Clackamas River Basin Action Plan

Appendix X: Geographic Area Actions

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Note: **These project descriptions are taken directly from the Action Plan Database. The database should be continually updated by the CRBC staff following completion of the Action Plan. This Appendix is only provided for the convenience of reviewers that prefer to view a Word document or a hard copy versus the online database.**

Lower Mainstem Clackamas

Unique ID	00000087
Insert date	25 Apr 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project_Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Alternative to push-up dams
Affected fish species	Anadromous fish only
Affected wildlife species	
Project Title	f
Project Description	f
Limiting Factors Addressed	temperature
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	f
Lead Entity	OD
Partners	ODEQ
Possible Funding Sources	OWEB
Links	
Photos available?	No

Unique ID	00000098
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian Enhancement
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas Side Channel Construction: Calcagno/Rock Creek
Project Description	Side Channel H1 Construction. Left Bank between ~RM 5.7 and ~RM 7. See link to photo.
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 01_C
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Addresses loss of critical backwater habitat in the mainstem; impacts multiple fish species and wildlife (e.g., amphibians
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/002.jpg
Photos available?	Yes

Unique ID	00000099
Insert date	11 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian Enhancement
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas Side Channel Construction: Beaver Dam
Project Description	Side Channel H2 Construction. Located between ~RM 8.8 and ~RM 9.1. See link for plan view photo of location
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 03
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Addresses loss of critical backwater habitat in the mainstem; impacts multiple fish species and wildlife (e.g., amphibians and riparian-associated).
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/003.jpg
Photos available?	Yes

Unique ID	00000100
Insert date	11 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Aquatic Habitat
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas Side Channel Construction: Mouth of Foster Creek
Project Description	Side Channel H3. Located between ~RM 9.8 and ~RM 11.2. See link below to plan view photo of site.
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 04
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	medium
Rationale for priority rating	
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/004.jpg
Photos available?	Yes

Unique ID	00000101
Insert date	11 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian/Wetland Habitat
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas Side Channel Construction: Pigeon Lake/Richardson Creek
Project Description	Side channel H4 construction. Located between ~RM 9.1 and ~RM 9.3 at the mouth of Richardson Creek. See link to plan view photo of location.
Limiting Factors Addressed	channel function
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 04
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	
Lead Entity	ODFW
Partners	ODFW
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/003.jpg
Photos available?	

Unique ID	00000102
Insert date	11 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian/Wetland Habitat
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas Side Channel Construction: ODOT/Fisherman's Bend
Project Description	Side channel H5 construction. Located between ~RM 11.1 and ~RM 11.5. See link below for plan view photo of site
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 05
Stream Reach #2	
Stream Reach #3	
Cost Category	
Priority Rating	medium
Rationale for priority rating	
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/004.jpg
Photos available?	Yes

Unique ID	00000103
Insert date	11 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian/Wetland Habitat
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas Side Channel Construction: Barton Park
Project Description	Side channel H6 construction. Located between ~12.8 and ~RM 13.8. See link below to plan view photo of site
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 05?
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	
Rationale for priority rating	
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/006.jpg
Photos available?	Yes
Other notes	

Unique ID	00000104

Insert date	11 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian/Wetland Habitat
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Clackamas Side Channel Construction: Goose Creek / River Island
Project Description	Side channel H7a construction. Located on right bank between ~RM 13.8 and ~RM 15.8. See link below to plan view map of project location
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 06
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	medium
Rationale for priority rating	
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/007.jpg
Photos available?	Yes

Unique ID	00000105
Insert date	11 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian/Wetland Habitat
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas Side Channel Construction: Shoe Island
Project Description	Side channel H7b construction. Located on left bank between ~RM 15.5 and ~RM 15.8. See link below to plan view photo of site
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 06
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	medium
Rationale for priority rating	
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/007.jpg
Photos available?	Yes

Unique ID	00000107
Insert date	11 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian/Wetland Habitat
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas Side Channel Construction: Eagle Creek
Project Description	Side channel H9 construction. Located on right bank between ~RM 17.4 and ~RM 17.8. See link below to plan view map of location
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 07
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	medium
Rationale for priority rating	
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	OWEB
Links	http://www.mashel.com/project_pics/009.jpg
Photos available?	Yes

Unique ID	00000114
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Wildlife Habitat
Primary Objective	Channel Restoration
Secondary Objective	
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Second tier side channel enhancement/protection
Project Description	Several additional side channels exist that were not initially identified by the fisheries group (see links below for locations). These areas may provide further opportunities for side channel development.
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Multiple
Stream Reach #2	
Stream Reach #3	
Cost Category	$100K-$200K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	

Lead Entity	
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/add_side.html

Unique ID	00000115
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Water Quality
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Levy, berms, dikes setback/removal
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Riprap/levee removal/enhancement
Project Description	Several areas of riprap and levees have been identified along the mainstem Clackamas River below River Mill dam (see link below to maps of project locations). These should be considered for removal or replacement with more fish-friendly structures
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Numerous
Stream Reach #2	
Stream Reach #3	
Cost Category	Over $200K
Priority Rating	Important, but can be delayed in time

Rationale for priority rating	
Lead Entity	
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/riprap.html

Unique ID	00000116
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Water Quality
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Bank bioengineering/vegetation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Proactive treatments of eroding banks along the Clackamas mainstem
Project Description	Several locations along the lower Clackamas (see links to plan view photos below) were identified as currently having eroding banks. It is likely that landowners will seek to stabilize these banks, possibly with conventional riprap or other undesirable approaches. The CRBC should work with these landowners to develop bank protection strategies that protect fisheries and water quality
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.

Priority Rating	Critical; implement immediately
Rationale for priority rating	
Lead Entity	CRBC
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/eroding.html

Unique ID	00000117
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Water Quality
Secondary Goal	Aquatic Habitat
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Channel relocation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Restoration of former gravel mine area
Project Description	See map link below. This area was a former gravel mine. The 1996 flood broke the levee and rerouted the river through the old site. ODFW currently has a (funded) project to relocate the channel and fill in the old gravel mine areas
Limiting Factors Addressed	temperature
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 06
Stream Reach #2	Clackamas 07
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Critical; implement immediately
Rationale for priority rating	

Lead Entity	ODFW
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/007.jpg

Unique ID	00000118
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	In-Stream Habitat
Primary Goal	Aquatic Habitat
Secondary Goal	Water Quality
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Off-channel habitat creation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Carly Creek protection/restoration
Project Description	Carly Creek occupies the former outlet of Sieben Creek (see link to plan view map below), which has been rerouted farther to the east. The area connects directly to the lower Clackamas, and has been reported to contain a relatively intact riparian area. Further investigations should be undertaken to determine if this area warrants additional protection and restoration as an off-channel area.
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	

Priority Rating	
Rationale for priority rating	
Lead Entity	
Partners	ODFW
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/012.jpg

Unique ID	00000119
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Watershed general
Secondary Goal	Aquatic Habitat
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Public Awareness & Education Programs
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Clackamas/Willamette confluence comprehensive restoration
Project Description	The area at the mouth of the Clackamas River (between the Clackamas and Abernethy Creek; see map link below) should be investigated for its restoration value. Discussions with Oregon City as to the long term plan for this area should be investigated
Limiting Factors Addressed	
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	
Priority Rating	

Rationale for priority rating	
Lead Entity	
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/013.jpg
Unique ID	00000114
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Wildlife Habitat
Primary Objective	Channel Restoration
Secondary Objective	
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Second tier side channel enhancement/protection
Project Description	Several additional side channels exist that were not initially identified by the fisheries group (see links below for locations). These areas may provide further opportunities for side channel development.
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Multiple
Stream Reach	

#2	
Stream Reach #3	
Cost Category	$100K-$200K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	
Lead Entity	
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/add_side.html

Unique ID	00000115
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Water Quality
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Levy, berms, dikes setback/removal
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Riprap/levee removal/enhancement
Project Description	Several areas of riprap and levees have been identified along the mainstem Clackamas River below River Mill dam (see link below to maps of project locations). These should be considered for removal or replacement with more fish-friendly structures
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Numerous
Stream Reach #2	
Stream Reach #3	
Cost Category	Over $200K
Priority Rating	Important, but can be delayed in time

Rationale for priority rating	
Lead Entity	
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/riprap.html

Unique ID	00000116
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Water Quality
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Bank bioengineering/vegetation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Proactive treatments of eroding banks along the Clackamas mainstem
Project Description	Several locations along the lower Clackamas (see links to plan view photos below) were identified as currently having eroding banks. It is likely that landowners will seek to stabilize these banks, possibly with conventional riprap or other undesirable approaches. The CRBC should work with these landowners to develop bank protection strategies that protect fisheries and water quality
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.

Priority Rating	Critical; implement immediately
Rationale for priority rating	
Lead Entity	CRBC
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/eroding.html

Unique ID	00000117
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Water Quality
Secondary Goal	Aquatic Habitat
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Channel relocation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Restoration of former gravel mine area
Project Description	See map link below. This area was a former gravel mine. The 1996 flood broke the levee and rerouted the river through the old site. ODFW currently has a (funded) project to relocate the channel and fill in the old gravel mine areas
Limiting Factors Addressed	temperature
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	Clackamas 06
Stream Reach #2	Clackamas 07
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Critical; implement immediately
Rationale for priority rating	

Lead Entity	ODFW
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/007.jpg

Unique ID	00000118
Insert date	20 May 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	In-Stream Habitat
Primary Goal	Aquatic Habitat
Secondary Goal	Water Quality
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Off-channel habitat creation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Carly Creek protection/restoration
Project Description	Carly Creek occupies the former outlet of Sieben Creek (see link to plan view map below), which has been rerouted farther to the east. The area connects directly to the lower Clackamas, and has been reported to contain a relatively intact riparian area. Further investigations should be undertaken to determine if this area warrants additional protection and restoration as an off-channel area
Limiting Factors Addressed	fish habitat
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	

Priority Rating	
Rationale for priority rating	
Lead Entity	
Partners	
Possible Funding Sources	
Links	http://www.mashel.com/project_pics/012.jpg

Unique ID	00000163
Insert date	25 May 2005
Last updated	25 May 2005
Added by	Greg Ciannella
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Invasive Plant Identification, Mapping, and Control
Secondary Goal	Watershed general
Primary Objective	Riparian Enhancement
Secondary Objective	
Project Type	Riparian conservation programs
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Streamside Restoration and Revegetation
Project Description	The Clackamas River Basin is home to many invasive weeds that our encroaching fish and wildlife habitat while displacing native vegetation forming monocultures along creeks and streams. Weeds like Himalayan Blackberry, Scotch Broom, and English Ivy have dominated the watershed in areas of almost no return. Relatively new weeds that are not as noticeable like Butterfly Bush, False Brome, and Japanese Knotweed will soar to the extent beyond control if prompt action is not taken. Thus far Japanese Knotweed mapping and control efforts have been going on in the basin since 2002 and need to be continued to ensure quality control. False Brome, an invasive shade tolerant grass specie, thrives in upland/lowland coniferous forest dominating ground cover. The extent of False Brome is only in Oregon west of the cascades, with reports just showing up in northern California. False Brome has been identified in the Clear Creek basin and along the mainstem as far upstream as Milo McIver State Park. Butterfly Bush, a newly added state listed noxious weed, has begin to make its mark along the Clackamas River staging large infestations along some of the islands. Little is known about this shrubby tree that can grow 20 feet high, except that it can propagate by seed and thrives quickly once established. Butterfly Bush has been identified along the mainstem and is spreading fast.

	The need to partner with federal, state, and local authorities along with private landowners is the only way we can get ahead in this battle. Putting resources together to combat this basin wide problem is going to be fundamental in the restoration of our creeks and streams.
Limiting Factors Addressed	riparian function
Geographic area	Multiple areas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Without an invasive weed mapping, assessment, and control protocol - more time and money will be spent in the long haul. If unnoticed or unattended, invasive weeds will take over decreasing aesthetic quality, habitat, and biodiversity. Invasive weeds thrive on neglect, the more we ignore, the worse off we all will be.
Lead Entity	CRBC
Partners	Metro
Possible Funding Sources	Unknown at this time.
Links	
Photos available?	Yes

Unique ID	00000174
Insert date	25 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	Watershed general
Primary Objective	Riparian Enhancement
Secondary Objective	Demonstration project
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Develop Riparian Restoration and Weed Control Demonstration Project
Project Description	Develop a riparian and weed control demonstration project with a willing landowner. Find a location that is visible from the river and provides good access to tours.
Limiting Factors Addressed	riparian function
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Demonstration projects will build community support and lead to participation in restoration actions.
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	OWEB
Links	
Photos available?	
Other notes	

Unique ID	00000175
Insert date	25 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	Watershed general
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Riparian Protection
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Protect Intact Floodplain and Riparian Areas Through Acquisition, Easement, or Tax Incentive
Project Description	Protect the remaining intact floodplain / riparian areas along the lower Clackamas River. Seek areas where there the river is actively meandering and there are other values such as wetland habitats or areas where tributaries join the river.
Limiting Factors Addressed	riparian function
Geographic area	01. Lower Clackamas
Grouped Areas	Lower Mainstem Clackamas
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Over $200K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to protect floodplain areas that are still functioning.
Lead Entity	CRBC
Partners	ODFW

Possible Funding Sources	OWEB
Links	
Photos available?	

Cow Creek and Sieben Creek

Unique ID	00000133
Insert date	23 May 2005
Last updated	23 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Water Quality
Secondary Goal	Aquatic Habitat
Primary Objective	Pollutant Reduction
Secondary Objective	
Project Type	Urban stream repair/restoration
Affected fish species	Resident fish only
Project Title	Investigate riparian and wetland enhancement in Cow Creek
Project Description	Stormwater controls (See section 2.4) alone will not be sufficient to improve water quality in Cow Creek. Opportunities to restore or enhance riparian and wetland areas along Cow Creek should be investigated to improve water quality and fisheries habitat. The lower reach of Cow Creek runs through some agricultural land that may provide the opportunity to restore riparian/wetland complex to improve water quality and aquatic habitat. An initial study is needed to identify opportunities, constraints, and possible solutions.
Limiting Factors Addressed	water quality
Geographic area	05a. Cow Creek
Grouped Areas	Cow Creek and Sieben Creek
Stream Reach #1	Cow Creek 01
Stream Reach #2	
Stream Reach #3	

Cost Category	$10-$50K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Cow Creek is one the most highly polluted streams in the Clackamas Basin.
Lead Entity	WES
Partners	ODEQ
Possible Funding Sources	Unknown at this time.
Unique ID	00000135
Insert date	23 May 2005
Last updated	23 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Water Quality
Secondary Goal	
Primary Objective	Pollutant Reduction
Secondary Objective	
Project Type	Pesticide use education/training
Affected fish species	
Affected wildlife species	
Project Title	Homeowner pesticide use education and outreach
Project Description	
Limiting Factors Addressed	pesticides
Geographic area	05b. Sieben Creek
Grouped Areas	Cow Creek and Sieben Creek
Stream Reach #1	Sieben Creek 02
Stream Reach	Unnamed Tributary 06a 01

#2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Pesticide concentrations in Sieben Creek were one of the highest in the Clackamas Basin, and Sieben Creek drains directly into the Lower Clackamas River that has a high recreational use.
Lead Entity	WES
Partners	CRBC
Possible Funding Sources	
Links	
Photos available?	

Unique ID	00000136
Insert date	23 May 2005
Last updated	23 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Water Quality
Secondary Goal	Aquatic Habitat
Primary Objective	Riparian Protection
Secondary Objective	
Project Type	Riparian buffer management
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Rose Creek riparian protection/enhancement
Project Description	The property around this small creek is owned by Clackamas County WES. Opportunities to enhance the riparian area for water quality and aquatic habitat will be investigated.
Limiting Factors Addressed	fish habitat
Geographic area	05b. Sieben Creek
Grouped Areas	Cow Creek and Sieben Creek
Stream Reach #1	Sieben 01
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	
Rationale for priority rating	The opportunity for restoration/enhancement is high since the land is already in public ownership and the project would be consistent with the agency mission.
Lead Entity	WES
Partners	CRBC
Possible Funding Sources	
Links	
Photos available?	

Unique ID	00000144
Insert date	24 May 2005
Last updated	24 May 2005
Added by	Jo Anne Dolan
Project Category	
Top tier actions	Education and Outreach
Primary Goal	W Quality/Habitat
Secondary Goal	Aquatic Habitat
Primary Objective	
Secondary Objective	
Project Type	Public Participation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Storm Drain Stenciling
Project Description	Work collaboratively with local municipalities, water providers and stormwater managers, schools and community groups to facilitate stenciling of storm drains. Focus on rural communities.
Limiting Factors Addressed	water quality
Geographic area	Multiple areas
Grouped Areas	Cow Creek and Sieben Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	medium
Rationale for priority rating	Effects anadromous species and multiple factors- i.e. fisheries and water quality.
Lead Entity	
Partners	CRBC
Possible Funding Sources	
Links	
Photos available?	
Other notes	Small towns were identified as most needing this by O&E tech. team. However highest loads of residential pesticides were found in lower tribs.

Unique ID	00000197
Insert date	23 Jun 2005
Last updated	23 Jun 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Water Quality
Secondary Goal	Water Quality
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Pesticide use education/training
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Golf Course Quality Lawns and Landscapes
Project Description	Conduct class that emphasize reduced use of chemicals
Limiting Factors Addressed	water quality
Geographic area	05b. Sieben Creek
Grouped Areas	Cow Creek and Sieben Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Critical; implement immediately
Rationale for priority rating	
Lead Entity	SWCD
Partners	

Rock Creek and Richardson Creek

Unique ID	00000139
Insert date	24 May 2005
Last updated	25 May 2005
Added by	Jo Anne Dolan
Top tier actions	Stormwater Management
Primary Goal	W Quality/Habitat
Secondary Goal	Watershed general
Primary Objective	Stormwater Management
Secondary Objective	Habitat/Water Quality
Project Type	
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Street of Sustainability
Project Description	Work with City of Damascus, Clackamas County and the business and development community to develop a "Street of Sustainability" along the same lines as the PGE Street of Dreams. This new development in the new City of Damascus would demonstrate the best current technology for green streets and buildings, gardening for wildlife and low impact sustainable development. It would be used as an educational and marketing tool to demonstrate these techniques and opportunities. The window of opportunity is currently open, as the City of Damascus is newly formed and will soon be hiring a City Planner and working on a comprehensive plan- to be completed within two years.
Limiting Factors Addressed	water quality
Geographic area	Multiple areas
Grouped Areas	Rock Creek and Richardson Creek
Cost Category	Over $200K
Priority Rating	Critical; implement immediately
Rationale for priority rating	Opportunity is present and project will not have as significant impact on imminent future development in UGB unless immediately implemented. This project has significant value as a demonstration site. It addresses a key limiting factor of water quality.

Lead Entity	
Partners	Happy Valley, Damascus, WES, DEQ, PGE, Oregon Builder's Association, ReMAX
Possible Funding Sources	Unknown at this time.

Unique ID	00000140
Insert date	24 May 2005
Last updated	24 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	Watershed general
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Riparian Protection
Affected fish species	Resident fish only
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Protect forested riparian areas in upper Rock Creek through acquisition, easement, or tax incentive.
Project Description	Protect undeveloped riparian zones in upper Rock Creek through fee simple acquisition, conservation easement, tax incentives such as the Wildlife Habitat Tax Incentive or city or county land use ordinance. Protecting these remaining upland areas slated for urban growth provides multiple benefits - water filtering, lower temperatures, fish habitat, and wildlife corridors.
Limiting Factors Addressed	riparian function
Geographic area	06a. Rock Creek
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	Rock 03
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for	The forested stream reaches at the top of the drainage provide a source of fresh

priority rating	water to the Rock Creek and the lower Clackamas River.
Lead Entity	CRBC
Partners	Metro
Possible Funding Sources	
Links	http://www.co.clackamas.or.us/dtd/lngplan/damascus/

Unique ID	00000142
Insert date	24 May 2005
Last updated	24 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Agricultural Practices
Primary Goal	Water Quality
Secondary Goal	Water Quantity
Primary Objective	Pollutant Reduction
Secondary Objective	
Project Type	Resource Management Systems
Affected fish species	
Affected wildlife species	
Project Title	Rock and Richardson Creek small acreages stewardship and conservation
Project Description	Rock and Richardson Creek watersheds currently comprise a diversity of small farm (row crop, nurseries, livestock and pasture) and rural residential development. Improving degraded water quality will require a comprehensive approach to treat all pollution sources within an ownership which can be accomplished by a concerted effort to implement Resource Management Systems on a majority of private ownerships in the watershed.
Limiting Factors Addressed	water quality
Geographic area	
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority	Important to implement in 1-5 year time frame

Rating	
Rationale for priority rating	Poor water quality in Rock Creek has been documented in water quality studies.
Lead Entity	SWCD
Partners	CRBC
Possible Funding Sources	
Unique ID	00000150
Insert date	24 May 2005
Last updated	24 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Water Quality
Secondary Goal	Aquatic Habitat
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Riparian Protection
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Protect forested riparian areas in Richardson Cr. through acquisition, easement, or tax incentive
Project Description	Protect less developed forest landscapes near urban areas through fee simple acquisition, conservation easement, tax incentives such as the Wildlife Habitat Tax Incentive or city or county land use ordinance. Undeveloped forests occur in steep landscapes adjacent to the stream channels. Protecting these remaining areas within this highly developed areas provides multiple benefits - water filtering, lower temperatures, fish habitat, and wildlife corridors.
Limiting Factors Addressed	water quality
Geographic area	06b. Richardson Creek
Grouped Areas	Rock Creek and Richardson Creek

Stream Reach #1	Richardson 01
Stream Reach #2	Richardson 02
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Improvement in water quality in lower Richardson Creek due to the lower forested riparian zone has been demonstrated using macroinvertebrate indicators. Urban expansion threatens this resource unless the riparian areas are protected.
Lead Entity	CRBC, TRLC
Partners	

Unique ID	00000155
Insert date	24 May 2005
Last updated	24 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Water Quality
Secondary Goal	
Primary Objective	Stormwater Management
Secondary Objective	Demonstration project
Project Type	Monitoring
Affected fish species	
Affected wildlife species	
Project Title	Pre- and post-development monitoring in the UGB
Project Description	Development of the city of Damascus provides a unique opportunity to evaluate the effectiveness of stormwater management practices prior to urban build out. The study can help identify problems and adjust surface water management practices as the new urban area develops. Information would be useful throughout the urban growth area. Richardson Creek is a good candidate because of the data previously collected by Metro and WES.
Limiting Factors Addressed	water quality
Geographic area	06b. Richardson Creek
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	
Priority	

Rating	
Rationale for priority rating	There is a window of opportunity combined with the pressing need to control pollution from urban expansion in the lower Clackamas Basin.
Lead Entity	CRBC
Partners	WES, DEQ
Possible Funding Sources	EPA

Unique ID	00000157
Insert date	24 May 2005
Last updated	24 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Water Conservation
Primary Goal	Water Quantity
Secondary Goal	
Primary Objective	Drinking Water Supply
Secondary Objective	
Project Type	Water reuse
Affected fish species	
Affected wildlife species	
Project Title	Purple Pipe plan, use of sanitary water for irrigation
Project Description	Water provider are developing a plan to use sanitary water for irrigation for water conservation.
Limiting Factors Addressed	Water quantity
Geographic area	
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	
Priority Rating	
Rationale for priority rating	Innovative water conservation measures are needed as demands for water increase with urban growth.
Lead Entity	Water Provider
Partners	CRBC
Possible Funding Sources	EPA
Links	

Unique ID	00000172
Insert date	25 May 2005
Last updated	23 Jun 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Watershed general
Secondary Goal	W Quality/Habitat
Primary Objective	Riparian Enhancement
Secondary Objective	Demonstration project
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Rock Creek Riparian Restoration Stewardship Demonstration Project
Project Description	Develop a riparian demonstration project with a willing landowner. Seek a location that is accessible for tours and outreach. The landowner's voluntary conservation measures- "conservation star". Sites would be identified by special conservation star sign- similar to century farm sign concept.
Limiting Factors Addressed	riparian function
Geographic area	06a. Rock Creek
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time

Rationale for priority rating	Demonstration projects will build community support and lead to additional restoration projects. USDA, NRCS's Conservation Security Program will be implemented in the Clackamas Watershed in approximately two years. This voluntary program rewards landowners who maintain and enhance natural resources. It's goal is to promote conservation practices by rewarding practioners and motivating others.
Lead Entity	NRCS
Partners	CRBC
Possible Funding Sources	Ag agencies
Links	http://www.nrcs.usda.gov
Photos available?	
Other notes	

Unique ID	00000173
Insert date	25 May 2005
Last updated	23 Jun 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Watershed general
Secondary Goal	Water Quality
Primary Objective	Riparian Enhancement
Secondary Objective	Demonstration project
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Richardson Creek Riparian Restoration Stewardship Demonstration Project
Project Description	Develop a riparian demonstration project with a willing landowner. Seek a location that is accessible for tours and outreach. The landowner's voluntary conservation measures- "conservation star". Sites would be identified by special conservation star sign- similar to century farm sign concept.
Limiting Factors Addressed	riparian function
Geographic area	06b. Richardson Creek
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	
Priority Rating	Important, but can be delayed in time

Rationale for priority rating	Demonstration projects will build community support and lead to additional restoration actions. USDA, NRCS's Conservation Security Program will be implemented in the Clackamas Watershed in approximately two years. This voluntary program rewards landowners who maintain and enhance natural resources. It's goal is to promote conservation practices by rewarding practioners and motivating others.
Lead Entity	NRCS
Partners	CRBC
Possible Funding Sources	Ag agencies
Links	http://www.nrcs.usda.gov
Photos available?	
Other notes	

Unique ID	00000190
Insert date	27 May 2005
Last updated	27 May 2005
Added by	Jo Anne Dolan
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Water Quality
Secondary Goal	
Primary Objective	
Secondary Objective	
Project Type	Interpretive Signs for Stormwater facilities
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Stormwater Facility Interpretation
Project Description	Produce interpretive signs to educate citizens about the function of stormwater catchment facilities.
Limiting Factors Addressed	water quality
Geographic area	
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	6a
Stream Reach #2	6b
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	UGB expansion will put more pressure on stormwater system. Opportunity to educate citizens about stormwater management.
Lead Entity	WES
Partners	CRBC
Possible Funding Sources	Unknown at this time.
Links	

Unique ID	00000196
Insert date	31 May 2005
Last updated	31 May 2005
Added by	Clair Klock
Project Category	
Top tier actions	Septic Systems
Primary Goal	Water Quality
Secondary Goal	landowner cost saving
Primary Objective	Pollutant Reduction
Secondary Objective	public health
Project Type	Septic system repair and replacement
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Home wells and septic systems
Project Description	Class that teaches homeowners how to access and maintain their septic systems in a cost efficient manner.
Limiting Factors Addressed	bacteria
Geographic area	06b. Richardson Creek
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Critical; implement immediately
Rationale for priority rating	Accumulation of failing septic systems
Lead Entity	CRBC
Partners	OSU Extension
Possible Funding Sources	
Links	
Photos available?	No

Unique ID	00000198
Insert date	23 Jun 2005
Last updated	23 Jun 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Water Quality
Secondary Goal	Water Quality
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Pesticide use education/training
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Golf Course Quality Lawns and Landscapes
Project Description	Conduct class that emphasize reduced use of chemicals
Limiting Factors Addressed	water quality
Geographic area	06a. Rock Creek
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Critical; implement immediately
Rationale for priority rating	
Lead Entity	SWCD
Partners	
Possible Funding Sources	
Links	

Unique ID	00000199
Insert date	23 Jun 2005
Last updated	23 Jun 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Water Quality
Secondary Goal	Water Quality
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Pesticide use education/training
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Golf Course Quality Lawns and Landscapes
Project Description	Conduct class that emphasize reduced use of chemical
Limiting Factors Addressed	water quality
Geographic area	06b. Richardson Creek
Grouped Areas	Rock Creek and Richardson Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Critical; implement immediately
Rationale for priority rating	
Lead Entity	SWCD
Partners	
Possible Funding Sources	
Links	

Clear Creek

Unique ID	00000082
Insert date	20 Apr 2005
Last updated	31 May 2005
Added by	Ed Salminen
Project Category	
Top tier actions	Fish Passage
Primary Goal	Aquatic Habitat
Secondary Goal	
Primary Objective	Fish passage
Secondary Objective	
Project Type	Culvert replacement & removal
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Culvert Replacement at sit CL088 - Little Clear Creek, Redland
Project Description	This is a box culvert on Little Clear Creek that has almost 15 miles of fish bearing stream habitat upstream that blocks fish passage for most or all fish.
Limiting Factors Addressed	fish passage
Geographic area	07b. Little Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	LittleClear01
Stream Reach #2	LittleClear02
Stream Reach #3	
Cost Category	Over $200K
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Third highest priority culvert to replace in Clear/Foster area. See references in link section below
Lead Entity	CRBC
Partners	PGE
Possible Funding Sources	OWEB
Links	http://www.clackamasriver.org/projects.htm
Photos available?	No

Unique ID	00000113
Insert date	19 May 2005
Last updated	31 May 2005
Added by	Greg Ciannella
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	
Primary Objective	Riparian Enhancement
Secondary Objective	
Project Type	Riparian vegetation planting
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Streamside Restoration and Revegetation
Project Description	Identify reaches in need of streamside vegetation to provide shade and nutrients to mainstem Lower Clear Creek and its feeding Tributaries (especially headwaters). The Mainstem Lower Clear Creek needs more coniferous coverage. Restoration has taken place on Bargfeld, Hattanfork, and Spring Creeks, as well as along Clear Creek. Monitoring and maintenance will be vital to the success of these projects and must be continued to achieve goals. Monitoring and maintenance include invasive plant removal, scalping around newly planted trees The council will work with willing landowners to implement riparian restoration along identified reaches along this stream reach. Identify, map, and control of invasive plant communities will be pivotal to riparian restoration and the overall health and diversity of stream corridors. Encroaching invasive plant communities that have been identified along Lower Clear Creek are Scotch Broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), English Ivy (Hedera helix), Japanese Knotweed (Polygonum cuspidatum), False Brome (Brachypodium sylvaticum), and Butterfly Bush (Buddleja davidii). Invasive species of great concern that need strategic eradication plans are Japanese Knotweed, Butterfly Bush, and False Brome. Invasive plant control is contingent on location, abundance, and priority.
Limiting Factors Addressed	riparian function
Geographic	07a. Lower Clear Creek

area	
Grouped Areas	Clear Creek
Stream Reach #1	7a
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Lower Clear Creek is home to spawning Coho and Steelhead, and resident Cutthroat Trout. Invasive plant communities, if not properly attended and managed, can grow out of control beyond restoration.
Lead Entity	CRBC
Partners	
Possible Funding Sources	Unknown at this time.
Links	
Photos available?	Yes

Unique ID	00000151
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Anadromous fish only
Affected wildlife species	None
Project Title	Continue to Monitor Smolt Production
Project Description	Monitor anadromous fish out-migrants through trapping and record species and numbers.
Limiting Factors Addressed	
Geographic area	
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to track fish numbers to track trends over time and evaluate restoration actions.
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	
Links	
Photos available?	

Unique ID	00000153
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	None
Project Title	Identify Fish Production Areas
Project Description	Identify the high fish production areas and extent of anadromous fish distribution through snorkel surveys.
Limiting Factors Addressed	fish habitat
Geographic area	Multiple areas
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to understand the factors that contribute to high fish productivity.
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	
Links	
Photos available?	

Unique ID	00000158
Insert date	24 May 2005
Last updated	25 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Wetland Protection & Restoration
Primary Goal	Watershed general
Secondary Goal	W Quality/Habitat
Primary Objective	Habitat/Water Quality
Secondary Objective	Riparian Enhancement
Project Type	Wetland Restoration
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Restore Wetland Habitat and Functions
Project Description	Work with willing landowners to restore wetland habitats in lower Foster Creek
Limiting Factors Addressed	Watershed Function/Habitat
Geographic area	05d. Foster Creek
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Foster creek has lost historic wetland habitats
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	
Links	

Unique ID	00000162
Insert date	24 May 2005
Last updated	31 May 2005
Added by	Greg Ciannella
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	
Primary Objective	Riparian Enhancement
Secondary Objective	
Project Type	Riparian vegetation planting
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Streamside Restoration and Revegetation
Project Description	Identify reaches in need of streamside vegetation to provide shade and nutrients to Middle Clear Creek and its feeding Tributaries (especially headwaters). The Clackamas River Basin Council will work with willing landowners to achieve project goals. This area could potentially use conservation easements. Establish and sustain lasting partnerships with the USFS, Longview Fiber, and commercial entities to help sustain healthy stream corridors. Identify, map, and control of invasive plant communities will be pivotal to riparian restoration and the overall health and diversity of stream corridors. Encroaching invasive plant communities that have been identified along Middle Clear Creek are Scotch Broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), English Ivy (Hedera Helix), and Butterfly Bush (Buddleja davidii), and Japanese Knotweed (Polygonum Cuspidatum). Invasive plant control is contingent on location, abundance, and priority.
Limiting Factors Addressed	
Geographic area	07c. Middle Clear Creek
Grouped Areas	Clear Creek
Stream Reach	

#1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Middle Clear Creek is critical habitat for Coho, Steelhead, and Cutthroat Trout. Invasive plant communities, if not properly attended and managed, can grow out of control beyond restoration.
Lead Entity	CRBC
Partners	USFS
Possible Funding Sources	

Unique ID	00000164
Insert date	25 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Wetland Protection & Restoration
Primary Goal	Watershed general
Secondary Goal	W Quality/Habitat
Primary Objective	Habitat/Water Quality
Secondary Objective	Riparian Enhancement
Project Type	Wetland Restoration
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Restore Wetland Habitat and Functions
Project Description	Work with willing landowners to restore wetland habitats in lower Clear Creek
Limiting Factors Addressed	Watershed Function/Habitat
Geographic area	07a. Lower Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Lower Clear Creek has lost historic wetland habitats
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	

Unique ID	00000166
Insert date	25 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	W Quality/Habitat
Primary Objective	Riparian Enhancement
Secondary Objective	Habitat/Water Quality
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Riparian Corridor Restoration
Project Description	Restore riparian corridors near intact riparian core areas. Work to restore habitats surrounding Metro property and other protected and high quality habitats. Over time provide connecting corridors between habitat patches.
Limiting Factors Addressed	riparian function
Geographic area	07a. Lower Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	There are opportunities to extend habitat from currently protected areas
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	

Unique ID	00000167
Insert date	25 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	W Quality/Habitat
Primary Objective	Riparian Enhancement
Secondary Objective	Habitat/Water Quality
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Riparian Corridor Restoration
Project Description	Restore riparian corridors near intact riparian core areas. Work to restore near BLM ownership and other high quality areas. Over time provide connecting corridors between habitat patches.
Limiting Factors Addressed	riparian function
Geographic area	07c. Middle Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	There are opportunities to extend habitat from currently protected areas
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	OWEB

Unique ID	00000168
Insert date	25 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	W Quality/Habitat
Primary Objective	Riparian Enhancement
Secondary Objective	Habitat/Water Quality
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Riparian Corridor Restoration
Project Description	Restore riparian corridors near intact riparian core areas. Work to restore areas near BLM ownership and other high quality habitats. Over time provide connecting corridors between habitat patches.
Limiting Factors Addressed	riparian function
Geographic area	07b. Little Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	There are opportunities to extend habitat from currently protected areas.
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	OWEB
Links	

Unique ID	00000168
Insert date	25 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	W Quality/Habitat
Primary Objective	Riparian Enhancement
Secondary Objective	Habitat/Water Quality
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Riparian Corridor Restoration
Project Description	Restore riparian corridors near intact riparian core areas. Work to restore areas near BLM ownership and other high quality habitats. Over time provide connecting corridors between habitat patches.
Limiting Factors Addressed	riparian function
Geographic area	07b. Little Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	There are opportunities to extend habitat from currently protected areas.
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	OWEB
Links	

Unique ID	00000169
Insert date	25 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Watershed general
Secondary Goal	Water Quantity
Primary Objective	Riparian/Upland Habitat
Secondary Objective	Habitat/Water Quality
Project Type	Reduce streambank damage
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Outreach and Education to Address Off Road Vehicle Impacts in Upper Clear Creek
Project Description	Provide educational materials and outreach to off road vehicle recreational community. The intent is to minimize impacts to habitat and water quality.
Limiting Factors Addressed	Watershed Function/Habitat
Geographic area	07d. Upper Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	ORV use is impacting riparian habitats and water quality in the upper Clear Creek watershed.
Lead Entity	CRBC
Partners	SWCD, Clackamas County
Possible Funding Sources	OWEB

Unique ID	00000165
Insert date	25 May 2005
Last updated	23 Jun 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	
Secondary Goal	Water Quality
Primary Objective	Riparian Enhancement
Secondary Objective	Demonstration project
Project Type	Riparian buffer increase
Affected fish species	Anadromous fish only
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Riparian Restoration Stewardship Demonstration Project
Project Description	Develop riparian restoration demonstration project. The landowner's voluntary conservation measures- "conservation star". Sites would be identified by special conservation star sign- similar to century farm sign concept.
Limiting Factors Addressed	riparian function
Geographic area	
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for	Demonstration projects will build community support and lead to other

priority rating	restoration actions. USDA, NRCS's Conservation Security Program will be implemented in the Clackamas Watershed in approximately two years. This voluntary program rewards landowners who maintain and enhance natural resources. It's goal is to promote conservation practices by rewarding practioners and motivating others.
Lead Entity	NRCS
Partners	CRBC
Possible Funding Sources	Ag agencies
Links	http://www.nrcs.usda.gov
Photos available?	

Unique ID	00000170
Insert date	25 May 2005
Last updated	25 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Water Quantity
Secondary Goal	Water Quantity
Primary Objective	Habitat/Water Quality
Secondary Objective	Flow enhancement
Project Type	Monitoring and Evaluation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Assess impact of In-Channel and Off-Channel Ponds on Flow and Water Quality
Project Description	There are numerous ponds in the Clear Creek watershed. There is no information on the ponds' impact on water quality and quantity. This project would assess and evaluate ponds within the watershed. Information from the monitoring will help landowners to improve pond management.
Limiting Factors Addressed	water quality
Geographic area	
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	medium
Rationale for priority rating	Information on pond impacts is important but not necessary to target restoration actions.

Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	EPA

Unique ID	00000171
Insert date	25 May 2005
Last updated	25 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Upland Habitat Protection
Primary Goal	Wildlife Habitat
Secondary Goal	Watershed general
Primary Objective	Riparian/Upland Habitat
Secondary Objective	Habitat/Water Quality
Project Type	Conservation easement
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Protect Upland Habitats to Provide Connecting Corridors
Project Description	Protect upland areas through conservation easements and other mechanisms. Seek habitats that provide corridors to protected lands and intact patches.
Limiting Factors Addressed	Watershed Function/Habitat
Geographic area	
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$50K-$100K
Priority Rating	medium
Rationale for priority rating	Clear Creek is on the border of the growing Metro Area. There are opportunities to protect upland habitats that will provide high quality wildlife areas and connecting corridors.
Lead Entity	CRBC
Partners	ODFW
Possible Funding Sources	OWEB

Unique ID	00000176
Insert date	25 May 2005
Last updated	25 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Agricultural Practices
Primary Goal	Water Quality
Secondary Goal	Watershed general
Primary Objective	Pollutant Reduction
Secondary Objective	
Project Type	Small farms technical assistance
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Implement conservation practices on Christmas tree farms in Lower Clear Creek watershed.
Project Description	Lower Clear Creek has the highest concentration of Christmas tree farms in the lower Clackamas basin (3,000 acres). Commercial operations often use the pesticide, atrazine, to control weeds. Sediment runoff from land without cover is an associated issue. A project that targets conservation practices to control sediment and identify alternatives to the use of atrazine is needed to reduce sediment, nutrients, and pesticides.
Limiting Factors Addressed	water quality
Geographic area	07a. Lower Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.

Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	The Christmas tree growing area in Lower Clear Cr. is a large contiguous area where a conservation project can have a measurable effect.
Lead Entity	SWCD
Partners	SWCD, USGS
Possible Funding Sources	
Unique ID	00000177
Insert date	25 May 2005
Last updated	25 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	Watershed general
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Riparian Protection
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Protect forested riparian areas in Clear Creek through acquisition, easement, or tax incentive.
Project Description	Protect undeveloped riparian forest areas through fee simple acquisition, conservation easement, or tax incentives such as the Wildlife Habitat Tax Incentive. Undeveloped riparian areas in Lower and Middle Clear Creek provide multiple benefits - water filtering, lower temperatures, fish habitat, and wildlife corridors.
Limiting Factors Addressed	water quality
Geographic area	07a. Lower Clear Creek
Grouped Areas	Clear Creek

Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Lower Clear Creek is accessible and desirable for rural residential development. Purchasing land or easements now will protect these valuable streamside areas.
Lead Entity	CRBC
Partners	
Possible Funding Sources	Unknown at this time.
Other notes	Include Middle Clear Creek subwatershed also.
Unique ID	00000178
Insert date	25 May 2005
Last updated	25 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Wetland Protection & Restoration
Primary Goal	Water Quality
Secondary Goal	Watershed general
Primary Objective	Habitat/Water Quality
Secondary Objective	Riparian Enhancement
Project Type	Wetland Restoration
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Work with willing landowners to restore wetlands in Lower Clear Creek.
Project Description	Wetlands in Reach, Clear 04, were identified by the Water Quality TAC as being important areas to enhance for water quality and habitat. The wetlands are contiguous to land in nurseries, pasture, and Christmas trees.
Limiting Factors	Watershed Function/Habitat

Addressed	
Geographic area	07a. Lower Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	Clear 04 A-F
Stream Reach #2	
Stream Reach #3	
Cost Category	
Priority Rating	
Rationale for priority rating	This wetland area provides an opportunity to filter runoff coming off forest and farm fields to improve impaired conditions in Clear Creek.
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	
Links	

Unique ID	00000179
Insert date	25 May 2005
Last updated	25 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Upland Protection
Primary Goal	Watershed general
Secondary Goal	
Primary Objective	Habitat/Water Quality
Secondary Objective	
Project Type	Sustainable Forests
Affected fish species	
Affected wildlife species	
Project Title	Work with commercial forest and woodlot owners on sustainable forest operations.
Project Description	Work with Portland State University to investigate methods to sustain productive forestland over the long term. Forestland throughout Little Clear Creek, Middle Clear Creek, and Upper Clear Creek will come under increasing pressure for conversion to rural residential property. Forests in Clear Creek are the catchment that provides a source of clean water to downstream areas.
Limiting Factors Addressed	water quality
Geographic area	
Grouped Areas	Clear Creek
Cost Category	
Priority Rating	
Rationale for priority rating	Protecting areas of recharge and sources of high quality water are important for many water uses.
Lead Entity	CRBC
Partners	
Possible	

Funding Sources

Applies to currently Forested subwatersheds.

Other notes

Little Clear Creek
Middle Clear Creek
Upper Clear Creek

Unique ID	00000180
Insert date	25 May 2005
Last updated	25 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Pollution Source Investigation
Primary Goal	Water Quality
Secondary Goal	Watershed general
Primary Objective	Pollutant Reduction
Secondary Objective	
Project Type	Monitoring and Evaluation
Affected fish species	
Affected wildlife species	
Project Title	Investigate pollutant sources in Bargfeld and Hattan Fork Creeks and develop a control plan.
Project Description	Bargfield Creek and Hattan Fork Creek were identified as an elevated source of nutrients and bacteria in the Clear and Foster Watershed Assessment. The report speculated the sources were septic systems, livestock wastes and chemical fertilizers. A follow-up investigation of specific sources is needed as the basis of developing a small watershed pollution control program.
Limiting Factors Addressed	water quality
Geographic area	07a. Lower Clear Creek
Grouped Areas	Clear Creek
Stream Reach #1	Bargfeld 01
Stream Reach #2	Hattan Fork
Stream Reach #3	
Cost Category	
Priority	Important to implement in 1-5 year time frame

Rating	
Rationale for priority rating	Hattan Fk and Bargfeld are small watersheds identified as hot spots where implementing BMPs are likely to provide a measurable improvement in water quality.
Lead Entity	CRBC
Partners	ODEQ
Photos available?	

Deep Creek and Goose Creek

Unique ID	00000120
Insert date	23 May 2005
Last updated	24 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	Watershed general
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Fee simple acquisition
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Protect forested riparian areas in lower NF Deep through acquisition or easement.
Project Description	Protect less developed forest landscapes near urban areas through fee simple acquisition, conservation easement, tax incentives such as the Wildlife Habitat Tax Incentive or city or county land use ordinance. Undeveloped forests occur in steep landscapes adjacent to the stream channels. Protecting these remaining areas within this highly developed areas provides multiple benefits - water filtering, lower temperatures, fish habitat, and wildlife corridors.
Limiting Factors Addressed	water quality
Geographic area	08c. North Fork Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	DeepNF01
Stream Reach #2	DeepNF02
Stream Reach #3	DeepNF03_A

Cost Category	Over $200K
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	The islands of upland and riparian areas located within developed landscapes provide multiple benefits to watersheds health and habitats that irreplaceable. Protection is always more effective than restoration.
Lead Entity	CRBC
Partners	Metro, TRLC
Possible Funding Sources	Unknown at this time.
Links	http://www.co.clackamas.or.us/dtd/lngplan/damascus/

Unique ID	00000121
Insert date	23 May 2005
Last updated	24 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	Watershed general
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Riparian Protection
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Protect forested riparian areas in Deep through acquisition, easement, or tax incentive.
Project Description	Protect less developed forest landscapes near urban areas through fee simple acquisition, conservation easement, tax incentives such as the Wildlife Habitat Tax Incentive or city or county land use ordinance. Undeveloped forests occur in steep landscapes adjacent to the stream channels. Protecting these remaining areas within this highly developed areas provides multiple benefits - water filtering, lower temperatures, fish habitat, and wildlife corridors.
Limiting Factors Addressed	water quality
Geographic area	
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	

Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	The islands of upland and riparian areas located within developed landscapes provide multiple benefits to watersheds health and habitats that irreplaceable. Protection is always more effective than restoration.
Lead Entity	CRBC, TRLC
Partners	Metro
Possible Funding Sources	Unknown at this time.
Links	http://www.co.clackamas.or.us/dtd/lngplan/damascus/
Photos available?	
Other notes	Applies to: NF Deep Cr. DeepNF01, 02, 03 08b Upper Deep. Deep06, Deep 07 and riparian forested tributaries. 08d Tickle Creek. Tickle 01, Tickle 02, sections of Tickle 03 and lower reaches of tributaries.

Unique ID	00000122
Insert date	23 May 2005
Last updated	23 Jun 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Agricultural Practices
Primary Goal	Water Quality
Secondary Goal	Water Quantity
Primary Objective	Pollutant Reduction
Secondary Objective	Aquatic Habitat
Project Type	Demonstration Project
Affected fish species	
Affected wildlife species	
Project Title	Small Acreage Stewardship Demonstration Sites
	The project will implement BMPs identified in farm plans within a concentrated small watershed to demonstrate the effectiveness of BMPs. The project will require funding for identification of willing landowners, technical assistance, implementation, and monitoring.
Project Description	The Water Quality TAC identified several small watersheds in the upper NF Deep Creek that would work effectively. The first stage is to complete an initial assessment of landowner participation and develop a grant application. the landowner's voluntary conservation measures- "conservation star". Sites would be identified by special conservation star sign- similar to century farm sign concept.
Limiting Factors Addressed	water quality
Geographic area	08c. North Fork Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	Doane Creek 01
Stream Reach #2	Dolan Creek 01

Stream Reach #3	Deep NF 10
Cost Category	Unknown at this time.
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Water quality impairment in this watershed results from the cumulative effects of multiple ag and rural uses. A demonstration project that shows the water quality benefits of BMP implementation of comprehensive farm plans is needed to show landowners and funding agencies that BMP implementation is effective at the small watershed scale.
Lead Entity	SWCD
Partners	CRBC
Possible Funding Sources	Ag agencies
Links	

Unique ID	00000125
Insert date	23 May 2005
Last updated	24 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Agricultural Practices
Primary Goal	Water Quality
Secondary Goal	Water Quantity
Primary Objective	Pollutant Reduction
Secondary Objective	
Project Type	Small farms technical assistance
Affected fish species	
Affected wildlife species	
Project Title	Implement conservation practices on nursery operations in NF Deep Creek watershed.
Project Description	Container and in-ground nurseries (3,500 acres) are the predominant agricultural use in North Fork Deep Creek including both small farm and commercial operations. Major issues are nutrients and sediment in runoff and tailwater. Buffer strips, grassed waterways, tailwater containment ponds, road improvement, irrigation efficiency, and cover crops are BMPs that need to be incorporated into Farm Plans and implementation. A project that targets technical assistance, outreach, and cost-share is NF Deep is needed to reduce pollutants in runoff and improve water quality.
Limiting Factors Addressed	sediment
Geographic area	08c. North Fork Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for	Water quality data has documented impacts in this subbasin to nutrients and

priority rating	sediment.
Lead Entity	SWCD
Partners	ODA
Possible Funding Sources	Ag agencies

Unique ID	00000127
Insert date	23 May 2005
Last updated	23 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Water Quality
Secondary Goal	Aquatic Habitat
Primary Objective	Pollutant Reduction
Secondary Objective	Demonstration project
Project Type	Bank bioengineering/vegetation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Highway 26 Channel restoration demonstration project
Project Description	There are a high percentage of straightened and channelized reaches in NF Deep Creek. The selected reach is at a highway crossing near the City of Boring making the project highly accessible as a demonstration site. A project to remeander a stream channel, stabilize streambanks, establish a buffer and plant vegetation can be completed to improve water quality and aquatic habitats and provide a demonstration area that is readily accessible to a small city and rural residential area. The initial project would identify solutions, secure landowner agreements, partner agencies, and funds for treatments and associated education activities.
Limiting Factors Addressed	riparian function
Geographic area	08c. North Fork Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	DeepNF07_A
Cost Category	$10-$50K
Priority	Important, but can be delayed in time

Rating	
Rationale for priority rating	Good demonstration site for a problem whose magnitude and geographic extent has been identified in a watershed assessment.
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	OWEB

Unique ID	00000131
Insert date	23 May 2005
Last updated	23 May 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Monitoring
Primary Goal	Water Quality
Secondary Goal	
Primary Objective	Pollutant Reduction
Secondary Objective	
Project Type	Pollutant Source Identification
Affected fish species	
Affected wildlife species	
Project Title	Tickle Creek Pollutant Source Assessment
Project Description	The water quality data indicate a spike in nutrients, specific conductance and bacteria in Tickle Creek between the city of Sandy and the mouth of Tickle Creek. Nitrates rise dramatically throughout the summer indicating a constant source or sources of pollution, such as septic systems. The spike from Tickle Creek is detected in Deep Creek indicating the magnitude of this source. Identifying the nutrient source based on the existing limited data is highly speculative. A focused water quality study along Tickle Creek could better define the location of the source, and the likely sources along the creek. Sampling conductance, nitrates and phosphorus at closely spaced monitoring sites along the creek during the summer months would help narrow down the source(s) to devise a pollution control strategy. After each sampling run, the data would be evaluated in relation to potential sources, and then the sampling locations adjusted again to focus on identified hot spots. The study could be done by students during the summer with the help of a water quality professional on study design, quality control, and interpretation so that the study also contributes to educational programs.
Limiting Factors Addressed	nutrients
Geographic area	08d. Tickle Creek
Grouped Areas	Deep Creek

Stream Reach #1	Tickle03
Stream Reach #2	Tickle04
Stream Reach #3	TickleO5,06
Cost Category	$10-$50K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	The technical basis is documented in Deep Creek watershed assessment. Pinpointing the pollutant sources will lead to a focused solution in a small geographic area. This serves as a demonstration project in using monitoring effectively to solve localized problems and provide a real-life educational experience for students in science and problem solving.
Lead Entity	CRBC
Partners	WES, SWRP
Possible Funding Sources	OWEB

Unique ID	00000132
Insert date	23 May 2005
Last updated	23 Jun 2005
Added by	Steve Bauer
Project Category	
Top tier actions	Agricultural Practices
Primary Goal	Water Quality
Secondary Goal	
Primary Objective	Pollutant Reduction
Secondary Objective	Demonstration project
Project Type	Small farms technical assistance
Affected fish species	
Affected wildlife species	
Project Title	Berry Orchards Stewardship Demonstration Sites
Project Description	Berries are a significant crop that occurs in a area that straddles Lower Deep and Tickle Creek. A demonstration project that addresses BMPs within the approximate 800 acre block of berry production would reach a large percentage of the berry producers within the lower Clackamas basin. The landowner's voluntary conservation measures- "conservation star". Sites would be identified by special conservation star sign- similar to century farm sign concept.
Limiting Factors Addressed	water quality
Geographic area	08a. Lower Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.

Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Berries are an important agricultural commodity in the basin. A BMP demonstration project would address another critical pollutant source. USDA NRCS's Conservation Security Program will be implemented in the Clackamas Watershed in approximately two years. This voluntary program rewards landowners who maintain and enhance natural resources. It's goal is to promote conservation practices by rewarding practioners and motivating others.
Lead Entity	NRCS
Partners	CRBC
Possible Funding Sources	Ag agencies
Links	http://www.nrcs.usda.gov
Photos available?	
Other notes	

Unique ID	00000149
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Anadromous fish only
Affected wildlife species	None
Project Title	Continue to Monitor Smolt Production
Project Description	Monitor anadromous fish out-migrants through trapping and record species and numbers
Limiting Factors Addressed	
Geographic area	
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to track fish numbers to assess trends over time and evaluate restoration actions.
Lead Entity	CRBC
Partners	CRBC
Possible Funding Sources	
Links	
Photos available?	

Unique ID	00000154
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	None
Project Title	Identify Fish Production Areas
Project Description	Identify high fish production areas and extent of anadromous fish distribution through snorkel surveys.
Limiting Factors Addressed	
Geographic area	Multiple areas
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to assess fish production areas and evaluate the factors contributing to productivity.
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	
Links	

Unique ID	00000159
Insert date	24 May 2005
Last updated	31 May 2005
Added by	Greg Ciannella
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	
Secondary Goal	
Primary Objective	Riparian Enhancement
Secondary Objective	Habitat/Water Quality
Project Type	Riparian vegetation planting
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Streamside Restoration and Revegetation
Project Description	Identify reaches in need of streamside vegetation to provide shade and nutrients to Tickle Creek and its feeding Tributaries (especially headwaters). The headwaters of small tributaries feeding Tickle Creek and the North Fork Tickle Creek need coniferous shade cover. Partnering with The City of Sandy Parks and urban residents is critical to sustaining healthy stream corridors from HYW 211 and 362nd street. The Clackamas River Basin Council will work with willing landowners to achieve project goals. Identify, map, and control of invasive plant communities will be pivotal to riparian restoration and the overall health and diversity of stream corridors. Encroaching invasive plant communities that have been identified along Tickle Creek are Scotch Broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), English Ivy (Hedera Helix), and Butterfly Bush (Buddleja davidii).Invasive plant control is contingent on location, abundance, and priority.
Limiting Factors Addressed	fish habitat
Geographic area	08d. Tickle Creek
Grouped Areas	Deep Creek

Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Tickle Creek provides spawning habitat for native steelhead and cutthroat trout. Invasive plant communities, if not properly attended and managed, can grow out of control beyond restoration.
Lead Entity	CRBC
Partners	City of Sandy, Friends of Tickle Creek
Possible Funding Sources	
Links	
Photos available?	Yes

Unique ID	00000160
Insert date	24 May 2005
Last updated	31 May 2005
Added by	Greg Ciannella
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	
Primary Objective	Riparian Enhancement
Secondary Objective	
Project Type	Riparian vegetation planting
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Streamside Restoration and Revegetation
Project Description	Identify reaches in need of streamside vegetation to provide shade and nutrients to Upper Deep Creek and its feeding Tributaries (especially headwaters). Partnering with streamside residents is critical to sustaining healthy stream corridors. The Clackamas River Basin Council will work with willing landowners to achieve project goals. Identify, map, and control of invasive plant communities will be pivotal to riparian restoration and the overall health and diversity of stream corridors. Encroaching invasive plant communities that have been identified along Upper Deep Creek are Scotch Broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), English Ivy (Hedera Helix). Invasive plant control is contingent on location, abundance, and priority.
Limiting Factors Addressed	fish habitat
Geographic area	08b. Upper Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach	

#2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Upper Deep Creek provides spawning habitat for Coho, Steelhead, and Cutthroat Trout. Invasive plant communities, if not properly attended and managed, can grow out of control beyond restoration.
Lead Entity	CRBC
Partners	
Possible Funding Sources	
Links	
Photos available?	Yes

Unique ID	00000161
Insert date	24 May 2005
Last updated	31 May 2005
Added by	Greg Ciannella
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	
Primary Objective	Riparian Enhancement
Secondary Objective	
Project Type	Riparian vegetation planting
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Streamside Restoration and Revegetation
Project Description	Identify reaches in need of streamside vegetation to provide shade and nutrients to Lower Deep Creek and its feeding Tributaries (especially headwaters). High priority in this section could be to partner up with Camp Kuralti (where North Fork Deep feeds mainstem Deep Creek) to promote environmental education and streamside stewardship. The Clackamas River Basin Council will work with willing landowners to achieve project goals. Noyer Creek will be of importance due to the City of Damascus expansion. Key factors will include working with the City of Damascus and Metro to enhance and protect stream corridors during the urbanization process. Noyer Creek feeds Mainstem Deep Creek. Identify, map, and control of invasive plant communities will be pivotal to riparian restoration and the overall health and diversity of stream corridors. Encroaching invasive plant communities that have been identified along Tickle Creek are Scotch Broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), English Ivy (Hedera Helix), and Butterfly Bush (Buddleja davidii), Japanese Knotweed (Polygonum Cuspidatum). Invasive plant control is contingent on location, abundance, and priority.
Limiting Factors Addressed	temperature
Geographic area	08a. Lower Deep Creek

Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Lower Deep Creek is home to spawning Coho and Steelhead, and resident to Cutthroat Trout. Invasive plant communities, if not properly attended and managed, can grow out of control beyond restoration.
Lead Entity	CRBC
Partners	Happy Valley, Damascus, Camp Kuralti
Possible Funding Sources	
Links	
Photos available?	Yes

Unique ID	00000181
Insert date	26 May 2005
Last updated	26 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	Watershed general
Secondary Goal	W Quality/Habitat
Primary Objective	Riparian Enhancement
Secondary Objective	Demonstration project
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	.....
Project Title	Deep Creek Riparian Demonstration Project
Project Description	Develop a riparian restoration project with a willing landowner. Seek a site that available for tours and outreach.
Limiting Factors Addressed	riparian function
Geographic area	
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Demonstration projects will build community support and lead to additional restoration actions.
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	OWEB
Links	

Unique ID	00000182
Insert date	26 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Aquatic Habitat
Project Type	Channel relocation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	N.F. Deep Creek Channel Restoration
Project Description	Restore selected ditched sections of N.F. Deep creek to historic channel form. Integrate the channel restoration with riparian plantings and adding other complex elements (for example large wood) to the restored stream section.
Limiting Factors Addressed	channel function
Geographic area	08c. North Fork Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$100K-$200K
Priority Rating	medium
Rationale for priority rating	Restoring historic channel form should be addressed after higher priority issues including fish passage and riparian shade actions are implemented.
Lead Entity	CRBC
Partners	ODFW
Possible Funding Sources	OWEB

Unique ID	00000184
Insert date	26 May 2005
Last updated	31 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Wetland Protection & Restoration
Primary Goal	Watershed general
Secondary Goal	W Quality/Habitat
Primary Objective	Habitat/Water Quality
Secondary Objective	Riparian Enhancement
Project Type	Wetland Restoration
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Restore Wetland Habitat Functions in NF Deep Creek
Project Description	Work with willing landowners to restore wetland habitats in NF Deep Creek
Limiting Factors Addressed	Watershed Function/Habitat
Geographic area	08c. North Fork Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	There has been extensive loss of wetland habitats in NF Deep Creek. Restoring wetland habitat and functions will improve water quality, fish habitat, and wildlife populations.
Lead Entity	CRBC
Partners	SWCD
Possible Funding Sources	
Links	

Unique ID	00000189
Insert date	26 May 2005
Last updated	26 May 2005
Added by	Jo Anne Dolan
Project Category	
Top tier actions	Agricultural Practices
Primary Goal	W Quality/Habitat
Secondary Goal	
Primary Objective	Water Quality
Secondary Objective	
Project Type	Livestock waste management systems
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Education and Incentives for Manure Management
Project Description	Workshops and Education for Horse Owners regarding manure management.
Limiting Factors Addressed	water quality
Geographic area	
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	
Priority Rating	Critical; implement immediately
Rationale for priority rating	Clackamas County is number 2 in the nation's counties in terms of horse ownership. That translates into lots of horse effluent.
Lead Entity	SWCD
Partners	
Possible Funding Sources	Ag agencies
Links	
Photos available?	
Other notes	

Unique ID	00000192
Insert date	27 May 2005
Last updated	31 May 2005
Added by	Clair Klock
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Water Quality
Secondary Goal	Water Quality
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Pesticide use education/training
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Golf Course Quality Lawns and Landscapes
Project Description	Conduct class that emphasize reduced use of chemical s
Limiting Factors Addressed	water quality
Geographic area	08b. Upper Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Critical; implement immediately
Rationale for priority rating	
Lead Entity	SWCD
Partners	
Possible Funding Sources	
Links	

Unique ID	00000193
Insert date	27 May 2005
Last updated	31 May 2005
Added by	Clair Klock
Project Category	
Top tier actions	Septic Systems
Primary Goal	Water Quality
Secondary Goal	
Primary Objective	Pollutant Reduction
Secondary Objective	
Project Type	Septic system repair and replacement
Affected fish species	Both anadromous and resident fish
Affected wildlife species	None
Project Title	Home Wells and Septics
Project Description	Class that teach homeowner how to access and maintain their septic systems in a cost efficient manner
Limiting Factors Addressed	bacteria
Geographic area	08b. Upper Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Critical; implement immediately
Rationale for priority rating	Accumulation of failing septic systems
Lead Entity	CRBC
Partners	
Possible Funding Sources	
Links	
Photos available?	No
Other notes	

Eagle Creek

Unique ID	00000152
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Anadromous fish only
Affected wildlife species	None
Project Title	Continue to Monitor Smolt Production
Project Description	Monitor anadromous fish out-migrants through trapping and record species and numbers.
Limiting Factors Addressed	
Geographic area	10. North Fork Eagle Creek
Grouped Areas	Eagle Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to track fish numbers to assess trends over time and evaluate restoration actions.
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	
Links	

Unique ID	00000185
Insert date	26 May 2005
Last updated	26 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Water Quality
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Water Temperatures
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Eagle Creek Water Temperature Monitoring
Project Description	Monitor water temperatures and associated factors (shade, stream flow, etc.) in Eagle Creek and tributaries. Use the monitoring data to evaluate the factors contributing to high water temperatures.
Limiting Factors Addressed	temperature
Geographic area	
Grouped Areas	Eagle Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	Information on water temperature patterns will help target riparian restoration and other actions.
Lead Entity	CRBC
Partners	ODFW
Possible Funding Sources	OWEB
Links	
Photos available?	

Unique ID	00000186
Insert date	26 May 2005
Last updated	26 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	Watershed general
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Riparian Protection
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Protect Forested Riparian Areas in Eagle Creek Through acquisition, easements, or incentives
Project Description	Protect high-quality riparian areas, particularly mature and old-growth forested habitats. Emphasize areas at most risk and where there is the potential to connect to existing high quality riparian habitats on BLM or other ownerships.
Limiting Factors Addressed	temperature
Geographic area	
Grouped Areas	Eagle Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	$100K-$200K
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	There are high quality riparian habitats in the Eagle Creek watershed. Protecting these areas and then restoring other habitats will help to maintain and improve water quality and aquatic habitat.
Lead Entity	CRBC
Partners	BLM, TRLC

Possible Funding Sources

Links

Photos available?

Unique ID	00000187
Insert date	26 May 2005
Last updated	23 Jun 2005
Added by	John Runyon
Project Category	
Top tier actions	Riparian Protection & Restoration
Primary Goal	W Quality/Habitat
Secondary Goal	Aquatic Habitat
Primary Objective	Riparian Enhancement
Secondary Objective	Demonstration project
Project Type	Riparian buffer increase
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Eagle Creek Riparian Restoration Stewardship Demonstration Project
Project Description	Develop riparian restoration demonstration project. Select a site and landowner that is accessible to field tours and public outreach. The landowner's voluntary conservation measures- "conservation star". Sites would be identified by special conservation star sign- similar to century farm sign concept.
Limiting Factors Addressed	riparian function
Geographic area	
Grouped Areas	Eagle Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important to implement in 1-5 year time frame

Rationale for priority rating	Demonstration projects build community support and help foster additional actions. USDA, NRCS's Conservation Security Program will be implemented in the Clackamas Watershed in approximately two years. This voluntary program rewards landowners who maintain and enhance natural resources. It's goal is to promote conservation practices by rewarding practioners and motivating others.
Lead Entity	NRCS
Partners	CRBC
Possible Funding Sources	Ag agencies
Links	http://www.nrcs.usda.gov
Photos available?	
Other notes	

Unique ID	00000188
Insert date	26 May 2005
Last updated	31 May 2005
Added by	Jo Anne Dolan
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Water Quality
Secondary Goal	
Primary Objective	
Secondary Objective	
Project Type	Pesticide use education/training
Affected fish species	Both anadromous and resident fish
Affected wildlife species	
Project Title	Green Up Your Lawn Not the Creek Workshops
Project Description	Workshop for residents in best ways to have a nice lawn while using less chemical applications. Priority audiences in neighborhoods along creeks.
Limiting Factors Addressed	pesticides
Geographic area	08c. North Fork Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	8c
Stream Reach #2	5b
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	USGS pesticide surveys and assessment indicate elevated levels of pesticides are found in these stream sections.
Lead Entity	SWCD
Partners	CRBC
Possible Funding Sources	Unknown at this time.

Unique ID	00000191
Insert date	27 May 2005
Last updated	31 May 2005
Added by	Jo Anne Dolan
Project Category	
Top tier actions	Water Flow Enhancement
Primary Goal	Water Quantity
Secondary Goal	
Primary Objective	Flow enhancement
Secondary Objective	
Project Type	Small farms technical assistance
Affected fish species	
Affected wildlife species	
Project Title	
Project Description	Provide information on irrigation, water management to agricultural users through workshops and technical assistance.
Limiting Factors Addressed	base flow
Geographic area	08c. North Fork Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Critical; implement immediately
Rationale for priority rating	Assessment indicates in Deep Creek that if all water rights were used there would not be enough water in creek to meet instream requirements in the summer months.
Lead Entity	SWCD
Partners	CRBC, ODWR, Watermaster
Possible Funding Sources	Ag agencies

Unique ID	00000192
Insert date	27 May 2005
Last updated	31 May 2005
Added by	Clair Klock
Project Category	
Top tier actions	Education and Outreach
Primary Goal	Water Quality
Secondary Goal	Water Quality
Primary Objective	Habitat/Water Quality
Secondary Objective	Pollutant Reduction
Project Type	Pesticide use education/training
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Golf Course Quality Lawns and Landscapes
Project Description	Conduct class that emphasize reduced use of chemical s
Limiting Factors Addressed	water quality
Geographic area	08b. Upper Deep Creek
Grouped Areas	Deep Creek
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Critical; implement immediately
Rationale for priority rating	
Lead Entity	SWCD
Partners	CRBC

Middle Clackamas Tributaries

Unique ID	00000138
Insert date	24 May 2005
Last updated	24 May 2005
Added by	Bob Bergamini
Project Category	
Top tier actions	In-Stream Habitat
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Large wood/boulder placement
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Fish Creek LWD Project
Project Description	Project will consist of adding large wood into stream channel in the form of log jams provide aquatic habitat and improve channel function.
Limiting Factors Addressed	fish habitat
Geographic area	12. Fish Creek
Grouped Areas	Middle Clackamas Tributaries
Stream Reach #1	Fish 01
Stream Reach #2	Fish 01
Stream Reach #3	Fish 03
Cost Category	Unknown at this time.
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Fish Creek is the largest producing tributary in the Upper Clackamas River of steelhead smolts which are a threatened species under ESA.
Lead Entity	USFS
Partners	
Possible Funding Sources	Unknown at this time.
Links	
Photos available?	

Unique ID	00000145
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Anadromous fish only
Affected wildlife species	None
Project Title	Continue to Monitor Smolt Production
Project Description	Monitor anadromous fish out-migrants through trapping and recording fish species and numbers.
Limiting Factors Addressed	
Geographic area	11a. North Fork Clackamas River
Grouped Areas	Middle Clackamas Tributaries
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to track fish numbers to assess trends over time and evaluate restoration effectiveness
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	
Links	

Unique ID	00000148
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Anadromous fish only
Affected wildlife species	None
Project Title	Continue to Monitor Smolt Production
Project Description	Monitor anadromous fish out-migrants through trapping and record species and numbers.
Limiting Factors Addressed	
Geographic area	12. Fish Creek
Grouped Areas	Middle Clackamas Tributaries
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to track fish numbers to assess trends over time and evaluate restoration actions.
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	
Links	
Photos available?	
Other notes	

Upper Clackamas Tributaries

Unique ID	00000137
Insert date	24 May 2005
Last updated	31 May 2005
Added by	Bob Bergamini
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Aquatic Habitat
Secondary Objective	Channel Restoration
Project Type	Off-channel habitat creation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Hot Springs Fork Off-Channel Habitat Enhancement
Project Description	Off-channel habitat would be enhanced by the addition of large woody material at side channels along the Hot Springs Fork at RM 2.5, 2.7, and 3.0. The purpose of the LWD additions would be to create pool habitat, provide cover, and trap spawning gravels. Additional control structures may be added at the entrance of a side channel at RM 3.2 in order to provide increase flows into the channel.
Limiting Factors Addressed	fish habitat
Geographic area	17. Hot Springs Fork
Grouped Areas	Upper Clackamas Tributaries
Stream Reach #1	Hot Springs Fork 01
Stream Reach #2	Hot Springs Fork 02
Stream Reach #3	

Cost Category	Unknown at this time.
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	Projects provide much needed high flow refuge for anadromous ESA listed fish species.
Lead Entity	USFS
Partners	
Possible Funding Sources	Unknown at this time.

Middle and Upper Mainstem Clackamas River

Unique ID	00000123
Insert date	23 May 2005
Last updated	31 May 2005
Added by	Bob Bergamini
Project Category	
Top tier actions	In-Stream Habitat
Primary Goal	Aquatic Habitat
Secondary Goal	
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Large wood/boulder placement
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Upper North Fork Reservoir Fish Cover Enhancement
Project Description	The project proposed would be intended to primarily benefit adult coho spawners, as well as juvenile coho salmon, steelhead, and Chinook salmon. The project as envisioned at this time, would utilize large woody material (logs) and large boulders to restore and enhance, instream and overhead cover on a one half mile section of the Clackamas River, near shore environment at RM 34.0. Material would be placed in close proximity to the stream to bank, to avoid powerful hydraulics present further out in the river channel, during high flow events.
Limiting Factors Addressed	fish habitat
Geographic area	02. NF Reservoir/Estacada Lake
Grouped Areas	Upper Mainstem Clackamas River
Stream Reach #1	Clackamas 13
Stream Reach #2	Clackamas 14
Stream Reach	

#3

Cost Category	Unknown at this time.
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	This area has been a hot spot in particular for native, late run coho salmon spawning for many years. Also supports substantial numbers of spawning winter steelhead in spring and spring Chinook spawning in the fall. All three species are probably rearing as juveniles in this section, and downstream in North Fork Reservoir. Although heavily utilized by late run coho, the area adjacent to Hwy. 224 has been cleared of most vegetation when the road was built and is largely an open, rip rap bank with little instream or overhead cover for fish. Spawning coho are very skittish in this reach, probably because of the very open conditions, with little hiding cover.
Lead Entity	USFS
Partners	PGE
Possible Funding Sources	Unknown at this time.
Links	
Photos available?	Yes

Unique ID	00000124
Insert date	23 May 2005
Last updated	31 May 2005
Added by	Bob Bergamini
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian Enhancement
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Upper Clackamas River Side Channel RM 37
Project Description	Side channel construction at RM 37.0 of the Clackamas River. The side channel at this location is a natural channel but has been impacted and impinged upon by Hwy. 224. This channel is at least 600 feet long with much standing water in pools and a connecting channel to the main Clackamas River in spring. The side channel lies on a historic portion of the Clackamas floodplain that was partially filled with spoil during construction of Hwy. 224.
Limiting Factors Addressed	fish habitat
Geographic area	03. Middle Clackamas Mainstem
Grouped Areas	Upper Mainstem Clackamas River
Stream Reach #1	Clackamas 15
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority	Important, but can be delayed in time

Rating	
Rationale for priority rating	This side channel has potential to be a high production side channel for coho salmon. In particular, it could be of great benefit to native, late run coho that spawn in nearby mainstem reaches of the Clackamas. It is likely that spring Chinook juveniles would also share this habitat with coho. Better connection with the mainstem river is needed, as well as instream habitat and instream wood for superior juvenile rearing habitat.
Lead Entity	USFS
Partners	

Unique ID	00000126
Insert date	23 May 2005
Last updated	31 May 2005
Added by	Bob Bergamini
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Channel Restoration
Secondary Objective	Riparian Enhancement
Project Type	Develop meanders / side channels
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Tar Creek Side Channel RM 55.5
Project Description	This project would enhance flow into channel and add LWD for cover component at side channel located at RM 55.5 of the Clackamas River.
Limiting Factors Addressed	fish habitat
Geographic area	04. Upper Clackamas Mainstem
Grouped Areas	Upper Mainstem Clackamas River
Stream Reach #1	Clackamas 24
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	This side channel has potential to be a high production side channel for coho salmon. In particular, it could be of great benefit to native, late run coho that spawn in nearby mainstem reaches of the Clackamas.
Lead Entity	USFS
Partners	
Possible Funding Sources	Unknown at this time.
Links	
Photos available?	Yes
Other notes	

Unique ID	00000128
Insert date	23 May 2005
Last updated	23 May 2005
Added by	Bob Bergamini
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Aquatic Habitat
Secondary Objective	Riparian Enhancement
Project Type	Off-channel habitat creation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Two Rivers Side Channel Enhancement RM 57.0
Project Description	Enhancement of a side channel at RM 57.0 just below the confluence of the Clackamas and Collawash Rivers by the addition of large woody material to increase cover and pool habitat.
Limiting Factors Addressed	fish habitat
Geographic area	04. Upper Clackamas Mainstem
Grouped Areas	Upper Mainstem Clackamas River
Stream Reach #1	Clackamas 25
Stream Reach #2	
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	This side channel has potential to be a high production side channel for coho salmon. In particular, it could be of great benefit to native, late run coho that spawn in nearby mainstem reaches of the Clackamas.
Lead Entity	USFS
Partners	
Possible Funding Sources	Unknown at this time.

Unique ID	00000129
Insert date	23 May 2005
Last updated	23 May 2005
Added by	Bob Bergamini
Project Category	
Top tier actions	In-Stream Habitat
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Aquatic Habitat
Secondary Objective	
Project Type	Large wood/boulder placement
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Upper Clackamas Large Wood Project RM 57 to RM 64
Project Description	This project proposes to place nine large woody debris (LWD) structures along the banks of the Upper Clackamas River between RM 57 and RM 64, with the goal of improving in-stream habitat, primarily for anadromous fish, as well as resident fish and other stream organisms.
Limiting Factors Addressed	fish habitat
Geographic area	04. Upper Clackamas Mainstem
Grouped Areas	Upper Mainstem Clackamas River
Stream Reach #1	Clackamas 26
Stream Reach #2	
Stream Reach #3	
Cost Category	$10-$50K
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	This project is an endeavor to restore lost habitat complexity for anadromous salmonids (coho salmon, spring Chinook salmon, steelhead) and resident salmonids (bull char, coastal cutthroat and rainbow trout) native to the Upper Clackamas River.

Lead Entity	USFS
Partners	ODFW
Possible Funding Sources	.....

Unique ID	00000130
Insert date	23 May 2005
Last updated	23 May 2005
Added by	Bob Bergamini
Project Category	
Top tier actions	Channel Restoration
Primary Goal	Aquatic Habitat
Secondary Goal	Watershed general
Primary Objective	Aquatic Habitat
Secondary Objective	Riparian Enhancement
Project Type	Off-channel habitat creation
Affected fish species	Both anadromous and resident fish
Affected wildlife species	mammals, birds, amphibians, etc.
Project Title	Road 4650 Side Channel RM 65.0
Project Description	Restore flow into a small side channel at RM 65 of the Clackamas River.
Limiting Factors Addressed	fish habitat
Geographic area	04. Upper Clackamas Mainstem
Grouped Areas	Upper Mainstem Clackamas River
Stream Reach #1	Clackamas 26
Stream Reach #2	Clackamas 27
Stream Reach #3	
Cost Category	Unknown at this time.
Priority Rating	medium
Rationale for priority rating	This side channel has potential to be a high production side channel for coho salmon. In particular, it could be of great benefit to native, late run coho that spawn in nearby mainstem reaches of the Clackamas. It is likely that spring Chinook juveniles would also share this habitat with coho.
Lead Entity	USFS

Partners	
Possible Funding Sources	Unknown at this time.
Links	

Unique ID	00000146
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Anadromous fish only
Affected wildlife species	None
Project Title	Continue to Monitor Smolt Production
Project Description	Monitor anadromous fish out-migrants through trapping and record species and numbers.
Limiting Factors Addressed	
Geographic area	04. Upper Clackamas Mainstem
Grouped Areas	Upper Mainstem Clackamas River
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important to implement in 1-5 year time frame
Rationale for priority rating	It is important to track fish numbers to assess trends over time and evaluate restoration actions.
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	
Links	

Oak Grove Fork

Unique ID	00000147
Insert date	24 May 2005
Last updated	24 May 2005
Added by	John Runyon
Project Category	
Top tier actions	Monitoring Plan
Primary Goal	Monitor Fish Populations
Secondary Goal	Aquatic Habitat
Primary Objective	Monitor Fish Populations
Secondary Objective	Aquatic Habitat
Project Type	Monitoring and Evaluation
Affected fish species	Anadromous fish only
Affected wildlife species	None
Project Title	Continue to Monitor Smolt Production
Project Description	Monitor anadromous fish out-migrants through trapping and record species and numbers.
Limiting Factors Addressed	
Geographic area	14. Oak Grove Fork
Grouped Areas	Oak Grove For
Stream Reach #1	
Stream Reach #2	
Stream Reach #3	
Cost Category	<$10k
Priority Rating	Important, but can be delayed in time
Rationale for priority rating	It is important to track fish numbers to assess trends over time and evaluate restoration actions.
Lead Entity	ODFW
Partners	CRBC
Possible Funding Sources	