



Oregon's Integrated Water Resources Strategy

Recommended Action 1.C Mapping Oregon's Water Related Institutions

Version 1: January 2015

About this Document

The state's 2012 Integrated Water Resources Strategy recognizes that Oregon can do better when it comes to integrating agency functions related to water. Agencies can start by "mapping" the major water-related institutions and documenting their involvement in water resources management and protection at the local, state, federal, and tribal levels. The next step would be to describe their areas of responsibility, relevant programs, available data, and areas of interaction. Doing so will strengthen the public's understanding of inter-agency linkages. It will also help to identify areas where agencies can improve coordination in data collection, field work, and decision-making.

The following document is the initial start to gathering information on the various roles and responsibilities of agencies in Oregon that play some type of role in water resources management and protection. Much of this information was gathered through publicly available resources, with further input and suggested revisions from state and federal agency partners. The following tables provide information on available data, funding opportunities, licenses and permits, relevant plans or guidance, technical assistance or educational programs, and the general roles or responsibilities of a given agency.

Considering the evolving nature of water programs at both the state and national level, it is very likely that the descriptions and links detailed below will become dated or broken. This document will be updated periodically and likely expanded to include descriptions of those working on water issues outside of state and federal government, such as local partners (e.g., cities, counties, districts, water providers, non-profits) and tribal partners working on water resources issues in Oregon. Please send any correction or suggestions to waterstrategy@wrd.state.or.us.

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List of State and Federal Acronyms

BIA	Bureau of Indian Affairs
BLM	U.S. Bureau of Land Management
BOR	U.S. Bureau of Reclamation
BPA	U.S. Bonneville Power Administration
CDC	U.S. Centers for Disease Control and Prevention
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
CTWSR	Confederated Tribes of the Warm Springs Reservation
DOI	Department of the Interior
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
HUD	U.S. Department of Housing and Urban Development
IHMT	Oregon's Interagency Hazard Mitigation Team
IHS	Indian Health Service (under the U.S. Dept. of Health and Human Services)
NFWF	National Fish and Wildlife Federation
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NWPCC	Northwest Power and Conservation Council
ODA	Oregon Dept. of Agriculture
ODAS	Oregon Dept. of Administrative Services
ODCBS	Oregon Dept. of Consumer and Business Services
ODE	Oregon Dept. of Education
ODEQ	Oregon Dept. of Environmental Quality
ODF	Oregon Dept. of Forestry
ODFW	Oregon Dept. of Fish & Wildlife
ODLCD	Oregon Dept. of Land Conservation & Development
ODOE	Oregon Dept. of Energy
ODOGAMI	Oregon Dept. of Geology and Mineral Industries
ODOT	Oregon Dept. of Transportation
ODSL	Oregon Dept. of State Lands
OEM	Office of Emergency Management
OIFA	Oregon Infrastructure Finance Authority
OHA	Oregon Health Authority
OSMB	Oregon State Marine Board
OPUC	Oregon Public Utilities Commission
OPRD	Oregon Parks and Recreation Department
OSHA	Oregon Occupational Safety and Health Division of DCBS
OSP	Oregon State Police
OSU	Oregon State University
OSWB	Oregon State Weed Board (under ODA)
OWEB	Oregon Watershed Enhancement Board
OWRD	Oregon Water Resources Department
PNRS	Pacific Northwest Research Station
PSMFC	Pacific States Marine Fisheries Council
RC&D	Resource Conservation and Development Districts
SWCD	Soil and Water Conservation District
UO	University of Oregon
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture (Excludes NRCS)
USDOC	U.S. Department of Commerce
USDEA	U.S. Drug Enforcement Administration
USDOE	U.S. Department of Energy
USEDA	U.S. Economic Development Administration
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

KEY OF PROGRAM "TYPES"

D	= Data or Database
F	= Funding Opportunity (Loans or Grants)
L	= Professional Licenses or Certifications
P	= Permitting Function
PL	= Plans and Planning Guidelines
TA	= Technical Assistance
E	= Education/Outreach
R	= Role or Responsibility (primary)

LIST OF PROGRAM ABBREVIATIONS

ASR	Aquifer Storage and Recovery
AR	Aquifer Recharge
BMP	Best Management Practice
CAFO	Confined Animal Feeding Operation
CWA	Clean Water Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
GWMA	Groundwater Management Area (DEQ Designation)
NPDES	National Pollutant Discharge Elimination System
NRWA	National Rural Water Association
SWCD	Soil and Water Conservation District
TMDL	Total Maximum Daily Load
UIC	Underground Injection Control
WPCF	Water Pollution Control Facility

Water Quantity and Allocation

Table 1: Water Allocation, Water Rights, and Water Use		
State Water Rights Allocation		
Agency	Program	Type
OWRD	Allocates surface and groundwater use for instream and out-of-stream uses. Evaluates new permit applications for new uses and changes to existing rights (transfers and leases).	P
	Water Resources Commission may prescribe preferences for particular future uses over other uses and withdraw streams from further appropriation. http://www.oregon.gov/owrd/Pages/commis/index.aspx	R PL
	Water Rights Information System (WRIS). Database containing applications, permits, certificates, limited licenses, hydroelectric licenses, final orders, and special orders. http://www.oregon.gov/owrd/pages/WR/wris.aspx	D
	Water Availability Reporting System (WARS) Database. Estimates surface water availability for future uses of water. http://www.oregon.gov/owrd/Pages/sw/index.aspx#Surface_Water_Availability	D
ODEQ OPRD ODFW	Advise in water allocation decisions to protect water quality, fish, and scenic and recreation needs when approving water right applications.	R TA
Local Gov.	Land Use Compatibility Statement - Certifies water use is compatible with Comprehensive Land Use Plan for new or modified water rights. http://www.oregon.gov/owrd/pubs/docs/forms/land_use_form_3_01_10.pdf	P
ODFW	Requires new water use permits to meet fish passage and screening requirements. http://www.dfw.state.or.us/fish/passagel/index.asp http://www.dfw.state.or.us/fish/screening/index.asp	R
Regulation of Water Rights and Use		
OWRD	Regulation of Water Rights- Regulates surface and groundwater use. Distributes water; guards against waste, contamination, and loss of artesian pressure; and inspects dams and wells for public safety and health issues. http://www.oregon.gov/owrd/Pages/about_us.aspx	R
Adjudications		
OWRD	Administer the receipt of claims and contests, conduct contested cases, prepare findings of fact and order of determination of rights. http://www.oregon.gov/owrd/Pages/adj/index.aspx	R
Circuit Court	Resolve exceptions and issue water right decree.	R
Federal and Indian Water Rights		
BIA	Water Rights Negotiation/Litigation Program – Assists tribes in obtaining decreed water rights through water rights settlements or adjudication. http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/Water/index.htm	R
USFS, NPS, BLM, USFWS	Asserts federal reserved water rights claims for federal lands. Performs studies as necessary to determine rights.	R
Tribal Gov.	Administer, allocate, and regulate water use within reservation.	R

Water Use Information		
OWRD	Water Use Measurement and Reporting - Requires governmental entities, such as irrigation districts and public water providers, to measure water use monthly and report annually to the Department. Water use data has been collected since the late 1980s. The Department's Gaging Network also operates stations on several ditches and canals, another source of water use data for irrigation districts, ditch companies, etc. http://www.oregon.gov/owrd/pages/wr/water_use_report.aspx	D TA
	Water Management and Conservation Planning Program – Plans are prepared by municipal water providers or irrigation districts and reviewed and approved by the Department. http://www.oregon.gov/owrd/Pages/mgmt.aspx#Water_Consevation	PL TA
	Strategic Measurement Plan – Focuses on diversions that have the greatest impact on streamflows in areas with the greatest needs for fish. OWRD has developed a statewide inventory of significant diversions within high priority watersheds across the state and is working to increase measurement at these diversions. http://www.oregon.gov/owrd/pages/mgmt_measure.aspx	PL
USGS	Water Use Program – Responsible for compiling and disseminating the nation's water-use data. The USGS works in cooperation with local, state, and federal environmental agencies to collect water-use information. USGS compiles these data to produce water-use information aggregated at the county, state, and national levels. Every five years, data at the county level are compiled into a national water-use data system and state-level data are published in a national circular. http://water.usgs.gov/watuse/	D
BOR	Collects water use data from entities receiving contract irrigation water.	D

Table 2: Well and Groundwater Supply Data		
Groundwater - Monitoring and Assessments		
Agency	Program	Type
OWRD	Water Level Data and Hydrographs – Includes wells in the state observation well net (generally measured quarterly by regional or district office staff) and other observation wells that were established for various groundwater projects http://www.oregon.gov/owrd/pages/gw/well_data.aspx .	D
	Well Log Database - public access to well log records. http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx	D
	Well Inspection Program - A percentage of new wells are inspected by Department staff and GPS locations are created and entered into a database. Inspections also include water level measurements in many cases. http://www.oregon.gov/owrd/Pages/gw/wcc_index.aspx	D
	Exempt Use Well Recording Program – Owners of new exempt use wells must provide the Department with a map that shows where on the property the well is located. The map is submitted either electronically or on paper. If submitted on paper, it is entered into a database by Department staff. http://www.oregon.gov/owrd/pages/exempt_use_788_info.aspx	D
USGS	Groundwater Resources Program – Provides the scientific information to identify, assess, and quantify the availability of groundwater resources. Information on groundwater levels, aquifers, water use, and water quality. http://water.usgs.gov/ogw/gwrp/	D
	Regional Groundwater Studies – Multidisciplinary studies of regional groundwater availability across the United States to provide resource managers and policy makers with essential information needed for management of a limited resource in areas experiencing chronic water-supply issues and concerns. http://water.usgs.gov/ogw/gwrp/activities/regional.html	D
DOGAMI	Develops descriptions of the geologic resources, materials, landforms, processes, and hazards. The geology of the Oregon's watershed basins provides data for modeling the quantity and availability of groundwater in three dimensions. http://www.oregongeology.org/sub/publications/GMS/gms-map.htm	D
OHA (DWP)	Collects data pertaining to groundwater under direct influence of surface water assessments. Maintains databases on public well and spring construction, location, aquifer characteristics, and aquifer sensitivity.	D

Table 3: Surface Water Quantity Data

Agency	Program	Type
Many	<p><u>Streamflow and Reservoir Gaging Data:</u> OWRD: Operates more than 200 stream and reservoir gages in Oregon. http://www.oregon.gov/owrd/Pages/sw/index.aspx#Surface_Water_Data USGS: Operates 230 gaging stations in Oregon, as part of the National Streamflow Estimation Program http://waterdata.usgs.gov/or/nwis/sw</p> <p>NWS: Northwest River Forecast Center (NOAA): is one of 13 National Weather Service hydrologic centers in the United States. This office specializes in flood and water resource forecasting, river modeling, and hydrologic system development. It works with water management agencies to provide the best possible operations of the Columbia reservoir systems. The center is very active in recreational and navigational hydrological forecasting. http://www.nwrfc.noaa.gov/rfc/</p> <p>BOR: Operate reservoir storage “teacup” diagrams in the Rogue, Tualatin, Umatilla, Crooked River and Deschutes River Basin, as well as eastern Oregon river basins (Owyhee, Malheur, Burnt, Powder). Data is a component of BOR’s Hydromet Program. http://www.usbr.gov/pn/hydromet/</p> <p>USFWS: operates gaging stations on streams (16) and canals (8) and observes staff gages on reservoirs (69), primarily for water use measurement purposes.</p>	D
BOR	<p>Water Year Reports – Forecasts of water supply runoff.</p> <p>Agrimet Database – Pacific Northwest Cooperative Agricultural Weather Network weather and precipitation data. http://www.usbr.gov/pn/agrimet/agrimetmap/agrimap.html</p>	D
USGS	<p>National Research Program – Conducts research to develop and disseminate science-based information and tools needed for a fundamental understanding of the processes that affect the availability, movement, and quality of the Nation’s water resources. http://water.usgs.gov/nrp/index.php</p> <p>Oregon Water Science Center – Provides water data including river conditions and forecasts, watches and warnings, high flows and floods and the U.S. water monitor. http://or.water.usgs.gov/</p> <p>WaterWatch – Displays maps, graphs, and tables describing real-time, recent, and past streamflow conditions including drought and flood conditions based on stream gage data. http://waterwatch.usgs.gov/</p> <p>StreamStats —Provides users with access to analytical tools. Includes streamflow statistics, drainage-basin characteristics, and other information on streams. http://water.usgs.gov/osw/streamstats/</p> <p>Benchmark Glaciers—Operates a long-term "benchmark" glacier program to monitor climate, glacier geometry, glacier mass balance, glacier motion, and stream runoff at three glacier basins, Gulkana and Wolverine in Alaska and South Cascade in Washington. http://www.usgs.gov/science/cite-view.php?cite=97</p>	D
USDA	<p>Agricultural Research Service (ARS) Water Database - Collection of precipitation and streamflow data from small agricultural watersheds in the United States. No sites in Oregon; two located in Eastern Idaho. http://ars.usda.gov/Main/docs.htm?docid=9696</p>	D
NRCS	<p>National Water and Climate Science Center – Provides Water Supply, Forecasts, Surface Water, and Climate Information. http://www.wcc.nrcs.usda.gov/</p> <p>Climate Monitoring information - SNOTEL Data showing snow water equivalent, snow depth, precipitation, temperature and other climatic elements. http://www.wcc.nrcs.usda.gov/gis/snow.html</p> <p>Soil Climate Analysis Network (SCAN) – collects soil moisture, soil temperature, precipitation, wind, and solar radiation data; only 1 site in Oregon. http://www.wcc.nrcs.usda.gov/scan/Oregon/oregon.html</p>	D

NWS	Forecasts weather, issues storm warnings, flood signals, gauges and reports on river conditions, reports temperature and rainfall conditions.	D
	National Operational Hydrologic Remote Sensing Center - Provides comprehensive snow observations, analyses, data sets and map products. http://www.nohrsc.noaa.gov/	D
	Northwest River Forecast Center – Performs river basin modeling and provides hydrologic forecast and guidance products for river stage and flow, probabilistic river forecasts, reservoir inflow forecasts, water supply forecasts, spring flood outlooks, and various types of flash flood guidance. http://www.nwrfc.noaa.gov/	D

Water and Energy

Table 4: Hydroelectric Power		
Hydroelectric Project Licensing		
Agency	Program	Type
FERC	Hydroelectric Project Licensing - Regulates and inspects nonfederal hydroelectric power projects (except conduit hydropower). http://www.ferc.gov/industries/hydropower.asp	P
USFWS NOAA	Consults with FERC on hydropower licensing under the Federal Power Act, Federal Wildlife Coordination Act and Endangered Species Act. Recommends protections for fisheries.	R
BIA	Develops license conditions to mitigate impacts on Indian reservations affected by private hydroelectric power operations.	R
ODFW	Hydro-Power Program Hydroelectric Application Review Team – Advises on protecting fish during re-licensing efforts. http://www.dfw.state.or.us/fish/water/index.asp	P
OWRD	Hydroelectric Power Water Rights – See Water Allocation. http://www.oregon.gov/OWRD/Pages/sw/hydro_info.aspx	P
	Hydroelectric Dams Database - Includes hydroelectric site owner, project name and location.	D
ODEQ	401 Certification of Hydroelectric Projects. DEQ issues 401 certifications for hydroelectric projects and the FERC administers the federal licensing process. The water quality certification typically includes operating conditions designed to ensure project operations will not violate water quality standards. DEQ coordinates the process with OWRD’s hydroelectric water rights program. See also Water Quality. http://www.deq.state.or.us/wq/sec401cert/hydro.htm	P
ODSL	Leases state-owned submerged or submersible lands within the 3-mile territorial sea for marine renewable energy projects. http://www.oregon.gov/dsl/LW/Pages/territorial_sea.aspx	R
	Removal fill permits are required for many energy related projects. See Removal Fill Guide (May 2013): http://www.oregon.gov/dsl/PERMITS/Pages/rfg.aspx	
ODLCD	Territorial Sea Plan (under the Coastal Zone Management Program) - Rules for development of marine renewable energy projects in the territorial sea. See Table 11. http://www.oregon.gov/LCD/OCMP/Pages/Ocean_TSP.aspx	PL
	Federal Consistency (Permit Review) – For projects located in the coastal zone. See Table 11. The federal Coastal Zone Management Act provides DLCD with a unique regulatory authority to review various federal actions in or affecting the state's coastal zone for consistency with the Coastal Management Program. http://www.oregon.gov/LCD/OCMP/Pages/FedCon_Intro.aspx	P
OPRD	Beach access for marine renewable energy projects; sets standards for visual impacts of projects.	R
Marketing of Electricity		
BPA	Electricity Marketing from the Columbia River Hydropower System. http://www.bpa.gov/Pages/home.aspx	R
Hydropower Development		
USACE	Builds, operates and maintains hydropower projects. Manage Willamette River, Rogue River and	R

	Columbia River systems for flood control, hydropower, and other contracted water needs.	
USFWS	Conducts environmental review of Federal and non-Federal hydropower licenses, to incorporate appropriate environmental protection and enhancement measures	R
NOAA	The Federal Power Act authorizes NOAA Fisheries Service to issue mandatory improvements for fish passage and to recommend other measures to protect salmon, steelhead, and other ESA-listed fish at hydropower projects. http://www.westcoast.fisheries.noaa.gov/fish_passage/ferc_licensing/index.html	R
BOR	Hydropower Program – Datasets that includes design elements, installed capacity, production capability, associated costs, and cost -to-benefit ratios for nearly 200 water storing and conveying structures currently maintained by the Bureau of Reclamation. Information based on development of two reports: Hydropower Resource Assessment at Existing Reclamation Facilities (mostly focuses on dams), Mar 2011 and its supplement - Site Inventory and Hydropower Energy Assessment of Reclamation owned Conduits Dec 2011 http://www.usbr.gov/power/	D
NWPCC	Provides analysis and information about electricity demands, new technologies and interactions between hydropower and fish. Required to encourage energy conservation and efficiency in the Northwest. Develops a regional power plan. Develops a fish and wildlife program to protect and rebuild populations affected by hydropower development in the Columbia River Basin. http://www.nwcouncil.org/energy/	R D PL
USDOE USACE BOR	Integrated Basin Scale Opportunity Assessment Initiative - Explore opportunities for collaboration across entire river basins in increase power generation and improve environmental conditions. http://basin.pnnl.gov/	D PL

Table 5: Water and Energy Savings

Energy and Water Savings Incentives

Agency	Program	Type
ODOE Energy Trust of Oregon	Both the Oregon Dept. of Energy and Energy Trust provide tax credits and loans for energy efficiency projects. The Department’s Program is available statewide, whereas Energy Trust offers incentives to customers of private utilities. http://www.oregon.gov/energy/BUSINESS/Incentives/Pages/EIP-Diagram.aspx#void http://energytrust.org/	F
BPA RC&D Utilities	Save Water, Save Energy Program - RC&D Energy Analysts work with agricultural producers and rural small businesses to identify energy improvement projects and funding. May partner with local utilities to deliver the program. http://www.savewatersaveenergy.org/	F
BOR	WaterSMART Program – This program implements the SECURE Water Act, a law that authorizes federal water and science agencies to work together with state and local water managers to plan for climate change and the other threats to our water supplies, and take action to secure our water resources for the communities, economies, and the ecosystems they support. BOR administers grants, scientific studies, technical assistance, and provides scientific expertise. http://www.usbr.gov/WaterSMART/	F TA

Energy Efficiency Capacity Building

ODCBS	Issues statewide code interpretations, site-specific code interpretations, and alternative method rulings to help ensure the consistent application of code statewide. Building Reach Code - Optional construction standards for energy and water conservation practices. http://www.oregonhba.com/userimages/BCD%20Reach%20Code%20handout.pdf Oregon Energy Efficiency Specialty Code – Reduces energy use in new commercial construction. http://www.cbs.state.or.us/bcd/programs/energy.html	R
USDOE	Develops water efficiency standards for plumbing fixtures under the Energy Policy Act.	R
EPA USDOE	Energy Star - Rates energy efficient products.	TA

	https://www.energystar.gov/	
Lane CC	Water Conservation Technician Training Program – Training program specializing in energy and water efficiency. http://www.lanecc.edu/sustainability/sustainable-practices-water	E TA

Table 6: Other Energy Programs		
Energy Development (excluding Hydropower)		
Agency	Program	Type
BLM	Reviews and approves permits and licenses to explore, develop, and produce oil, gas and geothermal resources on Federal and Tribal lands. Responsible for regulation, inspection and enforcement of oil, gas, and geothermal wells.	P
BLM, BIA	Oil, Gas and Geothermal Leases on Tribal Lands - BIA issues leases on tribal lands, BLM handles operational approvals and supervises operations.	P
ODOGAMI	Oil and Gas Extraction, and Geothermal Energy Permits - Issues permits and supervises drilling, production, maintenance, abandonment and reclamation of oil and gas wells. Coordinates application of water quality permits with DEQ (see water quality).	P
ODOE	Approves siting of energy facilities. Balances the use of water and need for energy.	P
ODOE USCG	LNG Shipments - Assesses waterway suitability for the transportation of LNG shipments. Evaluates the LNG Vessel Transit Management Plan so that foreign vessels follow federal and state protocols when entering LNG transit corridors in Oregon.	R
Energy Research		
USDOE OSU	Water Power Program - Supports the Northwest National Marine Renewable Energy Center – Involved in hydropower and ocean energy research.	D

Climate Change, Natural Disasters, Emergency Response

Table 7: Climate Change		
Climate Change Research		
Agency	Program	Type
OSU others	Oregon Climate Change Research Institute – Serves as a clearinghouse for climate information; and provides climate change information to the public in an easily understandable form. http://occri.net/	D
OSU Extension OCCRI, Others	Climate Impacts Research Consortium (CIRC) – Provides information and tools for making decisions about landscape and watershed management in a changing climate. http://pnwcirc.org/	D
DOI	Northwest Climate Science Center – Coordinates and provides scientific information and tools that resource managers can apply to adapt to climate change using ecologically-driven responses at regional-to-local scales. http://www.doi.gov/csc/northwest/index.cfm Partners with and uses science priorities identified by Landscape Conservation Cooperatives. http://www.doi.gov/csc/northwest/landscape-conservation-cooperatives.cfm	D
13 federal agencies	U.S. Global Change Research Program - Coordinates federal research on climate change and implications for society. Includes adaptation science, climate services, communication and education, research, modeling, national climate assessment, human health, and strategic planning. http://www.globalchange.gov/	D

USGS	Climate and Land Use Change Program – Performs scientific research, monitoring, remote sensing, modeling, synthesis, and forecasting to address the effects of climate and land use change. http://www.usgs.gov/climate_landuse/	D
	National Climate Change and Wildlife Science Center – Identifies fish, wildlife, ecosystem and habitat changes and vulnerability to climate change. Works with Landscape Conservation Cooperatives. https://nccwsc.usgs.gov/	D TA
NOAA	U.S. Climate Reference Network – Monitors national climate change, 114 stations that collect precipitation, temperature, solar radiation, surface skin temperature, surface winds, soil moisture, soil temperature at five depths, as well as atmospheric relative humidity for most stations. http://www.ncdc.noaa.gov/data-access/land-based-station-data/land-based-datasets/us-climate-reference-network-uscrn	D
BOR	Technical Service Center (Denver, CO) houses experts in climate change, and can provide climate change research and analysis. http://www.usbr.gov/pmts/tech_services/	D TA
Climate Adaptation		
ODLCD	Oregon Climate Change Adaptation Framework - A broad-scale assessment of risks to people, infrastructure, communities and natural resources expected from the effects of variable and changing climate conditions. Identifies actions needed in order for state agencies to be prepared to address the effects of future climate conditions. Provides recommendations for preparing for the impacts of climate change. An inter-agency effort led by DLCD involving: ODFW, ODA, ODOE, ODEQ, OWRD, ODOGAMI, ODF, OHA, ODSL. Summary: http://www.oregon.gov/LCD/docs/climatechange/framework_summary.pdf Full report: http://www.oregon.gov/energy/GBLWRM/docs/Framework_Final_DLCD.pdf	TA E
Various agencies	Oregon Global Warming Commission – Recommends ways to reduce greenhouse gas emissions. Suggests actions to prepare for the effects of global warming. http://www.keeporegoncool.org/	E
OHA	Climate Change Adaptation – Addresses public health and environmental concerns through health impact and hazard vulnerability assessment. Funding provided by the CDC. http://public.health.oregon.gov/HealthyEnvironments/climatechange	D
BOR	WaterSMART – <ul style="list-style-type: none"> ● The West-Wide Climate Risk Assessments - Assess impacts to water supplies and demands. ● Basin Studies - Partners with basin stakeholders to define adaptation options for meeting future water demands in river basins in the West. ● Landscape Conservation Cooperatives – Develop science at the landscape scale to bring together science and resource management and inform climate adaptation strategies partnering with all levels of government and NGOs. ● Grants to Develop Climate Analysis Tools - Financial assistance for universities, non-profits and other organizations 	D F TA PL
	Performing the Columbia River Basin Climate Impacts Assessment June 2013-2015.	D
Federal Agencies	Climate Change Adaptation Program –supports Federal agency climate adaptation planning. https://www.fedcenter.gov/programs/climate/	TA
USFWS	Climate Change - Monitors risks to fish populations, coastal systems, and aquatic habitat. Coordinates climate change planning, recovery, restoration, and management activities.	PL D
	Strategic Plan for Climate Change - Establishes a basic framework to help sustain fish, wildlife, plants and habitats in the face of climate change. Involves mitigation, adaptation and engagement actions. http://www.fws.gov/home/climatechange/strategy.html	PL
	Coordinates collaborative partnerships such as Landscape Conservation Cooperatives, regional Climate Science Centers, climate change vulnerability assessments, adaptation planning and educational efforts.	R
EPA	Climate Ready Water Utilities Program - Resource to help water providers develop and implement plans that account for climate change impacts. http://water.epa.gov/infrastructure/watersecurity/climate/	TA PL
	Climate Ready Estuaries Program – Works with the National Estuary Programs and the coastal management communities to assess climate change vulnerabilities, develop and implement adaptation strategies, and engage and educate stakeholders. http://water.epa.gov/type/oceb/cre/index.cfm	TA PL

	Climate Change Research Program – Identifies potential water quality and availability issues that could result from geologic sequestration of carbon, use of biofuels, and aquifer storage and recovery. http://www.epa.gov/research/climatescience/	D
	Water Resource Adaptation Program (WRAP) – Investigates the potential effects of climate change on watersheds and water infrastructure. Develops adaptation solutions. http://www.epa.gov/nrmrl/wswrd/wq/wrap/	D PL
	National Water Program 2012 Strategy (Response to Climate Change) – Identifies responses to potential impacts of climate change on water resources. The <i>2012 Strategy</i> is organized around five long-term programmatic vision areas: protecting water infrastructure; coastal and ocean waters; watersheds; and, water quality. http://water.epa.gov/scitech/climatechange/2012-National-Water-Program-Strategy.cfm	D PL
NOAA	Coastal Services Center Hazards and Climate Adaptation – Provides data, information, tools, training and technical assistance to communities for climate adaptation planning from conservation to coastal inundation. http://www.csc.noaa.gov/climate/	D TA PL
	Digital Coast Data Resources – The Digital Coast provides the data, information, and tools needed to conserve natural resources and make coastal communities more resilient. Geospatial datasets that may help with climate change planning. http://csc.noaa.gov/digitalcoast/	D
	Coastal Inundation Toolkit – Provides information and tools to help communities understand, identify, and assess coastal inundation risks including sea level rise. http://csc.noaa.gov/digitalcoast/applyit	D TA

Table 8: Drought and Flood Prevention and Response		
Drought Programs		
Agency	Program	Type
OWRD	Drought Mitigation Tools – Emergency water use permits, temporary transfers, special options agreements, substitutions, exchanges, and preferences for human consumption and livestock watering. http://www.oregon.gov/OWRD/Pages/wr/drought.aspx#Drought_Mitigation_Tools	P
NOAA, Federal Agencies	National Integrated Drought Information System (NIDIS) - Develops decision support tools to identify, prepare for, and mitigate the effects of drought. Foundation for the National Drought Early Warning System and the U.S. Drought Portal. Includes access to the North American Drought Monitor, Crop Moisture Index, Palmer Drought Severity Index, Soil Moisture, Precipitation and Surface water supply index, as well as remote sensing data, hydrologic, and fire data. http://www.drought.gov/drought/	D
Many Agencies	Drought Council - Responsible for assessing the impact of drought conditions and making recommendations to the Governor’s senior advisors. Strives to reduce or mitigate the effects of drought through a coordinated federal/state/local and voluntary effort. Develops pre-drought plans, policies, and procedures. OEM serves as chair. http://www.oregon.gov/OWRD/Pages/wr/drought.aspx	R
	Water Availability Committee of Oregon (WACO) – A sub-committee of the Drought Council; assesses water availability conditions during potential drought situations. The subcommittee meets monthly and reports to the Drought Council at each of their scheduled meetings. OWRD serves as chair. http://www.oregon.gov/owrd/pages/wr/drought_waco.aspx	R
	Drought Emergency Operating Plan Incident Annex - A number of local, state and federal agencies have outlined coordination efforts to respond to droughts. http://www.oregon.gov/owrd/WR/docs/eop_ia_1_drought_complete.pdf	PL
BOR	Authorized to take actions to meet water demand during droughts including construction of facilities and wells, water purchases and water transfers. Makes project water available to fish and wildlife.	R

Drought and Flood Programs		
USDA	Risk Management Agency - Provides risk management in response to drought and floods including Federal Crop Insurance. Provides tools and resources to agricultural producers for risk management solutions that support conservation practices to improve water resources. http://www.rma.usda.gov/aboutrma/fields/wa_rso/	F
FSA	Farm Service Agency – Administers a number of financial assistance programs during droughts, floods, and other weather conditions or natural disasters. <ul style="list-style-type: none"> ● Includes Noninsured Assistance Payments and Emergency Loan programs. ● Emergency Conservation Program/Emergency Forest Restoration Program – Provides funding and assistance to address damage to farmland or non-industrial private forest land. http://www.fsa.usda.gov/FSA/stateoffapp?mystate=or&area=home&subject=landing&topic=landing	F
BOR	Emergency Fund – Authorized to fund costs due to emergencies including flood and drought.	F
Flood Prevention and Response		
OWRD	Emergency Action Plans (EAP) – The Department’s dam safety staff review and approve EAPs as part of the storage application process and also review/approve EAPs for existing dams as a peer review to help ensure they work properly. http://www.oregon.gov/owrd/pages/sw/dams_in_oregon.aspx	PL TA
	See also land use and wetlands.	
FEMA	The National Flood Insurance Program – <ul style="list-style-type: none"> ● Flood Hazard Mapping and Flood Insurance – Requires local governments to adopt floodplain management ordinances in order to make flood insurance available. ● Community Rating System Program - Provides discounts on flood insurance to communities that adopt floodplain management regulations that meet or exceed the minimum National Flood Insurance Program requirements. ● Community Assistance Program - States are eligible for financial assistance to resolve floodplain management issues before a flood event. ● Flood Mitigation Assistance program - Provides funds to assist states and communities to reduce the risk of flood damage to structures in the National Flood Insurance Program. ● Repetitive Flood Claims Grant program ● National Flood Hazard Layer – Displays data of flood hazard zones, floodways, Coastal Barrier Resources System and Otherwise Protected Area units, community boundaries and names, base flood elevations, cross sections and coastal transects, hydraulic and flood control structures, and Flood Insurance Rate Map and Letter of Map Revision boundaries and numbers. ● Hazus software - Risk assessment methodology for analyzing hazard-related damage and potential losses from floods, hurricane, and earthquakes. http://www.fema.gov/national-flood-insurance-program	F F F D D
ODLCD	Natural Hazards Program – Serves as the state’s coordinating agency for the National Flood Insurance Program through an agreement with FEMA <ul style="list-style-type: none"> ● Distributes information on natural hazards and mitigation techniques. ● Reviews local land-use plan amendments to ensure consistency with state and federal natural hazards policies and regulations. ● Developed the Oregon Model Flood Damage Prevention Ordinance and Planning for Natural Hazards. http://www.oregon.gov/LCD/HAZ/Pages/index.aspx	D P TA E R PL
OEM	Flood Emergency Operating Plan Incident Annex – Coordinates state resources to help ensure the safety of life and property following a major flood event. Coordinating agencies include: OWRD, ODOGAMI, ODOT, ODCBS, OHA, Military Department, ODAS, ODEQ. http://www.oregon.gov/OMD/OEM/plans_train/docs/eop/eop_ia_3_flood.pdf	PL
USACE	Assists communities in developing responses to flood risks and hazards. Reduces flood risks with structural (e.g., dams and levees) and non-structural measures. Rehabilitation and Inspection Program inspects and repairs damage to levees and dams.	TA R
NRCS	Watershed and Flood Prevention Operations Program – Assists in relieving hazards to life and property from floods and erosion. Includes floodplain easements, streambank protection, debris removal, and sediment and erosion control. Provides technical assistance, and constructs improvements such as levees and water control structures. http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/wfpo/	TA

	Watershed Surveys and Planning Program - Assists federal, state, and local agencies and tribal governments to protect watersheds from damage caused by erosion, floodwater, and sediment. http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/wsp/	TA
USFS	Burned Area Emergency Response (BAER) Program –Addresses impacts from fire including: loss of vegetation and soil erosion, increased flooding, increased sediment damaging houses and filling reservoirs, and risks to endangered species and community water supplies. http://www.fs.fed.us/biology/watershed/burnareas/	R
OWRD	Peak Flow Estimation Program – Peak discharges are estimated at specified frequencies at most locations on most rural, unregulated streams in western Oregon. http://www.oregon.gov/owrd/pages/sw/peak_flow.aspx	D
NOAA (NWS)	The NWS issues Flood Watches, Debris Flow Alerts, Flood Warnings and Advisories, and Tsunami Alerts. http://www.wrh.noaa.gov/pqr/	D
	NWS Integrated Hydrologic Automated Basin Boundary System (IHABBS): GIS database to support river and flood forecasting. http://www.nohrsc.noaa.gov/gisdatasets/	D
	Inundation Analysis Tool: determines the frequency and duration of observed high waters. http://tidesandcurrents.noaa.gov/inundation/	D
USGS	Provides scientific information to minimize adverse impacts of natural disasters and hazards (e.g., wild fires, and floods) and manage natural resources. Issues alerts and warnings of geologic hazards and supports the warning responsibilities of the NOAA for geomagnetic storms and tsunamis. http://www.usgs.gov/natural_hazards/	D

Table 9: General Emergency Response

Agency	Program	Type
FEMA	Assists with responding to natural disasters and emergencies. Provides disaster survivor support and assistance. Aids in response and recovery. Advises on planning, preparation and mitigation. Programs include: <ul style="list-style-type: none"> ● Preparedness Technical Assistance Services, The National Response Framework, the National Training Program, National Incident Management System, and the Best Practices Portfolio ● Hazard Mitigation Grant Program - Provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. http://www.oregon.gov/OMD/OEM/Pages/fin_rec/Hazard-Mitigation-Grants.aspx ● Emergency Management Performance Grants - Provides direction, coordination, guidance, and assistance for a comprehensive emergency preparedness system. Oregon Emergency Management is the only entity eligible to apply to FEMA for EMPG Program funds on behalf of the State of Oregon and local emergency management agencies. http://www.oregon.gov/OMD/OEM/pages/plans_train/empg.aspx 	TA F TA
OEM	Mitigation and Recovery – Administers grant programs to local government. Manages disaster recovery activities for state and local governments. http://www.oregon.gov/omd/oem/pages/fin_rec/financial_recovery2.aspx	F
	Planning and Technical Assistance – Coordinates statewide hazard emergency planning and provides technical assistance among federal, state and local governments. Develops and maintains state emergency management plan. <ul style="list-style-type: none"> ● Continuity of Operations Plan - Establishes guidelines to ensure the execution of the essential functions of agencies in an emergency that disrupts operations. ● Emergency Operations Plan – Describes the roles and responsibilities of state agencies in addressing emergency response and recovery in a coordinated manner with local, tribal, and federal agencies. 	TA
OEM, State Agencies	Oregon Emergency Response System (OERS) - triggers alerts to state agencies for response to spills and discharges related to their respective authorities. http://www.oregon.gov/OMD/OEM/Pages/tech_resp/oers.aspx	D
State IHMT	Administers the <i>Oregon Natural Hazard Mitigation Plan</i> – The Oregon Natural Hazards Mitigation Plan (NHMP) identifies and prioritizes potential actions throughout Oregon that would reduce our vulnerability	PL

	to natural hazards. In addition, the plan satisfies the requirements of FEMA to ensure that Oregon is eligible to receive hazard mitigation and disaster assistance funds from the federal government. http://www.oregon.gov/OMD/OEM/IHMT/Pages/IHMT.aspx	
OHA OEM	Public Health Emergency Preparedness Program – Develops plans and procedures to prepare Oregon to respond, mitigate, and recover from public health emergencies. Carries out response activities in the Emergency Support Function 8 Plan. http://public.health.oregon.gov/Preparedness	TA
OIFA HUD	Community Development Block Grant Disaster Funds – Provided by HUD to OIFA to help cities, counties, and states recover from presidentially declared disasters.	F
ODOGA MI	Hazards Mapping – Publishes earthquake, tsunami, landslide, and coastal hazard maps. http://www.oregongeology.org/sub/earthquakes/earthquakehome.htm	D
Drinking Water Systems and Emergencies		
OHA ODEQ	Drinking Water emergencies – OHA assists local Health Departments, ODEQ, and public water systems in field investigations, public health assessment, and provides human health effects information to county health officials, local responders, state and federal agencies, and the Incident Commander.	TA
Water Utilities	Oregon Water/Wastewater Agency Response Network (ORWARN) - A statewide mutual aid agreement among member water and wastewater agencies that provides access to equipment and personnel in emergencies.	TA
OHA EPA	OHA requires all public water systems to have a written emergency response plan that includes a system vulnerability assessment. EPA requires community water systems with populations over 3,300 to submit their System Vulnerability Assessment.	PL R
CDC	Provides informational resources on planning and responding to emergencies that affect water supplies including information on storing drinking water, drinking water wells, hygiene, sanitation, septic systems, exposure to flood water, outbreak response resources, drinking water advisories, and waterborne disease resources.	TA
	See Water Quality for Emergency Response to Hazardous Spills	

Water and Land Use

Table 10: Land Use Planning		
Agency	Program	Type
ODLCD	Statewide Planning Program – Administers state land use planning program and provides technical planning assistance. Provides grants to local governments to update plans. Acknowledges local plans that comply with 19 statewide planning goals related to land use. Goal 5 required protection of significant water resources. Goal 6 required land use decisions consider water quality effects. Goal 11 requires urban drinking water and wastewater disposal facility plans. Department home page: http://www.oregon.gov/LCD/ Statewide planning goals: http://www.oregon.gov/LCD/Pages/goals.aspx	PL R TA F
LOCAL GOVT	Comprehensive Land Use Planning - Develop and implement land use plans to comply with statewide planning goals and other laws. Comprehensive plans include policies on sewer and water systems, transportation systems, recreational facilities, natural resources and water quality management programs. http://www.oregon.gov/lcd/pages/goals.aspx	PL R
	Public Facility Plans (Goal 11) - Describes the water, sewer and transportation facilities which are to support the land uses designated in the comprehensive plan. http://www.oregon.gov/lcd/docs/goals/goal11.pdf	PL
	Land Use Compatibility Statement – State actions must align with local comprehensive plans. Local governments complete a land use compatibility statement to approve state actions.	P
	Ordinance - Specify the standards to be used in developing sewers, streets, water lines, and other infrastructure, and establishes procedures for approving development actions. Also develops floodplain ordinances.	R P

	Floodplains - Regulates development in floodplains. Issues floodplain development permits. Requires elevation certificates construction within the 100 year floodplain.	P
	Coastal Shorelands Planning Area - Local governments are required to identify the location of areas subject to geologic and hydrologic hazards, and identify evacuation routes.	PL
Business Oregon LOCAL GOVT	Economic Development Departments are required to implement a Comprehensive Economic Development Strategy in order to apply for investment assistance under the Public Works or Economic Adjustment Assistance Programs. Regions perform an analysis of strengths and weaknesses, which may include water and wastewater infrastructure and resources.	PL TA
Land Use Planning Information		
ODF	GIS Data of land ownership/management for public entities: Federal, Tribal, State, and Local.	D
ODFW	Fish presence survey and fish counts. https://nrimp.dfw.state.or.us/nrimp/default.aspx?p=259	D
	Habitat Resources Program Fish and Wildlife Habitat Mitigation Policy – Requires state agencies to seek ODFW recommendations on how to protect and restore fish and wildlife habitat during development actions and in issuing permits including removal-and-fill actions, energy facility siting, mining, transportation and forest management issues. http://www.dfw.state.or.us/lands/habitat_resources.asp	TA
ODF	Fish Presence and Stream Size Data - Data is distributed by geographic regions.	D
USGS	Flood Inundation Mapping Program – Helps communities understand flood risks and make cost-effective mitigation decisions.	D
BOR	Flood inundation maps for BOR operated reservoirs.	D
FEMA	Develops floodplain maps. http://www.oregonriskmap.com/	D
ODOGAMI	Oregon Beach and Shoreline Mapping and Analysis Program – Maps tsunami inundation zones in coastal communities. Develops coastal erosion and hazard maps. http://www.oregongeology.org/sub/Nanoos1/index.htm	D
OHA DEQ	Source Water Assessment Maps - Identifies potential contaminant sources within public drinking water source areas. http://www.deq.state.or.us/wq/dwp/results.htm	D
Wetland Inventories		
ODSL	Maintains and develops the Statewide Wetlands Inventory. Provides maps to the public. Sets standards for development of Local Wetland Inventories. Provides technical information on wetland delineation and wetland assessment. http://www.oregon.gov/dsl/WETLAND/Pages/swwi.aspx	D
USFWS	Develops the National Wetlands Inventory.	D
Cities	Develop Local Wetlands Inventories in accordance with ODSL rules.	D
Mineral, Land Regulation and Reclamation		
ODOGAMI	Mineral, Land Regulation and Reclamation Program - Program with authority to regulate upland and underground mining by issuing an Operating Permit. http://www.oregongeology.org/mlrr/default.htm Coordinates water quality permits with ODEQ. Responsible for water quality implementation at aggregate mine sites. Inspection program. http://www.oregongeology.org/mlrr/waterquality.htm Created Best Management Practices Manual and the Annual Mined Lands Reclamation Awards Program. Statewide training and assistance for mine operators in mine site reclamation.	P

Table 11: Wetlands, Waterways, and Coastal Protection and Development

General Wetlands Programs		
Agency	Program	Type
ODSL	Implements State land use goal of no net loss of freshwater wetlands. http://www.oregon.gov/dsl/wetland/Pages/index.aspx	R
ODSL	Wetland Monitoring and Assessment Strategy for Oregon (March 2012) - Identifies wetland objectives and strategies for regulation, monitoring, assessment, water quality and voluntary restoration. http://www.oregon.gov/dsl/WETLAND/docs/oregon_monitoring_assessment_strategy.pdf	R

	Contributing agencies: ODEQ, ODFW, OWEB, ODLCD, OWRD, OPRD, South Slough National Estuarine Research Reserve, USFS, PNRS, NRCS, USACE, EPA	
ODSL	State Removal Fill Law – Issues permits to remove or fill material in wetlands and waterways which include all tidal and non-tidal bays, intermittent and perennial streams, lakes, wetlands and other bodies of water. http://www.oregon.gov/dsl/PERMITS/pages/index.aspx	P
EPA	Wetland Program Development Grants - Funds research relating to water pollution. Focuses on comprehensive monitoring and assessment programs; improving compensatory mitigation; and the protection of wetlands and aquatic resources. http://water.epa.gov/grants_funding/wetlands/grantguidelines/	F
ODLCD	Statewide Planning Goals 5 and 16 apply to significant wetlands and estuarine wetlands, respectively, through city and county land use plans. Goal 16 encourages net gain of estuarine wetlands. http://www.oregon.gov/LCD/Pages/goals.aspx	PL TA
Removal/Fill and Waterway Management		
EPA USACE USFWS NOAA ODEQ ODFW	Federal Removal Fill Approval - Clean Water Act Section 404 & River and Harbors Act Section 10 <ul style="list-style-type: none"> ● EPA develops and interprets wetlands policy, guidance and criteria for evaluating permit applications. May elevate or deny applications for fill. ● USACE administers the federal wetland permit program. ● USFWS and NOAA - Evaluates impacts on fish and wildlife for federally permitted projects ● ODEQ - 401 Water Quality Certification - Certifies that dredge and fill projects permitted by the USACE are consistent with water quality standards. ● ODFW also recommends conditions to mitigate for impacts to fish, wildlife, or their habitats based on the agency's Mitigation Policy. 	P
ODSL (lead) ODF ODA ODFW	State Removal-Fill Permit Administration. ODF regulates fill/removal on forest operations consistent with exception from (404 (f). ODA coordination required for construction/soil removal or fill in wetlands on agricultural lands. ODFW also recommends conditions to mitigate for impacts to fish, wildlife, or their habitats based on the agency's Mitigation Policy.	P
Cities and Counties	Cities and counties notify ODSL of applications for development activities that might impact a mapped wetland and require a removal-fill permit.	R
ODOT	Wetlands Program – Tracks data and ensures that wetland resources are accurately identified for transportation projects and measures are taken to minimize impacts. http://www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/pages/wetlands.aspx	D
ODSL	Land Management Section - Issues licenses or easement for uses of, and structures occupying, state-owned submerged and/or submersible land and tidally influenced waterways. Navigable for Title - Determines if a waterway is navigable for title (owned by the state of Oregon). http://www.oregon.gov/dsl/NAV/Pages/waterway_navigability_index.aspx	P
OPRD	Management of Scenic Waterways - Approves projects occurring near Scenic Waterways. Such activities include cutting of trees, mining, construction of roads, railroads, utilities, buildings, or other structures. Maintains database of scenic waterways. http://www.oregon.gov/oprd/RULES/pages/waterways.aspx	D P
ODFW	In-water Blasting Permit - Required for any use of explosives in removing obstructions in waterways, constructing dams, bridges or other structures. Includes conditions necessary to prevent injury to fish, wildlife, and habitat. http://www.dfw.state.or.us/lands/inwater/	P
	Timing of In-Water Work – Advises permitting agencies and establishes guidelines for planning in-water work during periods of time with least impact on important fish, wildlife, and habitat resources. http://www.dfw.state.or.us/lands/inwater/Oregon_Guidelines_for_Timing_of_%20InWater_Work2008.pdf	P
OPRD	Archaeological Review – Requires an archaeological review for in-water projects such as stream bank stabilization, bridges and culverts, and wetland fills. http://www.oregon.gov/oprd/HCD/ARCH/Pages/index.aspx	R

Coastal Area Management		
ODLCD	<p>Oregon Coastal Management Program - The OCMP is a federally funded program that coordinates management and planning activities that affect the use of coastal resources, lands, and waters. Distributes funds to local governments to manage planning for coastal land conservation and development. http://www.oregon.gov/LCD/OCMP</p> <p>Planning and technical assistance grants to meet program requirements and respond to special coastal resource management issues. Provides money for comprehensive plans and periodic reviews. http://www.oregon.gov/LCD/OCMP/Pages/Grant_Intro.aspx</p> <p>Comments on local and state permit reviews for projects proposed in Oregon's coastal zone.</p> <p>Federal Consistency Review, Coastal Zone Management Act – Requires that any federal actions (including federally-permitted or licensed projects) affecting coastal land or water uses must be consistent with the state’s federally-approved coastal management program. Applies to activities including, but not limited to: hydroelectric projects, stream bank stabilization, bridges and culverts, wetland fills & excavations, piling projects, wetland restoration, stream restoration, navigational maintenance dredging, dams and impoundments. http://www.oregon.gov/LCD/OCMP/Pages/FedCon_Intro.aspx</p>	PL TA R
NOAA	<p>Coastal Change Analysis Program – Developing a nationally standardized database on land cover and habitat change in the coastal regions. Analyzes satellite data to monitor change in wetland habitats and adjacent uplands on a 1 to 5 year cycle. http://www.csc.noaa.gov/digitalcoast/data/ccapregional</p>	D
ODSL	<p>Land Management Division – Manages the state owned tidal lands and the territorial sea between low tide and three nautical miles off-shore). Issue easements and licenses for use of these waters (docks and other structures). http://www.oregon.gov/dsl/lw/Pages/index.aspx</p> <p>Wetland and Waterway Conservation Division – Regulates removal and fill activities between lowest tide and three miles off-shore and below highest measured tide in tidal bays and estuaries. http://www.oregon.gov/dsl/PERMITS/pages/rfg.aspx</p>	P
OPRD	<p>Ocean-shore Recreation Area – Manages and protects public rights to access beaches. Requires Ocean Shore Alteration permit for the alteration, improvement or development on the ocean shore. Includes the construction of shoreline protective structures, beach access ways, dune grading and other sand alterations, the routing of pipelines and cables beneath the ocean shore, marine algae collection, and natural product removal. http://www.oregon.gov/oprd/RULES/pages/oceanshores.aspx</p>	P
ODOGAMI	<p>Responsible for issuing permits for offshore oil and gas drilling in state waters and for regulating any such drilling or seabed mining operations. http://www.oregongeology.org/sub/default.htm</p>	P

Table 12: Low Impact Development		
Agency	Program	Type
ODOT	<p>Water Resources Program - Assesses impacts of transportation projects on water quality and hydrology. Develops measures that help protect Oregon’s rivers, lakes and wetlands. http://www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/pages/water_resources.aspx</p>	R
EPA	<p>Strategic Agenda for Green Infrastructure - Outlines actions to encourage the implementation of green infrastructure. Includes community partnerships, clarifying regulation and enforcement of green infrastructure, outreach and information exchange, financing, tool development, and capacity building. http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm</p>	TA PL
<i>See also OSU’s Stormwater Solutions, Table 27</i>		

Water Related Infrastructure

Table 13: Infrastructure		
Water Development Infrastructure		
Agency	Program	Type
USACE USBOR NRCS	Develops water resources projects for multiple purposes.	R
USBOR BIA	Plan, develop, manage and operate water supply and irrigation projects for tribes.	R
USFWS	Environmental Review – Provides recommendations to protect fish and wildlife on USACE and BOR dealing with water development, floodway protection, and watershed restoration.	R
ODLCD	Statewide Planning Goal 11 speaks to the provision of public infrastructure within the urban growth boundaries of cities. Cities of a certain size are required to have system development plans for public water and sewer. http://www.oregon.gov/LCD/Pages/goals.aspx	PL R
Dam Infrastructure and Safety		
USBOR USACE	Builds, maintains, and operates dams.	R
NRCS	Designs and finances dams and infrastructure and provides technical assistance.	TA F
	Watershed and Flood Prevention Operations (WFPO) Program – Provides funding and technical assistance for flood damage prevention projects including dams and reservoirs. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/landscape/wfpo/?cid=nrcs143_008271	F
	Small Watershed Rehabilitation Program – Provides technical assistance to rehabilitate or remove aging dams. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/mo/programs/?cid=nrcs144p2_012516	F TA
OWRD ODA	OWRD Dam Safety Program – Approves dam designs. Performs dam inspections. May require emergency action plans. http://www.oregon.gov/owrd/pages/sw/dams_in_oregon.aspx OWRD Dam Safety Inventory – Data on dams that meet both National Performance of Dams and Oregon criteria. http://apps.wrd.state.or.us/apps/misc/dam_inventory/ ODA inspects all lagoon facilities located on permitted CAFOs. Joint OWRD/ODA review of new proposed storage facilities on CAFOs. http://www.oregon.gov/ODA/pages/pub_regs_livestock.aspx#Confined_Animal_Feeding_Operations_%28CAFOs%29	D
BOR	Safety of Dams Program – The Bureau of Reclamation oversees the operation of more than 70 dams in the Pacific Northwest. Addresses safety issues of Reclamation dams. Inspects and evaluates BOR and Department of Interior dams (e.g., NPS, USFS, BLM) for safety. http://www.usbr.gov/pn/about/dams/sod.html	R
USACE	Dam Safety Program – Inspects USACE dams. Provides technical assistance. Inventories non-federal dams. http://www.usace.army.mil/missions/civilworks/damsafetyprogram.aspx	D
FEMA	National Dam Safety Program – Provides grant assistance to the states for dam safety programs. Researches dam safety to develop technical manuals and guidelines. Provides Dam safety training for state staff and inspectors. http://www.fema.gov/about-national-dam-safety-program	F TA
FEMA and other federal agencies	National Dam Safety Review Board – advises FEMA’s Director in setting national dam safety priorities and considers the effects of national policy issues affecting dam safety. Interagency Committee on Dam Safety (IDODS) – Founded in 1980 to encourage the establishment and maintenance of effective Federal programs, policies, and guidelines to enhance dam safety and security. ICODS serves as the permanent forum for the coordination of Federal activities in dam safety and security. FEMA chairs ICODS. Coordinate federal dam safety actions of approximately 16 federal agencies http://www.fema.gov/national-dam-safety-review-board-and-icods	R
USGS	Provides scientific information including data on geologic hazards.	D

BOR	Hydromet database – Information on each BOR project such as project specifications, reservoir levels, as well as streamflows, water quality, temperature, annual precipitation, project land area and irrigated acreage. Includes projects in the Tualatin, Deschutes, Rogue, Umatilla, and Owyhee Basins. http://www.usbr.gov/pn/hydromet/select.html	D
Water and Monitoring Well Construction		
OWRD	Well Construction and Compliance - Ensures that water and monitoring wells are properly constructed, maintained and abandoned so as to prevent contamination, waste, and commingling of Oregon's groundwater resources. http://www.oregon.gov/owrd/pages/gw/wcc_index.aspx	R
	Well Constructor Licensing and Database- Licenses and maintains a list of licensed well constructors. http://apps.wrd.state.or.us/apps/gw/well_license/	L D
	Well Log and Construction Database - Online database providing details on well location, use, construction, geology, and well yield; includes digital image of well log. http://apps.wrd.state.or.us/apps/gw/well_log/	D
	Well Identification Program - Issues well identification labels to property owners that are in the process of selling their property. The identification number is a unique number that ties together any relevant data that is associated with the well. http://www.oregon.gov/owrd/pages/gw/well_id.aspx	D
	Exempt Use Well Recording Program – Owners of new exempt use wells must provide the Department with a map that shows where on the property the well is located. The map is submitted either electronically or on paper. If submitted on paper, it is entered into a database by Department staff. http://www.oregon.gov/owrd/pages/exempt_use_788_info.aspx	R D
OHA DWP	Well Construction and Compliance – Ensures that wells are properly constructed for public drinking water wells. Standards mirror OWRD’s requirements, but are more restrictive in terms of casing seal depth.	R
Navigation Infrastructure		
USACE	Maintains channels, jetties, harbors, and waterways for transportation and recreation. Operates locks on the Columbia River. http://www.nwp.usace.army.mil/Missions/Navigation.aspx	R
	Performs Hydrographic surveys and channel reports for navigation. http://www.nwp.usace.army.mil/Missions/Navigation/surveys.aspx	D
OIFA	Helps ports develop infrastructure and public facilities. Examples listed below. http://www.orinfrastructure.org/Learn-About-Infrastructure-Programs/Interested-in-a-Port-Project/	F
	Marine Navigation Improvement Fund - Provides matching funds for projects that have USACE funding and projects that directly support federal navigation improvement projects. http://www.orinfrastructure.org/Learn-About-Infrastructure-Programs/Interested-in-a-Port-Project/Marine-navigation-improvement-fund/	F
	Port Revolving Loan Fund – Provides loans for port construction and improvement of facilities and infrastructure. http://www.orinfrastructure.org/Learn-About-Infrastructure-Programs/Interested-in-a-Port-Project/Port-revolving-loan-fund/	F
	Port Planning & Marketing Fund – Funds planning to improve a port's trade and commerce capacity. http://www.orinfrastructure.org/Learn-About-Infrastructure-Programs/Interested-in-a-Port-Project/Port-planning-and-marketing-fund/	F
Other Infrastructure		
ODOT	Geo-Environmental Hydraulics Program - Develop and maintain the Hydraulics Manual. Engineers hydraulic design of highway bridges and culverts, bridge deck drainage, fish passage, large channel designs, streambank stabilization, stream restoration, coastal engineering, floodplain hydraulics and documentation such as “No-Rise” certifications, pump stations, control structures such as tide gates and weirs, temporary water management, structural scour and erosion protection designs, http://www.oregon.gov/ODOT/hwy/geoenvironmental/Pages/index.aspx	R
<i>See water quality and public health as well as floods for more infrastructure programs.</i>		
Drinking Water, Wastewater and Stormwater Infrastructure Planning		
EPA	Water Infrastructure – Provides information and technical support regarding infrastructure including: Drinking water, green infrastructure, septic systems, water security, wastewater	D TA
	Clean Watersheds Needs Survey - Assessment of the capital needs to meet the water quality goals set in the Clean Water Act. Includes publicly owned wastewater collection and treatment facilities, stormwater and combined sewer overflows control facilities, nonpoint source pollution control projects, decentralized	D

	wastewater management.	
DLCD	Public Facility Plans - Part of State Land Use planning Goal 11. Addresses drinking water, wastewater disposal and treatment, and stormwater management needs with a focus on costs and timing of infrastructure needs and coordination among providers. Cities or counties are required to develop and adopt a public facility plan for areas within an urban growth boundary containing a population greater than 2,500. DLCD reviews comprehensive plans and plan amendments.	R
OHA-DWP	Water System Master Plans - Oregon's Drinking Water Program requires public water systems with 300 or more service connections to develop these plans. Must include a description of the systems' existing state including deficiencies, water quality and service goals, estimate of projected growth, engineered evaluation of the system's ability to meet the goals, solutions to identified deficiencies, and a plan for financing needed improvements. https://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/PlanReview/Pages/index.aspx#requirements	R
OPUC	Water Section – Regulation of private or investor owned water utilities; ensures that utilities have safe and adequate service with reasonable rates. Reviews costs of service and approves rates. http://www.puc.state.or.us/Pages/water/indexII.aspx	R
ODOT	Engineers hydraulic design for stormwater quality designs, stormwater control facilities such as detention and retention, and storm drain system designs. http://www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/Pages/storm_management_program.aspx	R TA
OWRD	Water Management and Conservation Plans – Many public water providers are required to submit a Water Management and Conservation Plan (WMCP) to OWRD. The WMCP requires a description of their current water diversion/delivery system, current and future service areas, projected water demand analysis, as well as other criteria. See OAR 690-086 for more detail. http://www.oregon.gov/owrd/pages/mgmt_muni_wmcp.aspx	PL TA R
Drinking Water and Wastewater Infrastructure Financial Assistance Programs		
OIFA HUD EPA	Identifies and prioritizes resources for infrastructure needs, including safe drinking water and wastewater systems through Community Development Block Grants (from HUD), the Water Fund, and the Safe Drinking Water Revolving Loan Fund (from EPA). Special Public Works Funds – Provide funding for construction and/or improvement of infrastructure such as solid waste disposal sites; storm drainage systems; wastewater systems; and water systems needed to support industrial, manufacturing and certain types of commercial development. http://www.orinfrastructure.org/Learn-About-Infrastructure-Programs/Interested-in-a-Community-Development-Project/Special-Public-Works-Fund/ Community Development Block Grants - Available to cities and counties for community facilities, public works projects, and other projects where the proposed project will primarily benefit low- and moderate-income persons. Managed in conjunction with HUD. http://www.orinfrastructure.org/Learn-About-Infrastructure-Programs/Interested-in-a-Community-Development-Project/Community-Development-Block-Grant/	F
EPA OHA OIFA	US EPA makes funds available to the state for a low interest loan program designed to finance public drinking water system improvements needed to maintain compliance with the Safe Drinking Water Act. OHA manages the program and OIFA manages the loans. Safe Drinking Water Revolving Loan Fund – Funds projects for collection, treatment, and distribution projects. https://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/SRF/Pages/index.aspx Drinking Water Protection Loan Fund & Grants – Funds projects for the protection of drinking water sources. http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/SRF/Pages/spf.aspx	F
ODEQ EPA	Clean Water State Revolving Fund Program (from EPA) - Provides low-cost loans to public agencies for water quality infrastructure projects, including: municipal wastewater treatment projects, non-point source projects, watershed protection or restoration projects, and estuary management projects. EPA Grant Program also provides grant money for tribes; program administered by ODEQ. http://www.deq.state.or.us/wq/loans/loans.htm	F
USEDA	Public Works and Economic Assistance Programs - Provides grants to communities to expand and upgrade infrastructure to attract and retain businesses and promote economic development.	F

USDA	<p>USDA Rural Development provides loans, grants, and loan guarantees for drinking water, sanitary sewer, solid waste and storm drainage facilities in rural areas and cities and towns, including:</p> <ul style="list-style-type: none"> (a). Rural Development Water and Waste Disposal Direct Loans and Grants – Loan and grant program to develop water and waste disposal systems. A percentage of grants are available for technical assistance and training grants. (b). Rural Development Water and Waste Disposal Guaranteed Loans - Loan guarantees for the construction or improvement of water and waste disposal projects serving financially needy communities. (c). Rural Development Solid Waste Management Grant Program - Grants for technical assistance and training to reduce pollution of water resources and improve solid waste facilities. (d). Emergency Community Water Assistance Grants – Funding to assist rural communities that have had a significant decline in quantity or quality of drinking water. (e). Technical Assistance and Training Grants for Rural Waste Systems - Grants to non-profit organizations to provide technical assistance and training to associations for delivery of water and waste disposal service in rural areas. (f). Household Water Well System Grants Program - Provides grants to private non-profit organizations to establish lending programs for household water wells in rural areas. (g). Rural Water Circuit Rider Technical Assistance – Provides technical assistance for the operation of rural water systems. <p>http://www.rurdev.usda.gov/ORcp.html</p>	F
BOR	<p>Rural Water Supply Program – The Rural Water Supply Program is a program that Reclamation is developing pursuant to the Rural Water Supply Act of 2006, Public Law 109-451. The Act authorized Reclamation to establish a program to work with rural communities, including tribes, throughout the 17 western states to assess potable water supply needs and to identify options to address those needs through appraisal investigations and feasibility studies. http://www.usbr.gov/ruralwater/</p>	F

Water Management

Table 14: Water Management		
Built Storage		
Agency	Program	Type
OWRD	<p>Inventory of potential water storage sites – Developed an inventory in 2008, which includes mapped locations of potential above-ground storage sites with project data including capacity curves, reservoir inundation areas, and site maps, if available.</p> <p>http://www.oregon.gov/owrd/Pages/LAW/owsci_info.aspx#Potential_Water_Storage_Sites</p> <p>Above Ground Storage Project Site Search: http://apps.wrd.state.or.us/apps/planning/owsci/sw_project_search.aspx</p> <p>Below Ground Storage Site Search: http://apps.wrd.state.or.us/apps/planning/owsci/gw_project_search.aspx</p>	D
BOR USACE	<p>Conducts studies to assess potential for water supply and storage projects. Constructs water-related projects.</p>	R
<i>See also water allocation and infrastructure.</i>		

Below Ground: Aquifer Storage and Recovery and Artificial Recharge		
OWRD	Issues limited licenses, permits, and certificates for AR and ASR. Administers the statutes and rules governing AR and ASR projects. Conduct technical hydrogeologic review of applications, monitoring plans and testing results. Coordinates input from OHA and ODEQ, incorporate those comments and standards into the authorizations. Compile project data and conduct analyses to assess testing results. Evaluate requests to change the authorizations. Aquifer Storage and Recovery: http://www.oregon.gov/owrd/pages/mgmt_asr.aspx Aquifer Recharge: http://www.oregon.gov/owrd/pages/mgmt_gw_recharge.aspx	P
ODEQ	Projects must obtain underground injection control (UIC) registration. ODEQ reviews ASR and AR applications, monitoring plans and testing results. Provides conditions, comments, and technical reviews to OWRD regarding anti-degradation water quality standards and monitoring needs. (See also Underground Injection Control Program under Public Health.) http://www.deq.state.or.us/wq/groundwater/agencies.htm	P
OHA	Provides technical review of applications, monitoring plans, and testing results. Provides conditions and comments to OWRD that are protective of public health. Implements safe drinking water standards.	P
ODFW	Reviews applications seeking new appropriation of surface water for AR and ASR. Provides comments or conditions that are protective of fish and wildlife.	P
Water Reuse		
ODEQ	Graywater Permits – Prescribes methods, procedures, restrictions, treatment, and monitoring requirements for the beneficial use of reclaimed water. Regulates graywater reuse to protect water quality. Issues NPDES or WPCF permit. http://www.deq.state.or.us/wq/reuse/graywater.htm . Also see Water Quality.	P
OWRD	Reclaimed Water Use Registration – Requires registration of recycled water use. Requires Recycled Water Use Plan. For certain public water suppliers, Water Management and Conservation Plans need to include an evaluation of whether recycled water/water reuse is feasible for the water supplier to pursue (if not already in practice). http://www.oregon.gov/owrd/pages/mgmt_reclaimed.aspx	P
OHA	Reviews recycled water use plans as necessary to protect public health.	TA
ODCBS	Regulates non-potable use of graywater for toilet and urinal flushing under the state building code.	
	Created Statewide Alternative Methods to the building code for commercial industrial wastewater and rainwater harvesting.	R
	Oregon Smart Guides – Consumer guides on rainwater harvesting. http://www.cbs.state.or.us/bcd/pdf/3660.pdf	TA
BOR	Water Reclamation and Reuse Title XVI Program - Develops water reclamation and reuse projects. The Program is budgeted for by Reclamation's regional offices and includes funding for planning studies and the construction of water recycling projects, on a project specific basis, in partnership with local governmental entities. Includes groundwater recharge and recovery projects. http://www.usbr.gov/WaterSMART/title/	TA F
EPA	2012 Guidelines on Water Reuse – Includes types of reuse applications, technical issues, regulations and guidelines, legal and institutional issues, funding, and public involvement. The Guidelines include water reuse practices outside of the U.S., over 100 new case studies, information on planning for future water reuse systems, and information on indirect potable reuse and industrial reuse. http://water.epa.gov/infrastructure/sustain/availability_wp.cfm	TA
Water Right Transfers		
OWRD	Water Right Transfer Program – Approves changes to existing water rights, via transfers and leases. Also listed in Table I. http://www.oregon.gov/owrd/pages/mgmt_transfers.aspx	P R
ODFW	ODFW recommends mitigation for impacts to instream water rights http://www.dfw.state.or.us/fish/water/docs/Final_Guidance_for_transfer_Injury_ISWR%204-5-06.pdf	
Water Supply Development		
USACE	Planning Branch – Studies water resource development projects; may include navigational improvements, flood damage reduction, or ecosystem restoration.	PL TA

	http://www.nwp.usace.army.mil/Missions/Planning.aspx	
BOR	<p>Planning/Tech. Assistance Program – Assists in efforts to address water, land, and other natural resource management issues. Includes data collection and analysis related to water supply and water quality, engineering, hydrologic studies, sedimentation, and water resources planning.</p> <p>Link to BOR facilities in Oregon: http://www.usbr.gov/projects/FacilitiesByState.jsp?StateID=OR</p>	PL TA
	Advanced Water Treatment Pilot and Demonstration Grants - Encourage pilot and demonstration projects for water purification that address the technical, economic and environmental viability of treating and using brackish groundwater, seawater, impaired waters or creating new water supplies.	F
OWRD	<p>Basin Planning – Conducted studies and developed basin plans that include information on the quantity and quality of surface water and groundwater supplies; water use and control, and the potential for water resource development in the basin. Formed the basis of Basin Programs, a set of administrative rules governing the future use of water resources.</p> <p>http://arcweb.sos.state.or.us/pages/rules/oars_600/oar_690/690_500.html</p>	PL D R
	Water Development Loan Fund - Administers fund to offer low-interest loans for water-related projects that achieve the state’s long-term water management goals.	F
	http://www.oregon.gov/owrd/pages/mgmt_wdlp.aspx	
BIA	<p>Water Management, Planning, and Pre-Development Program – Helps tribes manage and protect water. Provides technical assistance and research: describing the quantity and quality of water through surface and ground water assessments, inventories, monitoring, modeling, and gaging. Helps in preparation of comprehensive Reservation water management and development plans, use surveys, interagency drought management planning, and necessary assessments to appropriately characterize tribal water resources</p> <p>http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/Water/index.htm</p>	TA PL
BOR BIA	Plan, develop, manage and operate water supply and irrigation projects for tribes.	R
Water Conservation		
OWRD	<p>Water Management and Conservation Planning (WMCPs) Program – Irrigation districts, cities, and other municipal water suppliers identify options to meet long-term needs. OWRD may require municipal water suppliers to prepare plans as conditions of their water use permits or extensions. Agricultural WMCPs are voluntary, although can be triggered as a requirement by the Bureau of Reclamation.</p> <p>The WMCP requires the water supplier to provide a quantification of their current unaccounted-for water, in other words, describe the efficiency of their water delivery system. Agricultural WMCPs must also assess the types of on-farm irrigation in their system, as well as an analysis of the consumptive water use of crops commonly grown within their district boundaries.</p> <p>Municipal water providers, under the WMCP process, may offer rebates for efficient appliances, shower heads, and leak detection kits to encourage conservation.</p> <p>Agricultural WMCPs: http://www.oregon.gov/owrd/pages/mgmt_ag_wmcp.aspx Municipal WMCPs: http://www.oregon.gov/owrd/pages/mgmt_muni_wmcp.aspx</p>	R TA PL
BOR	Water Conservation Field Services Program – Encourages water efficiency on Reclamation Projects. Requires Conservation Plans for Irrigation Districts served by BOR. Plans are reviewed and evaluated by OWRD staff. http://www.usbr.gov/waterconservation/	PL TA
ODCBS	<p>Building Codes – Issues statewide code interpretations, site-specific code interpretations, and alternative method rulings to help ensure the consistent application of code statewide. Issues a plumbing code and other codes which can affect water efficiency.</p> <p>http://www.cbs.state.or.us/bcd/programs/online_codes.html</p>	R TA
	Oregon Smart Guides - Guide for consumers on water conservation systems.	TA
	http://www.cbs.state.or.us/bcd/pdf/0990.pdf	
BOR	<p>WaterSMART Program</p> <ul style="list-style-type: none"> ● Offers grants to conserve and use water more efficiently, increase the use of renewable energy and improve energy efficiency, protect endangered and threatened species, facilitate water markets, address climate-related impacts, or prevent any water-related crisis or conflict. ● System Optimization Review is an analysis of system-wide efficiency that focuses on improving the effectiveness and operations of a delivery system, district, or watershed. 	F

OWRD	Feasibility Study Grants (SB1069) - Grants for water conservation, storage, and reuse project feasibility studies. http://www.oregon.gov/owrd/Pages/LAW/conservation_reuse_storage_grant_program.aspx	F
	Allocation of Conserved Water – See enhancing instream flow. http://www.oregon.gov/OWRD/Pages/mgmt_conserved_water.aspx	P
USDA	Economic Research Service – Researches water allocation, water conservation, water management issues and other challenges facing irrigated agriculture. http://www.ers.usda.gov/	D TA
EPA	WaterSense - Partners with manufacturers, retailers and distributors, and utilities to make it easy to purchase water-efficient products. Partners with irrigation professionals and irrigation certification programs to promote water-efficient landscape irrigation practices. http://www.epa.gov/watersense/	F
OWRD	Place-Based Planning Guidelines – Voluntary tool for local communities wishing to undertake a collaborative water resources planning process using the framework of the state’s 2012 Integrated Water Resources Strategy. http://www.oregon.gov/owrd/LAW/docs/IWRS/2015_February_Draft_Place_Based_Guidelines.pdf	TA

Enhancing Instream Flows

Table 15: Protecting and Enhancing Instream Flows		
Instream Water Rights		
Agency	Program	Type
OWRD	Instream Water Rights - Issues water rights for instream purposes. Holds instream water rights in trust for the public. Monitors and enforces rights. http://www.oregon.gov/owrd/pages/mgmt_instream.aspx	P
ODEQ	Authority to Apply for instream water rights to protect water quality and meet water quality standards.	P
OPRD	Authority to apply for instream water rights to protect recreation, fish and wildlife, and scenic uses.	P
ODFW	Authority to apply for water rights to protect fish and wildlife.	P
Other Programs and Tools		
OWRD ODFW	Streamflow Restoration Priorities – Joint effort to identify priority areas for streamflow restoration (an effort under the Oregon Plan for Salmon and Watersheds); these areas are a focus for installment of measurement devices on Significant Points of Diversion (“SigPODs”), as described in the Strategic Water Measurement Plan. Cost-sharing funding available for measurement devices. Streamflow Restoration Priorities: https://nrimp.dfw.state.or.us/nrimp/default.aspx?pn=streamflowmaps Strategic Water Measurement Plan: http://www.oregon.gov/owrd/pages/mgmt_measure.aspx	TA F R
OWRD	Instream Leases and transfers – Approves water rights to be transferred or leased instream. http://www.oregon.gov/owrd/pages/mgmt_leases.aspx	P
OWRD	Allocation of Conserved Water Program – Authorizes water users to irrigate additional acreage with up to 75 percent of water conserved provided that at least 25 percent of water conserved is converted to an instream water right. http://www.oregon.gov/OWRD/Pages/mgmt_conserved_water.aspx	P
OPRD DSL OWRD ODFW DEQ ODF	Oregon’s Scenic Waterways (SWW) Program – OPRD administers the SWW Program, in coordination with other state agencies. OWRD may limit new surface and hydraulically connected groundwater rights that affect flows within a designated scenic waterway. http://www.oregon.gov/OPRD/RULES/Pages/waterways.aspx All fill and removal in state scenic waterways requires an individual removal-fill permit from DSL. http://www.oregon.gov/dsl/PERMITS/Pages/scenicwaterways.aspx Landowner’s Guide to Scenic Waterways: http://www.oregon.gov/oprd/rules/docs/sww_log.pdf	R TA
BOR	Participates in efforts to conserve, restore and protect aquatic habitats including minimum flow evaluation and implementation and flow augmentation.	R

Table 16: Instream Use – Recreation and Boating

Agency	Program	Type
OPRD	State Parks - Maintains recreational facilities and park space for public use around rivers, lakes, reservoirs, and coastal waters. http://www.oregonstateparks.org/	PL E
ODFW	Wildlife Area – Maintains wildlife areas for recreational use. http://www.dfw.state.or.us/resources/visitors/wildlife_areas_hatcheries.asp	PL E
OPRD	Water Trails Program - Promotes motor-free water craft recreation. Plans and develops water trail facilities including put-ins and take-outs, parking, restrooms and camping. http://www.oregon.gov/oprd/BIKE/Pages/other_recreation.aspx	PL E
ODSL	Waterway Structure Registration – Requires registration of privately-owned, non-commercial structures such as docks, floats, boat houses and floating recreational cabins. http://www.oregon.gov/DSL/LW/Pages/dockregis.aspx	P R
OSMB	Regulates recreational boating. http://www.oregon.gov/OSMB/Pages/index.aspx	P R
USACE USCG	Removes hazards to navigation. http://www.uscg.mil/d13/dpw/default.asp	
BOR USACE	Maintains reservoirs for recreation and provides information on boat ramp elevations. BOR Boat Ramp Information: http://www.usbr.gov/pn/hydromet/ramps/	D
BLM, BOR USFS, NPS USFWS, USACE	Provide water related recreational opportunities on federally owned lands. Recreation.gov Recreation.gov is a one-stop shop for trip planning, information sharing and reservations. http://www.recreation.gov/	E PL TA
NPS	National Water Trails System – Supports recreational routes on waterways with a network of public access points supported by broad-based community partnerships that provide both conservation and recreational opportunities. The Willamette River is Oregon’s only National Water Trail. http://www.nps.gov/WaterTrails/Home/About	E
Federal, State or Local	National Recreation Trail System - Includes water trails (see above) http://www.americantrails.org/nationalrecreationtrails/stateNRT/ORnrt.html	E
USFS, USFWS, BLM, NPS	Management of federal Wild and Scenic Rivers in Oregon. http://www.rivers.gov/	R
OPRD	Management of Scenic Waterways – See also land use, and instream flow tables. http://www.oregon.gov/OPRD/RULES/Pages/waterways.aspx	R
NPS	Rivers, Trails, and Conservation Assistance Program – Provides technical assistance to community groups and local, state, and federal government agencies working to protect natural areas and water resources and enhance outdoor recreation opportunities. http://www.nps.gov/orgs/rtca/index.htm	TA
NPS	Land and Water Conservation Fund – Provides grants and funding to federal, state, and local government agencies for acquisition, development and planning of outdoor recreation opportunities and parks. http://www.nps.gov/lwcf/ Administered by OPRD: http://www.oregon.gov/OPRD/GRANTS/Pages/lwcf.aspx	F
USFWS	Boating Access Program - Provides grant for projects that provide access facilities to waterways. http://wsfrprograms.fws.gov/Subpages/GrantPrograms/BoatAccess/BA.htm	F
	Clean Vessel Act Grant Program – Grants for construction, renovation, operation, and maintenance of pump out stations and waste reception facilities for recreational boaters and for educational programs on proper disposal of sewage. http://wsfrprograms.fws.gov/Subpages/GrantPrograms/CVA/CVA.htm	F
	Boating Infrastructure Grant Program – Grants to construct, renovate, and maintain tie-up facilities with features for transient boaters in vessels 26 feet or more in length. http://wsfrprograms.fws.gov/Subpages/GrantPrograms/BIG/BIG.htm	F

Healthy Ecosystems

Table 17: Preventing the Spread of Invasive Species		
Agency	Program	Type
ODEQ	Ballast Water Management – Develop and implement aquatic invasive species prevention strategies for screening commercial shipping vessel arrivals. Includes vessel report monitoring; vessel inspections; verification sampling; outreach and communication and enforcement. Staffs Shipping Transport of Aquatic Invasive Species Task Force. Requires all regulated vessels to submit ballast water management reports. Required to submit reports to the National Ballast Information Clearinghouse. DEQ website: http://www.deq.state.or.us/lq/cu/emergency/ballast.htm	R
EPA	NPDES Vessel General Permit – EPA currently regulates discharges incidental to the normal operation of commercial vessels greater than 79 feet in length and operating as a means of transportation. http://cfpub.epa.gov/npdes/vessels/vgpermit.cfm	P
USCG	Ballast Water – Enforces ballast management regulations and conducts inspections. Requires vessels to perform ballast water exchanges. Requires ballast water management reports to be sent to the National Ballast Information Clearinghouse. http://invasions.si.edu/nbic/index.html	R
ODFW, OSMB, OSP, County Sheriffs	Aquatic Invasive Species Permit Program – Prevents invasive species in lakes, rivers and streams. Requires permits for watercraft. Includes inspection stations and decontamination washes. ODFW and the OSMB manage the program and OSP and Oregon County Sheriffs handle enforcement. http://www.oregon.gov/osmb/clean/pages/aisppfaqspage.aspx	P
USFWS NOAA others	Aquatic Nuisance Species Task Force – Prevents and controls aquatic nuisance species. Co-chaired by the U.S. Fish & Wildlife Service and the National Oceanic and Atmospheric Administration Thirteen federal agencies are involved in program. http://www.anstaskforce.gov/ballast.php	R
USFWS	Aquatic Invasive Species Program – Provides funding for Aquatic Invasive Species Coordinators for each region. http://www.fws.gov/fisheries/invasive_species/invasive_main.html	F
	Fisheries and Aquatic Resource Conservation Program - Prevents the introduction and spread of aquatic invasive species, monitors for invasive species, and controls invasive species. http://www.fws.gov/fisheries/	D R
BLM	Undertakes actions to address invasive or noxious weeds. The BLM works with State, Federal and local partners to reduce the spread of invasive species, with an emphasis on early detection of and rapid response to new invasions in order to reduce the need for larger and more expensive treatments. http://www.blm.gov/or/resources/weeds/index.php	D
ODA OWEB OSWB	Noxious Weed Control Program – ODA provides early detection and rapid response for new invading noxious weeds, implementation of biological control, completion of statewide weed inventory and surveys, technology transfer, noxious weed education, noxious weed data maintenance, weed risk assessment and maintenance of the State Noxious Weed List. http://www.oregon.gov/ODA/PLANT/WEEDS/Pages/index.aspx	D E F R
	OWEB provides grant funding for noxious weed control projects related to the protection and enhancement of watersheds and fish and wildlife habitat. http://www.oregon.gov/OWEB/GRANTS/pages/grant_faq.aspx#Oregon_State_Weed_Board_Grants	
	OSWB guides noxious weed control priorities and awards Noxious Weed Control Grants. http://www.oregon.gov/ODA/plant/weeds/Pages/grantindex.aspx	
OSMB (chair)	Oregon Invasive Species Council – Conducts a coordinated and comprehensive effort to keep invasive species out of Oregon and to eliminate, reduce, or mitigate the impacts of invasive species already established in Oregon. Council members represent a cross-section of Oregon agricultural government and business interests, such as, tribes, local government, ports, aquaculture, and the pet, seed, nursery, and shipping industries. http://www.oregon.gov/oisc/Pages/index.aspx	D E
USDOJ USDA USDOC	National Invasive Species Council – Created in 1999 to provide high-level interdepartmental coordination of federal invasive species actions and works with other federal and non-federal groups	PL TA

others	to address invasive species issues at the national level. http://www.invasivespecies.gov/main_nav/mn_about.html	
USDA	National Invasive Species Information Center – Established in 2005 at the National Agriculture Library; includes species information, economic impacts of invasive species, and federal/state laws and regulations. http://www.invasivespeciesinfo.gov/index.shtml	D
ODA	Insect Pest Prevention and Management Program (IPPM) – Provides a web-based interface that allows public and private entities to report invasive species. ODA investigates and responds to reports of invertebrate pests. http://www.oregon.gov/ODA/PLANT/IPPM/Pages/index.aspx	D E
	Oregon WeedMapper – Mapping platform with access to layers relevant to weed management such as roads, rivers, Cooperative Weed Management Area boundaries to create user defined maps. http://www.oregon.gov/ODA/PLANT/WEEDS/WEEDMAPPER/Pages/maps.aspx	
	Seed Program – Inspects forage products for weed-free certification and to minimize the spread of noxious weeds. http://www.oregon.gov/ODA/CID/Pages/seed_services.aspx	D
	Plant Health Program – Tests seed and plant material for viruses, bacteria, fungi and nematodes. Under the program, ODA staff conducts surveys to detect plant pests and diseases. http://www.oregon.gov/ODA/CID/PLANT_HEALTH/pages/programs.aspx	D
	Native Plant Conservation Program – Assists public and private entities with management issues involving protecting and conserving Oregon’s native flora and their habitats. http://www.oregon.gov/ODA/PLANT/CONSERVATION/pages/index.aspx	E
USGS	Invasive Species Program – Provides methodologies and information to address threats to ecosystems due to invasive species. Detects and monitors invaders. Develops and tests prevention, management, and control methods. http://www.usgs.gov/ecosystems/invasive_species/	D TA

Table 18: Fish, Wildlife and Habitat Protection		
State and Federal Species Protection		
Agency	Program	Type
USFWS	Responsible for National Wildlife Refuges, endangered and threatened species, migratory birds, and other natural resources. Primary authority for implementing Federal Endangered Species Act for terrestrial and freshwater organisms. http://www.fws.gov/oregonfwo/	R
	Lists species under the ESA through petitions or candidate assessments. Designates critical habitat. Delists species. http://www.fws.gov/oregonfwo/Species/	R
	Recovery Planning – Develops and implements recovery plans for listed species. Restores and acquires habitat, removes introduced animal predators or invasive plant species, conducts surveys, monitors individual populations, and breeds species in captivity. In general, USFWS has oversight for terrestrial and freshwater species and NOAA for marine and anadromous species. Recovery Plan Search: https://www.fws.gov/endangered/species/recovery-plans.html General Overview: http://www.nmfs.noaa.gov/pr/recovery/	PL
	Environmental Conservation Online System (ECOS) – Access to listed species information and other public documents for managing species - Conservation Plans and Agreements Database. http://ecos.fws.gov/ecos/home.action	D
	Consultations - All Federal agencies must consult with USFWS to ensure that Federal activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. http://www.fws.gov/endangered/esa-library/pdf/consultations.pdf	R
	Incidental Take and Habitat Conservation Plans – Issues Incidental Take Permits and approves Habitat Conservation Plans. https://www.fws.gov/endangered/what-we-do/hcp-overview.html	PL
	Candidate Conservation Program – Works through partnerships to conserve species by improving habitat and removing threats. Provides technical assistance and funding to develop Candidate Conservation Agreements. http://www.fws.gov/endangered/what-we-do/	TA F

	Safe Harbor Agreements - Voluntary agreements that benefit endangered and threatened species while giving the landowners assurances from additional regulatory restrictions. https://www.fws.gov/endangered/landowners/safe-harbor-agreements.html	R
NOAA USFWS ODFW	Fish and Wildlife Coordination Act –Requires Federal agencies that construct, license or permit water resource development projects to first consult with NOAA, USFWS and ODFW regarding the impacts on fish and wildlife resources and measures to mitigate these impacts. http://www.dfw.state.or.us/OARs/415.pdf	R
NOAA	Primary authority for management, conservation and protection of salmon, steelhead, marine fish and the habitats they rely upon under the Federal Endangered Species Act, the Federal Power Act, the Fish and Wildlife Coordination Act, and the Magnuson-Stevens Fishery Conservation Management Act. http://www.nmfs.noaa.gov/pr/species/esa/listed.htm	R
	Endangered Species Act for anadromous fish and marine species. <ul style="list-style-type: none"> ● Performs ESA listing determinations, designates critical habitat, defines protective regulations to conserve listed species, and coordinates conservation programs. Perform ESA section 7 consultations. Assists with the development of Habitat Conservation Plans and issues section 10 permits. ● Administers hatchery programs and conduct recovery planning, and monitoring. Works with non-federal entities to develop ESA compliance plans under ESA Section 4 limits and ESA Section 6 agreements. ● Administers the West Coast salmon fishery management plan. ● Fishery Management & Evaluation Plans - Biologically-based fishery management strategies to address the take of listed species in fisheries. ● Joint Resource Management Plans - Apply 4(d) rule limits to resource management plans developed jointly by the states and the tribes under the jurisdiction of United States v. Washington or United States v. Oregon. 	R PL TA PL PL PL
ODFW	Leads state level species protection efforts for fish and wildlife. Monitors, samples, researches and manages commercial and recreational freshwater and marine fisheries. Advises other agencies on permitting and actions that may affect fish populations. Administers State Endangered Species Act. http://www.dfw.state.or.us/wildlife/diversity/species/threatened_endangered_species.asp	R
	Oregon’s Native Fish Conservation and Recovery Program – Coordinates management and policy to conserve native fish. Participates in the development of conservation and recovery plans, provides input on management decisions and plan implementation, determines monitoring needs, assesses population status, coordinates ESA permitting, and conducts habitat and native fish research and monitoring. http://www.dfw.state.or.us/fish/CRP/conservation_recovery_plans.asp	R
	Oregon Conservation Strategy - Sets goals and identifies actions that conserve and restore species, habitats and ecosystems, including at-risk species and habitats. http://www.dfw.state.or.us/conservationstrategy/	TA E D PL
	Salmon and Steelhead Recovery Tracker - Analyses of viability criteria for conservation and recovery plans for salmon and steelhead listed under the Endangered Species Act. http://odfwrecoverytracker.org/	D
ODA	The Native Plant Conservation Program – ODA oversees the conservation and management of listed plant species under the Endangered Species Act. Sets guidelines on listing and delisting plant species. Administers a permit system for taking protected plant species. Consults with and issues permits for actions on non-federal public lands that might result in a taking. Conducts research to enhance recovery efforts. http://www.oregon.gov/ODA/PLANT/CONSERVATION/pages/index.aspx	P
BLM USFS	Interagency Special Status Sensitive Species Program – Interagency collaborative effort focused on regional-level approaches for species that meet agency criteria for inclusion on sensitive and special status lists. This includes those species that are not federally listed as Threatened or Endangered, or Proposed for federal listing. http://www.fs.fed.us/r6/sfpnw/issssp/	R
BIA (chair) 9 others	Columbia River Basin Federal Caucus – 10 federal agencies working together to integrate, organize, and coordinate federal fish recovery and water quality effort; coordinating execution of federal trust and treaty responsibilities to Native American tribes within the basin. Includes: BIA, BPA, EPA, USACE, BOR, USFWS, BLM, USGS, NRCS, NOAA. http://www.salmonrecovery.gov/AboutUs.aspx	R

Fish Passage		
ODFW	Fish Passage Program – Requires the owner or operator of an artificial obstruction in native migratory fish waters to address fish passage prior to certain trigger events (e.g., new water right, renewed hydroelectric license). http://www.dfw.state.or.us/fish/passage/	R
USFWS	National Fish Passage Program – Provides financial and technical assistance in the removal or bypass of artificial barriers that impede the movement of fish. https://www.fws.gov/fisheries/whatwedo/NFPP/nfpp.html	F TA
NOAA	Responsible for salmon passage and survival issues associated with the hydroelectric projects of the Columbia River system. Provides engineering support for fish passage facilities at all dams and water diversions. http://www.westcoast.fisheries.noaa.gov/fish_passage/dams/index.html	R TA
USGS	Evaluates management efforts to improve fish passage for migratory fish. http://www.usgs.gov/ecosystems/fisheries/fish_passage.html	D
Fish Screening		
ODFW	Advises other agencies on permitting and actions that may affect fish populations including fish screening.	TA
	Fish Screening Program – Assists water users to install fish screens on diversions. Includes cost-share, a state tax credit, and technical assistance for fish screen and fish passage. http://dfw.state.or.us/fish/screening/	F
USFWS	Fisheries Restoration and Irrigation Mitigation Act (FRIMA) Program – Voluntary, cost-shared fish screen installation and diversion dam correction program for water withdrawal projects. FRIMA is authorized through 2015; however, no funding is currently available for new projects. http://www.fws.gov/pacific/fisheries/sphabcon/FRIMA.html	F
Other Fish and Wildlife Management Programs		
ODFW	Fish Health Management Policy (2003) – Describes actions to minimize fish diseases from ODFW programs and persons importing, transporting, releasing, or rearing non-aquaria species. http://www.dfw.state.or.us/fish/hatchery/docs/fish_mgmt_policy.pdf http://www.dfw.state.or.us/fish/diseases/	TA PL
	Fish Stocking Permits – Regulates pond activities related to stocking to insure private pond stocking won't harm public fisheries. Issues permits for transporting fish. http://www.dfw.state.or.us/fish/private_ponds/	R P
	Oregon Nearshore Strategy - Provides recommendations for the management of marine fish and wildlife. Identifies potential areas of opportunity for public/private action and partnership. http://www.dfw.state.or.us/mrp/nearshore/	PL TA
USFWS	Habitat Restoration Monitoring and Evaluation – Monitor effectiveness and impacts of habitat restoration projects.	D
	Pacific Lamprey Conservation Initiative - Strategy to improve the status of Pacific Lamprey throughout their range by helping implement research and conservation actions. http://www.fws.gov/pacific/fisheries/sphabcon/lamprey/	D TA
BOR USACE EPA	Participates in efforts to conserve, restore and protect fish and habitats.	R
BIA	Fish, Wildlife, and Recreation Program – Trust responsibility to tribes of aquatic resources. Funds tribal roles in aquatic resource management. http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/FishWildlifeRec/index.htm	R
NWPPC	Columbia River Basin Fish and Wildlife Program – Works to protect, mitigate and enhance fish and wildlife of the Columbia River and guides Bonneville Power Administration's funding of projects to implement the fish and wildlife program. http://www.nwcouncil.org/fw/program/2013amend/	PL
ODOT	Aquatic and Terrestrial Biology Programs – Coordinates regulatory compliance with laws pertaining to species and ecological systems for all transportation projects. http://www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/pages/biology.aspx	R
NOAA	Northwest Fisheries Science Center - Conducts studies to better understand factors that affect the survival of Pacific salmonids, ranging from dams to the estuary and adjacent near shore ocean. http://www.nwfsc.noaa.gov/	D

	Watershed Program – Conducts research on the ecology, management, and restoration effectiveness of freshwater and estuarine ecosystems management and recovery. Research is designed to assist with recovery planning for Pacific salmon and steelhead listed under the U.S. Endangered Species Act. http://www.nwfsc.noaa.gov/research/divisions/fe/wpg/index.cfm	D
Fish Hatcheries		
ODFW	Fish Hatchery Management Policy – Manages hatcheries to conserve and restore native fish and minimize adverse genetic and ecological impacts to ESA-listed fish. Develops conservation plans for individual species management units, and hatchery program management plans. http://www.dfw.state.or.us/fish/hatchery/docs/hatchery_mgmt.pdf	R
	Oregon Hatchery Research Center - Answer questions related to fish recovery and hatchery programs. http://www.dfw.state.or.us/fish/OHRC/	TA
	Fish Restoration & Enhancement Program – Funds public and non-profit organization’s fish and habitat restoration and enhancement projects that address access, propagation, habitat, research and monitoring, education, maintenance of structures, or liberation equipment. http://www.dfw.state.or.us/fish/RE/	F
	Salmon and Trout Enhancement Program (STEP) – Seeks to achieve the recovery and sustainability of the state’s native salmon and trout through the education of Oregon’s citizens and their involvement with fish management efforts. Focuses on education/outreach, inventory and monitoring, habitat improvement, fish culture, and setting priorities for enhancing youth angling activities. http://www.dfw.state.or.us/fish/STEP/index.asp	E D TA
NOAA	Hatchery Programs – Funds hatchery operations to mitigate harm to fisheries from dams on the Columbia River. Works to improve practices and management.	F
	Hatchery and Genetic Management Plans (HGMPs) - Mechanism for addressing "take" of ESA-listed species that may occur as a result of artificial propagation activities. ODFW develops HGMPs for all fish propagation programs of the State of Oregon. http://www.dfw.state.or.us/fish/HGMP/final.asp	PL R
	Northwest Fisheries Science Center: Hatchery Reform Science Program – Researches issues associated with captive rearing, hatchery technology, and behavioral ecology of salmon. http://www.nwfsc.noaa.gov/research/divisions/efs/hatchery/index.cfm	D
USFWS	National Fish Hatchery System – Operates fish hatcheries to enhance stocks, facilitate restoration, and mitigate fish losses. http://www.fws.gov/fisheries/nfhs/	R
BIA	Fish Hatchery Operations & Maintenance Programs – Provides funding to fish-producing Tribes in support of associated hatching, rearing and stocking programs. http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/FishWildlifeRec/index.htm	F

Table 19: Fish, Wildlife and Habitat - Incentive and Technical Assistance		
Agency	Program	Type
OWEB	Oregon Plan for Salmon and Watersheds - Focuses on actions to improve water quality and quantity and restore habitat for salmon and other native fish. Landowners and other private citizens, community organizations, interest groups, and all levels of government come together to organize, fund, and implement these actions. Watershed councils and soil and water conservation districts lead efforts in many watersheds. OWEB provides funding for many projects and several state agencies assist with coordination, implementation, and outreach and monitoring. http://www.oregon.gov/OPSW/pages/index.aspx	F TA
SWCD	Provides technical assistance, educational outreach, and other conservation services to landowners, managers, and citizens for state water quality programs, watershed enhancement programs, and local conservation efforts.	TA F
ODA	Soil and Water Conservation District Program – Assists SWCDs, delivering technical assistance and conservation programs to landowners to improve water quality, endangered species habitat, and general watershed health. http://www.oregon.gov/ODA/swcd/pages/index.aspx	TA F
USDA-FSA	Conservation Reserve Enhancement Program (CREP) – Promotes riparian improvements on agricultural lands. Partnership program between USDA-FSA and several state agencies. OWEB funds CREP projects. http://www.oregon.gov/OWEB/pages/crep.aspx	F TA
Watershed Councils	Watershed Councils – Improve the condition of watersheds in their local area. Brings local interests together to form a common vision for the watershed, prioritize activities, and identify landowner	E TA

	participants for projects. http://oregonwatersheds.org/	PL
OWEB	Administers grant programs. Monitors watershed conditions, tracks changes in critical habitat and species over time, and evaluates the effectiveness of conservation and restoration. http://www.oregon.gov/OWEB/Pages/wsheds_councils_overview.aspx	F
	Watershed Council Support Grants – Provide funds for watershed council coordinator salary, operating costs, risk management, and accountability insurance and other costs. http://www.oregon.gov/OWEB/GRANTS/pages/council_support_apps.aspx	F
	Soil and Water Conservation District Support – Provides funds for delivery of technical assistance and conservation programs to landowners. ODA coordinates use of state funds by working with SWCDs to develop a scope of work to address water quality concerns.	F
	Oregon Watershed Enhancement Board Grant Program – Provides funding to local, regional, and statewide partners for projects to improve watershed health. Grant projects address Groundwater Issues, Water Conservation/Water Efficiency, Water Quality, Instream Needs, Climate Change Adaptation, Restoration, Infrastructure and Stormwater. Includes projects for protecting water and land, outreach, monitoring, restoration, and technical assistance. http://www.oregon.gov/OWEB/grants/Pages/index.aspx	F
	Oregon Watershed Restoration Inventory – Tracks voluntary efforts to restore habitats for salmon and wildlife and improve aquatic habitat and water quality conditions. http://www.oregon.gov/OWEB/monitor/Pages/owri.aspx	D
	Pacific Coastal Salmon Recovery Fund (PCSRF) – Applies for PCSRF dollars to fund restoration, monitoring, planning and education projects that benefit salmon and steelhead species. Submits data to the PCSRF database. https://www.webapps.nwfsc.noaa.gov/apex/f?p=309:13:0:::P13_CATEGORY::	D F
	Special Investment Partnerships (SIPs) – Began in 2008; Partners to invest in long-term activities for large-scale ecological outcomes contributing to significant progress in species recovery, ecosystem restoration, or addressing other widespread issues. SIPs include the Upper Deschutes, Upper Klamath, and Willamette basins. http://www.oregon.gov/OWEB/pages/sip.aspx	F
NRCS	Resource Conservation and Development Councils (RC&Ds) – USDA established program to improve the capability of rural areas to plan, develop and carry out programs for resource conservation and development. Locally sponsored. NRCS designates areas and provides leadership, federal funding and technical assistance. http://www.pacrimrcd.org/SectionIndex.asp?SectionID=41	F
USFWS	Technical Assistance – Contaminants biologists provide technical expertise to the private sector and governmental agencies, on ecological risk assessment, water quality, superfund sites, pesticides, endangered species, and National Wildlife Refuge assessments and cleanups.	TA
	Cooperative Endangered Species Conservation Fund Program http://www.fws.gov/endangered/grants/grant-programs.html <ul style="list-style-type: none"> ● Conservation Grants – Implementation of conservation projects. ● Recovery Land Acquisition – Acquisition of habitat in support of approved recovery goals or objectives. ● Habitat Conservation Planning Assistance - Support development of Habitat Conservation Plans. ● Habitat Conservation Plan Land Acquisition - Acquisition of land associated with approved Habitat Conservation Plans 	F
	Wildlife and Sport Fish Restoration Program - Provides oversight for the following grant programs: <ul style="list-style-type: none"> ● Sport Fish Restoration Grant Program – Fishery project grants. ● National Coastal Wetlands Conservation Grant Program - Funding for long-term conservation of coastal wetland ecosystems including property acquisition. ● State Wildlife Grant Program – Funds programs that benefit wildlife and their habitats. Also provides grants to tribes through Tribal Wildlife Grant Program. ● Landowner Incentive Grant Program – Funds protection and restoration of habitats on private lands to benefit federally listed, proposed or candidate species or other species determined to be at-risk. Also provides grants to tribes through Tribal Landowner Incentive Grant Program. ● Conservation Planning Assistance program – Reviews and provides recommendations on plans and development designs and infrastructure. Crafts mitigation plans. http://wsfrprograms.fws.gov/Subpages/GrantPrograms/GrantProgramsIndex.htm	F
USFWS ODFW	USFWS Landowner Incentive Program – Provides technical and financial assistance to private landowners for projects that protect and restore habitats of ESA listed species or species determined to be at-risk. Administered by ODFW. http://wsfrprograms.fws.gov/Subpages/GrantPrograms/LIP/LIP.htm	F TA
NRCS	Conservation on Private Lands - Engage private landowners, primarily farmers and ranchers, in the	F

SWCD	conservation and enhancement of fish and wildlife and natural resources on their lands. Program funds are prioritized for allocation (including forestry) through Local Working Groups convened by the SWCD.	
NRCS	Provides technical assistance for growing crops, water quality protection, and other conservation activities for communities, homeowners, agriculture, and small landowners.	TA
	2008 Farm Bill Conservation Programs – Grants for water management, easements on recurring flooded lands; restoration of wetlands; habitat improvements and other issues. http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmbill/	F
	Conservation Stewardship Program – Encourages farm and forest landowners to conserve soil, water, air and other natural resources through financial assistance. http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/programs/financial/csp/	F
	Wildlife Habitat Incentive Program (WHIP) – Provides technical and financial cost-share assistance to farm and forest landowners for practices that improve habitat for fish and wildlife. http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/programs/financial/whip/	F TA
	Wetlands Reserve Program – Provides technical and financial assistance to farm and forest landowners for wetland restoration. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/or/programs/?cid=nrcs142p2_044308	F TA
	Conservation Planning – Provide planning assistance to help producers identify options that provide the greatest conservation benefit while meeting production goals. http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/technical/cp/	TA
	Grazing Lands Conservation Initiative – A collaboration of individuals and organizations working to improve management of privately owned grazing land. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/or/programs/?cid=nrcs142p2_044311	TA F
	National Water Management Center – Assesses watershed health and plans solutions. Includes technical support on stream geomorphology and restoration, water quality and quantity assistance, watershed and dam rehabilitation, technology outreach, and environmental compliance. http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/nwmc/	D TA
	Environmental Quality Incentive Program (EQIP) - Technical, financial, and educational assistance for farmers, ranchers and forestry landowners for conservation practices. http://www.nrcs.usda.gov/wps/portal/nrcs/main/or/programs/financial/eqip/	TA F E
	Agricultural Water Enhancement Program (AWEP) – Implements the program through partnerships. Financial and technical assistance to agricultural producers to implement agricultural water enhancement activities on agricultural land for the purposes of conserving surface and ground water and improving water quality. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/or/programs/?cid=nrcs142p2_044060	F TA
ODA SWCD	Agricultural Water Quality Management Plans – Developed by Local Advisory Committees, these Plans describe goals and establish regulations for agricultural lands to address water pollution and may include NRCS/USDA standards, specifications and BMPs. Technical assistance and landowner education provided through SWCDs. http://www.oregon.gov/ODA/NRD/pages/water_mgmt_area_map.aspx	
NRCS USDA	Agricultural Management Assistance - Provides financial and technical assistance to agricultural producers to address water management, water quality, and erosion control. http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/ama/	TA F
FSA	Conservation Reserve Program – In exchange for a yearly rental payment, farmers enrolled in the program agree to remove environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality. http://www.fsa.usda.gov/FSA/webapp?area=home&subject=copr&topic=crp	F
USDA	Conservation Reserve Enhancement Program (CREP) – Administered by USDA’s Farm Service Agency. Targets high-priority conservation issues identified by local, state, or tribal governments or non-governmental organizations. In exchange for removing environmentally sensitive land from production and introducing conservation practices, farmers, ranchers, and agricultural land owners are paid an annual rental rate. Participation is voluntary, and the contract period is typically 10–15 years, along with other federal and state incentives as applicable per each CREP agreement. http://www.fsa.usda.gov/FSA/webapp?area=home&subject=copr&topic=cep	F
USFWS	Partners for Fish and Wildlife Program – Technical and financial assistance to private landowners to restore wetlands and other fish and wildlife habitats. http://www.fws.gov/partners/	F TA

BOR	Cooperative Watershed Management Program – Provides grants for development of locally led watershed groups and facilitates watershed projects. http://www.usbr.gov/WaterSMART/cwmp/	F
	Columbia River Tributary Habitat Program – Provides technical assistance on habitat projects that increase streamflow, remove fish barriers, upgrade screen diversions, and reconnect floodplains for Columbia River Basin salmon and steelhead listed under the Endangered Species Act. http://www.usbr.gov/pn/fcrps/habitat/index.html	TA
BLM USFS NRCS	Creeks and Communities Strategy – Seeks to implement cooperative riparian restoration and management. Addresses both technical and social components of riparian management. http://www.blm.gov/or/programs/nrst/creeks.php	TA
	Offers Proper Functioning Condition Assessments, Riparian Monitoring, and Consensus Training. Offers course on riparian compatible livestock grazing. http://www.blm.gov/or/programs/nrst/files/Final%20TR%201737-16%20.pdf	TA
EPA	Targeted Watersheds Grant Program – Encourages community-based approaches to protect and restore the watersheds. Lower Columbia, Siuslaw, Upper Klamath, and Willamette River watersheds are Targeted Watersheds projects. http://water.epa.gov/grants_funding/twg/initiative_index.cfm	F
BPA	Provides grants for restoration projects to mitigate the Federal Columbia River Projects.	F
ODFW	Willamette Wildlife Mitigation Program – Funds provided by BPA managed by ODFW for habitat mitigation in the Willamette Valley for wildlife and fish habitat restoration. http://www.dfw.state.or.us/wildlife/willamette_wmp/index.asp	F
	Western Oregon Stream Restoration Program - Technical support for Watershed Councils and private landowners in western Oregon to implement Oregon Plan measures to restore and enhance salmonid habitats. Includes projects to increase instream habitat complexity, riparian protection and plantings, and improve fish passage. http://www.dfw.state.or.us/lands/wosrp.asp	TA
	Access and Habitat Program – Incentive to improve wildlife habitat on private lands, including wetland restoration, riparian area protection, controlled burns, water development, juniper removal, and noxious weed control. http://www.dfw.state.or.us/lands/AH/	F
	Riparian Tax Incentive Program - Property owners receive complete property tax exemption for their qualifying riparian lands in return for improving or maintaining riparian area. http://www.dfw.state.or.us/lands/tax_overview.asp	F
	Wildlife Habitat Conservation and Management Program – Cooperative effort involving state and local governments and other partners to help private landowners voluntarily conserve native wildlife habitat. Land subject to an approved wildlife habitat conservation and management plan receives a wildlife habitat special assessment. http://www.dfw.state.or.us/lands/whcmp/index.asp	F
Forestry Specific Conservation Programs		
USFS	Forest Stewardship Program – Encourages non-industrial private landowners to manage forestlands for soil and water, wildlife, fisheries, recreation, aesthetics, and timber through multi-resource management plans, demonstration sites, and education. Technical and financial assistance provided to State Foresters for program delivery. http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml	TA F
ODF	Stewardship Foresters – Provides services to support landowners of private forests through information, technical assistance, financial incentives and regulation. http://www.oregon.gov/ODF/privateforests/pages/findforester.aspx	D,TA F, R
	Incentives for private landowners to convert land back into commercial forest. Includes Forest Practices Afforestation Program Incentive, Forest Resources Trust, and Oregon Underproductive Forestland Conversion Tax Credit. http://www.oregon.gov/odf/privateforests/pages/incentives.aspx	F
	Forest Stewardship Plan and Oregon Tree Farm Plan - Describes the existing vegetation, soils, and wildlife and fisheries habitat on the property and recommends activities to meet landowner’s objectives. Includes financial, technical and educational assistance. http://www.oregon.gov/ODF/privateforests/pages/incentivesfsp.aspx#Oregon%27s_Forest_Management_Planning_System	F TA E
	Indicators of Sustainable Forest Management – Apply to all public and private forestlands. Includes strategies for sustainable forest management and 19 indicators (e.g., soil, water quality and stream biological integrity). http://www.oregon.gov/odf/indicators/pages/index.aspx	PL

NRCS ODF	Healthy Forest Reserve Program – Provides forest landowners a financial incentive for recovering threatened and endangered species, improving biodiversity and/or enhancing carbon sequestration. Landowners must enroll in a Stewardship Agreement with the ODF. http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/forests/	F
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Table 20: Management, Restoration, and Conservation on Public and Tribal Lands		
Management of Federal Lands		
Agency	Program	Type
USFWS	National Wildlife Refuges – Manages refuges to conserve, protect, and enhance fish, wildlife, and plants, and their habitats. http://www.fws.gov/refuges/refugelocator/maps/oregon.html	R
BLM	Manages BLM lands to restore rangeland health and maintain healthy landscapes. Includes prescribed burning, rehabilitation of burned lands, fencing, water developments, juniper management, weed control, and grazing permits. Resource Management Plans form the basis for management and approved uses. http://www.blm.gov/or/index.php	R
	Conducts assessments to assess watershed function, ecological processes, water quality and habitats for native and threatened and endangered species.	D
USFS	Manages National Forest lands. Forest Plans form the basis for management and approved uses on USFS lands in accordance with the National Forest Management Act. http://www.fs.fed.us/aboutus/meetfs.shtml	R
	Watershed Condition Framework – Assessment of conditions and prioritization of watersheds for restoration. Development of Watershed Restoration Action Plans that describe resource conditions and identify management actions. http://www.fs.fed.us/publications/watershed/	D PL
	Aquatic Conservation Strategy – Identifies riparian reserves, management activities, and key watersheds. Includes watershed analysis to determine restoration and monitoring.	PL
BLM, ODF, USFS	Northwest Forest Plan – Federal policy for management of federal lands includes provisions to protect water quality and habitat.	PL R
USFS BLM	Resources Planning Act Assessment – Includes analyses of forests, rangelands, wildlife and fish, biodiversity, water, outdoor recreation, wilderness, urban forests, and the effects of climate change on these resources. Most recent assessment completed in 2010. http://www.fs.fed.us/research/rpa/	D
NPS	Manages National Parks to conserve and protect the natural resources including fish, water and ecosystems. http://www.nps.gov/aboutus/index.htm	D
	Water Resources Division - Advises parks in the areas of fisheries, natural resource condition assessments, hydrology, planning, ocean & coastal resources, wetlands, water quality, and water rights. http://www.nature.nps.gov/water/	D TA E
	Vital Signs Monitoring Program – Informs managers of the condition of water, air, geologic resources, plants and animals, and the various ecological, biological, and physical processes in the parks. http://science.nature.nps.gov/IM/monitor/	D
Management of State Lands		
ODF	State Forest Lands - Governs management activities of state-owned forestlands. Creates forest management plans that include aquatic and riparian management standards. Develops Aquatic and Riparian strategy for stream habitat restoration projects. Protects aquatic, riparian and wetlands on state forests. http://www.oregon.gov/odf/Pages/about_us.aspx	R
	Watershed Analysis Projects – Conducted projects in basins containing state forest land to evaluate the interactions between management and a watershed's physical and biological processes. Describes current watershed conditions, factors limiting watershed functions, and determines whether riparian and aquatic strategies address watershed concerns. http://www.oregon.gov/odf/pages/state_forests/watershed.aspx	D
	State Forest Watershed Restoration Reporting – Summarizes restoration activities that have taken place on State Forest streams starting in 1995. http://www.oregon.gov/odf/pages/state_forests/restoration_projects.aspx	D

OPRD	Manages state parks, beaches, coastal rocky intertidal areas, and scenic waterways for recreation and to protect natural resources and ecosystems including soils, water, vegetation, wildlife, and fisheries. http://www.oregonstateparks.org/	R
	Oregon Scenic Waterway Act – Maintains the character of rivers and lakes for recreation, fish, and wildlife uses. May limit water withdrawals and land use activities affecting scenic waterways. Requires construction approval permits within scenic waterways. http://www.oregon.gov/OPRD/RULES/Pages/waterways.aspx	P
	Recreational Grants Program - Includes County opportunity grants, land and water conservation grants, local government grants, recreational trails grants, all-terrain vehicle grants, and heritage program grants. http://www.oregon.gov/OPRD/grants/pages/index.aspx	F
ODSL	Land Management Division – Manages state owned lands including land granted to Oregon upon statehood and the submerged and submersible lands underlying navigable and tidally influenced waterways. http://www.oregon.gov/dsl/LW/Pages/index.aspx	R
ODFW	Owens and manages lands for wildlife purposes. http://www.dfw.state.or.us/resources/visitors/	R
	<i>See also Land Use and Water section.</i>	
Coastal and Estuary Programs		
ODOGAMI	Provides information on geology, coastal geologic hazards, and marine minerals to the public. http://www.oregon.gov/dogami/pages/earthquakes/coastal/coastalhazardsmain.aspx	D
USFWS	Oregon Coastal Program – Works with public and private partners to protect and recover threatened and endangered species, migratory birds, and Federal Trust Species by supporting voluntary restoration and the enhancement of high priority coastal habitats. http://www.fws.gov/oregonfwo/FieldOffices/newport/CoastalProgram/CoastalProgram.asp	R
	National Coastal Wetlands Conservation Grant Program – Provides matching grants to states for acquisition, restoration, management or enhancement of coastal wetlands. http://www.fws.gov/coastal/coastalgrants/	F
NOAA USACE EPA, USFWS USDA	The Estuary Habitat Restoration Council – Updates the national strategy, providing advice on the development of the monitoring standards, and soliciting, reviewing, and evaluating project proposals. http://www.era.noaa.gov/information/council.html	PL TA
NOAA	National Estuarine Research Service System (NERRS) – Partnership program with the states for protecting estuarine areas. Provides funding and technical support to the South Slough National Estuarine Research Reserve at Coos Bay. http://oceanservice.noaa.gov/ecosystems/nerrs/	TA F
ODA	Manages oyster plat leasing in state estuaries. http://www.oregon.gov/ODA/NRD/pages/shellfishfront.aspx	P
ODFW	Marine Resources Program – Monitoring, sampling, research and management of both the commercial and recreational marine fisheries. MRP's goal is to increase the quality and quantity of stock assessments and biological information collected through improved at-sea and dockside sampling programs and through carefully designed research projects. Based in Newport with field offices in Astoria, Charleston and Brookings. http://www.dfw.state.or.us/MRP/index.asp	D
	Nearshore Strategy (2006) – Examines nearshore fish and wildlife, addressing management issues in a broad social and ecological context in Oregon. Provides recommendations for the ODFW's management of marine fish and wildlife and identifies potential areas of opportunity for public/private action and partnership to contribute to the sustainability of Oregon's nearshore resources. http://www.dfw.state.or.us/MRP/nearshore/index.asp	PL
ODSL	Stewardship Program at South Slough National Estuarine Research Reserve – Protected area used for coastal ecosystem research and education. Generates science to manage estuaries and coastal watersheds. Focuses on habitat restoration, acquisition planning, watershed monitoring, management, and planning. http://www.oregon.gov/dsl/ssnerr/Pages/index.aspx	D TA E PL
ODLCD	Oregon Coastal Management Program - Works with coastal cities and counties, and state & federal agencies to administer Oregon's federally- approved coastal management program, which emphasizes conservation of estuaries, shorelands, beaches and dunes, and ocean resources. http://www.oregon.gov/LCD/OCMP	PL

Management on Tribal Lands		
Tribal Govt. NOAA	Tribal Resource Management Plans – May be developed by one tribe or jointly with other tribes to meet the management responsibilities and needs of the tribes. NOAA may provide assistance for plans involving salmon.	PL TA
BIA	Agriculture and Rangeland Development Branch – Provides support and technical assistance to tribal agricultural programs. Includes programs in rangeland inventories, planning, rangeland improvements, rangeland protection, leasing, agricultural extension, and noxious weeds. http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/AgrRngeDev/index.htm	TA PL
BIA	Branch of Fish, Wildlife and Recreation: <ul style="list-style-type: none"> ● Wildlife and Parks Program - Funds tribal activities in the areas of fisheries, wildlife, outdoor recreation, and public use management, conservation enforcement and related fields. Tribes conduct program planning, implementation and evaluation. ● Tribal Management/Development Program - Contracts with Tribes to accomplish resource management objectives set by tribal governments for reservation fish and game programs. ● Rights Protection Program - Provide advice and technical assistance to tribes for tribal rights protection issues including water rights; tribal treaty hunting, fishing and gathering rights; trespass on tribal trust lands; tribal cultural resources; and other issues. http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/FishWildlifeRec/index.htm	R

Table 21: Fisheries and Conservation Research and Data		
Agency	Program	Type
EPA	Northwest Biological Assessment Workgroup – Facilitates the use of macro-invertebrates and fish assemblages and other biota in the assessment of freshwater aquatic resources ecosystems. http://yosemite.epa.gov/R10/OEA.NSF/webpage/NW+Biological+Assessment+Workgroup	D
ODOGAMI	LiDAR digital elevation models for the bare earth surfaces of watershed basins. Used in watershed and stream restoration plans, wetlands development, modeling channel migration, and fish passage design. http://www.oregongeology.org/dogamilidarviewer/	D
OWEB	Research Investment Strategy – Supports applied research resulting in data, and techniques to restore watersheds and further the implementation of the Oregon Plan for Salmon and Watersheds. http://www.oregon.gov/OWEB/MONITOR/pages/grants_researchmain.aspx	F D
ODFW	Corvallis Research Laboratory and Northeast-Central Oregon Fish Research and Monitoring Program – These programs consist of several projects focused on research, monitoring and evaluation of salmonid species, Oregon’s non-anadromous native fish, and aquatic habitat. Data from several of these projects contribute to salmonid viability metrics available on ODFW’s Salmon and Steelhead Recovery Tracker (See Table 19). http://oregonstate.edu/dept/ODFW/	D
	Natural Resources Information Management Program - Provides GIS data, maps and reports, data standards and protocols, information on angling opportunities, fish counts, barrier data, hatchery information, and other fish data and habitat information. https://nrimp.dfw.state.or.us/nrimp/default.aspx	D
	Oregon Native Fish Status Report - Describes the conservation status of native fishes based on criteria defined in Oregon’s Native Fish Conservation Policy. http://www.dfw.state.or.us/fish/CRP/native_fish_status_report.asp	D
USFS	Pacific Northwest Stream Inventory and Analysis – Includes protocols for aquatic and riparian data and Stream Survey Data.	D
ODF	Forest Practices Monitoring Program - Provides scientific information for adapting regulatory policies, management practices, and volunteer efforts on non-federal forestland. Research on water protection, fish and stream crossings, riparian function, stream quality, etc. Also include research relating to Paired Watershed studies and RipStream effectiveness monitoring. http://www.oregon.gov/ODF/privateforests/pages/monitoring.aspx	D R
	High Aquatic Potential Stream Data – Helps to identify stream reaches in which recruitment of large woody debris is most likely to be effective at enhancing habitat for salmonids. http://www.oregon.gov/odf/pages/gis/hapstreams.aspx	D

	Aerial Survey Maps and Data – Annual summaries available. http://www.oregon.gov/odf/privateforests/pages/fhmaps.aspx	D
EPA	Ecosystem Services and Restoration Research Program – Researches the effectiveness of restoration and management activities on groundwater and surface water systems to support ecosystem services. Provide technical support to regulators on subsurface contamination, contaminant fluxes, and ecosystem restoration. http://www.epa.gov/NRMRL/gwerd/eco/	D TA
BLM	Provides funding to universities and research organizations for stream ecology, forestry, rangeland management, threatened and endangered species management, and landscape patterns and processes.	F
USDA	National Agricultural Statistics Service – Provides statistical information to support research, programs and policies related to agriculture and water resources. http://www.nass.usda.gov/Statistics_by_State/Oregon/index.asp	
USGS	Environments Program – Conducts studies to describe factors that control ecosystem structure, function, condition, and the provision of goods and services. http://www.usgs.gov/ecosystems/environments/	D
	Fisheries Program – Focuses on the study of aquatic organisms and aquatic habitats. Research on species diversity, life history, health and diseases, aquatic community ecology, and habitat requirements of aquatic organisms. http://www.usgs.gov/ecosystems/fisheries/	D
NOAA	Species Information System – Central data repository to collect and manage data on stock assessments, resource surveys, fisheries catch, stock status, and other management parameters. https://explore.data.gov/Natural-Resources/Species-Information-System-SIS-/fy28-jf3u	D
NOAA OSU	Cooperative Institute for Marine Resources Studies – Focuses on fisheries science, aquaculture, oceanography, marine-resource technology and other fields. http://oregonstate.edu/cimrs/	
	Fisheries Behavioral Ecology Program – Conducts research to understand fish behavior and environmental variables, and how this influences distribution, survival, and recruitment. http://www.afsc.noaa.gov/RACE/behavioral/	D

Water Quality

Table 22: Water Quality, Pollutant Discharges, and Water Quality Plans		
Clean Water Act		
Agency	Program	Type
EPA	Oversees implementation of Clean Water Act. Approves state water quality standards. Delegates enforcement and compliance to state. http://www2.epa.gov/laws-regulations/summary-clean-water-act	R
ODEQ	Under the supervision of the Environmental Quality Commission, has primary authority for implementing state and federal water quality policy. <ul style="list-style-type: none"> ● Development of Water Quality Standards - Designates beneficial uses for each water body and sets water quality standards to protect those uses. ● Local Water Quality Status and Action Plans - Conducts in-depth assessments of the state's basins. Describe water quality conditions and recommends actions to improve water quality. ● Water Quality Assessment and Pollution Regulation - Assesses water quality and reports to the EPA. Places waters that do not meet water quality standards onto the 303(d) list. ● Develops TMDLs for waters that are 303(d) listed. TMDLs describe the maximum amount of pollutants from wastewater discharges and surface runoff sources that can enter waterways without violating clean water standards. http://www.oregon.gov/deq/Pages/about_us.aspx	R
Tribes	Development of Water Quality Standards - Designates beneficial uses for each water body within reservation boundaries and sets water quality standards to protect those uses. Tribes must be authorized by EPA in order to administer the Water Quality Standards program. http://water.epa.gov/scitech/swguidance/standards/wqslibrary/tribes.cfm#r10 Indian Tribal Approvals: http://water.epa.gov/scitech/swguidance/standards/wqslibrary/approvable.cfm	R

TMDL Implementation and Nonpoint Sources of Pollution		
ODEQ	Works with other natural resource agencies to implement TMDLs. Requires Designated Management Agencies responsible for implementing management strategies to develop TMDL Implementation Plans that describe actions to reduce pollution. http://www.deq.state.or.us/wq/nonpoint/nonpoint.htm	R
	Nonpoint Source Management Plan - Identifies pollution management programs, strategies and resources currently in place or that are needed to minimize or prevent nonpoint source pollution. Oversees and implements the plan and coordinates with other agencies.	R
	Nonpoint Source Implementation Grant (319) Program – Administers grants from EPA for implementation of nonpoint source pollution control programs and projects to help protect or improve water quality. http://www.deq.state.or.us/wq/nonpoint/grants.htm	F
ODF	Oregon Forest Practices Act – A cornerstone of resource protection, the FPA requires post-harvest reforestation, and scientifically supported measures such as streamside buffers and best practices in all aspects of forestry. The FPA encourages investment in private forestlands by providing a consistent regulatory environment. It also constitutes a social contract with the public, providing assurance that private forests are managed responsibly. Management of publicly owned forests also must meet or exceed FPA requirements. http://www.oregon.gov/ODF/privateforests/pages/fpabmp.aspx	R
BLM	Water Quality Restoration Plans and Priority Watersheds – Developed to meet water quality standards on BLM lands. ODEQ has agreement with BLM to ensure water quality standards, TMDLs, and drinking water laws are met.	R
	Abandoned Mine Lands Program – Reduces impacts on water quality from past hard rock mining. Maintains inventory of public land abandoned mines. http://www.blm.gov/or/landsrealty/aml/	D
USFS	Forest plans address best management practices to meet water quality standards. ODEQ has agreements with USFS to ensure water quality standards, TMDLs, and drinking water rules and regulations are met.	R
Cities and Counties	Develop implementation plans for urban areas to meet water quality standards.	R
ODA	Agricultural Water Quality Management Program – ODEQ has an interagency agreement with ODA to ensure water quality standards, TMDLs, GWMA, and other water quality goals are met on agricultural lands. ODA works to ensure successful implementation of the Oregon Plan for Salmon and Watersheds by developing and implementing watershed-based local Agricultural Water Quality Management Plans that identify resource goals and help agricultural landowners protect water quality. http://www.oregon.gov/ODA/nrd/pages/water_quality_front.aspx	R
SWCD ODA	Agricultural Water Quality Management Program- Soil and Water Conservation Districts receive lottery revenues (Oregon Plan) from OWEB to deliver technical assistance and conservation programs to landowners. ODA coordinates use of state funds by working with SWCDs to develop a scope of work to address water quality concerns and to implement local Agricultural Water Quality Management Plans.	F
Watershed Councils SWCDs	Assist with TMDL implementation efforts. Perform water quality monitoring at agricultural sites. Network of Oregon Watershed Councils: http://oregonwatersheds.org/ Oregon Association of Conservation Districts: http://oacd.org/	D TA EO
ODA	Fertilizer Program – Product registration includes evaluation of heavy metal content to ensure levels do not exceed state limits for arsenic, cadmium, lead, mercury, and nickel. http://www.oregon.gov/ODA/pest/Pages/fertilizer.aspx	R
	Fertilizer Research Program – Provides grant funds for projects that address the interactions of fertilizers, agricultural minerals, and agricultural amendments with ground or surface water. http://www.oregon.gov/ODA/PEST/pages/fert_water.aspx	F
EPA NOAA	Coastal Nonpoint Pollution Control Program - Jointly administered by NOAA and EPA. Establishes a set of management measures for states to use in controlling polluted runoff and protecting coastal waters. http://coastalmanagement.noaa.gov/nonpoint/welcome.html	R
EPA	Nonpoint Source Outreach Toolbox – Resources for state and local agencies to develop an outreach campaign to educate the public on nonpoint source pollution or stormwater runoff. http://cfpub.epa.gov/npstbx/	TA E

Discharges of Pollutants		
ODEQ	Regulation of Discharges – Issues federal NPDES permit or a state Water Pollution Control Facilities (WPCF) wastewater discharge permit, authorizing the discharge of pollutants. Includes wastewater, stormwater and certain pesticide applications. http://www.deq.state.or.us/wq/wqpermit/permits.htm	P
	Wastewater Permits Database: Source Information System (SIS) – Database of Wastewater Permit Reports and Water Quality permit-related documents – Reports on NPDES permits and Water Pollution Control Facility permits. http://www.deq.state.or.us/wq/sisdata/sisdata.asp	D
	Water Quality Trading Program - Allows facilities to meet regulatory obligations by purchasing pollution reductions or conserving riparian areas, wetlands, floodplains, and aquatic habitat. http://www.deq.state.or.us/wq/trading/trading.htm	R
	Section 401 Certification – Reviews federally permitted activities that may result in a discharge to waters of the state to certify that the project complies with water quality standards. Solicits input on water quality impacts from state agencies. http://www.deq.state.or.us/wq/sec401cert/removalfill.htm EPA's 401 Certification site: http://water.epa.gov/lawsregs/guidance/cwa/waterquality_index.cfm	P
	Sanitary Sewer Overflows IMD – Identifies measures that can be taken to prevent sanitary sewer overflows. Establishes requirements for reporting overflows and circumstances for enforcement action. Provides information to develop Emergency Response and Public Notification Plans. http://www.deq.state.or.us/wq/wqpermit/sewer.htm	R
ODA	CAFO Program – Has agreement with ODEQ to issue NPDES and WPCF permits to Confined Animal Feeding Operations. Performs inspections and enforcement to prevent animal waste from causing water contamination. http://www.oregon.gov/ODA/nrd/Pages/cafo_front.aspx	P
ODEQ ODA	Solid Waste Permit Program – Waste conversion technologies (digesters, compost operations, etc.) on permitted CAFOs are exempt from dual permitting requirements under agreement with ODEQ. http://www.oregon.gov/ODA/pages/pub_regs_waste.aspx#Disposal_of_Solid_Wastes	P
ODOGAMI	Mineral Land Regulation & Reclamation (MLRR) Program – The MLRR Program (as an authorized agent of DEQ) administers two water quality permits at mine sites on behalf of ODEQ. http://www.oregongeology.org/mlrr/waterquality.htm	P
ODOT	Stormwater Program - Required to inventory, manage, and conduct stormwater outfall inspections. Includes retrofit program, monitoring and research, storm drain design, and management of ditches and culverts. http://www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/Pages/storm_management_program.aspx	R
	Stormwater Management Plan Approval Streamlining – Works to streamline water quality permitting for transportation projects. The Hydraulics Manual provides design criteria for water quality treatment facilities.	P
	Asset Management of Water Quality Facilities – Maintains and manages engineered water quality facilities. Maintains an inventory of the facilities. http://www.oregon.gov/ODOT/HWY/GEOENVIRONMENTAL/pages/storm_management_program_oi.aspx	D
USCG	Marine Casualty and Pollution Data files provide details about marine casualty and pollution incidents investigated by Coast Guard.	D
EPA USCG	Marine sanitation devices - Under CWA section 312. <ul style="list-style-type: none"> ● EPA sets the standards to address fecal coliform and total suspended solids ● Coast Guard governs the design, construction, certification, installation, and operation of marine sanitation devices. 	P
Water Quality and Pesticides		
EPA	Primary authority for the Federal Insecticide, Fungicide, Rodenticide Act.	R
ODA	Delegated by EPA to implement the Federal Insecticide, Fungicide, Rodenticide Act. Responsible for pesticide registration and use regulation relating to applicator licensing, proper application, and pesticide labeling. Oversees the development and implementation of the state Pesticide Management Plan.	L
ODEQ	NPDES pesticide general permit - Regulates pesticide applications in, over, or within three feet of water. Requires NPDES permit.	P
ODF	Administers the forest practice chemical rules, which protect water quality and other natural resources on forestland. http://www.oregon.gov/ODF/privateforests/pages/pesticides.aspx	

ODFW	Vector Control (Animal borne diseases affecting fish, wildlife, or humans) – ODFW reviews and approves vector control plans to minimize effects on fish, wildlife and habitats while protecting human health. Focuses on protecting sensitive areas and species. Advises vector control districts. http://www.dfw.state.or.us/fish/water/index.asp	R
ODA,ODF ODEQ OHA OSU	Water Quality Pesticides Management Team – Collaboratively addresses challenges associated with detecting active pesticide ingredients in surface and groundwater sources for the protection of public health and environmental sustainability. http://www.oregon.gov/ODA/PEST/Pages/water_quality.aspx	TA PL E
	Pesticide Water Quality Program – Implements the Pesticide Water Quality Management Plan to protect waters from pesticide contamination. Prioritizes pesticides of concern, establishes water quality guidelines, performs watershed vulnerability assessments, designs and conducts monitoring, recommends management options, and develops communication strategies. Pesticide Management Plan (2011): http://www.oregon.gov/ODA/PEST/docs/pdf/wqpmtpmp.pdf	PL
ODEQ ODA	Pesticide Stewardship Partnerships – A voluntary approach to identify problems and improve water quality associated with pesticide use at the local level. With support from the Inter-Agency Pesticide Management Team (OSU Extension, SWCD, Watershed Councils, tribes, ODA, OHA, ODF). http://www.deq.state.or.us/wq/pesticide/pesticide.htm	D TA
ODA	Pesticide Analytical and Response Center (PARC) – Coordinate investigations to collect and analyze information about reported pesticide incidents that have health or environmental impacts. Cooperating member agencies: ODEQ, ODF, ODFW, ODOT, OHA, OHSU, Poison Control, OSHA, State Fire Marshall, OSU http://www.oregon.gov/ODA/PEST/Pages/parc.aspx	R
OHA	Pesticide Exposure, Safety and Tracking Program - Tracks and investigates health effects reported by people exposed to pesticides. http://public.health.oregon.gov/HealthyEnvironments/HealthyNeighborhoods/Pesticides	D E TA
USDA	Pesticide Data Program - Database provides national data on pesticide residues in food and water. http://www.ams.usda.gov/AMSV1.0/science	D
Prescription Take-Back Programs		
USDEA	National Prescription Drug Take-Back Day – Sponsors drug take back events twice a year. http://www.deadiversion.usdoj.gov/drug_disposal/takeback/	R
ODEQ OHA	Take-Back Programs – ODEQ and OHA support and help promote pharmaceutical take-back programs sponsored by local governments. https://public.health.oregon.gov/healthyenvironments/drinkingwater/sourcewater/pages/takeback.aspx	F TA
Other Water Quality Programs – Hazardous Wastes, Contaminants and Spills		
ODEQ	Environmental Cleanup Section – Identifies and remediates sites contaminated with hazardous substances. Includes programs in brownfields cleanup, Site Assessment, Environmental Cleanup, Dry Cleaners, Orphan Sites, and Site Response. http://www.deq.state.or.us/lq/ecsi/ecsi.htm	R D TA
	Environmental Cleanup Site Information Database - Sites in Oregon with contamination from hazardous substances http://www.deq.state.or.us/lq/ecsi/ecsiquery.asp?listtype=lis&listtitle=Environmental+Cleanup+Site%20Information+Database	D
	Confirmed Release List and Inventory. http://www.deq.state.or.us/lq/ecsi/ecsiquery.asp?listtype=crl&listtitle=Confirmed+Release+List	D
	Toxics Reduction Strategy - Focuses on implementing actions that reduce toxics at their source. Coordinates agency resources to target high priority toxic chemicals. http://www.deq.state.or.us/toxics/docs/ToxicsStrategyNov28.pdf	
Business Oregon	Brownfields Redevelopment Program – Provides financing to evaluate, cleanup and redevelop brownfields. Includes the Oregon Brownfields Redevelopment Fund and the Oregon Coalition Brownfields Cleanup Fund. http://www.oregon4biz.com/Business-financing-resources/Oregon-Finance-Programs/Brownfields-Redevelopment-Fund/	F

OHA	Environmental Health Assessment Program - works to assess and prevent human exposure to toxics found at Superfund and other contaminated sites. http://public.health.oregon.gov/HealthyEnvironments/TrackingAssessment/EnvironmentalHealthAssessment	TA E
	Health Impact Assessments - Assessment of policy/planning/development changes which may impact public health. http://public.health.oregon.gov/HealthyEnvironments/TrackingAssessment/HealthImpactAssessment	TA F
	Brownfields Program – assist communities in understanding the potential health impacts of brownfield redevelopment projects http://public.health.oregon.gov/HealthyEnvironments/HealthyNeighborhoods/Brownfields/	TA E F
CDC	Agency for Toxic Substances and Disease Registry – Performs public health assessments of waste sites and health consultations concerning specific hazardous substances. Maintains health surveillance and registries. Responds to emergency releases of hazardous substances. http://www.atsdr.cdc.gov/	D
ODEQ	Hazardous Waste Program - Administers statutes and rules to regulate and permit the generation, storage, transportation, treatment and disposal of hazardous waste. http://www.deq.state.or.us/lq/hw/	P
	Emergency Response and Cleanup – Responds and assists with cleanup of spills, oil and hazardous materials. http://www.deq.state.or.us/lq/cu/emergency/	R TA
ODOE	Regulates energy facilities, radioactive wastes and the transport of radioactive material.	
ODFW	Habitat Resources Program - Coordinates responses to hazardous material spill events that affect fish, wildlife, or habitat, and obtain compensation for damages under state or federal Natural Resource Damage Assessment statutes. http://www.dfw.state.or.us/OARs/410.pdf	R
USFWS	Environmental Contaminants Program – <ul style="list-style-type: none"> ● Contaminants Prevention - Reviews environmental documents, legislation, regulations, and permits and licenses with pollution potential to ensure that harmful effects on fish, wildlife, and plants are avoided or minimized. ● Contaminants Identification and Assessment - Conducts field studies to determine sources of pollution and effects on fish and wildlife and their habitat. ● Natural Resource Damage Assessment and Restoration Program – Restores natural resources injured by contamination. ● Responds to spills of hazardous materials to provide scientific and technical advice relative to impacts on fish and wildlife and the environment. ● Provides engineering support to assist in evaluating damage to water control systems. https://www.fws.gov/oregonfwo/Contaminants/	R
NOAA	Environmental Response Management Application (ERMA) - Geographic Information System that assists emergency responders and environmental resource managers in dealing with incidents that may adversely impact the environment. http://response.restoration.noaa.gov/erma	D
	Office of Response and Restoration – Responsible for evaluating and restoring coastal and estuarine habitats damaged by hazardous waste releases, oil spills, and vessel groundings. http://response.restoration.noaa.gov/	R
	Damage Assessment, Remediation, and Restoration Program – Responds to pollution incidents including oil spills or hazardous substance releases in rivers and coastal areas. Conduct Natural Resource Damage Assessments, provide technical support to cleanup agencies, and restore those resources when injured. http://www.darrp.noaa.gov/northwest/index.html	R TA D
BIA	The Natural Resource Damage Assessment and Restoration Program (NRDAR) - Restores Bureau and tribal natural resources that have been injured as a result of oil spills or hazardous substance releases into the environment. http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/FishWildlifeRec/index.htm	R
ODEQ	Marine Oil Spill Prevention Program – Prevents and responds to oil spills. Holds trainings for responders. http://www.deq.state.or.us/lq/pubs/factsheets/cu/MarineOilSpillPrevention.pdf	R TA
	Spill Geographic Response Plans – Detail equipment requirements and locations, as well as preferred response activities for the Willamette and Columbia rivers and coast. Plans identify aquatic and wildlife habitats, water withdrawal points and uses, resource protection and spill containment strategies, maps, and locations of necessary materials, and other information. http://www.deq.state.or.us/lq/cu/emergency/geographic.htm	PL
OSMB NOAA	Clean Marina Certification – Incentive-based program that offers technical assistance to marina operators, local governments, and recreational boaters on Best Management Practices to prevent or reduce pollution. http://www.oregon.gov/OSMB/Clean/Pages/clean_marina.aspx	TA

ODA	Pesticide Container and Containment – Agreement with USEPA to ensure proper management and disposal of pesticides. Minimizes risk of environmental release in the event of leaks or spills through inspection of pesticide containers and containment structures, inspection of refilling establishments, and label review to verify instruction on proper rinsing and disposal of pesticide residues. http://www.oregon.gov/ODA/PEST/Pages/disposal.aspx	L E
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Table 23: Water Quality Data and Research Programs		
Water Quality Data		
Agency	Program Description	Type
ODEQ	Ambient Water Quality Monitoring – Water quality data collected at 130 sites statewide 6 times annually for grab water temperature, conductivity, turbidity, dissolved Oxygen, pH, alkalinity. http://www.deq.state.or.us/lab/wqm/ambientmonitoring.htm	D
OHA	Environmental Public Health Tracking - Data portal provides maps, graphs and information of environmental and health indicators including those for water quality and drinking water. http://public.health.oregon.gov/healthyenvironments/trackingassessment/environmentalpublichealthtracking/Pages/index.aspx	E TA D
	Maintains a database on public water system water quality pertaining to SDWA regulated contaminants.	D
	Collect data on cyanotoxins when the water body is affected by harmful algal blooms. Maintains limited data on emerging contaminants in both surface and groundwater supplies. https://public.health.oregon.gov/HealthyEnvironments/Recreation/HarmfulAlgaeBlooms/Pages/index.aspx	D TA
CDC	Maintains Environmental Public Health Tracking Database – System of integrated health, exposure, and hazard information and data from national, state, and city sources. http://ephtracking.cdc.gov	D
USGS EPA	Water Quality Portal - Provides access to water-quality records in the USGS National Water Information System and the U.S. Environmental Protection Agency STORage and RETrieval data bases (STORET). http://www.waterqualitydata.us/	D
EPA	BEACON -EPA created the Beach Advisory and Closing Online Notification (BEACON) system to meet the Agency's requirement to provide to the public a database of pollution occurrences for coastal recreation waters. http://watersgeo.epa.gov/beacon2/	D
	Water Quality Conditions Reported by the States – Stream quality information by state, watershed, or water body. http://ofmpub.epa.gov/waters10/attains_state.control?p_state=OR	D
	National Water Quality Inventory Reports (under Section 305b of the Clean Water Act) – Summary reports on the quality of waters. http://water.epa.gov/lawsregs/guidance/cwa/305b/index.cfm	D
	National Aquatic Resource Surveys – Surveys of the condition of waters. Includes Wadeable Streams Assessment and National Rivers and Streams Assessment. http://water.epa.gov/type/watersheds/monitoring/aquaticsurvey_index.cfm	D
	Discharge Monitoring Report Pollutant Loading Tool - Helps determine who is discharging, what pollutants they are discharging and how much, and where they are discharging. Ranks dischargers, industries, and watersheds based on pollutant mass and toxicity, and presents “top ten” lists. http://cfpub.epa.gov/dmr/	D
	Assessment Database Version 2 – Tracking water quality assessment data, including use attainment, and causes and sources of impairment. http://www.epa.gov/waters/adb/	D
	WARSSS – A technical procedure for water quality scientists to evaluate streams impaired by excess sediment. http://water.epa.gov/scitech/datatit/tools/warsss/	D
	Watershed Plan Builder – Information and tools for development and implementation of watershed management plans. http://water.epa.gov/polwaste/nps/handbook_index.cfm	D
	Clean Water Needs Survey – Assessment of the capital needs required to meet the water quality goals set in the Clean Water Act. http://water.epa.gov/scitech/datatit/databases/cwns/	D
	Water Contaminant Information Tool – On-line database for chemical, biological, and radiological contaminants of concern for water security. http://water.epa.gov/scitech/datatit/databases/wcit/index.cfm	D
Water Quality Standards Database – Water quality standards information. http://water.epa.gov/scitech/swguidance/standards/wqshome_index.cfm	D	

	STORET/Water Quality Exchange (WQX) – Framework to submit and share water quality monitoring data http://www.epa.gov/STORET/wqx/index.html	D
	WATERS – “Watershed Assessment, Tracking & Environmental Results System;” an information system that allows the integrated of various EPA Office of Water programs. http://water.epa.gov/scitech/datait/tools/waters/docs/basic_information.cfm	D
	AQUATOX – Simulation models that predicts the fate of pollutants and effects on the ecosystem, use for performing ecological risk assessments. http://water.epa.gov/scitech/datait/models/aquatox/	D
	BASINS – “Better Assessment Science Integrating Point & Non-point Sources.” An environmental analysis system that integrates GIS, national watershed data, and environmental assessment and modeling tools. BASINS can be used for TMDL development, coastal zone management, nonpoint source programs, water quality modeling, and NPDES permitting. http://water.epa.gov/scitech/datait/models/basins/index.cfm	D
	DFLOW – Tool to estimate streamflows for low-flow analysis and water quality standards. DFLOW inputs daily stream flow and calculates user-specified biologically-based design flows, hydrologically-based design flows, harmonic, and percentile flows. http://water.epa.gov/scitech/datait/models/dflow/	D
USGS	Water Quality Watch - Continuous real-time water quality data of surface water in the United States. Provides temperature, pH, dissolved oxygen, turbidity, nitrate, and streamflow discharge. http://waterwatch.usgs.gov/wqwatch/	D
	National Water Quality Assessment Program - Provides an understanding of water-quality conditions and trends and the impacts of natural and human activities. https://water.usgs.gov/nawqa/	D
	National Stream Quality Accounting Network Program - Reports on concentrations and loads delivered by major rivers to coastal waters and select inland sub-basins. https://water.usgs.gov/nasqan/	D
	National Atmospheric Deposition Program - Monitors the chemical constituents deposited from the atmosphere via rain, sleet, and snow. http://nadp.sws.uiuc.edu/NADP/ Several state and federal agencies participate in the national program.	D
	Hydrologic Benchmark Network Program - Collects long term streamflow and water quality data from 37 watersheds located in areas that are minimally affected by human activities. Includes 2 watersheds in Oregon: Minam River and Lookout Creek. http://ny.cf.er.usgs.gov/hbn/index.cfm	D
USDA	National Agricultural Library – Information relating to water resources and agriculture, including programs and data outside of USDA. Includes pollution, decision-making, nutrient management, and conservation best management practices. http://www.nal.usda.gov/	D
Research Programs		
USDA OSU	National Institute of Food and Agriculture (NIFA) – supports research, education, and extension programs in the Land-Grant University System and within other partner organizations. http://www.csrees.usda.gov/about/background.html	F
	National Water Program - A cooperative national program to improve the quality of the nation's water resources. The program is a partnership of the U.S. Department of Agriculture and land grant colleges and universities. http://www.usawaterquality.org/ Oregon Land Grant partners: http://www.csrees.usda.gov/qlinks/partners/or.html	TA EO
USGS	Toxic Substances Hydrology Program – Provides scientific information to develop policies and practices to avoid exposure to toxic substances, mitigate environmental deterioration from contaminants, provide cost-effective cleanup and waste-disposal strategies, and reduce future risk of contamination. http://toxics.usgs.gov/	D EO TA
USDA	National Integrated Water Quality Program (NIWQP) – Funds research, education, and extension programs to solve water resource problems by advancing and disseminating the knowledge base available to agricultural, rural, and urbanizing communities. Funding provided to land grant institutions. http://www.csrees.usda.gov/fo/waterqualityicgp.cfm	F
	National Water Management Center – serves as a focal point for water resources information exchange; provides support and training for environmental compliance, hydrology and hydraulics, stream geomorphology and restoration, water quality and quantity, watershed and dam rehabilitation, and technology outreach. http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/nwmc/	TA
	NIFA Competitive Grants Watershed Studies – Provides funding to evaluate the effects of watershed	F

	conservation practices on water quality, with a focus on understanding how the suite of conservation practices, the timing of these activities, and the spatial distribution of these practices throughout a watershed influence their effectiveness. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/?cid=nrcs143_014164	
	Agriculture and Food Research Initiative: Competitive Grants Program – funds are provided to help solve critical water problems in rural and agricultural watersheds across the United States for research projects up to five years. http://www.nifa.usda.gov/funding/rfas/afri.html	F
	Water Quality Information Center – Researches and communicates scientific findings, educational methodologies, and public policy issues related to water quality and agriculture. http://wgic.nal.usda.gov/	TA EO
	Office of Environmental Markets – Facilitates emerging markets such as nutrient load reduction for water quality, wetlands and biodiversity. Supports regional market innovation. http://www.fs.fed.us/ecosystemservices/OEM/	TA

Public Health

Table 24: Drinking Water and Wastewater Regulation and Protection		
Drinking Water Protection		
Agency	Program	Type
EPA	Oversees Oregon's implementation of the federal Clean Water Act, Safe Drinking Water Act and Federal Insecticide, Fungicide, and Rodenticide Acts (see water quality above). Establishes standards for public water supply treatment. Delegates authority to state under Water Supply Supervision Program. http://www2.epa.gov/aboutepa/epa-oregon	TA R
	Public Water System Compliance Program - Works directly with public water systems operating under federal enforcement actions, explaining the requirements of the regulations and ways to achieve compliance. Assists OHA and ODEQ with enforcement. http://www2.epa.gov/aboutepa/organization-chart-epas-region-10-office#oce	R
	Provides tools and technical assistance for the security of drinking water and wastewater systems. Assists water utilities in performing risk assessments and developing effective emergency response plans. http://www2.epa.gov/aboutepa/organization-chart-epas-region-10-office#cleanup	TA
	Sets regulatory limits for contaminants in public drinking water supplies.	R
OHA	Implements Safe Drinking Water Act - Enforces federal drinking water quality standards for public water systems. Requires public water systems to sample and analyze water quality. Provides regulatory, technical, and financial assistance to water suppliers to comply with technical, managerial, and financial requirements (see infrastructure). Identifies deficiencies in water system infrastructure and asset management. Requires corrective actions. Requires public water systems to issue consumer confidence reports to customers and OHA. http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/Pages/index.aspx	R
	Certifies drinking water operators, backflow specialists, and backflow testers. http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/OperatorCertification/Pages/index.aspx	L
	Oregon Environmental Laboratory Accreditation Program - Accredits qualified laboratories for testing under the Clean Water Act, Resource Conservation and Recovery Act, and the Safe Drinking Water Act. http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	L
	Cross Connection and Backflow Prevention - Requires water suppliers to implement a cross connection control program. Certifies Cross Connection Specialists and Backflow Assembly Testers. Provides a public list of certified Backflow Assembly Testers. Stores reports on water supplier cross connection control programs. http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/CrossConnection/Pages/index.aspx	L D

ODEQ	Protects public water systems from pollution as part of Clean Water Act programs and in accordance with federal Safe Drinking Water Act. Applies to both surface and groundwater sources that provide public drinking water. http://www.deq.state.or.us/wq/dwp/dwp.htm Certifies wastewater operators and maintains database. http://www.deq.state.or.us/wq/opcert/opcert.htm	L
Drinking Water on Indian Reservations		
EPA	EPA implements drinking water programs on Indian Lands including Public Water System Supervision, Corrosion Control, Underground Injection Control, Underground Storage Tanks and Wellhead Protection. http://yosemite.epa.gov/r10/tribal.NSF <ul style="list-style-type: none"> ● Provides compliance assistance in coordination with Indian Health Service resources. ● Works with the Indian Health Service to provide workshops, circuit rider assistance, apprenticeships, and other support to assist tribes in developing utility organizations and complying with the Safe Drinking Water Act. Monitors public water systems and undertakes formal enforcement actions to ensure compliance. 	R
	Revolving Fund Drinking Water Infrastructure Tribal Set Aside Program - Provides grants to Indian Tribes to address threats to public health public water systems. http://water.epa.gov/grants_funding/dwsrf/allotments/tribes.cfm	F
IHS HUD BIA	Sanitation Facilities Construction Program - IHS plans, designs and manages water supply, sewage disposal, and solid waste disposal facilities for tribes. Works with HUD and BIA. http://www.ihs.gov/dsfc/	R
Source Water Protection		
OHA ODEQ	Source Water Assessments and Monitoring - Delineates areas around public water supply drinking water sources that the source draws water from. Identifies potential contaminant sources that could affect drinking water quality. Encourages public water systems to implement best management practices and develop drinking water protection plans to reduce the risks from contaminant sources. Provides some monitoring of groundwater and surface water source water bodies for emerging contaminants, both chemical and biological. http://www.deq.state.or.us/wq/dwp/results.htm	D
USGS ODEQ	Groundwater - Assess aquifer characteristics and implement protection measures. http://or.water.usgs.gov/	D
USDA NRCS	Source Water Protection Program – The National Rural Water Association implements this program, with oversight and assistance from USDA. NRWA hires full-time rural source water technicians. The technicians work with USDA and NRCS to create operating plans identifying priority areas for local pollution prevention efforts. Technicians facilitate the creation of local teams to develop Rural Source Water Protection plans to protect groundwater by outlining voluntary measures for producers to prevent source water pollution. http://www.fsa.usda.gov/FSA/webapp?area=home&subject=copr&topic=swp	TA PL
DLCD	Land Use Planning Goal 5 requires communities to protect drinking water sources. http://www.oregon.gov/LCD/Pages/goal5explan.aspx	R PL
ODF	Oregon Forest Practices Act – Requires more stringent protections for areas that serve as drinking water sources. http://www.oregon.gov/ODF/privateforests/pages/fpakeys.aspx	R
Drinking Water Information		
EPA	Safe Drinking Water Information System - Information about public water systems and their violations of EPA's drinking water regulations, as reported to EPA by the states. http://iaspub.epa.gov/enviro/sdw_form_v2.create_page?state_abbr=OR	D
	Risk Management Water Research – Research associated with water quality, groundwater, source water protection, aging water infrastructure and drinking water. http://www.epa.gov/nrmrl/wswrd/	D
OHA	Oregon Drinking Water Program Data - Contains public water systems data from wells, springs, and surface water intakes. Data includes source location, coliform test results, chemical test results, contacts, violations, enforcements, public notices, and basic water system information. https://yourwater.oregon.gov/	D

Table 25: Groundwater Specific Programs to Protect Drinking Water Quality

Agency	Program	Type
ODEQ	Oregon Groundwater Quality Protection – Regulates all aquifers to protect groundwater for public and private domestic water supply. Implements programs to protect and clean up sources of pollution. http://www.deq.state.or.us/wq/groundwater/agencies.htm	R
	Groundwater Management Areas – Designates when groundwater has elevated contaminant concentrations related to non-point source pollution. http://www.deq.state.or.us/wq/groundwater/gwmas.htm	R
	Onsite Disposal Systems Program – Requires onsite systems to be located, designed, installed, operated, inspected, and maintained to prevent the discharge of pollutants to the surface and hydraulically connected groundwater. http://www.deq.state.or.us/wq/onsite/onsite.htm	R
	Regulation of Discharges (UIC) Program – Issues permits for UIC systems under the Safe Drinking Water Act to protect groundwater quality. Injection systems are any discharges below the ground or subsurface including geothermal systems and aquifer storage and recovery systems. Maintains database of class V wells. http://www.deq.state.or.us/wq/uic/uic.htm	P
	Underground Storage Tank Program – Implements rules governing installation, removal and modification of tanks storing gasoline and other listed hazardous substances. http://www.deq.state.or.us/lq/tanks/ust/	R
	Leaking Underground Storage Tank Program - Deals with cleanup of soil and groundwater contamination from underground storage tanks. http://www.deq.state.or.us/lq/tanks/lust/index.htm	R TA
	Maintains database of Leaking Underground Storage Tanks Cleanup Sites http://www.deq.state.or.us/lq/tanks/lust/LustPublicLookup.asp	D
	Heating Oil Tank Program – Regulates tanks storing fuel oil to heat buildings. Implements rules for the cleanup of soil and groundwater contamination. http://www.deq.state.or.us/lq/tanks/hot/	R
	Solid Waste Program – Permits the siting and management of industrial and municipal solid waste facilities. Requires facilities to conduct site investigations and water quality monitoring to determine the potential to impact groundwater. May require facilities to perform groundwater monitoring and install liners and leachate collection and treatment systems. http://www.deq.state.or.us/lq/sw/	P
	Biosolids Application Program – Regulates the use of sludge from treated domestic wastewater on land through biosolids management plans and site authorization letters. http://www.deq.state.or.us/wq/biosolids/biosolids.htm	R PL
EPA	Sole Source Aquifer Protection Program – When an aquifer is the sole or principal drinking water source for the area, which, if contaminated, would create a significant hazard to public health, no commitment for federal financial assistance may be entered into for any project that may contaminate such aquifer. Currently only one aquifer designated in Oregon (North Florence Dunal Aquifer). http://yosemite.epa.gov/r10/water.nsf/Sole+Source+Aquifers/Overview/	R
DOGAMI ODEQ	Permitting agency for gas and oil wells, mining development and reclamation, and geothermal wells. Coordinates to address NPDES or WPCF permitting to protect groundwater quality. http://www.oregongeology.org/mlrr/oilgas.htm	P
OHA	Domestic Well Water Testing and the Real Estate Transaction Database – Requires seller of a property with a domestic groundwater well to have the water tested for arsenic, nitrate and total coliform bacteria. Results must be sent to the buyer and OHA. http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/SourceWater/DomesticWellSafety/Pages/Testing-Regulations.aspx	D
	Groundwater Rule – Requires all public water systems that use groundwater sources or purchase groundwater to protect from bacterial and viral pathogens. Requires reconstruction or abandonment of wells contributing to viral contamination. http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/Rules/GWR/Pages/index.aspx	R
	Groundwater Under the Direct Influence of Surface Water – Requires treatment if public drinking water wells and springs are hydraulically connected to surface water bodies impacted by large diameter pathogens. https://public.health.oregon.gov/HEALTHYENVIRONMENTS/DRINKINGWATER/SOURCEWATER/Pages/gwudi.aspx	D

	Domestic Well Safety Program – Assess potential health hazards and develops/provides education & outreach materials for the public, to be delivered through local public health authorities, realtors, and environmental laboratories. http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/SourceWater/DomesticWellSafety	D F
OWRD	Administers the statutes and rules governing monitoring and supply well construction, usage, & abandonment as well as low temperature geothermal wells, and ASR. http://www.oregon.gov/owrd/pages/gw/index.aspx	R
OSU Extension	Conducts research and provides information related to agricultural and land-use issues, including studies of agricultural impact on groundwater and monitoring for nitrate. http://wellwater.oregonstate.edu/	D
EPA	Groundwater Research Program - Researches processes affecting the quality and availability of groundwater and develops solutions. http://www.epa.gov/ada/basic.html	D

Table 26: Other Public Health Programs

Oregon Beach Monitoring Program		
Agency	Program Description	Type
OHA ODEQ	Oregon Beach Monitoring Program - Monitor coastal beaches for the presence of fecal contamination. OHA issues public health advisories. http://public.health.oregon.gov/HealthyEnvironments/Recreation/BeachWaterQuality	E TA
OPRD	Maintain local beach advisory signs. Local governments assist as well. https://public.health.oregon.gov/newsadvisories/Pages/RecreationalAdvisories.aspx#beach	TA
EPA	Provides program funding. Hosts advisory and monitoring data in BEACON and STORET	F D
Oregon Harmful Algae Bloom Surveillance		
OHA	Issues public health advisories for freshwater blooms. Tracks illness related to freshwater or marine algae blooms. Tracks characteristics of freshwater blooms. Publishes measures of freshwater blooms and related illnesses on the Environmental Public Health Tracking portal. http://public.health.oregon.gov/HealthyEnvironments/Recreation/HarmfulAlgaeBlooms/	D TA
CDC	CDC is planning to receive and report all information in Environmental Public Health Tracking and the National Outbreak Reporting System.	D
ODEQ	Investigates the cause of harmful algal blooms. Identifies pollution sources and develops pollution reduction plan. http://www.deq.state.or.us/wq/algae/algae.htm	R
Mult. Agencies	State and federal agencies that manage lakes, rivers and reservoirs and/or adjacent recreation facilities for recreation or drinking water collect samples, document conditions and post warning signs. Where there is not a management agency, OHA, ODEQ and local government agencies work together.	TA E
NOAA	Performs research on forecasting, response, monitoring, prevention, control and mitigation of Harmful Algal Blooms, as well as performing research to understand algal blooms. http://oceanservice.noaa.gov/hazards/hab/	D
Additional Programs and Data		
CDC, EPA	Waterborne Disease and Outbreak Surveillance System - Tracks waterborne disease and outbreaks associated with drinking water, recreational water, and other uses of water. http://www.cdc.gov/nors	D
OHA ODEQ ODFW Tribes EPA	Fish Consumption Advisories - OHA Issues fish consumption advisories in partnership with ODEQ, ODFW, Tribes, USEPA and others whom collect data. Printed in annual sport fishing regulations. http://public.health.oregon.gov/HealthyEnvironments/Recreation/FishConsumption/	E D
ODA, ODFW	Recreational Shellfish Closures - Issues shellfish safety closures to protect recreational shellfish harvesters from consuming clams or mussels contaminated with biotoxins. http://www.oregon.gov/ODA/FSD/Pages/shellfish_status.aspx	E

EPA	BEACON – Results of beach monitoring conducted by state and local environmental and public health officials. http://watersgeo.epa.gov/beacon2/	D
	National Listing of Fish Advisories – Data on state, territorial, tribal and federally issued fish consumption advisories. http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories	D
	Mercury Maps – A tool that relates changes in mercury air deposition rates to changes in mercury fish tissue concentrations. http://water.epa.gov/scitech/datait/models/maps	D
	Drinking Water Data and Databases – Drinking water data	D

Education and Outreach

Table 27: Education and Outreach		
Educational Materials and Environmental Literacy		
Agency	Program	Type
ODE	Oregon Environmental Literacy Plan - Prepares students to understand and address the major environmental challenges facing Oregon and the United States. Helps to establish programs that promote lifestyles through outdoor recreation. http://www.ode.state.or.us/gradelevel/hs/oregon-environmental-literacy-plan.pdf	PL
W. OR UNIV	Project Wet program for K-12 education. Provides an overview of water quality and quantity issues, focusing on topics such as watersheds, wetlands, oceans, sanitation and hygiene, water history, and more. http://www.projectwet.org/where-we-are/partners/western-oregon-university	E
EPA	Provides educational materials on water-related resources, including conferences and workshops, lesson plans, games and activities, and other professional training. http://water.epa.gov/learn/	E
CDC	Water Program – Provides health related information on public water systems, private water systems, bottled water, water and travel, and water fluoridation. http://www.cdc.gov/healthywater/	E
USFWS	Let's Go Outside – Programs and information to connect people with nature. Provides resources for educators and students. http://www.fws.gov/letsgooutside/	E
USGS	Educational Resources – Includes GIS labs, geospatial imagery, videos, online lectures, and other educational materials. Topics include water, biology, geology, geography and other sciences. http://education.usgs.gov/	E
BPA	Provides educational grants for K-12, public outreach, curriculum materials, and classroom presentations. Topics include hydropower, transmission, environmental stewardship, fish, renewable, energy efficiency and water uses. http://www.bpa.gov/PublicInvolvement/CommunityEducation/Pages/Education-Grants.aspx	E
	Sponsors middle school and high school Science Bowl competitions. http://www.bpa.gov/PublicInvolvement/CommunityEducation/ScienceBowl/Pages/default.aspx	F
NPS	Offers a civic engagement website and educational materials for teachers. Provides curriculum materials and other resources for teachers and students. http://www.nps.gov/teachers/teacher-resources.htm?q=WATER	E
BLM	Environmental Education - BLM Offices have partnerships with schools, focusing on educational programs ranging from history and culture to fisheries and watersheds. http://www.blm.gov/co/st/en/BLM_Resources/environmental_education.html	E
Oregon Sea Grant	Aquatic Invasive Species Toolkit - Contains science curricula, learning activities and projects about invasive species. http://seagrant.oregonstate.edu/invasive-species/toolkit	E
NOAA	Bay-Watershed Training - Environmental education program that promotes locally relevant, experiential learning in K-12, primarily through competitive funding that promotes Meaningful Watershed Educational Experiences. http://www.oesd.noaa.gov/grants/bwet.html#page=awards	E
Professional Programs and Advanced Training		
EPA	Watershed Academy's Distance Learning Program – Self-paced training modules that represent a basic and broad introduction to the watershed management field. http://cfpub.epa.gov/watertrain/index.cfm	E

NOAA, OSU	Sea Grant College Program – Integrates research, education, and outreach extension and communications. http://seagrant.oregonstate.edu/	E D TA
Clack. CC Linn - Benton CC	Water & Environmental Technology – Coursework in drinking water distribution, drinking water treatment, wastewater treatment and wastewater collection. https://www.clackamas.edu/Programs/Water-and-Environmental-Technology.aspx https://www.linnbenton.edu/wet	E
Lane CC	Water Conservation Technician Training Program specializing in energy and water efficiency. http://www.lanecce.edu/sustainability/water-conservation-technician	E
PSU	River Restoration Professional Certificate Program. http://epp.esr.pdx.edu/riverrest.html	E
BLM	Provides research opportunities on BLM lands. http://www.blm.gov/or/resources/science/index.php	
USGS ODFW USFWS OSU	Cooperative Fish and Wildlife Research Units – The Cooperative Research Unit program was established in 1935 to enhance graduate education in fisheries and wildlife sciences and to facilitate research between natural resource agencies and universities on topics of mutual concern. Today, there are 40 Cooperative Research Units in 38 states. Each unit is a partnership among the U.S. Geological Survey, a State natural resource agency, a host university, and the Wildlife Management Institute. http://www.coopunits.org/Oregon/	D TA
OSU Extension	Stormwater Solutions – Affiliated with trainings by Nonpoint pollution Education for Municipal Officials (NEMO). Deliver education and technical assistance on low-impact development practices that address these stormwater impacts including: Low Impact Development Academy, Rain Gardens, SWAMP (StormWater Assessment and Management decision-support Process), and Urban Forestry – FREMO. http://extension.oregonstate.edu/stormwater/	EO
Other Public Engagement Programs		
NOAA	Cooperative Weather Observer Network - More than 11,000 volunteers across the United States collect daily hydrometeorological data, including temperature, precipitation, snowfall, snow depth, river gauge, and weather. http://www.nws.noaa.gov/om/coop/	D
ODFW	Salmon Trout Enhancement Program – Leverages volunteers in the restoration of salmon, steelhead and trout. Volunteers donate money, materials, equipment, time and labor assisting with stream habitat restoration work, conducting surveys, helping with education projects, and hatching and rearing salmon and trout eggs. http://www.dfw.state.or.us/fish/STEP/index.asp	TA
ODEQ OWEB	Volunteer Monitoring Program - Involves Oregonians in identifying and solving water quality problems. Provides technical assistance in monitoring design, equipment use, data management and analysis to volunteers. Loans monitoring equipment to volunteer groups. DEQ: http://www.deq.state.or.us/lab/wqm/volmonitoring.htm OWEB Monitoring Grants: http://www.oregon.gov/OWEB/GRANTS/pages/monitoring_grants.aspx	TA F
USFWS	Aquatic Resource Education Grant Program – Grants for angler education, outdoor ethics, stewardship and conservation to increase understanding of water resources and aquatic life. http://wsfrprograms.fws.gov/Subpages/GrantPrograms/AquaticEd/AE.htm	E
OSU Extension	Master Watershed Stewards - Working with the Oregon Master Naturalist program to create a watershed stewardship track within the Oregon Master Naturalist framework. Stewards will serve their communities by completing a project with assistance from OSU Extension, resource agencies or watershed councils. http://extension.oregonstate.edu/coos/master-watershed-stewardship-program	E
	Gardening – Provides information and resources on WaterWise gardening, gardening near streams, native plants, and rain gardens. http://extension.oregonstate.edu/yamhill/eco-gardening/waterwise-gardening	E TA
	Well Water Program – Offers information relating to wells including septic tanks, well maintenance, water testing, arsenic, bacteria, water treatment, assessment tools, farm and garden, pesticides, and hazardous waste. Also information concerning groundwater quantity: droughts, groundwater restrictions, gray water, water level, wells producing less water, rainwater harvesting, water storage and conservation. http://wellwater.oregonstate.edu/	E TA
	Master Naturalist - Provides an opportunity to learn about natural resources through the study of scientifically sound information: the natural history of plants, animals, habitats, and geology, the history and processes of landscape change. http://oregonmasternaturalist.org/	E

Table 28: Other Water Research and Data

Agency	Program	Type
USGS	Cooperative Water Program – Conducts studies based on local, State, and Tribal water science needs and decision-making. Provides information relating to water availability and use, ecosystem health, water quality and drinking water, hazard risk and assessment, energy, climate and land use change needed. http://water.usgs.gov/coop/	D
	Water Information Coordination Program – Works with the Advisory Committee on Water Information to identify water information needs, evaluate the effectiveness of water information programs and recommend improvements. http://acwi.gov/wpinfo.html	D
	Hydrologic Research and Development Program – Conducts research on hydrological problems such as ecological and biochemical processes and movement and availability of subsurface water to inform groundwater management decisions. http://water.usgs.gov/nrp/hrd/	D
	Hydrologic Networks and Analysis program - Data and analysis on the quantity and quality of water in streams, lakes, and reservoirs. http://water.usgs.gov/hna/	D
	Start with Science – Provides water-related scientific research on ecosystems, energy and minerals, environmental health, climate change and land use. http://www.usgs.gov/start_with_science/	E
USGS OSU - INR	State Water Resources Research Institute Program - Supports water resources research, education, and information transfer to through the use of matching grants. http://water.usgs.gov/wrri/institutes.html	D E
USFS	National Resource Manager - Includes stream survey data, aquatic surveys, invasive species, rangeland inventory and monitoring, vegetation, watershed conditions tracking, wildlife, water rights and uses. http://www.fs.fed.us/nrm/index.shtml	D
OSU ODLCD	Oregon Coastal Atlas - Background information for different coastal systems, access to interactive mapping, and online geospatial analysis tools. http://www.coastalatlus.net/	D PL
ODAS OSU	Oregon Spatial Data Library – Contains spatial data for Oregon. http://spatialdata.oregonexplorer.info/geoportal/catalog/main/home.page	D
OSU - INR	Oregon Explorer – A comprehensive digital library of Oregon's natural resources. A state-of-the-art, web-based resource using advanced information technology to access and integrate data from state and federal agencies, local governments, university scientists, citizens, and K-12 educators and students. http://oregonexplorer.info/	D
ODF	Oregon Forest Atlas – The Oregon Forest Atlas project was developed in 2010 to provide public members with a broader understanding of Oregon's forests using contemporary technology. Maps developed for the Forest Atlas use Geographic Information Systems (GIS) data obtained by the U.S. Forest Service PNW Research Station, data from Oregon State University and data gathered and maintained by the Oregon Department of Forestry. http://www.oregon.gov/ODF/Pages/resource_planning/forestatlas.aspx	D E
All federal agencies	Data.gov – Website that provides access to federal agency data sets, tools, and geo data. http://www.data.gov/	D