

#### **2019-21 Budget Presentation**

Before the Joint Ways & Means Natural Resources Subcommittee



Presented by: Tom Byler, Director March 4-6, 2019



# **Chapter One**

- Overview
  - Historical Perspective
    - Agency Structure
    - Water Law
  - Mission
  - Goals
    - Integrated Water Resources Strategy
    - Strategic Plan







#### Historical Perspective Agency Structure

- Common Law Doctrine
- 1905 State Engineer
- 1909 Board of Control
- Various changes over time
- 1975 merged to create the Department
  - Water quantity agency
  - No Federal counterpart
- 1985 renaming of Water Resources Commission

Below: Notice of water appropriation from 1878. Short Jail Gulch Notice hereby grovers that ernderingered have this day takens and former five hundred inches They Sealch Known as Shirt Tail Gulch and all its tributaries for marring mechanical and agreeltural perposes Dated May 30" Thes Blarn Baker County Oregon

Image Courtesy of Baker Heritage Museum. William Blain, Shirttail Gulch, May 30, 1878. G. W. Parker, clerk, by I. D. Parker, deputy. www.bakerheritagemuseum.com



### Water Resources Commission



*Director Byler with Commission, from left to right:* 

- Kathy Kihara East-Side at Large
- Vice-Chair Bruce Corn Eastern Region
- Chair Meg Reeves West-Side at Large



- Mike Faught Southwest Region
- Eric Quaempts North Central Region
- Joe Moll- West Central
- Bob Baumgartner Northwest Region



#### 1909 Water Code Prior Appropriation Doctrine

#### First in time, first in right.

#### "Junior User" 1970 Water Right

This water right is regulated back to meet the downstream need of the senior water right.

#### "Senior User" 1910 Water Right

This water right gets water first during times of low streamflow.



#### **Advancements in Water Law**

1909: Oregon Water Code

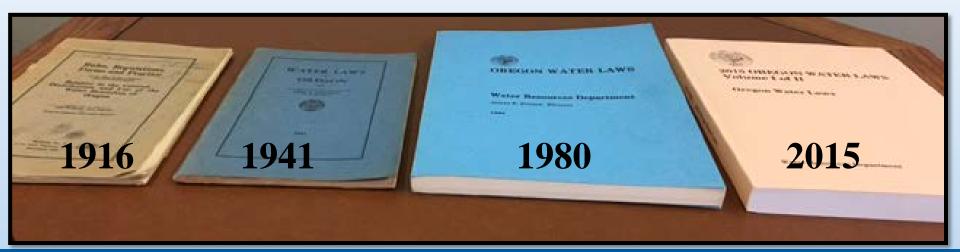
1955: Ground Water Act

1987: Instream Water Rights Act

1989: Water Allocation Policy

2009: Integrated Water Resources Strategy

2015: Water Resources Development Program





#### <u>Mission</u>

• To serve the public by practicing and promoting responsible water management

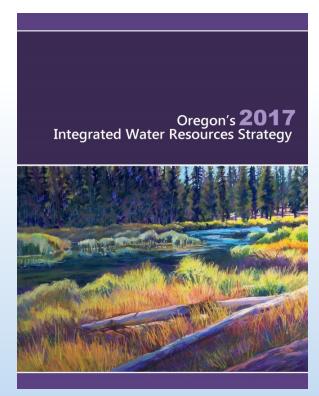
#### <u>Goals</u>

- Restore and protect streamflow to ensure the sustainability of Oregon's ecosystem, economy, and quality of life
- Directly address Oregon's water supply needs



# **Integrated Water Resources Strategy**

- Understand Oregon's Water Resources, Needs, and Coming Pressures
- Meet Instream and Out-of-Stream Needs by:
  - Collecting and providing data
  - Understanding changing conditions
  - Protecting public safety
  - Distributing water
  - Providing technical assistance and funding
  - Processing water rights





# **IWRS Recommended Actions**

#### Download: <a href="http://www.oregon.gov/OWRD/programs/Planning/IWRS/Pages/default.aspx">www.oregon.gov/OWRD/programs/Planning/IWRS/Pages/default.aspx</a>

#### **Oregon's 2017 Integrated Water Resources Strategy**



A framework for improving our understanding of Oregon's water resources and meeting our instream and out-of-stream needs, including water quantity, water quality, and ecosystem needs

(1) Understand Water Resources Today	<ul> <li>OBJECTIVES</li> </ul>	(2) Understand Instream and Out-of-Stream Needs		
Further Understand Limited Water Supplies & Systems (groundwater, surface water, and their interaction)	CRITICAL	Further Define Out-of-Stream Needs / Demands (i.e., diverted water) (i.e., left-in-place water)		
Improve Water Quality & Further Understand Our Quantity Information Water Management Institutions	155065			
Understanding Water Resources / Supplies / Institutions         1.A       Conduct additional groundwater investigations         1.B       Improve water resource data collection & monitoring         1.C       Coordinate inter-agency data collection, processing, and use in decision-making	RECOMMENDED ACTIONS	Understanding Oregon's Out-of-Stream Needs/Demands         Understanding Oregon's Instream Needs/Demands           2.A         Regularly update long-term water demand forecasts         3.A         Determine needed (quality & quantity) to support instream Needs / Demands           2.B         Improve water-use measurement & reporting         3.A         Determine needs           2.C         Determine usidudicated water right claims contact information         3.B         Determine needs of groundwater dependent ecosystems           2.E         Regularly update Oregon's water-related permitting guide         Setormine needs		

( 3 ) Understand the Coming Pressures That Affect Our Needs and Supplies	← OBJECTIVES →	(4) Meet Oregon's Instream and Out-of-Stream Needs		
Economic Development     Water & Energy     Climate Change     Extreme Events       Population Growth     Water & Land Use     Water-Related Infrastructure     Education & Outreach	← CRITICAL → ISSUES	Place-Based Efforts     Water Management & Development       Healthy Ecosystems     Public Health		
Water & Energy       Water & Land Use         4.A. Analyze the effects on water from energy development projects & policies       Generation and use planning (and vice versa)         4.B. Take advantage of existing infrastructure to develop non-traditional hydroelectric power       Generation and use planning (and vice versa)         4.C. Promote strategies that increase/integrate energy & water savings       Generation and use planning (and vice versa)         Climate Change       Generation and greane fronts         S.A. Support continued basin-scale climate change research efforts       The resiliency strategies         Extreme Events       Extreme for flood events         S.S.C. Plan and prepare for drought resiliency earthquake event       B. Provide education and training for Oregon's next generation of water experts         S.S.C. Plan and prepare for a Cascadia subduction earthquake event       B. Provide education and training opportunities a.D. Identify ongoing water-related research needs         Economic Development & Population Growth (See Actions 2A ond 3A)       Generations 2A ond 3A)	RECOMMENDED ← ACTIONS →	Place-Based Efforts       Healthy Ecosystems         9.A Continue to undertake place-based integrated, water resources planning       Healthy Ecosystems         9.B Coordinate implementation of existing natural resource plans       11.A Improve watershed health, resiliency, and capacity for natural storage         9.C Partner with federal agencies, tribes, and neighboring states in long-term water resources management       11.B Develop additional instream protections         Water Management & Development       10.A Improve water-use efficiency and water conservation       11.F Develop additional groundwater protections         10.A Improve water-use efficiency and water reconservation       12. Resure the safety of Oregon's drinking water         10.A Improve water resources development non-regulatory alternatives       12. C Implement water quality pollution control plans         10.F Continue the water resources development program       13.A Fund development and implementation of Oregon's IWRS         10.G Strengthen water quantity & water quality permitting programs       13.4 Fund development and implementation of ortes projects         13.E Invest in implementation of water resources projects       13.E Invest in implementation of water resources projects		



#### **Strategic Plan**

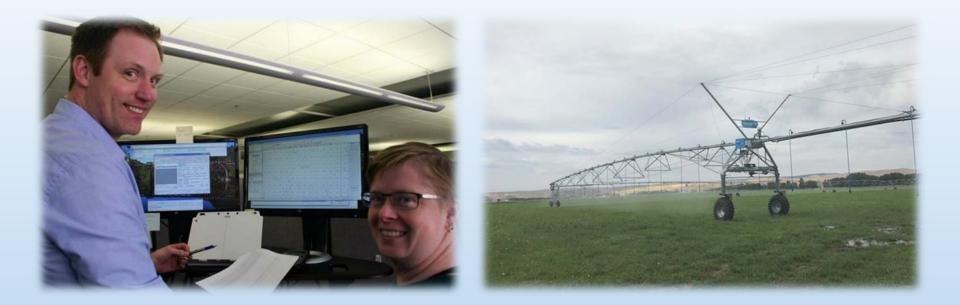


Integrity + Service + Technical Excellence + Teamwork + Forward-Looking



**Priority: Systems Modernization** 

Modernize management of Oregon's surface water and groundwater resources to meet instream and out-of-stream uses





### **Priority: Secure our water future**

# Work to secure Oregon's instream and out-of-stream water future in the face of increasing water scarcity







# **Priority: Forward-Looking Team**

#### Foster a forward-looking team dedicated to serving Oregonians with integrity and excellence

I will never forget your kindness).

neiping me find my Gammy and PaPa's Well records. I appreciate you taking the time to walk me through it all online. You just don't find many people in the world like you! Thank you, Thank you!





# **Chapter Two**

- Overview:
  - Key Performance Measures







# **Key Performance Measures**

#	Description	Target	Actual
1	% of watersheds that had flows added for fish	30%	26%
2	Ratio of the streams regulated to protect instream water rights to all streams regulated [REPLACE]	0.95	0.82
3	% of regulatory actions that found water right holders in compliance	99%	98%
4	% change from 2001 in # of WRD gages	6.5%	20%
5	% change from 2001 in the number of wells routinely monitored to assess groundwater	10%	10%
6	% of water management related datasets that are available to the public on the internet [DELETE]	95%	98%



# **Key Performance Measures**

#	Description		Actual
7	# of times data was accessed on Internet	2.75	3.70
8	# of significant diversions with measurement devices installed	1,175	1,059
9	% of Water Management and Conservation Plans reviewed within 90 days of submittal	95%	100%
10	% of water right applications that received a review within 45 days of filing	55%	14%
11	% of transfer final orders issued within 120 days	37%	22%
12	# of points of diversion per FTE of field staff	2,550	2,361
13	% of water users with water-use reporting requirement that have submitted their reports	82%	78%



# **Key Performance Measures**

KPM #	Customer Service KPMs - % rating service as "good" or "excellent"	Target %	Actual %
14	OVERALL	85	76
14	ACCURACY	85	83
14	AVAILABILITY OF INFORMATION	85	72
14	EXPERTISE	85	80
14	HELPFULNESS	85	81
14	TIMELINESS	85	64



## **Chapter Three**

- Overview:
  - Who We Serve
  - Divisions and Programs
  - Organizational Chart
  - Delivery of Services



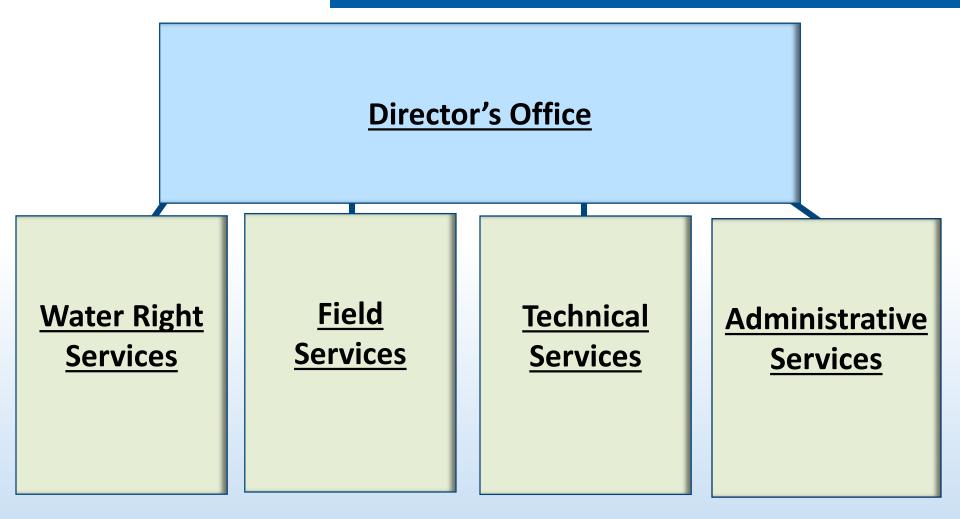


#### Who We Serve





#### **Divisions and Programs**





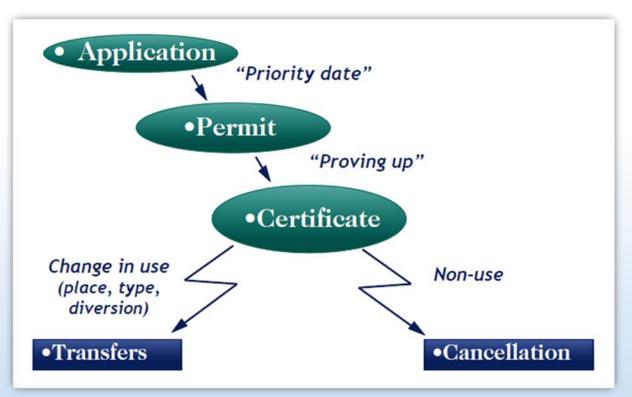
## **Division Snapshot**

DIVISION	<b>BUDGET*</b>	FTE	TOTAL FUND (\$)
Administrative Services	17-19 LAB	12.75	63,841,803
	19-21 GRB	12.50	61,436,521
Director's Office	17-19 LAB	11.00	3,998,395
	19-21 GRB	14.77	6,252,376
Field Services	17-19 LAB	60.42	15,447,462
FIEId Services	19-21 GRB	61.23	15,246,088
Technical Services	17-19 LAB	46.00	13,210,992
	19-21 GRB	52.92	16,523,428
Water Rights Services	17-19 LAB	37.42	8,377,081
	19-21 GRB	36.17	8,524,183



# Water Right Services Division

- Water right applications
- Extensions
- Protests
- Certificates
- Transfers
- Hydroelectric
- Adjudication





# Water Right Services Division

- Streamflow restoration and conservation
- Water management and conservation plans
- Front desk customer service



WATER MANAGEMENT AND CONSERVATION PLANS

A Guidebook for Oregon Municipal Water Suppliers March 2015 (2<sup>nd</sup> Edition)





#### **Field Services Division**

- Responding to complaints
- Water management and distribution

l am very sorry. Thank you for letting me vent. Crystal





#### **Field Services Division**

#### • Hydrologic measurements







#### **Field Services Division**

 Well inspections and assistance with dam safety inspections

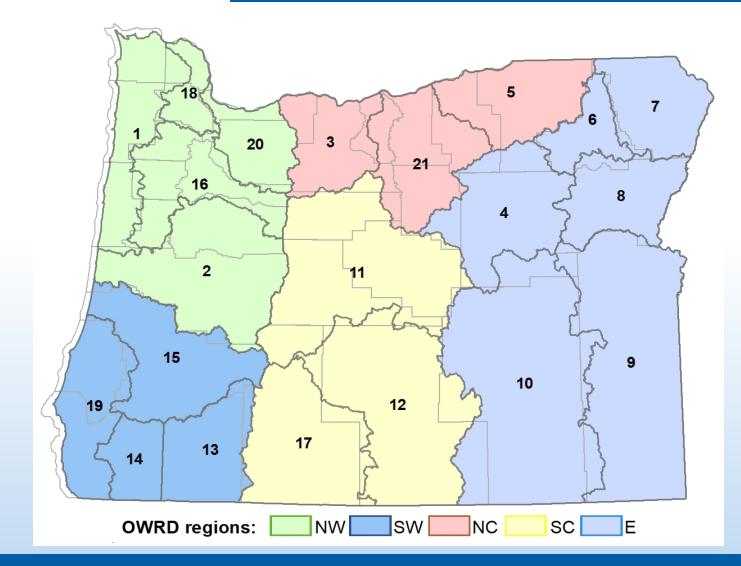


Community outreach and education





#### Field Services Division: Watermaster Districts





- 1909 Water Code
  - Watermasters appointed by the Board of Control only as needed
  - Where continuous employment beneficial, paid by county
  - Assistant watermasters could be hired by watermaster, paid for by county
- Several changes to statutes over time
- 1963 statute: watermasters funded by State



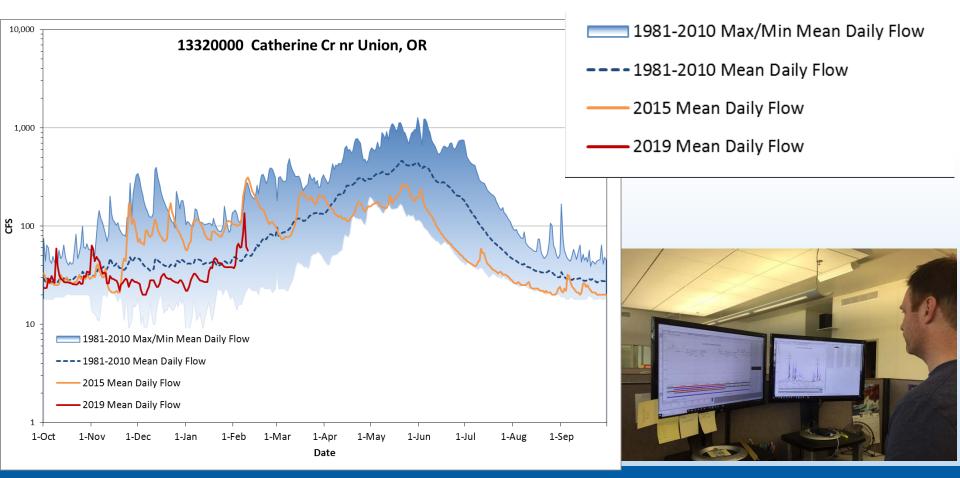
- 1962-64 report of the State Engineer notes lack of funding for assistant watermasters; desire for State to fund
- Early 1980s, estimated 37 county-funded staff
- 1988 Discussion Paper: Funding for Field Personnel
- 2013 / 2017 Water Rights Management Fee Proposed; Fails to pass
- Funding levels today by state and other partners



- *Purpose*: Increases watermaster and regional assistant watermaster staff to support timely water management and distribution.
- *Total*: \$754,248 General Fund
  Includes: 4 FTE
- Integrated Water Resources Strategy Recommended Actions: 1.B, 2.B, 10.F



#### Surface Water Science

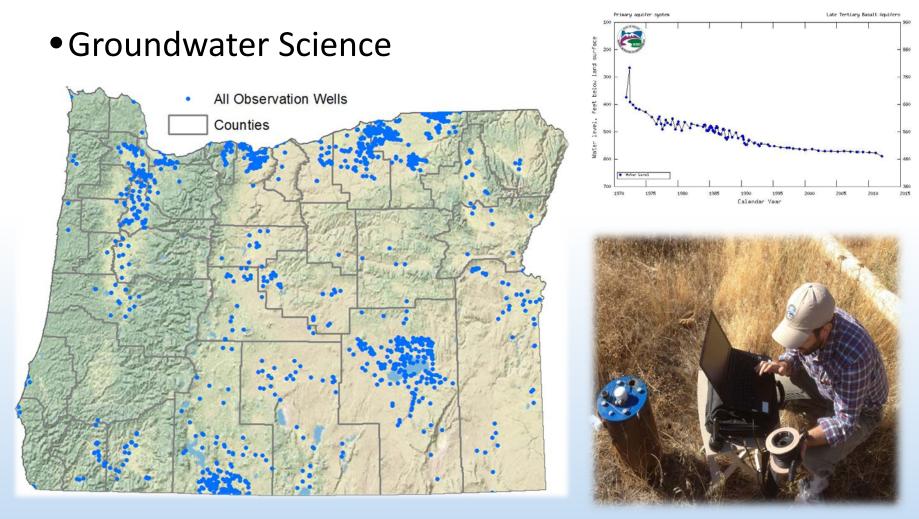




#### Information Services







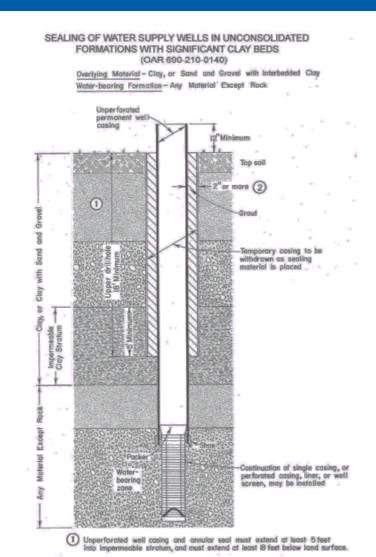


- *Purpose*: Increases understanding of groundwater supplies by increasing capacity to do two groundwater studies at a time, instead of one. The Walla Walla subbasin is the next basin intended for study. Also, supports surface water science and well construction.
- *Total*: \$2,837,027 General Fund
  - Includes: 9 FTE, Groundwater Study Cost-share (\$300K), Geologic Mapping (\$100K), and Observation Wells (\$400k)
- Integrated Water Resources Strategy Recommended Actions: 1.A, 1.B



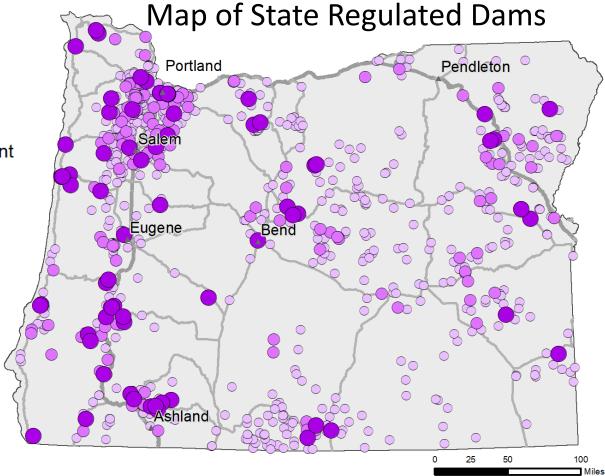
#### • Well Construction/Compliance







#### • Dam Safety



#### Legend





## A Vision for Water Infrastructure





- *Purpose*: Increases understanding of safety and condition of dams through Dam Safety Task Force assessments. Also includes business case analysis of infrastructure needs.
- *Total*: \$600,000 General Fund
  - Includes: Dam Safety (\$500k), Business Case (\$100K)
- *Revenue:* \$46,975 HB 2085 Fee Revenue
- Integrated Water Resources Strategy Recommended Action: 7.C



# **Administrative Services Division**

- Agency-wide professional support:
  - Fiscal Services
  - Human Resources
  - Business Services
  - Grant and Loan Payments and Contracts





- *Purpose*: Makes permanent an existing shared services payroll position who is a member of the team that provides payroll and benefit services to over 500 staff in 6 different agencies.
- *Total*: \$146,808 Other Funds
  - Includes: Continues 1 FTE



# **Director's Office**

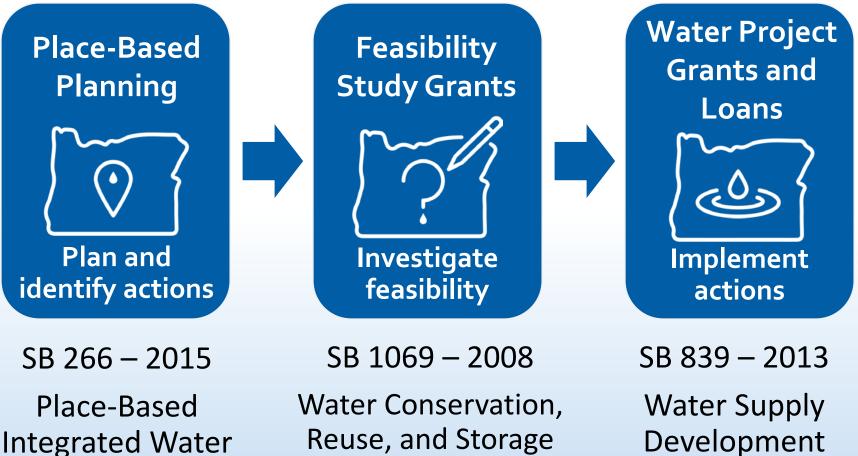
- Agency policy direction & strategy
- Intergovernmental relations
- Communications
- Performance improvement
- Water Resources Development Program







#### Water Resources Development Program



**Grant Program** 

Resources Planning

42

Account



# **Place-Based Planning**

- Building trust and relationships
- Partnering with State
- Increasing local access to the State, data, and technical assistance
- Developing actionable plan with broadly supported solutions
- HB 2084 Extend 2019 sunset to 2023

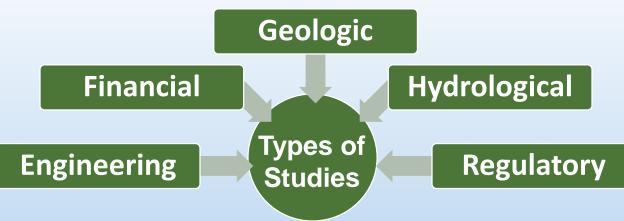




- *Purpose*: Provides \$750k for supporting current planning groups in Harney-Malheur Lake, Lower John Day, Mid-Coast, and Upper Grande Ronde in accordance with HB 2084, as well as conducting an evaluation of the place-based approach to water planning.
- *Total*: \$979,950 General Fund
  - Includes: Continues 1 FTE (\$230k)
- Integrated Water Resources Strategy Recommended Action: 9.A



- Eligible studies examine the feasibility of conservation, reuse, and storage projects
- Studies vary in complexity, may take 1-3 years to complete
- 2015-17 Biennium:
  - 3 grant cycles
  - Allocated \$2.2M in funding





## Water Projects Grants and Loans

- Funding for water projects that meet instream and/or out-ofstream water needs and produce economic, environmental, and social/cultural benefits
- Grant cycles were administrated in 2016, 2017 and 2018, allocating over \$19M in funding
- Competitive program: requests exceed available funding









- *Purpose*: Provides funding for grants and loans for water supply projects to meet instream and out-of-stream water needs.
- *Total*: \$15,278,251
  - Includes: Lottery Revenue Bonds (\$15M); Cost of Issuance (\$278K)
- Integrated Water Resources Strategy Recommended Actions: 3.A, 10.A, 10.B, 10.C, 10.E, 11.B, 13.E



- *Purpose*: Additional resources to address ongoing expenses related to litigation, primarily within the Klamath Basin.
- *Total*: \$1,000,000 General Fund



- *Purpose*: Adds internal auditor in the Director's Office to help identify opportunities for continuous improvement and comply with Administrative Rule requirements for auditing.
- *Total*: \$183,351
  - Includes: 1 FTE, General Fund (\$93k), Other Fund (\$90K)



# **Organizational Chart**

#### **Director's Office**

- Legislative, rulemaking, & policy coordination
- Public records & information
- Water Resources Development Program
- Integrated Water Resources Strategy and Strategic Plan
- Executive and Commission support

<ul> <li>Field Services</li> <li>Water management and distribution</li> <li>Well inspections</li> </ul>	<ul> <li>Water Right Services</li> <li>Water right transactions</li> <li>Customer service</li> <li>Hydroelectric licensing</li> </ul>	Administrative Services Fiscal services Human Resources	<ul> <li><u>Technical Services</u></li> <li>Dam safety program</li> <li>Surface water science</li> <li>Groundwater</li> </ul>
<ul> <li>Data collection</li> <li>Assist with dam inspections</li> <li>Water measurement</li> </ul>	<ul> <li>licensing</li> <li>Adjudications</li> <li>Water Management and Conservation Planning</li> </ul>	<ul> <li>Facilities</li> <li>Grant and Loan Payments and Contracts</li> <li>Support services</li> </ul>	<ul> <li>Groundwater science</li> <li>Information services</li> <li>Well construction &amp; Enforcement</li> </ul>



# **Chapter Four**

- Overview:
  - Budget Drivers
  - Changes in the past six years
  - Process Improvements





# **Increasingly Complex System**

- Water rights more than 150 years old; Old laws and case law
- Complex technically, legally, and socially



Short Sail Sulch CERTIFICATE OF WATER RIGHT all its - hibularies for min mechanical and agricultural for TH UMPOUA RIVER, A TRIBUTARY OF UMPOUA RIVER for DOMESTIC RIGATION OF 1.5 ACRES. Dated May 30" 1878 The Blain Baker Courty 282. The date of priority is APRIL 27, 2005. The amount of water to which this Oregon ally used beneficially, and shall not exceed 0.029 CUBIC FOOT PER SECOND USE, AND 0.019 CFS FOR IRRIGATION, measured at the point of diversion.

The period of use is year round for domestic use; March 1 through October 31 for irrigation.

The point of diversion is located as follows:

Twp	Rng	Mer	Sec	Q-Q	DLC	Measured Distances
26 S	6 W	WM	23	NW SE	47	POD 2 - 400 FEET SOUTH AND 1150 FEET EAST FROM C1/4 CORNER, SECTION 23

The amount of water used for irrigation under this right, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet for each acre irrigated during the irrigation season of each year.

	Cwp	Rng	Mer	Sec	Q-Q	DLC	Acres
--	-----	-----	-----	-----	-----	-----	-------

Measurement, recording and reporting conditions:

A. The Director may require the water user to install a meter or other suitable measuring device as approved by the Director. If the Director notifies the water user to install a meter or other measuring device, the water user shall install a meter or other measuring device, the water user shall install such device within the period stated in the notice. Such installation period shall not be less than 90 days unless special circumstances warrant a shorter installation period. Once installed, the water user shall maintain the meter or measuring device in good working order and shall allow the watermaster access to the meter or measuring device. The Director may provide an opportunity for the water user to submit alternative measuring procedures for review and approval.



#### Finite Supply: Drives Need for Data

- Limited supplies and increased demands results in the desire for more innovative and precise management
- Data necessary for:
  - Planning
  - Water management
  - Infrastructure design
  - Decisions about solutions

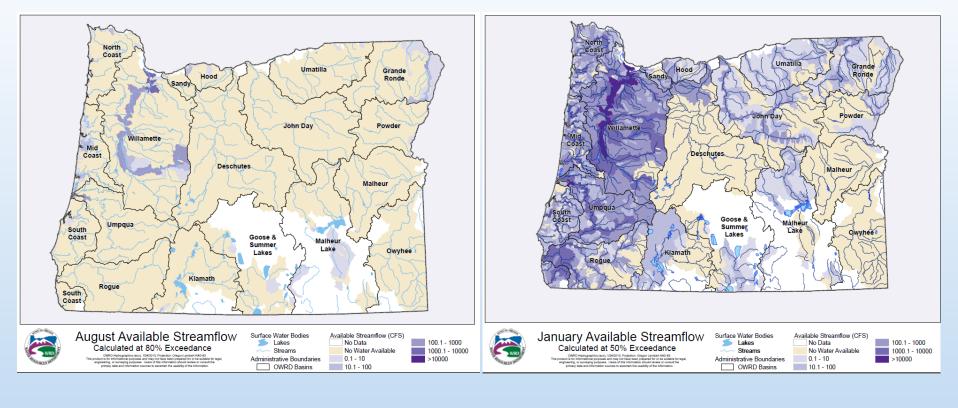




## Surface Water Availability

# Water availability for live flow allocation in August

# Water availability for storage in January

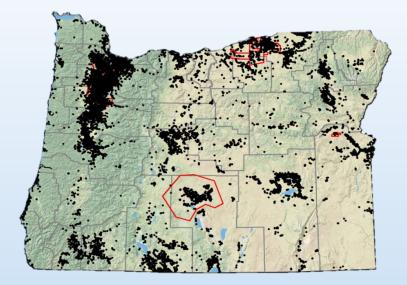


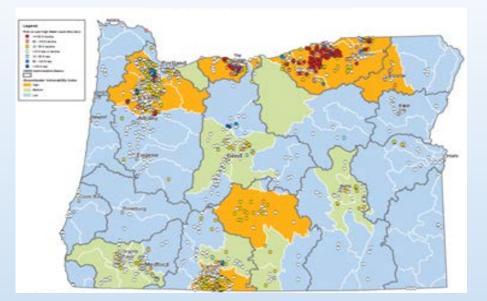


### **Status of Groundwater**

#### Groundwater Permitted Water Right Wells

#### Groundwater Areas of Concern



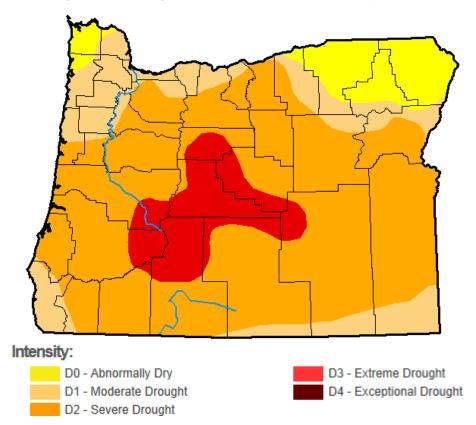




# **Drought Trends**

Drought is not an abnormal occurrence

**Oregon Drought Monitor - February 4, 2019** 



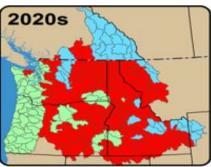


# **Snowpack Projections**

- Oregon is dependent upon temperaturesensitive snowpack to meet water demands
- Less precipitation is projected to fall as snow
- Trend toward raindominant systems

Hamlet et al. 2013, as cited in Dalton, M.M., P.W. Mote, and A.K. Snover [Eds.]. 2013. *Climate Change in the Northwest: Implications for Our Landscapes, Waters, and Communities.* Washington, DC: Island Press.

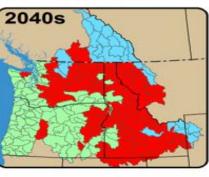


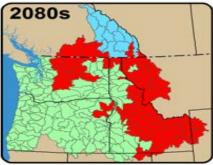


Ratio of Peak Snow Water Equivalent to October to March Precipitation

- < 0.1</li>
   Rain dominant
  - 0.1 0.4 Mixed rain-snow

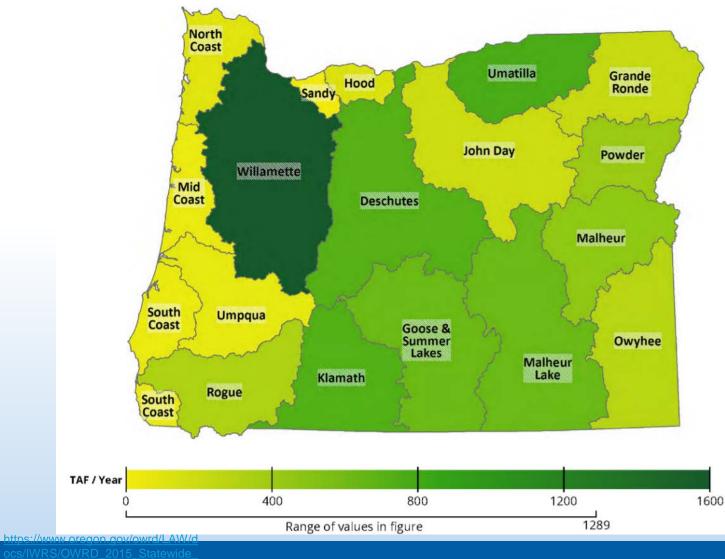
> 0.4 Snow dominant







## **2015 Water Diversion Demand**



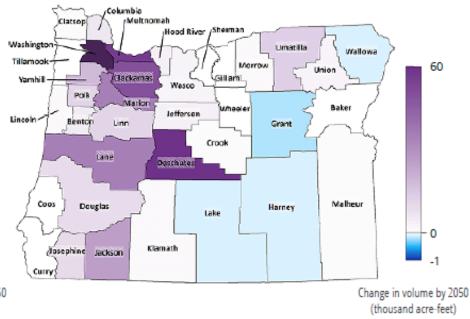
ongTerm Water Demand Forecas



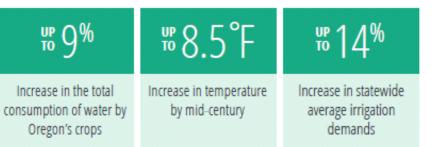
## **Changes in Demand**



Change in volume by 2050 (thousand acre-feet)



#### INCREASES IN AGRICULTURAL DEMANDS



#### **CHANGES IN MUNICIPAL & INDUSTRIAL DEMAND**

20%	40%	+1.5 gallons per day
Projected increase in M&I demands	Projected increase in population statewide (~1.5 million people)	The statewide average M&I water use is expected to increase slightly, from 150.5 to 152 gallons per day, per person.

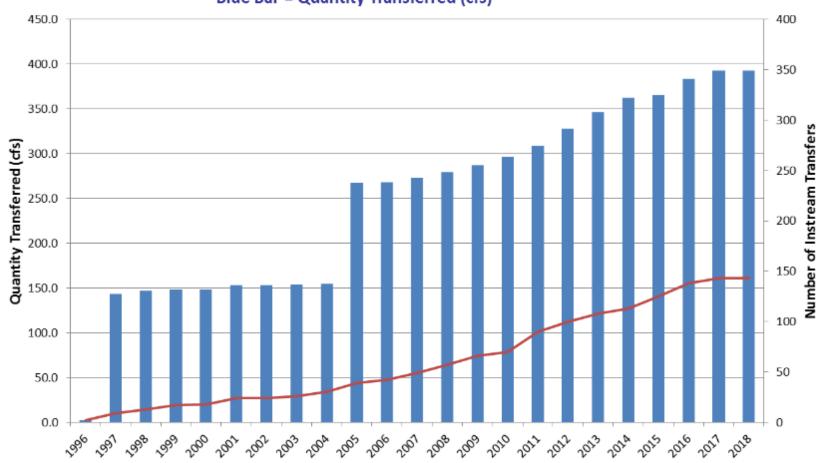


#### **Streamflow Protection**

#### Instream Transfers (Cumulative)

#### Red Line = Number of Active Transfers

#### Blue Bar = Quantity Transferred (cfs)





# Aging Water Infrastructure





# **Addressing Complex Water Issues**

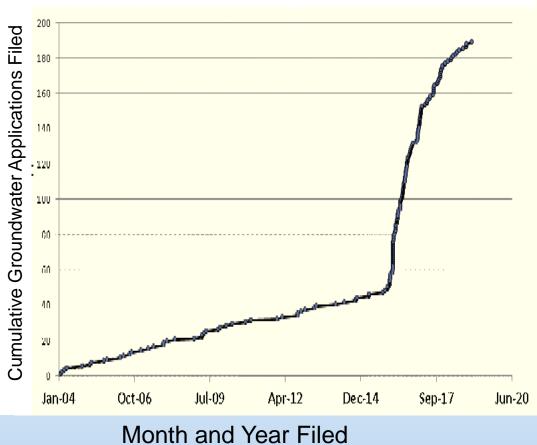
- Umatilla Basin
- Deschutes Basin
- Klamath Basin
- Willamette Basin
- Walla-Walla Subbasin
- Greater Harney Valley
- Mosier





# New Industry: Cannabis

#### Groundwater Applications Filed in Rogue Basin Since 2004







# Major Changes: Six Years

### 2017-19

- 2017 Integrated Water Resources Strategy
- Department develops and adopts a five-year Strategic Plan
- Klamath agreements terminated: increased litigation



## 2015-17

- Walla Walla Serious Water Management Problem Area
- Initiation of groundwater study in Greater Harney Valley
- Formation of Water Resources Development Program
- First-cycle of Water Project Grants and Loans
- SB 266 Place-Based Integrated Water Resources Planning
- 2015 statewide drought 2016 Task Force
- Demand Forecast and Monitoring Strategy



## 2013-15

- Recreational Marijuana and modifications to the Medical Marijuana
- Completion of work groups, task force and rulemakings for Water Projects Grants and Loans - SB 839 (2013)
- Delivery of Findings of Fact and Final Order of Determination in Klamath Adjudication



## **Process Improvements**

- Contract Tracking
- Fiscal Auto Data Upload
- Onboarding
- Field Activity Database
- Groundwater
   Information System
- Website Update
- Strategic Plan
- Macro update from WordPerfect to Word





## **Chapter Five**

- Overview
  - Budget
     Information
  - Interface with other Agencies
  - Proposed
     Legislation



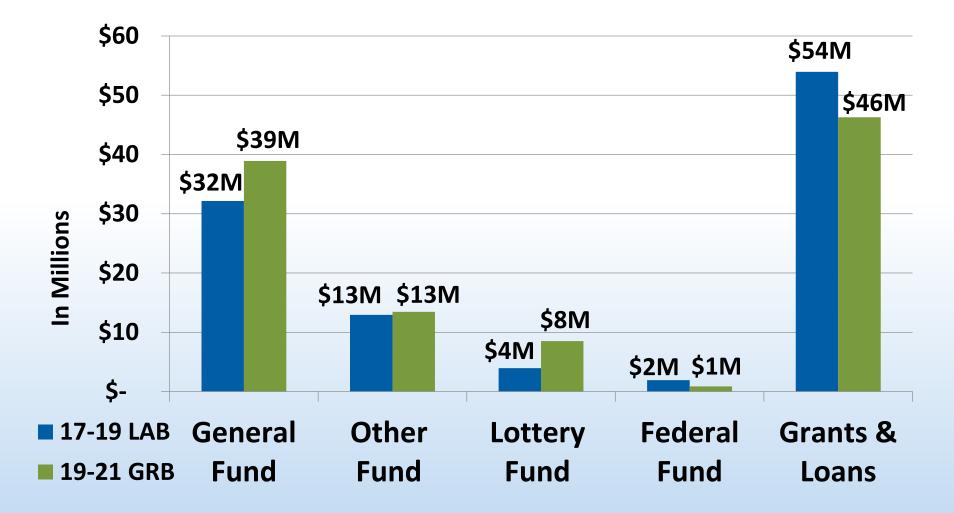
# **Budget Information**



	2017-19 Legislatively Approved Budget	2019-21 Governor's Recommended
	(Feb Session)	Budget
General Fund	\$ 32,150,986	\$38,894,484
Other Funds (including Fees)	12,922,692	13,439,807
Other Funds (Grants and Loans)	53,942,169	*46,278,251
Lottery Funds (Debt Service)	3,953,969	8,493,320
Federal Funds	1,905,917	876,734
Total Funds	\$ 104,875,733	\$107,982,596
<b>Positions/Full-Time</b>	170/167.59	184/177.59
Equivalent (FTE)		

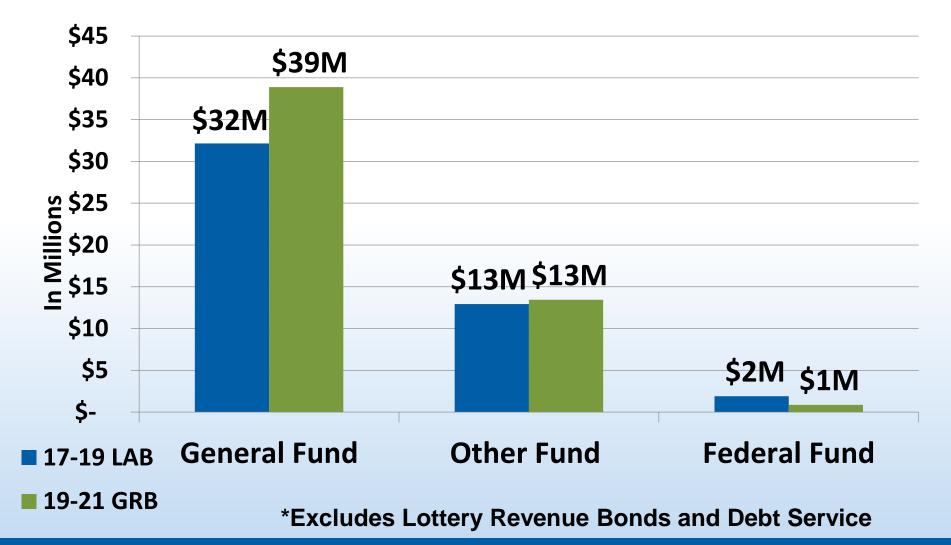


# Total Budget By Fund Type



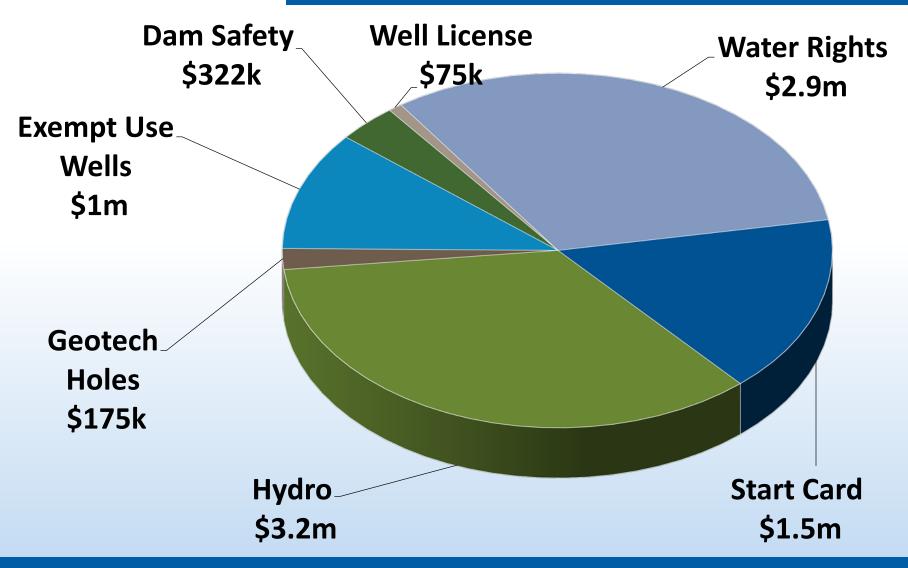


# **Operating Budget By Fund\***





#### **Fee Revenues**





- New water rights and extensions
- Hydroelectric
- Planning
- Evaluation of Grants
- Integrated Water Resources Strategy
- Drought
- Data collection, including groundwater studies
- State Scenic Waterways
- Payroll, IT, Human Resources, Fiscal, Contracts



- HB 2084 Extending Place-Based Planning
  Additional grant funds and position in POP 101.
- HB 2085 Modernizing Dam Safety Statutes
  - Minimal fiscal.
  - Revenue: \$46,975 estimated fee revenue for review of plans and specs prior to construction of dams, contained in POP 104.
- SB 51 Transfers in the Type of Stored Water
  - Minimal fiscal.



# **Chapter Six**

- Overview:
  - Reductions





- *Reductions*:
  - Staff: \$497K/2FTE Eliminates funding for a Water Right Data Tech and eliminates a Water Right Extension Processor; inadvertently reduces an Oregon Plan Field Water Right Tech
  - *Data:* \$97K Gaging Stations; \$100K Observation Wells
  - Cost-Share Funding: \$205K Feasibility Study Grant;
     \$9K Water Use Measurement Cost Share
  - Other reductions: \$134K Standard Inflation for nonprotected accounts; \$724K - Increases in vacancy savings
- *Total*: \$1,765,953 General Fund



- Reduction:
  - Adjustments reflect the Department of Administrative Services (DAS) charges and pricelist in the Governor's Recommended Budget.
- *Total*: \$318,042
  - \$256,752 General Fund
  - \$61,290 Other Funds



- Reduction:
  - Adjustments reflect the Department of Justice (DOJ) rates in the Governor's Recommended Budget.
- *Total*: \$62,290
  - 57,417 General Fund
  - \$4,873 Other Funds



# **Questions?**

