

# Washington Disaster Resiliency Work Group

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## Summary of activities an ongoing resiliency program should engage in.

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### A. Conduct Research, Data Collection and Analysis:

- Independently model the resiliency of specific infrastructure sectors within the state and provide science-based metrics (estimated cost of impact, cost of recovery, % infrastructure resilient to a specific hazard, etc.) to support emergency management entities and state decision makers.
  - Work with private entity risk modelers to examine Washington State.
- Gather and/or conduct ongoing assessments of risk and resiliency.
  - Study potential impacts to those most vulnerable due to displacement, financial means, or location.
- Monitor climate science to understand potential changes in risk and study statewide exposure to human health, physical property, and economic loss to future climate conditions.
- Gap analysis and research coordination to address gaps in hazard identification and mitigation needs, as well as implementation gaps (lack of funding, policy etc.)
- Study of design level standards for engineering. Are we designing our facilities and infrastructure to the right design levels and lifetime expectancies?
  - Performance levels (collapse prevention vs. immediate occupancy)
  - Probabilities (flood, earthquake, tsunami etc.)
- Inventory critical facilities and their modernization history and needs

### B. Examine Economic Situations and Funding Options:

- Conduct cost-benefit analysis of resilience options to determine best uses of finite economic resources to determine whether to accept, mitigate, or transfer risk.
- Develop a state approved benefit cost analysis tool to use for prioritizing funding
- Ensuring that state infrastructure investments do not counteract resiliency efforts or otherwise increase vulnerability.
- Evaluate gaps and opportunities for coordinated and strategic investments, including new partnerships beyond state agencies.
- Invest in technology solutions, data analysis, planning tools, and vulnerability analyses.
- Expanded capital funding opportunities for large scale flood damage reduction projects/actions.

- Hydrologic modeling that provides an understanding of current and future flood risks and potential benefits/impacts of flood damage reduction projects.
- Develop a State-funded grant program to rehabilitate non-federal, poor condition dams as leverage (match) for FEMA's new dam grant program.
- Develop economic incentives for resiliency activities.
  - Partner with the Insurance Institute for Business & Home Safety to develop a program in Washington to have certified "Fortified" dwellings that may qualify for an insurance rate decrease.

C. Conduct policy research and recommendations:

- Influence future exposures through advocating resiliency in building codes and land use.
- Improved drought laws and funding programs to provide greater support of long term resiliency.
- Long term water right leasing agreements.
- Define interagency leadership, appropriate organizational structure, and governance for effective and efficient coordination and collaboration.
- Assess how existing Governor advisory boards could be leveraged to support the state resilience program and the formation of a new advisory board to guide the activities, policy initiatives, and legislative actions of the state resilience program.
- Review foundational documents and current efforts to help shape a framework for a comprehensive all-hazard strategy.
- Create common measurements to track collective progress, success, and lessons learned to inform program improvements.
- Develop guidelines/rules to notify property owners living at risk below dams (notice in deed, disclosure in sales documents.)
- Review current authority for inspecting and ensuring compliance with design standards for above ground storage tank secondary containment to withstand seismic loads.
- Review jurisdiction for requiring and ensuring compliance with design standards for oil handling facilities, to include storage tanks, piping, valves, and marine terminals, to withstand seismic loads.
- Develop policy and/or building code language that would require modern public schools and essential buildings to meet higher performance based engineering standards that will permit use of these structures following major earthquakes.
- Develop policy to condemn the very hazardous school buildings and require their retrofit or demolition.
- Sit on relevant boards:
  - Emergency Management Council
  - Seismic Safety Committee
  - IAPW
  - Transportation Commission
- Work with WA State EMD and WAsafe coalition (WABO, SEAW, AIA, ASCE) to administer emergency volunteer building safety assessment evaluator registration program. Includes maintenance and updating of database (WAserve), credentialing of volunteers.

D. Develop Resilience Projects:

- Produce an annual report to Legislature and governor.

- Develop a detailed reporting style so historical data is relevant for future examination.
- Report should have recommendations to consider implementing for the following Legislative session.
- Work to implement Resilient Washington Subcabinet recommendations.
- Track statewide expenditure of disaster related funding.
- Develop new mitigation programs.
  - Improve financial tools to help building owners pay for seismic retrofits of vulnerable buildings – example: develop a Washington state Brace & Bolt grant program for residents similar to CA.
- Formal “Drought Advisories” to alert water users to potential water supply challenges.
- Development and maintenance of flood warning and emergency response systems.
- Expand access to water during drought via the use of water banks and trust water rights dedicated to drought mitigation.
- Identify non-ductile concrete structures and unreinforced masonry building throughout the state.
  - Develop a 10-20 year plan to retrofit or replace these dangerous structures to meet modern life safety or immediate occupancy standards.

E. Become a Resource Center:

- Actively compile and serve as a repository for disaster resiliency resources that have already been created and maintain a library of such resources.
- Develop an expansive website that can be a resource of information of agencies, businesses, and residents.
  - Gather all federal, private, and non-profit funding, program and technical assistance resources that is available for any resiliency type project and create a consolidated platform so agencies, businesses, and residents can look for this information in one place.
- Provide resources and guidance related to the emotional stressor/coping component of resiliency in preparation for and in recovering from a disaster (both from a public and responder perspective).
- Identify, provide, or refer professionals who are able to conduct resiliency assessments for specific infrastructure types and recommend solutions for gaps identified.
- Create and manage a statewide resilience focused ARCGIS portal.
  - Work with State GIS Coordinator and state agencies to develop a resilience geoportal to examine geospatial relationships of resilience activities.
- Track State and county Hazard mitigation plans

F. Offer Guidance:

- Provide guidance to jurisdictions on plans, policies, model regulations, codes, etc. intended to assess and bolster resiliency efforts in those jurisdictions.
- Serve as subject matter experts to the lawmakers and staff on current laws, regulations, policies, and procedures related to statewide disaster resiliency activities.

G. Develop Collaboration, Education and Outreach Programs:

- Liaise with state agency programs
- Engage in cross-collaboration efforts with other preparedness and resiliency programs being maintained across the state, including continuity of government and continuity of operations groups.
- Assist local governments in development and financing for flood resilient land use.
- Engage broad range of stakeholders on resiliency best practices and lessons learned.
- Provide communication, engagement, and ongoing outreach.
  - As appropriate to emergency management professionals, government entities, representatives of both small and large industry, utilities, non-governmental organizations, and the public around appropriate resiliency efforts being undertaken in the state (exempting projects as necessary that may impact security.)
  - Support community education and engagement efforts.
- Develop MOUs with nonprofits and charities to establish who would do what in the event of a disaster.
- Education and outreach curricula for K-12, as well as cities and counties.
- Local adoption or recognition of building occupancy resumption programs such as San Francisco's BORP or WABO/SEAW Advisory Tag System.
  - BORP: Building Occupancy Resumption Program (BORP): <https://sfdbi.org/borp>
  - WABO/SEAW Advisory Tag System: <https://www.wabo.org/assets/SEAWPapers/wabo-seaw%20wp5%20final%20.pdf>

H. Coordinate Multi-Level Trainings:

- Support and coordinate training and exercise programs across government agencies, hospitals, utilities, the private sector, and NGOs.

I. Examine statewide insurance programs

- Examine feasibility of something like the California Earthquake Authority for Washington state.