

Project Goals	Project Element	Purpose / Update	Status / Completion Date
Develop inventories of the specific economic, community, and environmental resources protected by the regional levee system.	Hazus-MH Risk Assessment	This project is being run by DOGAMI and will provide detailed economic analysis of flood loss for both 1% and 0.2% annual chance exceedance events. This assessment will include the Community Asset Inventory that identifies community resources in the flood impact analysis. The DOGAMI report is fully funded by FEMA.	Initial results late summer 2017; final results December 2017
	Levee Environmental Conditions Assessment	This project will provide a comprehensive collection and understanding of the habitats and environmental conditions behind the levees. Parametrix completed this project and online mapping is available: <a href="http://gis.parametrix.com/leca/">http://gis.parametrix.com/leca/</a> <ul style="list-style-type: none"> <li>Final report provides an inventory of natural resources and a contextualization of cumulative impacts in the study area to inform decision-making within the leveed land and along the levee system, for potential use in Endangered Species Act (ESA) consultation, and for other activities by the LRC and its members.</li> <li>The report, appendices, and maps describe existing baseline environmental conditions and analyzes cumulative land cover changes in an effort to streamline any documentation required for ESA consultation or other environmental approval processes.</li> </ul>	Complete
	Economic Inventory	<ul style="list-style-type: none"> <li>Developing SOW for an updated economic inventory to focus on the indirect benefits/costs around flood risk reduction and flood damages and the regional economic development impacts of the leveed land.</li> <li>Will include elements of the US Army Corps' Regional Economic Development account and will assess some of the quantitative and qualitative economic impacts not accounted for in the Hazus risk assessment project.</li> </ul>	Spring 2018
Complete certification engineering assessments in PEN 1 and PEN 2.	Phase I FEMA Levee Certification Studies:	Geotechnical analyses are led by Cornforth Consultants, Inc. and Hydrologic / Hydraulic analyses are led by WEST Consultants.	
	- Phase 1: PEN 1 and PEN 2 Gap Analysis	Summarize information on the history of the levee construction, plans, prior site investigations, and limited engineering analyses to identify engineering analyses needed to meet certification requirements.	Complete
	- Phase 2: PEN 1 and PEN 2 Engineering Analyses	Complete all field work and geotechnical investigations 2014 and consulting engineer completed laboratory testing of samples, site geology and subsurface conditions assessment, and hydraulic and embankment protection analysis. Complete Geotechnical Engineering Evaluations to FEMA Certification Criteria (1% annual chance exceedance event).	Complete
	- Phase 3: USACE Authorized Design Water Surface Elevation	Engineering Evaluation (seepage and stability) for USACE Authorized Design Water Surface Elevation.	Complete
	- Phase 4: Remediation	Fragility Curves; Preliminary Designs and Costs for Correcting Levee Deficiencies	To be determined based on findings
	- Phase 5: Accreditation	FEMA Certification Report; FEMA Accreditation Application	To be developed post remediation
	Encroachment Evaluations: PEN 2	Risk-based assessment of structural encroachments built into PEN 2 levee. No high-risk encroachments found. USACE issued Legacy Encroachment standing for structures. This will assist in also fulfilling RIP inspection requirements.	Complete
	UP Railroad Project: PEN 1	Review of Portland Passenger-Freight Rail Speed Improvement Project and impact on certification. Scheduled meetings with new UP & BNSF representatives for briefing.	September 2017
Complete certification engineering assessments in MCDD, SDIC, and SIDIC.	Phase II FEMA Levee Certification Studies:	Geotechnical analyses are led by Cornforth Consultants, Inc. and Hydrologic / Hydraulic analyses are led by WEST Consultants.	
	- Phase 1: MCDD and SDIC Gap Analysis	This phase summarized information on the history of the levee construction, plans, prior site investigations, and limited engineering analyses to identify engineering analyses needed to meet certification requirements	Complete
	- Phase 2: MCDD and SDIC Engineering Analyses	This phase completed all field work and geotechnical investigations mid-April 2017 and consulting engineer completed laboratory testing of samples, site geology and subsurface conditions assessment, and hydraulic and embankment protection analysis	Draft Reports – June 2017
	- Phase 3a and 4: MCDD and SDIC Engineering Analyses	Phase 3a completes Geotechnical Engineering Evaluations to FEMA Certification Criteria and Phase 4 completes Engineering Evaluation to 1% annual chance and USACE Authorized Design Water Surface Elevation.	October 2017
	- Phase 5: Encroachment Evaluations: MCDD and SDIC	Risk-based Structural Encroachment Assessments to USACE Authorized Design Water Surface Elevation. Field survey of structures is complete. This will assist in also fulfilling RIP inspection requirements.	October 2017
	- Phase 3b: Hydrology & Hydraulic Evaluation	Hydrology/Hydraulic Engineering Evaluation – FEMA Certification Criteria	October 2017
	- Phases 6, 7, 8, and 9	Fragility Curves; Preliminary Designs and Costs for Correcting Levee Deficiencies; FEMA Certification Report; FEMA Accreditation Application	To be determined based on findings
	SIDIC Levee Certification	Ongoing. Certification work being performed by USACE.	Ongoing; December 2018
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Maintain active status in the USACE's Rehabilitation and Inspection Program (RIP).	PL 84-99 RIP Inspection Projects:		
	PEN 1 Outfall Inspections	<p>LRC staff are addressing RIP inspection needs identified from 2015 Periodic and Routine Inspections by USACE. LRC supports the inspections and the Districts' support on-going O&amp;M costs.</p> <ul style="list-style-type: none"> <li>In late 2017 or early 2018 USACE will conduct Periodic Inspections in PEN 1 and PEN 2. It is unclear when they will conduct Routine Inspections in MCDD and SDIC. Tetra Tech will conduct the USACE inspections.</li> <li>MCDD is working with the City of Portland and private landowners on remediating the damaged PEN 1 outfalls.</li> <li>MCDD staff have completed an updated Flood Emergency Action Plan and is updating the Districts' Operation &amp; Maintenance Plan.</li> </ul>	Complete
	SDIC Toe Drain Inspections		Complete
	SDIC Relief Well Inspection		Inspect September 2017
	PEN 1 Toe Drain Inspections		Inspect September 2017
	Updated Plans & Reports		October 2017
Initiate work to develop longer term governance options.	Governance Project	<p>The Governance Project develops a long-term strategy to manage and pay for flood risk infrastructure. The LRC partners are now engaged in a governance planning process that is aimed at identifying a dependable and sustainable solution to the Portland area's policy challenges related to flood risk in the long term.</p> <ul style="list-style-type: none"> <li>Outreach: All jurisdiction within Metro have been contacted and provided with project descriptions and feedback opportunities.</li> <li>September 18, 2017 – Levee Ready Columbia Governance Subcommittee Workshop</li> <li>October 4, 2017 – Levee Ready Columbia Partners Meeting – Review and discuss options</li> <li>November 3, 2017 – Executive Leadership Meeting – Executive-level review of options</li> <li>December 13, 2017 – Levee Ready Columbia Partners Meeting – Recommend governance option</li> </ul>	Ongoing – duration will depend on preferred governance option
Initiate discussion on longer term funding and financing of levee and drainage system options.	Governance Project: Revenue Analysis Consulting Services	<p>This project will analyze the financial impact of several alternative governance models for funding flood risk management infrastructure. This information will be used to aid the LRC decision-makers on a path forward.</p> <ul style="list-style-type: none"> <li>Developed Declaration of Cooperation to document partnership and project goals.</li> <li>Short Term Funding: Received over \$5 million through two Business Oregon Infrastructure Finance Authority loans; Regional Solutions grants; and cash funding from partners to fund project elements from FY15-19. <ul style="list-style-type: none"> <li>LRC staff are working with Regional Solutions and Business Oregon to secure state funding through FY19.</li> </ul> </li> <li>FCS Group is under contract to build rate models associated with various governance models.</li> <li>Drainage Districts and LRC partners have written letters of support to request the selection as a USACE New Start FY18 project. LRC staff are working with federal advocate to ensure Oregon delegation continues to support project.</li> </ul>	<ul style="list-style-type: none"> <li>State funding discussion is ongoing FCS Group Report – complete Sept. 2017</li> <li>New Start FY18 – update October 2017</li> </ul>
Review potential impacts of climate change on Columbia River elevation levels and the safety of the levee system, including the evaluation of potential solutions.	Columbia and Willamette River Flood Stage at Portland, OR in a Future Climate project	<p>USGS and USACE have developed Adh and Delft models to predict the Columbia River's flow rates out to 2060 and potential flood scenarios. The model includes the area adjacent to the Columbia Corridor levee system as well as the Willamette River down to the Willamette Falls Locks.</p> <ul style="list-style-type: none"> <li>Partially paid for through USACE Planning Assistance to States program.</li> </ul>	Report will be released end of September 2017
Implement a communications strategy with the general public and targeted audiences such as neighborhood groups about the project.	Communications Plans: Community Asset Inventory, Regional Stakeholder Engagement	<p>LRC staff have employed a variety of communications and outreach strategies including outreach to the general public through social media, community events, op-eds, and other avenues; outreach to policymakers; and participation in numerous community and neighborhood groups.</p> <ul style="list-style-type: none"> <li>LRC Communications Strategy has been developed and adopted by the Communications Subcommittee.</li> <li>Established project brand and website.</li> <li>Created outreach material including: maps, infographics, annual reports, and post cards.</li> <li>Summer 2017 - Oregon Fellow has attended multiple outreach events on behalf of LRC and had 300 conversations, 40 newsletter signups for our contact list, and observed over 160+ visual engagements with outreach material.</li> <li>Print and broadcast media has featured local levees over 15 times this year – a 3 fold increase over 2016.</li> <li>LRC video production is underway and expected to be completed by October 2017. Video work will include 3 vignettes and an overview video.</li> <li>Developing a work plan with Community Engagement Liaisons for targeted outreach in East Multnomah County.</li> </ul>	Ongoing
Develop a process and criteria for evaluation and selection of preferred solutions.	Risk-informed Decision-making Framework and Risk Assessment	<p>This project is a series of deliverables and workshops to guide policymakers and other stakeholders in alternatives analysis using a framework created to establish tolerable and residual risk. The project will assemble and synthesize the other project work including engineering evaluations and inventories and will also provide recommendations based on analysis, consensus, and the application of customizable planning tools.</p> <ul style="list-style-type: none"> <li>Tetra Tech has been hired as the contractor to move this process forward.</li> <li>Kick-off meeting held on August 14 with the Risk Assessment Working Group (RAWG).</li> <li>RAWG will lead the effort to develop criteria and weighting for the development of the tool; the RAWG will provide oversight of the project and keep LRC Project Team representatives updated on the development.</li> <li>In September, the RAWG will meet to develop criteria and assign weights during work session.</li> </ul>	June 2018