

Thurston County, WA Flood Hazard Mitigation Plan Annual Progress Report

Reporting Period: *October 3, 2017 – September 30, 2018*

Background

The Thurston County Board of Commissioners adopted the Flood Hazard Mitigation Plan on October 3, 2017. The plan will assist the county in reducing the impacts of flooding by identifying resources, information, and strategies for risk reduction. To prepare the plan, Thurston County organized resources, assessed risks from flooding, developed planning goals and objectives, reviewed mitigation alternatives, and developed an action plan to address probable impacts from floods. Stafford Act. The plan can be viewed on-line at:

<https://www.trpc.org/803/Flood-Hazards>

Summary Overview of the Plan’s Progress: The performance period for the Hazard Mitigation Plan became effective on October 1, 2017, with the final approval of the plan by FEMA. The initial performance period for this plan will be 5 years, with an anticipated update to the plan to occur before October 1, 2022. As of this reporting period, the performance period for this plan is considered ___% complete. The Flood Hazard Mitigation Plan has targeted 32 flood hazard mitigation initiatives to be pursued during the 5-year performance period. As of the reporting period, the following overall progress can be reported:

- ___ out of ___ initiatives (___%) reported ongoing action toward completion.
- ___ out of ___ initiatives (___%) were reported as being complete.
- ___ out of ___ initiatives (___%) reported no action taken.

Purpose

This report provided an annual update on the implementation of the action plan identified in the Thurston County Flood Hazard Mitigation Plan. The objective is to ensure that there is a continuing and responsive planning process that will keep the Thurston County Flood Hazards Mitigation Plan responsive to the needs and capabilities of Thurston County and stakeholders. This report discusses the following:

- Flood events that have occurred within the last year
- Changes in risk exposure within the planning area (all of Thurston County)
- Mitigation success stories
- Review of the action plan
- Changes in capabilities that could impact plan implementation
- Recommendations for changes/enhancement.

The Flood Planning Committee

The Flood Planning Committee (FPC), made up of stakeholders within the planning area, reviewed and approved this progress report at its annual meeting held on <insert date> It was determined through the

Review of the Action Plan

Table 2 reviews the action plan, reporting the status of each initiative. Reviewers of this report should refer to Chapter 3 in the Flood Hazards Mitigation Plan for descriptions and details of each mitigation initiative and the prioritization process.

Address the following in the “status” column of the following table:

- Was any element of the initiative carried out during the reporting period?
- If no action was completed, why?
- Is the timeline for implementation for the initiative still appropriate?
- If the initiative was completed, does it need to be changed or removed from the action plan?

TABLE 2. ACTION PLAN MATRIX				
Action Taken? (Yes or No)	Time Line	Priority	Status	Status (X, O,✓)
Initiative #1 – Dam Failure Evacuation Planning and Response: Identify and sign evacuation routes and develop and train for evacuation procedures for communities downstream from the Nisqually, Yelm, and Skookumchuck hydroelectric project dams. Develop and implement a public outreach strategy to inform affected residents and businesses about routes and procedures. Leads: Emergency Services, Public Works, Sheriff’s Office, Central Services – Geo Data				
	2017-2021, Short Term	Medium	County is in the process of obtaining state regulated high hazard dam emergency action plans and related GIS information.	
Initiative #2 – Flood Detours and Response Planning: Identify detour routes for areas subject to frequent flood-related closures. Update emergency plans, create operational procedures, and provide public information and outreach resources to execute the detours when needed. Leads: Emergency Management, Public Works, Central Services – Geo Data				
	2017-2021, Short term	High		
Initiative #3 – Stream Culvert Replacement Flood Mitigation Program: Continue culvert replacement throughout the county for flood reduction, hazard avoidance, and to mitigate fish passage barriers. Replacement will occur as funds become available. Leads: Community Planning and Economic Development, Public Works				
	2017 - 2030, Long term	High		
Initiative #4 – Road Repair and Reconstruction Flood Mitigation Program: Prioritize the repair or replacement of roads and bridges that close during flood events. Upgrade these facilities as funds become available. Leads: Community Planning and Economic Development, Public Works				
	2017 - 2030, Long term	High		

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ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Time Line	Priority	Status	Status (X, O,✓)
<p>Initiative #5 – Flood Data Collection, Modeling, and Evaluation Program: Expand Thurston County’s flood prediction and forecast modeling capabilities for all types of flooding, including the impacts of climate change. Leads: Community Planning and Economic Development, Emergency Management</p>				
	2017-2021, Ongoing	Medium		
<p>Initiative #6 – HAZUS – Flood Model Development and Maintenance Program: Maintain and operate an in-house GIS HAZUS-Flood model using local data to support flood planning activities. Leads: Emergency Services, Central Services – Geo Data</p>				
	2017-2021, Short term	Low		
<p>Initiative #7 – Risk Map Land Use and Development Regulation Review and Revisions: Evaluate land use and development regulations accounting for changes to special flood hazard areas resulting from FEMA’s Risk Map process and the county’s flood studies. Consider appropriate watershed-specific revisions to zoning, development codes, and the Critical Areas Ordinance to refine flood hazard reduction strategies. Leads: Community Planning and Economic Development</p>				
Yes	2017-2021, Short term	High	<p>County flood regulations were updated in August 2018 to be consistent with 2017 Community Ratings System manual requirements including clarity on the county’s freeboard requirements, elevation of mechanical equipment, and other related amendments.</p> <p>The County is in the process of updating its Shoreline Master Program, and should be going to the Planning Commission by the end of 2018. The plan requires Board of County Commissioner and Washington State Department of Ecology approval..</p>	
<p>Initiative #8 – Flood Map Refinement and Access: Update and maintain digital floodplain maps for all rivers, streams, lakes, high groundwater hazard areas, and flood of record areas. Make these maps available online. Leads: FEMA, State Ecology, Community Planning and Economic Development, Public Works, Central Services-GeoData Center, Storm and Surface Water Utility</p>				
Yes	2017-2021, Short term	Low	Updating High Ground Water mapping. Reviewing preliminary flood mapping from FEMA.	
<p>Initiative #9 – Flood Map and Data Storage and Retrieval Program: Develop protocols to document previous flood events including data, imagery, losses, and other information about conditions that contribute to flooding. Leads: Emergency Services, Central Services - GeoData, local governments, and Thurston Regional Planning Council</p>				

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Action Taken? (Yes or No)	Time Line	Priority	Status	Status (X, O,✓)
No New Action	2017-2021, Short term	Medium	GeoData and the Flood Plain Manager work together to update and map LOMA/LOMR areas as they are approved, update and review Preliminary Flood Plain maps, update and maintain FEMA Flood Plain data once approved, retain previous FEMA Flood Plain area maps and data, created and now maintain a Flood of Record Monument dataset that relates back to photos and surveys of previous flood events, and maintain and update maps of observed and projected flooding based upon information provided by county staff or aerial flights conducted during past flood event. We also maintain and update an inventory of Public Works flood impacted areas and issues as provided by that department. All of this data is provided to County Staff via an internal website and to select planning and engineering staff via an ArcGIS Desktop or AutoCAD Civil 3D application. Most of this data is available to the public via our public website located at www.geodata.org . Where appropriate it links to additional information on county planning and permitting websites.	
Initiative #10 – River Channel Migration Zone and Habitat Mapping Program: Maintain up to date maps for the channel migration zones for all rivers in the region and the extent of high quality riparian habitat. Leads: Community Planning and Economic Development, Central Services – Geo Data, Public Works, Storm and Surface Water Utility				
No	2017-2021, Short term	Medium	No new Channel Migration Zone maps have been created in the past year. County continues to maintain current Channel Migration Zone maps.	
Initiative #11 – Building Inventory and Mapping Program: Update and maintain the Thurston County building footprint database to account for all existing structures such as homes, commercial buildings, barns, and other structures of value. Leads: Thurston County Assessors Office, Central Services - Thurston GeoData				
Yes	2017-2021, Short term	Medium	In the past year GeoData updated our Building Footprint layer within 100 feet of all know and preliminary FEMA Flood Plains using our 2011 LiDAR and 2015 Aerial Photography. This data was processed in ArcGIS using a series of tools to identify and map the footprints of buildings that were then visually checked and verified using our most current aerial photography. This layer in combination with our County Assessor’s Parcel layer is used to identify buildings and structures, including values, within Thurston County.	

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ACTION PLAN MATRIX**

Action Taken? (Yes or No)	Time Line	Priority	Status	Status (X, O,✓)
<p>Initiative #12 – Vulnerable Structures and Repetitive Loss Mitigation Program: Formalize a program to evaluate repetitive flood claim loss properties and other structures subject to repetitive flooding as candidate projects for elevation, relocation, or buyout. Develop project cost estimates and a finance strategy for priority projects, and evaluate a long-term implementation plan. Develop processes to partner with candidate property owners to inform them about the program’s opportunities and benefits. Implement projects as funds become available. Leads: Community Planning and Economic Development, Central Services, Emergency Services, Storm and Surface Water Utility</p>				
Yes	2017-2030, Long term	High	The county has not developed a formal program. The county continues to pursue and obtain grants to elevate repetitive loss structures.	
<p>Initiative #13 – Debris and Sediment Inspection and Flood Hazard Reduction Program: Develop and implement a program to periodically inspect floodways, channel migration zones, drainage ditches, and other floodwater conveyance areas to monitor and document debris, sediment accumulation, and excess vegetation and to detect and respond to potential flood hazards, especially in areas that experience recurring flood problems. Leads: Public Works, Community Planning and Economic Development, Emergency Services</p>				
	2017-2021, Short-term	Medium		
<p>Initiative #14 – Floodplain Restoration and Reconnection: Protect and connect aquatic habitat and flood ecosystem services through a variety of flood plain management activities to comply with the National Marine Fisheries Service Biological Opinion regarding the National Flood Insurance Program: 1. Research best practices with large woody debris management and other bioengineering methods to stabilize streambanks, improve channel conditions, and enhance fish and wildlife habitat; 2. Revise shoreline regulations, as appropriate, to permit bioengineering methods; 3. Convert flood acquisition properties to open space. Leads: Community Planning and Economic Development, Public Works, Storm and Surface Water Utility, Thurston Conservation District</p>				
Yes	2017-2030, Long-term	Medium	<p>Upper Deschutes River Smith Farm project. Restore native habitat that was alters for ag use purposes, restoration of wetlands, natural springs, 100 flood zone stream channel and riparian buffers.</p> <p>The county is in the process of updating its’ Shoreline Master Program and will be considering information in the Biological Opinion as part of that update.</p>	
<p>Initiative #15 – Riparian Flood Control and Habitat Reforestation Project: Formalize a program with landowners and other stakeholders to reforest corridors along river and stream shorelines where they can provide flood protection benefits and enhance riparian habitat. Leads: Community Planning and Economic Development, Public Works, Thurston Conservation District</p>				
No	2017-2030, Long term	Medium	No county action has been taken to formalize a county program for private property owners.. The County has set aside about \$4 million from the REET 2 fund to pay for the design and replacement of culverts restricting movement and spawning of native fish, primarily salmon.	

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<p>Initiative #16 – Comprehensive Flood Program Finance Strategy: Pursue a coordinated interdepartmental approach to evaluate and implement a finance strategy for the county’s flood management programs and projects. Leads: Thurston County Manager, Department and Division Directors, Community Planning and Economic Development, Emergency Services, Public Works, Storm and Surface Water Utility, Board of County Commissioners</p>				
No	2017-2019, Short term	High	No action has been taken to develop a finance strategy for the flood program. However, the County continues to fund flood related activities including the CRS Program.	
<p>Initiative #17 – Community Rating System Program: Strive to maintain a Class 5 or better Community Rating System (CRS) classification as a means of reducing flood risks. Leads: Community Planning and Economic Development, Storm and Surface Water Utility, Emergency Services, Public Works</p>				
Yes	Ongoing	High	The CRS Program verification visit is in November 2018. Staff is busy preparing for the visit to ensure all Class 4 minimum requirements are met. Amendments were made to the county’s flood regulations in 2018 to ensure consistency with Class 4 prerequisites. Staff is also reviewing county activities and programs to try to maintain the current Class 2 rating for the next three years.	
<p>Initiative #18 – Thurston Climate Adaptation Plan Evaluation and Plan Integration: Evaluate the priority flood hazard adaptation actions from the Thurston Climate Adaptation Plan and incorporate them into the Flood Hazard Mitigation Plan and other appropriate county plans. Leads: Community Planning and Economic Development, Storm and Surface Water Utility, Emergency Services, Public Works, Thurston Regional Planning Council, and other jurisdictions and stakeholders</p>				
No	2018-2021, Short-term	Medium	The county is in the process of updating its Comprehensive Plan and Shoreline Management Plan. Thurston Climate Adaptation Plan actions and strategies are being evaluated to add to the Comprehensive Plan. No final action has been taken on the plan.	
<p>Initiative #19 – Flood Hazard Education and Hazard Reduction Public Outreach Strategy: Continue to develop and implement an annual public outreach campaign to maintain flood risk awareness and improve peoples’ understanding of resources and capabilities within the county. This includes activities for both broad audiences and direct contact with property owners affected by flooding. Leads: Community Planning and Economic Development, Storm and Surface Water Utility, Emergency Services, Public Works, Central Services</p>				

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Action Taken? (Yes or No)	Time Line	Priority	Status	Status (X, O,✓)
Yes	2017-2021	Medium	<p>County continues with providing outreach to properties with flood risks and keeping emergency actions up to date. Emergency Management has finalized the External Affairs (ESF 15) and Communications, Information Systems, and Warning (ESF 2) annexes to the Comprehensive Emergency Management Plan. These apply to all emergencies.</p> <p>Annual flood bulletin has been mailed out for 2018, information has been sent to repetitive loss areas, and web information has been kept up to date. The Emergency Preparedness Expo is on September 29th.</p> <p>County has not developed a Public Information Strategy specific to flood hazards.</p>	
<p>Initiative #20 – Flood Website Development: Revise Thurston County’s website to consolidate all flood-related information and contents to improve accessibility. Expand the use of interactive tools such as GIS story maps with flood data and other relevant information. Leads: Community Planning and Economic Development, Storm and Surface Water Utility, Emergency Services, Public Works, Central Services</p>				
No	2017-2019, Short term	High	<p>No new action has been taken to finalize all flood related information. Information still split between Emergency Management, Community Planning and Economic Development, Public Health and TRPC. County websites are being updated to ensure all links work prior to the end of October 2018 and to ensure any new information is added to the web page. Links will be added to the CPED site for other sites to ensure they are in one place.</p>	
<p>Completion status legend: ✓ = Project Completed O = Action ongoing toward completion X = No progress at this time</p>				

Changes That May Impact Implementation of the Plan

(Insert brief overview of any significant changes in the planning area that would have a profound impact on the implementation of the plan. Specify any changes in technical, regulatory and financial capabilities identified during the plan’s development)

Recommendations for Changes or Enhancements

Based on the review of this report by the Hazard Mitigation Plan Steering Committee, the following recommendations will be noted for future updates or revisions to the plan:

- _____
- _____

- _____
- _____
- _____
- _____

Public review notice: *The contents of this report are subject to public disclosure. Copies of the report are provided to the Thurston County Board of County Commissioners and is posted on the Thurston County Flood Hazards Mitigation Plan website. Any questions or comments regarding the contents of this report should be directed to:*

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