

Columbia River Levee Repair and Accreditation Project

Oregon Solutions Team Meeting Notes
(Online at <http://orsolutions.org/osproject/leveeready>)

October 2, 2015
9:00-11:00 a.m.

Location:

MCDD Offices, 1880 NE Elrod Drive Portland, OR 97211

Welcome and Introductions-Steve Greenwood, Oregon Solutions

- Thank you to everyone who came to the Declaration of Cooperation signing ceremony in July. This is our first official meeting for Phase II of the project. At this meeting, we will provide updates from the work that has occurred over the summer and discuss next steps for upcoming assessments for the five districts; Sandy Drainage Improvement Company (SDIC) Sauvie Island Drainage Improvement Company (SIDIC), Multnomah County Drainage District (MCDD), Peninsula Drainage District 1 (PEN 1) and Peninsula Drainage District 1 (PEN 2).
- Commissioner Bailey will continue to be our convener, though he is out on parental leave. Steve Greenwood will fill in on his behalf to track agenda items for this meeting.

Infrastructure Finance Authority (IFA) Loan

- Through the state's IFA Loan Program, \$3.5 million dollars has been secured. This loan will follow a seven year payback period with half of the loan having a 0 percent interest rate and the remaining half at a 1.75 percent interest rate. In addition, SDIC, MCDD and SIDIC received \$50,000 as a grant. PEN 1 and PEN 2 will be seeking the \$50,000 grant funds in the near future as will other communities throughout Oregon that are eligible for the new loan program created through [SB306](#).
- Thanks to Multnomah County staff Christine Lewis and John Tydlaska and Levee Ready Columbia Program Manager Sara Morrissey, who presented to the IFA Board about the need for funding on behalf of our Levee Ready Columbia project team.

Budget Update

- Nearing the finish line on getting the final Intergovernmental Agreements (IGAs) signed and accompanying financial commitments from partners. The expectation is to have a full budget and all IGAs signed ready by the November meeting. Budget approvals that have occurred include:
 - Multnomah County Board of Commissioners passed a resolution to authorize \$500,000 in project funding including the ability to pay up to 50% of the costs for the small cities in East Multnomah County.
 - Oregon Solutions Team representation met with the city councils of City of Fairview and City of Troutdale respectively.
 - Regional Solutions program authorized \$300,000 from the State of Oregon.
 - Metro passed a resolution to provide a \$300,000 contribution.

- Upcoming IGA approvals are expected as follows:
 - 9/17 Metro passed Resolution No. 15-4641
 - 10/24 Drainage Districts
 - 11/11 Fairview City Council (to be confirmed)
 - 11/10 Troutdale City Council

Virtual Tour

- Tim Couch, District Manager SIDIC and Sara Morrissey, Levee Ready Columbia Program Manager, provided an overview of the form and function of the levees and flood protection system for the three districts that have been added to the scope of the Levee Ready Columbia process.
- Sauvie Island Drainage Improvement Company (SIDIC)
 - The system is currently active in the USACE RIP program and its FEMA accreditation is set to expire in summer 2017.
 - The levee system spans 18 miles across four different segments. There is one main pumping station with four smaller interior pumps. The newest pump was put in in 1964.
 - Most anticipated violations are encroachments along Willamette and Columbia River side which are primarily residences/houses built within the levee. Some of the houses were built before the levee system.
 - Most water on the island comes in through seepage from the river, the island was naturally a system of lakes. Wildlife habitat along the levee segment adjoining Sturgeon Lake is managed by USFWS.
- Multnomah County Drainage District No. 1 (MCDD)
 - MCDD is the largest of the four districts within the Columbia Corridor.
 - The system is currently active in the USACE RIP program and its certification is set to expire in summer 2017.
 - The Portland International Airport is protected by this portion of the levee system.
 - USACE built most of the levee system through an initial \$1.5 million dollar investment. In 1948, breaches occurred in MCDD due to seepage around the pump station causing the district to nearly completely flood. After the 1948 event, the USACE invested an additional \$500,000 to strengthen the system. Cross-levees were also constructed and increased in size at this time. Additional vulnerabilities were identified after the 1996 high water event.
 - Extensive beaver dens are located at the waterward toe of the levee near Blue Lake Park. MCDD is working on an animal management plan to find options for minimizing damage from beaver habitat.
- Sandy Drainage Improvement Company (SDIC)
 - The system is currently active in the USACE RIP program and its certification is set to expire in summer 2017.
 - The slope of the levee system is more gradual with some areas reflecting a 5:1 ratio.
 - Within this district there is one pump station from the 1950s with two pumps that need to be repaired or updated soon.
 - The levee protects an estimated 400 million in property value.

- Troutdale Reynolds industrial site is a significant investment. As part of the site development, the Port is creating mitigation wetlands with flood storage capacity.
- The system was initially constructed in 1917 with significant improvements in the 1940's and 50's.
- Design plans from USACE are available. As-builts are not as readily available because much of the system was constructed by a private entity, Reynolds Aluminum.
- Few encroachments anticipated due to slow development growth in this area.
- See powerpoint for more detailed information and maps.
- MCDD staff are having discussions with jurisdictions regarding how encroachments are addressed currently under a development review process. There have been issues in the past with coordination and application of standards but the process is being reviewed to ensure no unpermitted encroachments are being created moving forward.

PEN 1 and PEN 2 Findings

- Reminder levee certification expired in 2013, which is why these two districts took first priority in allocating resources for the levee engineering assessments.
- Levee Engineering Assessments were conducted under the guidance of [44 CFR 65.10](#) to demonstrate structural and operational capacity to protect against a 1% annual chance flood event.
- PEN 1 overview of deficiencies:
 - Cornforth Consultants was not able to get permission from the railroad to access the embankment along the western edge of the levee system to conduct soil samples. Thus, the area could not be verified as meeting seepage and stability standards and a low factor of safety was determined based on historic information.
 - The cross-levee appears to be just short in the necessary freeboard requirements. FEMA requires that there is at minimum 3 feet between the water surface level expected in a 1% chance annual event and the top of the levee.
- PEN 2 overview of deficiencies:
 - Had to model PEN 2 cross levee performance based on assumption that MCDD breached to determine worst case scenario (even though that is highly unlikely). Under that scenario, the Peninsula Drainage Canal had a factor of safety below 1.4 (but above 1).
 - A vacant Port of Portland property in the northeast quadrant is short of the necessary freeboard requirements.
- See full executive summary of findings for more information: <http://orsolutions.org/wp-content/uploads/2014/10/10-9-2014-LEA-Exec-Sum-Final-revised.pdf>
- Additional modeling was conducted and both systems continue to have targeted areas with deficiencies, however, the majority of the systems' performed well even at the USACE design water surface elevations (water elevations near the 0.2-percent-annual-chance event). Additional Modeling Executive Summary here: http://orsolutions.org/wp-content/uploads/2015/03/Executive_Summary_DRAFT_03-03-15_FINAL.pdf
- Overall, the levee systems are in good condition with some outstanding issues to work through. PEN 1 and PEN 2 are also conducting encroachment evaluations and outfall

inspections to continue collecting information about the operation of the multiple system elements. These report results will be released in the next few months.

Program Work Schedule- Sara Morrissey, Levee Ready Columbia Program Manager

- Sara created a project schedule to help folks track the anticipated timeline and tasks in Phase II.

Legislative Update-Kelly Sherbo, MCDD

- HB2277 was passed, with specific language pertaining to ORS547 to clarify flood protection and levee operations and the associated authorities for districts to manage these functions. Statute gave option to have ordinance authority.
- On September 26, 2015 at the 4MAT meeting, the four districts voted to utilize the ordinance authority. Subsequently the districts passed their first ordinance to create the Joint Contract Authority through a fifth entity that will help to streamline contracts with oversight from a board consisting of a member from each of the four districts.

TASC Update-Cheryl Grabham, DEQ

- Over the summer, the Oregon Solutions Team supported the TASC's recommendation (conducted over email) to move forward with the 2040 climate change modeling proposal. USGS in partnership with USACE will conduct the modeling to "simulate extreme but not unrealistic conditions of flow in the Willamette and Columbia River." USGS and USACE will contribute a share of the cost (expected to be around 35%) through federal funding. The work is expected to take around 1 year to complete. The SOW is posted to the website here: http://orsolutions.org/wp-content/uploads/2015/10/MCDD_climate-change-proposal_v4_713201521.pdf
- The Economic and Environmental Inventory SOW's are being developed by respective subcommittees of the TASC to document assets protected by the levee system. The final SOW's will be reviewed by the TASC at the next meeting which will be Monday October 19, 2015.
- Based on discussions today and community interest, we plan to explore seismic methodology being utilized by the Port of Portland to bring forth a recommendation to the larger group about how to consider seismic evaluation along the levee system.

Communications Subcommittee –Mike Pullen, Multnomah County

- Metropolitan Group has developed a logo and branding strategy that was shared for the Levee Ready Columbia project through the Value, Values and Voice process with feedback from the Communications Subcommittee. Reflected that the logo color and image symbolizes safety, protection and risk reduction.
- Feedback that logo and branding should better reflect environmental values and not only engineering, hard infrastructure, industrial-scale solutions.
- Over the summer, partners began tabling to share information and raise awareness about the levee system. Heard back that there is a low level of awareness about the purpose and condition of the levee system.

- A draft Communication Work Plan has been developed to set goals and guide future work products such as the website and events calendar in order to raise awareness about the project. More information will be shared at our November meeting.

Other Updates

- Every year the Northwest Regional Floodplain Management Association (NORFMA) (including representation from FEMA, USACE and NOAA) from around the NW region get together to discuss federal policies and trends. Next year the annual NORFMA conference will be held in Portland because of the growing interest in flood management and levee systems in our area. This presents an opportunity to showcase the outcomes of our collaborative approach.
- Northwest Economic Research Center (NERC) conducted an initial district consolidation study to help inform future governance discussions.

Next Steps-Steve Greenwood, Oregon Solutions

- By our November meeting we anticipate having the final updates:
 - Signed IGAs by all fiscal partners for the implementation of Phase II and subsequently the opportunity to allocate the budget to associated tasks.
 - Final SOW's for the environmental and economic inventories for the four districts.
 - More details about the contractor and potential SOW for the levee engineering assessments in MCDD and SDIC.
 - Joel will be back with more updates about communications strategies and products. Next Communications Subcommittee is 10/7 10-11:30 a.m.

Attendance

Oregon Solutions Team Members:

Andy Cotugno	Metro
Bob Sallinger	Audubon
Bobby Lee	Regional Solutions
Cheryl Grabham	DEQ
Corky Collier	Columbia Corridor Association
Doug Morgan	Bureau of Development Services
Jackie Dingfelder	City of Portland
Jane Van Dyke	Columbia Slough Watershed Council
Jonas Biery	City of Portland
Kimberly Tallant	City of Portland
Lance Helwig	USACE
Maryhelen Kincaid	East Columbia N.A
Phil Ralston	Port of Portland

Reed Wagner	MCDD
Sara Morrissey	MCDD
Tim Couch	Sauvie Island Drainage Improvement Co.
Walter Valenta	Bridgeton N.A.

Attendees:

Bill Hall	Parametrix
Bob Wiley	W. Mult. Soil & Water Conservation Dist.
Bridger Wineman	Enviroissues
Colin Rowan	MCDD
Dan Vizzini	Oregon Solutions
Dick Springer	W. Mult. Soil & Water Conservation Dist.
Gary Kunz	East Columbia N.A.
Ginger Gillin	GEI Consultants
Hong Huynh	Miller Nash Attorneys
Jason Mcbain	USACE
John Donovan	Metropolitan Group
Karyne Kieta	Multnomah County
Kelly Sherbo	MCDD
Kim Peoples	Multnomah County
Kim Tallant	City of Portland
Mandy O'Hara	MCDD
Megan Neill	Chair Kafoury's Office
Mike Pullen	Multnomah County
Nancy Hendrickson	City of Portland
Peter Stroud	Tetra Tech
Sheila Holden	Pacific Power
Skip Klarquist	Sauvie Island Drainage Improvement Co.
Steph Sharp	Port of Portland
Tim Mackaness	Sauvie Island Drainage Improvement Co.
Travis Rubal	City of Portland
Val Humble	Pen 2 Board

Process Staff:

Oregon Solutions	Julia Babcock
Oregon Solutions	Steve Greenwood