STREAM Team Mid and North Coast Summit

Water Quantity Breakout Session Notes ~ February 28, 2018

Background:
Oregon's Strategic Enterprise Approach to Monitoring (STREAM) Team is an inter-agency effort to facilitate collaborative and coordinated planning, monitoring and communication of water-related data and information among Oregon's natural resource agencies. STREAM Team hosted a Water Monitoring Summit covering the Mid and North Coast on February 28-March 1st, 2018, convening state and federal natural resource agencies, tribes, watershed councils, municipalities, Soil and Water Conservation Districts (SWCDs), conservation and research groups, and others that collect water monitoring data throughout the region.

At the Summit, practitioners shared information about their water monitoring activities, building knowledge and identifying opportunities for further collaboration. Five breakout groups addressed Water Quality; Water Quantity; Habitat for Fish and Aquatic Life; Land Use and Streamside Habitat Conditions; and Nearshore/Estuary issues. Each breakout group identified priority issues impacting these themes; data needs; and opportunities to improve data sharing and collaboration. This document contains the information discussed by the Water Quantity breakout group on February 28th. Information from this document was summarized for discussion with all Summit participants on March 1st.

Most important issues affecting Water Quantity in the Mid and North Coast:

1. Seasonal rainfall variability
2. Natural hazards; lack of storage/built and natural barriers. At different scales. Including off channel.
3. Balancing instream and out of stream. Where do people need/want water?
4. Water quality issues i.e., arsenic affecting supply
5. Management options and cost
    - New technologies (e.g. rainwater capture)
    - Cost of monitoring
    - Given the flux in demand -> hard to keep up with costs (rate base)
    - Barriers to meeting needs

Seasonal rainwater variability

- Affects water quality -> Limit availability
- Groundwater response to rainfall
- Determines need for regulation
- Determining water availability
- Natural hazards/flooding/earth movement -> water makes land move
- Infrastructure design and maintenance

UNMET Data needs:

- Look for changing trends in monthly data beyond historic distribution/frequency/timing
- Analyze existing data – new questions
- Update periods of record on a more frequent basis
- Pretty good data set of precipitation data
- Ground water responses -> Long term climate trends -> downscale climate models
- Recharge to groundwater from precipitation
- Statistics on variability; is variability increasing?

Summary
New questions -> Are we collecting the right data? Investing in the right analysis?
Link precipitation events to management considerations (hazards, quality, recharge)
Trends:

- March and October flood events
- Change in variability ~ monthly and daily trends
- Will needs be met in the future -> current and future use relative to supply
- Summer base flows
- Streamflow trends – timing of use, change in available supply over time
- Change in frequency and magnitude of flood events
- Change in tidal influence (surges) -> alternative sources needed?
- Update periods of record to account for changes to hydrograph

Strengths:

- Water users -> Site specific water use/diversion. Data and flow data. Consumptive uses
- We have a lot of gauges -> more data available than a lot of people know used for lots of purposes -> municipal supply, recreation, fish needs, other

Weaknesses:

- Not all water use is measured/monitored -> Limited to some users
- People don't know about it – where? How to access it? Analyze it – what does it mean to me? Discontinuity in records

Opportunities:

- Develop water balance that accounts for inputs and withdrawals. WHO works on this?
- Collect other data at gauges -> lots of opportunities for collaboration – the most expensive parts are in place. Plug in data to bigger models

Tradeoffs:

- Reliability of self-reported data. Unclear how this data will be used at scale. May not want data to be public

- Don’t duplicate efforts
- Invest in consistency – do a few things well (rather than a lot of things poorly)