





Oregon

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MEMORANDUM

TO: Water Resources Commission

FROM: Tracy Louden, Administrative Services Division Administrator 
Racquel Rancier, Senior Policy Coordinator 

SUBJECT: Agenda Item C, May 19, 2016
Water Resources Commission Meeting

Budget Update – 2017-19 Budget Development

I. Issue Statement and Background

Development of the Agency Request Budget for 2017-19 is proceeding according to schedule. Staff will report on budget concept development and request feedback from the Commission.

II. Discussion of Packages

The Department is currently working on the base budget for 2017-19 to determine the level of funding necessary to continue services as authorized by current law, also known as Current Service Level. This initial process builds in inflation factors that are determined by the Department of Administrative Services.

Department staff are also working on budget package concepts with stakeholders and will be discussing these with the Commission during the scheduled meeting. Staff have held several meetings with stakeholders since January, and have one more meeting scheduled for May 17. These budget packages must be submitted to the Department of Administrative Services no later than June 30.

The preliminary list of packages is included in Table 1 on the next page. A brief summary of these packages is provided in Attachment 1.

III. Discussion of Program Priorities

The Department also submits a ranking of program priorities with the Agency Request Budget. Based on discussions with stakeholders, previous rankings by the Commission, and a review by the Department, the Department intends to submit the program priorities as shown in Attachment 2.

Table 1. Budget Concepts for 2017-2019 Legislative Session

Budget Concepts	IWRS	FTE	General Fund	Lottery Bond/ Other
A -Understanding our Water Resources: Groundwater Basin Study Team	1a/1b	5.0	\$1.9 million	-
B - Protecting Groundwater Resources through Well Construction	12a	-	\$380k	-\$380k
C - Protecting the Public and Water Supplies: Dam Safety, Earthquakes, Fires and Floods	7a	2.0/ 1.0 LD	\$499k	\$285k
D - Supporting Key Water Resources Data Functions and Tools	1b/1c	1.0	\$230k	-
E - Helping Communities Plan for Water Needs through Place-Based Planning	9a	1.0 LD	\$230k	-
F - Grants to Evaluate the Feasibility of Potential Water Projects	13c	.75	\$2.16 million	-
G - Grants and Loans to Implement Water Projects	10e	-	-	\$30 million
H - Leveraging Resources for Data by Partnering with USGS Cooperative Program	1a/1b	-	\$100k	-
I - Responsible Water Management and Distribution	1b and 13b	6.0	\$1.3 million	-
J - Water Right Special Projects and Klamath Transactions	13b	1.0 LD	\$210k	-
K - Information Coordinator to Increase Public Awareness and Information Sharing	8c	1.0	\$115k	\$115k
L - Resolution of Complex Water Issues - Placeholder	TBD	TBD	TBD	-
M - Water Rights Reduction Package Placeholder (Due to Sunset of Water Right Transactions Fee Schedule)	-	TBD	-	TBD
N - Water Rights Add-Back Package Placeholder (Should Water Right Transactions Fee Schedule Legislation Pass)	13b	TBD	-	TBD
Totals	-	18.75	\$7.4 million	\$30 million

IV. Summary

The Department has been actively working to develop budget packages for the 2017-2019 Agency Request Budget with the input of stakeholders and staff. The Department seeks the Commission's input on the budget concepts and program priorities.

Attachments:

1. Draft 2017-2019 Agency Request Budget Narratives and Cost Estimates
2. Program Prioritization 2017-2019 Biennium

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OREGON WATER RESOURCES DEPARTMENT
DRAFT 2017-2019 AGENCY REQUEST BUDGET NARRATIVES AND COST ESTIMATES
FOR DISCUSSION: INFORMATION SUBJECT TO CHANGE WITH FURTHER ANALYSIS, FEEDBACK AND REVIEW

Draft Package A

Name: Understanding our Water Resources: Groundwater Basin Study Team

Problem: In some locations throughout the state, groundwater aquifers are no longer capable of sustaining additional development. Oregon is facing hotter and longer growing seasons, with the past few years plunging parts of the state into drought. Water managers need information to maximize the beneficial use of our water resources to meet instream and out-of-stream needs, increase drought resiliency, and conjunctively manage Oregon's water resources. The State needs to know more about how much surface water and groundwater we have, if additional allocations can be made, and how the groundwater and surface water interact in each basin. Basin studies can take approximately 5-6 years to complete and the Department currently has the capacity to conduct only one study at a time. The Department recently initiated a study in the Greater Harney Valley in 2015 with an expected completion date of 2020.

Conducting basin studies are a priority for Oregon, as identified in Recommended Actions 1A and 1B of the Integrated Water Resources Strategy (IWRS). Recent pressures to assist with surface water data collection (see package J), increased numbers of gauging stations, and demands on the surface water section to perform analysis has led to backlogs in processing data collected. These data are generally necessary to complete groundwater basin studies, and backlogs in surface water data can slow progress on groundwater studies. Similarly, given the pressures of drought, the number of groundwater applications received, and the increasingly complex nature of groundwater reviews, backlogs have developed in the groundwater section. Without additional resources, the Department is unable to take on any additional tasks within these sections, such as groundwater basin studies.

Proposal: This package increases the Department's capacity to conduct two basin studies concurrently, instead of just one, while also addressing some of the backlogs in the groundwater and surface water sections to collect, process and validate data, and process applications more timely. Oregon has a need for additional groundwater investigations to further understand the relationship between groundwater and surface water, and the availability of both. Staff and resources included in this package will conduct basin studies to define the overall groundwater budget, including groundwater recharge, discharge, and available water for new allocation. These staff will also leverage the technical expertise developed in each basin to efficiently conduct technical reviews of groundwater right permit and transfer applications. This package includes both groundwater and surface water staff, as surface water flow resulting from groundwater discharge is a key component to developing a water budget for a basin in order to understand the groundwater resource.

The Department typically evaluates groundwater and surface water resources through cooperative, cost-share science programs with the U.S. Geological Survey (USGS), Oregon Department of Geology and Mineral Industries (DOGAMI), and other scientific partners as applicable. The studies develop a broad understanding of surface and groundwater systems whose results are published in peer-reviewed reports (typically USGS-published reports and DOGAMI-published geologic maps). State funds are leveraged through federal cost-match funds when partnering with these agencies (DOGAMI receives matching federal funds for qualifying geologic mapping work). In addition to the requested increase in staffing, this package requests the following general fund appropriations each biennium to pay for cost-match programs and study activities.

Outcomes: This package will allow the Department to conduct two groundwater basin studies approximately every 5 years, one funded with existing resources, the second with the resources detailed in this package. This information will be used by the Department to manage the State's increasingly limited groundwater resources, and maximize the consumptive and non-consumptive uses of water in the basin. Basins that are a priority for subsequent basin studies, include, but are not limited to the Umatilla and its Walla Walla sub-basin, Hood, Powder, Sandy, and Grande Ronde basins. This package will allow initiation of a study in one of these basins before the current Harney Basin study is completed in 2020. Further, basin studies including groundwater assessment support KPM #5 - Assess Groundwater Resources, and KPMs #10 and #11 - Promote Efficiency in Water Right and Transfer Application Processing. Finally, this package will help reduce data

and application backlogs in both the surface and groundwater sections, as it will provide additional staff to process these backlogs in the study areas.

Resources:

- Basin Study Team Staff: 2 Natural Resources Specialist (NRS) 2, 1 NRS 3, 2 NRS 4 - \$1.1 million General Fund
- GW study funds, cost match by USGS - \$300,000 General Fund
- Geologic mapping funds, cost match by DOGAMI/USGS state map program - \$100,000 General Fund
- Drill and install project-specific monitoring wells, project monitoring equipment, other field data collection and analysis costs specific to each study - \$400,000 General Fund

Total Pkg = \$1.9 million

Draft Package B

Name: Protecting Groundwater Resources through Well Construction

Problem: Improperly constructed wells pose a serious threat to Oregon's groundwater resource. A miss-constructed, poorly maintained, or improperly abandoned well can result in water level declines, contamination of drinking water, and public safety hazards. Well inspection and enforcement is critical to ensure that wells are constructed, maintained, and abandoned in an appropriate manner. The Well Inspection Program places inspectors in the field to work with well drillers to ensure that water supply wells are constructed in a manner that is protective of public health and the groundwater resource. Well inspectors visit wells being constructed to observe practices and see that the well construction meets standards, given the geologic and hydrologic conditions encountered. Well inspectors must have training in geology and hydrology, and the knowledge to understand and recognize both proper well construction and improper construction practices. Well inspectors interface with the public and the well drilling community and need to be able to make decisions in the field on behalf of the Department. Currently, well inspectors are funded from start card fees; however, there are insufficient funds to hire the number of inspectors that the Department is authorized to hire because of revenue shortfalls. The Department has authorization for six well inspectors, but only has resources for four, which could further be affected by increased costs of doing business. Position responsibilities and Department expectations for both well inspectors and hydrologic technicians have changed over the years that these positions have been in place and it is a challenge for the Department to recruit and retain individuals that can effectively perform the job requirements.

The Department has identified two areas that require well construction section staff time that do not have a commensurate fee:

(1) Landowner Permit Application Fee change - Property owners are allowed to install their own wells by submitting an application, bond, and design plan to the Department for approval along with a \$25 fee. These requests require a thorough Department review, on-site inspector supervision during seal placement, a final well inspection, and assistance with any required forms. They also require a final follow-up by staff to verify all required work has been completed and paperwork turned in to the Department. The \$25 fee does little to recuperate the costs incurred to provide such oversight and protect the groundwater resource for other users.

(2) Well Construction Special Standard Fee - When a well constructor needs a variance to the well construction standards to install, alter, or abandon a well, they must request a Special Standard. Reviewing, researching, and processing special standards involve time-consuming, technical procedures that can take days or weeks to complete. Commonly they require multiple consultations and site visits with well constructors and clients. The Department receives hundreds of these requests each year which is currently subsidized by Start Card fees. The number and complexity of these requests continue to increase and has become an increasing burden on the Start Card fund.

Solution: This package proposes efforts to support the well construction program and efforts to protect groundwater resources by:

(1) Well inspector reclass - Upgrading these positions from NRS1 to NRS2 will enable the Department to recruit and retain individuals with the aptitude and skills necessary to perform the duties of the position. In addition, the Department

has identified a need for well inspectors to not only inspect wells, but also review well logs, as this is an effective way to initially identify problems with well construction.

(2) Move two well inspectors from start card fees to general fund, with the goal of maintaining or increasing the number of inspections conducted and well logs reviewed to be able to better protect the resource.

(3) Landowner Permit Application Fee change - Increase the fee for Landowner Permit Applications from \$25 to \$500 to better capture costs associated with the processing of the application.

(4) Well Construction Special Standard fee - Create a Special Standard Fee. When a well constructor needs to request a variance to the well construction standards to install, alter, or abandon a well, they would file a Special Standard Request along with an appropriate fee. Fee amount and structure currently under discussion with OGWA.

Outcomes: This proposal is consistent with Recommended Action #12a of Oregon's 2012 Integrated Water Resources Strategy, which calls for ensuring the safety of Oregon's drinking water. By ensuring wells are constructed to minimum well construction standards the Department is protecting the groundwater resource for all users, including those that rely on the source for drinking water. Together, these proposals would more fairly distribute the cost of inspecting individual wells, reduce the impact on the Start Card fund, improve recruitment and retention of well inspectors, and subsequently allow for more field inspections during the critical well construction process. The goal for the Department is to ensure wells are being constructed to meet minimum well construction standards, and to gain voluntary compliance when well construction issues are discovered. To track progress on this goal, the Department assembles a yearly report on the number of wells constructed, number of well inspections, and well deficiency rate. The Department will also begin tracking the number of well logs reviewed and the number of well logs that require follow-up. The goal is to maintain or increase the number of wells inspected, while also increasing the number of well logs reviewed.

Resources:

- Reclass: Done within existing resources using start card fees.
- Fund shift: 2 Well Inspectors to GF; Reduce OF \$380,000; Increase GF \$380,000

Draft Package C

Name: Protecting the Public and Water Supplies: Dam Safety, Earthquakes, Fires and Floods

Problem: Dams in Oregon are aging, with the majority more than 50 years old, and some approaching 100. The Water Resources Department directly regulates more than 900 dams. Dam safety is a core function and responsibility of the Department. The Dam Safety Program staff conducts inspections of existing hydraulic structures to protect public safety and water supplies. There have been recent changes in the scientific understanding of earthquakes and floods in Oregon, and the increased risks to dams (and the people living below those dams) that may occur after these events. These resources are essential for evaluating the safety and resilience of Oregon's dams monitored by the Department. As structures age, populations grow, and additional seismic and flood information becomes available, proper maintenance becomes even more critical and there is a need to further evaluate dams for structural integrity, the ability to pass high flood flows, and withstand earthquakes in order to protect water supplies and public safety. Furthermore, in light of recent wildfires and the rainy seasons that follow that can lead to severe flooding, the Department recognizes the need to be able to respond to public safety needs for information rapidly and responsibly. Traditional stream monitoring equipment is expensive and time consuming to set up and maintain.

Solution: These actions will provide resources to begin to evaluate the earthquake and flood resilience of Oregon dams and associated structures, as well as help protect the public by providing information on potential floods after extreme events such as fires.

1. Add one permanent dam safety engineer to support the dam safety inspection program, as well as increase our understanding of dams by performing more in-depth evaluations of dams. These reviews will include a thorough analysis of the condition of the dams. In addition, it will help the Department determine which dams may require modification to safely pass flood flows by assessing the spillway capacity of dams, the extent that high flood flows can safely be passed, and the inundation zones of dams. This position will be funded by funds from FEMA

and the Dam Safety Fee. This position is also integral to ensuring that inspections of dams, particularly high hazard dams, are completed in a timely manner.

2. Add one limited duration general fund Geotechnical Specialist for engineering support to the dam safety program to help the State Engineer develop a methodology for conducting in-depth analysis of dams in the Cascadia Subduction Zone to improve potential earthquake impact understanding. This position will also conduct an intermediate engineering analysis of high hazard dams or significant hazard dams to conduct initial screenings of the seismic stability. These reviews will help the Department better prioritize resources in the future and to identify dams that may require a more in-depth seismic analysis.
3. Improve data management and outreach – Add 1 FTE NRS 1 to perform data analysis, entry and technical correspondence for both the groundwater program and dam safety program.
4. Implement Rapid Deployment Streamflow Monitoring Systems to provide water level information and flood warning in flood sensitive areas resulting from drought and wildfires. Purchase ten (10) rapid deployment units at a cost of \$5,400 per unit for a total of \$54,000.

Outcomes: These proposed actions help improve our understanding of the safety of Oregon’s dam infrastructure and prioritize resources and efforts in the future to protect public safety and water supplies. These proposals also help implement IWRS Recommendation 7.A – Develop and upgrade water and wastewater infrastructure. The program assistant will improve timeliness of data management and technical correspondence. Rapid Deployment Streamflow Monitoring systems will provide flood warnings for residents, communities, and businesses that, given sufficient lead-time, can take action to reduce flood damages. Benefits of timely flood warnings are direct and tangible when actions are taken to reduce property damage. Benefits such as protection of human health and safety are direct and intangible. Flood warning can result in the timely and orderly evacuation of a floodplain, which reduces risks to evacuees.

Resources:

- Dam Safety Engineer - \$285,000 Other Funds (Dam Safety Fees)
- Dam Safety/ GW Program Assistant - \$160,000 General Fund
- Geotechnical Specialist Engineer– Cost TBD General Fund
- \$54,000 GF - Early Flood Warning Systems

Draft Package D

Name: Supporting Key Water Resources Data Functions and Tools

Problem: Data is the cornerstone of the Department’s water resource management decisions. The ability to capture research needs, design structures, optimize queries, develop computer applications, enforce access rules, and protect data from loss or corruption is paramount to Department success. Due to budget reductions in 2009, the Department lost its Database Administrator and System Administrator, and these duties were absorbed by the Information Services Manager. Data capabilities provided by this section are important to improving transparency and accessibility of information. Given the workload of the Information Services Manager after absorbing two positions, this is increasingly becoming a bottleneck, hindering the timely development of necessary applications for the ever increasing number of data driven initiatives such as the Integrated Water Resource Strategy, National Ground Water Monitoring Network, Near-Real Time Stream Flow, Water Right Transparency and Electronic Notification, Drought Response, etc. Examples of initiatives include: (1) improvements to the water use reporting system that increased client compliance through improved data input procedures and better reporting by linking water use reports to water rights; (2) the development of a water distribution “dashboard” for the Klamath basin that provides information on water rights regulation (limited resources both in the field prevent this service from being offered more broadly); (3) improved stream location technology that allows the query of features (such as water right points of diversions) above or below a point on the stream; (4) groundwater data collected from basin studies could be made available online for access by the public, but to date the Department has limited capacity to make this data available online.

Solution: Adding a full time Database Administrator/Application Developer would dramatically improve the Department’s ability to identify data needs, design appropriate data structures, integrate existing data, enact appropriate

access rules, protect and secure Department data, and develop internal and external applications to access that data. Projects would be able to be completed in a much timelier manner and with a better end product.

Outcomes: This position will ensure that all new applications have adequate data design to facilitate future reporting needs and reduce the likelihood of costly redesigns. This position will improve the timeliness of application and database development by working closely with stakeholders. This position will oversee the upgrade of database software and ensure a seamless conversion. This position will further advance the goals in KPM #6 Percent of water management related datasets collected by WRD that are available to the public on the internet. With the addition of this position, the Department expects additional information to be made available online and in a format that is more user friendly, such as Well Log or Water Rights search tools. Likewise, the Department also expects to increase the ability for customers to submit data and payments on-line. This position will ensure that new data initiatives will be integrated with existing data eliminating silos of duplicated or conflicting information. This position will ensure that all data, access, and authorization is configured and maintained in a way that allows Department to comply with State Information Security Standards (ORS 182.122).

Resources:

- Information Services Specialist 6 - \$230,000 General Fund

Draft Package E

Name: Helping Communities Plan for Water Needs through Place-Based Planning

Problem: Place-based planning is a voluntary, non-regulatory tool to help communities understand their water resources and develop solutions to water challenges. Building trust and developing long-term relationships are additional benefits that can be realized through place-based strategies; these are important foundations for successful implementation of tangible water resources projects. Place-based planning is initiated at the local level, bringing together a balanced representation of interests to work in partnership with the state to develop a local integrated water resources plan that considers both in-stream and out-of-stream water needs.

IWRS recommended action 9a calls for the State to undertake a place-based approach to integrated water resources planning. In 2015, the Legislature provided the Oregon Water Resources Department (Department) with resources to test or “pilot” place-based planning in several locations around the state. Specifically, the Department received \$750,000 to provide grants to communities, as well as additional staff to provide planning coordination and technical assistance. After a solicitation of letters of interest, in early 2016, the Water Resources Commission awarded funding to conveners to conduct place-based planning in the Lower John Day Sub-Basin, Grande Ronde Sub-Basin, Mid-Coast Basin, and the Malheur Lake Basin. Each pilot will follow the 2015 Draft Place-Based Planning Guidelines to develop a place-based integrated water resources plan. The Department anticipates that the Lower John Day and Upper Grande Ronde will complete plans no later than 2019. The Department anticipates that the Malheur Lake and Mid-Coast will accomplish the first two-to-three planning steps by 2019. The 2015 Legislature provided resources for two planning coordinators, one of which was limited duration.

Solution: The Department is undertaking a number of initiatives to develop a comprehensive integrated water resources development program. Place-based planning is part of this longer-term strategy to help communities to strategically address water needs and identify water projects that will have broad-based community support. The strategies should serve as a blueprint for meeting both instream and out-of-stream needs, taking into account water quantity, water quality, and ecosystems. In order to ensure the success of these pilots and to provide technical support and guidance, it is important for the state to have staff resources for these planning groups. The Department proposes extending the limited duration position through 2019, when the pilots are expected to be completed.

Outcomes: Feedback from these pilots will allow the state to adjust and improve its place-based guidelines for communities to use into the future. Additionally, a better understanding of current and future instream and out-of-stream water needs will be obtained, as progress is made achieving the recommended actions in the statewide Integrated Water Resources Strategy.

Resources:

- Extend Limited Duration Planning Coordinator NRS 4 - \$230,000 General Fund

Draft Package F

Name: Grants to Evaluate the Feasibility of Potential Water Projects

Problem: Oregon is facing increasing water demand and increasingly scarce water supplies. To adequately meet Oregon's diverse water demands now and into the future, Oregonians must use their water wisely and efficiently. That means looking more closely at innovative water conservation and reuse projects and environmentally sound storage projects. The costs of the numerous feasibility studies and environmental analyses that must be conducted before a project can even begin can add up to hundreds of thousands of dollars, presenting a considerable and often insurmountable barrier to projects moving forward. To meet this challenge, the Oregon Legislature in 2008 established the Water Conservation, Reuse and Storage Grant program (SB 1069), which provides grants for feasibility study work. There continues to be a strong demand for these grants, and it is expected that this demand will increase as the State focuses on providing a secure water future for both instream and out-of-stream needs. This request fulfills the 2012 Integrated Water Resources Strategy's Recommended Action 13c, which identifies the need to provide communities with funding to help evaluate the feasibility of water conservation, storage, and reuse projects.

Solution: Meeting instream and out-of-stream water needs through water conservation, reuse and storage projects is critical to the economy of Oregon, and for healthy watersheds, fish and wildlife, and recreation. There is currently \$800,000 General Fund in the Department's base budget for grant awards in the Water Conservation, Reuse and Storage Grant program. \$2 million in General Fund is requested, thereby making \$2.8 million available for grants. In addition, this request would increase the FTE for grants administration from .25 FTE to 1 FTE using General Fund. This would extend an existing limited duration position that is necessary for proper oversight of the program.

Outcomes: This competitive grant program requires a dollar-for-dollar match, allowing state funds to be leveraged and ensuring that only serious applicants apply.

Upon the completion of each feasibility study, the Department evaluates whether the feasibility study successfully answered the question(s) posed and funded in the grant application. The Department's goal is to have 100 percent of the feasibility studies obtain answers to the questions posed and funded. Ultimately, this will result in the identification of projects that are viable for further investment to meet instream and out-of-stream needs.

Resources:

- Make limited duration position permanent - Grant Specialist .75 NRS 3 - \$160,000 General Fund
- Grants for Feasibility Studies - \$2 million General Fund

Draft Package G

Name: Grants and Loans to Implement Water Projects

Problem: Most of the surface water resources in Oregon are fully allocated during the summer months, requiring water users seeking new supplies to turn to other tools such as water conservation, reuse, storage, and other mechanisms to meet their needs. The need for an increased focus on securing water supplies for both instream and out-of-stream needs is exacerbated by a changing climate, which will alter snowpack, temperatures, and the hydrology of many streams throughout Oregon. This will affect the availability and quality of water, as well as increase the incidence of droughts. To meet Oregon's current and future water needs, the state will need to partner with individuals and communities to implement water resources projects. This package proposes funding for water projects, utilizing the Water Supply Development Account (SB 839 – 2013) to provide loans and grants for water resources development projects that have economic, environmental and community benefits. The Legislature authorized funding of \$10 million in lottery revenue bonds that were issued in spring of 2015 as well as \$6.25 million that will be issued in the spring of 2017. To date, demand has far exceeded the amount of funding available. Funding decisions are to occur annually and for the 2016

application cycle alone funding requests totaled nearly \$51 million. Recapitalization of the grant and loan fund is necessary to continue to advance the state's ability to help evaluate, plan, and develop water resources projects to provide access to new water supplies for instream and out-of-stream uses in Oregon. Investing in water resources projects furthers a number of recommended actions in the Integrated Water Resources Strategy aimed at: authorizing and funding a water supply development program (Recommended Action #10e); improving access to built storage (Recommended Action #10b); improving water use efficiency and water conservation (Recommended Action #10a); encouraging water reuse (Recommended Action #10c); and determining and protecting flows needed to support instream needs (Recommended Actions #3a and #11b).

Solution: This request would recapitalize the Water Supply Development Account with \$30 million.

Outcomes: The Department anticipates funding a number of critical projects to develop and implement water resources projects for both instream and out-of-stream needs. The development of new water supplies will create jobs and further economic growth by providing water to meet the needs of agriculture, ecosystems, industries, recreation, and municipalities. The long-term goal is to increase the quantity of water available to meet instream and out-of-stream needs as a result of funded projects.

Resources:

- Water Project Grants and Loans - \$30 million Lottery Bonds

Draft Package H

Name: Leveraging Resources for Data by Partnering with USGS Cooperative Program

Problem: The Cooperative Water Program supports the collection of vital hydrologic data, studies of specific water-resources problems (e.g., post-fire assessments), updated groundwater recharge studies, and joint agency training on emerging technologies. These activities provide insight to any trends in streamflow caused by changes in land use, water use, or climate. The Department has not recently been a contributor to this program. Adequate funding of a cooperative program will allow collaborative OWRD/USGS research and development to ensure advanced equipment and techniques are used to measure and understand streamflow and groundwater resources. USGS provides regional assessments of streamflow information, estimates of streamflow at locations distant from streamgages, and helps site new streamgages to optimize stream gaging networks.

Solution: This package proposes to reestablish the Department's engagement in the Cooperative Water Program with USGS. The Cooperative Water Program supports the collection of vital hydrologic data, studies of specific water-resources problems (e.g., post-fire assessments), updated groundwater recharge studies, and joint agency training on emerging technologies.

Outcomes: This package leverages shared resources for data collection, review, and analysis by partnering with the USGS Cooperative Program. Participation in the USGS Cooperative Water Program will result in a number of benefits that will increase the Department's ability to more effectively provide information for surface and groundwater decisions. *Training Cost Savings-* Typically there is a 30 percent reduction for USGS trainings for cooperators. Access to national training facilities and other USGS programs enhances agency staff competence. Examples of training for which the Department would benefit could include the following. Training on state-of-the-art hydroacoustic stream flow measuring is offered by the USGS. These formal training courses are scheduled each year and include basic, intermediate and index-velocity classes. Safety training for cableway inspection and maintenance, watercraft, and chainsaws to name just a few safety related issues routinely encountered by Department staff. Access to shared resources -The Department gains access to equipment and services such as underwater construction and boats otherwise not available to the Department. *Service Cost Savings* Participation in the Cooperative Water Program provides free access to several services that the Department currently has to fund directly. Examples include: Calibrate Acoustic Doppler Current Profilers - \$2,000/biennium estimated savings; Calibrate Flow trackers - \$8,000/biennium estimated savings; Calibrate well measuring tapes - \$1,667/biennium estimated savings; Surface water gaging stations at difficult sites - \$19,000/biennium estimated savings.

Resources:

- USGS Cooperative Program Contribution - \$100,000 General Fund

Draft Package I

Name: Responsible Water Management and Distribution

Problem: Watermaster workloads are increasing statewide due to the increasing number of water rights, wells, population, homes, and the new marijuana industry. County and other funded assistant watermaster positions have declined from 37 in 1981 to 12 in 2016, while the number of water rights has increased in all basins around Oregon. Multiple dry years have intensified competition for water resources. Some of our watermasters are unable to timely meet all the needs required of them: water right and transfer/lease application reviews, streamflow measurements, gaging station operation and maintenance, observation well measurements, water use measurement, permit compliance checks, complaint response, water right research, well research, and timely regulation and distribution of water for senior water right holders.

The Department currently has five regional hydrographic technicians (Hydrotechs) at the NRS 1 classification. The Northwest Region does not have a hydrotech; this position was eliminated during the economic downturn. The Hydrotechs primarily measure stream discharge, monitor instream water rights, and operate and maintain (O & M) approximately 250 surface water gaging stations installed on streams and rivers across Oregon. Data collected by hydrologic technicians is used to distribute and manage water on a daily basis to protect instream and out-of-stream water rights, forecast floods, plan for recreational activities, determine water availability, and plan for water needs in the future. Hydrotechs also measure groundwater levels in state observation wells. Stream discharge (flow) data are used by multiple agencies and other entities for making daily water management decisions, protecting and monitoring instream flows, flood forecasting, infrastructure design such as bridges and culverts, recreational activity planning (rafting and fishing), water availability analyses for new uses and storage projects, and tracking long-term trends resulting from droughts and climate change. Complexity of gaging station O & M has increased over the years; ink pens and paper charts have been replaced with sophisticated pressure transducers, acoustic Doppler, or bubbler systems linked to data loggers and satellite telemetry. A recent duty analysis for the Hydrotechs indicates they are functioning at the NRS 2 level.

Historically, there has been one hydrotech for each region in the State. The hydrotech position in the Northwest Region, responsible for maintaining 26 gaging stations, measuring streamflow and providing quality data assurance, was eliminated during a previous budget reduction. In the meantime, the duties have been shared (as staff have time) by Watermasters, Assistant Watermasters, and Hydrographics Section staff out of the Salem office. While this has been a temporary solution, it is not sustainable and the Northwest Region has suffered in its quality control and continuity of data collection (data loss), and the hydrographics section has fallen behind in processing surface water data. Surface water gaging stations are routinely serviced every 4-6 weeks, except in the Northwest Region where some stations may go 15 to 20 weeks before staff can get there. This has resulted in a loss of data that cannot be retrieved and a degradation of overall station value to services such as flood forecasting and water management. Overall workloads in the Region have been impacted as a result of this position reduction.

Both assistant watermasters and hydrotechs contribute directly to achieving the goals of the state's 2012 Integrated Water Resources Strategy, specifically, by helping the Department improve our understanding of Oregon's water resources and by directly meeting the state's long-term water needs, both instream and out-of-stream. The state's Strategy recognizes the need to increase and maintain a strong field presence by increasing the number of personnel to carry out the agency's core functions. These individuals are also on the front lines of public education and they have a breadth and depth of policy, technical, and legal knowledge in their disciplines. As water management becomes more complex, it is necessary to have experienced and well-staffed field offices.

Below are five watermaster offices in need of additional assistance. Actual location of assistant watermaster positions will require further discussion.

East Region – Vale office (District 9, Malheur County) - Second largest district covering 9,600 square miles. One way travel time to southern area of the district is three hours. Delays in timely regulation during 2015 were as much as 4 to 5

days. Watermaster averages 1,950 vehicle miles per month, with monthly overtime between 25 and 70 hours when regulating and distributing water. Stats: 4,307 diversions; 3,336 water rights. Watermaster is the only staff in this office.

South Central Region – Lakeview office (District 12, Lake County) - Large district of 7,970 square miles; one way travel time to regulate can exceed 2 hours. Stats: 4,151 diversions, 2,894 water rights. Distant from other watermaster and region offices means little regional assistance available; watermaster maintains 20 gaging stations and 35 observation wells, and conducts well inspections (no regional well inspector since 2010). New federal legislation created new streamflow mitigation water on the Crooked River; current region assistant watermaster in Bend will no longer be able to assist with work in Lake County. The watermaster is currently the only staff person in the Lakeview office.

Northwest Region – Eugene office (District 2, Lane, Linn, part of Benton Counties) - Large district of 6,400 square miles. Stats: 9,842 diversions (3rd highest in the state); 7,241 water rights (2nd highest in the state) = Large number of diversions and annual regulatory actions. District 2 typically has the highest number of water supply wells drilled every year. Lane County is one of the top counties for marijuana producer license applications. Office is centrally located within the Region; an assistant watermaster located in Eugene could help cover the southern portion of District 1 (along the coast) and northern Douglas County (District 15). The Eugene office currently has only one staff, the watermaster.

North Central Region – The Dalles office (District 3, Wasco County) - District size of 2,300 square miles; furthest from region office in Pendleton. Lost ½ time county funded office assistant in 2013 = increased workload and office closed to public when in field (80% of time during irrigation season, 30% of time in winter). Stats: 2,961 diversions, 2,301 water rights. Significant regulation (1,892 regulatory actions in 2015) from mid-June through October; little time for stream flow measurements, dam safety inspections, and complaint investigations. Increase in gaging station maintenance and stream flow measurements mostly related to channel losses and fisheries in Fifteenmile Creek. Currently operating 12 gaging stations. Increase in groundwater level monitoring due to declines in Fifteenmile/ Eightmile basins. Currently measuring roughly 80 wells on a quarterly basis. Assistant watermaster would be trained to collect groundwater level data, locate wells, and measure groundwater use data.

Southwest Region – Grants Pass office (District 14, Josephine County) - Small district of 1,640 square miles. Grants Pass office is centrally located; an assistant watermaster could efficiently to help cover the District 19 (South Coast) and District 15 (southern Douglas County). Stats: 4,431 diversions, 3,774 water rights. Josephine and Jackson County are some of the top counties for marijuana producer license applications (about 7,900 registered grow sites in the region). Significant new activity resulting from marijuana industry and active housing market, leading to inquiries regarding wells, water rights, and ponds. Office currently has only one staff, the watermaster.

Solution: Five new assistant watermasters would provide immediate help in each of the watermaster districts, and as training and skills progress, eventually throughout the region. Each assistant will begin taking on duties and responsibilities that are today solely carried out by the watermaster, due to lack of staffing. The extra time available to the watermaster will allow them to timely conduct water right, transfer, and lease application reviews, streamflow measurements, gaging station operation and maintenance, observation well measurements, water use measurement, permit compliance checks, complaint response, water right research, well research, and most importantly, timely regulation and distribution of water for senior rights.

This package proposes re-classing the five Hydrotechs from NRS 1 to NRS 2 to align the positions with the required duties, and adding one new NRS 2 hydrotech to the Northwest Region. Re-class of the five regional Hydrotechs will align the complex and technical position with the required duties; the alternative for the Department is to remove duties and responsibilities from the staff such that they are only conducting NRS 1 level duties. Given the demand and efficiencies gained to date, this is not a realistic solution. Re-establishing the hydrologic technician will return continuity and quality control to the gaging station program and result in regular surface water measurements in the Northwest Region. Adding one NRS 2 hydrotech for the Northwest Region replaces a position lost several years ago, resulting in timely O & M of the Willamette and Northcoast basin gaging stations, helping reduce demand on watermaster time in this region.

Outcomes: Results of this budget package will be quantified in several ways. First, improvements in KPMs #2 (Protection of Instream Water Rights), KPM #3 (Monitor Compliance), KPM #4 (Streamflow Gaging), KPM #8 (Number of Significant Diversions with Measurement Devices Installed), and KPM #12 (Promote Efficiency in Field Staff

Regulatory Activities) is expected. Second, improvement in hydrographics data collection and submittal to the Department's central database are expected, making streamflow data available to staff and stakeholders more rapidly. Third, all three items in this package (5 assistant watermasters, one new hydrotech, re-class five Hydrotechs) directly contribute to implementation of Oregon's 2012 Integrated Water Resources Strategy. This proposal is consistent with recommended actions including: improving water resources data collection (action item #1b); and funding water resources management at the State Level (#13B).

Resources:

- Reclass of 5 NRS 1s to NRS 2s done within existing resources.
- Add 1 Natural Resources Specialist 2 Hydrotech - \$195,000 General Fund
- Add 5 Assistant Watermasters - \$1.1 million General Fund

Draft Package J

Name: Water Right Special Projects and Klamath Transactions

Problem: It is important to the Department to provide timely service to customers. Staff have undertaken a number of process improvement exercises in recent years to increase efficiencies. Despite this, there are still backlogs related to permit extensions and certificates. Furthermore, the Department and stakeholders would like the Department to proactively notify water right holders of the need to submit a claim of beneficial use, or request an extension of time to complete development. In addition, given the rapidly changing nature of the water-related agreements in the Klamath basin, the Department needs to be prepared to timely address water right transactions that may result from negotiations in that region. Previous proposals have included leasing and transferring water rights.

Solution: The Department anticipates the Water Rights Special Projects coordinator will take on work to address Klamath-related water leases and transfers, while also assisting with other special projects to reduce backlogs associated with the Department's core functions. This package proposes to add one additional FTE to help with water right backlog activities and enhance service to customers. This position will be tasked with reviewing claims of beneficial use and issuing certificates, as well as responding to unanticipated water right related processing needs, including needs arising in the Klamath Basin. This person will be trained in several areas of water rights including the processing of instream transfer and lease applications, reviewing claims of beneficial use, and issuing certificates.

Outcomes: This position will work on a combination of COBUs and Transfers from other areas of the state. The Department would expect that approximately 100 actions (COBUs, Transfers or Leases) would be processed per year if this position were available. As necessary, this position will also work on any Klamath Basin instream transfers and leases and any Claims of Beneficial Use that are pending in the Klamath Basin.

Resources:

- Extend Water Rights Special Projects Coordinator - Natural Resource Specialist 3 – Limited Duration – \$210,000 General Fund

Draft Package K

Name: Web Information Coordinator to Increase Public Awareness and Information Sharing

Problem: The Department of State Lands (DSL) and Water Resources Department both have a need for greater communication with the public through online platforms including each agency's traditional website, as well as social media. The Water Resources Department's website is frequently out of date, because we do not have staff dedicated to developing content for the site or ensuring that it is updated. As a result, we do not have the resources or capability to ensure proactive information flow that would greatly benefit the public. This hampers our ability to be transparent, accountable, and focused on strategic initiatives because we are spending resources to answer questions and responding to concerns, rather than providing information in advance in a forum convenient and comfortable to our customers. Given

the difficulty in ensuring that our own website is up to date, the Department has not branched out into other forums such as social media.

Solution: The Water Resources Department will request a full position with ½ funding from General Fund and ½ from a OF revenue, which would be paid by Department of State Lands. Neither Department needs a full time position for this activity so this would be a shared service between the two agencies. Water Resources would request General Fund for the position; State Lands would use Common School Fund.

Outcomes: The goal would be to increase the information and timeliness of information posted to our website that is relevant to the interests of the public and customers, as well as initiate and develop the Department's social media presence, which today is nonexistent. This ties to the broad objectives of the Integrated Water Resources Strategy to help Oregonians understand their water resources and the challenges that affects our needs and supplies. In addition, this ties to KPM #7, to equip citizens with information.

Resources:

- Add Public Affairs Specialist 2 - \$230,000 (\$115,000 Other Funds from DSL and \$115,000 General Funds)

OWRD Program Prioritization 2017-2019 Biennium

Priority	Program Unit/Activity Description
1	Water Distribution – Field investigations, surveys, distribution of water according to rights of record, and protection of senior water rights, both instream and out-of-stream. Staff = watermasters, region managers, and other field staff.
2	Water Right Transfers – Processing requests for changes (i.e., leases, allocations of conserved water or transfers). Transfers can include a change in place of use, type of use, or point of diversion. Staff = transfer staff, field water right techs
3	Hydrologic Data Development and Analysis – Measuring the physical water resources of the state, including streamflow (surface water), water levels in wells (groundwater), and reservoir elevations (storage). Analysis includes development of groundwater studies, groundwater-surface water interaction, surface water analysis, and water availability models. Staff = hydrographers, hydrotechs, hydrologists, and hydrogeologists
4	Public Safety in Water-Related Infrastructure – Dam safety and well construction programs, start card program, development of well construction standards, well driller licensing, general enforcement. Well protections include prevention of waste, contamination, and loss of artesian pressure. Staff = dam safety inspectors, well inspectors, and enforcement staff
5	Water Resource Conservation and Development –Programs to assist individuals and communities address instream and out-of-stream needs now and into the future, including water quantity, water quality and ecosystem needs through technical and financial assistance. Includes water conservation and efficiency, built storage, water re-use, and grant and loan programs for such water development projects. Staff = Allocation of Conserved Water, WMCP, Oregon Plan for Salmon and Watershed (Oregon Plan), and Water Resources Development Program Grant and Loan, place-based planning, and engineering and project technical assistance staff.
6	Water Right Permitting – Water right records and research, processing of new water right applications, permit extensions, certificates, and limited licenses. Both regular and expedited processes are available. Staff = permit & certificate writers, and protest coordinators.
7	Director's Office – Policy and legal oversight, public records requests, public information / media, tribal and intergovernmental relations, staffing the Water Resources Commission, coordinating with the Oregon Legislature, rule-making, public hearings, special projects.
8	IWRS – Integrated Water Resources Strategy implementation and updates.
9	Water-Use Reporting – Reporting water diverted and used. Public entities and those with permit conditions are subject to public reporting requirements. Staff = water use reporting specialist.
10	Adjudication – Confirming water right claims, with the goal of legally protecting these rights in the field.
11	Hydroelectric Program – Coordinating agency for project re-authorization and FERC licensing, review of non-FERC applications.
NR	Fiscal – Accounting, Budgeting, Human Resources, Support Services, Contracts, Facilities, front counter assistance. Includes fixed S&S costs.
NR	Information Systems – System administration (information technology, application developers, webmaster, risk management and firewalls, and business continuity), including water right information management and Geographic Information Systems (GIS) mapping.
NR	Debt Service