

Columbia River Levee Repair and Accreditation Project

Oregon Solutions Meeting Notes

(Online at <http://orsolutions.org/osproject/MCDD>)

Portland Yacht Club

1241 NE Marine Drive Portland, OR 97211

September 26, 2014 – 1:00-4:00 p.m.

Levee Field Tour Orientation

MCDD Project Manager Sara Morrissey provided the Oregon Solutions (OS) Project Team with a brief overview of the route that the levee tour would follow and introduced the tour guides: Mike Meyer from Cornforth Consulting and James Heyen from WEST Consultants.

Dr. Rick Mogren was introduced as the facilitator for the recently recreated Technical Advisory Committee which has met twice since the July meeting of the Oregon Solutions Team. He summarized the results of the most recent September 15th meeting of the Technical Advisory Committee (TAC).

- A representative from Union Pacific (UP), Brock Nelson, presented a brief overview of railroad policy issues with the general conclusion that railroad embankments were not built to serve as levees. It is also highly unlikely that access to drill the centerline of the embankment will be provided as the railroad companies are unlikely to restrict train movement on the railroad track in this area. Additionally, UP is developing national policy to address similar situations nationwide. MCDD staff provided a structural history of the railroad embankment based on legal documentation from related court cases.
- The TAC previewed initial findings from the Levee Engineering Assessment by Cornforth Consultants through presentations by Mike Meyer and James Heyen.
- In this initial organizational phase, the TAC has focused on process issues and defining its mission: to review and assess technical information and make recommendations for the OS Project Team to consider when making policy decisions. A three-person steering committee was selected by the TAC until the group decides on a more permanent governance structure.

Levee Field Tour

The levee tour stopped at three of the four areas of concern identified in the Levee Engineering Assessments to review a summary of the issues, facilitate discussion, and answer questions at each stop:

1) The BNSF and UP railroad embankments form the west side of PEN 1. Limited access to the railroad embankments prevented thorough analysis of soil stability. Historical data shows that soil removed from the St. Johns cut covers the original trestle system supporting the railroad. The wooden trestle system was not removed and remains within the embankment, with the timbers decomposing. The railroad embankment was breached in 1948, causing the destruction of the City of Vanport (pictures of the tragic flood were shared during the tour). Without complete boring information, the levee system cannot be certified for accreditation (see additional documentation discussing railroad embankment composition at http://orsolutions.org/wp-content/uploads/2014/09/PEN1_Railroad_Embankment_Overview_09.12.14.pdf).



Mike Meyer, Cornforth Consultants provides information about the railroad embankment at the western edge of PEN 1.

2) A low spot near the Interstate 5 interchange at North Marine Drive does not meet the required freeboard height at the northeast corner of the cross levee for PEN 1.



James Heyen, WEST Consultants stands in front of the PEN 1 floodwall and provides information about freeboard requirements at the Interstate 5 interchange. This site is located in the northeast corner of PEN 1.

3) A low spot at the northeast corner of PEN 2 also fails to meet the required freeboard height. This low spot is located on vacant Port of Portland property.



Tour stops at vacant Port of Portland property where freeboard requirements have not been met. This site is located in the northeast corner of PEN 2.

The tour did not include the fourth area of concern, the Peninsula Drainage Canal Cross-Levee that forms the east side of PEN 2. Instability due to narrow, steep embankments on this levee could cause the levee to fail during certain high water events. The cross-levee is narrow in width and has steep walls. The level of existing water in the Peninsula Drainage Canal is lower than the 1% ACE elevation, which would only occur if MCDD fully flooded. This inequality in water level causes instability in the levee and results in a large amount of erosion, which can cause failure. Based on these scenarios, the cross-levee is an area of weakness where water could cross easily between the two systems. The Peninsula Drainage Canal is designated as a Special Habitat Area (SHA). It is home to sensitive species (including the Western painted turtle) and is also a migratory stopover habitat and a wildlife connectivity corridor.

Levee Engineering Assessment Debrief

Mayor Charlie Hales welcomed co-convener Multnomah County Commissioner Jules Bailey to the OS Project Team.

Consultants Mike Meyer and James Heyen presented the methodology and findings of the engineering assessments. Overall, the levee systems are in good condition. The findings were evaluated to FEMA minimum guidelines for a 1% annual-chance flood event using the Code of Federal Regulations (44 CFR 65.10). Current as-built levee conditions in overbuild areas were compared to the original design section of the levees to determine where potential encroachments could jeopardize the integrity of the levees. Encroachments may be subject to further evaluation under the USACE Rehabilitation and Inspection Program (RIP) or if the OS Project Team decides to model the assessment to meet higher flood elevation standards. Elevation analyses at 50-foot intervals compare actual levee elevations to freeboard elevations required by 44 CFR 65.10 (see presentation slides at <http://orsolutions.org/wp-content/uploads/2014/09/9-26-2014-LEA-Exec-Sum-Final-1.pdf>).

Legislative Affairs Report

MCDD Policy Advisor Kelly Sherbo provided an update of the Legislative Committee work on expanded authorities for the Districts for flood protection. Over the last year or so, the Districts have been working to identify gaps between district obligations and district authorities. District legal counsel Miller Nash and Mark Landauer of the Special Districts Association of Oregon (SDAO) are providing counsel on potential legislation for the 2015 session. The intent of the bill is to align authorities with current obligations and USACE. The bill amends ORS 547 to make clear authorities for flood control, which as the statute currently stands, is hardly referenced. The bill creates a new section of expanded authorities that drainage districts can “opt in” to if they so choose. This section allows districts to form local improvement districts and to enact ordinances or administrative rules to carry out their obligations. The next section defines drainage services as “urban services,” which would require coordination between cities, counties, and districts for land use planning and development approval under ORS 195. This section would improve coordination and minimize unpermitted encroachments in the future.

The draft bill has been shared with the City of Portland, Multnomah County, Oregon Water Resources Congress, and other Oregon drainage districts that are members of SDAO. MCDD expects the draft back by December 5th in order to file the bill by December 19th for pre-session filing with the Clerk of the House.

Next Steps

OS Project Manager Steve Greenwood explained where the Columbia River Levee Repair and Accreditation Project process is headed in the next year.

Phase I of the project has been identifying the shortcomings in the Pen 1 and Pen 2 levee systems that need to be addressed. The first part of that phase, identifying what needs to be done to certify the levy in order to receive FEMA accreditation, began nearly a year ago and is now just about complete with the results of the Cornforth engineering assessment. The next tasks for Phase I will be to consider other elements such as any additional Corps of Engineers requirements for the Rehabilitation and Inspection Program (RIP) or going beyond the minimum FEMA standards. That should be completed by January or February of 2015.

Phase II, starting sometime in early 2015, will be the development and analysis of alternatives for addressing levee shortcomings identified in Phase I. This phase will likely take most or all of 2015. (Funding for the basic studies needed to evaluate alternatives has already been procured).

Phase III will include selection of the alternatives to be implemented, including decisions about funding and implementation. This phase will likely begin in 2016, to be followed by actual construction design and construction. (Once construction is complete, documentation will be sent to FEMA in order to receive levee accreditation)

Near-term tasks identified by the Oregon Solutions team included:

- Consider modeling additional design water surface elevations (200-year, USACE design water surface elevations, etc.) to understand how the levee performs to different standards. (Have the Technical Advisory Committee weigh in on this before providing a recommendation to the full Oregon Solutions Team)
- Include USACE RIP requirements in the repair analysis,
- Review options for addressing the railroad embankment
- Explore technical and funding alternatives to fix the areas of concern in both levee systems,
- Consider hiring a technical consultant to develop alternatives under the guidance of the TAC, and
- Discussing the larger regional approach to certification and accreditation including MCDD, SDIC and Sauvie Island Drainage Improvement Company.
- Review public outreach plans to ensure that neighborhood groups and other community groups are kept informed and up to date with the process.

The next OS Project Team meeting is scheduled for November 14th at Metro Council Chambers from 9:00 a.m. – 11:00 a.m. Potential agenda items include:

- Report and technical recommendations from the TAC
- Discussion of plans for public outreach and education
- Report from USACE on RIP requirements
- Update on the Declaration of Cooperation for governance, Oregon Solutions funding, etc.

The final drafts of the PEN 1 and 2 Levee Engineer Assessments will be released in early October on the Oregon Solutions website. Executive Summaries of the Assessments are available in the meantime:

<http://orsolutions.org/osproject/MCDD>

Tour and Meeting Attendance

Organization	Name
BES	Nancy Hendrickson
BES	Dean Marriott
Bridgeton N.A.	Karen Kane
Bridgeton Rd	Jon Peterson

Organization	Name
Bridgeton Road	Elizabeth Sanders
Bridgeton Road	Lynn Dorman
Center for Public Service	Rick Mogren
Century Link	Karen Stewart
City of Gresham	Tom MCCausland
City of Portland	Mayor Hales
City of Portland	Jackie Dingfelder
City of Portland-OMF	Jonas Biery
Columbia Corridor Association	Corky Collier
Cornforth	Mike Meyers
DEQ	Christine Svetkovich
DLCD	Steve Lucker
East Columbia N.A.	Mary Helen Kincaid
East Columbia N.A.	Martha Johnston
East Columbia N.A.	Barbara Kerr
East Columbia N.A.	Gary Clifford
East Columbia N.A.	Gary Kunz
FEMA	David Ratte
Graphic Packaging International	Nathan Phelan
HDR Engineering	Shane Cline
Marine Dr	Barbara Neidig
MCDD	Mandy O'Hara
MCDD	James McNamee
MCDD	Joel Schoening
MCDD	Sara Morrissey
MCDD	Byron Woltersdorf
MCDD	Sunny Simpkins
MCDD	Hong Huynh
MCDD	Reed Wagner
MCDD	Angela Carkner
MCDD	Kelly Sherbo
Metro	Andy Cotugno
Metropolitan Group	John Donovan
Metropolitan Group	Ashley Stapleton
Multnomah County	Christine Lewis
Multnomah County	Jules Bailey
Oregon Solutions	Julia Babcock
Oregon Solutions	Steve Greenwood
Pacificorp	Sheila Holden
Port of Portland	Phil Ralston

Organization	Name
Port of Portland	Lise Glancy
Portland Tribune	Steve Law
Portland Water Bureau	Doug Wise
Sauvie Island Drainage Imp. Co.	Joe McCray
Sauvie Island Drainage Imp. Co.	Skip Klarquist
Senator Merkley's Office	Marc Seigel
Tetrattech, Inc.	Jay Smith
TMT Development	Tanja Milijevic
TSCC	Craig Gibbons
USACE	Lance Helwig
USACE	Jason McBain
West Consultants	James Heyen
West Lake Consultants	Bernard Smith
West Multnomah SWCD	Dick Springer
	Walter Valenta
	Ron Delp
	Karen Myers
	Andee Short, Speaker Tina kotek
	John Noedig