

Final Completion Summary

Molalla River Watch implemented a Rapid Bio Assessment (RBA) of 140 miles of the Molalla River and Milk Creek basins to fill in data gaps identified in the watershed assessment and actions recommended by the 2011 (Year 1) RBA of the Upper Molalla. This 2012 (Year 2) RBA also included spawning gravel inventory of all 140 miles to complete surveys of the entire Molalla River Watershed in a single year. The full basin scale inventory of juvenile salmonids abundance, distribution, and spawning gravel inventory provides the foundation to identify and prioritize habitat restoration actions that support Endangered Species Act (ESA) recovery goals. The Molalla River and Milk Creek RBA of juvenile ESA-listed spring Chinook salmon, coho salmon, winter steelhead, rainbow and cutthroat trout provides data necessary to prioritize the development of restoration strategies.

Background

As the Middle and Lower Molalla River Action Plan for the lower 27 miles of the mainstem Molalla was being completed, partners realized there was a lack of contemporary information on the abundance and distribution of all species of juvenile salmonids. The Molalla River and Milk Creek RBA was developed to assist in informing and guiding the final draft of the Middle and Lower Molalla River Action Plan. The priority was to gather as much current information as possible on the status and location of fish populations throughout the entire basin so that identifying limiting factors and prioritizing restoration strategies would be well informed and efficient at utilizing limited restoration capital.

Bio-Surveys conducted a RBA snorkel inventory of the Upper Molalla (North Fork, Table Rock Fork and South Fork) including tributaries (100 miles) in 2011. Initial observations from this first year of a comprehensive fish distribution inventory indicated that the lack of abundant spawning gravels in the upper watershed might be a factor limiting listed wild winter steelhead. The 2011 RBA also noted that all species of salmonids (Chinook, coho, winter steelhead, rainbow and cutthroat trout) were found in the Middle Molalla with indications that they may also be holding in side channels of the Lower Molalla and Milk Creek.

The Molalla River winter steelhead and spring Chinook salmon are both part of the Upper Willamette Evolutionary Significant Units (ESU's) and are federally listed as threatened under the Endangered Species Act in 1999. Recovery planning efforts have identified the need to recover all historic populations of steelhead and Chinook salmon in the Upper Willamette ESU, including the Molalla River. Fish managers consider Molalla's winter steelhead population as a Distinct Population Segment (DPS) and a "primary" population of the Upper Willamette ESU. The Molalla River historically supported an abundant native population of spring Chinook salmon. There has been a dramatic decline of Spring Chinook since the 1940's according to

BLM Analysis, 1999 and NMFS/ODFW Conservation Plan draft 2010. Fish managers consider Molalla's spring Chinook as a "contributing" population of the Upper Willamette ESU. Based on abundance and productivity information, the Molalla Chinook population has been assigned the "very-high" extinction risk category with a stated goal of achieving the "high" risk category. (Upper Willamette Conservation Plan, NMFS/ODFW, October 2011). In addition, there is an introduced population of wild coho salmon in the Molalla River, but its distribution in the watershed was completely unknown. Also, a very small, remnant population of naturalized summer steelhead return to the Molalla, but the extent and viability of this population was also completely unknown.

Work Done

The 2012 (Year 2) RBA quantified the abundance and distribution of ESA-listed spring chinook salmon, steelhead, coho salmon, resident rainbow and cutthroat in 140 miles of the Molalla Watershed. The RBA results will be used to further our goal of improving stream habitats in the Molalla River sub-basins and continue outreach to individual landowners. Spawning gravel abundance and distribution surveys were also conducted in 140 stream miles (entire basin) in an attempt to test the hypothesis that spawning gravel could limit production of listed species. Tributaries and stream reaches are ranked, as a result of these survey efforts, for the development of a basin-wide prioritization plan for restoration. The final report includes a list of recommended actions.

Most of the survey along Milk Creek and other Molalla River tributaries occurred on private land owned by over 600 individual property owners. The Clackamas County Tax Assessors database was used to identify landowner names and addresses. An information letter (see attached) was mailed to each landowner with a stamped, self-addressed return postcard. Over 200 cards were returned allowing access. Several weeks were devoted to securing phone numbers from phone books and on-line sources, then calling those that did not initially respond. A database was created of all landowner's contact information and shows approximately 500 property owners allowed access to streams either by return postcard or verbally. The Upper Molalla is primarily BLM land with Weyerhaeuser Co. and Olympic Resource Management lands in private ownership. BLM, Weyerhaeuser Co. Longview Timber and Port Blakely own lands in the upper portion of the Milk Creek basin and all of the industrial timber owners and BLM allowed access. The Middle and Lower Molalla are considered navigable and did not require landowner approval for the snorkel survey.

Select 6th field sub-watersheds of Milk Creek and the entire mainstem Molalla River from the Willamette River confluence to the North Fork Molalla were surveyed using RBA protocols. RBA

protocols provide detailed information on spatial distribution and relative abundance of salmonid juveniles in summer. The surveyor walked up each stream and snorkeled through every 5th pool, identifying and counting all salmonids observed. In complex and well-populated pools, additional passes were made to facilitate accurate enumeration. The survey continued from the mouth of each stream and tributary to a point where the rearing potential of the habitat is diminished by gradient or flow. The surveyor collected multiple attributes at each inventoried unit including pool metrics to calculate surface area, habitat complexity, visibility ratings, calibration factors for measuring distance traveled between units, location and viability of fish passage devices (culverts). Temperature and habitat condition comments were also recorded when relevant, along with tributary junctions, culvert crossings or barriers, significant land use shifts, etc. The RBA protocol is a continuous census designed to quantify the changes in salmonid distribution as you proceed up each tributary. This facilitates the location of key rearing habitats and production hotspots (anchor sites). A spawning gravel inventory of all streams was conducted simultaneously with the RBA snorkel survey. A single surveyor completed most surveyed reaches. However, in larger mainstem corridors the protocol utilizes two or three surveyors simultaneously conducting visual inventories. Bio-Surveys staff conducted all surveys.

Field data collected during the summer months was entered into an Access database. Bio-Surveys also converted the Access data into a Microsoft Excel Pivot table that is user friendly and allows easy manipulation and presentation of the data by species, year, and stream or tributary. Bio-Surveys analyzed and assembled the raw data into a final report document that reviews species, abundance, distribution and locations within the watershed. The report organizes the results of the inventory by 6th fields basins. Both databases and the report are available from Molalla River Watch, Inc. and the OWEB Final Metrics Form online. They have also been provided to interested landowners, agencies and other partners. USGS Quad maps are another product of the inventory.

Invitations to a community presentation were mailed to all 600 landowners and email invitations were sent to interested individuals, agencies and other partners. Articles about the snorkel survey and inviting the public to attend Steve Trask's presentation were published several times in the Molalla Pioneer and Canby Herald newspapers (see attached). A standing room only crowd of over 100 people attended this highly anticipated presentation. The community presentation described methods, results, and facilitated a discussion with landowners and managers about the current and historic fish populations and potential restoration strategies.

Changes from Proposed

The original OWEB proposal was to conduct an RBA snorkel survey for fish abundance and

distribution of 140 miles of stream including one mile of side channels and conduct a spawning gravel inventory only of 50 miles of Upper Molalla tributaries that were snorkeled for fish abundance in 2011.

During a project meeting early in 2012 the discussion focused on the benefits of re-surveying the Upper Molalla tributaries of the North Fork Molalla, Table Rock Fork along with Cedar and Russell Creeks (50 miles total). Initial plans were only to conduct the spawning gravel inventory in these tributaries. It was suggested that there would be great value in completing the entire basin in a single year to completely bracket the distribution of each species, to re-survey the Upper Molalla tributaries for validation, and to get the power of trend analysis between years on all of the highly productive portions of the basin. It was also estimated that there actually was an additional five miles of side channels in the lower Molalla that should be surveyed at a 100% sample.

To accomplish the increased number of stream miles snorkeled for fish abundance and distribution (140 miles) and spawning gravel inventory (140 miles), Molalla River Watch provided some Special Environmental Project funds and secured additional funding from Molalla River Improvement District.

Public Awareness or Education

In May 2012 the Molalla Pioneer and Canby Herald Newspapers published articles about the planned 2012 RBA snorkel survey and inviting the public to attend a community presentation about the 2011 RBA findings (see attached). Building on the results and interest in the 2011 RBA of the Upper Molalla helped encourage individual landowners to allow access for the 2012 RBA snorkel survey. An invitation to Steve Trask's presentation of the 2011 findings, a letter explaining the RBA process and requesting stream access for the 2012 RBA (see attached May 2012 letter), and a stamped self-addressed return postcard approving access was also mailed to over 600 landowners along Milk Creek and tributary streams. This served to peak a lot of interest about fish, restoration opportunities, and the 2012 RBA, especially with Milk Creek basin landowners. Approximately 30 people attended the 2011 results presentation and all streamside landowners checked "stream access approved" on the sign-in sheet. Over 200 post cards were returned from the mailing. Phone calls were made to those that had not responded to the mailing with approximately 500 landowners agreeing to allow access.

Invitations to a community presentation of the 2012 RBA findings (see attached) were mailed to all 600 landowners and email invitations were sent to interested individuals, agencies and other partners. Articles about the snorkel survey and inviting the public to attend Bio-Surveys Fish

Biologist, Steve Trask's presentation were published several times in the two newspapers (see attached article with photo used in both papers). A standing room only crowd of over 100 people attended this highly anticipated presentation. The 2012 RBA Final Report was provided as either a hardcopy or on CD to all interested attendees. The CD version also includes the Access database and Excel Workbook. The community presentation described methods, results, and facilitated a discussion with landowners and managers about the current and historic fish populations, potential actions and restoration strategies.

Many positive relationships with landowners have developed through the numerous phone conversations, community presentations and site visits as we proceed with development of several potential projects.

Lessons Learned

The Clackamas County Tax Assessor's office has a good online resource at <http://cmap.clackamas.us/> to identify taxlots and site addresses. An MRW volunteer used the CMAP to create a spreadsheet of every taxlot along Milk Creek and tributaries and Molalla River tributaries. For a small fee, the Assessor's office also has a service to provide names and mailing addresses for the identified taxlots. Many of the rural landowners along Milk Creek have Post Office box numbers instead of receiving mail at the taxlot address. It is important to make sure a mailing is sent to the mailing address listed. However, Clackamas County does not provide phone numbers. Local phone books and online sources were used to find phone numbers.

The MRW complete spreadsheet of names, addresses and phone numbers also included color coding to note if the landowner owned both sides of the stream and if they approved access. A notes column provides information such as "call before" or "livestock in pasture, close gate." The taxlot maps were printed and color coded with "green" for access approved or "red" for access denied. These maps were provided to the surveyors.

Recommendations

A top priority for Molalla River Watch is to acquire technical assistance for the development of restoration and enhancement strategies for the Molalla River and Milk Creek basins. The spreadsheet of all tributary landowners has proven very useful to identify landowners at critical fish habitat sites and landowners adjacent to identified potential project locations. MRW is now in the process of creating a similar spreadsheet for all property owners along the mainstem and

side channels of the Molalla River.

A coordinated landowner outreach was necessary to accomplish the Rapid Bio Assessment and will be useful to contact and collaborate with private individual landowners for most projects and future restoration activities. MRW will build upon the individual contacts made during the 2012 RBA and look for every opportunity to collaborate with land owners to help them accomplish their goals while benefiting fish and wildlife habitat and water quality.

Special Conditions

The Molalla River Rapid Bio Assessment 2011 & 2012 Final Report was provided to the OWEB Willamette Region Representative electronically, May 2012.

The documentation from Grantee of verbal Cooperative/Landowners Agreement was mailed with the First Request for Reimbursement sent to OWEB.

Both of these Special Conditions documents have also been uploaded using the 'Upload Special Conditions' link.

<i>Funding Sources</i>				
Source	Identifier	Cash	Inkind Type	Inkind
Bureau of Land Management	L11AC20138	\$4,000.00	Labor	\$2,000.00
Clackamas SWCD		\$5,000.00	Labor	\$75.00
Molalla River Improvement District		\$5,000.00		\$0.00
Molalla River Watch, Inc.	SEP	\$14,445.48		\$0.00
Molalla River Watch, Inc.		\$0.00	Labor	\$2,500.00
Native Fish Society		\$0.00	Volunteers	\$3,200.00
Oregon Department of Fish & Wildlife		\$0.00	Labor	\$2,200.00
OWEB	212-3041-9237	\$37,880.00		\$0.00

<i>Totals</i>					
OWEB Amount	Non OWEB Cash	Inkind Total	Non OWEB Amount	OWEB Match	Total Project Cost
\$37,880.00	\$28,445.48	\$9,975.00	\$38,420.48	101.0%	\$76,300.48

<i>Uploaded Files</i>		
Image Type	File Name	Description
Special Condition Requirement	Molalla RBA Final Report 2012.pdf	Molalla River Rapid Bio Assessment 2011 & 2012 Final Report

Special Condition Requirement	Mol-Milk_Verbal Cooperative Agree_Documentation.doc	Molalla & Milk Creek Verbal landowner(s) Cooperative Agreement documentation letter
Media Coverage	Molalla Pioneer article_5-15&29-13.pdf	Article printed in Molalla Pioneer & Canby Herald
Outreach Materials	MRW_Landowner letter.doc	Invite letter to 2011 results & request for 2012 stream access
Outreach Materials	2012 Presentation flyer.pdf	Invite to 2012 results Community Presentation by Bio-Surveys fish biologist, Steve Trask
Survey Data	Copy of Molalla 2011-12 RBA Workbook .xls	2011 & 2012 RBA Excel Workbook
Final Metrics	Mol-Milk_Mon_Final_Metrics_Oct2013_protect.doc	Molalla & Milk Creek Monitoring Final Metrics Form