MidCoast Watershed Council Meeting
7 January 2010

Introductions: 22 people in attendance

Recorder's Report: Reports were given for December meeting. There was 1 official action taken: A motion was made that the Council create a permanent committee for the review of non-technical grants that would operate as specified (the procedure was provided in writing).

Treasurer's Report: For the month of December, $18,463 of income was received, $12,026 expended. There is a balance of 12,493 in the account.

Educational Program: Kip Wood from the Lincoln Soil and Water Conservation District (LSWCD) gave a presentation entitled: Effectiveness of the large wood project on the South Fork Yachats. The presentation used the results from aquatic habitat resource inventories (AHIs) conducted for three years on the same tributary, both before and after wood placement, by Kip Wood and Mark Stone, also from LSWCD, who have over 13 years of experience conducting such AHIs. They also conduct spawning ground surveys in Oct-January for coho and Feb-June for steelhead, so are quite familiar with the reach and its changes.

The presentation documented how the large wood placement had positive benefits on fish habitat, with an increase of habitat complexity known to be positive for salmonids. There were increased amount of side channels, pools, backwaters and alcoves created. There was a decrease in fast water areas and the collection of gravels and other organic material, with the channels starting to braid.

The project area is 7 miles upstream from the ocean, and upstream from there to about 1-2 miles above the confluence with Grass Creek. The S. Fork Yachats is a priority watershed for the MCWC and there have been decreases since the mid-1980's in coho numbers. Numbers in the 1970's are high. The watershed is impacted by grazing and the cutting of riparian zone. There is a conspicuous absence of large wood, the habitat is simplistic, there is exposed bedrock and no gravel retention and often just a 1 tree width riparian area, if any.

Kip provided a review of how large wood placement strategies have changed and evolved over time. Engineered structures, full-creek spanning wiers, were placed in the mid-80's to collect gravel. These projects were done by an excavator, and the impacts of the excavator on the creek bed were visible for 2-3 years in the stream channel. Large wood placed by horses were an improvement as this lessoned the impact to the riparian areas. Mid-sized logs were able to be placed. In more recent years, when funding and large trees are available, the MCWC has been able to place large wood by helicopter. These logs can be 36 m diameter x 1 m wide and from 9-220' long. Key pieces to be placed are calculated as those necessary to span twice the winter wetted width of the stream plus 10'. Some of the trees have rootwads and some have cut butt ends, the limitation being how much weight the helicopter can handle. Their experience is that Douglas Fir holds up longer than spruce; conifers might last 50-100 years in the stream, shorter if touching the ground)

He also provided a review of how planting strategies have changed over time to enhance riparian plant success rates. Initially the strategy was high saturation riparian planting with Vexar tubing to provide some protection. Then the strategy became smaller groves planted in fewer places protected by "field" fencing—dog kennel like fencing 5-6' high. Maintenance of the planted trees is key too—making sure competing vegetation is kept down until the plants are "free to grow".

Wood placement project monitoring history

Pre-project AHI data was collected in 1997.
Helicopter placement of the large wood was done in 2004
First post project AHI data was collected in 2006

(The monitoring had waited for the onset of high water events so that materials would move around and the implications and changes due to the log placement would be clearer)

Second post project AHI data was collected in 2009.

Changes over Time

Kip presented a series of graphs showing data changes over time. These indicators have to be looked at together, since it's a complex story of how these parameters interact.
These included:

- length of the primary channels (one reach increased, one decreased)
- length of secondary channels (a complexity indicator) , increased
- area of secondary channels (increased)
- # of pools (increased)
- # of fast water units (increased)
- # of glides (stayed the same)

  (Glides are important areas for juveniles in the summer—these glassy sheen, low gradient areas generally have the same depth, length, width throughout)
- # of backwaters and alcoves (increased)

  (In summer find juveniles in alcoves, under logs etc., in winter time these areas are key for young fish right after they come out of the gravel)
- area of backwaters and alcoves (increased)

Significance of changes in stream morphology

- Wood gives complexity to the habitat, creates alcoves, side channels
- Has flow effects (slowing water) and increases floodplain interaction—i.e. provides energy dissipation.
- Increases habitat diversity both in winter and in summer
- Helps with the retention of organic matter
- Helps with bed load accumulation and the sorting of silts, gravels and cobbles

He also presented images showing:

Terrace Building (placed logs holding silts, backing up water, sediment starts getting vegetation in spring, root wads hold materials)

Habitat Diversity (increased rearing areas for juvenile salmonids, pools stable under placed logs)
Off Channel Refugia (young of year coho concentrated in calm areas provided by placed logs)
Spawning Habitat (large wood traps gravel)
Collects nutrients (organic material such as maple leaves (highest nutrient volume of any leaf), other wood, retains this wood which feeds micro-invertebrates).
Changes in fish use (juvenile fish were using logs as cover, spawning fish also used logs as cover)
Winter habitat—logs provided more winter habitat for juvenile salmon in high water conditions
Asset to Beavers (which in turn are very beneficial to coho) —beavers used logs to anchor their dams. Before the wood the area was pure bedrock; no place for beavers to work

Conclusions

Wood, especialy large wood placed by helicopters, is influenced by the river and interacts with it. The wood placement has helped the area by addressing the "limiting factors" for fish in that stream. Those factors included limitations to winter habitat and large wood scarcity.

Project demonstrates the efficacy of large wood placement in restoring watershed process and function:

1. floodplain interaction
2. nutrient retention
3. bed load retention and sorting
4. woody debris retention
5. Impounded winter and summer habitat

Expected results also include positive affects on temperature and flow rates and summer flow.

Q&A

Link this information to life cycle monitoring studies, e.g. with rapid assessment data to show increase in survival of smolts. i.e. 1.5/sq meter coho in pools and this study shows a 700% increase in such areas).

Jim Adler has 10 years water quality data for this area from 1993-2003.

Mine data for information on bedrock changes.

During snorkel surveys of streams in Feb at night (Green River) fish were found balling up in log structures—keeping out of current and away from predators

Cost of work. Helicopter $8000/hour but spend months working on logistics up front to make every minute count. Mapped out every log and where it should go in creek. Move heavy logs at end of hour when there is less fuel in the helicopter and can pick up more. Can do 16-18 logs/hour in the stream. Up to 20,000 lbs,

35” butt, 120’ long. Can do 150 logs and a couple miles of stream in a good day of flying.

Cost of work. Excavator. The excavator placement of logs is done at about $6-10/hour, efficient if can stage logs 50 yards from creek. Have done projects involving 6 sites, with 5 logs each (30 logs) in a day, 50-60’ long logs.

Break: refreshments were provided by Fran Recht

Tech Team Report: Wayne gave the report. Potential project to re-meander Beaver Creek through pasture near Fruitvale, upstream from the old Fruitvale dairy and plant to spruce forest. Jason Kirchner, ODFW is in contact with landowners. Marine reserve process. Watershed councils were named entities to serve on community teams. Wayne Hoffman, Rennie Ferris, Paul Engelmeyer and Bob Kemp are on the Cape Perpetua team. Will deal with research and monitor questions, research plans. Use of surf zone by juvenile chinook, searun cutthroat, smolt biology in area, refugia for rockfish in hypoxic events, survival of crab larvae, etc. Early planning stages to look at large wood project and its effects on hydrology—before, during and after wood placement project. Paul E. is planning a tour for NOAA regional staff Rob Walton. Coho status review draft is about to be published for public comment. Will deal with treat analysis, continuing deterioration from legacy threats, future threats. Action planning—revisiting the action plan. Wright Creek, McCaffery, Mill, Horse Creek, S. Track, Alsea Bay, and Big Creek N of Yachats are some of areas that might be considered.

Basin Planning Team and Other Watershed Council reports:

Siletz: Group is still working with the City of Siletz, City of Toledo, City of Newport to move gas motor boat use away from water intack. Study Rock and Cedar Creek water quality. Looking at poor survival rates of wild broodstock taken from Siletz. A drift boat sank, no fatality. Boat is still in river.

Yaquina: Lisa Mulcahy provided a written report. She is working on a power point presentation to take to existing groups to tell them about the group and its work. She has sought comment from the Admin Committee on the power point and is refining it. She is doing outreach to groups who might be interested in her presentation. Her email is yaquinawatershedcouncil@gmail.com. She noted that last month’s field trip to Cook Creek had 6 attendees.

Salmon-Drift Watershed Council: Report was provided as a handout. Highlights include that they have moved into their new office at 1545 SE 50th, Rm 21 in Taft. Mailing address is still P.O. Box 112, Neotsu, 97367. They conduced a Tamara Quays (TQ) debriefing meeting and are planning for Pixieland work. Natural Resource Crews are doing vegetation work at TQ—putting down landscape cloth to shade out reed canary grass and removing spot patches and soon will be planting willows and conifers. Lincoln City is proposing to require septic inspections for houses within 250’ of lake to take away a known source of nutrient pollution. A climate change presentation by Vicki Osis is scheduled for January 12 at 6:30 pm at the new office.

Alsea Watershed Council: A written report was handed out. No December meeting was held, Joe Rohleder will serve on the Marine Reserve Group at Cape Perpetua as a recreational fishing representative. They are still working on web design. Waiting to hear on the Canal Creek grant submitted to Ecotrust; their Lobster Valley technical grant is in the writing and reviewing stage. Jan 21 mtg at Fall Creek hatchery will be a presentation on the history of the old mill site up Five Rivers.

Admin Committee: Fran Recht gave the admin report. The group approved the financial report for Dec 2009 as submitted. As suggested by the audit report, a Cooperative Agreement documenting the relationship we have with SWCD for staff support, office use etc. was prepared and approved. It now goes to the Lincoln SWCD for approval. Lincoln SWCD's lease for this office space expires at the end of June 2010. Who-ever we lease from does not have to pay property taxes so we have a bargaining chip. Recommendation that we negotiate first right of refusal on the medical supply space next door if it ever becomes available. Further discussion on office space will be held in February. Bylaw changes to include the new non-technical grant review committee, allow submittal of grants prior to Board vote, but requiring withdrawal if Board doesn't approve at its subsequent meeting, and changes to the tech team committee to also be consistent, will need to be sent to eligible Board member voters 2 weeks before Feb meeting. Reviewed funding for the Educational Program. Expect to hear in March 2010 on the 2 OWEB grants submitted. All educational grants will have salary in it from now on. Greg Harlow will look into some project management software for use by the Education program and the Council. Committee reviewed and commented on a draft power point presentation by Lisa Mulcahy that will be shown to other groups. The group also heard the Coordinators' report including participation in the Forest Stewardship joint meeting, attending Hatchery Research Center Advisory Committee mtg. Hearing a presentation about Chinook juvenile use of the surf zone. Study conducted in Coos Bay S of and outside mouth of jetty (Bassendorf Beach). Helped to conduct a tour of Cook Creek Yaquina, went on a Little Beaver Creek Site Visit with the Siletz WC, attended a Port of Newport advisory group mtg regarding the plans to remove both the Paisley and Hennibique in different phases.

Education coordinator report: Virginia Tardaewether submitted a written report. Most work this month taken up organizing and fine tuning the 4 natural resource crews (NRC). 2 crews funded thru Community Services Consortium; 2 through MCWC. The NRC liaison money is for now the only money we have to fund the education coordinator's time. Outdoor school and stream study planning has to be put on a back burner. Crews begin creosote piling surveys on the Yaquina, ivy is being pulled on the 804 trail, reed canary grass control with landscape fabric is another project in the north, and trees will be planted on the Yaquina marsh dike and in properties throughout east county. NRC crews have received kayak training from Mike Rivers of Oregon State Parks; Joe Steere has improved the kayak trailer further. Fill out a work request form if you have ideas for summer work crews and refer people that might be good crew leaders/project instructors for the summer.

Coordinator report: Wayne mentioned that the Sheriff's department will soon have 3 staff for inmate work programs—to set up and supervise work crews. They'll present to us in March. OWEB regional review team met today; results on grants should be in by March. OWEB will

also hold listening sessions to get input on Council support issues. One is scheduled for Newport, at the Guin Library, HMSC 9 AM to 1 PM Thursday February 25.

Announcements: SWCD has some films being shown about water issues. These will be shown in Lincoln City and Yachats, see paper or call Stacy or Robin for info 541-265-2361. There is a beaver symposium in Canyonville at 7 Feathers Casino in February. Paul E. is planning to go.

Notes prepared by Fran Recht, PSMFC