

CITY OF COOS BAY CITY COUNCIL
Agenda Staff Report

MEETING DATE July 15, 2014	AGENDA ITEM NUMBER
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TO: Mayor Shoji and City Councilors
FROM: Mark Anderson, Fire Chief
THROUGH: Rodger Craddock, City Manager
ISSUE: Presentation – Tsunami Preparedness

BACKGROUND:

Tsunamis are a series of large waves caused by the disturbance of the ocean floor by an earthquake. Tsunamis can manifest as fast moving and crashing waves or, more likely for our area, a series of accelerated and unusually high tidal surges. The severity of the event is significantly impacted by the current tide level. The distant tsunami created by the earthquake in Japan in 2011 reached our area near low tide and had little or no impact. The outflow and inflow of the tsunami waves were repeated several times over the course of a few hours with an estimated 8 to 10 foot impact to the tide.

A distant tsunami is one that is generated from an event hundreds or thousands of miles away. Distant tsunamis are typically smaller and provide some time for official warning and an organized evacuation effort. The Oregon Tsunami Advisory Council models predict surges from a distant tsunami to add 10 feet to the tidal conditions. If this were to occur at or near high tide, our impacted areas would be to property west of Empire Blvd. in the Empire district and generally limited to areas along highway 101 in downtown Coos Bay.

A local tsunami can reach shore within 15 to 20 minutes after an earthquake. Local tsunamis can be much larger than distant tsunamis, and the Oregon Tsunami Advisory Council has predicted as much as a 25 foot addition to the tidal condition. In Empire, the potentially impacted area includes homes and businesses west of Wasson as well as a large section between Pacific and Fulton Ave. and the Tideview Terrace area. The Eastside neighborhoods are not as vulnerable to the impact of a tsunami, but a local earthquake could damage bridges slowing emergency response. In the downtown area, we can reasonably expect that most of the businesses east of 4th street or property lower than 25 feet in elevation would suffer damage from a local tsunami.

Emergency responders will likely be committed to damage assessment, triage, and associated emergency response. There is not likely time for an organized evacuation effort with a local tsunami following an earthquake, so community education is extremely important.

Current Preparation

The development, adoption, and maintenance of an Emergency Operations Plan (EOP) is vital to provide an organized response to any emergency. The City's plan identifies a unified command structure, the role of each department, the location of the emergency operations center, and it outlines the steps for the declaration of a local disaster. The development and posting of evacuation routes and temporary shelters are also part of the Emergency Operations Plan. The City has installed and maintains a tsunami siren at the Empire fire hall to aide with alerting the community of the need for evacuation.

Practice evacuation drills, similar to the community-wide evacuation drill conducted on May 31, 2013, are beneficial to public awareness and personal responsibility. The Fire Department partnered with NW Natural and several other agencies to host the first annual “Get Ready Coos Bay” disaster preparedness fair in September 2013. Additionally, the Fire Department has worked with the school district to plan and conduct annual tsunami evacuation procedures. Tsunami evacuation practice is also a natural extension of the annual “Great Shake Out” earthquake drill held in October.

Community education needs to be repeated and reinforced to develop an appropriate reflex response. Related teaching topics include:

- the development of a cache of essential resources or a “grab and go kit”
- the identification and recognition of areas of threat or danger and safe zones
- disaster reaction, evacuation, and recovery

Additional Efforts

The Coos Bay Fire Department will be providing a free to the public disaster preparedness class on August 12th. While the class will cover most all hazards, earthquake, and tsunami, preparedness is a significant portion of the course curriculum.

The Fire Department is also creating a single page informational brochure on the essential elements of a “grab and go kit”. The plan is to have this information coupled with the tsunami maps available at city offices and distribute them specifically to homes and businesses within the area of threat. The downtown association would be an excellent partner to help educate business owners, their employees, and customers of the potential hazards, appropriate preparedness measures, and evacuation procedures from at risk areas.

ADVANTAGES:

The biggest obstacle to tsunami and disaster preparedness is complacency. The City and staff have a responsibility to keep the information in front of the community through printed material, workshops, drills, and continued cooperation with the local media utilizing public service announcements, reports, and stories of interest. It is our hope that through these educational opportunities, our neighbors will be better equipped to withstand a local disaster.

DISADVANTAGES:

None identified

BUDGET IMPLICATIONS:

Included in operational funding

RELATED CITY GOAL:

Citizen Education & Involvement: Educate citizens on disaster preparedness.

ACTION REQUESTED:

None

Tsunami Preparedness

- ▶ Identification of the threat and probable impact to the community
- ▶ Pre-incident preparation measures
- ▶ Opportunities





Cranberry

EMPIRE

Sunset Middle School

Madison Elementary

Salvo

Army

A

A

Schetter Ave

Michigan Ave

Noble Ave

Montgomery Ave

Pacific Ave

Fulton Ave

Blanco Ave

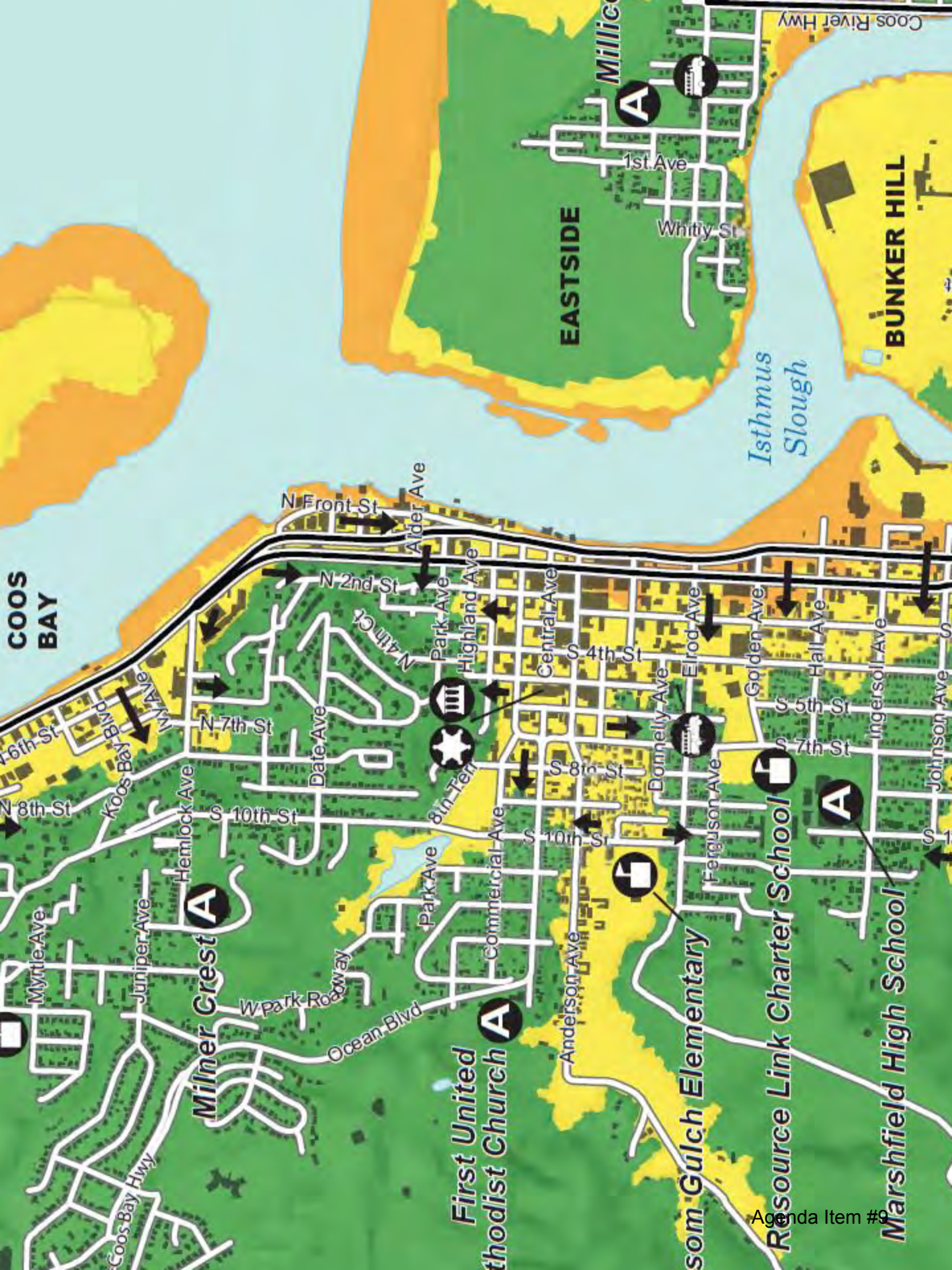
S Empire St

S Wall St

S Empire St

S Morrison St





COOS BAY

EASTSIDE

Millic

1st Ave
Whitty St

Isthmus Slough

BUNKER HILL

Coos River Hwy

N Front St

Alder Ave

N 2nd St

Park Ave

Highland Ave

Central Ave

S 4th St

Golden Ave

Hall Ave

S 5th St

S 7th St

Ingersoll Ave

Johnson Ave

N 7th St

Date Ave

Park Ave

Highland Ave

Central Ave

S 8th St

Donnelly Ave

Elrod Ave

S 5th St

S 7th St

Ingersoll Ave

Johnson Ave

N 6th St

N 8th St

W Main

Coos Bay Blvd

Hemlock Ave

S 10th St

Date Ave

Park Ave

Commercial Ave

S 10th St

Donnelly Ave

Ferguson Ave

Myrtle Ave

Juniper Ave

Milner Crest

W Park Roadway

Ocean Blvd

Park Ave

Commercial Ave

Anderson Ave

Som Gulch Elementary

Resource Link Charter School

Marshfield High School

First United Methodist Church

Agenda Item #9

Preparation

- ▶ **City Emergency Operations Plan**
- ▶ **Evacuation Drills**
- ▶ **Disaster Preparedness Education**

Opportunities

- ▶ Training
- ▶ Partnerships



Entering A TsunamiReady Community



**IN CASE OF EARTHQUAKE, GO TO
HIGH GROUND OR INLAND**

