



**Prioritization of Issues
Partnership Meeting
May 30, 2018**

GSI has reviewed Steps 1 and 2 goals from the Partnership and more recent input and survey responses from the Step 3 work group meetings to develop a priority list of issues. During the “Prioritization Exercise / Discussion” portion of the meeting agenda, the meeting participants will have an opportunity to help finalize the Step 3 planning assessment priorities.

To aid in that process, please review the attached materials to become familiar with the issue statements:

- Baseline Assessment Issues – Summary Descriptions
- Focus/Pilot Assessment Issues – Summary Descriptions
- Focus/Pilot Priority Issues “Voting Ballot” Reference Sheet

Additional context will be presented at the meeting.



Baseline Assessment Issues
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#	Issue Outcome	Description
1	Estimate current and future municipal water demands, including seasonal fluctuations.	Use Water System Master Plans, Water Management and Conservation Plans, and personal communication to: 1) identify current and future municipal water demands (maximum day demands, average day demands, and peak (summer) demands and 2) identify raw and finished water storage capacity. Consider how climate change, water conservation programs, and reductions in water loss may influence water demand projections using readily available information.
2	Understand municipal water supply deficiencies due to projected growth and industrial and tourism water demands.	Document water demand projections and water sources that water providers intend to use in the future as identified in Water System Master Plans, Water Management and Conservation Plans, and other readily available studies.
3	Understand the impact of decreased streamflows on the reliability of water sources to meet municipal/industrial supply demands.	Use Water System Master Plans, Water Management and Conservation Plans, Oregon Water Resources Department databases, and personal communication to: 1) identify municipal and industrial water users with a water source that is currently affected by fish persistence flow targets or may be affected in the future, and 2) identify municipal and industrial water sources (without fish persistence flow targets) that currently experience or in the future may experience seasonal streamflows low enough to limit diversions.
4	Understand the vulnerability of municipal water infrastructure to natural hazards and lack of supply redundancy.	Use Water System Master Plans, Water Management and Conservation Plans, source water assessments, and the DOGAMI database to identify where water infrastructure is vulnerable to natural hazards and to identify water suppliers that lack redundant/back-up water sources.
5	Understand opportunities for municipal providers to develop interconnections, supply redundancies, and build regional cooperation to address resiliency issues.	Use Water System Master Plans, Water Management and Conservation Plans, and other readily available plans to describe the status of existing interconnections, supply redundancies, and cooperative efforts to develop a regional water supply.



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#	Issue Outcome	Description
6	Understand the non-municipal water demands in the basin (by drainage area)	Use data from counties, Portland State University, Oregon State University, OWRD, Oregon Health Authority, Oregon Department of Agriculture to develop high-level estimates of rural/domestic, agricultural, and self-supplied industrial demands; use GIS analysis to develop drainage-area estimates of demands for these sectors.
7	Develop a database of existing water rights in the Mid-Coast and gain a general understanding of existing water rights in the Mid-Coast.	Develop a database of existing water rights in the Mid-Coast for use in Step 3 focus and pilot issue analyses (Step 3) and developing implementation recommendations (Step 4). Develop aggregate information (tables and maps) of existing water rights by basin. Develop information (tables and maps) depicting municipal water rights and instream and other significant water rights in those municipal water sources.
8	Identify stream segments with existing and proposed instream water rights, identify when these water rights are not being met, and analyze how these locations relate to existing or proposed diversions.	Identify instream water rights in source waters using an Oregon Water Resources Department database. Determine the extent to which these instream water rights are met by analyzing historical streamflow data, likely from USGS.
9	Qualitative understanding of regional (Mid-Coast) climate change impacts on temperature and precipitation on a basin-wide level.	Assessment will rely on the USACE climate change impacts assessment workplan, and will qualitatively describe how climate change may impact temperature and precipitation, and resulting impacts on water demand and streamflows.
10	Understand the extent of impacted instream and riparian habitat complexity and connectivity and relate possible causes.	Use state, federal, and non-profit reports to identify streams and possibly stream reaches with degraded instream and riparian habitat complexity and connectivity.
11	Understand the locations and timing of water quality impairments (based on TMDL and 303(d) program) in relation to existing diversions and instream water rights.	Using TMDL/303(d) and other readily available data, identify the water quality parameters (specifically temperature, bacteria, and turbidity) that are not meeting standards to compare against existing out-of-stream diversion locations and instream water rights in other baseline assessment tasks.



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#	Issue Outcome	Description
12	Understand the regulatory framework for water use reporting and enforcement to identify opportunities to improve participation, data collection, and compliance.	Describe current water quantity monitoring requirements and regulatory authority. Describe current funding and available resources available to OWRD on monitoring/reporting and identify funding limitations. Identify significant water right diversions without monitoring and reporting requirements.
13	Understand the regulatory framework for water quality monitoring/reporting to identify opportunities to improve participation, data collection, and compliance.	Describe current water quality monitoring requirements and regulatory authority. Describe types of contaminant sources/size with reporting requirements. Describe current funding and available resources available to ODEQ and OHA on monitoring/reporting and identify funding limitations. Identify significant contaminant sources in violation of monitoring and reporting requirements.
14	Understand limitations of existing regulatory protections for instream habitat and aquatic species (e.g. dredging).	Describe regulations protecting instream habitat and aquatic species (e.g. forest practices regulations, state and federal species protections, water right public interest review process) and any readily available reports analyzing those regulations.
15	Understand limitations of regulatory source water control for domestic users (i.e. for water sources not on property of use)	Describe group domestic well regulations and potential challenges. Describe vulnerabilities associated with lack of source water control for domestic users.



Focus and Pilot Assessment Issues
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#	Issue Outcome	Description	Geographic Scope
1	Understand the status of the water conservation programs being implemented by large systems and possible opportunities and constraints for expanding the programs.	Review documented water conservation efforts of target providers as described in their Water Management and Conservation Plans and/or conduct utility interviews. Gather information about water conservation and reuse efforts from large industrial users. Review will include information about funding spent on water conservation efforts. Identify financial and political constraints for water conservation efforts.	Specific Areas
2	Identify water infrastructure improvements needed by large systems due to poor condition or capacity limitations to support understanding of overall infrastructure costs in the Mid-Coast.	Gather information from Water Master Plans about water infrastructure needs including: water treatment plants, wastewater treatment plants, pump stations, reservoirs, distribution lines, and diversion structures. Where available, document infrastructure age and lifespan (including septic systems).	Specific Areas
3	Understand locations where groundwater supplies are insufficient to meet demands of small systems and domestic users.	Gather information from small water providers, domestic users, and watermaster about documented groundwater declines or occurrences of wells running dry. Identify the timing and location of water truck sales.	Entire Planning Area
4	Understand infrastructure and operational needs of small systems to enable them to meet future demands.	Gather information from Oregon Health Authority, Oregon Department of Environmental Quality, and other available information about infrastructure, staffing, regulatory compliance, and vulnerability. Design targeted survey/interview guide to gather information from small water providers.	Specific Areas

Focus and Pilot Assessment Issues
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#	Issue Outcome	Description	Geographic Scope
5	Understand existing water infrastructure grant programs (state and federal) to leverage these funding sources for water projects in the Mid-Coast.	Describe existing water infrastructure grant program structures and requirements. Interview water providers and grant administrators to identify specific challenges obtaining grants for water infrastructure. Describe changes in state and federal assistance for municipal water supply over the past 20 years.	Entire Planning Area
6	Recommend locations for (new/proposed) instream water rights most beneficial to protecting aquatic species .	Gather information describing where and how insufficient instream flows affect aquatic species in the Mid-coast, particularly in less studied streams that are current or potential water sources. Work with ODFW and NOAA to identify streams where flow studies have not been completed, but instream flow are anticipated to be inadequate.	Entire Planning Area
7	Semi-quantitative assessment of climate change impacts on streamflow for specific drainage areas in the basin.	Based on information from baseline assessment, identify specific drainage areas or watersheds; review literature to document potential impacts of climate change on peak streamflow magnitude, duration, and occurrence frequency for select streams and/or stream segments; USACE would be asked to support this in their workplan with potential for the additional assistance from OCCRI.	Specific areas
8	Understand altered estuary habitats related to channel configurations, substrate, and habitat complexity.	Based on information from baseline assessment, identify specific stream segments for analysis. Describe effects of tide gates on intertidal ecosystems. Describe effects of development and land use on estuary systems. Describe and map estuary management units and shoreland zoning. Describe effects of degraded estuary habitat on key species. Describe National Wetlands Inventory classifications and features. Summarize local studies on estuary habitat conditions.	Specific Areas

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#	Issue Outcome	Description	Geographic Scope
9	Understand degraded water quality at beaches .	Review documented beach warnings and closures. Map identified contaminant sources (e.g. wastewater outfalls) and measured high concentrations of bacteria.	Specific Areas
10	Understand the locations, timing, and magnitude of elevated stream temperatures .	In areas where stream temperatures are not meeting standards for fish use designations, understand the timing and magnitude of elevated stream temperatures using TMDL and other readily available data. Examine historical trends in stream temperatures using readily available data. Examine potential causes of elevated stream temperatures. Identify modeled future stream temperatures (e.g. NorWeST Stream Temperature projections by U.S. Forest Service).	Entire Planning Area
11	Understand elevated turbidity and its effects within the Siletz River Basin and Siletz Bay Ocean Tributaries .	Identify turbidity monitoring frequency and reporting by local partners. Identify water treatment plant shutdown frequency. Where information is available, identify forest road/culvert maintenance needs. Identify any documented local events/studies describing effects of elevated turbidity on aquatic species. Describe species vulnerabilities regarding turbidity/length of turbidity events.	Specific Areas
12	Identify areas where bacteria impacts surface water supply and characterize the potential source of bacteria.	Identify surface source waters with past episodes of elevated bacteria by reviewing TMDLs, Consumer Confidence Reports, reported CSO events/permit violations, beach closures, and biosolids application areas and treatment levels.	Specific Areas

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#	Issue Outcome	Description	Geographic Scope
13	Understand upland land management effects on streamflow .	Develop a workplan for a focused watershed-specific study to understand/describe effects of land management on streamflow (including natural storage) and use to extrapolate potential impacts to other areas. Review existing literature on upland land management (e.g. forest practices, agricultural practices, and historic land management; including stream channel simplification and impervious surfaces) and streamflow. Identify future harvest sites, harvest type, and timeline for public and private forest lands.	Specific Area
14	Understand wildlife management effects on streamflow .	Conduct a focused watershed-specific study to understand/describe effects of wildlife management practices on streamflow and use to extrapolate potential impacts to other areas. Review existing literature on beavers and streamflow (including natural storage). Identify known and historic beaver populations using available data. Identify/map land use practices that affect natural storage capabilities (e.g. land uses/land ownership).	Specific Area
15	Understand how decreased spring flows (current and future) affect domestic/small water district supply and aquatic and semi-aquatic species.	Conduct a focused watershed-specific study to understand/describe effects of reduced spring flows and use to extrapolate potential impacts to other areas: identify local partner testing or monitoring; review any documented concerns or local studies related to reduced spring flows and aquatic/semi-aquatic species (e.g. search and synthesize ODFW, OWRD, USFWS, The Nature Conservancy, and OSU studies).	Specific Area

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#	Issue Outcome	Description	Geographic Scope
16	Identify areas in the basin where bacteria impacts groundwater supply and characterize the potential source of bacteria.	Map existing bacteria in groundwater testing/monitoring results. Identify and map land uses and areas where biosolids are applied. Map other potential sources identified by the Department of Environmental Quality. Identify streamside areas without riparian buffers.	Specific Area
17	Understand climate change impacts on turbidity focused on a specific drainage area.	Based on information from baseline assessment, identify specific drainage areas or watersheds. Review literature on potential climate change impacts on peak flows and turbidity. Identify current relationship between peak streamflows and elevated turbidity using available data. Use USACE support to develop a workplan for semi-quantitative (modeling) analysis of rainfall-runoff and turbidity within a specific drainage.	Specific Areas
18	Understand how an altered flow regime affects habitat for aquatic species.	Conduct a focused watershed-specific study to understand/describe effects of altered flow regimes and use to extrapolate potential impacts to other areas. Review existing literature and describe effects of altered flow regime on instream habitat and stream channel complexity.	Specific Areas
19	Understand the presence and extent of emerging chemicals in the basin and effects on source waters and fisheries.	Identify local partner testing or monitoring. Review any documented concerns or local studies related to herbicides and fertilizers (e.g. search and synthesize abstracts of ODFW, DEQ, EPA, and OSU studies).	Entire Planning Area

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#	Issue Outcome	Description	Geographic Scope
20	Understand how algal blooms affect water supply.	Conduct a focused source-specific study to understand/describe effects of algal blooms and use to extrapolate potential impacts to other areas. Review documented algal blooms in the Mid-Coast. Compare algal blooms to air temperature records and reservoir/lake levels. Describe effects of algal blooms on water supply (e.g. concentrations, bloom types, treatment limitations).	Specific Areas
21	Understand history of customer rates and adequacy to meet water system costs.	Identify frequency and magnitude of customer rate increases for large municipal providers over the past 20 years and compare to inflation rates and water system operation costs. Identify the deficit/loans of water providers. Identify average customer water bills relative to average income. Identify when rate increases went to vote for City Councils and the vote results.	Specific Areas



**Priority Issues “Voting Ballot” Reference Sheet
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Priority	#	Issue
	1	Water conservation programs
	2	Water infrastructure improvements
	3	Insufficient groundwater supply
	4	Operations needs of small water systems
	5	Water infrastructure grant programs
	6	Locations for new/proposed instream water rights
	7	Climate change impacts on streamflows (area-specific)
	8	Altered estuary habitats
	9	Water quality of beaches
	10	Elevated stream temperatures
	11	Turbidity in Siletz River and Siletz Bay-Ocean Tributaries
	12	Bacteria in surface water
	13	Land management effects on streamflow
	14	Wildlife management effects on streamflow
	15	Decreased spring flow impacts
	16	Bacteria in groundwater supply
	17	Climate change impacts on turbidity (area-specific)
	18	Altered flow regime effects on habitat
	19	Emerging chemicals in source water
	20	Algal bloom effects on water supply
	21	Adequacy of customer rates