer services to the project to \$112,880 for 2005-06.

Funding Source	Cash	In-kind Match	Total Cash & In-kind	Requested/ Pending/ Secured/
Oregon Watershed Enhancement Board (OWEB)	\$499,395		\$499,395	To be requested
US Fish & Wildlife Service (USFWS)	\$20,000		\$20,000	To be requested
NOAA-Community Restoration Partnership Grant	\$40,000		\$40,000	To be requested
Oregon Dept. of Fish & Wildlife (ODFW)		\$50,000	\$50,000	To be requested
Friends of Buford Park & Mt. Pisgah (FBP)*		\$112,880	\$112,880	Pledged
National Fish & Wildlife Foundation (nursery propagation)	\$25,000		\$25,000	Secured
Lane County Parks Division		\$5,000	\$5,000	Requested
TOTALS	\$584,395	\$167,880	\$752,275	Requested

2. **Will the grant require expenditures for Material and Services or capital not fully paid for by the grant?** The County's proposed in-kind match of \$5,000 would pay for Parks staff time devoted to administration, project planning and implementation, maintenance mowing, and signage developed for educational purposes. No additional County expenditures are anticipated. These funds will come from approximately \$5,000 (\$2500 annually) earned by the Parks Division from the project area's enrollment in the U.S. Dept of Agriculture's riparian Conservation Reserve Enhancement Program (CREP).
3. **Will the grant funds be fully expended before county funds need to be spent?** No, County funds will be spent throughout the duration of the project, concurrent with grant funds to support project oversight and implementation.
4. **How will the administrative work of the grant be covered if the grant funds don't cover it?** The administration of the grant is part of Lane County's in-kind match for this

project and will be funded out of approximately \$5000 (\$2500 annually) derived from the project area's enrollment in the U.S. Dept of Agriculture's riparian conservation.

If only partial funds are awarded, the scope of the project will be reduced to available funding. For example, the extent of excavations and associated will be reduced consistent with available funding, in consultation with Lane County Parks Division and consulting biologists and hydraulic engineers. In fact, partial funding secured in 2003 resulted in a decision to focus resources on side channel restoration tasks and defer the backwater slough wetland creation to this second project phase.

5. **Have the stakeholders been informed of the grant sunseting policy so there is no misunderstanding when the funding ends? Describe plan for services if funding does not continue?** Friends of Buford Park & Mt. Pisgah is the key stakeholder and understands the sunseting policy. If funding is reduced, services will be reduced to the level combined FBP funding and volunteer support can support. As with current grant agreements, Friends of Buford Park & Mt. Pisgah (FBP) has committed to maintain the project (weed control, irrigation, supplementary plantings, etc) and monitor results for a period of three years, as required by OWEB.
6. **What accounting, auditing and evaluation obligations are imposed by the grant conditions?** Friends of Buford Park & Mt. Pisgah (FBP), in accord with the grant management services contract with Lane County, is responsible for grant accounting (in accord with generally accepted accounting principles), auditing and evaluation. FBP conducts an annual fiscal review of its books. FBP also submits the final evaluation report to funding agencies, and provides a copy to Lane County Parks Division.
7. **How will the department cover the accounting, auditing and evaluation obligations? How are the costs for these obligations covered, regardless whether they are in the department submitting the grant or a support service department? Does the department acknowledge that the county will need to cover these costs and it is an appropriate cost incurred by support service departments?** Friends of Buford Park & Mt. Pisgah (FBP), in accord with the grant management services contract with Lane County, will be responsible for grant accounting (in accord with generally accepted accounting principles), auditing and evaluation. FBP conducts an annual fiscal review of its books. FBP also submits the final evaluation report to funding agencies, and provides a copy of the final report to Lane County Parks Division.
8. **Are there any restrictions against applying the county full cost indirect charge?** Lane County Parks Division staff costs, including operating and equipment overhead, are identified in the project work plan and represented by the County's \$5,000 in-kind match
9. **Are there unique conditions that trigger additional county work effort, or liability, i.e., maintenance of effort requirements or supplanting prohibitions or indemnity obligations?** As with current grant agreements, Friends of Buford Park & Mt. Pisgah (FBP) has committed to maintain the project (weed control, irrigation, supplementary plantings,

etc) for three years and monitor results for a period of five years, as required by OWEB. County Parks oversight of HBRA will include review of monitoring reports submitted by FBP to OWEB and periodic site visits. Assuming funding allows project implementation in 2005-06, maintenance actions would wrap up in 2008 and monitoring in 2010. There are no other unique or unusual conditions that we are aware of that will trigger additional county work effort or obligations.

10. **Grants involving technology issues require Information Services department review and approval prior to submission to the Board to ensure compatibility with existing county systems and development tools.** Not applicable.
11. **Information Services department sign-off is required for all agenda items requesting funding for new or enhanced computer applications/systems that will interface with existing county systems/infrastructure.** Not applicable.
12. **If this is a grant funded computer/software applications project.....** Not applicable.

C. Alternatives and Options

You have at least the following options with regard to this matter:

1. Authorize Lane County Parks Division to coordinate with Friends of Buford Park & Mt. Pisgah to submit the three grants to fund habitat enhancements in the South Meadow area of Howard Buford Recreation Area. (*OWEB grant deadline is April 27, 2004.*)
2. End further consideration of grant proposals for this project.
3. Direct staff to provide additional information for consideration at a future date.

D. Recommendation

The Parks Advisory Committee and Parks staff recommends Option #1.

E. Timing

If approved, the OWEB grant proposal will be submitted on April 26, 2004, with the others due in May. Notification of awards is expected by September, 2004

IV. IMPLEMENTATION/FOLLOW UP

If the motion is approved and funds are awarded, the County Administrator will sign the necessary grant agreements, assuming grants amounts and conditions have not changed in a manner to trigger Administrative Procedures Manual, Chapter 1, Section 2a, Issue 1. After grant agreements are signed, the Parks Division's will oversee project

Board of Commissioners

April 28, 2004

Page 7 of 6

implementation in 2005-2006 through its grant management services contract with Friends of Buford Park & Mt. Pisgah (FBP). FBP, with County Parks oversight, will maintain the project through 2008 and monitor the project through 2010.

V. ATTACHMENTS

Board Order

Grant Applications

IN THE BOARD OF COUNTY COMMISSIONERS, LANE COUNTY, OREGON

ORDER NO.

) IN THE MATTER OF ALLOWING THE PARKS
) DIVISION TO COORDINATE WITH FRIENDS OF
) BUFORD PARK AND MT. PISGAH TO SUBMIT
) GRANT PROPOSALS AND, IF AWARDED, TO
) TO ACCEPT THREE GRANTS FOR THE PURPOSE
) OF HABITAT ENHANCEMENTS IN THE SOUTH
) MEADOW AREA WITHIN HOWARD BUFORD
) RECREATION AREA; AND DELEGATING
) AUTHORITY TO THE COUNTY ADMINISTRATOR
) TO SIGN THE RESPECTIVE GRANT AGREEMENTS

WHEREAS, the adopted Howard Buford Recreation Area Master Plan contains, among others, the following goals:

- **Goal 2:** Protect sensitive and significant natural resource areas and restore degraded habitat,
- **Goal 6:** Maximize the value of the Park as a educational resource, and
- **Goal 7:** Help coordinate efforts and cooperate with groups whose goals are complimentary to those of the Howard Buford Recreation Area.

WHEREAS, Lane County entered into a Landowner Agreement on November, 30, 1998 and Amendment #1 on February 14, 2000, which is still in effect, with U.S. Fish and Wildlife Service and the Friends of Buford Park and Mt. Pisgah (FBP), and

WHEREAS, this landowner agreement in part states the South Meadow area “shall be available for fish and wildlife habitat enhancements; and

WHEREAS, the Board of County Commissioners on January 9, 2002 adopted the South Meadow Management Plan, which set floodplain and habitat restoration, educational and recreational goals for this portion of HBRA; and

WHEREAS, Lane County Parks Division has a long history of coordination and cooperating with volunteer groups whose goals are complementary to those of the Howard Buford Recreation Area’s Master Plan; and the Friends of Buford Park & Mt. Pisgah were selected to provide Grant Management Services for the Howard Buford Recreation Area; and

WHEREAS, the Oregon Watershed Enhancement Board, is accepting grant proposals to implement floodplain restoration by opening side channels previously blocked; and

WHEREAS, the U.S. Fish and Wildlife Service, is accepting grant proposals to implement floodplain restoration and reforestation; and

WHEREAS, National Oceanic Atmospheric Administration is accepting grant proposals to implement floodplain restoration; and

WHEREAS, the Lane County Parks Division desires to participate in these grant programs to the greatest extent possible as a means of providing needed park system enhancements to meet the goals of the Plan; and

WHEREAS, the Friends of Buford Park & Mt. Pisgah have agreed to assist with the projects and the grant applications, as outlined in the Grant Management Services contract (No 02-03-PKS-03); and

WHEREAS, the proposed project could not be completed without the assistance of the grant funds; **NOW THEREFORE IT IS HEREBY**

ORDERED that the Parks Division be authorized to coordinate with Friends of Buford Park & Mt. Pisgah to apply for the Oregon Watershed Enhancement Board, U.S. Fish and Wildlife Service, National Oceanic Atmospheric Administration grants to restore and enhance the South Meadow area of Howard Buford Recreation Area; and

IT IS FURTHER ORDERED that the County Administrator be authorized to sign the grant applications., if awarded.

DATED this _____ day of _____, 2004

Chair, Lane County Board of Commissioners

APPROVED AS TO FORM

Date 4-20-04 lane county



OFFICE OF LEGAL COUNSEL

OREGON WATERSHED ENHANCEMENT BOARD

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Salem, OR 97301-1290

(503) 986-0178

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**WATERSHED RESTORATION
GRANT APPLICATION**

Revised
July 2000

**GENERAL INSTRUCTIONS
DOWNLOAD COMPLETE INSTRUCTIONS SEPARATELY**

Answer the questions in Sections I and II by typing in the information requested or by reproducing the pages on your computer. *Use 8½" x 11" single-sided, unstapled pages and the spacing and layout provided. Avoid color and detail that will not photocopy clearly.* In Section III, answer the set of questions that pertain to your project. Then complete and attach the budget, match funding and legal requirements forms and include any other required documentation.

A down-loadable electronic application form can be obtained by visiting the OWEB website at <http://www.oweb.state.or.us>.

OWEB's "[Grant Program Policies and Funding Criteria](#)" explains OWEB's policies related to potential grant activities and describes the evaluation criteria used to make funding decisions. It also provides examples of the information being requested. Read the Guide before beginning your application.

SUBMISSION OF GRANT APPLICATIONS

**Grant applications may be submitted to OWEB at any time.
To learn of the next review date, please contact OWEB Staff**

Section I
APPLICANT INFORMATION

Please type in the information on pages 1 through 3 **USING ONLY THREE PAGES**
(or reproduce the pages on your computer using the spacing and layout shown,
NOT TO EXCEED 3 PAGES)

Pages 1 through 3 must accompany your application
THE FIRST 3 PAGES ARE NOT A PLACE TO DESCRIBE YOUR
PROJECT IN DETAIL

Name of project: South Meadow Floodplain Enhancement Project- Phase 2 (2005-06)

OWEB dollars requested: \$499,395.00

Total cost of project: \$748,134.00

Applicant: Friends of Buford Park & Mt. Pisgah

Phone: 541-344-8350

Fax: Call ahead

Applicant Address: PO Box 5266
Street

Eugene
City

97405
Zip

Applicant Affiliation (if any):

Technical Contact (if different): Jason Blazar

Phone: 541-543-6869 **Fax:**

Landowner(s) (if the project will occur on private land):

Lane County Parks Division

Fiscal Officer (if any): Chris Orsinger

Phone: 541-344-8350

Fiscal Officer Affiliation: Friends of Buford Park & Mt. Pisgah

Fax: Call ahead

Fiscal Officer Address: PO Box 5266
Street

Eugene
City

97405
Zip

Project location: Willamette
Watershed

Coast Fork
Sub-Watershed

Lane
County

Name of the watershed council in the area (if any): Coast Fork W.C., Middle Fork W. C.

Endorsement of the watershed council: _____

Signature of Watershed Council Chairperson

Section II
PROJECT SUMMARY

Check the primary type of activity proposed:

Watershed Restoration

Watershed Education

Watershed Monitoring

Watershed Assessment/Action Plan

Land or Water Acquisition

Brief Summary of Project: Project will improve winter refugia & rearing habitat for juvenile salmonids, water quality, floodwater storage and wildlife habitat. Key objectives: 1) implement permitted floodplain restoration plan to add 5-acre seasonal backwater and increase side channel complexity; 2) propagate/plant native forbs, shrubs and trees, 3) irrigate 15,000 trees/shrubs/grasses planted in 2004-2005; 4) control weeds 5) monitor wildlife & restored channel, 6) build interpretive floodplain trail, 7) lead educational tours/work parties.

1. **Have you applied for OWEB funding for this project previously?** Yes No

2. **List all agencies and organizations from which funding is anticipated for the proposed project.**
 (Note: at least 25% in match funding is required - see the Guidebook for a definition of match).

Agency/Organization	Cost Share			\$ Amount/Value
	Cash	In-Kind	Secured	
Oregon Watershed Enhancement Board	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$499,395
Friends of Buford Park & Mt. Pisgah	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$112,880.00
Oregon Department of Fish & Wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$50,000.00
U.S. Fish & Wildlife Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$20,000.00
National Oceanic Atmospheric Admin.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$40,000.00
National Fish & Wildlife Foundation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$25,000.00
Lane County Parks Division	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$5,000.00
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Total Estimated Project Costs: \$752,275.00

3. **Have any conditions been placed on other funds that may affect project completion?**
 Yes No If yes, explain:

4. **Are there additional partners (agencies, landowners, volunteers)?** Yes No

What will they do? Lane County will review and monitor project implementation, and supply labor for certain tasks. Local school groups, including University of Oregon interns, Rachel Carson Center for the Environment at Churchill High School in Eugene, and Creswell Middle School, will assist with nursery propagation of native shrubs noxious species control and monitoring efforts.

5. a) **Is the proposal part of an existing plan for the watershed?** Yes No

If yes, name the plan and reference sites(s) or elements of the plan related to the project:

The project implements habitat enhancements recommended in a 1997 inter-agency "Alternatives Team" report for the Coast Fk/Middle Fk Willamette Confluence Area. Coast Fork Watershed Council is preparing its watershed assessment and has hosted tours to the site.

b) **How does this proposal relate to workforce and economic development plans in the local community?** In general, restoration and maintenance of metropolitan natural areas balances economic development within Eugene-Springfield's Metro Plan Boundary, a goal in the Eugene-Springfield Metro Plan (comprehensive land use plan). The project supports 2.75 entry-level and 3.0 FTE mid-level habitat restoration positions over 2 years.

6. If the project is not primarily for education and/or public awareness, how will you promote public awareness about watershed enhancement and the efforts being undertaken locally?

FBP leads many tours of its restoration activities for watershed councils, school groups, media and general public. Secondary and college age school groups assist in FBP restoration projects. A floodplain forest interpretive trail and signage is planned, and the South Meadow's long range plan includes an outdoor classroom. In addition, FBP plans a one-day workshop for park professionals, co-sponsored by Oregon Recreation & Parks Association. FBP also hosts educational forums, speaks to interested groups, and publishes articles in our organizational newsletter, The Rookery (circulation 1000).

7. What is the proposed schedule for the project? (include start date, critical element dates, completion date, and monitoring schedule):

Work Plan Summary

2005

- Plant 1000 supplemental native trees/shrubs/grasses (5 acres).
- Collect/propagate native trees/shrubs/grasses for 2006 plantings.
- Analyze hydromonitoring data; refine design of expanded backwater, side channel.
- Implement channel & backwater habitat restoration.

2006

- Plant 3400 trees/shrubs & 5000 grass plugs on 8 wetland acres
- Plant 6000 trees/plugs on 10 ac. created upland
- Build interpretive floodplain trail.

ONGOING

- Continue weed control on 75 acres
- Irrigate, weed, mow over 14,000 native trees/shrubs/grasses across 65 acres.
- Lead educational tours/work parties for schools, restoration biologists, media.

8. Have affected individuals and organizations been contacted about this proposal and do they support it? Yes No Please explain:

Lane County (So. Pasture landowner) through its Parks Division is full partner and supports FBP efforts to enhance/restore the floodplain and to expand its native plant nursery. Oregon Dept. of Fish & Wildlife manages the upstream "BPA" parcel, and works with FBP to restore floodplain habitat and function on both sites. Proposed floodplain restoration measures underwent public review in November 2001 and received unanimous support. On-site signage, a meeting for neighbors (January 2003) and wetland permit process (June 2003) provided more opportunity for public comments.

9. Required Attachments: Be sure to complete and attach these forms to the back of your application:

- Budget
- Match Funding for OWEB Grants
- Legal Requirements
- OWEB Project Types Check Sheet
- Other documentation requested in Section III

Section III
SPECIFIC PROJECT ACTIVITY

USE 8½" x 11" SINGLE-SIDED PAGES

WATERSHED RESTORATION PROJECTS:

For on-the-ground (or in-stream) projects, please answer the following questions. If there are multiple locations, **be specific for each site.**

See next page

- Land Use Information** (see attached form)
- Maps:** Provide a general map highlighting the location and extent of your project. On a more detailed map, locate site specific activities. **Please provide maps on 8½" x 11" pages and include a legend and scale. *Avoid color and detail that will not photocopy clearly.***
- Location:** Provide the township, range, section and 1/4 corner location of each site. Provide a relative reference to the site such as stream mile if appropriate.
- Photographs:** If applicable, provide photographs to aid in understanding the situation.
- Project Designs** (if applicable)

HABITAT ENHANCEMENT STRATEGIES IN DETAIL

Restoring a Diversity of Floodplain Habitats:

Strategy 1: Restore a diversity of ecotypes (different vegetation communities) within areas historically cleared to support agriculture.

Rationale: Increasing the size and diversity of vegetation communities on the site will provide enhanced habitat for larger populations of a greater number of native wildlife and plant species.

Task 1.1 Plant a variety of species to foster a diversity of plant communities within the South Meadow HBRA and BPA Parcel:

The management plan provides detailed plant lists for seven ecotypes (or plant communities) to be restored at the South Meadow (see map: **South Meadow Target Ecotypes**):

- Black cottonwood-Oregon ash bottomland riparian forest
- Big Leaf maple-Oregon ash riparian forest
- Scrub/shrub swamp
- Mesic (upland) Scrub/shrub thicket
- Mesic (upland) meadow (prairie)
- Oregon Oak-Ponderosa Pine Savanna

During 2005-2006 period, all six ecotypes are proposed for planting. We will focus on planting approximately eight (8) acres of wetland backwater/slough habitat and 10 acres of upland fill mounds after grading/excavation. In addition, five acres of supplemental plantings in previously planted zones across the South Meadow site will increase diversity of native shrubs, forbs and grasses within the different habitat types. Most of the plantings are planned for Fall 2005 and Winter 2006, with . Some supplemental planting plans will include pioneer as well as late successional species.

For each of the proposed floodplain ecotypes (or habitats), desired native plants and special status wildlife that use each of the target ecotypes are listed in **Attachment A: Native Plant & Wildlife Lists by Target Ecotype**. Restoring healthy populations of a preponderance of these plant species will be a long-term indicator of project success.

BPA Parcel

The location of previous plantings on the BPA Parcel are depicted on the map: **BPA Parcel Planting Zones**. FBP will do supplemental plantings as directed by ODFW to increase botanical diversity, continue to care for 2004 plantings (vegetation management, irrigation, etc), and continue weed control activities.

Task 1.2 Propagate or procure an adequate supply of genetically local, native plant stock and seed from FBP's native nursery and local native nurseries, as appropriate.

Since 1999, Friends of Buford Park & Mt. Pisgah (FBP) has propagated native plants in HBRA's "North Bottomlands" area under a special use permit granted by LCP. In 2003, FBP relocated the nursery to a better, larger site within the park in order to increase capacity to propagate species that are not available from local nurseries or species that FBP botanists recommend sourcing from within the Mt. Pisgah area. FBP will continue to propagate grasses, wildflowers, shrubs and trees for planting within the South Meadow and BPA Parcel as part of this project.

FBP sustainably collects native seed from the park to grow out in the nursery. Cuttings of native shrubs are propagated (sometimes in partnership with local schools) and later planted in restoration zones. The seed of some species will be "bulked out" for direct application later in fill mounds or weed control areas as seed.

To date, most trees planted in the South Meadow have been obtained from off-site native nurseries, but more will come from the nursery in the future. More recently, FBP volunteers have collected young Oregon ash (to help arrest succession from a rare wet prairie site on the park with a federally endangered plant), as well as Willamette Valley Ponderosa Pine from donor sites on the park.

Propagation targets from our work plan to support South Meadow restoration projects, include:

- 5,000 unavailable or genetically local trees/shrubs
- 10,000 unavailable or genetically graminoid plugs
- 180 pounds of unavailable or genetically local plants herbaceous seed

We also plan to purchase 4000 trees and shrubs and 100 pounds of grass seed from commercial providers to supply those species our technical/botanical advisers have approved sourcing from outside the park, such as blue wild rye, California oat grass, river bank lupine, and re-green sterile wheat

Expanded nursery capacity will benefit a range of restoration projects in the Southern Willamette Valley. Hard to obtain species sourced from Mt. Pisgah will help provide what is not available on the market. A \$50,000 grant from the National Fish & Wildlife Foundation is supporting nursery expansion (see **Nursery Site Plan**).

Already, the nursery facility has provided stock to other entities for restoration and enhancement projects in the upper Willamette watershed. For example, in a recent partnership with the Bureau of Land Management (Eugene District), FBP propagated nine oak habitat species (six grasses, one forb and two shrubs) for the Weiss Road restoration project. FBP also collaborates with local schools to propagate native plants. Current cooperators include the Rachel Carson Center for the Environment (part of Churchill High School) and the Creswell Middle School. Additional partnerships may be established in 2005-06. We have initiated discussion with the McKenzie River Trust to potentially supply floodplain species for future native plantings on the 865-acre Green Island project on the McKenzie-Willamette Confluence.

Restore Floodplain Hydrology:

Strategy 2: Modify site hydrology to support establishment of desired ecotypes, detain and store flood waters, improve water quality, and foster historic “branched” river character.

Rationale: Historic channelization and manipulation of the river and its floodplain has resulted in simplification of the riparian system. Back water or slack water areas once common are increasingly rare; their absence indicates lost floodplain functions. Slough and backwater areas foster significant ecological values. Restoration of historic river channels will yield multiple ecological benefits including: 1) enhanced connectivity between the river’s main (low flow) channel and its floodplain and side channels; 2) provision of critical habitat for threatened Spring Chinook salmon, other fish and other aquatic species, 3) flood detention and storage, and 4) enhanced water quality.

NOTE: Current project funding (including OWEB #203-164) secured for 2003-04 was sufficient to implement Phase I floodplain restoration measures, including reopening blocked side channels, and planting native vegetation on about 6 acres of soil exposed in the restored channel and on created uplands (fill mounds). However, since not all requested funds were awarded, excavation of the five-acre expanded backwater slough habitat near the outlet was deferred to a second project phase.

In 2005-06, FBP proposes to collaborate with Lane County and others to complete already permitted hydrologic restoration measures and related project enhancements (weed control, native revegetation, etc.). **NOTE: Unless extended, Corps of Engineers permits expires October 2005.**

Task 2.1 Analyze hydrologic monitoring data (surface and groundwater) and refine existing grading plan, consistent with secured permits, in consultation with permitting agencies.

In order to apply adaptive management based on monitoring, we will analyze surface and groundwater data from gauges and wells and winter high water event (2004 and 2005), and correlate it with upstream USGS Goshen gage data and visual observations. Utilizing insights from monitoring, we will in early 2005 refine the Phase II grading plan to help assure the project functions as designed and maximize benefit to fish, water quality, aquatic species and flood detention, and related watershed benefits.

Task 2.2 Implement permitted grading plan to create 5 acres of backwater slough habitat connected to Coast Fork Willamette. Plant native herbaceous, shrub and tree species on soils exposed by grading.

Map 7 identifies areas proposed for lowering floodplain elevation to create about five (5) acres of backwater slough/seasonal wetland habitat. This would create backwater wetland shrub and cottonwood habitat zone adjacent to the primary restored side. The fertile soils will be spread on-site to create low mounds that will be planted with

an upland Oregon oak-Ponderosa Pine savanna community. The south-facing slopes can provide western pond turtle nesting habitat near the expanded backwater slough. Another benefit is that the permitted fill area is heavily infested with blackberry, and site preparation and fill placement will help to control and hopefully eradicate it.

The backwater habitat requires the most significant amount of the proposed excavation, and should provide the greatest benefits by:

- 1) creating winter rearing habitat for juvenile salmonids,
- 2) detaining and storing flood waters,
- 3) restoring conditions for increasingly rare cottonwood gallery forest,
- 4) improving water quality through wetland vegetation, and
- 5) expanding western pond turtle nesting and basking habitat.

This task also includes remediation work to lower the south outlet of the side channel about 2 feet to achieve design hydrology specifications. This more modest action will extend the duration of seasonal connectivity between the created backwater habitat and the river, as well as increase area of backwater inundation in the primary side channel restored in 2003.

Removal Estimate: 20,000 cu. yds.

Task 2.3 Install two arch culverts at two historic farm road crossing obstructed the side channels to facilitate flows, fish passage and channel complexity between upper and lower reaches of the side channel. Implement permitted detail grading along adjacent side channel

Phase I excavation in 2003 removed two of four historic farm road fills that blocked the primary side channel and impeded flows and impaired fish passage during high water events.

As part of Phase II excavation, we propose to install a box or arch culvert on the two remaining road crossings. In association with this, we will implement permitted detail grading along a reach of unexcavated side channel, immediately downstream of one of the culverts. Completing this task will provide several benefits by:

- 1) improving side channel fish passage
- 2) improving fish escape opportunity from pools just upstream, and
- 3) increase side channel complexity and connectivity among remnant and restored side channels.

Removal Estimate: 1150 cu. yds.

Task 2.4 Increase inlet channel complexity by excavating the permitted "alcove."

A smaller backwater alcove was permitted but not excavated in Phase I due to funding and time constraints. FBP proposes to implement this backwater habitat enhancement, which at higher flows will contribute to flows in the side channel restored in 2003.

Lowering the alcove elevation approximately 3' more than originally planned will allow the it to backwater at the design flow (7770 cfs). We may modify the berm design to include a second arch culvert to "meter" flows (reducing rerosion risk in the downstream side channel) and allow fish escape passage to and escape from the primary side channel. We propose to also place large wood in the channel to deter erosion:

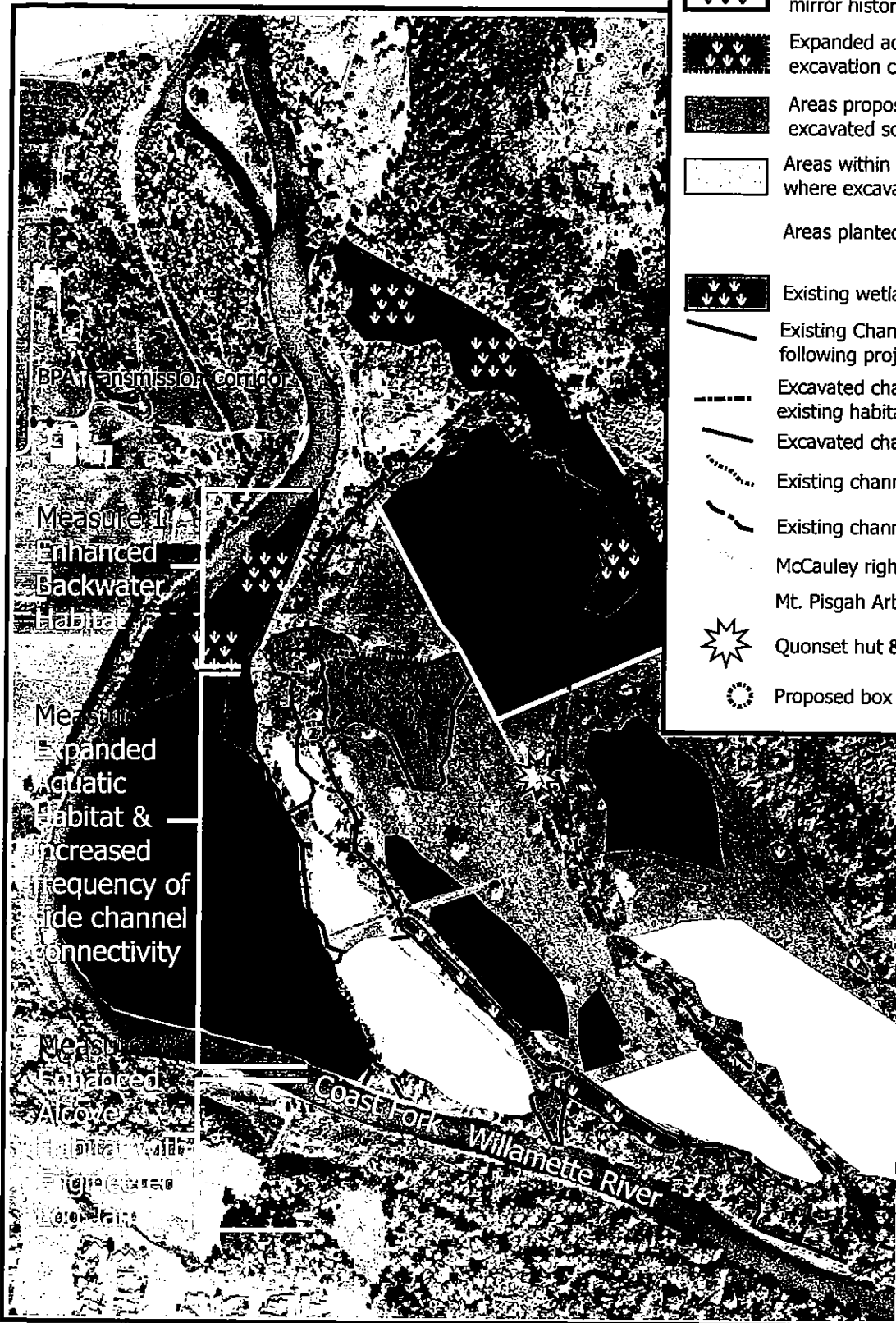
Estimated Removal: 750 cu yds.

Task 2.5 Increase inlet channel complexity by excavating the secondary inlet.
















The primary inlet meets the South Meadow Management Plans goal of increasing areas inundated by two-year flows. We propose to increase channel complexity at the inlet and achieve even more frequent winter flows into the restored channel by excavating a lower, secondary inlet about 100' adjacent to of the primary inlet that will connect with the restored channel at the first unaltered pool in the primary side channel. This would achieve design flows identified in permits and increasechannel complexity.

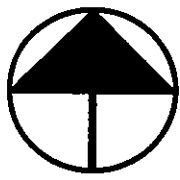
Removal Estimate: 1000 cu yds

The South Meadow project already serves as a significant model of floodplain restoration in the Willamette Valley. Utilizing cutting edge native revegetation techniques, wildlife habiat enhancements, innovative no-herbicide weed control methods, the project produces significant educational opportunities for watershed restoration professionals, secondary and college-age students, and the general public. Completing the permitted measures to restore floodplain hydrology will implment a carefully developed plan over seven years in the making. Its lessons should be applicable to watershed councils and other entities and individuals seeking to restore riparian habitat and floodplain function.



LEGEND

-  Expanded aquatic habitat excavated to mirror historic floodplain meander scars
-  Expanded aquatic habitat, excavation complete fall 2003
-  Areas proposed for placement of excavated soils
-  Areas within South Meadow boundary where excavation is prohibited
-  Areas planted between 1999 - 2002
-  Existing wetland
-  Existing Channel active 15 days/year following project implementation
-  Excavated channel - created to protect existing habitat and facilitate connectivity
-  Excavated channel - complete fall 2003
-  Existing channels active at a 2 year flood
-  Existing channels active at a 5 year flood
-  McCauley right bank - ACOE revetment
-  Mt. Pisgah Arboretum lease boundary
-  Quonset hut & associated out buildings
-  Proposed box culvert with Natural Bottom



Proposed Floodplain Restoration Measures

South Meadow, Howard Buford Recreation Area (HBRA)

Site plan reflects guidance from LCP staff, FBP-STAC design sub-committee, & regulatory staff
 Scale: 1" = 600 *** Revised April 2004.

Noxious Species Control:

Strategy 3: Continue to enhance existing remnant habitats by removing noxious weed species.

Rationale: Noxious weed species can degrade, simplify or convert habitat for native plants and wildlife that otherwise would use that habitat. Controlling certain exotic weed species will ensure that remnant forest habitats provide maximum benefits for native plants and wildlife.

Task 3.1 Aggressively and proactively control weeds before, during and after earth moving. Focus on areas adjacent to or upstream of side channels to be graded.

Channel grading accomplished in 2003 exposed about six (6) acres of soil. Phase II excavation will create an additional eight (8) acres, including areas where water-borne weeds could colonize the site. Weeds are generally excellent colonizers in disturbed soils. As part of Phase I implementation, we seeded and planted these areas with grasses, shrubs and trees (consistent with our target ecotype planting plan). ***A critical project task will be to aggressively and proactively control invasive weeds control effort before, during and after earth moving.***

Weed control will involve not only site preparation and follow-up treatment in Phase II excavation zones, but also continued control actions on 2003 excavation zones. These efforts involve significant volunteer contributions, both eliminating weedy plants and propagating and planting natives in the restoration zones. Volunteers alone can not be counted on to accomplish this task. However, when major effort is invested in the first two years, subsequent control costs are much lower.

FBP has eight years of weed control experience on this site and in other habitats on the park. Seven methods identified below (and described more fully in Appendix B: Weed Species and Control Measures) are used for different circumstances. At these two floodplain sites, we have effectively used repetitive mowing using a tractor mounted flail mower (3 to 5 times per year) to control heavy blackberry cover. On steep channel banks where tractor operation is unsafe, seasonal crews use our two heavy duty, powered walk-behind mowers with 53" sickle cutter bars or use gas-powered brush cutters (heavy duty weed whackers). The same equipment are used for vegetation management/mowing around the young trees to create mulch, conserve moisture and reduce competition from grasses and field weeds.

Task 3.2 Utilize site specific methods of weed control for target species.

Map 8: Exotic Weed Control Priority Areas identifies priority areas for exotic control in 2002-2003. However, a broader area of focus for the 2005-2006 period to curtail weed colonization in areas of disturbed soil resulting from channel grading.

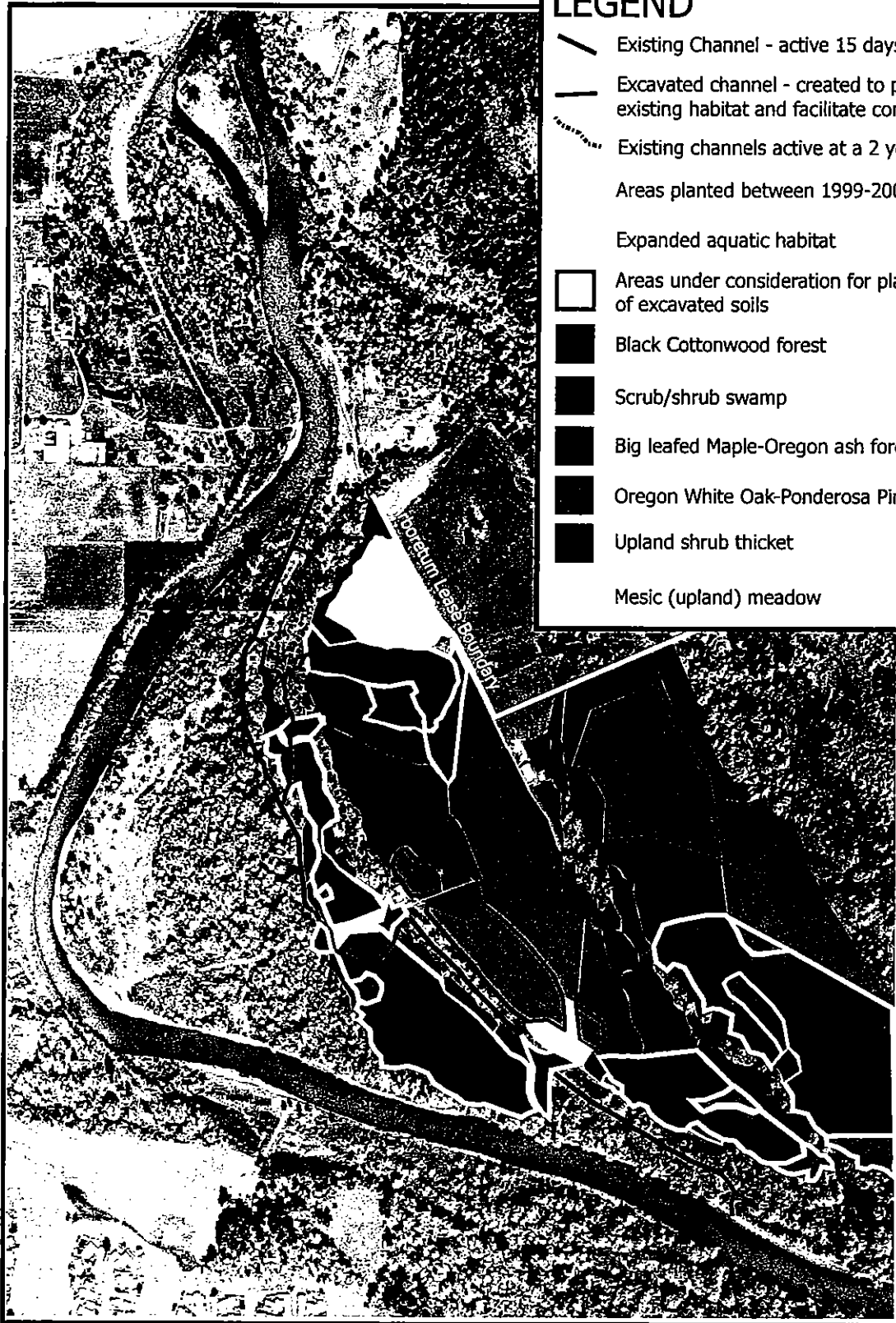
Examples of weed species targeted for control include:

Armenian blackberry,
Scot's broom,
Purple loosestrife,
Spotted knapweed,
Canada thistle,
False brome,
Purple loosestrife,
English ivy,
Slender-leaved thistles.













Control methods include:

- 1) **Bradley Method:** Remove exotics weeds and allow remaining native plants to colonize areas cleared of exotics. Suitable for areas of significant native content.
- 2) **Repetitive mowing for dense blackberry (including removal of root crowns) and other noxious woody species.**
- 3) **Till, Solarize (using plastic sheets), revegetate.**
- 4) **Mulching** for small areas (less than 100 sq. ft.).
- 5) **Smothering with black nursery fabric (for areas less the 100 sq. ft) .**
- 6) **Track-hoe/bulldozer/Aggressive clearing** using a small track-hoe or bulldozer, followed by seeding with natives.
- 7) **Chemical Application** (method of last resort and used extremely conservatively):

Please refer to **Appendix B: Weed Species and Control Methods** for a complete list of species identified for control as well as more detailed descriptions of FBP prescriptions of noxious species control.



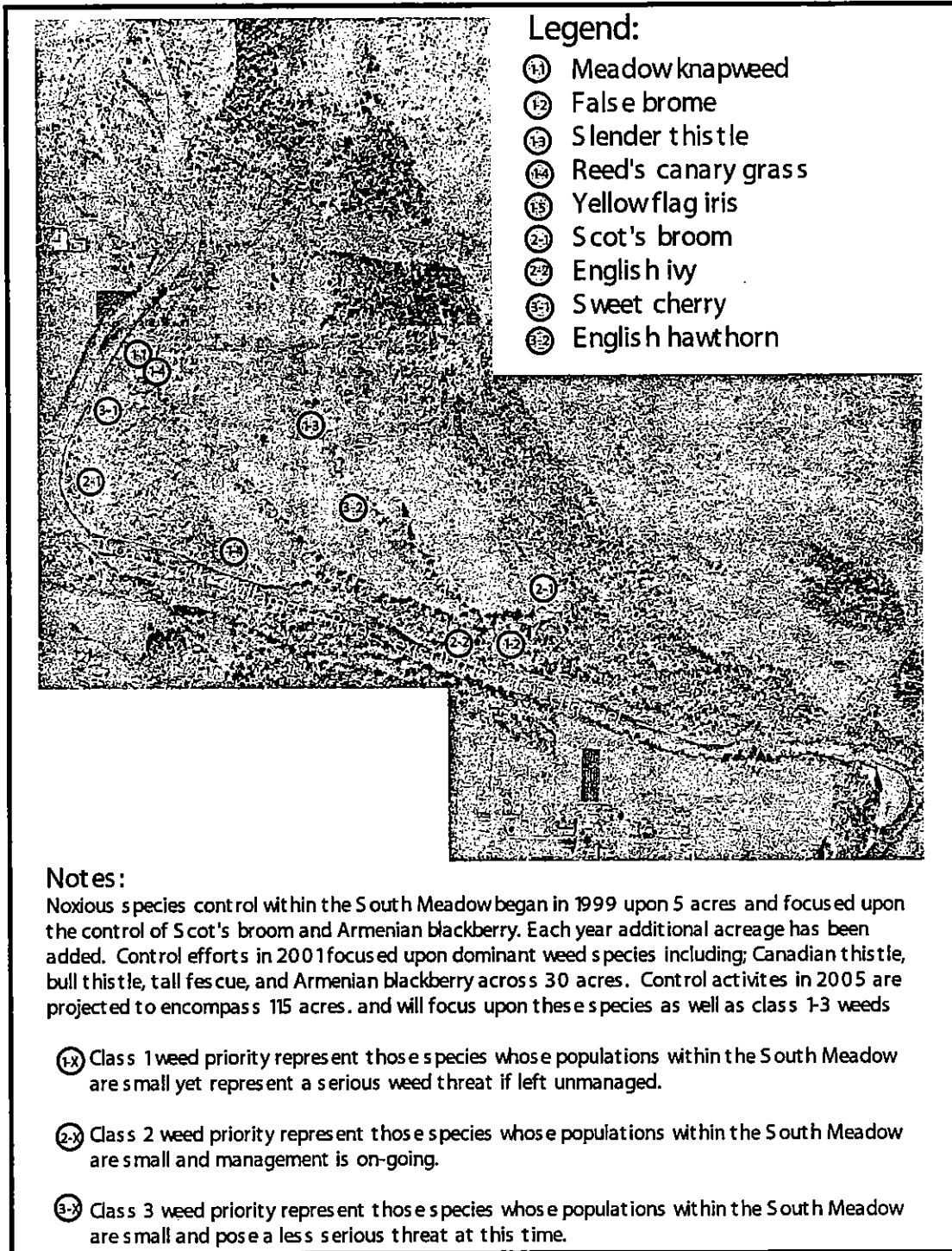
LEGEND

-  Existing Channel - active 15 days/year
-  Excavated channel - created to protect existing habitat and facilitate connectivity
-  Existing channels active at a 2 year flood
-  Areas planted between 1999-2002
-  Expanded aquatic habitat
-  Areas under consideration for placement of excavated soils
-  Black Cottonwood forest
-  Scrub/shrub swamp
-  Big leafed Maple-Oregon ash forest
-  Oregon White Oak-Ponderosa Pine savanna
-  Upland shrub thicket
-  Mesic (upland) meadow



Proposed Target Ecotype Planting Plan South Meadow, Howard Buford Recreation Area (HBRA)

Site plan reflects guidance from FBP-STAC design sub-committee for preparation of 30% construction documents, feedback from regulatory staff, Interfluve Inc, & James Geoenvironmental
Scale: 1" = 600 *** Revised June 2003.



Noxious Species Control Priorities

South Meadow, Howard Buford Recreation Area (HBRA)

Site plan reflects guidance from FBP-STAC design sub-committee for preparation of 30% construction documents, feedback from regulatory staff, Interfluve Inc, & James Geoenvironmental
 Scale: 1" = 600 *** Revised March 2004.

Enhance Wildlife Habitat:

Strategy 4: Expand habitat for declining or “special status” plant, fish and wildlife species.

Rationale: Specific efforts to improve habitat for rare, declining or special status species will contribute to the recovery of federal or state listed as threatened and endangered. In the case of species that are candidates for such lists, habitat improvements may help avert their being listed in the first place.

Task 4.1 Determine which “special status” species (endangered, state sensitive, BPA target species etc.) use or may use site.

We will consult federal and state lists, including Oregon Natural Heritage Program lists, for listed species which may use floodplain, slough and aquatic habitats in the project area. Monitoring by volunteer ornithologists and naturalists on prescribed routes using a standardized reporting form will help document species. Task 4.1 and 4.2 will inform a habitat management plan planned for the entire 2,363-acre park.

Task 4.2 Assess habitat needs for HBRA’s “special status” species.

Assess what habitats are needed for the special status species. Develop list of high priority habitat enhancement measures that would benefit special status species. Western Pond Turtles and Spring Chinook Salmon are two obvious species that will benefit from proposed restoration measures.

Western Pond Turtles: The Willamette Basin’s largest known viable of the troubled Western Pond Turtle (*Clemmys marmorata marmorata*) is located in the Coast Fork between the South Meadow and BPA Parcel. They depend on the park’s slackwater habitat; adjacent upland, south-facing nesting sites; and basking sites in wetland areas. These habitat features have been limited or lost due to agriculture or other human activities. This species is listed as State “sensitive.”

Salmonids: Although the Coast Fork does not support a major anadromous fish run, young Spring Chinook salmon migrating down the Middle Fork probably use lower Coast Fork backwater habitats during high flows, according to ODFW District fish biologist Jeff Ziller. During these periods, they seek refuge and/or feed on plentiful food in side channels that are usually not available during lower flows. The reopening of channel and expansion of backwater habitat on this site (see Strategy 2) benefits both turtles and salmonids.

Task 4.3 Continue to remove unnecessary fencing to reduce impediments to wildlife movement and weed control activities.

Approximately 5500’ of old fencing, an artifact of past grazing (terminated in 2002) has been removed from the project site since 2000. Volunteers and youth crews will continue to remove old fencing along sloughs and side channels. We will attempt to remove all obsolete, remaining fences.

2005-6 South Meadow Work Plan: Summary of Objectives & Tasks

Plant Native Vegetation

Propagate (at FBP nursery) unavailable or genetically local plants
Acquire remaining plants (from local nurseries) & planting supplies
Site Preparation: Mow/(IR)heat treat/waipuna 2.5 acres + RUBARM
Layout plantings
Plant (8)acres-(2)-200 trees/acre &/or (6)-500 shrubs/acre + shrub stakes
Plant (2.5) acres of supplemental plantings
Plant container stock
Mulch Plants

Establish Native Vegetation (Vegetation Management)

Mow around trees w/ sickle bar mowers
Mow with tractor-mounted flail
Irrigate recent plantings
Total Vegetation management

Noxious Species control

Blackberry control – 5 rounds of flail mowing over 40 acres
Scot's broom control – Pt. Bar – remove all seedlings
Burn debris piles + associated plug & container planting
General weeding – hand removal
Site prep (brush rake to remove root wads) & seeding w/in designated areas

Seasonal monitoring

Semi annual Photo-points
Monitor Hydrology
Reptile/Amphibian survey
Breeding bird survey
Planting survival census
Invasive vegetation survey

Phase II South Meadow Floodplain hydrologic enhancements (backwater wetland, channel complexity)

Analyze hydro monitoring data, refine Phase II design consistent with permits
Refine construction drawings and specifications
Agency review of refined design for consistency with permits
Prepare & distribute RFP for construction bids
Select contractor, award contract(s)
Order construction supplies & materials
Site preparation for grading and construction
Grading & construction of wetland, channel connections
Fall Seeding/planting, installation of erosion fabric
Post project survey & Prepare as-built documents

Interpretative trail signage

Design and Review
Coordinate fabrication
Installation

Public Education

One day Workshop for habitat/park professional (2005)
Media Outreach (once per year)
Public tours/site visits (4 per year)
Article preparation

General Project Coordination

Periodic Site Visits, Implementation review meetings, Landowner consultations
Facilitate staff transitions
Hire stewardship crew
Obtain technical guidance (STAC, other experts)

Implementation Partnership

A partnership of non-profit organizations, government agencies and private foundations has worked with LCP since 1998 to begin implementing some of Alternatives Team recommendations. These efforts have involved 1) riparian reforestation, 2) exotic noxious plant control, and 3) site evaluation and planning activities, 4) assistance with side channel restoration.

The following entities have been active partners at various times:

Lane County Parks (LCP - Landowner) manages the 2,363-acre park, assists with project planning, management and project implementation. As landowner, LCP must approve proposed enhancements on the park.

Friends of Buford Park & Mt. Pisgah (FBP) staff and volunteers have led restoration planning and has directed on-the-ground implementation of enhancements to date. FBP has also raised implementation funds from private individuals, foundations and other governmental agencies.

FBP Stewardship Technical Advisory Group is comprised of ten professional ecologists and natural area managers from the greater Eugene area who volunteer to assist and consult with FBP on development of management prescriptions, monitoring protocols, and enhancement plans. A current list of Stewardship Technical Advisory Committee members is available upon request.

Bonneville Power Administration (BPA) funded the 1995-97 habitat study carried out by ODFW, which included some baseline habitat assessments. BPA may continue to fund South Pasture habitat enhancements through ODFW as part of its wildlife mitigation program.

Oregon Dept. of Fish & Wildlife (ODFW) implements land acquisitions and enhancements, provides technical advice on habitat enhancements, and serves as the state agency selecting and implementing BPA wildlife mitigation projects in the Willamette Basin.

U.S. Fish & Wildlife Service (USFWS) has provided technical assistance and funding through its Partners with Fish & Wildlife program.

Mt. Pisgah Arboretum (MPA) leases 200 acres adjacent to the South Meadow (including the northeast portion of the site). They have participated in planning efforts, assisted with exotic vegetation control. MPA is also considering future floodplain habitat enhancements within its leased area that would complement this project.

Northwest Youth Corps (NYC), Looking Glass Youth Services (LGYS) and Lane Metro Youth Corps (LMYC) have provided youth crews to plant and care for trees, remove obsolete fences, and control blackberries and Scot's broom.

Other cooperating agencies:

USDA Farm Service Agency - LCP has enrolled 24 acres in the CREP program.

Oregon Dept. of Forestry - has assisted with watering trees in 1999 and 2000 and has implemented four prescribed burns elsewhere in the park since 1999.

Funding agencies (through FBP)

U.S. Fish & Wildlife Service

U.S. Environmental Protection Agency

U.S. National Oceanic Atmospheric Admin. - National Marine Fisheries Service

Oregon Parks Foundation

Oregon Country Fair

Oregon Watershed Enhancement Board

Sperling Foundation

T3. What is the watershed benefit? Does the project address limiting factors for watershed conditions?

Long term watershed benefits associated with this project include:

- 1) Enhancement/restoration of floodplain forest habitats (slough, aquatic, forest terrace);
- 2) Shading and cooling of the main channel and underground hyporheic zone,
- 3) Expanded and improved habitat for fish and other aquatic species, including:
 - side-channel rearing habitat for young migrating spring chinook,
 - refuge for salmonids, fish and other aquatic species during flood events,
 - increased slough and nesting habitat for a critical population of western pond turtles, and
 - expanded habitat for federally endangered Oregon Chub (present upstream of site)
- 4) Flood storage and detention (modestly reducing downstream impacts of flooding),
- 5) Improved water quality during high water events (restored forests will filter sediments,etc.),
- 6) Reference restoration site with easy public access for education purposes and for others developing habitat enhancement project to consider.
- 7) Expanded production of native plant materials that could support restoration activities in similar habitats elsewhere in the upper Willamette watershed,
- 8) Interpretive tours planned twice a year, coordinated with media outreach, to educate public about floodplain restoration purposes and benefits.

T4. Explain how this project implements a watershed assessment/action plan or agricultural water quality management plan or farm plan.

In a 1997 inter-agency “Alternatives Team” report, developed by representatives from more than 12 government agencies and organizations, recommended the South Meadow and BPA parcel sites as priority areas for wildlife habitat restoration. The report outlined plans for the South Meadow and BPA Parcel sites, which included restoring riparian habitat for wildlife and reopening historic river channels to encourage river branching and floodwater storage. These restoration projects will be an important component of a more broader plan to rehabilitate wetland and floodplain ecosystems at several locations in the confluence region in and around the park.

The Coast Fork Willamette Watershed Council (CFWC) has secured funding to prepare a Watershed Assessment and Action Plan. Both the CFWC and the Middle Fork Willamette Watershed Council support this project (see letters of support), and have co-sponsored a tours of this restoration project. More recently, the Corps of Engineers has recognized the project as a model and sought our collaboration with its planned Upper Willamette Floodplain Restoration Study.

ODFW has recognized the Buford Park floodplain site (and the larger park) as an anchor of wildlife habitat in the area, and has sought to expand protected habitat in the vicinity. In 1998, ODFW used BPA wildlife mitigation funds to acquire the 44-acre BPA Parcel and subsequently to fund restoration plantings on the site. A few miles upstream, Lane County recently acquired a 265-acre parcel with 1/2 mile of Coast Fork frontage at the confluence with Camas Swale for habitat restoration and wetland mitigation. Related efforts are underway to link these habitats to adjacent state Greenway parks through purchase of adjacent parcels.

Lane County Parks (LCP) has enrolled portions of the site in the FSA-CREP program to help support riparian buffer creation on acreage formerly leased for grazing. Grazing was terminated in 2002.

T5. What are the project objectives?

Please refer to “Tasks” detailed under strategies question T-2 for project objectives. More specific are listed on the Summary Work Plan after page 16.

T6. How will success be determined, i.e., what elements will be monitored/evaluated – by whom, how often, and for how long? How will the effectiveness of the project be assessed? (OWEB will usually require post-project monitoring of on-site restoration projects for 3 years).

Monitoring shall be conducted and observations utilized to determine the need for additional treatments and evaluate the success of the specific enhancement actions. Means of qualitative assessment will include semi-annual photo-monitoring, and observation and notation of the presence and status of species present within treatment areas. Bird, herpe, and hydrology monitoring is slated to be added in 2003, using standardized monitoring protocols. Monitoring will be coordinated by FBP staff and conducted by FBP staff and volunteers. Monitoring of treatment areas is planned for 3 years following completion of habitat enhancement prescriptions. A spring 2002 tree survival census found a 76% survival rate of all plantings since 1999 on the South Meadow site. BPA Parcel observation indicate similar or better survival rates.

Monitoring Criteria (in italic) by Strategy

Strategy 1: Restore a diversity of ecotypes (different vegetation communities) within areas historically cleared to support agriculture

Acres planted by ecotype (initial plantings)

Acres receiving follow-up management and care

Quantity of native seed/stock produced in the nursery.

Assess revegetation success; use monitoring results to guide future supplemental plantings

Strategy 2: Modify site hydrology to support establishment of desired ecotypes, detain and store flood waters, improve water quality, and foster historic “braided” river character.

Track progress toward accomplishing Strategy 3 Tasks (see T2 above.)

Monitor site hydrology using piezometers

During or shortly after floods, document hydraulic behavior and changes to channel morphology.

Strategy 3: Enhance existing remnant forest habitats by removing noxious weed species (e.g., blackberry, Scot’s broom, thistle, teasel, etc).

Acres of remnant forest habitat treated by exotic species removal

Acres of remnant forest receiving follow-up exotic control.

Strategy 4: Expand habitat for declining plant, fish and wildlife species.

Track progress toward accomplishing Strategy 4 Tasks (see T5 above)

Monitor presense of breeding birds, reptiles, amphibians. Utilize volunteer to extent possible.

Agency/Organization

Friends of Buford Park & Mt. Pisgah

Address

PO Box 5266 Eugene, Or 97405

Activity & Frequency

Qualitative assessment
2 x year/3 years

Signature

BPA Wildlife Mitigation Monitoring

In 1997, ODFW conducted a baseline “Habitat Evaluation Procedure” (HEP) assessment that measured existing habitat values in the South Pasture for several key indicator species (see Appendix A). If ODFW, under contract with BPA, contributes BPA wildlife mitigation funds toward these proposed habitat enhancements, ODFW would subsequently re-assess the habitat conditions utilizing the same HEP methodology. Based on the results of that re-assessment, ODFW and BPA presumably would arrive at a number of “habitat mitigation units” that would be credited to BPA, commensurate with the investment made in the site. Lane County, FBP and the other project partners would not be responsible for these monitoring activities.

T7. Who will inspect the completed work?

The Natural Resource Conservation Service (NRCS) has agreed to monitor plantings as part of their participation and support for creation of riparian buffers on the South Meadow. Rich Barney is the NRCS contact. On the BPA Parcel, ODFW's Willamette Wildlife Mitigation Program Leader, Greg Sieglitz, has oversight responsibility for the management of the property.

<u>Agency/Organization</u>	<u>Address</u>	<u>Activity & Frequency</u>	<u>Signature</u>
Natural Resource Conservation Service	1600 Valley River Drive Eugene, OR, 97401	Annual Inspection	Rick Barney

T8. Who will maintain the project and for how long? List:

<u>Agency/Organization</u>	<u>Address</u>	<u>Activity & Frequency</u>	<u>Signature</u>
Friends of Buford Park & Mt. Pisgah	PO Box 5266 Eugene, OR 97405	periodic maintenance ongoing/5 years	

T9. Which elements of the project will OWEB funds be used for?

OWEB funds will be utilized to for project-related costs over the 2005-2006 period:

- 1) Analysis of hydromonitoring data and design refinements for permitted hydrologic modifications, and
- 2) implementation of hydrologic modifications.
- 3) Propagation, purchase and planting of floodplain native species,
- 4) Noxious exotic weed control, and
- 5) Certain educational activities (see work plan)

In general, funds will be used to support a number of budget line items including: Personnel, mileage, contracted services, supplies, equipment, monitoring and administration. Please see detailed budget on next page.

2005-06 Watershed Restoration Budget

CATEGORY	Quantity	Unit	Unit Cost	Donated Services/Supplies	Match Funds*	OWEB Funds	Total Costs
PERSONNEL (Unit cost includes, wages, payroll taxes and benefits)							
Project Leader	328	hours	\$30		\$1,968	\$7,872	\$9,840
Stewardship Coordinator	2312	hours	\$26		\$12,022	\$48,090	\$60,112
Stewardship Assistant	3280	hours	\$22		\$14,432	\$57,728	\$72,160
Volunteer coordinator	80	hours	\$18		\$3,168	\$12,672	\$15,840
FBP Seasonal labor crew	1328	hours	\$14		\$31,718	\$126,874	\$158,592
FBP volunteer labor crews	580	hours	\$12	\$70,080			\$70,080
FBP volunteer ecologists	856	hours	\$50	\$42,800			\$42,800
Lane County Parks Division	83333	hours	\$60		\$5,000		\$5,000
Oregon Dept of Fish & Wildlife	40	hours	\$50	\$2,000			\$2,000
Sub total				\$114,880	\$68,309	\$253,235	\$436,424
TRAVEL (Mileage, per diem, lodging, training, etc.)							
Mileage	6000	miles	0.36			\$2,160	\$2,160
CONTRACTED SERVICES (Labor for fencing, instream work, tree planting, technical consultation, project management, etc.)							
Botanist-Collect/Propagate unavail species	1	Contract	\$4,000		\$800	\$3,200	\$4,000
Seed cleaning services	1	contract	\$5,000		\$1,000	\$4,000	\$5,000
Hydraulic Engineering, Design, Drawings	1	Contract	\$3,000		\$1,200	\$4,800	\$6,000
Youth Crews	3	weeks	\$1,000	\$1,500		\$1,500	\$3,000
Landscape services	10	acres	\$1,500		\$3,000	\$12,000	\$15,000
Excavation	22,000	Cu. Yds	\$5		\$22,000	\$88,000	\$110,000
Sub total				\$1,500	\$28,000	\$113,500	\$143,000
SUPPLIES/MATERIALS (Fertilizer, seed, fencing, boulders, logs, plants, film, etc.)							
Construction	1	Misc.	\$60,000		\$12,000	\$48,000	\$60,000
Fuel	1000	gallons	2.50		\$500	\$2,000	\$2,500
Irrigation	5	acres	\$100		\$100	\$400	\$500
Monitoring Supplies	1	Misc.	\$2,500		\$500	\$2,000	\$2,500
Planting materials/Soil Amendments	3000	plants	\$1.25		\$750	\$3,000	\$3,750
Plants	3000	plants	\$2		\$1,200	\$4,800	\$6,000
Native & sterile Herbaceous seed	100	pounds	\$35		\$700	\$2,800	\$3,500
Tools	1	Misc.	\$3,000		\$600	\$2,400	\$3,000
Weed control	1	Misc.	\$10,000		\$2,000	\$8,000	\$10,000
Sub total					\$18,350	\$73,400	\$91,750
PRODUCTION COSTS (Design, permits, inspection, video production, printing, direct mail, film developing, etc.)							
Educational Signage	2	signs	800		\$1,600		\$1,600
ODFW project inspection	5	days	400	\$2,000	\$2,000		\$2,000
CREP inspection/coordination	5	days	400	\$2,000	\$2,000		\$2,000
Sub total				\$4,000	\$5,600		\$5,600
EQUIPMENT (Items usable beyond end of the project with a value greater than \$x, i.e., rain gage, thermograph, Hach kits, etc.)							
43 hp Tractor mower	24	months	\$300		\$3,600	\$3,600	\$7,200
Tractor implements (brush rake, grapple, hoe, plow)	1	various	\$6,000		\$3,000	\$3,000	\$6,000
rental equipment	1	various	\$3,000		\$1,500	\$1,500	\$3,000
Crew rig	1	truck	\$8,000		\$4,000	\$4,000	\$8,000
Sub total					12,100	12,100	24,200
Sub-Totals				\$120,380	\$132,359	\$454,395	\$703,134
ADMINISTRATION** (Costs associated with administering the grant, i.e., fiscal management.)							
Grant reporting, tracking, coordination	1		45000			\$45,000	\$45,000
MONITORING (Component to be monitored, cost per year, number of years, and total cost) Included as part of personnel work program and supplies							
TOTALS:				\$120,380	\$132,359	\$499,395	\$748,134

MATCH FUNDING FOR OWEB GRANTS

*Please document the match funding listed on
page 2 and the budget page of your grant application*

Match funding does not have to be secured at the time of application but you must document that at least 25% of match funding has been sought. Should you receive a grant from OWEB, at least 25% in match must be secured prior to OWEB providing any funds.

Match funding may be in the form of cash on-hand, cash that is pledged to be on-hand before the project begins, secured funding commitments, pending funding commitments (must be secured before the project begins and no later than 12 months from the date of the OWEB award), the value of donated conservation easements, or the value of donated labor and materials essential to the project.

This form is provided for your convenience. You may use it, or provide letters or other appropriate documentation from your project contributors.

Project Name: South Meadow/BPA Parcel Floodplain Enhancement Phase II (2005-06) _____

Applicant: Friends of Buford Park & Mt. Pisgah

Match Funding Source	Signature of Authorized Representative	Dollar Value	Secured/Pending	Date
Friends of Buford Park & Mt. Pisgah (FBP)		\$112,880	Pledged	
Oregon Dept. of Fish & Wildlife (ODFW)		\$50,000	To be requested	
US Fish & Wildlife Service		\$20,000	To be requested	
NOAA-Community Restoration Partnership Grant		\$40,000	To be requested	
National Fish & Wildlife Foundation		\$25,000	Secured	
Lane County Parks Division		\$5,000	Requested	

LAND USE INFORMATION SHEET

This information is needed to determine if the proposed project complies with statewide planning goals and is compatible with local comprehensive plans (ORS 192.180)

CITY/COUNTY LAND USE INFORMATION (to be completed by local planning official):

Please check below the one that applies:

- This project is not regulated by the local comprehensive plan and zoning ordinance.
- This project has been reviewed and is compatible with the local comprehensive zoning ordinance. (Please cite appropriate plan policies, ordinance section, and case numbers.)
- This project has been reviewed and is not compatible with the local comprehensive plan and zoning ordinance. (Cite appropriate plan policies, ordinance section, and case numbers).
- Compatibility of this project with the local planning ordinance cannot be determined until the following local approvals are obtained:

_____ Conditional Use Permit
_____ Plan Amendment
_____ Other

_____ Development Permit
_____ Zone Change

An application has ___ has not ___ been made for the local approvals checked above.

Lane County reviewed the project and issued a Greenway Development Permit (PA03-5801 and a Floodplain development Permit (PA 03-5800) in September 2003.

* Signature of Local Official: _____

Title: _____ Date: _____

Must be authorized signature from your local City/County Planning Department

LEGAL REQUIREMENTS

AGREEMENTS:

I/we, Chris Orsinger, Executive Director of Friends of Buford Park & Mt. Pisgah of Eugene, Oregon, hereby make application for financial assistance under the terms and conditions of the Oregon Watershed Enhancement Board in the amount of \$499,395. The total cost of the project is \$748,134, as shown on page 1.

I/we understand that if this proposal is funded, I/we will be required to:

- Sign a Grant Agreement containing the terms and conditions upon which funds will be released, including submission of necessary permits and documents, a certification to comply with state, federal and local regulations, and a release of liability for the State of Oregon;
- Obtain landowner, monitoring, and maintenance agreements;
- Certify that the project complies with state, federal and local regulations;
- Submit written evidence that all applicable permits and licenses from local, state or federal agencies or governing bodies have been obtained or are not needed;
- Submit a report at the completion of the project and subsequent periodic reports to OWEB on the project's performance;
- Agree that educational products resulting from projects are public domain;
- For restoration projects, complete the Oregon Plan Watershed Restoration Project Reporting form; and
- For restoration projects, certify that the work to be accomplished will comply with the Oregon Habitat Restoration Guidelines.

Signed: _____ Date: _____

Title: Executive Director, Friends of Buford Park & Mt. Pisgah

Section III

Specific Project Activity

T1. What is the present situation? Describe the current conditions at the project site(s).

INTRODUCTION

The “**South Meadow**” (aka “South Pasture”) is an approximately 200-acre floodplain site located within Lane County’s 2,363-acre Howard Buford Recreation Area (HBRA) along the Coast Fork of the Willamette River. The park is located at the confluence of the Coast and Middle Forks of the Willamette River. The “**BPA Parcel**” is a separate 44-acre floodplain site purchased with BPA wildlife mitigation funds in 1998 and managed by Oregon Dept. of Fish & Wildlife (ODFW) (see Lane County Context map).

Since 1999, Friends of Buford Park & Mt. Pisgah (FBP) has been working in partnership with Lane County and other entities to enhance habitat and floodplain function on HBRA’s **South Meadow**.

Similarly, FBP has been assisting ODFW since 1999 to enhance habitat and restore riparian forest on the **BPA Parcel** located just upstream from the park (see aerial photography, South Meadow and BPA Parcel). Approximately 37 acres have been reforested since 1999.

A. BACKGROUND ON THE PROBLEM WHICH GENERATED THE PROJECT

As growth and development in the southern Willamette Valley continue at rapid rates, many of the region’s river systems, riparian forests, floodplains, and wetlands have been converted to agriculture uses, degraded or permanently developed. Ecological services such as clean water, floodwater interception and storage, wildlife habitat, and other watershed functions have been and continue to be compromised by human activities.

Historic Conditions (South Meadow and BPA Parcel)

Modification of the floodplain habitats on the two project sites has been extensive. Before the first Euro-American settlers arrived, the 200-acre “South Pasture” and 44-acre “BPA” sites were part of a broad floodplain connected by a meandering river within a braided channel system and dominated by a mosaic of floodplain ecotypes. Douglas fir, bigleaf maple, Oregon ash, black cottonwood, and willows historically dominated the South Meadow. In addition, a relatively small prairie occupied the central portion of the South Meadow and a larger area on the BPA Parcel (according to the U.S. General Land Survey notes from 1850s). By 1936, aerial photography shows both sites had been largely cleared for cultivation or pasture.

In the South Meadow, most of the forests were cleared prior to 1936 to support various agricultural endeavors. The river has been simplified and restricted into a single low-flow channel. Interaction between the floodplain and the river is now limited to large, infrequent flood events. For example, the November 20, 1996 Coast Fork Flood inundated significant areas of each of these sites).

Much of the historic topography has been modified through years of successive plowing and tilling. In the 1950s, the Army Corps of Engineers (ACOE) built revetments along the South Meadow site on both banks of the river to reduce flooding and constrain channel migration. Two small dams operated by the ACOE, Dorena and Cottage Grove, regulate the hydrologic flow regime of the river. The introduction and spread non-native plant species has significantly altered the understory of remnant forests found at each of these sites.

Present Condition of South Pasture

The South Pasture site is predominantly open grassland dominated by exotic forbs and grasses. Scot's broom and Armenian blackberry grow around stumps and fencelines. Seasonal channels are lined with cottonwood and ash. The plugging of side channels, along with restricted river/floodplain interaction, has altered hydrology sufficiently to allow Scot's broom and Armenian blackberry (upland indicator species) to become established in many of these historic channels. Exotic forbs, grasses, Scot's broom and Armenian blackberry represent approximately 85% of the species present in untreated sloughs. Native trees dominate the overstory of the sloughs, which also contain native understory plant species.

On the "point bar" along the river, a mature big leaf maple-Oregon ash forest still stands with diverse native understory vegetation and significantly fewer exotics. Its cover varies in width ranging between 10' and 1000'. Grazing is excluded from this area. Native trees and understory shrubs and plants dominate the forested areas. Open areas have higher frequency of invasive exotic species, primarily Armenian blackberry, Scot's broom, which in places was dense and competed with native species, has been controlled. A founder population of English ivy (*Hedera helix*) was present but was removed in Spring 2000, and is being monitored. Reed canary grass (*Phalaris arundinaceae*) has begun to colonize backwater areas connected to the river and commonly lines the riverbank.

Present Condition of BPA Parcel

Prior to its purchase in 1988, the 44-acre BPA parcel was farmed for annual rye grass. The parcel's western edge contains 2500' of river frontage with about 7 acres of healthy riparian forest in a strip which varies in width ranging from 25' to 100'. An overflow channel which floods bi-annually runs parallel to the river. Between 1999 and 2004, FBP and ODFW planted 6275 native trees and 910 shrubs on the entire 37-acres former rye grass field, including within a floodplain overflow channel. As restoration plantings progressed, rye grass farming was phased out. The parcel is bordered by a commercial nursery to the east and a strawberry plantation to the south. Blackberry is established on the riparian forest edge adjacent to the formerly cultivated area, but has been controlled.

Water Quality (South Meadow and BPA Parcel)

The Oregon Department of Environmental Quality 303D list indicates that the reach of the Coast Fork of the Willamette river between its mouth and the Cottage Grove reservoir is known to exhibit the following parameters which limit water quality: temperature (summer), bacteria (year round), and toxics – mercury in fish tissue (year round).

Exotic Wildlife (South Meadow and BPA Parcel)

Bullfrogs (*Rana catesbeiana*), opossums (*Didelphus virginianus*), feral cats (*Felis domestica*), and European starlings (*Sturnus vulgaris*) are exotic animal species which may be present within the vicinity of the project area.

Western Pond Turtles (South Meadow and BPA Parcel)

The HBRA is home to one of three known reproductively active western pond turtle populations (*Clemmys marmorata marmorata*) in the Willamette Valley with a healthy age structure. As such, it represents a critical population to the future survival of western pond turtles in Oregon. Project enhancements, in particular reopening side channels to more frequent flows, should benefit this species. Turtles are also known to use Papenfus Creek, which flows west and east of the BPA Parcel.

SUMMARY OF NATIVE REVEGETATION PLANTINGS

The two table on the following pages summarizes the quantity species of native plantings on both the South Meadow and the "BPA Parcel" sites between 1999 and 2004.

T2. What are you proposing to do? Supply sufficient detail to match the project's complexity and technical difficulty so that its viability can be evaluated. Who will do the project design? Were other alternatives considered? How does the project meet the Oregon Aquatic Habitat Restoration and Enhancement Guide?

The restoration strategies and tasks below are based on the "HBRA South Meadow Management Plan," adopted by the Lane County Board of Commissioners in January 2002 to guide floodplain restoration and associated educational and recreation opportunities (compatible with ecological stewardship) planned for the site. This long-term management plan describes more actions than what is specifically proposed for this two-year funding cycle (2005-2006). Restoration actions planned for the ODFW-managed "BPA parcel" include tasks associated with establishing native vegetation on 37 acres, such as supplementary plantings for diversity, care (irrigation and vegetation management) of 2004, and weed control. No modifications to site hydrology (Strategy 2) are proposed for the "BPA Parcel."

Hydrologic design and engineering was developed by Inter-fluve, Inc., the nationally recognized river and wetland restoration firm. Design decisions result from a collaborative design and decision-making process involving Lane County, Friends of Buford Park & Mt. Pisgah, the Mt. Pisgah Arboretum, with advice from Oregon Dept. of Fish & Wildlife and U.S. Army Corps of Engineers. After analysis of hydromonitoring over three winters (December 2002 to February 2005), we will refine the design to meet permitted design specifications as permitted.

Below are the project's goal, strategies, and 2005-06 tasks we propose to implement.

HABITAT ENHANCEMENT GOAL: Restore the ecological integrity of the floodplain. Restore the ecological integrity of the South Meadow floodplain to enhance native plant and wildlife habitat, flood detention and storage, and water quality (see Map: **FEMA Flood Zones and ACOE Revetments**).

SUMMARY OF HABITAT ENHANCEMENT STRATEGIES

Strategy 1: Restore a diversity of ecotypes (different vegetation communities) within areas historically cleared to support agriculture (see Map 5: Target Ecotypes).

Strategy 2: Modify site hydrology to support establishment of desired ecotypes, detain and store flood waters, improve water quality, and foster historic "branched" river character. (see Map 7: Proposed Hydrologic Modifications).

Strategy 3: Enhance existing remnant forest habitats by removing noxious weed species (e.g., blackberry, Scot's broom, thistle, teasel, etc). (See Map 8: Exotic weed control priority Areas).

Strategy 4: Expand habitat for declining plant, fish and wildlife species.

OWEB PROJECT TYPES

Please **circle** the project types that apply to your application.

Watershed Restoration

Upland Erosion Control (UEC)

- a. Road improvement (RI)
- b. Road removal (RR)
- c. Road drainage improvement (RDI)
- d. Water/sediment control basins (WSCB)
- e. Windbreaks (W)
- f. Upland terracing (UT)
- g. Planting upland areas (PUA)
- h. Meadow protection (MP)
- i. Reduced tillage (RT)

Grazing Management (GM)

- a. Grazing management plans (GMP)
- b. Water gap development (WGD)
- c. Livestock water / off-channel (LWO)
- d. Range seeding (RS)

Vegetation Management (VM)

- a. Brush / weed control / eradication (BWCE)
- b. Controlled burning (CB)
- c. Conifer thinning (CT)
- d. Juniper clearing (JC)
- e. Invasive species management (ISM)

Riparian Area Enhancement (RAE)

- a. Riparian vegetation planting (RVP)
- b. Riparian fencing (RF)
- c. Riparian conifer restoration (RCR)
- d. Riparian conservation programs (RCP)

Channel and Bank Alteration (CBA)

- a. Re-establish historical channel (RHC)
- b. Develop meanders / side channels (DMSC)
- c. Channel relocation (CR)
- d. Bank stabilizing riprap (RR)
- e. Bank bioengineering (BB)
- f. Bank sloping (BS)
- g. Gully control (GC)
- h. Bank stabilizing barbs (BSB)

Fish Passage Improvement (FPI)

- a. Fish passage structures (FPS)
- b. Alternatives to push-up dams (APD)
- c. Correcting road/stream crossings (CRSC)
- d. Fish screen improvement/replacement (FSIR)

Stream Habitat Enhancement (SHE)

- a. Large wood placement (LWP)
- b. Instream boulder placement (IBP)
- c. Off-channel habitat creation (OCHC)
- d. Miscellaneous full spanning weirs (MFSW)
- e. Pool construction (PC)
- f. Miscellaneous deflector structures (MDS)
- g. Log, boulder structures (LBS)
- h. Salmonid carcass placement (SCP)
- i. Beaver management (BM)

Instream Water Enhancement (IWE)

- a. Irrigation efficiency projects (IEP)
- b. Irrigation efficiency (IE)

Estuarine Restoration/Enhancement (ERE)

- a. Tidegate removal / improvement (TRI)
- b. Dike breaching / removal (DBR)
- c. Channel reconfiguration (CR)

Wetland Enhancement (WE)

- a. Excavation / removal of fill (ERF)
- b. Elimination of drainage structures (EDS)

Land and Water Acquisition

Land Acquisition (LA)

- a. Conservation easements (CE)
- b. Fee simple acquisition (FSA)

Water Acquisition (WA)

- a. Instream water transfer (IWT)
- b. Instream water lease (IWL)

Watershed Assessment

Watershed Assessment (WAS)

- a. Staffing/contracting (SPM)
- b. Assessment equipment purchase (AEP)
- c. Watershed mapping (WM)

Restoration Action Planning (RAP)

- a. Staffing/contracting (SC)
- b. Materials/equipment (ME)
- c. Administrative expenses (AE)

Watershed Monitoring

Monitoring (M)

- a. Fish monitoring (FM)
- b. Macroinvertebrate monitoring (MM)
- c. Water quality monitoring (WQLM)
- d. Water quantity monitoring (WQNM)
- e. Estuarine and wetland conditions (EWC)
- f. Aquatic habitat conditions (AHC)
- g. Riparian conditions (RC)
- h. Upland conditions (UC)
- i. Restoration project effectiveness (RPE)
- j. Monitoring equipment purchase (MEP)

Watershed Education/Outreach

Watershed Education (WED)

- a. Education/Outreach coordination (EOC)
- b. Education/Outreach materials (EOM)
- c. Training/Outreach events (TOE)