Dungeness River Management Team Meeting
November 8, 2008
Dungeness River Audubon Center

Notes prepared by Melissa Coughlin

Team Members/Alternates in Attendance:

Steve Tharinger, Clallam County
Cathy Lear, Clallam County (alt)
Scott Chitwood, Jamestown S'Klallam Tribe
Hansi Hals, Jamestown S'Klallam Tribe (alt)
Shawn Hines, Jamestown S'Klallam Tribe (alt)
Cynthia Nelson, WA Department of Ecology
Virginia Clark, Dungeness/Quilcene Planning
Les Jones, Dungeness/Quilcene Planning (alt)
Al Moore, Riverside Property Owners RM 0-3.25
Pete Schroeder, Riverside Property Owners RM 3.25-4.25
Mike Jeldness, Water Users Association
Walt Blendermann, Sports Fisheries
Don Hatler, Conservation Dist. /Sports Fisheries (alt)
John Cambalik, Puget Sound Partnership
Allison Lutz, North Olympic Land Trust
Joe Holtrop, Clallam Conservation District
Judy Larson, Protect Peninsula's Future
Robert Brown, Dungeness Beach Association
Michael Blanton, WA Department of Fish and Wildlife
Tom Martin, PUD# 1

Others in Attendance:

Merrill Hannah, Clallam County
Ann Soule, Clallam County Environmental Health
Robin Berry, Graysmarsh
Byron Rot, Jamestown S'Klallam Tribe
Jerry Hauth, Skillings Connolly, project manager
Bill Bullock, City of Sequim
Elizabeth van Sickle, Property owner, resident
Steve Rankin, Streamkeepers
Gary Dougherty, Clallam Conservation District
Andy Brastad, Clallam County
Bob Boekelheide, Dungeness River Audubon Center
Melissa Coughlin, Independent contractor/note-taker

12:30 P.M.

I. Introductions /Review Agenda / Approval of October 8, 2008 Meeting Notes

- Chairperson Steve Tharinger called the meeting to order and introductions were made.
- Agenda for today's meeting was discussed and accepted with the exception that Cynthia Nelson would present after the 3 Crabs Project update.
- Mike Jeldness moved to accept October 8, 2008 DRMT meeting notes; Walt Blendermann seconded the motion, and it passed unanimously. Discussion on October 8 notes: Add City (of Sequim) biosolids issue as a topic requested by the Team to be on a future DRMT agenda. Other changes were noted and will be changed prior to web posting of the notes.

Public Comment:

- Judy Larson recommended books reviewed in The Nation (reviews were for: *The Last Fish Tale; Tuna: A love story; and Bottomfeeder*) and wanted to forward articles to the DRMT and interested parties. Elizabeth van Sickle also reads The Nation and agreed the information should be shared. Steve Tharinger suggested sending the material electronically to Shawn Hines who then will disseminate to Team.
- Robert Brown reminded Team of the presentation from NASA last spring on the model for Dungeness River flow prediction using satellite updates and thought an updated presentation should be included in near-future DRMT agenda. Cathy Lear is involved in the project and will work with Shawn to put it on a future DRMT agenda. Robert Brown was specifically interested in the statistics and how they relate to NOAA predictions.

II. 2008 Chinook Spawning – *Scott Chitwood, Jamestown S'Klallam Tribe*

- Scott Chitwood presented graphs to illustrate the numbers involved in the annual return of the Dungeness Chinook from 1998 to present.
- 227 adult Chinook returned to the Dungeness River this year.
- Scott Chitwood showed population numbers found in various reaches over the last 10 years.
- Department of Fish & Wildlife removed an absolute minimum number of fish this year for their supplemental programs. Losses due to pre-spawning mortality are the lowest Scott has seen.
- Scott showed a graph that related 2008 return timing with river flows, explaining we didn't get the snow melt we thought we'd get. Short period of warm weather in July. Mixture of high and not so high flows in 2008.
- Usually the first week of August marks the start of the spawning season; the last few weeks in September to first few weeks in October is the range of time marking the end of the spawning season.
- New redds: low figures as compared to other years.
- Screw traps in the Dungeness were funded again this year by Salmon Recovery Funding Board; data was again gathered from the traps allowing for a comparison of the number of outmigrants to the number of spawners that produced them. Relationship between the spawners and the smolts produced was represented in a graph. Scott said the numbers needed to be higher.

- Why the small number of returning adults? In the past we've had large releases (six or seven, starting in 1995) from the captive brood program. Those releases ended 2002/2003. Note that the number of adults we see returning now are four years removed from the releases. Much of what we see on the spawning grounds is a reflection of hatchery production. This will probably continue to be the case until we have further habitat improvements. It may take a number of years for the productivity of the stock to increase.
- Steve Tharinger asked how Scott would characterize the difference between "naturally-produced salmonids" and fish from the "captive brood" program. Scott said before the captive brood program it was thought there was a threshold for sustaining Chinook. However, after introducing more fish and not getting the juvenile production expected, we found out the system still didn't produce a lot of fish. Captive brood program allowed us to see what the system could do with a large number of spawners. Unfortunately, not much.
- Steve Tharinger asked what the main forces are contributing to the lack of production. Scott Chitwood said he thinks as habitat improvements continue, production should improve. Fresh water limits productivity.
- Steve Tharinger asked if anything is different in the temperature, gravel bed, etc. of captive brood? Scott said no, not temperature, but it might be gravel, infusion of high water or a number of variables- something happens between the time the fish spawn and when they go out as juveniles that limits their total ability to produce. Steve asked about folks walking around in the River. Scott agreed this is a good question, as there are a lot of redds in the lower river.
- Robert Brown asked if other external factors such as predation in the freshwater numbers.
- Hatchery fish are tagged. Naturally produced fish are not tagged.
- Mike Jeldness remarked that even with the extesnive habitat restoration and water conservation efforts going on in the Dungeness, Chinook still have low population numbers. How are other watersheds in Puget Sound doing with salmon returns? Is offshore harvest an issue? Scott replied that one difference in the Dungeness is that we don't have a hatchery stock that we're trying to manage for. But, all the watersheds are suffering from low returns. Our female Chinook smolt numbers look more like Coho numbers. We should be at triple these numbers. Skagit is also suffering from low productivity in the fresh water.
- Mike Jeldness noted that it's interesting that ESA-listed fish are the only ESA-listed creatures with a harvest component. There's no eagle quota, for example.
- Walt Blendermann thought that as far as "scale"– we have not done much about habitat restoration. There are a lot of opportunities with restoration.
- Byron Rot stated he gps-tracked all the redds. Chinook tend to spawn in the channel margins, which are areas that get de-watered. Chinook are vulnerable in the channel margins, and they are also vulnerable to high flows. The Dungeness is a high-energy system, driven in part by all the bank armoring and dikes.
- Bob Boekelheide asked for predictions on Chinook population for the next 5-10 years. Scott said it is important to ramp up supplementation production from hatchery program. More effort needs to be made in getting the spawners into the upper half of the Dungeness River. Downward turn is mirroring the captive brood supplement numbers.
- John Cambalik asked about an adaptive management approach, what action needs to be taken. Scott remarked to stay the course in terms of improving habitat, especially Chinook habitat, and trying to get them in the upper river. The supplementation program is helping us "tread water" as we make these improvements.
- Walt Blendermann noted that ramping up production of the Chinook could also be beneficial to the killer whale population.
- Mike Jeldness, who lives near the hatchery, said that he has raised this issue over and over but he sees first hand how Greywolf poachers make a tremendous impact. There really needs 24/7 enforcement out in the back area.

- Stock Production figures:

Year	***Spawners***	***Migrants***	***Females***	***Smolts/Females***
2004	*953*	*69,392*	*381*	*182*
2005	*955*	*124,928*	*382*	*327*
2006	*1,405*	*136,571*	*562*	*243*
2007	*305*	*16,000 (preliminary)*	*922*	*131*
2008	*140*		*52*	

III. Clallam Conservation District – 3 Crabs Project Update – *Gary Dougherty, CCD*

- Gary Dougherty from the Clallam Conservation District gave a preliminary report on the Dungeness Comprehensive Water Quality Study in the Three Crabs area. The area of study is located between the mouth of the Dungeness River and the mouth of Cassalery Creek, and includes three main water branches: Meadowbrook Creek, Cooper Creek, and Golden Sands.
- The study should be completed by the end of the year.
- Project Goals:
    - Conduct an assessment of estuarine area between Meadowbrook and Cassalery Creeks:
    - Identify sources of contamination.
    - Develop prioritized restoration strategies for streams and estuarine areas.
    - Recommend solutions to flooding problems in the area.
- Project items completed:
    - Reviewed existing studies & reports.
    - Conducted community workshops to identify and solicit input from stakeholders – (2 workgroup meetings, 2 public workshops, 2 flood subcommittee meetings)
    - Conducted stream assessments on Meadowbrook Creek, Cassalery Creek and Cooper Creek to characterize conditions, land uses, and potential sources of contamination.
- When project is completed will have prioritized list of recommended actions.
- Prioritizations of action items may depend on landowner participation. Need to work with landowners with livestock access to stream.
- Potential sources of fecal coliform contamination: livestock, irrigation tail water, failed septic systems, pet waste, and other (waterfowl, raccoons, etc.). There isn't a lot of development in the upper reaches of Cassalery or Cooper Creeks.
- Golden Sands was a mobile home development built in 1966. Canals were dug for boat access to Dungeness Bay. It has been cleaned up a little, but there are concerns about bacterial contamination from old septic systems. The canal is not regulated as a "critical area" by Clallam County (no buffers or clearing restrictions, for example). It is a direct outlet to the bay.
- Channelization/ditching: Drainage has been a problem for many years. Manipulation of natural drainage channels affects entire area. Lack of estuarine habitat at the tide gate at the mouth. Wildlife ponds have been excavated.
- Have hired consultants for suggestions. The mouth of Cassalery Creek plugs with sand, sediment and debris – suggestion: realign culvert to bottom of creek to enable debris flushing.
- Mike Jeldness suggested widening drainages and planting cattails to create a wetland to clean pollutants in drainages prior to flowing into the bay.
- Enhancement project is planned, includes removing tidal restrictions, replacement of culverts, and removal of dredge and fill materials. Habitat restoration actions include removal of junk and debris and Meadowbrook Creek will be realigned to its 1942 location.
- At this point DRMT members asked if this was a construction or feasibility study. Joe Holtrop and Andy Brastad said it is currently a design assessment. When asked if Meadowbrook Creek would eventually be connected to the Dungeness River, Gary Dougherty didn't think it was part of this project. Andy Brastad thought it would be premature to fund construction when the project is in an analysis stage.
- Les Jones asked where they were with restoration for the historical location. It was thought that Ducks Unlimited was handling that aspect of the project. It was suggested that Ducks Unlimited come and update the Team on their feasibility study.
- Discussion about roles/responsibility for certain elements of the overall project began. Hansi Hals mentioned culvert removal will be done by the Jamestown S'Klallam Tribe.
- Flooding Issues: There have been two flood subcommittee meetings in connection with this project.. The second meeting (early 2007) was instructional on measuring time and sequence of flood.
- LIDAR data: Gary showed where flooding has occurred on a map containing parcel boundaries.
- Suggestions that have been discussed in previous meetings include: Build a berm along 3 Crabs; excavation for storage on Department of Fish & Wildlife property; Connection to Golden Sands Canal; Reconnect Meadowbrook with Dungeness River; Elevate 3 Crabs where floodwaters cross.
- When the study is complete, after the first of the year, it will be available for public to review. Another update will be given to DRMT at that time.

IV. Ecology Watershed Implementation Grant Proposals – *Cynthia Nelson, WA Department of Ecology and Andy Brastad, Clallam County*

- Hardcopy of last year's list of projects to prioritize was handed out by Cynthia Nelson, and then an updated one (a few other projects that people at the County felt needed funding were added) was passed around by Andy Brastad. Steve Tharinger decided team should use the updated version when reviewing for prioritization.
- Andy Brastad led discussion by looking at what are our watershed "needs". What projects affect the whole watershed. Went through each of the projects and answered DRMT members' questions. Below are notes associated with the list of projects (*project titles are underlined*).
- Continued funding for E. WRIA 18 Water Exchange: Last year the County applied for funding to set up a Water Exchange. The County received funding to set up the Exchange, but did not receive any funding for seeding the account. Current funding for the Exchange runs out in May, 2009. Current funding request will buy water rights and start the account, and pay for staffing the Exchange. Andy
- E. WRIA 18 Instream Flow Rule Implementation: Asking for funding to locally support the Instream Flow Rule when it goes into effect. County will be required to develop ordinances, programs, public process, MOU between the County and Department of Ecology. Do not have the capacity to do this now. Will need to set up all the mechanisms to implement the Rule. Still to be worked out. Metering will probably be put into effect – MOU will address. Cathy Lear asked if this proposed project was for the Dungeness planning area only, Steve Tharinger answered that it is East WRIA 18 only - Rule is for east WRIA 18.
- Initial Purchase of Water for Water Exchange: Asking for funds to purchase drinking water. Also for buying or transferring water rights.
- Stream Gauging: Funding for program to gather information crucial to management of Instream Flow Rule. Steve Tharinger thought stream gauging was covered in another fund. Cynthia thought so.
- Michael Blanton asked about the dollar amount for contracts for Late Summer/Early Fall Instream Flow – how long is the lease? Cynthia Nelson said it is for two years.
- Water Conservation. Cathy Lear said this is a top priority for EMMT, and that WRIA-wide projects for conservation outreach are being planned. Working with a grant that Ann Soule obtained - planning on advertisements on busses for a year. Identifying people across WRIA 18 and County, advisory groups, Tribes, PUD, water users, Conservation District, City of Sequim, Phillip Greene, among others to join in effort. Have set up two-three meetings so far.
- Off-channel storage potential on East side of Dungeness. Study off-channel storage sites east of Dungeness River (not much discussion on this)
- Implementation of agricultural water conservation plan (irrigation infrastructure improvements): Funds needed for irrigation infrastructure, and implementation of water conservation plan.
- SAR planning/Engineering: Funds needed for aquifer storage and recharge projects east and west of Dungeness River.
- Construction of Atterberry Reservoir: Joe Holtrop remarked the dollar amount was pricey and asked if a feasibility study was funded. Discussion began on separating out funding for feasibility study and funding for construction. Mike Jeldness asked about operating and maintenance costs. Steve Tharinger said that the engineering didn't cover any kind of feasibility study. Don Hatler suggested that someone needs to do the study before spending the funds being asked. Need bids to get an idea of real numbers. Cynthia Nelson said that Dave Burdock is administering grant for water resources and looking at alternatives. Tom Martin asked what the alternatives are to look at. Comparing Atterberry with the ASR project, reservoir on east side were examples. Cynthia Nelson said that aquifer recharge may not be measurable at this point. Cynthia Nelson said that it sounded like DRMT wanted to go ahead with the cost analysis; would the Water Trust be the appropriate entity to handle analysis? Tom Martin asked about the economics of water exchange – what are the costs involved in setting up. Robert Brown thought it was wise not to eliminate Atterberry project, but perhaps replace it with the feasibility study/analysis and putting a time limit on it, (analysis to be completed in 6 months), if the study is positive, go ahead with project. Money won't be used at start of funding cycle, but will be available. Steve Tharinger asked what are realistic amounts for funding in current fiscal environment. Cynthia Nelson answered that there will be less money this year. Operational funds will be hit the hardest. Shawn Hines asked if ranking should be separated into capital and operating categories. Steve Tharinger thought the DRMT should list the top 3 non-capital projects and top 3 capital projects.
- Contracts for late summer/fall instream flow: Funds needed to purchase and/or lease irrigation water for late summer/fall instream flow benefits.
- Water Conservation Outreach, years 2 & 3: Funds needed for this key element to implement plan and Instream flow rule. Tied with water quality program last year.
- Water Quality Improvement Program: Funds needed for water quality improvement – two clean-up plans underway. WRIA-wide, tied with conservation program last year.
- Water reuse feasibility study (West WRIA 18): Team felt not applicable since it concerns the Elwha River.

- Streamkeepers Funding: Funding needed for Streamkeepers to monitor water quality, quantity and provide unpaid staffing resource.
- To focus the voting members on prioritizing, a vote was taken on all listed programs, the initial results were as follows:
    - #1 Capital: Contracts for late summer/fall instream flow
    - #2 Capital: Initial purchase of water for Water Exchange
    - #3 Capital: Implementation of agricultural water conservation plan
    - #4 Capital: Construction of Atterberry Reservoir
    - #5 Capital: SAR planning/engineering
    - #1 Non-Capital (operational): Streamkeepers funding
    - #2 Non-Capital (operational): E. WRIA 18 instream flow rule implementation
    - #3 Non-Capital (operational): Continued funding for E. WRIA 18 Water Exchange
    - #4 Non-Capital (operational): Water conservation outreach, years 2 & 3
    - #5 Non-Capital (operational): Water quality improvement program
    - #6 Non-Capital (operational): Off-channel storage potential on east side of Dungeness
- After the initial voting the Team re-prioritized the first two proposed operational projects to the following:
    - #1 Non-Capital: E. WRIA 18 Instream Flow Rule Implementation
    - #2 Non-Capital: Streamkeepers Funding
- Funding for Atterberry reservoir feasibility was discussed as an important item - note that the project is ready to go waiting only for a feasibility study. Decided to ask for funding with the caveat based on feasibility study.

V. Clallam County AR/ASR Project Update – *Ann Soule, Clallam County*

- Project now at the stage to select actual sites for in-depth feasibility study.
- On October 22nd met with consultants to select sites. Pitched three sites with different intended main purposes. (Doesn't mean purposes cannot overlap).
- Current suggested scenarios by Technical Advisory Group and consultants for aquifer recharge feasibility analysis:

	A	B	C
Purpose	Benefit Dungeness River flows	Benefit small streams as we as river	Mitigate for new water rights
Zone of recharge	Shallow aquifer	Shallow aquifer	Lower confined aquifer (aka "deep aquifer"; model layer 5, or potentially layer 6)
Source water	River	Reclaimed	River via bank filtration
Type of recharge	Infiltration via unused irrigation ditches	Infiltration via infiltration pond/basin	Separate injection and pumping wells
Location	West of river at modeled site #9 (pilot tested ditches in Carlsborg area)	East of river near modeled site #6, north of City	"Diversion" from shallow wells nex to river; injection to deep aquifer either near shallow wells or near extraction well; extraction from deep aquifer – all at unidentified sites
Recharge rate	2-10 cfs (depends on results of recharge test data; likely <10)	Up to 3 cfs	2 cfs considered reasonable maximum at this time
Recharge timing	2 months and 6 months	8 months	2 months (freshet)
Extent of analysis	Comprehensive, site-specific	Comprehensive, multi-site-specific	General, including multiple sites

- Scenarios A and B are in the zone for shallow aquifer recharge, one using river as source water, one using reclaimed water as source water.
- Scenario C is more of a general scenario, and won't be looked at in depth. It involves aquifer storage and recovery (as apposed to aquifer recharge). ASR puts water into the ground with the intention of getting it out again at another time. Deeper layer. Restrictions on injecting water, it would have to be filtered.
- Haven't yet found any great places for ASR, which would require injecting water deeply.
- Judy Larson noted that on the USGS website there are deep wells identified. Walt Blendermann asked if the feasibility study included O&M, lifecycle, and pumping costs. Ann Soule answered that the consultant has a lot of experience working with these types of projects, so should have some good cost estimates in the final feasibility study report.
- Steve Tharinger asked what the criteria for success will be for this project. Ann answered that the projects won't be compared to each other, since each has a different cost and benefit. Studies will determine which makes sense from an operational standpoint.

- Scott Chitwood asked about the difference between purposes in A and B scenarios in terms of practical application. Ann answered location, and Scott asked how far away from the river would the project have to be to reverse these terms (in Scenario B) - benefiting the river as well as small streams. Ann said they are judging based on what the model says. Putting water in a shallow aquifer – insertion on the east side of the river, where would it end up within 1 mile, and how would it impact a stream or the river.
- Clarification on the term "freshet": equals snow melt time.
- Robert Brown asked about the timing of the recharge planning. Ann answered the interval listed was when the water was put into the ground. In Scenario A, 2 months was mid-May – mid-July. 8 months – October until April. Robert Brown asked how the change in flow was measured. Criteria for success. Ann answered that model illustrates the change in flow. Tom Martin suggested that "C" was the measurement of success, mitigation for new water rights.
- Steve Tharinger asked what the next steps were for the project and introduced Bill Bullock, Public Works Director for the City of Sequim. The City of Sequim received a grant from the Department of Ecology for a feasibility study for designing, distribution of and extension of reclaimed water for the City of Sequim. Last month the City hired the consulting company Skillings/Connolly and Bill Bullock introduced the project manager, Jerry Hauth from the company. Will present study to the DRMT when finished. Cynthia Nelson asked if there was an intersection between Scenario B and Sequim's study. Bill Bullock answered that PGG (consultant on the County's ASR/AR feasibility study) is also a part of the consultation team for the City's study.

VI. Other Business:

Puget Sound Partnership (PSP) – John Cambalik

- John Cambalik reported that the draft of the Action Agenda is now on the website: http://www.psp.wa.gov/aa_draft.php (it is about 94 pages).
- Questions answered in the Action Agenda: What is the current health of Puget Sound? What is a healthy Sound? Locally what actions, activities, policies, and programs are necessary to restore the Sound? Where should we start?
- John Cambalik reminded Team PSP has designated seven Action Areas (we are in the Strait of Juan de Fuca Action Area – covers Point Wilson to Cape Flattery)
- The draft Action Agenda contains Sound-wide strategic priorities divided into 5 categories.
- Priority Action Area Strategies: Protect intact ecosystem processes, structures, and functions; Restore ecosystem processes, structures, and functions; Reduce the sources of water pollution; Work effectively and efficiently together as a system on priority needs. Build an implementation, monitoring, and accountability management system.
- November 6th-20th: public comment period
- Leadership Council public hearings: November 11th and 21st.
- Leadership Council will approve the Action Agenda at their meeting on December 1st.
- Steve Tharinger stated the importance of commenting on the Agenda to the PSP. Tell them what you think should be prioritized; funding is limited, so comment on what you think is important and prioritize.
- John Cambalik passed out handouts: "Draft Action Area Priorities – Strait of Juan de Fuca Action Area" and a flowchart on threats and action priorities. John asked team to review and comment.

Instream Flow Rule Update – Cynthia Nelson

- Planning a public workshop for late January or early February.
- Water Working Group will not be meeting in December; next meeting will be in January.
- Rule Executive Committee will meet December 5th at the Red Lion from 10:00 A.M. – 3:00 P.M.

Steve Tharinger reminded DRMT Executive Committee will meet at 12:30 December 10th (before the regular DRMT December meeting at 2:00 P.M.).

Public Comment:

None.

VII. Meeting Adjourned at 4:00 P.M.

Handouts:

- From Cynthia Nelson: Project priority list / from Andy Brastad: Project priority list plus
- From Ann Soule: "Scenarios for aquifer recharge feasibility analysis
- From John Cambalik: PSP flow chart of threats and priorities, Draft Action Area Priorities- Strait of Juan de Fuca Action Area