

Oregon Solutions Team
Technical Advisory Committee
Columbia River Levee Repair and Accreditation Project

Oregon Solutions Project Website
<http://orsolutions.org/osproject/MCDD>

August 20, 2014 – Portland State University

Meeting Objectives

1. Orient TAC members about the levee issues in the drainage districts. (By a show of hands the majority of folks in the room indicated they have been following the levee system issues and are not new to the discussion).
2. Review and define TAC roles and responsibilities.
3. Answer questions about the levee certification and accreditation process.

Next Steps

- Formalize operating protocol to set clear roles and responsibilities for TAC participation based on 8_20 meeting discussion.
- September 15, 2014 TAC meeting Draft Agenda Items
 - Review railroad embankment information and options to determine how to move forward with engineering study.
 - Presentation from Cornforth Consultants to share initial deficiency findings to help organize future TAC meetings.
- Send Julia Babcock, jjb@pdx.edu the contact information of the primary and alternate representative from your organization.

Brief Meeting Summary

Oregon Solutions Team Process Overview

In July 2013, the Center for Public Service developed an [issue assessment](#) to determine the challenges MCDD faces in maintaining accreditation and recertifying the levees under their jurisdiction. Oregon Solutions conducted a followup [stakeholder assessment](#) that determined a collaborative process would support the goals at hand:

- Identify, fund, and implement necessary improvements to the Peninsula 1 and Peninsula 2 levees, so that they are certified by a consulting engineer as being protective of a 1% chance flood.
- Achieve FEMA accreditation on a timeline and in a manner that will prevent the area from being designated on the City's FEMA Flood Insurance Rate Map as a "Significant Flood Hazard Area".
- Create transparency in the process, so that residents and property owners are kept informed and are provided with opportunities for input and involvement.
- Meet US Army Corps of Engineers standards to stay in the Corps' Rehabilitation and Inspection Program (RIP).

[Governor Kitzhaber designated](#) the Columbia Levee Project an Oregon Solutions project in October 2013 and the first Oregon Solutions Team meeting was held in December 2013 with subsequent monthly meetings. Through the collaborative process, a need for a Technical Advisory Committee to review the forthcoming engineering report from Cornforth to assess Pen 1 and Pen 2 deficiencies arose to form recommendations grounded in technical analyses for the Oregon Solutions Team to consider.

Introductions

Rick Mogren, lead facilitator, introduced himself highlighting his 27-year career with the Army Corps of Engineers before he retired in June 2001 with the rank of Colonel. His most recent role with the Corps focused on salmon and hydropower issues as the Deputy Commander and Chief of Staff for the Northwestern Division, headquartered in Portland, Oregon. In the subsequent years since, he has worked as a civil engineering consultant as well as a facilitator for numerous collaborative processes involving federal, state and local organizations through his own private consulting practice as well through the Center for Public Service.

On the facilitation team will also be:

Professor Craig Shinn-Senior Faculty Advisor

Julia Babcock-Assistant Facilitator

Nicole Savara-Brown-Logistics Coordinator

See the [Facilitation Team Bios](#) *handout for more information.*

As part of the introductions, we asked each participant to list their interests in being part of the Technical Advisory Committee. Below are their responses:

- Port/Airport impacts
- Utility infrastructure location in relation to the levees
- Community outreach
- Stormwater management, regional and technical solutions
- Levee accreditation
- Metro-owned current and future property development
- City materials testing lab
- Pen 1 and Pen 2 accreditation
- Water permit implications
- Fish and wildlife habitat and associated regulations if significant habitat modification occurs
- Environmental impacts, how those impacts may influence technical alternative development
- Right of way access
- Geotechnical components of certification
- Geohazards and Hazard Mitigation also highway embankments
- Development policy, zoning code and environmental regulations
- Impacts of development standards on private property
- Recreational areas
- Pipe infrastructure under in and around levees and dykes, general geotechnical interests
- Water quality

Accreditation background (Presented by Reed Wagner, MCDD)

- Key regional assets, including 10% of jobs in Multnomah County and an assessed 5.3 billion in assessed property value are protected by the levee system, indicating wide interest throughout the Portland area and the state in maintaining levee accreditation.
- The drainage district boundaries were established in the early 1900's when the area was primarily farmland. The boundaries seem somewhat arbitrary today considering the mix of land ownership and uses. A standing issue from the districts' establishment is an archaic voting system of one vote per acre.
- The drainage districts are indirect participants in FEMA's National Flood Insurance Program (NFIP). In NFIP communities, levees must be 'accredited' to be recognized on Flood Insurance Rate Maps as providing protection to a particular area.
- Under FEMA's NFIP process, a certified engineer (from the Corps or a private consultant) must provide documentation to prove levees were constructed and are maintained to provide protection against the 1%

annual chance flood (sometimes referred to as the 100-year flood). Cornforth Consultants are finalizing field tests of the levee to identify deficiencies. The TAC will be asked to develop recommendations based on their findings in a forthcoming report to address any deficiencies. It is not expected that FEMA will remap anytime soon though it is an unknown factor.

- In addressing certification and accreditation issues, adjustment of the current governance structure is on the table to best manage current and potential resources. Though the Drainage Districts maintain the levees and are responsible for meeting United States Army Corps of Engineer standards for the Rehabilitation and Inspection Program (RIP), the Drainage Districts lack the regulatory authority and financial capabilities to pursue certification and accreditation on their own.
- Accreditation is being pursued in the following four phased approach:
 - Phase 1 current conditions of levees vulnerability report
 - Phase 2 design and finance repairs
 - Phase 3 implement repairs
 - Phase 4 certify and submit documentation-expect this to be a timely component
- [See MCDD powerpoint for more information.](#)

Additional reading: <http://www.usace.army.mil/Portals/2/docs/civilworks/levee/LeveeInspectionChecklist.pdf>

Oregon Solutions Team Structure (Presented by Julia Babcock, Oregon Solutions)

- The Oregon Solutions Team began meeting in December 2013 and has been meeting (approximately) monthly ever since. To see recent meeting agendas, notes and reference material visit the website here: <http://orsolutions.org/osproject/MCDD>
- The Oregon Solutions process is in the first phase, focused on identifying needed improvements and associated costs of levee repair. As part of that phase, the City of Portland, the Port of Portland and MCDD have cofunded an engineering study. Notably, Portland City Council unanimously supported an ordinance for an Intergovernmental Agreement for a \$1.4 million Infrastructure Finance Authority loan to complete the engineering evaluation of the flood control systems in PEN 1 and PEN 2. Findings from that report are expected to be shared at the September 26th Oregon Solutions Team meeting.
- In moving to the second phase and focusing on implementation issues such as the cost sharing of repairs and the regulatory approval process there will need to be iterative technical and political analysis.
- In support of the Oregon Solutions Team, several subcommittees (Legal, Governance and Legislative) have been formed to answer questions and inform the Team about current legal, governance and legislative issues as well as to help form guidance and recommendations for how future issues can be addressed.
- Similarly, the Technical Advisory Committee is being formed to serve as a resource to the Oregon Solutions Team to review current information and make recommendations.
- Below is a draft process diagram to show some of the subcommittees that have formed and how they interact with the Oregon Solutions Team.



Anticipated Issues (Presented by Sara Morrissey, MCDD)

- 44 CFR 65.10 Requirements from FEMA set the standards for accreditation. Materials must be certified by a professional engineer including a levee analysis showing that all deficiencies have been addressed and that the levee is capable of providing protection from a 1% flood as well as verify design standard criteria and develop an operations and maintenance plan. To view the full standards, click on the following link:
<https://www.fema.gov/media-library/assets/documents/10713>
- Cornforth Consultants have been conducting a seepage, settlement and stability analysis utilizing the Corps manual standard of care which includes booring tests every 1,000 feet and review of encroachments (natural and manmade). MCDD is leading the interior drainage work.
- In case of a flood event, there needs to be documentation that the landward side of the levee is performing well and able to withstand boils or water seepage. The hydraulic analysis models used to project future flood risks are based on Corps studies of the Columbia system from the 1970's. Interestingly, much of the Columbia's flood protection occurs within Canada's borders and are predictable based on the level of expected snow melt. Climate change models show we will see less snow and more heavy rain events which will change the whole dynamic of the flood management system. An issue to flag for later discussions.
- Cornforth Consultants were able to gain access to all of the areas on the Pen 1 and Pen 2 levees for their analysis except the area owned by the railroads on the westside of Pen 1. Union Pacific and Burlington Northern Santa Fe (BNSF) both own land and infrastructure in a portion of the levee that needs to be included in the certification process. To date, the railroads have not provided access to their lands to conduct an engineering analysis for different reasons including unknown environmental liability risks that could come from testing the soils around the embankment. How to approach the current railroad embankment will be an issue we hope to tackle with the Technical Advisory Committee. Before the September TAC meeting, staff will provide more details about the options available to move forward on certification whether the railroad properties are included in the levee study or not. Rick Mogren has been in contact with representatives from both railroads and is working to have their participation in future discussions.
- For more information see the [Levee Issues and Concerns Powerpoint](#).

TAC Roles and Responsibilities

- Each TAC member is responsible to act on good faith in their communication with stakeholders internal and external to the Oregon Solutions process as follows:
 - Represent information and alternatives from their organizational perspective
 - Share TAC discussions back to their own organization
 - Educate stakeholders as appropriate to help address misinformation
- Need to have chair/cochairs/steering committee to assist facilitation team with agenda setting and to serve as a spokesperson to provide summary reports of TAC meeting information back to the Oregon Solutions Team. Several TAC members said they would be more inclined to serve on the steering committee once they better understand their organization's role. Time commitment would be a few hours/week for a call with the facilitation for agenda setting and preparation of a presentation to the OST.
- We had four volunteers to serve in the interim with the understanding that we will have a term limit on how long they serve as cochairs and that substantive technical issues that need to be relayed will likely require specific members of the TAC to present ad hoc to represent their area of expertise:
 - Mike Stuhr, Water Bureau
 - Travis Ruybal, Portland Parks and Recreation
 - Christine Svetkovich, DEQ
 - Reed Wagner, MCDD
- Representation on the TAC committee should be credentialed, ensure that we have the right technical expertise from each organization represented. This may mean that in addition to the primary and alternate representation from each organization, other technical experts may be called upon to serve on the technical subcommittees.
- Recommendations from the TAC are made on a consensus basis (with one vote allotted to each organization), if a consensus can not be reached then a majority/minority report is developed to document where there is a

difference of technical analysis. The TAC meetings are public and will have a two-tiered approach for participation. TAC members are credentialed representatives from each organization with the responsibility to apply their expertise to the substantive topics of discussion that lead to consensus-based recommendations. Outside meeting participants may observe and ask informational/clarifying questions to aid in the discussion.

- Potential subcommittee topics include:
 - Economic Development
 - Recreation Amenities and Access
 - Utilities
 - Transportation/Roadways
 - Development Standards
 - Environmental Regulation (ESA, CWA, etc.)
 - Climate Change
 - Seismic Risk
 - Columbia River Treaty
- Future agenda topics:
 - FEMA vs. Corps certification standards
 - National Flood Insurance Program (NFIP) and related lawsuits impacting development standards
 - Potential to bring in consultant to develop alternatives for addressing any identified deficiencies in the engineering study.

TAC Meeting Attendance

Organization	Contact
City of Fairview	Allan Berry
Metro	April Siebenaler
Bureau of Environmental Services	Bill Ryan
Port of Portland	Ken Willhite
MCDD	Byron Wolsterdorf
DLCD	Christine Shirley
DEQ	Christine Svetkovich
Portland Bureau of Transportation	David O'Longaigh
Bureau of Development Services	Doug Morgan
ODFW	Elizabeth Ruther
ODFW	Jeff Boechler
MCDD	Joel Schoening
Bureau of Development Services	Kimberly Tallant
Cornforth Consultants	Mike Meyer
Portland Water Bureau	Mike Stuhr
OWRD	Amy Kim
MCDD	Reed Wagner
MCDD	Sara Morrissey
NW Natural	Shanna Brownstein
City of Troutdale	Steve Gaschler
ODOT	Thomas Braibish
City of Gresham	Tom McCausland
Bureau of Environmental Services	Tom Pfeiffer
Portland Parks & Recreation	Travis Ruybal
Facilitation Team	
Center for Public Service	Dr. Rick Mogren
Center for Public Service	Dr. Craig Shinn
Center for Public Service	Nicole Savara-Brown
Oregon Solutions	Julia Babcock
Interested Parties	
Oregon Solutions	Ron Delp
Unaffiliated	Walter Valenta