

## DRMT Hybrid Meeting Notes June 14, 2023

Prepared by William Habel, Clallam County

### DRMT Members Present:

Hansi Hals (Chair)/JST, Shawn Hines/JST (alt), Matt Hines/Riverside Property Owners (Estuary-Tidelands), Tony Corrado/PPF, Bob Phraener/Dungeness River Audubon, Lance Vail/Dungeness River Audubon, Ann Soule/WRTG, Meggan Uecker/City of Sequim, Naomi Gebo/WDFW (alt), Powell Jones/Dungeness River Nature Center, Rebecca Mahan/Clallam County, Ben Smith/Water Users Association

### Others Present:

John Stednic/resident, Scott Chitwood/Resident, James Carlson/City of Sequim, Paul Moore/Visitor, Phil Barton/Forest Land Owner, Jenna Ziogas/JST Guest, Marguerite Glover/Realtor, Joel Green/Stream Keepers, Bowen Kendrick/PUD, William Habel/Clallam County

#### I. Introductions/Review Agenda/Approve May 2023 Draft Meeting Notes

The meeting started at approximately 2:00 with introductions of in-person members and guests, as well as remote attendants. The notes and agenda were both approved and accepted without comment.

#### II. WRTG Presentation: 6.8 Comprehensive, Integrated Forecasting Model- Presented by Lance Vail- WRTG Member and Olympic Peninsula Audubon Society

Lance Proposed that a feasibility study be initiated to determine an integrated, data-based predictive model can be developed to provide a forecast. He believes that this would be a feasible undertaking. What he is proposing are continuously updated Dungeness streamflow forecasts at USGS gauge out to 13 months, streamflow forecasts throughout Dungeness Basin including tributaries, water quality forecasts, instream and terrestrial habitat metrics forecasts. Lance proposed this be accomplished using a variety of modeling software, using the Dharma Water Institute as a lead. The Dharma Water Institute is a proposed non-profit organization with Lance and several other experts in the field. Any forecast models they develop will be open to the public for no charge. Currently they are not looking for funding, but any future funding requirements would be subject to the limitations of a 501c3. Dharma Institute intends on using Ensemble Models for forecasting, as uncertainty is unavoidable, and the more data feeding the model, the better. Lance emphasized that the model will be accessible to anybody who wants to utilize it. Irrigators, mitigation projects, etc. will all be potential utilizers of the modeling produced.

#### III. WRTG Presentation: 6.5 Climate Research on Impacts to Fish- Presented by Lance Vail-WRTG Member and Olympic Peninsula Audubon Society

Lance began with outlining a few points he considers key to researching climate impacts on fish. First, support PNPTC efforts to predict impacts of warming scenarios on stream temperature and stream flows. Second, Expand scope to birds and land-dwelling animals (terrestrial biota). Third, consider expanding stream and atmospheric surface-temperature monitoring. The multispecies framework illustrates some of the metrics that can be examined to form a better picture of the overall health of a single or multiple species. These include:

- Capacity
  - How much capacity does the environment have to support the species

- Productivity
  - How good is that habitat
- Life history
- Environmental Trajectory
- Predation
- Recruits to spawners
- Adaptability of the target species to changing conditions
  - Changes can Include:
  - Stream temperatures
  - Streamflow (volume and seasonality)
  - Air Temperatures
  - Streambed composition
  - Refugia

Humans have extremely limited ability to influence these changes. We have no ability to influence ocean conditions. Lance proposes assembling a bibliography of climate-fish science literature, as well as on avian and terrestrial species. Specifically focus on the Olympic Peninsula and the Salish sea. An inventory of streamflow, water temperature and air temperature data should be assembled as well. After the conclusion of the presentation, Ben Smith asked if there were any positive aspects of climate change. Lance said there was a possibility of some benefits, including possible greater crop yields. Lance also mentioned that technical/engineering solutions to climate change should be avoided.

#### IV. WRTG Presentation: 6.10 Expanded Snowpack Study- Presented by Ann Soule-City of Sequim

Ann began by saying that no comprehensive snowpack of the Dungeness Basin has actually ever occurred, so an “expanded” comprehensive study is a bit of a misnomer. The goals of the program would be to:

- Quantify the year-round ice and permanent snowfields in the upper Dungeness watershed
- Estimate water supply derived from ice and snow melt over time, as it relates to summertime streamflow in the Dungeness River (and the expected pace of permanent ice/snowfield decline)
- Relate estimated future flow in the Dungeness River to volume of aquifer recharge-annually, seasonally, or monthly
- Report snow/ice parameters real-time for water managers

Quantifying what we have, so we can predict how the data will relate to aquifer recharge and streamflow. Ann then asked Lance if whether or not the data derived from the expanded comprehensive study would be redundant when compared to the study Lance proposed in the first presentation. He replied that it would be complimentary rather than redundant. Ann went on to explain the importance of the comprehensive snowpack study. Advanced knowledge will lead to better water use during the low flow and dry periods during the summer. Existing information is limited. Currently we have

- SNOTEL
- Snow Surveys
- MODIS snapshot snow coverage data
- Dungeness Off-Channel Reservoir estimates of future snowpack and streamflow

- 1999 USGS Hydrogeological Assessment including groundwater system water balance calculations.

With improved data, all aspects of water use within the basin could be examined, including crop rotations, impacts to wildlife, and freshwater usage. Real time tools could be made available to water managers and the public. Local water managers should be consulted, and grants should be pursued in order to get the project off the ground. Ann concluded the presentation; no questions were asked.

A short discussion of changes in fish migration due to climate change occurred, followed by a break until 3:30.

General DRMT discussion followed the break. Shawn clarified the process to become a voting member rather than an advisory member in the Operating Procedures, per discussion at last meeting. The edits were sent out to DRMT members. A motion to approve the revisions was approved. The group then discussed the Sports Fisheries representative of the DRMT. Don is unable to participate in the group anymore. Powell said he could reach out to some individuals for a possible replacement, or for advice. Powell then went on to discuss the Dungeness River Festival. It is scheduled for September 22. The group then discussed the DRMT summer fieldtrip, with possibilities of Caldero, Rivers Edge, and the off-channel reservoir site as locations. The next order of business was the water resources planning topics, specifically the next presentations. Powell said he would take 6.6.

Rebecca Mahan and Joel Green then updated the group on the Off-Channel Reservoir. Rebecca informed the group she had not heard from Steve Gray, so had no new updates on the project. She did inform the group of finding plenty of juvenile lamprey in the river, and that plantings and reseedings were occurring during July. Hansi and Rebecca informed the group that the Tribe and the County were using available funds for some large woody debris placement within the river.

Powell then discussed some invasive weed treatment being done within the park by the Salmon Coalition.

The final standing item was the agenda for next month. Nobody had any additions to July's agenda.

Public Comment: A discussion about the Towne Road project followed. Matt Heins wanted to know who actually had keys to the road. Is the road dangerous? Why are people using the road? Rebecca replied that she does not know everybody who has keys to the road, but does know that PUD, EMS services, Nash's and Eberly's have access. The gates are supposed to be locked, but have been vandalized several times. The BOCC still hasn't come to a decision on the final fate of the road's surface and usage. Bob Phreaner was upset the road wasn't paved. Matt Heins was also unhappy with the current direction on the road. Hansi told the group that dissatisfaction with the road should be directed at the BOCC, rather than participants in the DRMT meeting.

The meeting adjourned at approximately 4:00