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Minutes of the January 15, 2015 meeting of the State Interagency Hazard Mitigation Team

Meeting location: This meeting was held in the State Emergency Coordination Center (ECC) within the Donald N. Anderson Readiness Center in Salem.

The following people participated in the meeting:

Oregon Partnership for Disaster Resilience (OPDR)	Josh Bruce
Department of Administrative Services (DAS)	Michael Howard
DCBS, Insurance Division	Darrin Brightman
Department of Environmental Quality (DEQ)	Bob Denouden
Office of State Fire Marshal (OSFM)	Tracie Weeder
Oregon Department of Forestry (ODF)	Don Pettit
Dept. of Geology and Mineral Industries (DOGAMI)	Terry Wolfe
OHA, Public Health Division (PHD)	Cindy Kolomechuk*
Dept. of Land Conservation and Development (DLCD)	Andree Pollock
	Jere High*
	Marian Lahav
	Steve Lucker
	Chris Shirley
OMD, Office of Emergency Management (OEM)	Joseph Murray**
	Erik Rau
	Althea Rizzo
	Dennis Sigrist
	Daniel Stoelb
	Genevieve Ziebell***
Oregon Department of Transportation (ODOT)	Greg Ek-Collins
Public Utility Commission (PUC)	Rick Carter
Water Resources Department (WRD)	Alyssa Mucken
Business Oregon – Infrastructure Finance Authority (IFA)	Gloria Zacharias
Federal Emergency Management Agency (FEMA)	Brett Holt*
GSI Water Solutions	Larry Eaton

* Participated in some or all of the meeting by telephone.

** Participated in only a portion of the meeting in person.

*** Thanks to Genevieve for taking really good notes from which these meeting minutes were prepared.

The following were distributed during or prior to the meeting:

- *Meeting agenda*
- *Aquifer Storage and Recovery* presentation (agenda item #3)
- *RAPTOR* presentation (agenda item #5)
- *Implementation of the Oregon Resilience Plan* (agenda item #6)
- *Earthquake Education and Outreach in Oregon* (agenda item #6)
- *2015 OREGON NHMP UPDATE* (agenda item #7)

[Email joseph.murray@state.or.us for a copy of one or more meeting handouts.]

1) Introductions

Dennis opened the meeting at 9:02 a.m. with introductions.

2) Action on minutes of October 16 meeting

The minutes were accepted as drafted.

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3) Aquifer storage and recovery

Larry Eaton, GSI Water Solutions, presented information on Aquifer Storage and Recovery (ASR), noting that while we can find plenty of water in January, by August the Willamette Valley is the only part of state with surface water availability. Meanwhile groundwater is more and more depleted. Most rivers were allocated for water 100 years ago.

A cost effective solution is ASR: take water from the treatment plant, and bank it into an aquifer to store the water versus building an above ground reservoir. There are ASR examples dating back to the 1960s in the USA, and it is used extensively in Australia, Germany, India, and Thailand. Right now ASR is done more frequently in Oregon than in Washington State. So, ASR is a water management tool to store, bank, and recover water during the summer and autumn when it is needed.

Beaverton, for example, has 450 million gallons (mg) of storage (this is considered large); Cornelius has about 50 mg of storage (modest). Beaverton can pull out seven mg per day in the summer. In Beaverton, they are putting water into basalt. "It is like putting water into a sponge and then taking it back out."

Erik asked if aquifers are generally okay following an earthquake. Larry said that in the case of basalt, an aquifer might be damaged, but it will not collapse.

Rick asked how the injection of water into a basalt layer is different than fracking. Larry said that he doesn't know all that much about fracking, but ASR doesn't put an aquifer under huge pressure, unlike fracking. Rick asked how one extracts the water back out if not using high pressure. Larry said that the water flows back down the well and there is enough permeability that it just gets pushed into the aquifer. Dennis said, "So injection is basically by gravity, just pour it in."

Larry said that wells generally survive earthquakes. The water might be murky, but once pumping starts, it clears up, and wells are functional. Wells are not perfect but they do have resiliency.

Larry said the water in some aquifers is potable; for example, the water in Beaverton. The only treatment needed is chlorination.

Larry talked a bit about the situation in Cornelius which has limited in-town storage and no water source of its own. The basalts are really deep in Cornelius, and ASR reduces the "peak water" that otherwise would need to be bought in the summer. It is a cost effective solution.

There are permits required by DEQ and OHA-PHD.

Additional benefits to ASR:

- Keeps water in the stream in the summer, and therefor helps habitat
- Maximizes the use of available water and the existing treatment plant
- Saves the aquifers – Oregon's basalt aquifers are great resources: by putting water in and taking it out, we're not depleting the natural ground water system
- Can help offset droughts; there will be longer dry periods in the future where ASR can help
- Summer ASR water is cold!

Josh noted that diversity and redundancy are first principles of resilience, and we need to look at this kind of thing in our mitigation plans.

Alyssa noted that WRD has grants available for feasibility studies and the Governor is recommending increasing grant funding. She said that WRD will provide a fact sheet to the State IHMT which may be distributed to communities. Feasibility studies run about \$20,000 to \$30,000.

Dennis noted that as we have less water storage in the form of snow, we will have opportunities to store water in aquifers.

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4) Hazards Framework Implementation Team (Hazards FIT)

Bob was the first presenter, noting that the FITs began in 2000, but back in the 1980s there was a related Executive Order that led to the FITs. He said that there are about 250 framework data elements developed to agreed-upon standards via the FITs. Ultimately it is a voluntary collaborative geographic information system (GIS) community effort. Local, regional, state, tribal, and federal agencies participate. Go to the following website for more information:

<http://www.oregon.gov/DAS/CIO/GEO/pages/fit/hazards/hazardsfitframe.aspx>

Hazards are one of 15 data themes organized as a FIT. Bob noted that he is the overall Framework coordinator. One of the other FITs most relevant to this group is the Preparedness FIT. FITs collaborate on data development and standards. FITs draft standards and present them to the Framework Forum. Once a proposed standard goes through the Forum (could take a couple rounds), it then goes to Oregon Geographic Information Council (OGIC) for endorsement. Framework data is made available through Oregon Spatial Data Library (OSDL). This library is a “work in progress” with constant updating.

Rick asked about proprietary information that needs to be safeguarded. How is it protected? Bob noted that county assessors, for example, have not signed onto a data sharing agreement for tax information. Therefore there is a secure access portion of OSDL where state agencies can gain access. Rick asked a follow-up question about data for water, wastewater, and utility infrastructure. Bob said that we don't have a robust utilities Framework program so far. Rick later said that he wants one point-of-contact when asking utilities for information rather than multiple agencies inundating a utility.

Josh asked if there a connection between the State Framework and how local governments collect and upload data. Bob said that this varies, e.g., road centerline data are a compilation product of local, state (ODOT), and federal data. Josh suggested a “Horizontal Steward” (an agency that would compile local data into a single data set).

Steve, the Hazards FIT Lead, asked “Why is the Hazards FIT talking to you?” There should be more of a relationship between the Hazards FIT and this group. This group should inform the Hazards FIT about what we want to see developed, and the FIT needs to let this group know what's available and what's coming.

Steve said that the goal is to establish a single point of contact for hazards data. You should be able to access a portal and be assured that you're viewing the best current data. We should also have a way of doing a regular inventory and assessment of data. Part of that is providing communities the ability to understand what's new and what's coming. Steve said that “viewers” are great, but present problems in maintaining consistency with data. This group could also inform the Hazards FIT on possible sources of funding.

What do customers need in the real world? For example, floodplain data; the FEMA data has a lot of elements to it, but customers just want to see the 100-year floodplain. Can we package information just for customers? Can we also have regulatory data for those who want and need the official data?

There is also the issue of “secondary data.” Should the Hazards FIT be involved with data sets that aren't formally approved? This has been outside the realm of the FIT, but Steve believes there should be a conversation about it. Josh said that we're often missing lots of great, detailed information that could be applicable to local jurisdictions. Dennis replied that it sounds like Josh is looking for a catalog of what's out there, like a geo-reference catalog with special studies. Steve said that data needs to be discoverable. Josh, “And in a way that's tied back to the hazard layer we're looking at.”

Rick asked, “What's available with modeling?” Steve said that modeling is going on all around the state; it is an entirely different question, and very big issue.”

Steve said that the bottom line is that the relationship between the Hazards FIT and the State IHMT should be two-way street. Steve said to please contact him by email with ideas and data needs. Bob reminded that the FITs are open to interested parties. Meetings are on the calendar on the website.

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5) RAPTOR and its relationship to the Hazards FIT

Dennis then turned the floor over to Daniel to talk about the relationship between RAPTOR and the Hazards FIT. Daniel started with what RAPTOR is, what it does, where we've used it recently, and steps moving forward.

He gave a demonstration, noting that RAPTOR is a web mapping application. He talked first about notable resources within RAPTOR. He said that RAPTOR works within a browser, running successfully from any computer with Internet access. There are three different levels of security: public, OpsCenter, and a protected critical infrastructure version.

The RAPTOR event switcher moves one among different configurations (fire and flood, for example). There is a route widget that gives directions (etc.) from one location to another. The "Oregon planning tool" can populate information on a map, for example, a road closure due to landslide. The "Area of concern tool" can draw an "area to search" layer. For example, one can search for schools, long-term care facilities, etc., within a certain geographic area. One can then take the results and export them out as PDF or a Microsoft Excel spreadsheet. Daniel noted that the Area of Concern tool is on the public site, but the planning tool is not. There is also a "draw and measure tool" – one can locally annotate or place markers on map, for example, the distance between fire perimeters. This can be saved as a text file.

Potential partnerships are voluntary and beneficial. One of the steps forward is a JavaScript migration, which will allow for cross platform functionality. Feature enhancements coming are better readability and common "symbolology."

Josh asked, "With the 'Area of concern tool' is there a way to zoom in quickly to the jurisdiction?" Daniel said "Not yet." Josh followed-up asking, "How do you find the source? Does the URL take you to the information?" Daniel: "Yes."

Local entities have volunteered to contribute information into RAPTOR; for example, tax lot information from Wasco County.

Josh asked "How often is the information updated?" Daniel said, "Whenever that individual information provider updates information."

Don asked Daniel to explain the role of the FIT teams to your work. Daniel said that a lot of the data that the FIT teams are producing are key datasets for RAPTOR.

6) Oregon Resilience Task Force (ORTF) recommendations to the Oregon Legislature

Althea led this agenda item, summarizing the history of the ORTF. She noted that Senate Bill 33 (2013 Session) directed that a task force led by the Governor's office work toward implementation of the *Oregon Resilience Plan*. The ORTF was all volunteer and advocacy driven. It had 17 members, including two State Senators, and two members of the Oregon House. It met monthly during an 18 month period.

Althea said that from 150 recommendations, the ORTF distilled to these key recommendations for the current session of the Oregon Legislature:

- Establish a State Resiliency Officer in the Office of the Governor;
- Provide additional monies for ODOT to move us toward resilient transportation lifeline routes;
- Better utilize state land use goals to accomplish resiliency;
- Require energy providers to come to the table to talk about their particular vulnerabilities; develop and encourage private/public partnerships;
- Provide better resources to harden critical facilities via the Seismic Rehabilitation Grant Program;
- Provide better resources for university resiliency research;
- Move to a two-week family preparedness message; and

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- Conduct an assessment of water and wastewater facilities.

Althea also noted that OEM is starting an earthquake education and outreach initiative for the new two-week family preparedness message. We are asking the public to be resilient for at least two weeks, but also making commitment to the public for the state to be back up and running within two weeks. We are not there, but that's where the conversation starts. Josh asked if there are any Legislative Concepts connected with this. Althea said that there is one that would assure that persons can obtain a 30-day supply of pharmaceuticals.

7) Oregon NHMP update

a) Revised project schedule

Marian noted that Oregon's request for an extension was approved by FEMA. Her Microsoft Powerpoint presentation included a new project schedule. There is to be a public comment period during February.

b) Plan monitoring and maintenance

Marian said that this may seem premature since we don't have an adopted plan yet, but we need to get going on it. The first annual update will be in 2016 for the 2015 year, so we need to get started collecting that data and tracking things including disaster events, milestones, mitigation action status, and mitigation success stories.

The hazard leads may be asked to produce quarterly reports that will inform annual reports to make the process easier going forward. During the life of the 2015 plan, hazard leads and other State IHMT representatives will be involved in varying degrees in various ways on these activities. She indicated that she would distribute information soon that will make quarterly reports easier.

Marian then rhetorically asked with regard to the 2020 update: "How much work?" She hopes it won't be as much work as this plan update, but we really don't know. A lot could impact workload. For example, FEMA is finalizing new state guidance on how to do hazard mitigation plans and we don't know exactly what that will entail. Also, for those who are involved in risk assessment, work will depend on how far we get with new concept methodology, climate change data, and work going on with cultural and historic resources.

Questions were raised about whether the hazards included in plan are right hazards. Should these be changed? Should we be prioritizing hazards? Outcome of questions like these will impact workload. She sees three annual reports: 2016 for 2015, 2017 for 2016, and 2018 for 2017. At that point the 2020 update process will really begin in earnest.

We need to enhance state and local mitigation planning and coordination. How can we coordinate with local governments on mitigation plans? FEMA has developed a mitigation tracker for that purpose.

c) Mitigation action tracker

Steve took the lead on this agenda item noting that the FEMA Mitigation Action Tracker is a new tool to put plans, projects, and ideas into a national web base, an interactive web-based tool. These plans or projects can be at any stage. One must register for tool. He was not sure of obligations persons who register. Steve said that FEMA is offering training next month and then we'll know more. The idea is to be able to sort by jurisdiction, by type, and be able to see what other jurisdictions are doing with similar challenges. There are to be two ways to input actions – directly into the database or submit forms.

Brett also briefly talked about this tool; he noted that OPDR did some of the critical work in developing it. He said that there is to be a tie to the FEMA/DLCD RiskMAP Program.

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8) Update on HUD National Disaster Resilience Competition (NDRC)

Dennis noted that Alice Wiewel and Yumei Wang (DAS CFO) have the overall state lead roles for the NDRC. He said that right now we are assessing threshold eligibility using HUD criteria for three target areas: Reedsport, Seaside, and Brookings. In addition to meeting threshold criteria, one needs to develop projects that do well through a robust public process. Next week, the Rockefeller Foundation is hosting a workshop on this; officials from Reedsport, Seaside, and Brookings intend to participate. Oregon is taking an incremental approach; this work overall is “a really heavy lift.”

9) Other business

a) Current Oregon NHMP and enhanced status redemption

Dennis noted that our current NHMP was approved by FEMA as standard plan in 2012. It was, however, developed as an enhanced plan. Due to issues with grants and program management, we lost enhanced status. Good news is that the current plan’s FEMA approval has been extended by another two years and FEMA is looking at our current plan to reinstate enhanced status. The updated plan under development is also being written as enhanced plan; the state must continue to do what it takes to have an enhanced plan in terms of program and grants management. The Governor’s budget has not given us extra staff to develop and maintain these capabilities.

b) HMA Summit at FEMA Region Ten, late February

Dennis noted that FEMA Region Ten is hosting an annual Mitigation Summit in Lynnwood, Washington during the last week in February.

c) Status of current mitigation grants, close-outs, etc.

Dennis provided a brief update on the status of current mitigation grants and close-outs. He noted that this is a key part of OEMs performance in managing grants; we have done it well enough recently for FEMA to reconsider enhanced state NHMP status.

d) HMA15

Dennis noted that HMA¹ 2015 is yet to be announced. Congress hasn’t decided on a budget for that grant offering.

e) NFIP update

Chris Shirley talked briefly about the ongoing nexus between the NFIP² and the Endangered Species Act. She said that there should be news soon, and it may be a “West Coast Solution.”

10) Discuss/develop possible agenda items for April meeting

Dennis asked State IHMT members to send ideas to Joseph. Ideas that might be timely would include an update on the Oregon Legislative Session, the NFIP and Endangered Species Act, and an update on recapturing enhanced plan status for the Oregon NHMP.

11) Public comment

No members of the general public were present, so there was no public comment.

12) Adjourn

¹ HMA is Hazard Mitigation Assistance, a FEMA grant program.

² NFIP is National Flood Insurance Program.

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The meeting was adjourned about 11:25 a.m.