



2009 Dams Sector Exercise Series - Columbia River Basin (DSES-09)

The Pacific Northwest Economic Region (PNWER), US Department of Homeland Security (DHS), US Army Corps of Engineers (USACE), and Pacific Northwest region stakeholders are conducting a series of exercises along the Columbia River Basin in 2009. The 2009 Dams Sector Exercise Series – Columbia River Basin (DSES-09) is assisting in the development of an Integrated Regional Strategy to improve disaster resilience and preparedness initially for the Tri-Cities area of Washington State (Kennewick, Pasco, and Richland), and ultimately for the broader Columbia River basin.

Scope

This multi-jurisdictional effort builds upon a previous initiative (“Pacific Northwest Pilot Project”) led by PNWER and sponsored by DHS. The main goal of DSES-09 is to develop a regional disaster resilience and preparedness strategy for the Tri-Cities area that can be utilized for the broader Columbia River Basin region. This effort consists of pre-exercise training seminars, a series of tabletop exercises (TTX), and follow-up after action/strategy workshops. DSES-09 utilizes DHS’ Homeland Security Exercise and Evaluation Program processes for all exercise components. This framework is helping facilitate the development of an Integrated Regional Strategy to improve disaster resilience and preparedness across multiple sectors and jurisdictions.

Scenario

The triggering event is based on a severe rain-on-snow event affecting a large portion of the Columbia River Basin, leading to significant flooding in the Tri-Cities area.

Approach

DSES-09 is comprised of five tracks:

Track 1 - Modeling and Mapping: Evaluate existing models to estimate hydrological and hydraulic conditions based on weather and dam operations, update inundation maps, and identify additional modeling requirements.

Track 2 - Pre-Disaster Operational Response: Examine the effectiveness of plans and procedures for dams with regards to communication, coordination, roles and responsibilities, information-sharing, and response and mitigation procedures associated with cascading events that could create a potentially catastrophic inundation scenario in the Tri-Cities region.

Track 3 - State and Local Preparedness/Emergency Response: Identify disaster management challenges during a major regional flood within multiple highly populated communities that consist of Critical Infrastructures and Key Resources (CIKR), some of which pose unique environmental concerns.

Track 4 - Long-term Restoration/Economic Resilience: Address issues related to assessing consequences of a major flood event on CIKR and associated regional infrastructure interdependencies, duration of disruptions, impacts on recovery and longer-term restoration, and potential prevention and mitigation measures.

Track 5 - Integrated Regional Strategy: Develop an Integrated Regional Strategy that leverages lessons learned from the series of exercises in order to improve regional disaster resilience.

Track 1 entailed the creation of a Modeling and Mapping Workgroup to address modeling approaches and capabilities that can be leveraged from other efforts. The initial focus was on updating inundation maps and refining the scenario, which is being used during Tracks 2, 3 and 4. The workgroup conducted a Modeling and Mapping Workshop to assist with exercise development.

Tracks 2, 3, and 4 consist of a concepts and objectives meeting, training seminar, TTX, and post-exercise workshop for each track. These tracks are designed to help build the Integrated Regional Strategy. The workgroups for Tracks 2-4 are tailored to include additional stakeholder organizations beyond those in Track 1, as appropriate.

Finally, Track 5 includes the incremental development of the Integrated Regional Strategy as well as the supporting After Action Report/Improvement Plan that identifies lessons learned and assigns responsibilities for areas that require improvement. PNWER leads the development of the Integrated Regional Strategy.

Organizational Structure

- **Exercise Steering Group (ESG):** Consists of organizations sponsoring the series of exercises. The ESG provides oversight and guidance to the Exercise Planning Team. The ESG can be expanded as appropriate to include other supporting key partners. PNWER, as the regional lead, chairs the ESG which meets, either in person or via conference call, biweekly to review progress.
- **Exercise Planning Team (EPT):** Consists of all participants and stakeholders, including PNWER; DHS; USACE; Bureau of Reclamation; Federal Emergency Management Agency; Federal Energy Regulatory Commission; Washington State; Benton, Franklin, and Walla-Walla counties; BC Hydro; Public Utility Districts; and other CIKR owners and operators, relevant Federal/State/local/provincial agencies, private sector, and non-profit organizations. PNWER identifies and invites regional stakeholders to participate in relevant portions of the exercise series. Regional stakeholders include partners in the Columbia River Basin from Mica Dam in British Columbia, Canada, downstream to McNary Dam in Umatilla, Oregon. The lead exercise planner from USACE leads the EPT. In addition, the EPT formed an

Exercise Support Team (EST) to coordinate operations, logistics, administration, communications, evaluation, and other functions as needed to properly execute the series of exercises. The EST convenes weekly and the EPT convenes biweekly via conference call to discuss overall progress on DSES-09 activities.

- **Track Workgroups:** Individual, subset workgroups of the EPT. Each Track Workgroup is comprised of different individuals based on their areas of expertise. The workgroups develop and execute the activities associated with their corresponding track; they also provide track-specific input for the development of the Integrated Regional Strategy. Track Workgroups meet biweekly at a minimum, either in person or via conference call.

Timeline

Date	Track 1	Track 2	Track 3	Track 4	Track 5
2008					
Nov 2008	Convene Track 1				
Dec 2008		Convene Track 2			
2009					
Jan 2009	Track 1 Concepts & Objectives Meeting / Modeling and Mapping Workshop	Track 2 Concepts & Objectives Meeting / Track 2 Pre-Exercise Training Seminar			
Feb 2009			Convene Track 3		
Mar 2009		Track 2 TTX			
Apr 2009	Complete Track 1			Convene Track 4	
May 2009		Track 2 After Action / Strategy Workshop	Track 3 Concepts & Objectives Meeting		1 st draft of Integrated Regional Strategy
Jun 2009		Complete Track 2	Track 3 Pre-Exercise Training Seminar	Track 4 Concepts & Objectives Meeting / Track 4 Pre-Exercise Training Seminar	
Jul 2009			Track 3 TTX		
Aug 2009			Track 3 After Action / Strategy Workshop		2 nd draft of Integrated Regional Strategy
Sep 2009				Track 4 TTX	
Oct 2009			Complete Track 3		3 rd draft of Integrated Regional Strategy
Nov 2009				Track 4 After Action / Strategy Workshop	
Dec 2009				Complete Track 4	DSES-09 After-Action Conference / Final Integrated Regional Strategy

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