

E-Edition - Natural Hazards Planner, March 2005

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New List Serv for Natural Hazards: The Department of Land Conservation and Development (DLCD) has established an e-mail listserv – NaturalHazNews - through the Oregon State Library to enhance our ability to distribute information related to natural hazards management to local governments, state agencies, and other interested parties in a timely, cost-effective manner. We envision that this site will become a primary mechanism by which the Department shares information related to the National Flood Insurance Program (NFIP) and other state and federal programs addressing natural hazards. With the advent of this list, we are curtailing the production and distribution of paper versions of our Natural Hazards Planner newsletters. We instead expect to send more frequent but shorter news stories and announcements out via this list.

Subscribers to the list will receive periodic e-mails and may respond to the list administrator at DLCDC. Sending privileges for the list are restricted to DLCDC only.

General information about the mailing list is available at the following site. Individuals can also subscribe to the list at this site: <http://listsmart.osl.state.or.us/mailman/listinfo/naturalhaznews>

Individuals may unsubscribe from the list at any time. If you ever want to unsubscribe, go to the following site and click on unsubscribe:
<http://listsmart.osl.state.or.us/mailman/options/naturalhaznews/christine.valentine%40state.or.us>

You can also make such adjustments via email by sending a message with the word 'help' in the subject or body (don't include the quotes), and you will get back a message with instructions:
NaturalHazNews-request@listsmart.osl.state.or.us

A FAQ for list members is available at: <http://www.list.org/mailman-member/>

Floodplain Meetings Scheduled In April And May! Register Today!: DLCDC, in conjunction with the Department of Homeland Security-Federal Emergency Management Agency (FEMA) Region 10, is trying out a new approach to providing training/outreach for local floodplain administrators. We have scheduled the first meetings in what we hope will be an on-going series of “network” meetings intended to bring together local floodplain administrators from various regions of the state to discuss current floodplain management topics. Representatives of state, federal and tribal government will also be welcome to participate. The first round of meetings will target coastal and southern Oregon jurisdictions. **Please see the attached announcement (PDF file) for more information and to learn how to register (no charge!) for the coastal or southern Oregon meetings.** We currently anticipate holding one to two additional network meetings for other region(s) later in the calendar year. Ultimately, we may hold similar meetings for all regions of the state provided that this approach to training/outreach proves successful.

Below-Grade Crawlspace – NFIP Compliant?: The National Flood Insurance Program (NFIP) requires the lowest floor of a structure located in Flood Insurance Rate Map (FIRM) flood zones A1-30, AE, and AH (and Zone A if a Base Flood Elevation (BFE) has been determined) be elevated at or above the BFE. State building codes for residential structures, including manufactured homes, require the lowest floor be elevated at least one foot above the BFE. In stem wall construction, the enclosed space below the elevated floor is called a crawlspace. If the crawlspace is at grade (i.e., the interior of the crawlspace is at least as high as the exterior grade adjacent to the structure), then the crawlspace is treated as an enclosure below lowest floor. But in the Northwest, below-grade crawlspaces are a standard building practice. A crawlspace that is below-grade on all sides technically meets the FEMA definition for basement. FEMA defines a basement as “any area of the building having its floor subgrade (below ground level) on all sides.”

NFIP policy and insurance rating for below-grade crawlspaces have been debated in the Northwest for some time. FEMA responded to this regional issue with *Technical Bulletin 11-01 – Crawlspace Construction for Buildings Located in Special Flood Hazard Areas*. Most local floodplain administrators and building officials are well aware of Technical Bulletin 11-01 as are many developers and builders. Technical Bulletin 11-01, issued in 2001 as “interim” guidance, remains the key statement of FEMA policy with respect to below-grade crawlspace construction in the floodplain. According to the Technical Bulletin, below-grade crawlspaces can potentially be allowed in the floodplain provided that certain specifications are met:

- (a) interior grade of the crawlspace below base flood elevation must not be more than 2 ft. below the lowest adjacent exterior grade,
- (b) the height of the crawlspace when measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall must not exceed 4 ft.,
- (c) an adequate drainage system that removes floodwaters from the interior area of the crawlspace must be included,
- (d) anticipated floodwater velocities should not exceed 5 ft. per second if a crawlspace foundation is used,
- (e) the structure must be adequately anchored,
- (f) flood vents meeting FEMA criteria for enclosed areas below base flood elevation must be included in the crawlspace foundation,
- (g) any materials placed below base flood elevation must be flood resistant,
- (h) utility systems must be elevated or floodproofed.

(Remember: No below-grade crawlspaces allowed in coastal velocity (V) Zones!)

Since issuance of Technical Bulletin 11-01, DLCD (and we believe most if not all local governments in Oregon) were of the understanding that below-grade crawlspaces would be NFIP compliant if the specifications in the Technical Bulletin were met. Of course, local governments were asked to advise homeowners that flood insurance rates would be higher for buildings with below-grade crawlspaces. The state building codes have supplemented this approach, with most local governments ensuring compliance with FEMA specifications for below-grade crawlspace through the local building permit process. However, in DLCD’s recent discussions with FEMA, FEMA has stated that local governments that choose to allow below-grade crawlspace construction in the floodplain are required to amend their floodplain ordinances to include the provisions outlined in Technical Bulletin 11-01. In other words, FEMA is saying that reliance on the Technical Bulletin and state building codes absent ordinance language is not enough.

Just what should Oregon’s local governments do now? **DLCD strongly recommends that all local governments review their local floodplain ordinances to determine if below-grade**

crawlspaces are addressed. If NFIP crawlspace language is not included in a local ordinance, then the local government needs to decide if below-grade crawlspaces will continue to be allowed in the floodplain and would need to add language to its ordinance.

Please be advised that in the absence of language for below-grade crawlspaces in a local floodplain ordinance, FEMA will likely view below-grade crawlspace construction for new structures as NFIP violations in the future.

FEMA strongly recommends that below-grade crawlspaces not be allowed in the floodplain. FEMA believes that below-grade crawlspaces result in increased likelihood of problems associated with water accumulation, moisture damage, and drainage. As a result, NFIP insurance premiums for below-grade crawlspaces are substantially higher than for similar structures with an above-grade crawlspace - the annual flood insurance premium increases by approximately 30 to 45 percent! For many people, this additional annual premium could be quite a hardship.

If a local government elects to allow below-grade crawlspaces through its floodplain ordinance, then it definitely needs to ensure compliance with the standards of Technical Bulletin 11-01. If a below-grade crawlspace does not meet the specifications and the structure is rated as having a basement, the impact on insurance premiums is huge – a four to five-fold increase in the annual premium!

DLCD has expressed concern to FEMA Region X staff about giving local governments in Oregon sufficient time to take action to address below-grade crawlspaces in their floodplain ordinances. The Department will continue to work with FEMA on this issue and is currently in discussion with FEMA about model code language that would address below-grade crawlspaces.

For your reference, Technical Bulletin 11-01 is available via the FEMA website:

<http://www.fema.gov/fima/techbul.shtm>

National Wildlife Federation v. FEMA: In the Fall 2003 edition of the Natural Hazards Planner, DLCD reported on a lawsuit filed by the National Wildlife Federation (NWF) against FEMA Region X under Section 7 of the federal Endangered Species Act (ESA). NWF contended that FEMA administration of the NFIP is a federal action with effects on ESA-listed salmonids and sought a court order to require FEMA to consult with NOAA Fisheries under the ESA. The U.S. District Court for the Western District of Washington State issued a decision in the case on November 17, 2004. Key findings of the District Court include that: (1) the National Flood Insurance Act (NFIA) is subject to the ESA, (2) implementation of the NFIP impacts the use of floodplains and thus potentially salmon, (3) FEMA is required to consult with NOAA Fisheries under the ESA, and (4) FEMA has discretion under the NFIA to implement measures to benefit salmon. The court stopped short of requiring consultation with respect to the sale of flood insurance policies. The court gave FEMA 60 days to initiate consultation. The Department has learned that FEMA is in the process of pursuing that consultation with NOAA Fisheries.

While this case focused on impacts to Puget Sound Chinook salmon listed under the ESA, obviously the outcomes could have far reaching implications for our region. Theoretically, the consultation process could result in terms and conditions impacting the NFIP regulations or other aspects of how the flood insurance program is implemented. This in turn could impact local floodplain management programs. DLCD will continue to track developments surrounding the ESA and NFIP and will report any significant news in future newsletters.

Map Modernization Update: After a hiatus between Spring-Fall 2004, DLCD is once again engaged in activities to support FEMA's map modernization program for flood hazard maps (commonly referred to as Flood Insurance Rate Maps or FIRMS). The key to DLCD's efforts is partnership - with the Geospatial Enterprise Office (GEO) in the Oregon Department of Administrative Services and the Oregon Natural Hazards Workgroup (ONHW) at the University of Oregon. We are partnering with GEO and ONHW to accomplish the following tasks:

- A comprehensive inventory of the existing base map data related to flood hazard mapping and determination of whether or not existing data meets FEMA standards for data quality and is readily available for flood hazard mapping projects.
- Identification/inventorying of existing GIS systems/efforts at the local government level, as part of an overall assessment of local GIS capacity and needs
- A community-by-community assessment of specific local needs/issues with respect to flood hazard mapping, looking at various factors that impact past and future mapping of flood hazards
- Determination of opportunities and constraints for local government involvement in FEMA's map modernization program and development of recommendations for how DLCD, through state technical assistance, or the State of Oregon, through other means, could best facilitate timely, cost effective, and adequate updates of local flood hazard maps.
- Analysis of DLCD's potential role in creation, maintenance, and distribution of a floodplain layer for Oregon that could be accessed on-line by local governments, FEMA, and other interested parties
- Development of an outreach strategy for map modernization efforts in Oregon, to support future outreach efforts directed at local governments, citizens and other interested parties regarding the goals/objectives for map modernization, state technical assistance for flood hazard mapping efforts, and the FEMA mapping process

A first step in the above efforts has been statewide surveying of local governments and other key parties to address existing base map data and specific local needs/issues with respect to flood hazard mapping. Numerous local governments have already completed the surveys, but **we are hopeful that additional local governments will take the time to answer these important surveys.** Survey results will be provide key information and a solid basis for DLCD's efforts to work with local governments and FEMA in the pursuit of federal mapping dollars and related resources for Oregon.

The surveys are available on-line. The password for both surveys is: UtilitySurvey05.

GIS survey: *(This survey should be completed by individuals who are familiar with GIS concepts and with the data and technology used by your organization.)*

<http://confdemo.plangraphics.com:8080/survey5/src/surveyform.html>

Flood Mapping/Hazards survey: *(This survey should be completed by individuals who are familiar with the use of FEMA FIRMS and/or local floodplain management.)*

<http://confdemo.plangraphics.com:8080/hazard5/src/hazardsurveyform.htm>

Take Note! New and Interesting Geologic Reports and Maps Available! The Oregon Department of Geology and Mineral Industries (DOGAMI) issued numerous reports and maps in the last quarter of 2004. These include:

Open File Report O-04-06, GEOLOGIC MAP OF THE LA GRANDE RESERVOIR QUADRANGLE, UNION AND BAKER COUNTIES, OREGON by Ian P. Madin, DOGAMI

Open File Report O-04-13, GEOLOGIC MAP OF JOSEPHINE COUNTY, OREGON by Ramp and Peterson, 2004, adapted from Ramp, and Peterson, 1979, Geology and mineral resources of Josephine County, Oregon: Oregon Department of Geology and Mineral Industries Bulletin 100.

Open File Report O-04-14, OWEB GRANT 203-029 - ROGUE RIVER STAKEHOLDER PROJECT, PHASE 2, COMPLETION REPORT AND YEAR ONE MONITORING REPORT by E. Frank Schnitzer, DOGAMI

Open File Report O-04-20, EVALUATION OF COASTAL EROSION HAZARD ZONES FROM SISTERS ROCKS TO NORTH GOLD BEACH, CURRY COUNTY, OREGON: TECHNICAL REPORT TO CURRY COUNTY, by George R. Priest and Jonathan C. Allan, DOGAMI and Ron Sonnevill, Terra Firma Geologic Services.

Open File Report O-04-21, SUSTAINABLE PRACTICES AT OREGON UNIVERSITIES: REDUCING EARTHQUAKE RISKS AND IMPROVING ENERGY EFFICIENCY IN BUILDINGS, by Robert Simonton and Beau Dickey, Oregon University System, and Yumei Wang, DOGAMI

Open File Report O-04-23, FIELD TRIP GUIDE TO THE GEOLOGY OF THE UMATILLA RIVER BASIN, OCTOBER 14 AND 15, 2004, PREPARED FOR THE UMATILLA RIVER GEOLOGY WORKSHOP HELD AT THE TAMASKSLIKT CULTURAL CENTER, CONFEDERATED TRIBES OF THE UMATILLA RESERVATION, by Mark L. Ferns and Vicki S. McConnell, DOGAMI

These Open File Reports are available on CD-ROM for \$10. Open File Reports O-04-06, O-04-13, and O-04-21 can also be purchased in print form for \$15 through the Nature of the Northwest Information Center (NNW), 800 NE Oregon Street #5, Portland, Oregon, 97232. You may also call NNW at (503) 872-2750 or order online at <http://www.naturenw.org>. For additional information, please contact the Nature of the Northwest Information Center. Additionally, these items as well as all department maps can be purchased at DOGAMI Field Offices.

To learn more about other reports and maps produced by or available through DOGAMI, visit DOGAMI's website at <http://www.oregongeology.com/>.

Recreational Vehicles in the Floodplain: Local governments are strongly advised to check their local floodplain ordinances for compliance with the National Flood Insurance Program (NFIP) standards for recreational vehicles (RVs). The federal “NFIP” regulations define the term RV at 44 CFR Part 59 as a vehicle that is:

- (a) built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) designed to be self-propelled or permanently towable by a light duty truck; and
- (d) designed primarily not for use as a permanent dwelling but a temporary living quarters for recreational, camping, travel, or seasonal use

Local governments can allow for placement of RVs meeting the above definition in the special flood hazard area (i.e. 1% chance floodplain). However, **the NFIP regulations at 44 CFR §60.3(c)(14) state that RVs must either:**

- (i) **“Be on the site for fewer than 180 consecutive days,” AND**
 - (ii) **“Be fully licensed and ready for highway use”**
- OR**
- (iii) **“Meet the permit requirements of paragraph (b)(1) of this section and the elevation and anchoring requirements for “manufactured homes” in paragraph (c)(6) of this section.”**

In other words, the federal regulations allow for temporary use of RVs in the floodplain but only allow for a RV to be used as a residence if the RV is properly anchored and elevated, i.e. treated as a manufactured home residence. Said another way, if a RV is not used as a temporary living quarters for recreational, camping, travel, or seasonal use but is instead used as long-term living quarters, then per the federal regulations the local government would need to regulate the RV like it would regulate placement of a manufactured home in the floodplain. Any local permits issued for a RV use in the floodplain would conceivably either specify that only temporary recreational, camping, travel, or seasonal use is authorized or specifically require anchoring and elevation if a non-temporary residential use is authorized.

The NFIP regulations for RVs have been in place for some time, and local governments participating in the NFIP are required to implement the RV standards. The NFIP standards for RVs are in place to address the health and safety concerns that would be associated with allowing a potentially long-term residential use in the floodplain if the residents and downstream property owners/uses were not given at least a minimum level of protection from flood hazards. Anchoring and elevation are standard flood mitigation techniques.

Certified Floodplain Managers Exam: DLCD has received several inquiries about taking the Certified Floodplain Managers (CFM) Exam and has decided that it is time to once again schedule an exam. We are contemplating holding an exam at the DLCD Salem office in May or June. If you would be interested in taking the exam, then please let us know! We will send out another announcement with information on registering once an exam date has been selected. For more information about the CFM program, go to the Association of State Floodplain Managers website at: <http://www.floods.org>

Contact Us:

Have Questions? Comments? Ideas for or contributions to future editions of this newsletter? You can contact the Natural Hazards Program at the DLCD Salem office, 635 Capitol St. NE, Suite 150, Phone: 503-373-0050 X250. You can also send replies to DLCD via the NaturalHazNews list address (see first article in this newsletter). Or you can send e-mail directly to christine.valentine@state.or.us.

Editor's Notes:

The DLCD website address is: www.oregon.gov/LCD/index.shtml. In the future, DLCD will post the Natural Hazards Planner newsletter on its website vs. distributing as an attachment by e-mail. You would then receive an e-mail message stating that a new edition of the newsletter is available on the DLCD website. However, we are in the process of repairing the natural hazards section of the DLCD website and must complete that work before posting new materials there. Our long-term goal is to archive all editions – past and future - of the Natural Hazards Planner newsletter on the department's website.

DLCD's Natural Hazards Program would like to thank Denise Atkinson, FEMA Region 10 and Leslie Melville, NFIP Computer Sciences Corporation, for contributing to articles within this edition of the Natural Hazards Planner. DLCD would also like to thank Christopher Adams at the Oregon State Library for his assistance with the NaturalHazNews list.