MINUTES
City of Newport
Planning Commission Work Session/Special Presentation
City Hall City Council Chambers
Monday, April 26, 2010

Commissioners Present: Jim Patrick, Melanie Sarazin, John Rehfuss, Glen Small, Mark Fisher, and Gary East.

City Staff Present: Community Development Director (CDD) Derrick Tokos, Senior Administrative Assistant Wanda Haney, and City Attorney Penelope McCarthy.

(The Citizens Advisory Committee Members were excused but were welcome to attend in the audience.)

Chair Patrick called the Planning Commission work session/special presentation to order at 6:00 p.m. in the Council Chambers.

A. New Business.

1. Presentation by State Department of Geology and Mineral Industries representatives George Priest and Jonathan Allan regarding DOGAMI's 2004 report entitled, "Evaluation of Coastal Erosion Hazard Zones Along Dune and Bluff Backed Shorelines in Lincoln County, Oregon".

Tokos introduced George Priest of DOGAMI who was giving a presentation on their 2004 study. Priest said that with the help of a Power Point presentation, he intended to explain how they did the erosion hazard mapping. He had done mapping for the entire north county. The effort was to map coastal landslide and erosion hazard zones. He mapped erosion hazards in dunes and erosion hazards in bluffs. Priest showed the area that he mapped, which extends from Seal Rock to Cascade Head. He noted that the report that is being referred to is DOGAMI's open file No. O-04-09. Priest listed and explained the key controls; which are storm waves, tides, rip currents, along-shore and off-shore sand transport, migration of tidal inlets and river mouths, humans, and geology of the bluffs. Priest said that he spent time mainly mapping the area west of Highway 101. He noted that there are a series of maps that were produced from detailed shoreline mapping, and they did erosion analysis to see what has happened historically and what could happen over the next 60-100 years. For the dune backed shorelines, they had very little information, so they used a geometric model. He showed what the model looked like. He presented a photo of what happened to the Salishan spit in the 70s. Talking about global sea level rise, he noted that it is about 1-2.4 millimeters per year and that the central Oregon coast is not uplifting fast enough to outpace this rising sea level. The central coast is therefore more prone to coastal wave erosion. Priest introduced Jon Allan as an expert in beach erosion and estimating storm wave events. Allan did a procedure where statistically he estimated 100-year and 50-year storm wave events and ended up with a series of dune erosion hazard zones. He explained that active hazard is the active beach erosion, high hazard has a little vegetation and will be within 50 years, and moderate is 100 years. The maximum potential erosion of the dunes was determined to be 138-510 feet for the high risk zone, 279-772 feet wide for the moderate risk, and 316-928 feet for the low risk. He showed the South Beach map. He said that bluff erosion was not as easy of a statistical method. They used gradual erosion with no large slide blocks, and episodic erosion, and with failure of maximum landslide blocks based on observed maximum block sizes for each type of bluff. He noted that many large translational slide blocks move only millimeters per year, but will eventually accelerate as wave erosion chips away at the toe of these slides. Priest showed photos of examples of erosion in Lincoln City that produced near-vertical sea cliffs. He explained that these cliffs and similar cliffs in Newport are relatively stable at an angle of repose equivalent to 1.5:1 (horizontal:vertical). He showed one such angle in Nye Beach that is vegetated and fairly stable since 1900. He showed a photo at Nesika Beach near Gold Beach, which gives an example of bluff erosion at toes versus tops. He said wave erosion chips away gradually at bluff toes but episodically at bluff tops, because the tops get undercut until a slide block falls off. He showed a small (~30 feet wide) slide block in Nye Beach. He mentioned Jumpoff Joe, which has had blocks up to 340 feet wide slide off. He showed hundreds of feet of shoreline change at Jumpoff Joe from 1868 to 1967. Photos at the head of the Jumpoff Landslide illustrated the abandonment of an entire neighborhood in the 40s owing to acceleration of the slide movement. He noted that the Schooner Creek slide in Agate Beach is doing the same thing as Jumpoff Joe did. In mapping bluff erosion hazard zones, he explained that it is a step-wise procedure. First he mapped what is currently active (everything seaward of the bluff top or the top of an active landslide headscarp) – that was the Active Erosion Hazard Zone. He then estimated how the active zone would expand in the future, estimating the minimum expansion (boundary of the High Hazard Zone), maximum expansion (boundary of the Low Hazard Zone), and the average expansion (boundary of the Moderate Hazards Zone). The expansion was estimated by first, adjusting the bluff or headscarp slope to a stable angle. The High Hazard Zone (minimum expansion of the active zone) was then determined by adding the estimated gradual erosion over the next 60 years. The maximum expansion of the active zone was determined by adding to the stable slope

adjustment gradual erosion over the next 100 years and a maximum block failure. The Moderate Hazard Zone boundary was simply drawn half way between these two extremes. The erosion estimate for the High Hazard Zone is generally 20-30 feet landward of the bluff top adjusted to a stable slope, Moderate is 40-225 feet, and Low is 60-420 feet. The relationship of the mapping to the draft Newport ordinance is that active would need a full geologic report. High also needs a full report. Active landslide and potentially active landslide areas need full reports. Prehistoric (older or unclassified) slides require only a reconnaissance short form. Moderate and low also needs only the reconnaissance form. He then showed bluff erosion hazard zone maps for the City of Newport and urban growth areas. On the map for the Jumpoff Joe areas (west end of NW 11th Street), he scaled the published map of shoreline change from 1868 to 1967 to the 2004 DOGAMI erosion hazard zone map and showed that the Low Hazard Zone width matched almost exactly the shoreline change for this 99 year interval.

Questions and Comments from the audience

Priest was asked a question about what other areas are using this program after four years. He said that Tillamook County is considering it. Bandon is looking at something very similar but not with DOGAMI's mapping. He explained that the entire northern Oregon coast is done with the exact same mapping; a small part of Curry County at Nesika Beach is also mapped this way. If jurisdictions use these maps for land use regulations, they will be using a uniform product. He said it's likely a site-specific study for one small lot or shoreline segment would actually have different estimated hazard zone widths, but he guesses it wouldn't be that much different.

When asked if this Power Point was on the website, Priest said it isn't published yet. Essentially it will be put through a whole review process first.

There was a question about the city's lack of storm sewers accelerating landslides. Priest said he wasn't aware of that lack, but it very well could. He noted it is always good to route water off landslides. If water is kept out of landslides, winter movement can often be slowed or stopped. He noted that research on the Johnson Creek Landslide near Otter Crest showed that erosion at the landslide toe will often destabilize a slide, even if it is dewatered; but dewatering can drastically slow movement before toe erosion reaches this threshold. He said that the Schooner Creek Landslide is an example of a slide that might be slowed by dewatering. If water mains are breaking owing to slide movement, this water will be injected into the slide, accelerating movement. He said that dewatering and routing storm water off of slides can add decades to the life of threatened homes on active landslides. However, there's little that can be done about erosion chipping away at the base of bluffs; and unless you can stop erosion, it won't buy you forever.

One comment from a member of the audience was about the large hazard area east on the Bay. He noted that it is one of the biggest groups of yellow. His concern is that if it is there just because some other earlier worker had mapped it, he would suggest a more scientific look at that area. He said that his thought is not to just legislate it because someone else said something a long time ago. Priest introduced his director, State Geologist Vicki McConnell. McConnell said that as soon as her department finds money for that, they will look at that product. She explained that it has been mapped as being something that looked like it might be a landslide to experienced geologists. Even though it was mapped thirty years ago, Priest thought it would be unethical if they didn't include that. He said that the City couldn't ignore it either. This audience member added that he thinks it should be given more attention before lumping the area into one group. He requested more effort on that before labeling something. Priest said that he may be more sympathetic if he hadn't seen the effect of prehistoric slides on the Highway 20 route. He said that whenever there has been earth movement at an earlier time, that same landslide can become active overnight, unless attention is paid to how water is routed and how slopes are cut. Priest said that all the City is trying to do is warn of a potential danger zone and that somebody ought to take a look at it. Ignoring it would be unethical. The current draft calls for review by an engineering geologist on site specific sites for possible reclassification. How that report is treated is a policy of the City's.

Another question was with these reports, whether the maps would be revised and what feedback DOGAMI would provide to the City. Priest said that at the present time, their department doesn't have the resources to do detailed reviews of every permit. DOGAMI has a staff of about 35 to cover the whole state. McConnell added that to the extent possible, they would look at a report and would take into consideration if major changes were found in the mapping. They probably would do an update if it showed that the mapping and modeling was way off. She said they do not have the discretionary funds to provide review within fifteen days.

A question was raised as to why Newport was picked to serve as the model for the whole coast as far as adopting the ordinance. Chair Patrick answered that six years ago he wasn't on the Planning Commission, but he came to the meetings anyway. Updating the zoning ordinance was on the list of things to do back then. The Commission was going to do the geologic section two to three years ago, but when they heard about new mapping, they were waiting for the current information. He said that is why the Commission is doing this now.

There was a question asked about how the reconnaissance form differs from a geologic report. Tokos answered that a geologic report has to be prepared to certain guidelines that the board of geologists have set for it. It is lengthy and detailed. The reconnaissance form is a few pages with questions filled out. If the site is determined to be low risk, the reconnaissance is suitable. It doesn't have to be looked into any further and the study is done. If it says that based on the study, they do need to prepare a report; then a report needs to be prepared, and there are certain standards that need to be adhered to. Tokos noted that the draft reconnaissance form had been shared with professionals in the industry. He said that it is still in draft form, but it can be shared with the public.

In response to a question regarding dewatering requirements in order to prevent erosion, Priest said that is a judgment based on site by site studies. He said generally what this is talking about is slowing landslide movement; to actually slow erosion is a whole different thing, and there in lies the beauty of a detailed engineering analysis. He added that dewatering might buy 50-60 years. A report from the geotechnical engineer is needed to specify what is needed to do this. The geotechnical engineer says how many wells or drains are needed for remediation. That is why you then need an engineer. You have two professionals determining how much it is feasible to add 100 years life to this property before there is a danger to anyone. He noted that the ordinance says that now the City has to make a decision whether they actually believe this and let it go forward. Priest said that the greatest thing about the ordinance is that the design professional actually comes in and signs on the dotted line saying that the work was done the way he said it should be. He noted that, as far as he knows, this is unique to any coastal jurisdiction.

One other comment raised was that the original lines drawn by DOGAMI are not site specific, and a site specific study might determine that the lines are different. Another was that when they purchased their property, they did look at the geologic reports and didn't see that their property was in a high hazard zone. Now her property value is going down. Rules seem to be changing in midstride. They bought with the information in place at the time. Now their property value is decreasing and insurance costs will increase.

B. Adjournment. Having no further time, the work session meeting adjourned and reconvened in regular session at 7:03 p.m.

Respectfully submitted,

Wanda Haney

Wanda Haney
Senior Administrative Assistant