

News from the Water Resources Department's Well Construction and Compliance Section



## NEW SW REGION WELL INSPECTOR

**NEW STAFF**

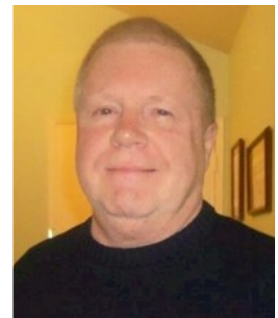
Please welcome Scott Ceciliani to the Southwest (SW) Region office in Medford as the new Well Inspector. Scott grew up on a small farm in Sandy, Oregon, where he kept busy with Christmas trees, raspberries and livestock. He later received his degree in Geology from Oregon State University. After obtaining his degree, Scott acquired a broad range of experience in the field. This experience includes working as a drill supervisor and inspector, gathering and processing data, assisting with measuring water, and the operations/maintenance of USGS stream gage networks in New York. Since taking over as the new SW Region Well Inspector, Scott has been busy working in the field and trying to meet the licensed well constructors in his area. If you have any questions about

well construction, maintenance or abandonment in the SW Region, please direct your questions to Scott who can be reached at [Scott.C.Ceciliani@wrdd.state.or.us](mailto:Scott.C.Ceciliani@wrdd.state.or.us) or by phone at (541) 774-6880.

## NEW NW REGION WELL INSPECTOR

**Welcome to Salem!**

Barry Sanford joins the OWRD Salem office this month as the new Northwest (NW) Region Well Inspector. Barry comes to Salem from the North Central Region where he has been the Regional Well Inspector since September 2012. Barry's educational background includes an undergraduate and master's degree in both Geology & Geologic Engineering from Portland State University. Prior to joining the OWRD, Barry spent a number of years as a Geotechnical Consultant in Western Oregon & Western Washington. Barry has been looking forward to the move back to the Valley, and meeting the local well constructors. If you have any questions about well construction in the NW Region, please contact Barry by e-mail at [Barry.A.Sanford@wrdd.state.or.us](mailto:Barry.A.Sanford@wrdd.state.or.us) or call (503) 986-0895.



## RULES ADVISORY COMMITTEE



The Water Resources Department has convened a Well Construction Rules Advisory Committee (RAC) to open up and examine the rules regarding well construction standards. The Committee is comprised of thirteen professionals involved in the well construction industry. RAC members come from the following areas: the drilling community, environmental consulting, Department of Environmental Quality (DEQ),

Oregon Health Authority (OHA), and Oregon Water Resources Department (OWRD). All of the members have knowledge and experience that will be useful while discussing and crafting proposed changes to the Oregon Administrative Rules. Questions about the Committee or about upcoming meetings should be directed to Kristopher Byrd at (503) 986-0851 or by e-mail at [kristopher.r.byrd@wrdd.state.or.us](mailto:kristopher.r.byrd@wrdd.state.or.us)

## ARTICLES

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## WCC STAFF CHANGES



We are excited to announce that **Kristopher Byrd** has recently been promoted to Manager of the Well Construction & Compliance Section. He replaces Juno Pandian who retired earlier this year. Kristopher has worked for the Water Resources Department for more than 20 years and spent the past ten years as the Well Construction Program Coordinator. If you have any questions regarding the well construction program, please contact Kris at (503) 986-0851 or email: [kristopher.r.byrd@wrdd.state.or.us](mailto:kristopher.r.byrd@wrdd.state.or.us)

Please welcome **Joel Jeffrey** back to the Water Resources Department. Joel replaces Kristopher Byrd as the Well Construction Program Coordinator. From 2005 to 2010 Joel was the Department's NW Regional Well Inspector. In 2010 he left and spent some time working in private industry until his recent return in April 2014. Joel is a welcome asset to the WCC Section and is currently a licensed Monitoring Well Constructor. If you have questions or concerns regarding Special Standards or construction methods, please call Joel at (503) 986-0852 or email: [Joel.W.Jeffery@wrdd.state.or.us](mailto:Joel.W.Jeffery@wrdd.state.or.us)

There is another familiar face in the WCC Section. Please welcome back **Laurie Norton** who is now the Well Licensing Program Specialist. Laurie replaces Tracy Fox who has accepted a position in the Transfers and Conservation Section. Laurie has been with the Agency for nineteen years with the majority of that time spent right here in the Well Construction and Compliance Section. Do you want to know how to check your continuing education credits on-line? Are you having trouble e-filing Start Cards? Please call Laurie at (503) 986-0856 with your licensing or Start Card questions.

## DROUGHT CONDITIONS

# DROUGHT

Oregon is currently experiencing dry conditions around most parts of the state, which led the Governor to declare drought in several counties earlier this year. The precipitation received during the month of May did not improve Oregon's limited water supply outlook for the coming summer. For most of the state, the mountain snowpack was well below normal this winter, which will cause below normal summer stream flows for several basins. Water users in the driest areas of Oregon will likely be faced with water shortages this summer. Many rivers and streams in the southern half of Oregon are expected to have significantly low summer stream flows, potentially rivaling those of drought years such as 1977, 1981, 1992, and 2001. According to the National Oceanic and Atmospheric Administration's Climate Prediction Center, the next three months are expected to be abnormally hot and dry across the state. In preparation for summer drought conditions, Governor Kitzhaber has declared a Drought State Of Emergency for the following counties: Klamath, Harney, Lake, Malheur, Crook, Jackson, Wheeler, Grant & Josephine. For more information on Oregon's current drought conditions, visit the Oregon Water Resources Department's website at <http://www.wrdd.state.or.us>

### WELL SAID NEWSLETTER

Available on the web at [www.wrdd.state.or.us/OWRD/GW/forms.shtml](http://www.wrdd.state.or.us/OWRD/GW/forms.shtml) Please share with others at your organization.

Well Said is a production of the Oregon Water Resources Department's Well Construction & Compliance Section and is designed to inform the drilling industry and the public about program activities and other items of interest.

Questions or suggestions about this newsletter may be directed to Kristopher Byrd at (503) 986-0851 or [Kristopher.R.Byrd@wrdd.state.or.us](mailto:Kristopher.R.Byrd@wrdd.state.or.us)



For Well Construction & Compliance resources, log onto [http://www.oregon.gov/owrd/Pages/gw/wcc\\_index.aspx](http://www.oregon.gov/owrd/Pages/gw/wcc_index.aspx)

## PLACE-BASED PLANNING

In August 2012, the Water Resources Commission adopted Oregon's first Integrated Water Resources Strategy. It contains more than 40 recommended actions, one of which is aimed at encouraging place-based approaches to integrated water resources planning.



Place-based planning is meant to foster a collaborative process to bring together various sectors and community interests to work toward the common purpose of providing water resources to meet the needs of Oregonians and the environment. The plan itself should serve as a blueprint for meeting both in-stream and out-of-stream needs, including water quantity, water quality, and ecosystem needs. Meeting water needs should be considered within the context of specific watersheds, accounting for the hydrological, geological, biological, climatic, socio-economic, cultural, legal, and political conditions of a community.

Other states have actively been encouraging and facilitating regional or watershed-based approaches that bring local water users and interests into the decision-making progress. The Oregon Water Resources Department is in the process of developing guidelines that can facilitate voluntary, place-based planning efforts within Oregon communities. The Department will seek grants and other technical and financial resources needed to conduct this type of water planning.

To facilitate development of the guidelines, the Department recently released a Discussion Paper that examines regional or local water planning approaches from three western states – California's Integrated Regional Water Management, Texas' Regional Water Planning Program, and Washington's Watershed Planning process. The purpose of this paper is to highlight several key planning elements that could inform Oregon's approach to place-based planning and serve as a starting point for discussion with stakeholders and the public. The Discussion Paper, which includes a series of questions for the public, is available on the Department's website.

This past spring, the Department conducted workshops with interested groups, and solicited public comment through the end of June. The feedback received will be used to revise the draft guidelines. With available funding, the Department plans to pilot test these guidelines in two or three interested communities throughout Oregon.

For more information, contact Alyssa Mucken at 503-986-0911 or [alyssa.m.mucken@state.or.us](mailto:alyssa.m.mucken@state.or.us).

### REDUCING METHANE IN RESIDENTIAL WATER WELLS

The National Ground Water Association (NGWA) recently issued a new best suggested practice (BSP) for dealing with methane gas in residential water well systems. Methane gas may occur in water wells due to natural conditions or it may enter a well due to human activities such as coal mining, gas well drilling, pipeline leaks, and landfills. While methane in drinking water does not cause health problems, in elevated concentrations it can escape quickly from water, causing an explosive hazard in confined or poorly ventilated areas. The BSP states that proper construction and regular maintenance of water wells is important to reducing risks to groundwater and protecting public health.

The BSP also includes:

- Information on the occurrence and implications of methane
- Health and safety information relating to methane
- Procedures for well construction
- Well operation considerations
- Methods for detecting methane in groundwater

The full article "Reduce and Mitigate Problematic Concentrations of Methane in Residential Water Well Systems" is available as a PDF through the NGWA online bookstore.



## NEW COASTAL DOGAMI MAP

On December 19, 2013, The Oregon Department of Geology and Mineral Industries (DOGAMI) released: *Open File Report 0-13-21, Geologic Map of the Southwest Oregon Coast between Crook Point and Port Orford, Curry County, Oregon.*

This geologic map provides a "...updated and spatially accurate geologic framework for the southwestern Oregon Coast in westernmost Curry County." This publication expresses how their work enhances their understanding of geologic conditions that influence the distribution, quantity and quality of groundwater resources. Additionally, it provides information concerning the distribution of terrain vulnerable to landslides and seismic hazards, and areas of potential aggregate and mineral resources.

The map is part of a multi-year project that began in 2012 to map the southwestern Oregon coast from the California border north to Coos Bay.

The full publication, including maps, is available at: [www.oregongeology.org/pubs/ofr/p-0-13-21.htm](http://www.oregongeology.org/pubs/ofr/p-0-13-21.htm).

The Open file Report can also be purchased on CD-ROM from the Nature of the Northwest Information center.



## DOMESTIC WELL SAFETY PROGRAM

The Oregon Health Authority recently organized a focus group to obtain information about domestic well educational materials. The group consists of state stakeholders and groundwater experts. The information gathered will be used to alter or create new materials that can successfully promote proper well stewardship and well water quality, further encouraging positive individual and/or community change throughout Oregon.

The focus group also reviewed methods to assist in determining the Domestic Well Safety Program's capacity. It was important to the program that the focus group be as representative as possible so as to receive input from multiple domestic well audiences. Some members of the group included the Oregon Water Resources Department, Benton County Environmental Health, Oregon Department of Environmental Quality, Realtors and the OSU Extension Service. Questions about the Domestic Well Safety Program should be directed to Nadege Dubuisson at (971) 673-1213.



## STANDING COLUMN WELL SYSTEMS

The Water Resources Department has recently had requests for information regarding the construction and use of low-temperature geothermal production and injection wells. These types of wells disperse heat or remove heat from the sub-surface environment. Low-temperature groundwater heat pump systems can roughly be divided into three general categories:

1. Surface water heat pump systems
2. Ground coupled heat pump systems (Closed Loop Systems)
3. Groundwater heat pump systems (Open Loop Systems):

One type of open loop system, called a "standing column well", uses a single well for both extraction & injection of groundwater.

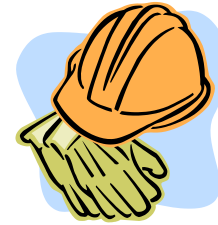
During the operation of the standing column well, the pump draws water up from the bottom and sends it through the heat pumps, then releases it back into the top of the well. The water then must flow all the way to the bottom of the well, where it is drawn back into the intake, up to the pump, and then the cycle is repeated.

The standing column well system is a little different from standard open loop systems that pump either from one well and inject into another, or that pump from one well and then dispose of the water (pump and dump systems). While deciding which system to install, landowners and constructors should consult the Water Resources Department's Administrative Rules Chapter 690 Division 230. These rules address the Standards and Procedures for Low-Temperature Geothermal Production and Injection Wells and Effluent Disposal Systems. The Oregon Department of Environmental Quality's Underground Injection Control (UIC) Program should also be contacted.

Source: Ross, Jill (December 2010). Bringing Geothermal to the City. *Water Well Journal* Pages 28-30.



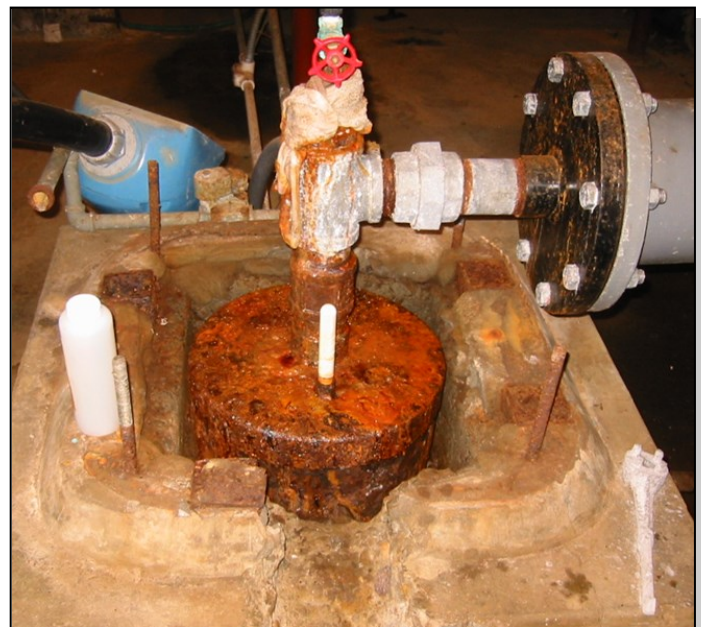
Department Staff inspecting a Water Supply Well being drilled.



Side-drilling a Water Supply Well in order to replace the Annular Seal.



Monitoring Well with buried underground lines right next to it.



Old Water Supply Well with corrosion problems.



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