

EAST REGION

District 10

JR Johnson
Watermaster



REGION 5



COMPARATIVE AREAS IN SQUARE MILES

HARNEY COUNTY **11,716**

RHODE ISLAND **1,213**

DELAWARE **2,026**

CONNECTICUT **5,006**

HAWAII **6,459**

NEW JERSEY **7,790**

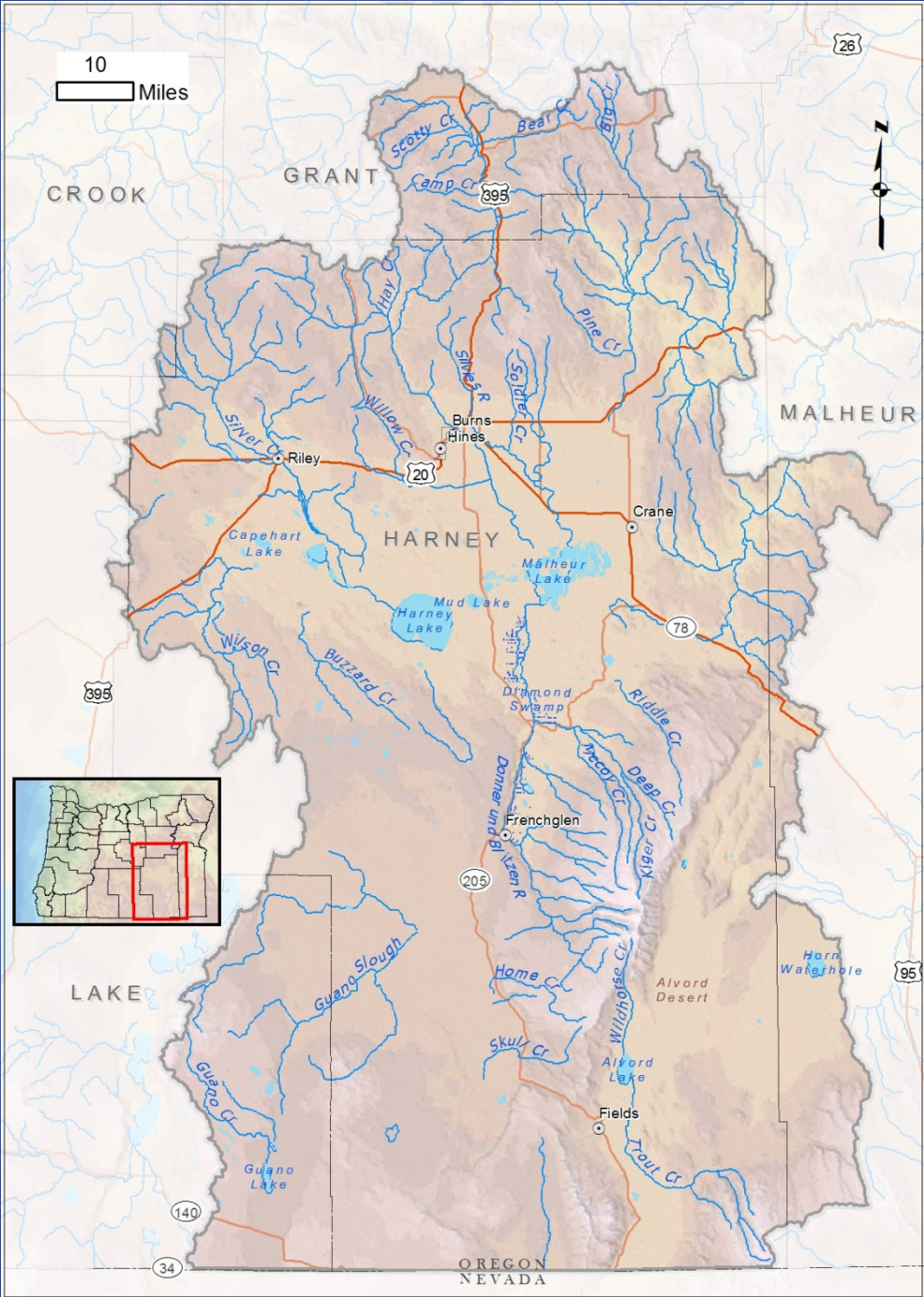
MASSACHUSETTS **8,262**

NEW HAMPSHIRE **9,283**

VERMONT **9,615**

DISTRICT 10 OVERVIEW

- **East Region covers 29,473 square miles**
- **District 10 covers 11,716 square miles**
 - **Counties include Harney, Grant, Malheur, and Lake**
 - **Surface water irrigation 384,991 acres**
 - **Ground water irrigation 98,069 acres**
 - **Majority of surface water irrigation is from the Silvies River**
 - **GW records show 3,372 water wells**



DISTRICT 10

- **Fifteen Distinct Decrees**

**Silvies River, Silver Creek, Malheur River,
Wildhorse Creek, Trout Creek**

No Irrigation Districts

Five OWRD Gaging Stations

Silvies River - 3

Silver Creek - 1

Trout Creek - 1

Silvies Valley Ranch

26-Aug-2015 1924 UTC * | 44.088203, -118.971489



looking east

26-Aug-2015 1902 UTC * | 47.811127, -117.452087



looking east

IN STREAM AND OTHER NON- IRRIGATION USES.

Most streams
go dry on an
average year.

FIRE PROTECTION	2	2	
FISH AND WILDLIFE	1	1	
FISH CULTURE	3	3	
FISH HABITAT FOR RESIDENT BORAX LAKE CHUB	1	1	
INDUSTRIAL/MANUFACTURING USES	2	2	
IRRIGATION	911	1156	206,175.74810
IRRIGATION AND DOMESTIC	16	17	2,299.96000
IRRIGATION, LIVESTOCK AND DOMESTIC	38	145	78,446.22000
LIVESTOCK	395	413	
POND MAINTENANCE	2	2	
POWER DEVELOPMENT	3	3	

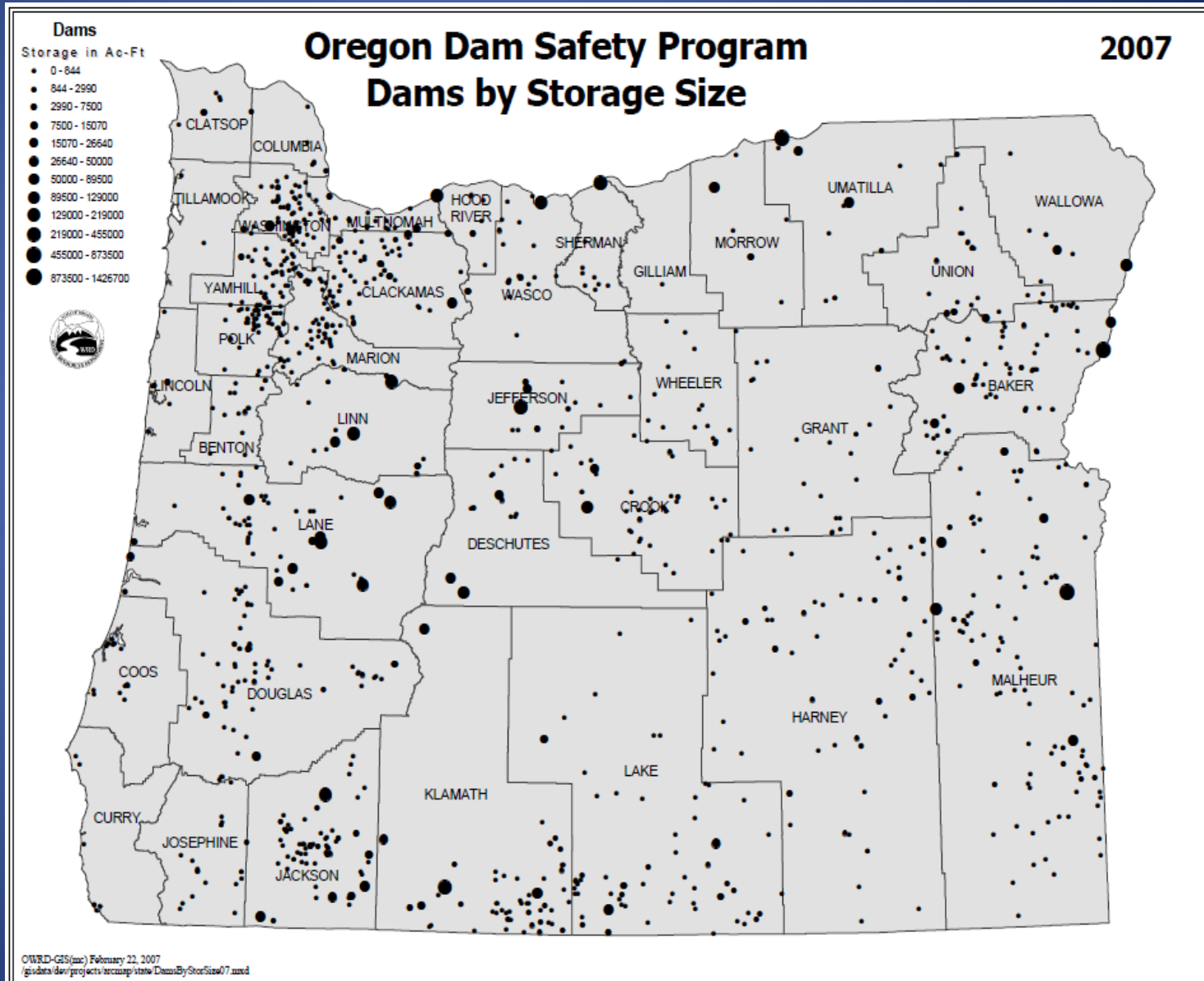
DAMS & STORAGE

**NO
SIGNIFICANT
STORAGE SITES
IN DIST. 10**

Low Hazard - 98

Sig Hazard - 9

High Hazard - 0

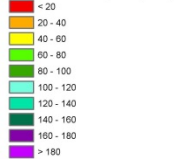


District 10 Precipitation

Mean Annual Precipitation

Explanation

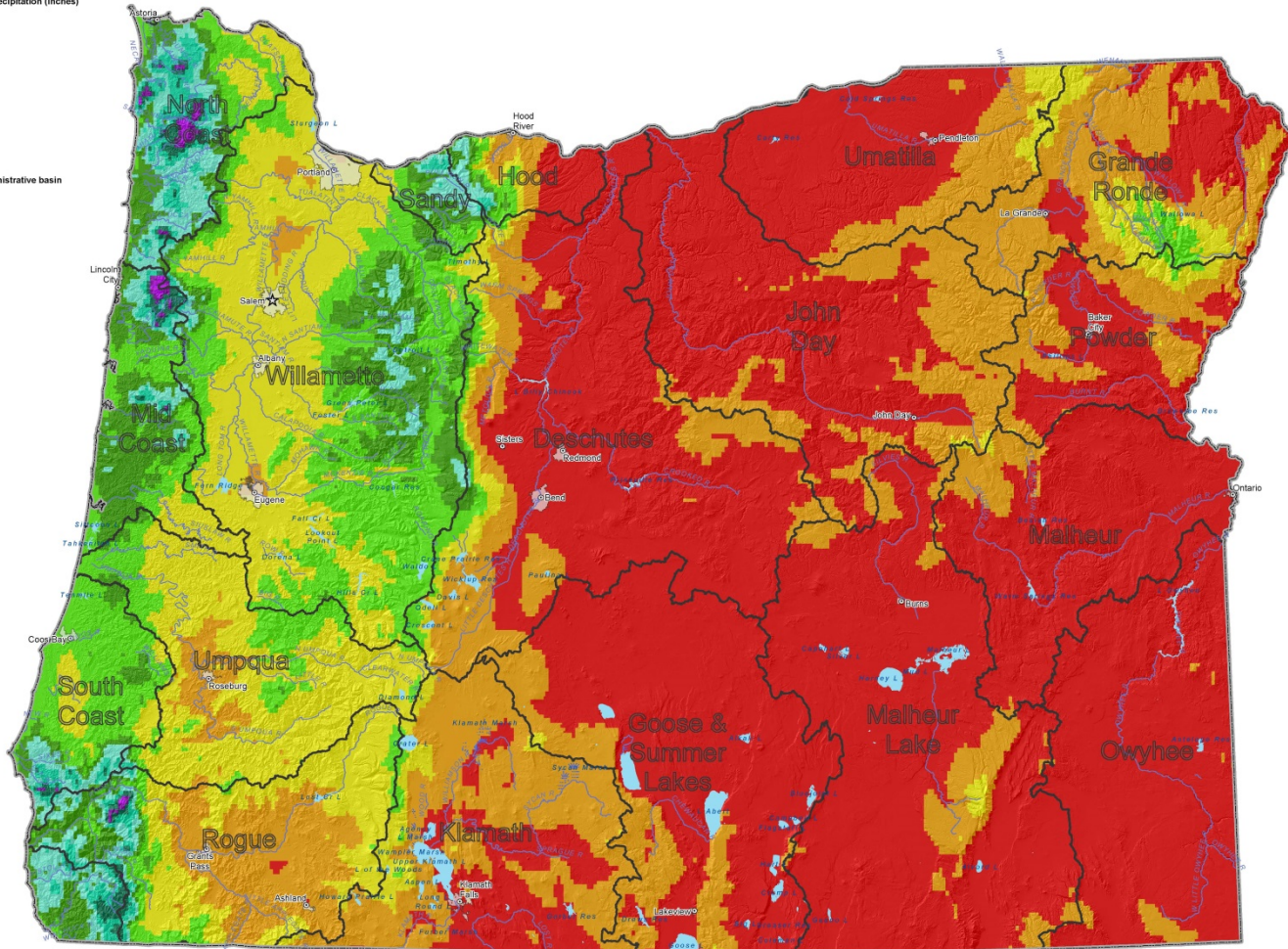
Average Annual Precipitation (inches)



OWRD administrative basin

City limits

River



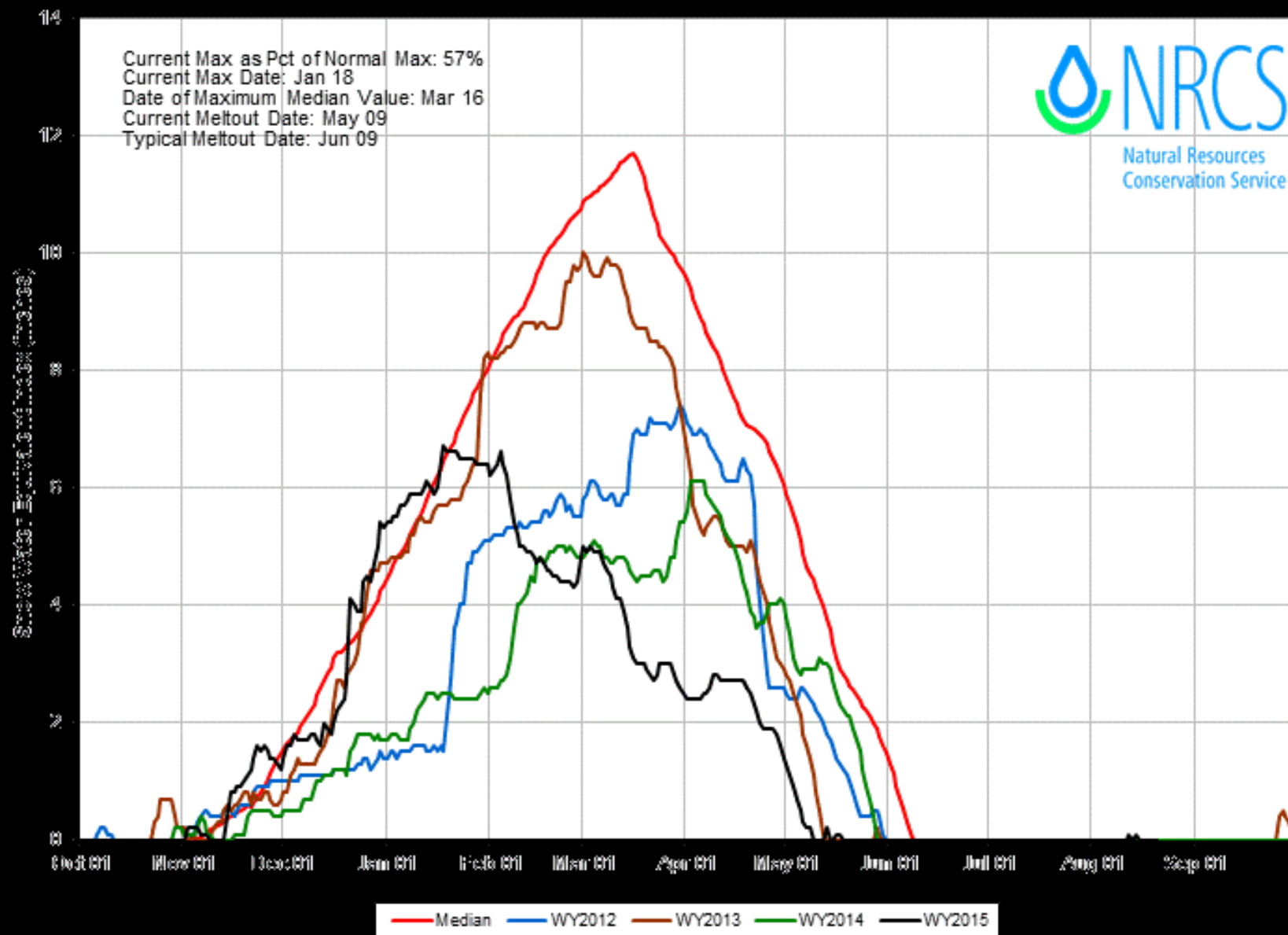
DISCLAIMER & CONTACT INFO
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RAMSEY Time Series Snowpack Summary
Based on Provisions of SNOWTEL data as of Aug 20, 2015

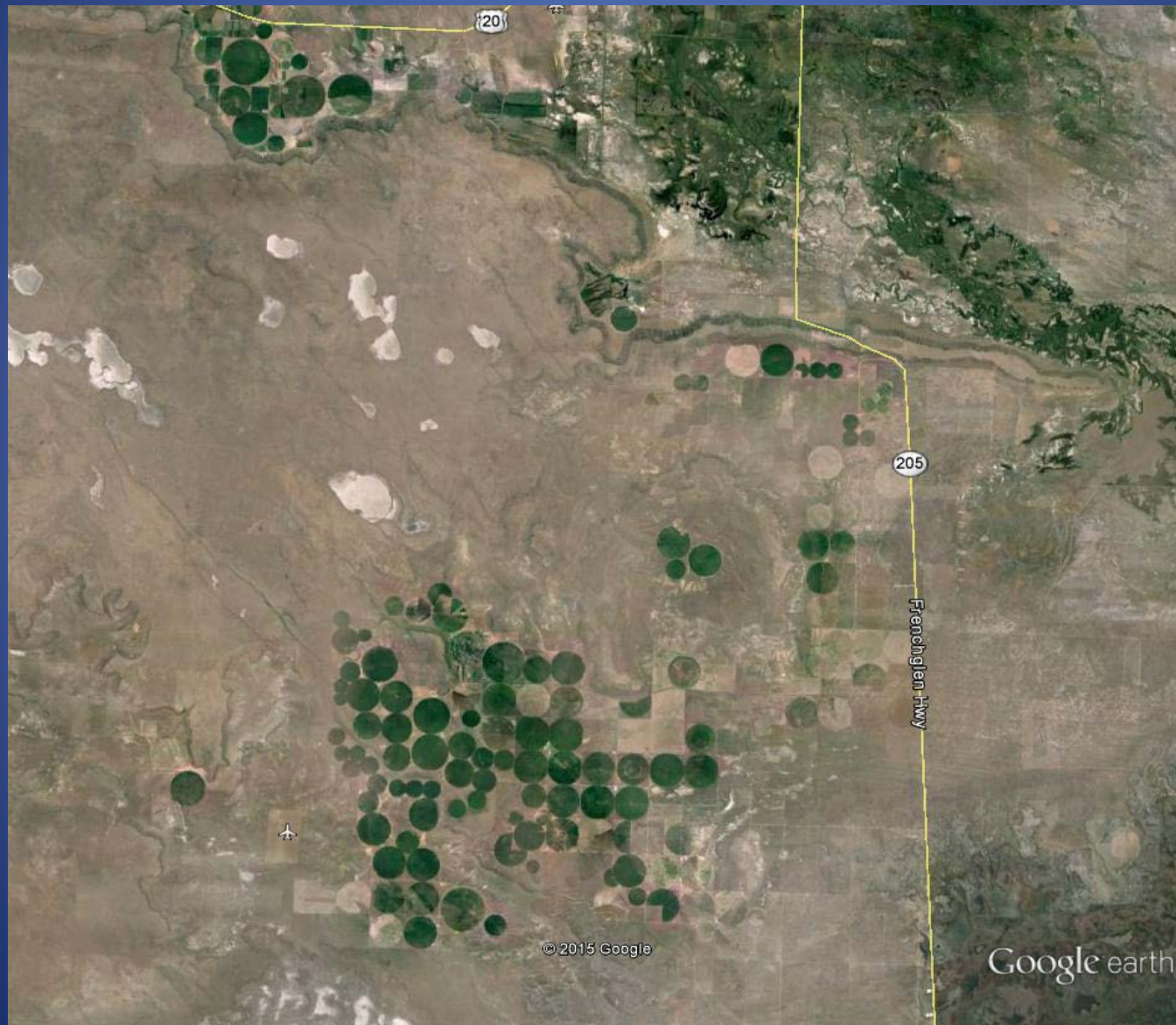


Current Max as Pct of Normal Max: 57%
Current Max Date: Jan 18
Date of Maximum Median Value: Mar 16
Current Meltout Date: May 09
Typical Meltout Date: Jun 09



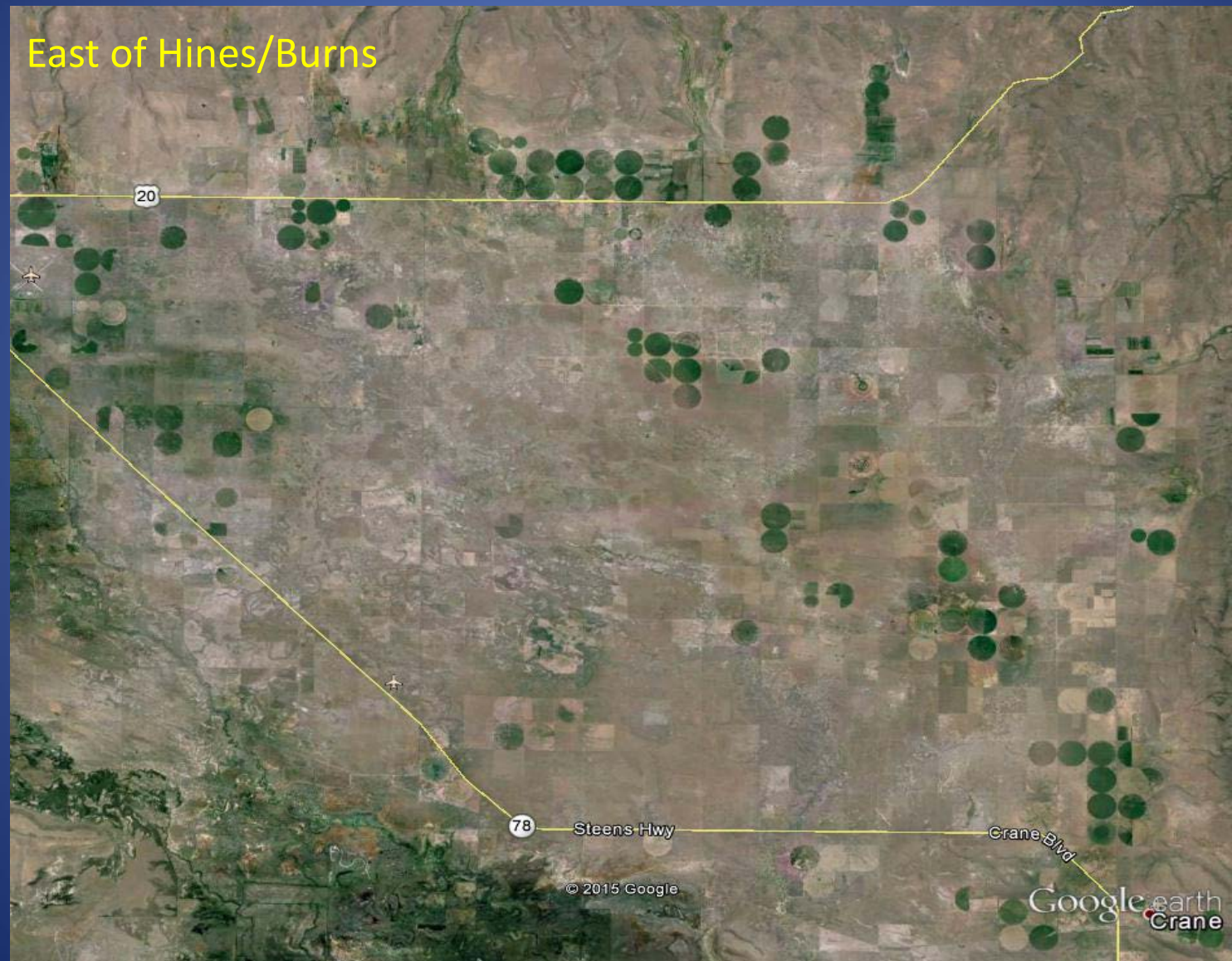
GROUND WATER DEVELOPMENT

Wright's Point Area

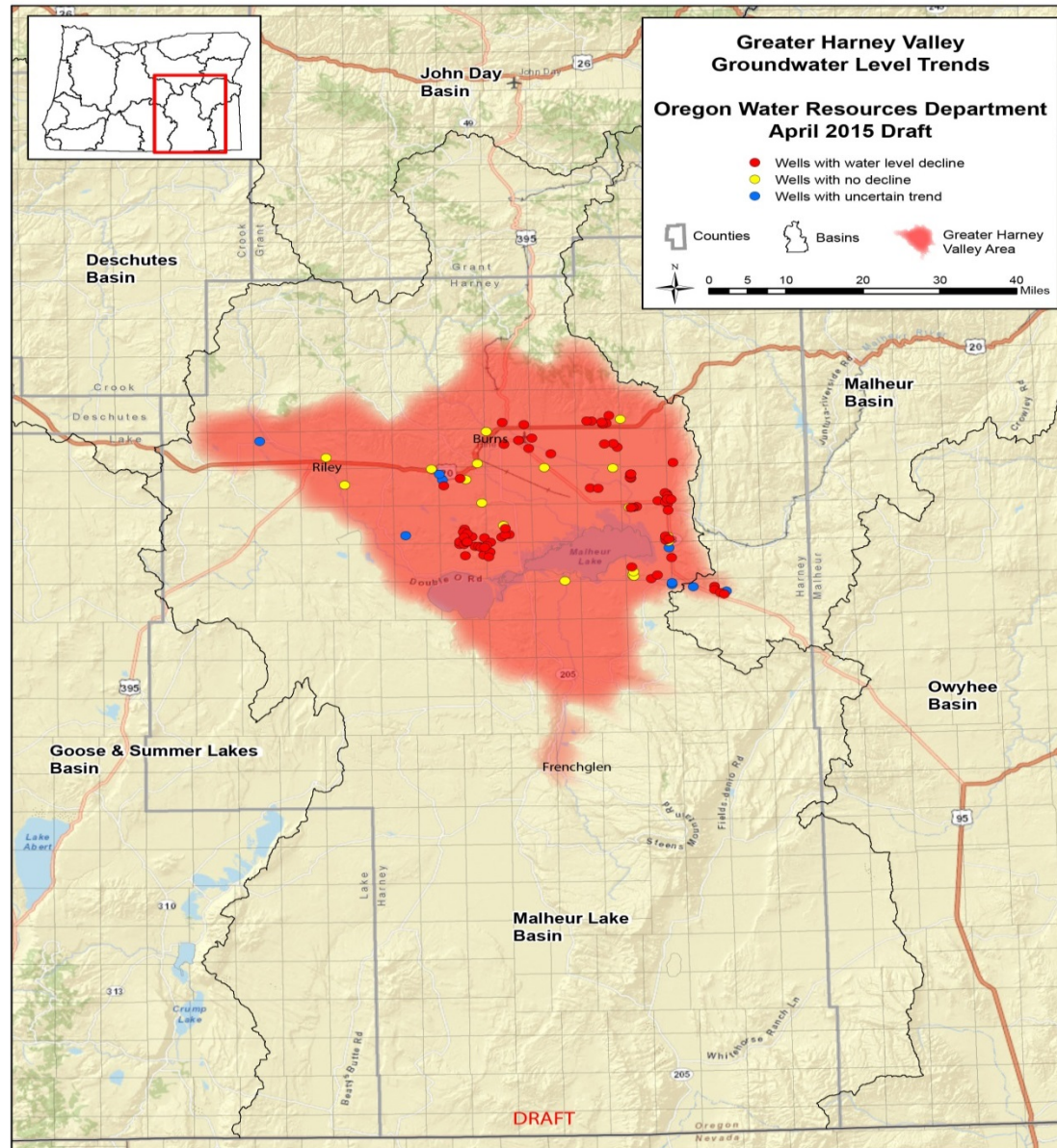


GROUND WATER DEVELOPMENT

Greater Harney Valley



Greater Harney Valley



District 10 Groundwater

- Moratorium placed on new groundwater development in the Greater Harney Valley Area
- Five year rigorous data collection plan
- Need to develop a process and rules to allow for mitigation strategies

Questions?

District 7

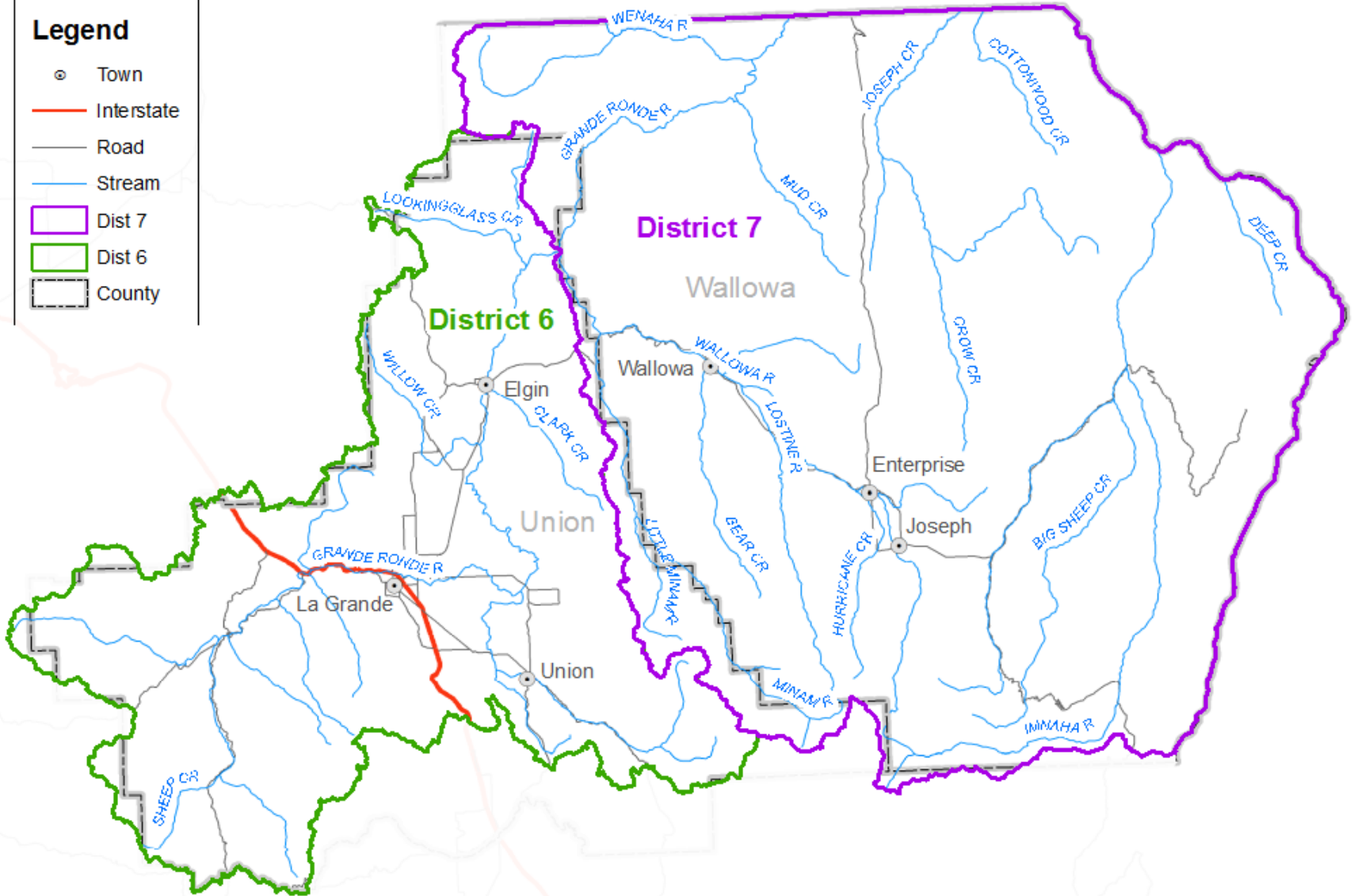


David Bates
Watermaster

New District 6 and 7 Boundaries

Legend

- Town
- Interstate
- Road
- Stream
- Dist 7
- Dist 6
- County



District Overview

- District 7- Total Area = 3,153 square miles
- Primary Water Rights- 65,836.1 acres
 - Surface Water- 63,454.6 acres
 - Ground Water- 2,381.5 acres
 - Storage – Wallowa Lake 58,487 acre-feet
- Average annual precipitation ranges from about 55 inches in the south to 12 inches in the north.

Mean Annual Precip 1971-2000



Groundwater

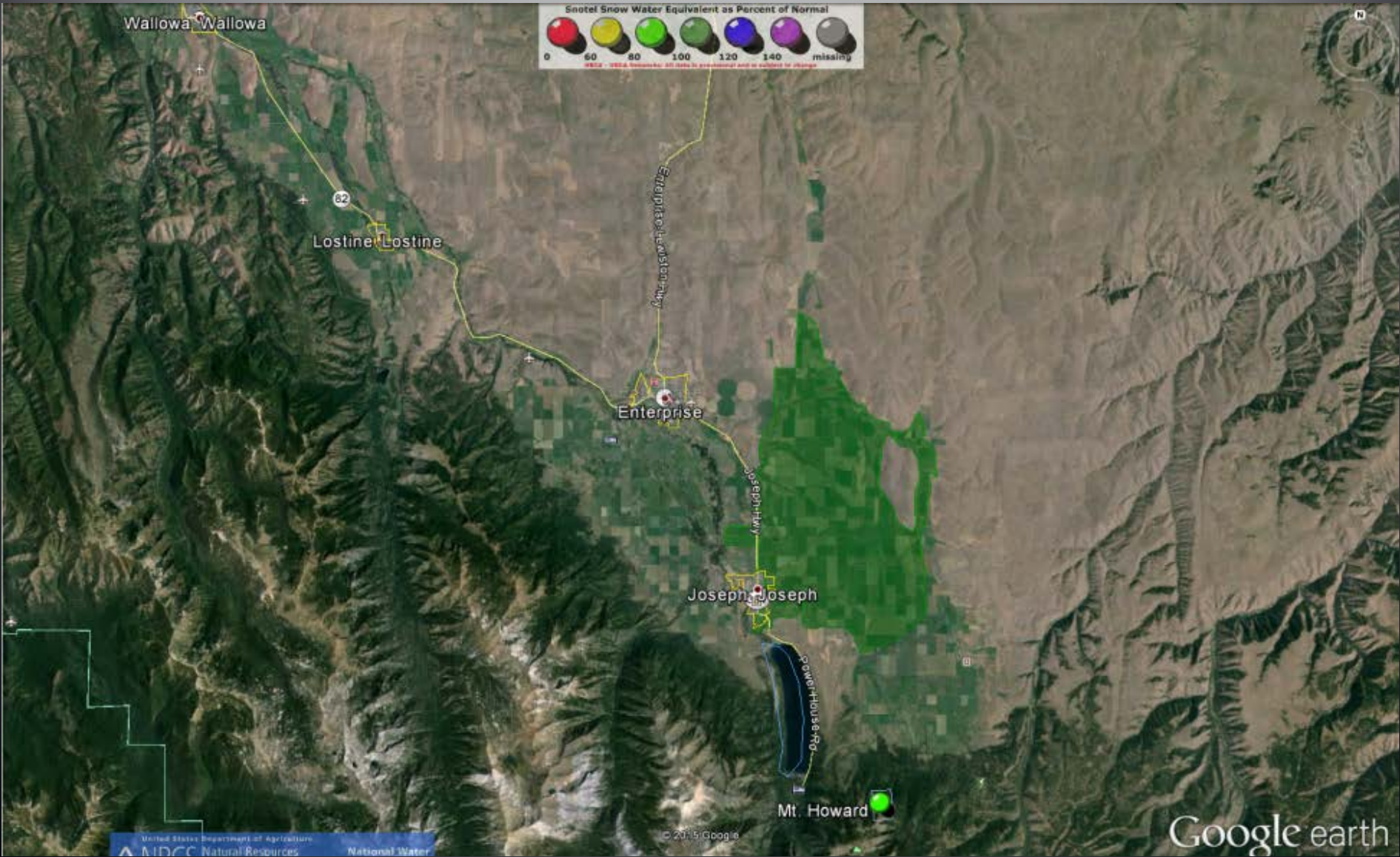


Wallowa Lake Dam

- Rights: 58,487 af
- Capacity: ~46,910 af
- Over 100 Years Old
- 1978 Max Fill of 4375ft or 6.5 feet below spillway
- ADC Seeking Funding to replace the dam



Wallowa Lake Storage



Regulation – Lower River

- 420 CFS Instream Flow at Troy, 1961 Priority Date
- 63.2 CFS of Junior Priority Date Regulated Off
- 1961 to 1985 Priority Dates
- 48 CFS comes from the Cross Country Canal

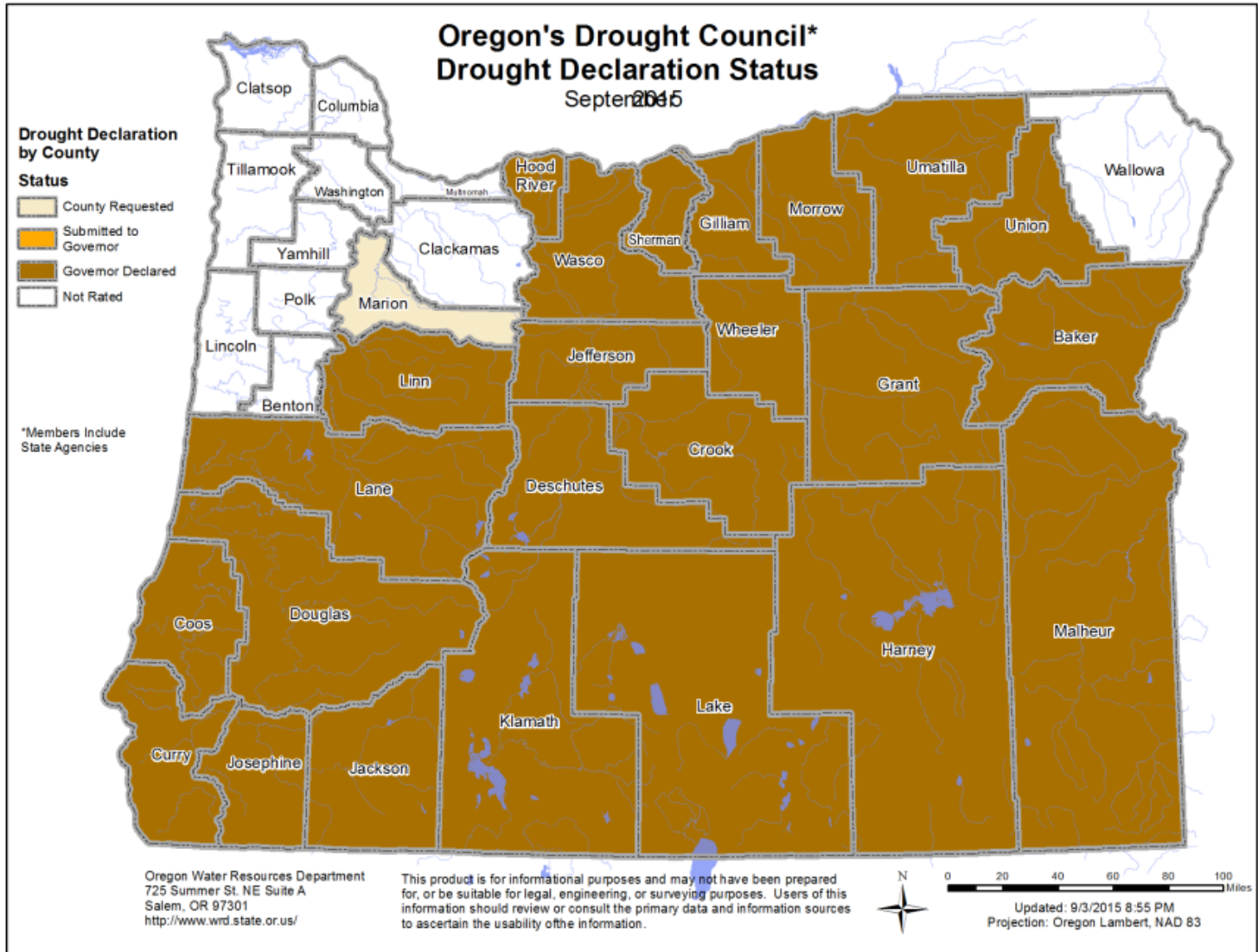


Regulation – Upper Willowa River

- Asked to Protect Stored Water in Willowa Lake
- Duty System 1.5 af/ac then 1.0 af/ac
- Ditches: Mitchell, 1880 – Creighton, 1883 – Big Bend, 1884 – Granger, 1889 – Cove, 1890
- Installed a new gage, 13325500 above the Lake to Model inflow



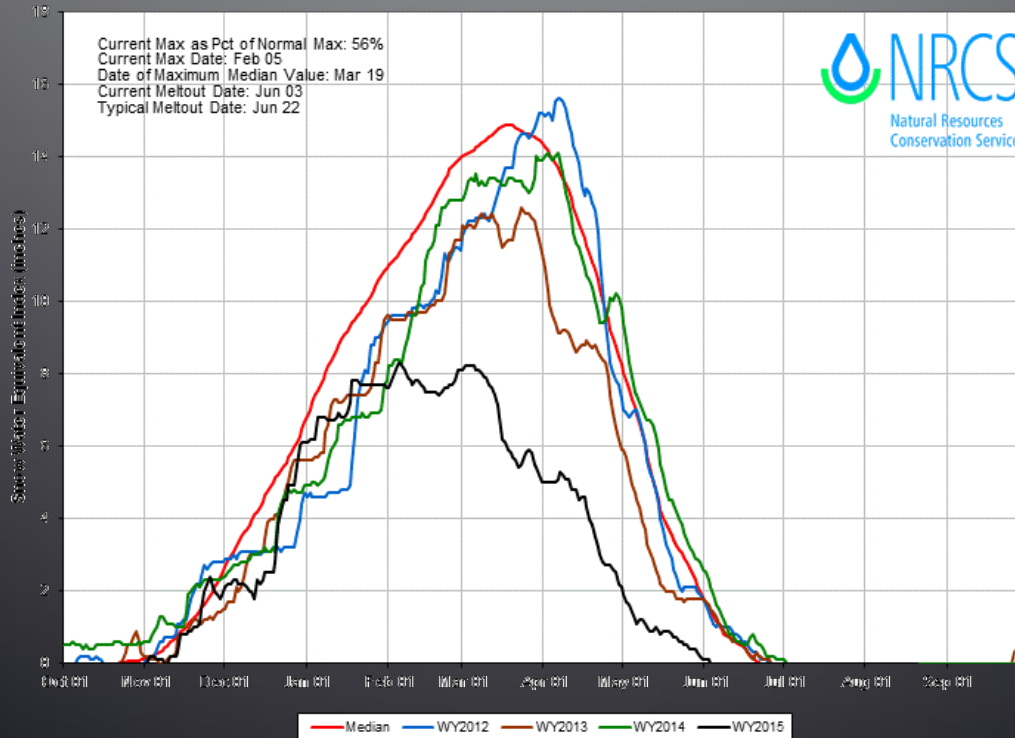
Drought Status



Drought Status

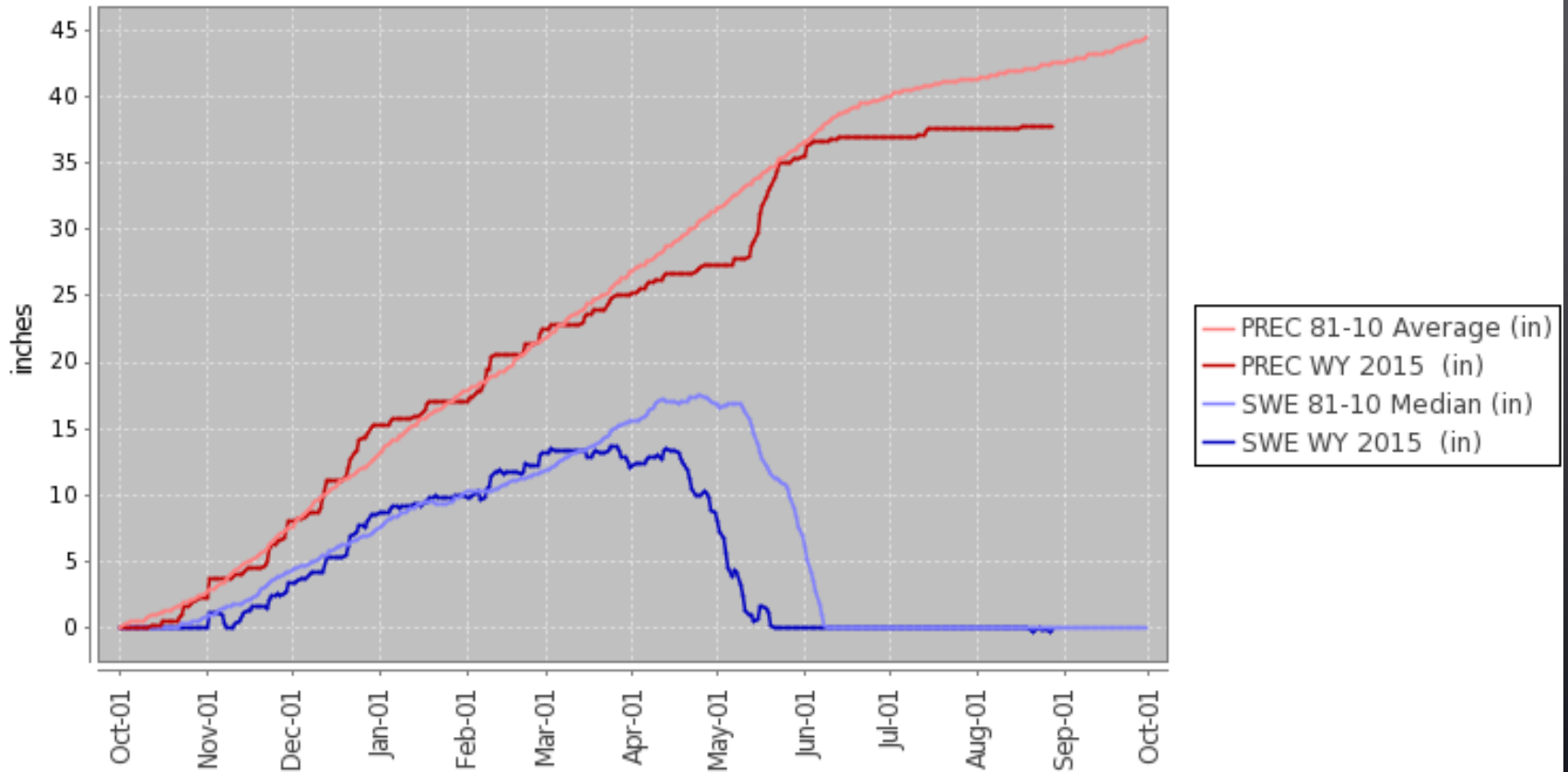
1992	Wallowa	WALLOWA DROUGHT	Governor Declared	09/03/1992	92-21	9/3/1992	10/31/1992	documents
2005	Wallowa	WALLOWA DROUGHT	Governor Declared	03/08/2005	05-02	3/8/2005	12/31/2005	documents
2003	Wallowa	WALLOWA DROUGHT	Governor Declared	08/15/2003	03-09	8/15/2003	12/31/2003	documents
2001	Wallowa	WALLOWA DROUGHT	Governor Declared	06/22/2001	01-09	6/22/2001	6/30/2003	documents
2015	Wallowa	WALLOWA DROUGHT					06/24/2015	(map)

GRANDER RIVER, POWDER BUTTE, WALLOWA Time Series Snowpack Summary
 Based on Provisional SNOVEL data as of Aug 20, 2015



Drought Status

Station (653) WATERYEAR=2015 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision Fri Aug 28 15:56:29 PDT 2015



District 7



- First year in Wallowa County
- Great Support from Region Staff and Salem
- Great Irrigators
- Questions?

DISTRICT #9 OVERVIEW

Ron Jacobs
District #9 Watermaster



STATE of OREGON

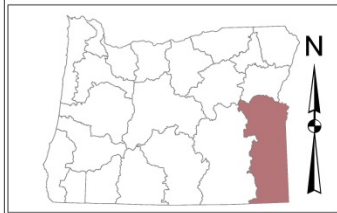
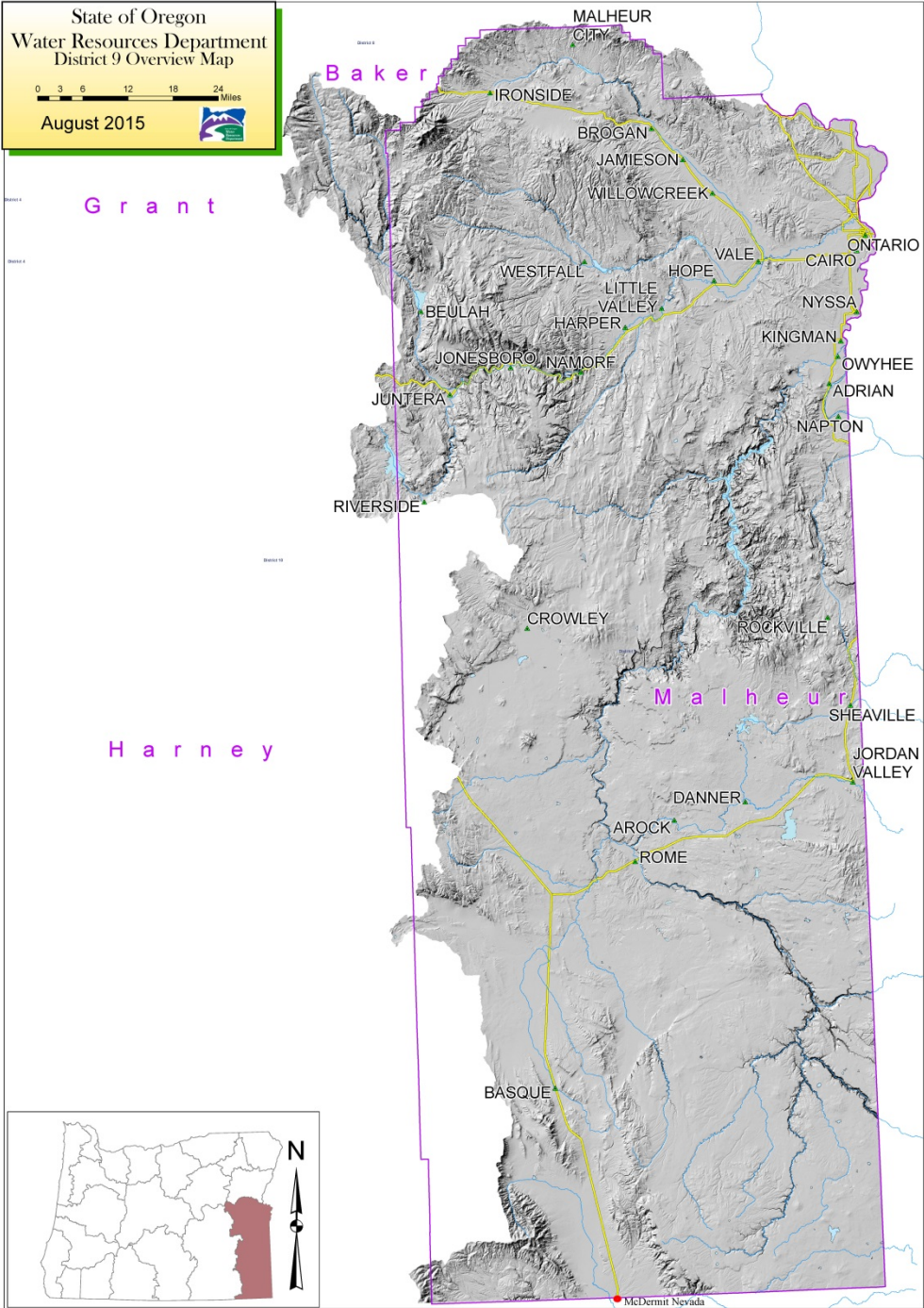
Water Resources Department

*"To serve the public by practicing and promoting
wise long-term water management."*

<http://www.wrd.state.or.us>

State of Oregon
Water Resources Department
District 9 Overview Map
August 2015

0 3 6 12 18 24 Miles



Drought Declarations

2003

2004

2007

2011

2012

2013

2014

2015



Drought Mitigation

- **Only After Governor declares drought**
- **Must already have an existing right or permit.**
- **CAN'T irrigate new lands unless you transfer place of use.**
- **CAN'T injure other rights**

Drought Mitigation

- **SWAP Supplemental Ground Water Right for Surface Water Primary Right. (Permit/Certificate)**
***** (10 day notice period) ****
- **APPLY FOR a temporary emergency use of water. Must show inability to use existing right/permit.**
- **MAY waive the notice requirements**
Landowner Permit/Bond and Start Card Report

Drought Transfers

- **Change the Type of use
(Permit/Certificate)**
- **Change the Place of use
(Permit/Certificate)**
- **Change the Point of diversion
(Permit/Certificate)**
- **No waiting or notice requirements**

7/10/2014 9:39 am



Central Oregon Hwy

Vale

Ontario

Payette

New Plymouth

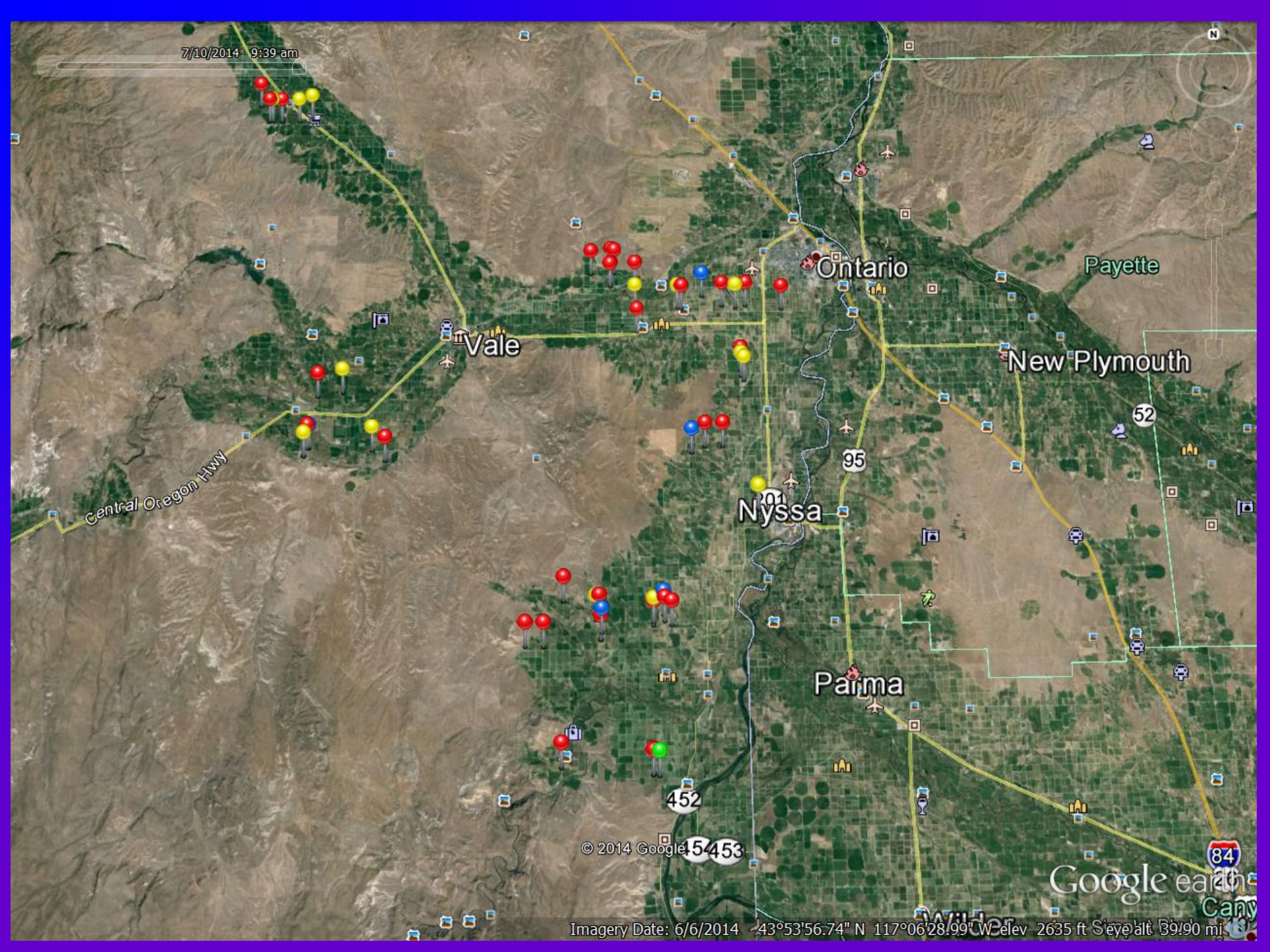
Nyssa

Parma

© 2014 Google

Google earth

Imagery Date: 6/6/2014 43°53'56.74" N 117°06'28.99" W elev 2635 ft Sea alt 39.90 mi



(1) LAND OWNER
Owner Well I.D.
First Name ~~XXXX~~ Last Name ~~XXXXXXXXXX~~
Company ~~XXXXXXXXXXXXXXXXXX~~
Address ~~XXXXXXXXXXXXXXXXXX~~
City ~~XXXXXXXX~~ State OR Zip 97914

(2) TYPE OF WORK New Well Deepening Conversion
Alteration (complete 2a & 10) Abandonment (complete 5a)

(2a) PRE-ALTERATION
Dia + From To Gauge Stil Plstc Wld Thrd
Casing:
Material From To Amt sacks/lbs
Seal:

(3) DRILL METHOD
 Rotary Air Rotary Mud Cable Auger Cable Mud
 Reverse Rotary Other

(4) PROPOSED USE Domestic Irrigation Community
 Industrial/ Commercial Livestock Dewatering
 Thermal Injection Other

(5) BORE HOLE CONSTRUCTION Special Standard (Attach copy)
Depth of Completed Well 59.00 ft.
BORE HOLE SEAL sacks/lbs
Dia From To Material From To Amt lbs
17 0 25 Bentonite Chips 0 25 1600 P
12 25 59
How was seal placed: Method A B C D E
 Other 3/4 BENTONIGHT CHI
Backfill placed from ft. to ft. Material
Filter pack from 25 ft. to 58 ft. Material GRAVEL Size pea gravel
Explosives used: Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE
Proposed Amount Actual Amount

(6) CASING/LINER
Casing Liner Dia + From To Gauge Stil Plstc Wld Thrd
 12 1 59 250
Shoe Inside Outside Other Location of shoe(s)
Temp casing Yes Dia From To

(7) PERFORATIONS/SCREENS
Perforations Method Torch
Screens Type Material
Perf/ Casing/ Screen Dia From To Scr/slot Slot # of Tele/
Screen Liner Dia From To width length slots pipe size
Perf Casing 12 31 41 .3 4 156
Perf Casing 12 47 56 .1 4 154

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailer Air Flowing Artesian
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)
300 40 6
Temperature 59 °F Lab analysis Yes No
Water quality concerns? Yes (describe below) TDS amount
From To Description Amount Units

(9) LOCATION OF WELL (legal description)
County MALHEUR Twp 18.00 S N/S Range 46.00 E E/W WM
Sec 13 SE 1/4 of the SW 1/4 Tax Lot 400
Tax Map Number Lot
Lat " " or " " DMS or DD
Long " " or " " DMS or DD
 Street address of well Nearest address
~~XXXXXXXXXXXXXXXXXX~~

(10) STATIC WATER LEVEL
Date SWL (psi) + SWL (ft)
Existing Well / Pre-Alteration
Completed Well 4/3/2014 8
Flowing Artesian? Dry Hole?

WATER BEARING ZONES Depth water was first found 8.00

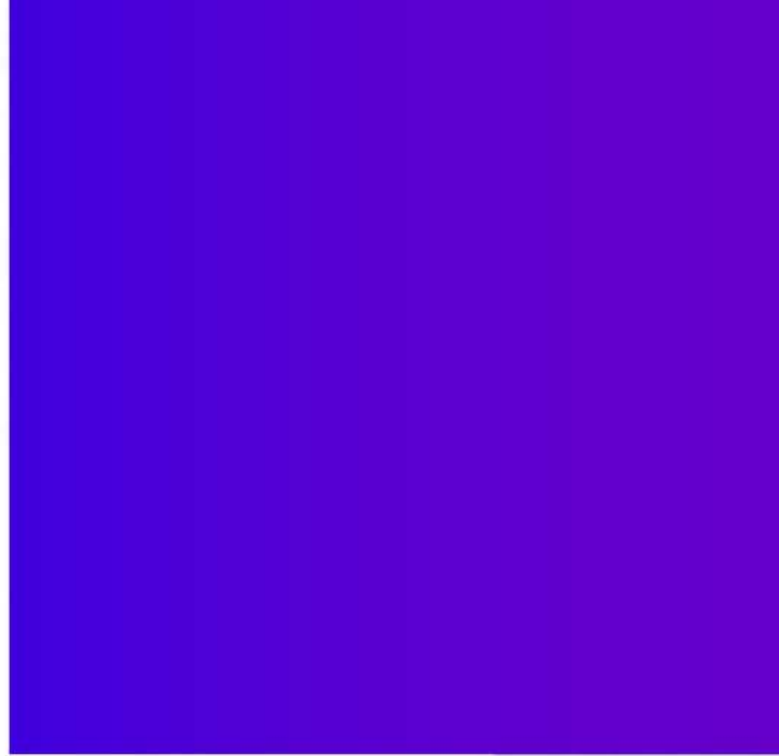
SWL Date	From	To	Est Flow	SWL (psi)	+ SWL (ft)
3/17/2014	8	30.5	25		8
3/17/2014	30.5	40.5	200		8
3/17/2014	40.5	47	25		8
3/17/2014	47	58	100		8

(11) WELL LOG Ground Elevation 2198.00

Material	From	To
soil	0	3
silty brown	3	8
silty sand brown	8	25
sand silt brown	25	30.5
gravel sand black	30.5	40.5
silty sand black	40.5	47
sand and pea gravel black	47	59

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, abandonment of this well is in compliance with Oregon water supply construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
License Number _____ Date _____
Signed _____
Date Started 3/17/2014 Complete 4/3/2014

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
License Number 1481 Date 4/27/2014
Signed MARVIN G HAINES (E-filed)
Contact Info (optional) Marvin Haines 10671 N Iowa ave., Payette Id 83661



Material	From	To
soil	0	3
silty brown	3	8
silty sand brown	8	25
sand silt brown	25	30.5
gravel sand black	30.5	40.5
silty sand black	40.5	47
sand and pea gravel black	47	59

CASED AND SEALED TO 25 FEET

(1) LAND OWNER
Owner Well I.D. _____
First Name MURK Last Name XXXXXX
Company _____
Address XXXXXXXXXX
City XXXX State OR Zip 97913

(2) TYPE OF WORK New Well Deepening Conversion
 Alteration (complete 2a & 10) Abandonment (complete 5a)
Dia + From To Gauge Stl Plstc Wld Thrd
Casing: _____
Material From To Amt sacks/lbs
Seal: _____

(3) DRILL METHOD
 Rotary Air Rotary Mud Cable Auger Cable Mud
 Reverse Rotary Other

(4) PROPOSED USE Domestic Irrigation Community
 Industrial/Commercial Livestock Dewatering
 Thermal Injection Other

(5) BORE HOLE CONSTRUCTION Special Standard (Attach copy)
Depth of Completed Well 574.00 ft.
BORE HOLE
Dia From To Material From To Amt sacks/lbs
22 0 331 Cement 0 331 370 S
15 331 410
8 410 574
How was seal placed: Method A B C D E
 Other _____
Backfill placed from _____ ft to _____ ft Material _____
Filter pack from _____ ft to _____ ft Material _____ Size _____
Explosives used: Yes Type _____ Amount _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE
Proposed Amount _____ Actual Amount _____

(6) CASING/LINER
Casing Liner Dia + From To Gauge Stl Plstc Wld Thrd
16 1.5 231 250
16 231 331 375
Stoe Inside Outside Other Location of shoe(s) _____
Temp casing Yes Dia _____ From _____ To _____

(7) PERFORATIONS/SCREENS
Perforations Method _____
Screens Type _____ Material _____
Perf/ Casing/Screen Scrn/slot Slot # of Tel/
Screen Liner Dia From To width length slots pipe size

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailor Air Flowing Artesian
Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)
150 300 1
150 574 1
Temperature 80 °F Lab analysis Yes By _____
Water quality concerns? Yes (describe below) TDS amount
From To Description Amount Units

(9) LOCATION OF WELL (legal description)
County MALHEUR Twp 21.00 S N/S Range 35.00 E E/W WM
Sec 13 NW 1/4 of the NE 1/4 Tax Lot 1400
Tax Map Number _____ Lot _____
Lat _____ " or 43.74794400 DMS or DD
Long _____ " or -117.16139300 DMS or DD
 Street address of well Nearest address
XX

(10) STATIC WATER LEVEL
Date _____ SWL (psi) + SWL (ft)
Existing Well/Pre-Alteration _____
Completed Well 5/1/2014 _____ 21
Flowing Artesian? Dry Hole?

WATER BEARING ZONES Depth water was first found 330.00

SWL Date	From	To	Est Flow	SWL (psi)	+ SWL (ft)
4/12/2014	30	46	10		20
5/12/2014	74	112	10		20
4/12/2014	254	280	10		20
5/1/2014	330	360	150		21.5

(11) WELL LOG Ground Elevation _____

Material	From	To
topsoil	0	2
sand and clay	2	30
gravel	30	46
green clay	46	50
blue/grey clay	50	74
cemented sand	74	112
blue clay / shale	112	133
siltstone	133	134
sandy shale	134	160
soft sticky blue clay	160	226
siltstone	226	227
sandy shale	227	234
cemented sand and gravel	234	280
blue and grey clay / shale	280	309
hard green clay or soft green rock	309	330
gritty grey soft decomposed rock &	330	360
grey clay W/B potential caving zone	330	360
soft grey rock & red clay layers	360	366
grey clay and soft grey rock	366	383

Date Started 4/11/2014 Complete 5/1/2014

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, abandonment of this well is in compliance with Oregon water supply construction standards. Materials used and information reported above are to the best of my knowledge and belief.
License Number _____ Date _____

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
License Number 1818 Date 5/4/2014
Signed DANIEL MCLEDRAN (E-filed)
Contact Info (optional) _____

CASED AND SEALED TO 331 FEET

(11) WELL LOG Ground Elevation _____

Material	From	To
topsoil	0	2
sand and clay	2	30
gravel	30	46
green clay	46	50
blue/grey clay	50	74
cemented sand	74	112
blue clay / shale	112	133
siltstone	133	134
sandy shale	134	160
soft sticky blue clay	160	226
siltstone	226	227
sandy shale	227	234
cemented sand and gravel	234	280
blue and grey clay / shale	280	309
hard green clay or soft green rock	309	330
gritty grey soft decomposed rock &	330	360
grey clay W/B potential caving zone	330	360
soft grey rock & red clay layers	360	366
grey clay and soft grey rock	366	383

MALH 53231

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

WELL I.D. # L 91014
START CARD # 1000 743

Instructions for completing this report are on the last page of this form.

(1) LAND OWNER Name MALHEUR Well Number _____
Address XX
City XX

(2) TYPE OF WORK New Well
 Deepening Alteration (repair/recondition) Abandonment Conversion

(3) DRILL METHOD Rotary Air Rotary Mud Cable Auger Cable Mud
 Other _____

(4) PROPOSED USE
 Domestic Community Industrial Irrigation
 Thermal Injection Livestock Other _____

(5) BORE HOLE CONSTRUCTION Special Construction: Yes No
Depth of Completed Well 450 ft.
Explosives used: Yes No Type _____ Amount _____

BORE HOLE			SEAL		
Diameter	From	To	Material	From	To
	0	176	CEMENT	0	176
	14	350			
	10	350			
					15,000

How was seal placed: Method A B C D E
 Other _____
Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER

Casing:	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
	14	+2	176	14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Drive Shoe used Inside Outside None
Final location of shoe(s) 176

(7) PERFORATIONS/SCREENS
 Perforations Method _____
 Screens Type _____ Material _____

From	To	Slot Size	Number	Diameter	Tele/pipe size	Casing Liner
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailor Air Flowing Artesian

Yield gal/min	Drawdown	Drill stem at	Time
1550	0	260	6 hr

Temperature of water 62° Depth Artesian Flow Found _____
Was a water analysis done? Yes No By whom _____
Did any strata contain water not suitable for drinking? Yes No little
 Salty Muddy Odor Colored Other _____
Depth of strata: 2-60

(9) LOCATION OF WELL (legal description)
County MALHEUR
Tax Lot 2600 Lot _____
Township 18S N or S Range 41E E or W WM
Section 25 SW 1/4 SW 1/4
Lat 43° 58' 39" or _____ (degrees or decimal)
Long 117° 38' 39" or _____ (degrees or decimal)
Street Address of Well (or nearest address) XX

(10) STATIC WATER LEVEL
168 ft. below land surface. Date 10-20-07
_____ ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch Date _____

(11) WATER BEARING ZONES

From	To	Estimated Flow Rate	SWL
2	60	300	2
220	440	3000+	168

(12) WELL LOG

Material	From	To	SWL
gravel	0	60	2
Clay ORK beam	60	83	
Clay green w/coarse SAND MIX	83	152	
ASCORIA	152	166	
BASALT	166	220	
FRACTURED BASALT	220	440	168
BASALT	440	450	

Date Started 3-20-07 Completed 10-20-07

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

WWC Number _____ Date _____
Signed _____

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number 1867 Date 11-1-07
Signed Alan W. Johnston

CASED AND SEALED TO 176 FEET

Material	From	To	SWL
gravel	0	60	2
Clay ORK beam	60	83	
Clay green w/coarse SAND MIX	83	152	
ASCORIA	152	166	
BASALT	166	220	
FRACTURED BASALT	220	440	168
BASALT	440	450	





RESERVOIR INSPECTIONS









WELL NET DISTRICT 9

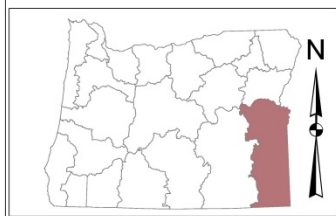
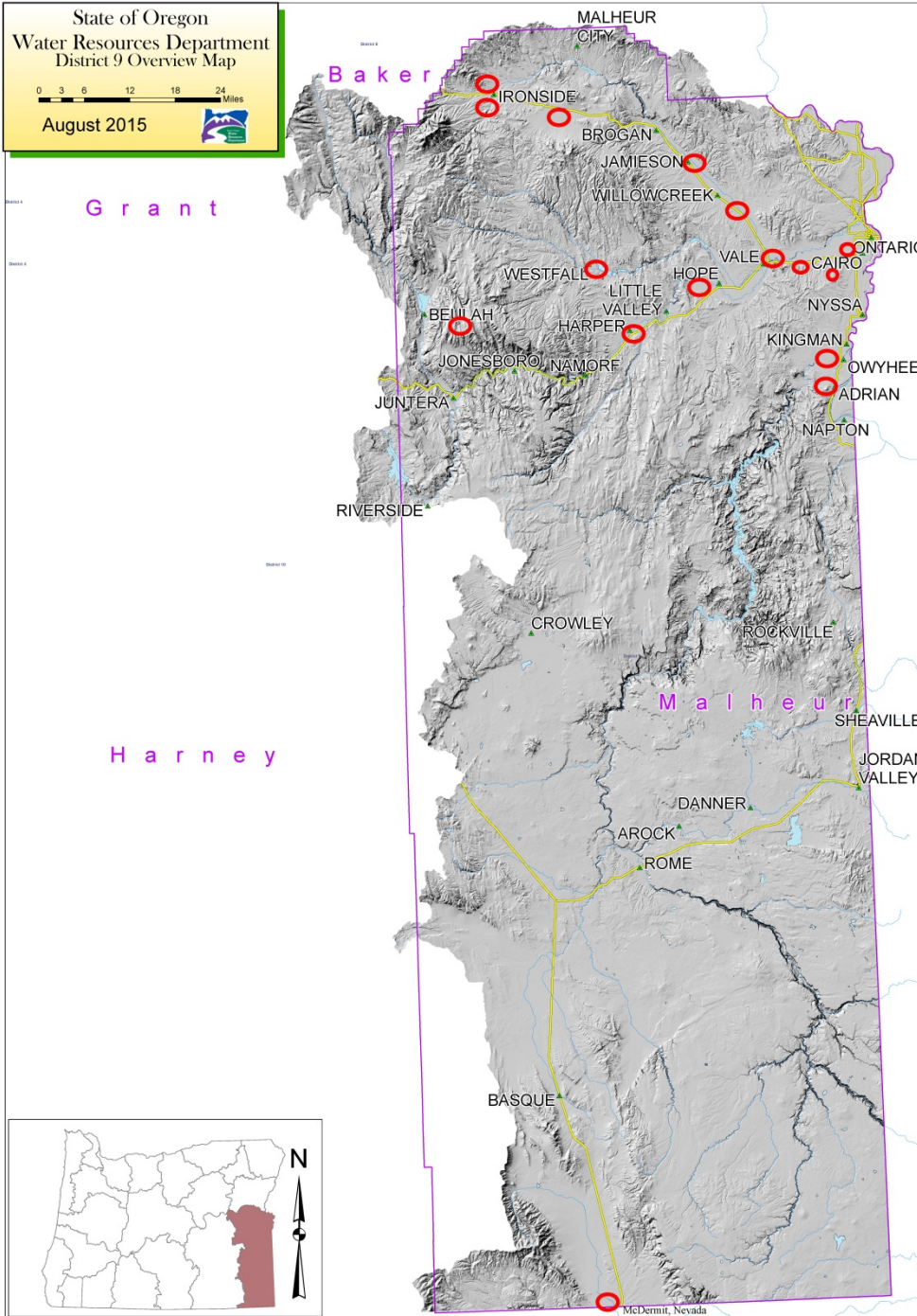
16 OBSERVATION WELLS



State of Oregon
Water Resources Department
District 9 Overview Map

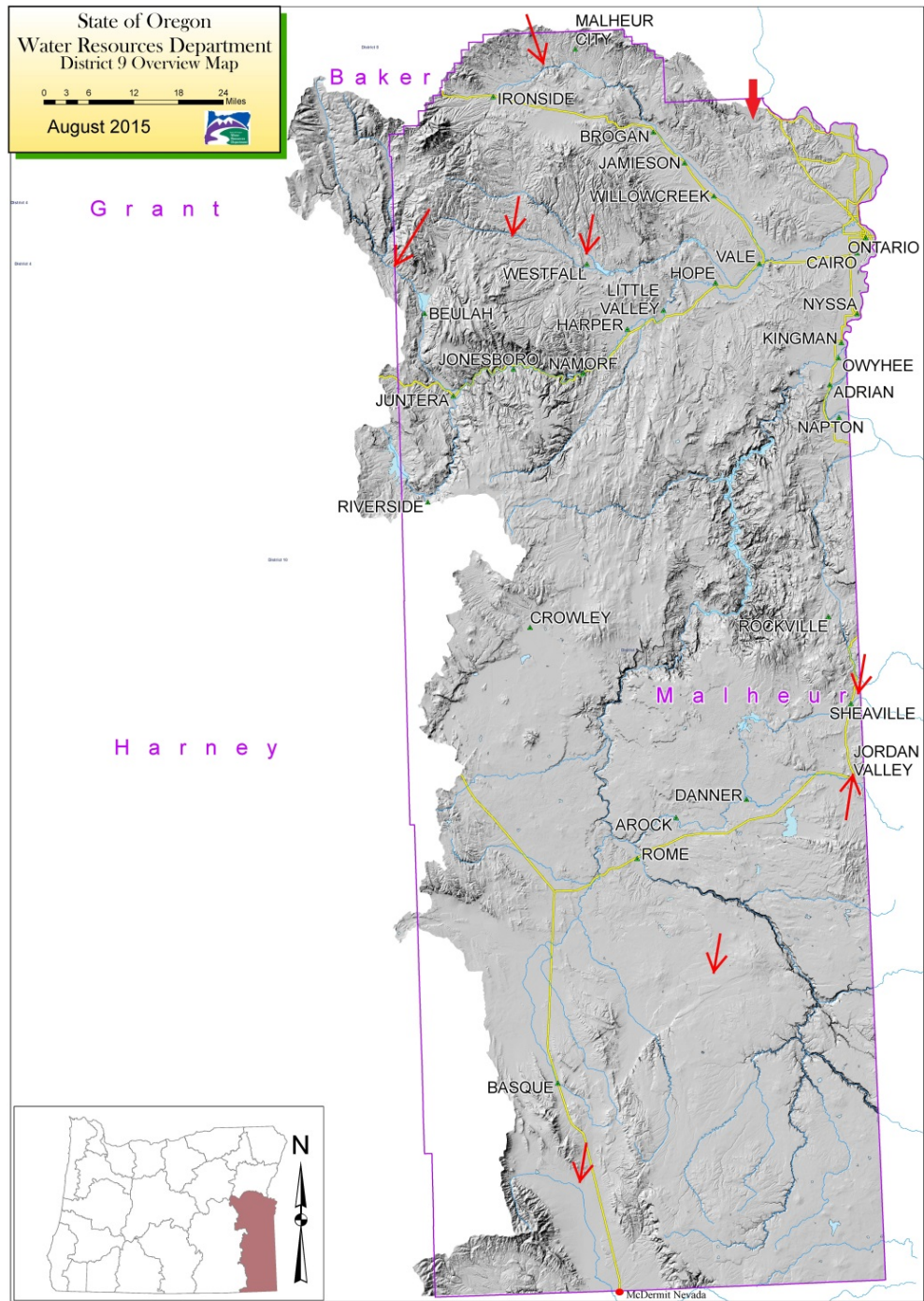
0 3 6 12 18 24 Miles

August 2015



REGULATION SIZE (Approx)

90 miles wide
170 miles long









WARNING
This valve is used to control the flow of water into the reservoir. It is not to be operated unless authorized personnel are present. The valve is to be kept closed at all times unless otherwise instructed. The valve is to be kept locked at all times unless otherwise instructed. The valve is to be kept locked at all times unless otherwise instructed.







