




MEMORANDUM

TO: Water Resources Commission
FROM: Ivan Gall, Field Services Administrator 
SUBJECT: Agenda Item A, June 14, 2018
Water Resources Commission Meeting

**Report on 2017 Field Regulation and Enforcement Activities and Update
from Watermaster District 11**

I. Issue Statement

During this informational agenda item, staff will report on the 2017 field regulation and enforcement activities and provide an overview of Watermaster District 11.

II. Background

A. Field Structure and Duties

Watermasters are responsible for distributing water according to the system of prior appropriation under Oregon Law. The Department has 21 watermasters and seven state-funded, full time regional assistant watermasters housed in five regional offices and 16 satellite offices across the state. Attachment 1 lists Department watermasters and their locations. Regional offices also house staff such as well inspectors, hydrologic technicians, transfer specialists, and hydrologists.

Counties and the U.S. Bureau of Reclamation funded 18 part-time and full-time positions, including 14 assistant watermasters, one hydrologic technician, and three office assistants. The locally-funded positions are typically supported through county budgets, grants, or contracts.

Field staff support many of the recommended actions in the 2017 Integrated Water Resources Strategy (IWRs), including:

- Surface and groundwater distribution and regulation (IWRs action 10F)
- Installation of surface water measuring devices; stream gaging and measurements; preparation of hydrographic records (IWRs action 1B)
- Customer service and public outreach
- Implementing the Water Resources Commission's Strategic Measurement Plan (IWRs action 2B)
- Investigation and referral of formal enforcement activities
- Dam safety inspections (IWRs action 7B)

- Well construction compliance and enforcement activities (IWRS action 7A)
- Field assistance to other Department sections, including the Water Resources Development Program (IWRS actions 10A, 10B, 10C, and 10E)
- Permit, leasing, and transfer application review and processing (IWRS action 11B)

B. Enforcement and Compliance Role:

Day-to-day field activities involve working with water users to ensure compliance with the terms and conditions of their water rights. When voluntary compliance in the field is unsuccessful, regulatory actions are subsequently referred to the Well Construction and Compliance Section Manager for formal enforcement action. The Well Construction and Compliance Section Manager is responsible for developing enforcement policy for both surface and groundwater, carrying out formal enforcement actions, negotiating resolutions, and maintaining statewide program consistency.

C. Workload Prioritization

Watermasters and field staff typically have more work than they can reasonably accomplish. To address this problem, the Department developed internal management directives to assist staff in setting priorities for enforcement actions. The directives have been used for several years and are an effective tool for prioritizing field work. The Commission's Strategic Measurement Plan also identifies priority watersheds for work activities, such as significant points of diversions.

Field staff's goal is to proactively engage in water management rather than relying solely on a complaint-driven process. The directives highlight the effectiveness of education and communication in preventing water law violations before they occur. Water users are more likely to voluntarily comply when they are knowledgeable about their rights and responsibilities, and when users and field staff know what to expect from each other. When not responding to complaints, known violations, and other high priority assignments, staff can engage in public education activities.

D. Process and Approach to Surface Water Regulation

Generally, water is distributed according to priority date, regardless of the type of beneficial uses involved. The oldest rights get the water first unless the right is specifically subordinated to junior users. The type of use becomes important only when conflicting uses have the same priority date. In this case, a domestic use would have preference to all others, and an agricultural use would have preference to a manufacturing use (ORS 540.140).

Watermasters do not begin regulation until the amount of streamflow has been measured and legal rights of the users are known. If streamflow is not adequate to satisfy an instream water right, or if a call is made by a senior water user, the watermaster begins an investigation and then takes appropriate actions such as curtailing or shutting off the diversions of junior users. Only in unusual cases, when voluntary compliance with the watermaster's request is not achieved, do formal phases of enforcement begin.

On stream systems where annual regulation occurs, watermasters prepare distribution maps showing the location of the rights, priority date, and other necessary information. This may involve several hours or days of effort, depending on the number of water rights in the stream basin. In some districts, the watermaster has a local database of water right information and is able to generate “distribution letters” requesting that junior users curtail their diversions. The department’s Information Services staff are working to automate the creation of distribution letters for the entire state, using water right and tax lot information. All watermasters and assistant watermasters have mobile tablets, allowing maps and water rights to be accessed in the field.

Unauthorized uses of water discovered during surface water regulation are addressed first. In addition to uses without a water right, illegal uses include exceeding the limit of the right or violating a condition of the right, such as an unauthorized point of diversion or excessive diversion rate. If eliminating illegal use does not provide the water to satisfy senior water rights, the watermaster will require junior right holders to reduce or discontinue their use until this goal is met. If no junior rights exist, or if these actions do not provide the necessary additional water, the watermaster will advise the affected senior user.

During regulation, watermasters often negotiate voluntary reductions, rotations, or compliance schedules with water users. Senior right holders may volunteer to use less than their entitlement so that junior users are not completely shut off. In a rotation, groups of users agree to pool their rights so each participant may receive the amount of water to which they are collectively entitled. The available surface water is shifted to each user in the rotation in time proportional to each user’s fraction of the collective water rights.

The most critical element to ensure regulatory success is the trust users have in the watermasters knowledge, consistency, and integrity. When a high level of trust is attained, the amount of time spent by the watermaster on a particular stream is minimized, and voluntary compliance tends to be the norm. Where the watermaster is involved annually in regulating a particular stream system, both the watermaster and the users are well aware of existing water rights and generally know what to expect from each other.

III. Discussion

A. 2017 Surface Water Regulation

The Department’s definition of a regulatory action is “any action that causes a change in use or maintenance, or a field inspection that confirms that no change is needed to comply with the water right, statute or order of the Department.” Watermasters reported a total of 14,656 regulatory actions in 2017, compared to 18,281 in 2016. Of these 14,656 regulatory actions, 3,157 involved written notices. There is a large variation in total regulatory actions among the regions. For example, the efforts range from one action per stream to a high of 4,668 actions on the Umatilla River, tributary to the Columbia River. Differences can be attributed to the number of irrigation districts compared to the number of individual users; the number of water management arrangements such as rotation agreements, exchanges of water, or stored water

deliveries; the length of the regulation season; water availability; and the number of points of diversion; and the priority dates of any in-stream water rights. Additionally, there are annual variations in the regulatory actions performed each year that are influenced by weather and staff resources.

In 2017, watermasters and their assistants regulated 370 streams, down from 431 in 2016. Multiple regulatory actions may occur on any one stream. Regulation was prompted by the watermaster's own investigation in 367 cases and by complaints/senior calls in 206 cases. In many cases regulatory actions occur multiple times on a given stream, which is reflected by 14,656 regulatory actions that occurred on 370 individual streams. The number of regulatory actions and the number of streams regulated was lower in 2017 than in 2016, largely due to an improvement in water conditions throughout the state. Generally speaking, many of the same streams are regulated every year. The difference is how early regulation begins based on water conditions in that area, and to what priority date a stream is regulated. Attachment 2 provides a summary of field staff actions.

Department staff are working on a new database to improve and refine data collection and field activity tracking. The new database allows specific tracking of regulatory actions for in-stream rights, and if that right is being met or not. Groundwater complaints and investigations can also be tracked in the new database.

In 2017, statewide, water user compliance with water rights and regulations was approximately 98.4 percent which is consistent with the 2016 compliance rate. This statistic indicates that at the points of diversion and water rights that field staff inspected or visited, the water user was in compliance or voluntary compliance was achieved 98.4 percent of the time. Attachment 3 provides a regional and watermaster district breakdown of 2017 compliance rates.

B. 2017 Well Program Activity

Regulation of well construction may be initiated by complaints or inquiries from the public, or through an investigation by the well inspector or watermaster. Generally, the process begins with receipt of a "Notice of Beginning of Well Construction" also known as a "Start Card." After the start card is received by the Department, the well inspector or watermaster may make a site visit. Well inspectors work closely with drillers to resolve problems to protect groundwater and users.

Well reports, or "logs," are a physical description of well construction, alteration, abandonment, conversion, or deepening. In 2017, the Department received reports for 906 monitoring wells, 3,676 water supply wells, and 6,186 geotechnical holes. A geotechnical hole is a cased or uncased, permanent or temporary (less than 72 hours) "hole" constructed for the purpose of evaluating subsurface information. Of those received in 2017, the Department received 3,081 start cards for new wells (409 monitoring wells and 2,672 water supply wells).

Well inspections involve either on-site presence during well construction or review of the well shortly after it is drilled. The regional well inspectors and field staff performed a total of 1,441 well inspections. Of the total inspections, 1,035 were conducted on new construction,

representing an inspection rate of 34 percent of all new wells. Thirty-five percent of new water wells were inspected, and 25 percent of new monitoring wells were inspected. About 14 percent of the new wells inspected were found to have a deficiency. The deficiencies were predominantly minor and were most often resolved voluntarily by the well constructor.

Attachment 4 provides a table summarizing the Well Construction Program Data for 2017, a data plot of well construction activity, and a map of where well inspections were conducted in 2017. The Department's goal is to inspect at least 25 percent of the new wells constructed each year.

C. Formal Enforcement Activity

Many of the Department's regulatory actions are resolved voluntarily upon notice to the responsible party. If compliance is not achieved at this level the watermaster may issue a Notice of Violation. This written notice specifies the nature of the violation, time frames within which compliance is expected, and the consequences for failure to comply voluntarily.

If compliance is not achieved following the Notice of Violation, the matter is referred through the Region Manager to the Well Construction and Compliance Section Manager for a formal enforcement action. If the Department determines there is sufficient evidence to pursue the matter, a proposed order is issued, which may include assessment of civil penalties. The violator has a specific period to request a contested case hearing. If no hearing is requested, a final order is issued and enforced.

Generally, by working with individuals, most formal enforcement actions are resolved before the case is referred to the Office of Administrative Hearings. At any point in the enforcement process, the responsible party may choose voluntary compliance. Of the 14,656 regulatory actions on surface water sources taken in 2017, only 10 Notices of Violation were issued by field staff, indicating that a high degree of compliance continues to be achieved voluntarily. Department staff also issued Notices of Violation to 3 companies who were constructing wells without a license and initiated formal enforcement action against one individual.

D. Water Measurement and Monitoring

Measuring devices help staff with streamflow monitoring and more accurate and efficient distribution of water. Department staff provided an update to the Commission at the March 2018 meeting on the challenges and opportunities for improving water use measurement and reporting.

The Water Resources Commission adopted a Strategic Measurement Plan in 2000. This resulted in watermasters and assistant watermasters prioritizing measuring device installation on surface water significant points of diversions (SIGPOD)¹ in high priority stream basins.

¹ A SIGPOD diverts greater than five cubic feet per second (cfs), or greater than 10 percent of the lowest monthly 50 percent exceedance flow and greater than 0.25 cfs (essentially, a rate that would be considered large relative to the low flow of the stream), or has a condition on the water right requiring installation of a measuring device.

In 2017, staff worked with water users to have measuring devices installed and confirmed installation on 24 SigPODs in high priority watersheds around the state. This compares to 42 significant diversions with measuring device installations confirmed in 2016. Attachment 5 provides a summary of SIGPOD work completed through the end of calendar year 2017 and a summary of the last five years of activity. The Department has a modest cost-share program to assist landowners with the installation of measuring devices.

Working closely with the Hydrographics Section, field staff installed or took over operation of 7 new gaging stations at locations that were not previously gaged. In addition, numerous existing stations were upgraded with modern equipment that provides staff better access to data through near real-time equipment. The Department's ability to install and operate new stations is limited by current staffing levels in both the Hydrographics Section and the Field Services Division.

IV. Conclusion

Maintaining a strong field presence is important to managing and distributing water in Oregon, and to obtain compliance with Oregon's water laws. Field staff seek first to obtain compliance voluntarily and through education; therefore, the need to conduct formal enforcement actions is often unnecessary.

Attachments:

1. List of Watermasters by District
2. 2017 Surface Water Summary Statewide Totals
3. 2017 Compliance Rate Summary by Watermaster District and Region
4. 2017 Well Construction and Inspection Summary and map
5. Significant Point of Diversion Summary Table

Ivan Gall

503-986-0847

WATERMASTER LIST

DIST	COUNTIES	WATERMASTER	CONTACT	STATIONED
1	CLATSOP/TILLAMOOK/ LINCOLN/W. COLUMBIA	HENDRICKS, Nikki	503-815-1967	TILLAMOOK
2	LANE/LINN	BLAKELY, Lanaya	541-682-3620	EUGENE
3	HOOD RIVER/WASCO/ WESTERN SHERMAN	WOOD, Robert	541-506-2652	THE DALLES
4	SE WHEELER/GRANT	JULSRUD, Eric	541-575-0119	CANYON CITY
5	UMATILLA/MORROW	SILBERNAGEL, Greg	541-278-5456	PENDLETON
6	UNION	HATTAN, Shad	541-963-1031	LA GRANDE
7	WALLOWA	BATES, David	541-398-8172	ENTERPRISE
8	BAKER	LUSK, Rick & Asst. RM	541-523-8224 x 31	BAKER CITY
9	MALHEUR	JACOBS, Ron	541-473-5130	VALE
10	HARNEY	JOHNSON, J R	541-573-2591	BURNS
11	JEFFERSON/CROOK/ DESCHUTES	GIFFIN, Jeremy	541-306-6885	BEND
12	LAKE	MAYER, Brian	541-947-6038	LAKEVIEW
13	JACKSON	HAYNES, Shavon	541-774-6880	MEDFORD
14	JOSEPHINE	JOHNSTONE, Jake	541-261-2213	GRANTS PASS
15	DOUGLAS	DOUTHIT, Susan	541-440-4255	ROSEBURG
16	MARION/POLK/BENTON/ YAMHILL/S. CLACKAMAS	PLAHN, Joel	503-986-0889	SALEM
17	KLAMATH	WATSON, Danette	541-883-4182	KLAMATH FALLS
18	WASHINGTON/ EASTERN COLUMBIA	CONSTANS, Jake	503-846-7780	HILLSBORO
19	CURRY/COOS	WACKER, Greg	541-297-6157	COQUILLE
20	MULTNOMAH/ N. CLACKAMAS	KIM, Amy	503-722-1410	CLACKAMAS
21	WHEELER/GILLIAM/ WESTERN MORROW/ EASTERN SHERMAN	THIEMANN, Ken	541-384-4207	CONDON

2017 SURFACE WATER SUMMARY REPORT TOTALS STATEWIDE

Streams Regulated	370
Regulatory Actions	14,656
Written Regulatory Actions	3,157
Other Than Written Regulatory Actions	11,499
Watermaster Investigations	367
Complaints	206

REASON(S) FOR REGULATORY ACTIVITY RANKED HIGHEST TO LOWEST

- Protect Instream Rights
- Protect Senior Out-of-Stream Rights
- Protect Instream Rights & Senior Out-of-Stream Rights
- Protect Instream Rights & Regulate-off Illegal Use
- Illegal Use
- Protect Senior Out-of-Stream Rights & Regulate off Illegal Use

2017 SURFACE WATER SUMMARY

PERCENT IN COMPLIANCE BY DISTRICT

<u>District</u>	<u>Year</u>	<u>Percentage</u>	<u>Year</u>	<u>Percentage</u>	<u>Year</u>	<u>Percentage</u>	<u>Year</u>	<u>Percentage</u>
1	2014	99.0%	2015	99.0%	2016	99.6%	2017	98.5%
2	2014	93.1%	2015	90.6 %	2016	92.3%	2017	94.7%
3	2014	100.0%	2015	100.0%	2016	100.0%	2017	100.0%
4	2014	92.6%	2015	95.0%	2016	89.1%	2017	95.9%
5	2014	99.9%	2015	99.9%	2016	100.0%	2017	98.9%
6	2014	99.1%	2015	99.5%	2016	100.0%	2017	99.5%
7	No Previous Year		2015	100.0%	2016	88.4%	2017	98.8%
8	2014	100.0%	2015	99.9%	2016	100.0%	2017	100.0%
9	2014	100.0%	2015	100.0%	2016	100.0%	2017	100.0%
10	2014	100.0%	2015	81.1%	2016	97.4%	2017	81.4%
11	2014	92.0%	2015	92.0%	2016	95.1%	2017	94.6%
12	2014	99.3%	2015	88.6%	2016	100.0%	2017	no data
13	2014	100.0%	2015	100.0%	2016	99.7%	2017	98.4%
14	2014	91.9%	2015	95.0%	2016	97.3%	2017	91.8%
15	2014	100.0%	2015	99.9%	2016	100.0%	2017	99.8%
16	2014	99.5%	2015	98.0%	2016	98.7%	2017	99.6%
17	2014	98.0%	2015	99.6%	2016	100.0%	2017	99.4%
18	2014	100.0%	2015	97.7%	2016	97.0%	2017	98.5%
19	2014	90.9%	2015	94.0%	2016	97.6%	2017	99.0%
20	2014	100.0%	2015	99.7%	2016	98.1%	2017	99.0%
21	2014	95.8%	2015	100.0%	2016	98.5%	2017	98.8%

PERCENT IN COMPLIANCE BY REGION

<u>Region</u>	<u>Year</u>	<u>Percentage</u>	<u>Year</u>	<u>Percentage</u>	<u>Year</u>	<u>Percentage</u>	<u>Year</u>	<u>Percentage</u>
East	2014	99.9%	2015	99.5%	2016	99.6%	2017	98.3%
North Central	2014	99.9%	2015	99.3%	2016	99.0%	2017	99.3%
North West	2014	98.5%	2015	97.6%	2016	98.3%	2017	99.2%
South Central	2014	99.4%	2015	94.3%	2016	97.4%	2017	96.5%
South West	2014	99.2%	2015	99.2%	2016	99.3%	2017	98.9%

2017 WELL CONSTRUCTION AND INSPECTION INFORMATION

Start Cards Received			
Water Supply	3452	2% increase	from 2016
Monitoring	1035	1% decrease	from 2016
Total:	4487		

Start Cards Received - "New"			
Water Supply	2672	1% increase	from 2016
Monitoring	409	4% increase	from 2016
Total:	3081		

Well Reports Received	
Water Supply	3676
Monitoring	906
Total:	4582

Well Reports - Type of Work	
New	3026
Deepening	99
Conversion	0
Abandonment	1028
Repair/Alteration	192
Multiple Type	117
Other Type	120
Total:	4582

Geotechnical Hole Reports Received	
Geotechnical	6186

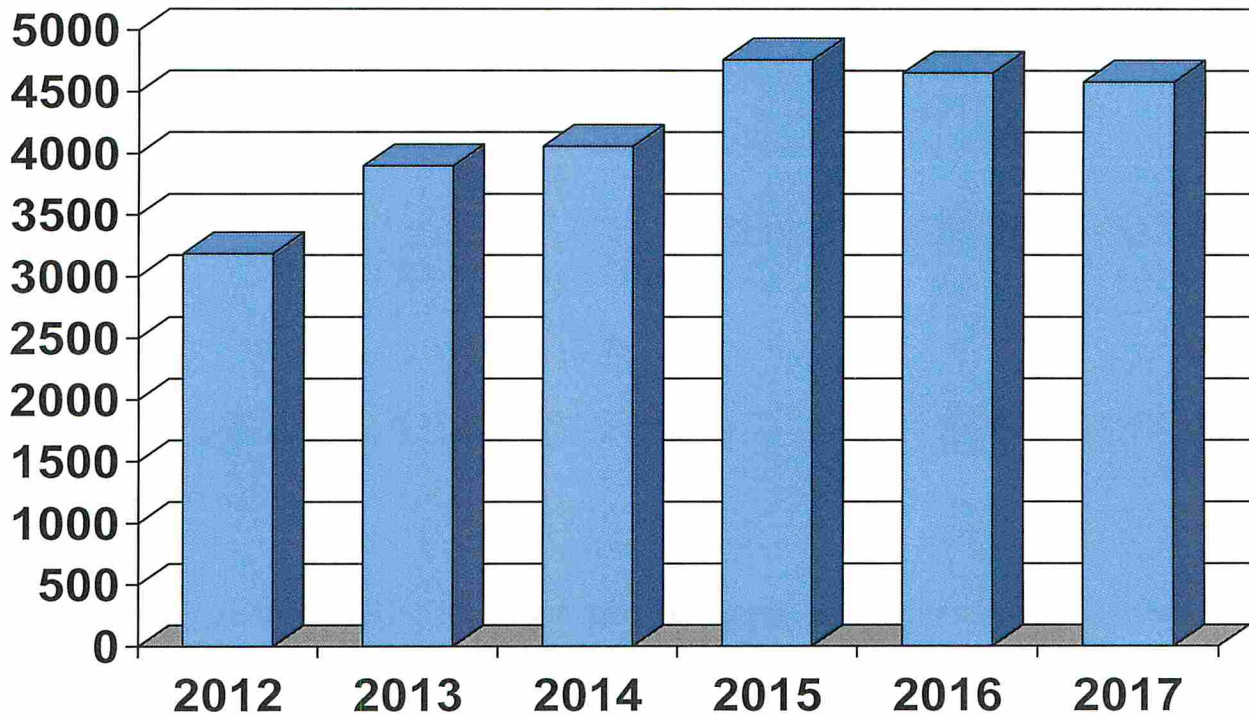
Well Reports Received by Use					
Domestic	2850	Industrial	33	Multiple Uses	91
Monitoring	906	Injection	0	Dewatering	366
Irrigation	162	Thermal	0	Other Uses	56
Community	22	Livestock	96		

Well Reports Received - by County					
Baker	34	Harney	84	Morrow	40
Benton	116	Hood	11	Multnomah	398
Clackamas	334	Jackson	326	Polk	56
Clatsop	58	Jefferson	33	Sherman	3
Columbia	57	Josephine	258	Tillamook	35
Coos	209	Klamath	163	Umatilla	113
Crook	120	Lake	45	Union	32
Curry	47	Lane	367	Wallowa	47
Deschutes	265	Lincoln	25	Wasco	27
Douglas	166	Linn	227	Washington	379
Gilliam	8	Malheur	49	Wheeler	11
Grant	17	Marion	285	Yamhill	137

Well Inspections		
Number of Inspections (All Visits)	1441	
Wells Inspected (First Visit)	1325	
"New" Wells Inspected (First Visit)	1035	
Water Supply Wells	934	35%
Monitoring Wells	101	25%
% of "New" Wells Inspected (Combined)	34%	
"New" Wells With Deficiencies (1st Visit)	149	14%

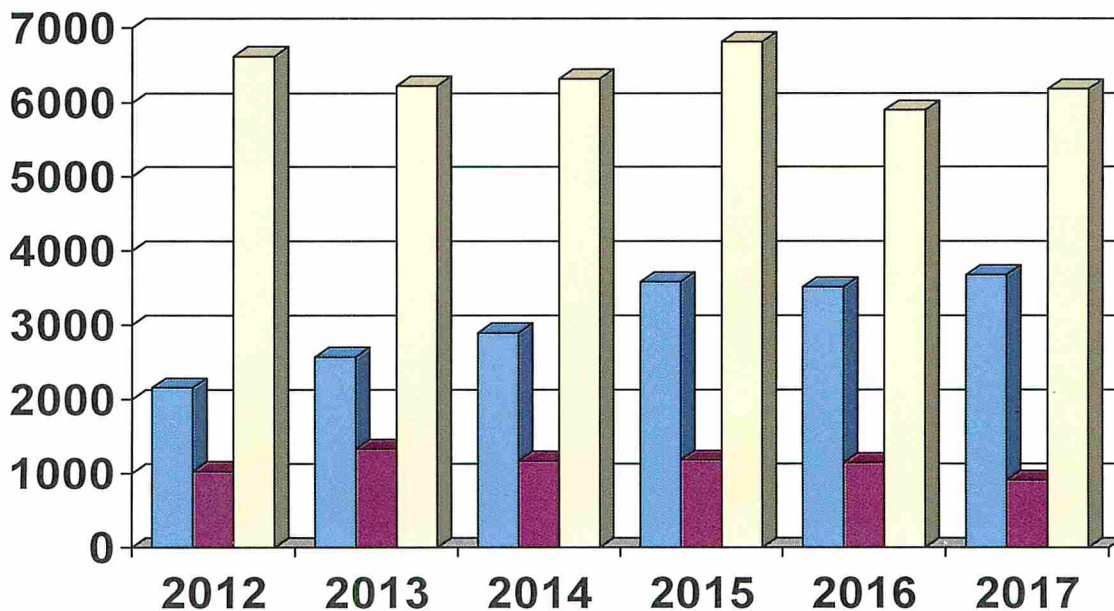
Inspections (All Visits)	
Eastern	211
North Central	171
Northwest	474
South Central	347
Southwest	238

Total Monitoring and Water Well Reports Received Per Year



Water, Monitoring and Geotechnical Reports Received Per Year

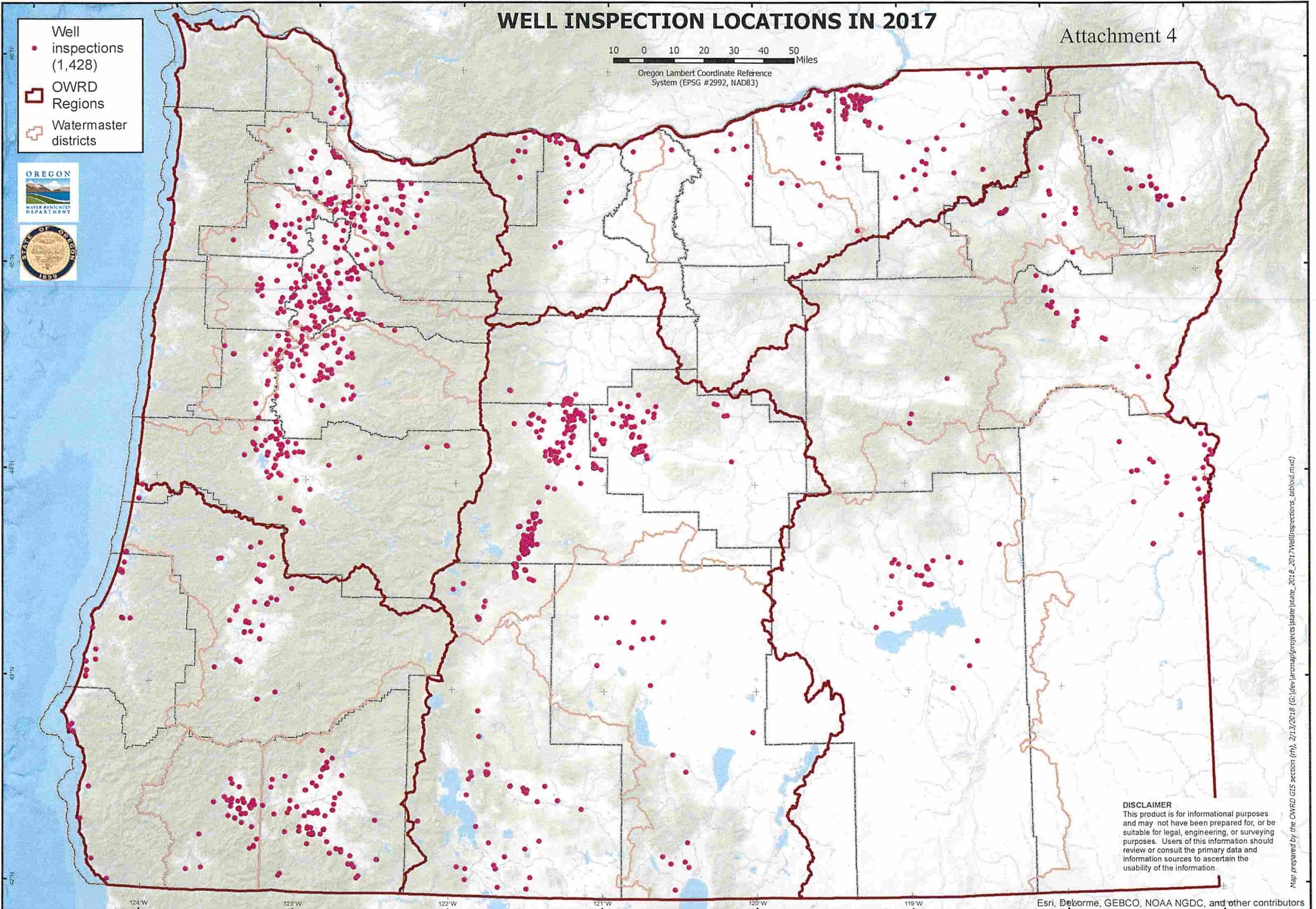
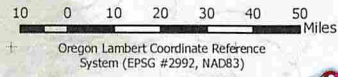
■ All Water
 ■ All Monitor
 ■ All Geotechnical



WELL INSPECTION LOCATIONS IN 2017

Attachment 4

- Well inspections (1,428)
- OWRD Regions
- Watermaster districts



DISCLAIMER
This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Map prepared by the OWRD GIS section (m), 2/13/2018 (G:\view\arcmap\projects\isate\isate_2018_2017\WellInspections_abb0d.mxd)

Measurement Device Status for Phase I & II Sig PODs within High Priority Watersheds

Summary Report: 12/31/2017

STATEWIDE SUMMARY

Total Diversions With Measurement:	1059	(<u>10</u> Measuring devices installed in 2017, <u>14</u> others confirmed* in 2017)
Total Diversions Inactive**:	673	(<u>39</u> Total Inactive currently leased or transferred instream)
Total Diversions In Progress:	80	
Total Diversions Needing Progress:	<u>573</u>	
Total High Priority SPODs:	<u>2385</u>	

51 Measuring devices were installed in 2012

80 Measuring devices were installed in 2013

84 Measuring devices were installed in 2014

61 Measuring devices were installed in 2015 (5 others confirmed* in 2015)

36 Measuring devices were installed in 2016 (5 others confirmed* in 2016)

In 2000, the Water Resources Commission adopted a Water Measurement Strategy, focusing on diversions with the greatest impacts or stream flows, in areas with the greatest needs for fish. 2,385 Significant Diversions, or Sig PODs***, have been identified and account for about 50 percent of all water diverted in the high priority WABS. To implement the Commission's Measurement Strategy, OWRD is working with landowners, installing measurement devices at these significant diversions.

*Confirmed is defined as a measuring device with an unknown installation date but confirmed to be present.

**Inactive is defined as present, but not used, WR has been canceled, the POD no longer exists, there was a POD transfer, the POD was not proved up on, or, the right was leased instream.

***Significant Diversions, or Sig PODs are defined as diversions within priority WAB's and 1. surface water diversions that are required by OWRD to measure and report through a water right condition; or 2. surface water diversions without a measurement condition in the water right that are: a. greater than 5 cfs, or b. greater than 10% of the lowest monthly 50% exceedance flow, and greater than 0.25 cfs