

Dungeness River Management Team Meeting

June 6, 2007

Notes prepared by: Melissa Coughlin

Team Members/Alternates in Attendance:

Steve Tharinger, Clallam County
Cathy Lear, Clallam County (Alt)
Judy Larson, Protect Peninsula's Future
Lyn Muench, Jamestown S'Klallam Tribe (Alt)
Shawn Hines, Jamestown S'Klallam Tribe (Alt)
Scott Chitwood, Jamestown S'Klallam Tribe
Al Moore, Riverside Property Owners
Randy Johnson, WA Dept. of Fish & Wildlife
Annette de Knijf, Dungeness National Wildlife Refuge
Pete Schroeder, Riverside Property Owners

Don Hatler, Sports Fisheries (Alt)
Bob Caldwell, Water Users Association (Alt)
Mike Jeldness, Water Users Association
Virginia Clark, Dungeness/Quilcene Planning
Hansi Hals, North Olympic Land Trust (Alt)
Cynthia Nelson, WA Dept. of Ecology
Pete Schroeder, Riverside Property Owners
Joe Holtrop, Clallam Conservation District
Tom Martin, Clallam County PUD #1

Others in Attendance:

Byron Rot, Jamestown S'Klallam Tribe
Steve Rankin, Streamkeepers
Andy Brastad, Clallam County Environmental Health
Welden Clark, Dungeness River Aud. Ctr.
James Karr, Resident & retired University of WA prof.
Cheryl Baumann, NOPLC Coordinator
Matt Heins, Dungeness Farms
Lee Miller, Batelle
Linus Heydon, Constructed Wetlands Consultant
Dan Golner, Ducks Unlimited

Jeff Ward, Batelle/NASA Researcher
Tony Ingersoll, NASA Project, Clallam RC&D
Gary Gleason, Clallam County Planning Commission
Jessica Colye, Graysmarsh, LLC
Patti Morris, NASA Grant Administrator
Bill Bachus, SnoTel project manager, Olympic NP
Mary Peck, Resident
Bob Boekelheide, Dungeness River Audubon Center
Melissa Coughlin, Independent Contractor
Evan McClean, Sequim Gazette
Diane de la Paz, Peninsula Daily News

2:10 P.M. Meeting began

I. Introductions /Review Agenda / Approval of 05/09/07 Meeting Notes & Revised 04/11/07 Meeting Notes

- Updates: Add public land management update
- April 11th meeting notes were resubmitted with amendments/changes; Al Moore moved to accept with amendments, Virginia Clark seconded, and the amended minutes were unanimously approved.
- Judy Larson noted two errors in May 9th meeting notes: spelling of "amended" in 3rd bullet under Introductions, and under Pubic Comments it should read "fish pens" not "fish pans". Cynthia Nelson moved to accept with edits, Virginia Clark seconded, and the minutes were unanimously approved. [Outside of meeting discussion, Hansi Hals indicated she had many more changes to the US BOR Dike Subcommittee Update which she will submit to Shawn Hines.]

Public Comments:

- Judy Larson expressed concern over the blowout in the irrigation district piping (Clallam-Cline District). How are technical needs for more safety measures evaluated? Joe Holtrop replied that the state engineer for Natural Resources Conservation Service and a local engineer are looking carefully into the situation to determine causes and prevention.
- Judy Larson commented on a Clean Water Workgroup handout – when are the scheduled meetings? Is there information on the Clallam County website (or links)? Are the minutes of these meetings available on-line? Shawn Hines replied that the meetings are usually held quarterly, but it's not a set time; meeting notes are not posted on-line, but are available through Shawn. How is the work being discussed by the various workgroups? (Clean Water workgroup connection to the Marine Recovery Area, and the on-site septic work.) Handout reads the Clean Water Workgroup reports to DRMT and the Clallam Board of Health. Andy Brastad commented that lots of information needs to be linked on website and County is looking at an efficient way to manage the County site. Technically the Clean Water Work Group is a subcommittee of the DRMT.

II. Water Quality Impacts Associated with Agricultural Operations – Joe Holtrop (Clallam Conservation District)

Joe Holtrop circulated three handouts to give further detail to his previous talk on Conservation District work on water quality associated with local agriculture: map of the 2006 farm locations; report on the 2006 projected farm water quality remediation in the Dungeness and Sequim Bay drainages; and a flowchart dealing with the process of complaints and violations – water quality mediation.

- Strategy: Conduct a farm inventory to rate livestock-keeping operations in terms of need for technical assistance to address potential water quality concerns.
- Conducted several regional workshops. 70 farms participated. Next step: Outreach for “high priority” farms (rated as having a medium or high potential to significantly impact surface water quality).
- Issue: How to deal with water quality problems in agriculture. Conservation District is a voluntary and not a regulatory agency. Landowner participation is all voluntary. There is a Memorandum of Understanding between the Clallam Conservation District and the Washington Department of Ecology. Also, in the early 1990’s a Memorandum of Understanding with Clallam County was created, updated in 1998. Flowchart describes steps to take when a written agricultural water quality complaint is made. Every effort is made to resolve problem through cooperation. Each case is dealt with individually. So far efforts have gone into what can be achieved voluntarily and District has not referred a complaint further to County or State.
- **Questions/Comments:** Judy Larson asked when are the complaints referred? Should changes in the MOU be made when water quality is compromised (storm water runoff, fertilizers in the irrigation ditches)? Joe Holtrop: a new MOU or amending the existing MOU would need to be negotiated between the Conservation District and Clallam County. Scott Chitwood asked if there was a need for changing the MOU – How often has the Conservation District worked through all the steps? Joe Holtrop didn’t see a need at this time. Never had to go through the steps to referring to another agency, very few complaints have been filed. Usually can solve the problem cooperatively. The MOU with the Department of Ecology is similar. Hansi Hals said at one point the Department of Ecology was coming up and conducting their own inventory – are they still doing that? Joe Holtrop said that was a one-time event covering three watersheds. They conducted a survey and sent letters out. Started with 60 farms, narrowed to 30 and ended up working with 5. Ecology wasn’t sufficiently funded so it ended there. Cynthia Nelson said Ecology has recently filled the position (Derek Rocket) for the southwestern region – not just for agriculture non-compliance.
- Discussion ensued regarding whether the Conservation District should be hands-on or hands-off with regard to complaints and alleged violations. Randy Johnson summed the point up that if we see a violation, we need to make the complaint (i.e. don’t assume the Conservation District will).
- Conservation District needs to have the trust of the landowner, and has no regulatory authority. Correction of problems is currently achieved through cooperation. Avenues for cooperation include holding educational workshops, offering technical assistance and personal visits. A primary concern is to serve the farmers not the agencies. The Conservation District Board meets the second Tuesday of every month, 3:00 P.M. at 1601 E. Front Street in Port Angeles.

III. NASA Project Update – Cathy Lear (Clallam County), Jeff Ward (Battelle), Lee Miller (Battelle), Bill Bachus (SNOTEL)

Cathy Lear spoke about the great meeting the NASA project subcommittee had. Environmental assessment should be out in July. By fall SNOTEL equipment should be installed and collecting data. Lee Miller, from Battelle, updated DRMT on the North Olympic Peninsula Solutions Network:

- Different logos developed by Peninsula College for the North Olympic Peninsula Solutions Network were shown
- Hybrid Model Progress:

Task	Description	Completion Date	Status
2.1	Hybrid Model Application Framework	12/06 – 3/07	Complete
2.2	MODFLOW Recharge Estimates	12/06 – 07/07	On-going
2.3	Preparation of MODIS Snow Cover Data	01/07 – 03/07	Complete w/ updates
2.4	Hybrid Model Evaluation	04/07 – 07/07	On-going

2.5	Hybrid-MODFLOW Linkage Evaluation	08/09 – 11/07	Pending
2.6	Ensemble Forecasts	01/08 – 03/08	On-going

On-track or ahead of schedule on all tasks: Tasks 1 & 3 complete on time; Tasks 2 & 4 are on schedule; Task 5 pending completion of Task 2; Task 6 is ongoing and ahead of schedule.

- NASA Hybrid Model: provides a spatial distributed representation of near snowpack and upper soil zone process at the scale of NASA remotely sensed products; precipitation, snowpack, and rooting zone soil moisture are modeled in each grid cell; outflows from the distributed rooting zones are aggregated and input to a lower saturated zone that contributes to streamflow; Hybrid model difference: distributed model – understanding and calculating for each grid cell.

Dungeness application:

- Modeling framework: Terrain Modeling based on USGS 10-m DEM; Model application at 781-m resolution to match SNODAS spatial snow data; 667 model grid cells.
- Meteorological input: Daily precipitation and air temperature from Dungeness SnoTel site; Lapse rates developed from 6 stations (the difference in temperature and precipitation due to elevation).
- Model evaluation: USGS daily streamflow at Dungeness; SWE at SnoTel sites.
- While waiting for MODIS processing, the model was set up using SNODAS, a data fusion product that pulls in satellite imagery, SnoTel data, and aircraft data.
- First try of the model was run with no MODIS, no feedback from Dungeness gage. The model predictions fell within the observed, when the real-time gauge data can be used the model will self-correct. It will be a very nice predictive tool (Jeff Ward).
- Randy Johnson asked how far in advance could the predictions be made? Jeff Ward explained that it works well with long-term predictions. Recently meteorological and snow pack data was used and ran it retrospectively. It is setup to run scenarios putting in a series of possibilities. They will be using real-time weather for weekly and daily forecasts. Combination of the two types of information used to run scenarios give predictive tool for future and what is going to happen tomorrow.
- Jeff Ward recently went to Washington DC and spoke with NASA – learned what they do and what they want. NASA wants to see if we can use other NASA tools in addition to MODIS (tools that give river temps, soil moisture content, temp in Bay, turbidity especially in Elwha). Team will be looking at entire ensemble of space tools – will report to DRMT, process to continue for a number of years.
- Two solution networks in U.S: Here and one in Maryland. Dungeness approach is to build a working tool that uses satellite imagery and from that develop other ideas. In Maryland using a different approach – develop formulation reports on ideas that could be done.
- Scott Chitwood asked about the possibility of tool for imaging vegetation and measurement of salt/fresh water in Dungeness Bay. (Not available yet)

IV. Ecology Grant Proposals (due June 15th) – Cynthia Nelson (WA Department of Ecology)

- Application for requests for funding open until Friday, June 15th.
- Steve Tharinger: Last fall committee came up with a suite of projects to submit for watershed planning implementation. Legislature funded \$14 million worth of projects around state. Executive Committee of DRMT took projects that were listed and reprioritized (other funding had come in for some of the projects) to submit this Friday.
- Several proposals were area-wide.
- Cynthia Nelson asked for a letter of support for DRMT and EMMT for Dungeness gauging (which had been funded from other sources).
- List includes operating and capital budget items: establish water bank; area-wide water conservation and water quality programs; aquifer recharge and storage feasibility study needs more money for modeling; survey on storage of east side of river; outreach: rule-making video; support of watershed councils; irrigation infrastructure improvements. Team needs to prioritize.
- Discussion on which projects had already applied for funding began. Spoke about who (County, other) should apply for which projects.
- Ecology will make decisions mid-July. Contract levels/funding available early August.

Announcement:

American Water Resource and the City of Sequim are sponsoring a dinner and presentation on Water Banking at the Guy Cole Convention Center in Carrie Blake Park in Sequim, next Wednesday, June 20th at 5:30 P.M. Dinner and presentation = \$35; presentation only at 7:00 P.M. = \$10. Speaker is administrator of a Central Oregon water bank. Call Tom Martin at the PUD for more information.

V. “Protecting society from itself: reconnecting ecology and economy” – Dr. James Karr (University of Washington)

- After post-doctorate work Dr. Karr began studies on fish in an Indiana watershed with emphasis on water quality. Came to Pacific NW where permits (were difficult to obtain) to work on fish and began working on bugs as a way to determine stream health. Bringing biology front and center when people talk about water quality. Previously, and still in some areas, the focus has been on water chemistry to determine water quality. Indicators of health or well-being for all (human and non-human living systems).
- Measured water quality by measuring pollutants by monitoring chemical water quality.
- Need to make a transition from water chemistry to biological assessment and biological criteria as way of enforcing the Clean Water Act: “restore and maintain the physical, chemical, and biological integrity of the nation’s waters.” (1972,77,82,87 – section 101(a))
- Biological monitoring principle: Determine what kind of biological signals we can use to detect the health or well-being of the stream relative to what it ought to be. Invertebrate studies to look at the health of living systems in water. “Clinger” organism diversity: in standard sample decreases as human influence increases. Need to find a number of indexes to measure: application of IBI or Biological Multimetric Indexes 8 – 12 different measures. Developed this in 1981 when no state had biological monitoring in place. By 2000, 50 out of 52 states (& D.C. and Ohio River) had or were developing multimetric biological evaluations in their water quality standards. For a decade the Clallam County Streamkeepers have used this system. The state of Washington is not one of the states that have adopted this method for water quality assessments.
- Bugs and fish depend on the same set of environmental features: habitat, flow, and sources of energy. If human influences affect one or more of these features, responses degrade the biology. Measuring all the factors is very expensive. Go out and ask the creatures! If they tell you it’s degraded, go back and find out cause(s) and treat. Same method mental health practitioners use to diagnosis likely cause of biological breakdown.
- Change the indicators if we truly want to reflect the well being of the water. Ohio has been using this approach using the following factors: habitat alteration/ organic/low D.O.; siltation; metals; flow alteration; nutrients; other; unknown; pH; priority organics; ammonia.
- Humanity must revise its actions in 4 important ways: 1) Recognize relationship between ecology and economy. 2) Moderate negative effects of global business networks. 3) Make our voices heard in professional, social and civic circles. 4) Improve institutions of governance.
 - 1) Lost touch with understanding of natural systems with the expansionist perspective (Growing economy separate from environment, free of biophysical constraints; “infinite” environment, source of resources, sink for wastes). Need to see real world as steady-state perspective (everything must come from inside the system).
 - 2) Moderate the negative effects of global business networks. Industrial capitalism: increase the wealth of capitalists and during accumulation of capital (wealth) capitalists do not pay their bills (social and environmental costs) -> social and environmental deficits accumulate.
 - 3) Time to step up to the current challenges. Special responsibilities of scientists and scholars. When scientists don’t speak up, the message seems to be that science is irrelevant and scientists don’t matter.
 - 4) Arrangements to protect the people’s interest have not kept pace with international financial markets, which are amoral; failure of government institutions to protect the public’s interest explains the paradox; the state and civil society should serve the public good, not a false idol of capitalism that benefits the few at the expense of many; otherwise we erode the social and ecological layers of the Earth systems.

VI. Ducks Unlimited, Local Projects – Dan Golner (Ducks Unlimited)

- Ducks Unlimited is a private, non-profit organization dedicated to restore and enhance natural habitats. The northwest office serves Washington, Idaho, Oregon and Alaska. Works with Federal agencies, other non-profits, State, City, Tribes and private landowners restoring/enhancing the natural habitat (not just duck habitat – estuaries, riparian, freshwater, etc.). The in-house staff includes a biologist, surveyor, engineers and work through concept to design, acquiring permits, writing grants and finding funds. Addressing the DRMT to explain partnership opportunities and assistance Ducks Unlimited can provide. Currently working to submit a grant focusing on Dungeness watershed. Involved in projects with private landowners with freshwater habitats. Ducks Unlimited works with on the ground restoration working with local contractors.
- Shawn Hines to distribute contact information via email.

VII. Other Announcements or updates

- **Dike Study Subcommittee – Steve Tharinger**
 - Scope of work includes acquisition, design, construction and permitting of this project.
 - Met last week with Washington DFW, Tribe and County to look at options with Beebe property – promising. County to submit grant to Puget Sound Partnership Salmon Fund for evaluation, design and acquisition to start process going. Looked at BOR study. Majority of WDFW property including Beebe property east of river and some west are included in grant request for first phase of funding.
 - County will be submitting letter to Corps of Engineers about Schoolhouse Bridge – not a high priority. Phasing in of moving levee back.
- **Hood Canal Summer Chum ESU – Scott Chitwood**
 - Two purposes of bringing up topic: (1) People not aware Summer Chum recovery plan has been adopted, official and no longer draft. (2) On-going debate regarding the two planning areas and how salmon recovery is going to be orchestrated in the eastern Strait of Juan de Fuca where Chinook and Summer Chum overlap Evolutionarily Significant Units (ESUs defined by NOAA Fisheries). Summer chum ESU's western boundary is the Dungeness watershed, Chinook ESU's western boundary is the Elwha river watershed. Discussion with Shared Strategy staff, members of DRMT, and others to discuss overlap issues – now there will be discussions on the nearshore portion of Puget Sound Salmon Recovery. This was addressed in a letter from Jay Watson of the Hood Canal Coordinating Council (?) to Jim Kramer of the Puget Sound Shared Strategy for salmon recovery. No action from Puget Sound Shared Strategy Recovery Council (not Recovery Council matter – no decision-making authority with regard to definition of the salmon recovery planning areas). Still a difference of opinion on allocation of nearshore habitat recovery dollars to eastern extremes of Strait of Juan de Fuca.
 - Steve Tharinger would like to get beyond discussions of boundaries. Move the collaborative process forward. We need to work this out locally.
- **8th Round SRFB Schedule – Cheryl Baumann**
 - For property owners, brought information on Family Forest and Fish Project Restoration re: grants for private property. Need to be on list by end of June. Cheryl can e-mail information.
 - Refer to handout on public process for applying for grants: due dates and deadlines.
 - Application materials are available on CD.
 - Lead Entity Day in Olympia – Just as Dr. Karr had spoken about, it's important to let the legislature know what's important to constituents. Thank you to Virginia Clark for her participation in the 12-hour day (presented photo & gift).
 - Thank you to Hansi Hals for all her work helping with the Franklin School “funding restoration” game and for all her work as restoration planner – leaving position to take on new position (Lyn Muench's position at the Tribe).
 - Tomorrow is the opening day of the Science and Technology Building at Peninsula College. Encouraged people to attend opening at 11:00 A.M. Representatives Van de Wege and Kessler will be there, important to show citizen/science support.
- **Water Users Association Website Information – Mike Jeldness**

- Dungeness Water Users Association has been developing an informational website as the result of being overwhelmed with questions from people in the area. Found it was very costly to hire web designer and ISP service. Approaching DRMT today to see if DRMT website (which is maintained by Tribe) will host. Site will contain history (from the water quality brochure); map delineating district and company boundaries; rules and regulations (3 year process required to develop single set); ½ page of recommended reference documents and books on history of water resource management; also will include direct link to local stream gauge information.
 - Steve Tharinger entertained a motion to add Water Users Association website to DRMT website be made; Judy Larson moved, Pete Schroeder seconded and the motion was unanimously approved.
- **Other:**
- Steve Tharinger closing comments: When we met on the Beebe property one of the local regional biologists for DFW was not going to sign off on acquisition because they don't have the resources to manage further land purchases. Kicked around idea to in some way form a collaboration between County, Tribe and WDFW to manage land – control and access. Form a sub-committee to form pilot with various organizations. This sort of combination request for a pilot may get some funding. This can be a topic for discussion on a future DRMT agenda. Pete Schroeder added that Jim Buck had this same problem 9 years ago where there was no management infrastructure. Scott Chitwood heard from the WDFW regional staff that they couldn't accept any more property management duties with the available staff, budget and equipment. Steve Tharinger noted that without WDFW's support the process comes to a halt. Financial implications of endeavor – with state agency there is no match, other agencies applying may get a 50/50 match.
 - Steve Tharinger wanted members to know that they may be contacted by a student who is writing a doctoral thesis. Student wants interviews, may take 30 minutes – an hour of time.
 - Ann Seiter will represent Tribe at water meetings (Aquifer Recharge Technical Advisory Committee, WRIA 18 instream flow rule meetings, other) while Shawn is on maternity leave.
 - In August Environmental Assessment for ?? coming out. Looking for supporting comments.
 - Judy Larson wanted to make sure Streamkeepers funding needs were on list of priorities for grants. Andy Brastad had met with Streamkeepers to find out their financial requirements and included in grant application to Ecology for watershed plan implementation funds
 - Andy Brastad commented that on Tuesday the Board of Health meets to approve the on-site septic final draft. Draft on the County website.
 - Matt Heins wanted everyone to know that 'Dungeness Farms submitted a short plat to the County (Marshall property) mainly for a land trust conservation easement and possibly for 4H. No housing is to be built.

Meeting Adjourned at 5:30 P.M

Handouts:

- "Clallam Conservation District Agricultural Water Quality Compliant/Alleged Violation Policy" flowchart (from Joe Holtrop)
- Clallam Conservation District May 2007 "Agricultural Water Quality Remediation Strategy" & East WRIA 18 Farm Locations – Clallam Conservation District 2006 Farm Inventory map on the other side (from Joe Holtrop)
- Clallam Conservation District – 2006 Projected Farm Water Quality Remediation in the Dungeness and Sequim Bay Drainages (from Joe Holtrop)
- NOPL 2007 8th Round SRFB Addendum – 12 page handout (from Cheryl Baumann)
- NOPL Application Due Dates & Required Applicant Presentations for 2008 Salmon Recovery Funding Board Grants