

# Planning Process

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## Section 2 – Planning Process

Stafford Act 44 CFR §201.4(b), §201.4(c)(1)<sup>1</sup>

### 2.1 How the Plan was Prepared [S1]

The Maine State Hazard Mitigation Plan – 2023 Update constitutes Volume II of the State Comprehensive Emergency Management Plan. As such, the plan fulfills requirements of the [Stafford Act, 44 CFR 201.4](#), while also contributing to a larger framework for state-level emergency management activities and a process for how State Government interfaces with other emergency management stakeholders, including local, county, and tribal governments, non-governmental organizations, other states, the Federal Government, and the private sector.

#### 2.1.1 Planning Team and Mitigation Partners

The Maine Emergency Management Agency (MEMA) is responsible for updating the 2023 Maine State Hazard Mitigation Plan (SHMP). These plans are regulated by the Federal Emergency Management Agency (FEMA). Approval of SHMPs by FEMA allow states to apply for Hazard Mitigation Assistance (HMA). In March of 2022 MEMA coordinated a Planning Team, consisting of staff from MEMA and the Department of Agriculture, Conservation and Forestry (DACF), with objectives to administer the plan update and seek opportunities for plan integration with other state agencies. Responsibilities for plan update leadership include establishing the plan update/maintenance process, writing the updated plan, engaging stakeholders, hosting informational meetings, requesting targeted input and feedback, performing risk assessments using best available GIS/database resources, and tracking implementation of mitigation goals.

Through the update process the Planning Team engaged key stakeholders, referred to as Mitigation Partners, to incorporate resources for the Risk Assessment, State Capabilities Assessment, Local Capabilities Assessment, and Mitigation Strategy sections of the Plan. Mitigation Partners represent various interests such as emergency management, economic development, land use and building code development, housing, health and social services, infrastructure, natural and cultural resources, and related community lifelines. Communications with Mitigation Partners led to multiple opportunities for plan integration between the SHMP and other state plans as noted in the Mitigation Strategy.

Many Planning Team members represent local jurisdictions. In this plan, jurisdictions are defined at the county geopolitical level, and primary stakeholders are County EMA Directors. County EMAs work directly with their municipalities to collect important risk, capabilities, and mitigation strategies to ensure that the most relevant, grass-roots data are reported in local plans and in the SHMP.

#### 2.1.2 Mitigation Goals

Five mitigation goals have been established for the 2023 SHMP update, based on past plans, MEMA's direction for advancing the mitigation program, and recommendations from all Mitigation Partners. Please refer to Section 6 – Mitigation Strategy, for details on how these goals were established.

**Mitigation Goal 1:** Protect lives, property, and the environment from all natural hazard risks and associated impacts of climate change now and in the future.

**Mitigation Goal 2:** Enhance state natural hazard mitigation capabilities through greater coordination among federal, state, county, and local partners.

<sup>1</sup> Stafford Act 44 CFR §201.4: <https://www.law.cornell.edu/cfr/text/44/201.4>

**Mitigation Goal 3:** Improve hazard mitigation literacy and awareness among the public, business owners, academic institutions, and state, county, and local officials.

**Mitigation Goal 4:** Implement mitigation actions that preserve or restore the functions of natural systems and emphasize sustainable development.

**Mitigation Goal 5:** Build equity into all facets of the State Hazard Mitigation Program

### 2.1.3 Plan Organization

This SHMP update consists of the following sections:

Section 1 – Executive Summary

Section 2 – Planning Process

Section 3 – Risk Assessment

Section 4 – State Capabilities

Section 5 – Local Capabilities

Section 6 – Mitigation Strategy

Section 7 – Plan Maintenance

### 2.1.4 Summary of Review and Updates

The Plan underwent many substantial updates. All planning participants provided updates that were incorporated to improve the plan. These updates targeted two major needs. First, the State of Maine has recently taken major strides in establishing climate change resilience policy, regulations, programs, technical assistance, data, and funding to match the need of growing climate change risks, nearly all of which align with FEMA Hazard Mitigation Assistance (HMA) program goals managed by MEMA. For example, the SHMP goals have been updated based on this newfound support for climate resilience and greater potential for state agency partnerships to help address climate change issues. Second, In April 2023, FEMA enacted changes to the State Mitigation Planning Policy Review Guide<sup>2</sup>, requiring greater consideration of climate risks and resource equity challenges for disadvantaged communities.

Additional motivations for this plan update include changes in risk, development, the occurrence of multiple Disaster Declarations and undeclared local severe weather events, availability of new geospatial data to better calculate risk, and the emergence of new natural hazards that have not been profiled in previous plan versions. Mitigation Partners provided evidence to the importance of these new hazards due to climate change and their sensitivity to other hazards.

The Planning Team took a focused and targeted approach to efficiently manage resources for the update. This included internal collaboration to review and revise fundamental components of the plan that specifically address FEMA's new policy guide. This also includes coordinating with partners to expand the usefulness and benefits of hazard mitigation planning across many state, local, and nongovernmental entities. The Planning Team organized the plan update in three groups to identify changes in 1) natural hazard risks, 2) state and local capabilities that support hazard mitigation, and 3) capability gaps and problem statements that may be addressed by new mitigation goals and proposed actions. The Planning Team took advantage of pre-existing partnerships and meeting schedules to grow interest in the mitigation program and maximize opportunities for plan integration. Participation consisted of multiple subject matter experts, including climate scientists, resilience program administrators, and community action partners. Many opportunities were given to provide and incorporate feedback, as noted below.

<sup>2</sup> FEMA Mitigation Policy: [https://www.fema.gov/sites/default/files/documents/fema\\_state-mitigation-planning-policy-guide\\_042022.pdf](https://www.fema.gov/sites/default/files/documents/fema_state-mitigation-planning-policy-guide_042022.pdf)

### [Review and Update of the Planning Process](#)

The Planning Team determined that the planning process for the 2019 SHMP required updates to 1) engage more state agencies and incorporate their subject matter expertise into the planning process and 2) restructure the planning activities to offer more opportunities for receiving and incorporating feedback and include more examples of plan integration. Further, the planning process was amended to account for changes in FEMA's State Mitigation Planning Policy Guide relevant for all sections of the plan. A new timeframe and milestones were also included to clarify the planning process.

### [Review and Update of the Risk Assessment](#)

Though the level of risk has not changed substantially since the 2019 SHMP, there are many more useful resources now to help understand and quantify risk. Many changes were implemented by the Planning Team and Mitigation Partners to improve the Risk Assessment, including a more comprehensive description of why certain hazards were included or excluded from profiles, and the addition of new hazards and changes to previously included hazards, based on climate change impacts. New GIS resources are now available to quantify and monetize risk to state and jurisdictional assets for a multitude of mappable hazard types. Community lifelines concepts are integrated into vulnerability assessments, and there is greater consideration of disadvantaged communities and their vulnerability to profiled hazards. New local risk assessment data is also incorporated into this section of the plan.

### [Review and Update of the State and Local Capabilities](#)

Though many of the state and local mitigation capabilities documented in the 2019 plan remain available, still more are newly available or properly documented in the 2023 SHMP update. Many of these opportunities are the result of state and federal administrative changes leading to more support for hazard mitigation. This section now incorporates all mitigation/resilience-based programs, policies, practices, plans, guidelines, and funding sources that the Planning Team was made aware of during the update process. As the list of capabilities began to form, a list of capability gaps and potential solutions was created to provide a basis for major updates of the Mitigation Strategy.

### [Review and Update of the Mitigation Strategy](#)

The Planning Team reviewed the 2019 SHMP mitigation strategy and determined that the scope of mitigation goals and actions that fulfill the goals needed updates in order to encompass the problem statements brought forward by Mitigation Partners. This resulted in the creation of five new mitigation goals presented above and new mitigation actions that document the work being completed, not just by MEMA, but also by Mitigation Partners.

### [Review and Update of Plan Maintenance](#)

Plan maintenance did not require many revisions other than those required by FEMA's new planning policy guide. The most substantial change is the inclusion of a 5-year plan cycle graphic depicting timeframes of specific processes, and milestones to support a well-supported and successful plan update.

## 2.2 Involvement and Coordination with Mitigation Partners [S1; S2]

Over one hundred participants contributed to the SHMP 2023 update, representing state and federal agencies, county government, regional planning organizations, universities, private nonprofit organizations, quasi-governmental organizations, and consultants who assisted with plans and vulnerability assessments that were integrated with the SHMP update. The 2023 plan represents a very high level of coordination and plan integration compared to the 2019 plan. No consultants were hired to update the SHMP, and all necessary work was undertaken by MEMA.

Coordination with Mitigation Partners varied based on types of mitigation-related authorities, subject matter expertise, and level of interest and work capacity of the partners. For example, coordination between MEMA and state/federal/private organizations involved review/suggested edits of plan sections; interviews to determine risk, capabilities, and mitigation actions of interest to the organization; and in some cases, plan integration to improve implementation of the mitigation program and the programs administered by partner organizations. All coordination occurred by virtual or in person meetings, with follow-up meetings/calls or email correspondence. The specific improvements made through coordination are documented below in the roster of participants and throughout the SHMP.

Information flows back and forth on a frequent basis between towns, their respective counties, and the state, particularly during the development of Multi-Jurisdictional Hazard Mitigation Plans. Concurrently, agencies were involved through their participation as Mitigation Partners, and through individual meetings and contacts with MEMA. Perhaps more important from a coordination standpoint is that there has been a great deal of coordination on mitigation issues between federal, state, and county officials. The results of this coordination work include:

- Awareness of issues: A greater awareness of some of the issues Maine faces, such as increased flood flows resulting from upstream development in a given watershed (enhanced awareness has helped in the development of mitigation strategies);
- Opportunities for mitigation: A greater awareness of available Hazard Mitigation Assistance (HMA)
- Local Outreach: Ongoing workshops by the Maine Department of Transportation for local officials on the use of geosynthetics and general “best management practices” in road and ditch work
- Multi-jurisdictional Coordination: Continuous trainings and exercises with state, county, and local participation
- GIS Information: A greater use of GIS-based mapping and the continued close cooperation between state agencies in the sharing of GIS data.

Federal officials were also involved through their participation in various MEMA-sponsored conferences and exercises on hazard mitigation and disaster assistance.

### 2.2.1 Sectors Represented by Mitigation Partners [S2.a.]

The Planning Team invited stakeholders to become Mitigation Partners to collectively improve the SHMP by representing multiple sectors and providing many perspectives. Table 2.1 generalizes the various sectors that each Mitigation Partner represents. In addition to economic development, land use and development, building codes, and natural and cultural resources, sectors relate to all community lifelines: safety and security; Food, water, and shelter; health and medical; energy; communications; transportation; and hazardous materials.

Table 2.1: Sectors represented by Mitigation Partners

BC – Building Codes*	GIS – GIS expert*	LUD – Land Use and Development*
CS – Communications systems	GSME – Grant subject matter expert*	NCR – Natural and cultural resources
ED – Economic Development*	HFWS – Housing, food, water, shelter	RSME – Risk subject matter expert*
EM – Emergency management	HI – Hazard insurance*	SA – State assets*
ES – Energy systems	HSS – Health and Social Services	TS – Transportation systems
CC – Partner is also a climate change subject matter expert		
UC – Partner is also an underserved community's subject matter expert		

\* Though not listed in FEMA community lifelines, these sectors directly support community lifelines through contributions to THIRA/SPR and other risk-based plans and analyses.

### 2.2.2 Coordination with Climate Change and Disadvantaged/Underserved Communities Experts [S2.a.]

The state climatologist participated in the Risk Assessment update, and many members of the Maine Climate Council contributed to sections of the plan as noted in the roster of participants below. As noted above and in Section 7 – Mitigation Strategy, the SHMP goals were designed to complement goals from The State of Maine’s Climate goals set forth by the Governor entitled, “Maine Won’t Wait” by representing interests in hazard mitigation from the perspective of emergency management. Subject matter experts from NOAA, US Geological Survey, Maine Geological Survey, US Army Corps of Engineers, and the University of Maine provided crucial new climate change risk information that was not available in previous plan updates.

Subject matter experts who work with underserved communities were also invited to participate in the plan update process as noted below. GIS subject matter experts assisted with developing regional-scale analyses of disadvantaged community vulnerability for different hazards profiled in Section 3 – Risk Assessment, using tools such as the Social Vulnerability Index<sup>3</sup>, Climate and Economic Justice Screening Tool<sup>4</sup>, and FEMA’s RAPT tool<sup>5</sup>. The Planning Team engaged with organizations who work directly with disadvantaged communities. However, more work is needed to further integrate equity in hazard mitigation, as many of these organizations have limited resources to consider how best to implement hazard mitigation, as they address current housing, poverty, and healthcare crises in Maine. Other organizations that administer resources supporting equity offered suggestions to better implement these resources for purposes of hazard mitigation. These needs inform mitigation actions shared in Section 7 – Mitigation Strategy.

### 2.2.3 Coordination with Dam Safety Program [HHPD1]

The Maine Dam Safety Program (DSP) is a division within MEMA, therefore it was a simple process to coordinate with the filled positions of Dam Safety Administrator and the Assistant Dam Safety Inspector. The Dam Safety Inspector position has remained vacant for nearly two years and MEMA relies on an engineering consultant to fulfill the duties of the DSP. Please refer to Section 3– Risk Assessment, Dam Safety Limitations for more information.

<sup>3</sup> SVI Tool: <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>

<sup>4</sup> CEJST Tool: <https://screeningtool.geoplatform.gov/>

<sup>5</sup> RAPT: <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>

### [Dam Safety Program Involvement \[HHPD1.a.\]](#)

The DSP Administrator is responsible for managing the state dam safety database, all emergency action plans (EAPs) for high hazard dams, maintaining contact information for dam owners, and administrating the High Hazard Potential Dams grant program (HHPD), among many other responsibilities. Most planning coordination occurred between the Planning Team and the program administrator due to limited staff.

MEMA engages other entities such as hydropower project operators, through the annual River Flow Advisory Commission. In these meetings, discussions about long-term trends in flow conditions related to flooding and drought are covered, and information on FEMA's Hazard Mitigation Assistance (HMA) program is shared with participants. Unfortunately, there is currently limited interest in the HHPD program because it is so new, there are only a small number of eligible dams in Maine, and the DSP is currently too understaffed to manage the program. The intent is to target this problem by encouraging more training and staffing to increase HHPD interests in Maine.

### [Dam Safety Data Contributions Limitations, and Potential Solutions \[HHPD1.b.\]](#)

The DSP provided their entire dams geodatabase for the SHMP. This does not include EAPs, which are not generally in digital form in Maine, with no standard georeferenced data for inundation zones, structures at risk, etc. As a mitigation action, there is an effort to add staff who will be able to digitize this information for easier use in other plans such as future SHMP updates. As a result, the hydraulic studies and inundation maps prepared for dams in Maine are currently inaccessible for use in the SHMP.

Dam safety inspections designate High, Significant, and Low hazard levels. Refer to Section 3 – Risk Assessment for more details on these designations. The DSP does not report the size of the population at risk (PAR), but rather keeps track of high hazard dams that would cause loss of life from a major dam failure. High hazard dams are closely regulated. The locations of these dams can be used to infer the locations of PARs based on downstream populated centers, but this would be an inaccurate approach without inundation maps. DSP has provided a mitigation action to digitize more data in the future, including PARs (see Section 6 – Mitigation Strategy).

## **2.2.4 Coordination with County and Local Entities**

County EMAs were kept notified of SHMP updates through their own plan update process, and through monthly director meetings noted below. The Natural Hazards Planner provides review and technical assistance to County EMAs for plan updates, in addition to leading the SHMP update, and it became a common process to share helpful data. Interested local groups were involved in the preparation of county and local plans, and through participation in MEMA workshops, exercises, and training sessions. Additionally, since the plan has been posted on the MEMA website, public comments were taken into consideration in this update. To date, several residents have been interested in coastal effects (storm surge) and evacuation routes, one about climate, and several students (from out of state) wanted to know about the planning process in general as part of their studies.

Outreach to businesses, non-profit organizations, and professional associations such as the Maine Municipal Association and Associated General Contractors will continue. Again, more detailed maps showing vulnerable areas would be very useful documentation in this outreach. Additionally, based on annual conference feedback, the case study approach is the best way to showcase mitigation projects. More of these should help local businesses to thrive and continue to save tax dollars after hazard effects have been reduced.

### **2.2.5 Roster of Participants and their Contributions**

Though many participants represent multiple sectors, only their primary sector is shown in the “Sector” column. Also in the Sector column, participants with climate change and climate adaptation expertise, or who are responsible for climate resilience-based programs, policies, and assistance are noted with a “CC”. Participants who administer programs, policies, and other support to underserved communities are noted with “UC” under the Sector column. Table 2.2 provides a list of participating entities, a summary of their contributions to the plan update, and the specific sections where their contributions led to improvements in the plan.

All participants aided the plan update in ways that matched their time availability and subject matter expertise. Their assistance is documented in the “Assistance” column and the specific sections improved by their contributions are noted in Table 2.2.



Table 2.2: Participants in the SHMP update

Category	Entity	Name	Title	Assistance	Sector	Sections
<b>Planning Team</b>						
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Samuel Roy	Natural Hazards Planner	SHMP 2023 Update Lead Planner	RSME	All
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Heather Dumais	State Hazard Mitigation Officer	SHMP 2023 Update Planning Team Member	GSME	All
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Jonathan Ross	Senior Planner	SHMP 2023 Update Planning Team Member	EM	All
State	Department of Agriculture, Conservation and Forestry – Floodplain Management Program	Sue Baker	CFM, Floodplain Management Program Coordinator	SHMP 2023 Update Planning Team Member	HI	All
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Christine Whelan	Hazard Mitigation Program Assistant	SHMP 2023 Update editor	GSME	All
<b>Mitigation Partners (Stakeholders)</b>						
State	Department of Administrative and Financial Services – Bureau of General Services	Bill Longfellow	Director, BGS	Vulnerable state assets	SA	3
State	Department of Administrative and Financial Services – Maine Office of GIS	Bob Bistras	GIS Manager	GIS resources	GIS	3
State	Department of Administrative and Financial Services – Office of the State Controller	Sheena Greenlaw	Risk Assessor	Vulnerable state assets	SA	3
State	Department of Administrative and Financial Services – Office of the State Economist	Amanda Rector	Economist	Population and development trends	ED	3, 4
State	Department of Agriculture, Conservation and Forestry – Commissioner’s Office	Tom Gordon	Public Service Coordinator	Agricultural vulnerabilities	HFWS	3, 4, 5, 6
State	Department of Agriculture, Conservation and Forestry – Floodplain Management Program	Janet Parker	Planner II	NFIP data, insurance capabilities and mitigation actions	HI	3, 4, 5, 6

Category	Entity	Name	Title	Assistance	Sector	Sections
State	Department of Agriculture, Conservation and Forestry – Land Use Planning Commission	Ben Godsoe	Acting Planning Manager, LUPC	LUPC mitigation authorities	LUD	3, 4
State	Department of Agriculture, Conservation and Forestry – Land Use Planning Commission	Tim Carr	Senior Planner, LUPC Floodplain Coordinator	floodplain mapping updates/progress for UTs and rural areas	LUD	3, 4
State	Department of Agriculture, Conservation and Forestry – Maine Forest Service, Forest Health	Robby Gross	Chief Forest Ranger	Natural hazards (wildfire)	RSME	3, 4, FMAG
State	Department of Agriculture, Conservation and Forestry – Maine Forest Service, Forest Protection	Allison Kanoti	Director of Forest Health and Monitoring	Natural hazards (blight/infestation)	RSME	3, 6
State	Department of Agriculture, Conservation and Forestry – Maine Forest Service, Forest Protection	Kent Nelson	Fire Prevention Specialist	Wildfire mitigation grants/programs	GSME	FMAG
State	Department of Agriculture, Conservation and Forestry – Maine Forest Service, Forest Protection	Jeff Currier	Regional Forest Ranger	Wildfire	RSME	3
State	Department of Agriculture, Conservation and Forestry – Maine Forest Service, Forest Protection	Joe Mints	Special Operations Supervisor	Wildfire	GSME	3, FMAG
State	Department of Agriculture, Conservation and Forestry – Maine Geological Survey	Ryan Gordon	Hydrogeologist	Natural hazards (flood, drought)	RSME	3, 4, 6
State	Department of Agriculture, Conservation and Forestry – Maine Geological Survey	Pete Slovinsky	Marine Geologist	Natural hazards (coastal processes)	RSME	3, 4, 6
State	Department of Agriculture, Conservation and Forestry – Maine Geological Survey	Henry Berry	Physical Geologist	Natural hazards (earthquakes)	RSME	3
State	Department of Agriculture, Conservation and Forestry – Maine Geological Survey	Lindsay Spigel	Senior Geologist	Natural hazards (landslide/mass wasting)	RSME	3, 6
State	Department of Agriculture, Conservation and Forestry – Maine Geological Survey	Steve Dickson	State Geologist	Natural hazards (flood, erosion)	RSME	3
State	Department of Agriculture, Conservation and Forestry – Municipal Planning Assistance Program	Tom Miragliuolo	Senior Planner	Municipal Comprehensive plans	LUD	3, 4, 5
State	Department of Agriculture, Conservation and Forestry – Resource Information and Land Use Planning	Judith East	Director	Land use/development policy	LUD	3

Category	Entity	Name	Title	Assistance	Sector	Sections
State	Department of Agriculture, Conservation and Forestry – Resource Information and Land Use Planning	David Ludwig	Senior Climate Planner	Land use/development policy	LUD	4
State	Department of Defense, Veterans and Emergency Management – Dam Safety Program	Tara Ayotte	Dam Safety Administrator	Dams database, HHPD program	GSME	3, 6, HHPD
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Daisy Mueller	Critical Infrastructure Protection Officer	critical infrastructure data consult	EM	3
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Lynn Walkiewicz	Individual Assistance Officer	Equity and vulnerable communities' guidance	HFWS, UC	5, 6
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Bill Guindon	Mass Care Coordinator	Equity and vulnerable communities' guidance	HFWS, UC	5, 6
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Anne Fuchs	MPR Division Director	Mitigation strategy update and guidance on timeline	EM	4, 5
State	Department of Defense, Veterans and Emergency Management – Maine Emergency Management Agency	Faith Staples	Tech Hazards Program Manager	Commodity flow/SHMP integration mitigation action	EM	6
State	Department of Economic and Community Development – Maine Office of Tourism	Steve Lyons	Director, Maine Office of Tourism	Development and tourism trends	ED	3
State	Department of Environmental Protection – Bureau of Air Quality	Kevin Ostrowski	Air Quality Forecaster	Air Quality risks	RSME	3, 4, 6
State	Department of Environmental Protection – Bureau of Air Quality	Martha E. Webster	Air Quality Forecaster	Air Quality risks	RSME	3, 4, 6
State	Department of Environmental Protection – Bureau of Land Resources	Jeffrey C. Kalinich	Assistant Shoreland Zoning Coordinator	Shoreland Zone	LUD	4, 6
State	Department of Environmental Protection – Bureau of Land Resources, Nonpoint Source Training Center	Kathy Hoppe	Nonpoint Source awareness campaign, DEP	Culvert improvement resources	NCR	4, 5
State	Department of Environmental Protection – Bureau of Land Resources, Nonpoint Source Training Center	John Maclaine	Nonpoint source training center, DEP	Culvert improvement resources	NCR	4, 5
State	Department of Environmental Protection – Bureau of Water Quality	Linda Bacon	Limnologist, Lake Assessment Section Leader	Freshwater HABs/microcystin	NCR	3, 6

Category	Entity	Name	Title	Assistance	Sector	Sections
State	Department of Environmental Protection – Commissioner’s Office	Nathan Robbins	Climate change and adaptation, DEP	Climate resilience efforts via DEP	GSME	3, 4, 5, 6
State	Department of Environmental Protection – Commissioner’s Office	Marybeth Richardson	Office of the Commissioner	Sand Dune erosion	LUD	3, 4
State	Department of Environmental Protection – GIS Unit	John Lynam	GIS Manager	Vulnerable sites regulated by DEP	GIS	3, 6
State	Department of Marine Resources – Bureau of Public Health	Kohl Kanwit	Public Health Bureau Director, DMR	Marine HABs and red tide	HSS	3, 4, 6
State	Department of Marine Resources – Eastern Maine shellfish growing area	David Miller	Shellfish Growing Program, DMR	Marine HABs and red tide	HSS	3
State	Department of Marine Resources – Western Maine shellfish growing area	Bryant Lewis	Shellfish Growing Program, DMR	Marine HABs and red tide	HSS	3, 4, 6
State	Department of Public Safety – Office of the State Fire Marshal	Paul Demers	State Building Official	Building Codes and MUBEC Update	BC	4, 5, 6
State	Department of Public Safety – Office of the State Fire Marshal	Richard McCarthy	State Fire Marshal	Building Codes and resolve to study process of new building code adoption	BC	4, 5, 6
State	Governor’s Energy Office	Ross Anthony	Buildings & Energy Efficiency Analyst	Mitigation Strategy - plan integration with Maine Won't Wait	ES	6
State	Governor’s Energy Office	Allie Rand	Energy Analyst	Energy/grid resilience, Grid Resilience Prog.	GSME	4, 6
State	Governor’s Energy Office	Ethan Tremblay	Energy Policy Analyst	Energy/grid resilience, Energy security	ES	3
State	Governor’s Energy Office	Lisa J. Smith	Senior Planner	Energy sector, State Energy Security Plan	ES	3, 6
State	Governor’s Office of Policy Innovation and the Future	Sarah Curran	Deputy Director, Climate Planning & Community Partnerships	Social vulnerability; climate change	GSME, CC, UC	3, 4, 5, 6
State	Governor’s Office of Policy Innovation and the Future	Hannah Pingree	Director	Mitigation Strategy - plan integration with Maine Won't Wait	GSME, CC, UC	6
State	Governor’s Office of Policy Innovation and the Future	Jessica Scott	Senior Planner	Social vulnerability; climate change	GSME, CC, UC	3, 4, 5, 6
State	Governor’s Office of Policy Innovation and the Future	Brian Ambrette	Sr. Climate Resilience Coordinator	Social vulnerability; climate change	GSME, CC, UC	3, 4, 5, 6
State	Maine Center for Disease Control – Drinking Water Program	Susan Breau	Water Resources Team Leader	Public water risk assessment	HFWS	3, 4, 5, 6
State	Maine Center for Disease Control – Drinking Water Program	Ashley Hodge	Source Water Protection Coordinator	Public water risk assessment	HFWS	3, 4, 5, 6

Category	Entity	Name	Title	Assistance	Sector	Sections
State	Maine Center for Disease Control – Environmental and Community Health	Rebecca DeKeuster	Program Coordinator	Heat-related illness	HSS	3
State	Maine Center for Disease Control – Environmental and Community Health	Rebecca Lincoln	Toxicologist	Heat-related illness, County heat plans	HSS	3, 6
State	Maine Department of Transportation – Environmental Office	Mark Lickus	Hydrologist	Coastal flood modeling	RSME, CC	3, 6
State	Maine Department of Transportation – Environmental Office	Charlie Hebson	Manager, Surface Water Resources Division	State assets; climate change impacts on hazards	TS, CC	3, 4, 6
State	Maine Department of Transportation – Environmental Office	Taylor LaBrecque	Resource Management Coordinator	MDOT State Capabilities and Mitigation Strategy	GSME	4, 6
State	Maine Department of Transportation – Environmental Office	Eric Ham	Sr Environmental manager	MDOT asset vulnerability	TS	3, 4
State	Maine Department of Transportation – Maintenance & Operations Office	Brian Burne	Highway Maintenance Engineer	Severe summer storms; severe fall/winter storms; tropical cyclones	TS	3
State	Maine Department of Transportation – Office of Policy & Research	Dawn Bickford	Product Evaluation Program Coordinator	MDOT State Capabilities and Mitigation Strategy	RSME	6
State	Maine GeoLibrary Board	Claire Kiedrowski	Executive Director	GIS resources	GIS	3, 4, 6
State	Maine Historic Preservation Commission	Christi Chapman-Mitchell	Assistant Director	Historic asset vulnerability and plans for preserving history in Maine	NCR	3, 4, 6
State	Maine Public Utilities Commission	Maria Jacques	Emergency Communications Director	E911 address geocoding; Mitigation Strategy for GIS actions	CS	3, 6
State	MaineHousing	Jane Whitley	Human Resources Director	Disadvantaged communities	HFWS, UC	6
County	Androscoggin County Emergency Management Agency	Angela Molino	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Aroostook County Emergency Management Agency	Darren Woods	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Cumberland County Emergency Management Agency	Michael Durkin	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Franklin County Emergency Management Agency	Amanda Simoneau	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Hancock County Emergency Management Agency	Andrew Sankey	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Kennebec County Emergency Management Agency	Jason Decker	Director	Local Capabilities, Local Mitigation Actions	EM	5

Category	Entity	Name	Title	Assistance	Sector	Sections
County	Knox County Emergency Management Agency	Candice Richards	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Lincoln County Emergency Management Agency	Maury Prentiss	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Knox County Emergency Management Agency; Maine GeoLibrary	Leticia VanVuuren	GIS Administrator, Maine GeoLibrary Board Chair	GIS Risk Assessment Resources, GIS mitigation actions	GIS, UC	5, 6
County	Oxford County Emergency Management Agency	Allyson Hill	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Penobscot County Emergency Management Agency	Bradley Nuding	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Piscataquis County Emergency Management Agency	Jaeme Duggan	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Sagadahoc County Emergency Management Agency	Sarah Bennett	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Somerset County Emergency Management Agency	Mike Smith	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Waldo County Emergency Management Agency	Dale D. Rowley	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	Washington County Emergency Management Agency	Lisa Hanscom	Director	Local Capabilities, Local Mitigation Actions	EM	5
County	York County Emergency Management Agency	Arthur W. Cleaves	Director	Local Capabilities, Local Mitigation Actions	EM	5
Federal	Federal Emergency Management Agency Region I – Mitigation Division, Risk Analysis Branch	Nan Johnson	Senior Community Planner	SHMP Review and FEMA SHMP Guide interpretation	RSME	FEMA Review
Federal	Federal Emergency Management Agency Region I – Response Division FIT	Kara Walker	Emergency Management Specialist	Maine hazard and demographic profiles	EM	3
Federal	National Cohesive Wildland Fire Strategy – Northeastern Region	Larry Mastic	Coordinator, Northeast Region	Wildfire risk assessment	NCR	6
Federal	National Oceanic and Atmospheric Administration – Office for Coastal Management	Jamie Carter	Senior Remote Sensing Analyst	Climate Change Risk Assessment contributor	RSME, CC	3, 4, 6
Federal	National Weather Service – Caribou Weather Forecast Office	Louise Fode	Warning Coordination Meteorologist	Natural hazards (flood, drought, storms)	RSME, CC	3
Federal	National Weather Service – Gray Weather Forecast Office	Justin Arnott	Science and Operations Officer	Hurricane historic record	RSME, CC	3

Category	Entity	Name	Title	Assistance	Sector	Sections
Federal	National Weather Service – Gray Weather Forecast Office	Donald Dumont	Warning Coordination Meteorologist	Natural hazards (flood, drought, storms)	RSME, CC	3, 6
Federal	National Weather Service – Gray Weather Forecast Office	Sarah Jamison	Warning Coordination Meteorologist	Natural hazards (flood, drought, storms)	RSME, CC	3
Federal	United States Army Corps of Engineers – Hydrologic Engineering	Brandon Raymond	Hydrodynamic engineer	Coastal flood modeling	RSME, CC	3
Federal	United States Army Corps of Engineers – Silver Jackets	Sheila Warren	Silver Jackets Coordinator	Coordinating Silver Jackets Partners	CS	3, 6
Federal	United States Geological Survey – New England Water Science Center	Nick Stasulis	Chief, Maine SW/GW Networks	Natural hazards (flood)	RSME, CC	3, 6
Federal	United States Geological Survey – New England Water Science Center	Glenn Hodgkins	Research Hydrologist	Climate change impacts on flood probability	RSME, CC	3
Federal	United States Geological Survey – New England Water Science Center	Pam Lombard	Supervisory Hydrologist	Climate change impacts on flood probability	RSME, CC	3
Tribal Nation	Mi'kmaq Nation	Shawn Newell	Risk Manager	Building trust with Tribal Nations	EM	2, 6
Regional Planning Organization	Greater Portland Council of Governments	Sara Mills-Knapp	Director of Sustainability	Mitigation programs, policy, plans, funding	ED, CC	4, 5
Regional Planning Organization	Lincoln County Regional Planning Commission	Emily Rabbe	County Planner	Mitigation programs, policy, plans, funding	ED, CC	4, 5
Regional Planning Organization	Midcoast Council of Governments	Adi Philson	Planner	Mitigation programs, policy, plans, funding	ED	4, 5
Regional Planning Organization	Southern Maine Planning and Development Commission	Abbie Sherwin	Senior Planner, Coastal Resilience Coordinator	Mitigation programs, policy, plans, funding	ED, CC	4, 5
University	Bowdoin College – Environmental Studies	Eileen Johnson	Professor	Development trends data	GIS	3, 6
University	State Climatologist, University of Maine System – School of Earth and Climate Sciences	Sean Birkel	Maine State Climatologist	Climate change impacts on hazards	RSME, CC	3, 4, 6
University	University of Maine System – Cooperative Extension	Glenn Koehler	Associate Scientist – Integrated Pest Management	Forest pest impacts	HFWS	3
University	University of Maine System – Facilities Management	Gretchen Catlin	Chief Facilities & General Services Officer	Local Capabilities, Local Mitigation Actions	EM	3
University	University of Maine System – School of Civil and Environmental Engineering	Lauren Ross	Associate Professor	Storm surge, harmful algal blooms	RSME, CC	3

Category	Entity	Name	Title	Assistance	Sector	Sections
University	University of Maine System – School of Civil and Environmental Engineering	Shaleen Jain	Professor, P.E.	Climate change impacts on hazards	TS, CC	3, 6
University	University of Maine System – School of Forest Resources	Adam Daigneault	Associate Professor	Freshwater HAB economic vulnerability	NCR, CC	3, 4
University	University of Maine System – University of Southern Maine GIS	Vinton Valentine	Director of GIS	Development trends data	GIS	3, 4, 6
Quasi-governmental	Maine Connectivity Authority	Andrew Butcher	President	Broadband as critical infrastructure	CS	6
Quasi-governmental	Maine Rural Water Association	Matt Demers	Director of Contract Utility Services	Public water systems mitigation actions	HFWS	4, 5, 6
Quasi-governmental	Maine Water Utilities Association	Cindy Wade	Executive Assistant	Public water systems mitigation actions	HFWS	4, 5
Private company	Brookfield Renewable US	Thomas Mapletoft	Senior Water Resource Manager	River basin management systems	RSME	4, 6
Private company	Versant Power	Janet Scully	Emergency Management Agency Lead	Power outage data and grid resilience planning	ES	3, 6
Private - Nonprofit	Gulf of Maine Research institute – Climate Center	Hannah Baranes	Research Assistant Professor	Sea Level Rise projections and mitigation actions	RSME	3, 6
Private - Nonprofit	Maine Community Action Partnership	Multiple organizations	Statewide Organization	Service to disadvantaged communities	HFWS, UC	5, 6
Private - Nonprofit	The Nature Conservancy – Maine Office	Jeremy Bell	Climate Adaptation Program Director	Private sector mitigation projects	NCR, CC	3, 4, 5, 6
Private - Consultant	Beech Hill Research	Amanda Dwelley	Research Analyst	Equity, disadvantaged communities	GSME	6
Private - Consultant	Climate Advisory	Lisa Churchill	Principal Consultant	MDOT asset vulnerability	RSME	3
Private - Consultant	Rothe Associates	Richard Rothe	Principal Consultant	County Hazard Mitigation Plan updates	RSME	5
Private - Consultant	Timmons Group	Chris Gerecke	Director of Enterprise Solutions	Wildfire risk assessment	RSME	FMAG



## 2.3 Plan Integration [S1]

The planning process for the SHMP was integrated to the maximum extent possible, based on current planning activities related to hazard mitigation at the local, county, and state level. Below is a summary of plan integration opportunities that were utilized during the SHMP update process. Not all Mitigation Partners contributed to plan integration, but all provided improvements to the SHMP in various forms.

### 2.3.1 Examples of Plan Integration

#### [Integration with Maine Climate Council Goals](#)

Many of the updated components of the plan integrate elements from “Maine Won’t Wait”, the State’s 4-year climate action plan, and results of the SHMP update will be integrated in other state and county/local climate-based planning mechanisms. Please refer to Section 6 – Mitigation Strategy for more information on how plan integration guided the development of new goals for the Plan.

#### [Integration with Governor’s Office of Policy Innovation and the Future](#)

The Governor’s Office of Policy Innovation and the Future (GOPIF) is proposing to conduct a natural hazards and climate change vulnerability assessment of state and critical private assets. The objectives of this vulnerability assessment intend to utilize and expand upon the SHMP Risk Assessment and is an excellent example of plan integration that will proceed during the active years of this plan. The vulnerability assessment will provide an understanding of: 1) the natural and climate hazards to which assets are exposed, the likelihood of those hazards occurring, and how the intensity and likelihood of those hazards may change over time; 2) the asset’s susceptibility to damage or failure given its location, design, age, condition, and state of repair; and 3) the consequences that impairment or failure of the asset will have on public safety and health, the delivery of state services, impacts to state and local economies, and the environment and natural resources. The assessment will identify “critical infrastructure” assets that are important for public safety and health. The assessment will also give particular attention to areas of the state where socially vulnerable communities and vulnerable state-owned assets overlap. These are communities whose struggle to recover may be improved by reliable services and resilient infrastructure. The vulnerability assessment will make recommendations of risk mitigation and adaptation strategies at the agency policy level and individual asset level for the highest-risk assets. The recommendations will inform state adaptation strategies and serve as a model for local planning and mitigation.

#### [Integration with Local Hazard Mitigation Plans \[S10.d.\]](#)

The SHMP is closely integrated with Local Hazard Mitigation Plans (LHMPs), as they serve similar roles for establishing mitigation programs, but for a local level of government. MEMA leads the update process for the SHMP and provides technical assistance and review services during LHMP plan cycles. County Emergency Management Agencies (County EMAs) and Regional Planning Organizations (RPOs) typically lead the development and update of LHMPs, all of which are multi-jurisdictional. The University of Maine System also holds an approved Multi-jurisdictional Hazard Mitigation Plan. These entities rely on information from the SHMP to appropriately address needs for an approvable plan. Conversely, the SHMP is required to integrate information from LHMPs to provide a more comprehensive assessment of local risks and capabilities, as well as provide a picture of mitigation at multiple levels of government. Please refer to Sections 5 and 6, Local Capabilities and Mitigation Strategy, respectively, for more information on how these planning functions are integrated.

MEMA has made recent strides with modernizing the update process for LHMPs to strengthen local mitigation capabilities, and better serve local governments interested in HMA opportunities. In April 2023, FEMA updated LHMP review guidelines to reflect the importance of incorporating climate change and equity considerations into mitigation. As anticipated, this has made it easier to review and extract information for inclusion in the state plan.

Since all multi-jurisdiction plans utilize the suggested format contained in the guide, this greatly expedited the preparation of the updated SHMP.

To unify plans, all counties were encouraged to use tables to capture items such as risk and capabilities data. Counties are also encouraged to use the Consumer Price Index to capture corrected costs.

#### [Integration with Maine Floodplain Management Program](#)

The Mitigation Goals incorporate actions implemented by the Floodplain Management Program (FMP) to provide the SHMP with a more comprehensive strategy to reduce risk from flooding. Though these actions are largely the responsibility of the FMP, other state agencies assist the program whenever appropriate and seek out other opportunities for plan integration to provide consistent approach to flood mitigation.

#### [Integration with Governor's Energy Office State Energy Security Plan](#)

As noted in the State Energy Security Plan, the State of Maine and its citizens are highly dependent upon energy resources to power our daily lives. A serious energy supply or delivery disruption, a rapid and unsustainable increase in energy prices, or other energy emergency, could bring substantial injury to commercial and industrial activity and to the personal health, safety, and welfare of Maine's citizens. The Governor's Energy Office (GEO) develops the state's plan related to energy emergencies in coordination with the Maine Emergency Management Agency (MEMA) and other stakeholders under U.S. Public Law 94-163, Section 362 (1975), Energy Policy and Conservation Act of 1975, last updated November 15, 2021, and as described in 10 C.F.R. § 420.13(b)(9). The plan is aligned with the Maine Comprehensive Emergency Management Plan (CEMP), managed by MEMA.

The fifth section of the State Energy Plan, Energy Resiliency & Hazard Mitigation, details the state's mitigation strategy to strengthen sector reliability, enhance energy supply resilience for end-users, and securing critical energy infrastructure. The GEO is using the state emergency response plan and SHMP as a starting point, and will seek more granular information from county emergency managers. This includes specific examples of infrastructure at risk. Conversely, GEO has provided guidance to the Planning Team regarding how to assess energy risks, and what current energy resilience resources and projects can be described as capabilities and mitigation actions, respectively.

#### [Integration with Maine Forest Service](#)

Maine Forest Service and MEMA maintain a unified approach to wildfire mitigation through actions documented in Mitigation Goals 1, 2, and 4. Further, this plan update expands on the previous plan by offering objectives for a more comprehensive analysis of land use practices, including guidance from the Forest Policy and Management Division. Finally, the Forest Health Monitoring Division has provided guidance on forest pests as a Tier 2 hazard, leading to new proposed actions under Mitigation Goal 4. their own forest health monitoring, protection, and policy goals to this plan update where they align with the hazard mitigation goals. Many of these concepts were integrated into the SHMP from the 2020 Maine Forest Action Plan<sup>6</sup>.

#### [Integration with Maine GeoLibrary Strategic Plan Update](#)

The capabilities offered by Maine GeoLibrary are crucial for the development of SHMP and LHMP risk assessments. To ensure these geospatial capabilities remain relevant, it is necessary to integrate the Mitigation Strategy with the Maine GeoLibrary Strategic Plan<sup>7</sup>. All mitigation actions based on leveraging or improving GIS resources are informed by feedback from GeoLibrary partners.

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<sup>6</sup> Maine Forest Action Plan: [https://www.maine.gov/dacf/mfs/about/action\\_plans/Maine%20Forest%20Action%20Plan%202020.pdf](https://www.maine.gov/dacf/mfs/about/action_plans/Maine%20Forest%20Action%20Plan%202020.pdf)

<sup>7</sup> Maine Geolibary Strategic Plan: <https://www.maine.gov/geolib/StrategicPlan/index.html>

The updated strategic plan will provide a blueprint for financing Board operations, data acquisition and hosting, and dissemination of geospatial data to the greater GIS community and the public. This plan will form the basis for completing and maintaining the Board's OneMAP for ME program. Integration is based on GeoLibrary strategic initiatives, which encompass many of the capabilities MEMA depends on to complete the SHMP update. These strategic initiatives include GIS database development, portal development, land records modernization, data sharing and distribution, and education/outreach.

#### [Integration with DEP Priorities and Commitments](#)

In 2021, the Department of Environmental Protection (DEP); Department of Agriculture, Conservation, and Forestry (DACF); Department of Marine Resources (DMR); Department of Inland Fisheries and Wildlife (DIFW); Department of Transportation (DOT); the Maine Office of the Attorney General (OAG); and MEMA, assembled a preliminary list of laws and rules administered by each agency where regulated activities could be impacted by sea level rise, storm surges, or flooding. DEP identified changes to statutes and rules for solid waste facilities, sites that have a substantial effect on the environment, protected natural resources, stormwater management, certain critical infrastructure, and contractor training. DEP has begun to convene partners to begin developing revisions, and to adopt changes to several rules concurrently and ongoing. In this way, DEP has already started integrating risk data for sea level rise scenarios into planning and regulation changes.

#### [Integration with Maine DOT Vulnerability Assessment](#)

Maine DOT is experiencing the effects of climate change first-hand<sup>8</sup>. In 2022, a number of large storm events resulted in infrastructure failure, causing the roads to be impassible, extended detours, and millions of dollars in damage. As noted in the Maine Climate Council's [Vulnerability Mapping Report](#), many culverts across the state have greater than 66% chance of overtopping within the next 30 years (75-year or greater recurrence interval peak flows). Additionally, along the coast, the Maine Climate Council recommends a commitment to manage 1.5 feet of relative sea level rise by 2050, and 3.9 feet of sea level rise by 2100. The data and science to support this recommendation are included in the [Scientific Assessment of Climate Change and Its Effects in Maine](#), which is also available on the [Maine Climate Council Website](#).

To lower the risk of future damage to infrastructure, Maine DOT has taken a number of steps to reduce vulnerability to climate change for transportation assets and other infrastructure including creation of a vulnerability assessment. Maine DOT's vulnerability assessment integrates with the SHMP Risk Assessment by sharing a number of geospatial resources focused primarily on inland and coastal flooding. Based on the vulnerability assessment, a number of mitigation actions relating to common interests between Maine DOT and MEMA are provided in the SHMP.

#### [Integration with FEMA Programs](#)

Since a pre-requisite of FEMA funding is the existence of approved local and state plans, the three programs that are most integrated to the plans are: the Building Resilient Infrastructure and Communities (BRIC) grant program; the Hazard Mitigation Grant Program (HMGP); and the Flood Mitigation Assistance (FMA) grant program. Others are provided in greater detail in Section 4 – State Capabilities. Going forward, the projects identified in the local plans will continue to be linked to the overarching goals of the state plan for all natural hazards. MEMA and other state agencies will also continue to work with and support FEMA's Risk Map program which, in turn, will lead to better flood plain management through better maps, education, and state support of local code enforcement officers.

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<sup>8</sup> MaineDOT Adapting to Climate Change: <https://www.maine.gov/mdot/climate/adaptation/>

### Further Interests in Plan Integration

In the future, MEMA will look to partner with other state agencies to incorporate economic and housing development into the State Hazard Mitigation Plan. With factors such as disabled and/or aging populations, and economic development particularly within coastal communities it is essential that collaboration amongst groups occurs as a proactive means to address changing or increasing vulnerability. The extent of current exposure to economic development and/or housing factors resides within applicant interest in FEMA funded grant programs. Such issues are not usually brought to MEMA's attention until a person or party inquires about federal funding.

## **2.4 Plan Update Schedule, Time Frame, Milestones [S1]**

Figure 2.1 shows the schedule of the 2023 SHMP update, and specific meetings and milestones met during the process. The plan update was segmented into plan sections. The Risk Assessment and Planning Process sections underwent the earliest edits in order to build an updated understanding of risk and document participation by Mitigation Partners, respectively. These updates needed to begin prior to updates to State/Local Capabilities and the Mitigation Strategy, as these sections are designed to address risk. Planning Process updates continued throughout the update process to continue documentation of new Mitigation Partners and their contributions.

The Planning Team began updating the Capabilities Assessment upon completion of an initial Risk Assessment in November 2022. The Risk Assessment was submitted to FEMA's Region I Mitigation Division for an informal review while the review process commenced for other sections. The capabilities section includes state and local capabilities, and identified capability gaps based on analysis of the Risk Assessment. The Mitigation Strategy update began as the capability gaps became more apparent.

Though edits to the Plan Maintenance section were less substantive than in other sections, some major changes were included to better address FEMA's new SHMP guidelines. Also, a more comprehensive 5-year plan cycle time frame is provided, including timing to apply for a BRIC plan update grant.

This SHMP update accounted for a single 45 business day period for FEMA plan review. In the future, FEMA recommends accounting for two full federal review periods in case major revisions are required. However, the remaining plan update time frame accounts for final coordination among Mitigation Partners, final revisions, FEMA's designation of Approvable Pending Adoption status, and final adoption by the Governor.

Multiple activities were coordinated with Planning Team members, Mitigation Partners, and the public audience. These opportunities are described in further detail below.

## 2.4.1 Planning Team Activities

### Planning Team Kickoff

The Planning Team kicked off the SHMP update process on March 15, 2022. This meeting established roles and responsibilities of the plan update based on interpretation of the Plan Maintenance section of the 2019 SHMP. It was agreed that MEMA's Natural Hazards Planner would lead the plan update process, based on similar responsibilities for reviewing and providing technical assistance for LHMPs. At this time, it was decided that, based on the 2019 Plan Maintenance, the full Planning Team would consist of MEMA staff and the State NFIP Coordinator, but future Planning Teams may include representatives from other partner agencies. The Planning Team agreed that given many changes in risk associated with climate change, and new focus on disadvantaged communities by Maine government, members decided to engage a large number of stakeholders representing a diversity of relevant interests.

It was agreed that the Risk Assessment would require updates first, followed by capabilities and mitigation strategy. Many geospatial resources were already being used to support Maine's Hazard Mitigation Assistance program, and a plan was laid out to incorporate these resources into a public online map tool. The importance of documenting stakeholder participation was also expressed, and a list of participants was created for inclusion in the Planning Process section. Finally, a need was expressed for funding support for future SHMP updates, and a plan was established to apply for a BRIC plan update grant prior to the 2028 SHMP update.

### Timeline Review

The Planning Team met with MEMA's Mitigation, Planning and Recovery Division Director to confirm the meeting timeline and solidify plan update roles and responsibilities.

### State-FEMA Consults

State-FEMA consult meetings are hosted by FEMA Region I Mitigation Division partners on an annual basis to introduce new staff, review progress towards mitigation goals, and to address needs for assistance. The Plan update process was outlined by the Planning Team, in addition to the process for integrating data from Maine LHMPs into the SHMP, and vice-versa.

### Equity Recommendations

On September 9, 2022, Maine Climate Council's Equity Subcommittee, led by GOPIF Mitigation Partners, met with MEMA and other state agencies to provide a review of recommendations for defining equity in Maine, demonstration of tools for monitoring equity based on demographic data, and prioritizing resilience/mitigation projects that support equity across the state. Other related meetings hosted by the Equity Subcommittee featured trust-building conversations with tribal nations. These recommendations guided vulnerability analyses, introduced new state and local capabilities, and established new mitigation actions to support equitable implementation of mitigation program.

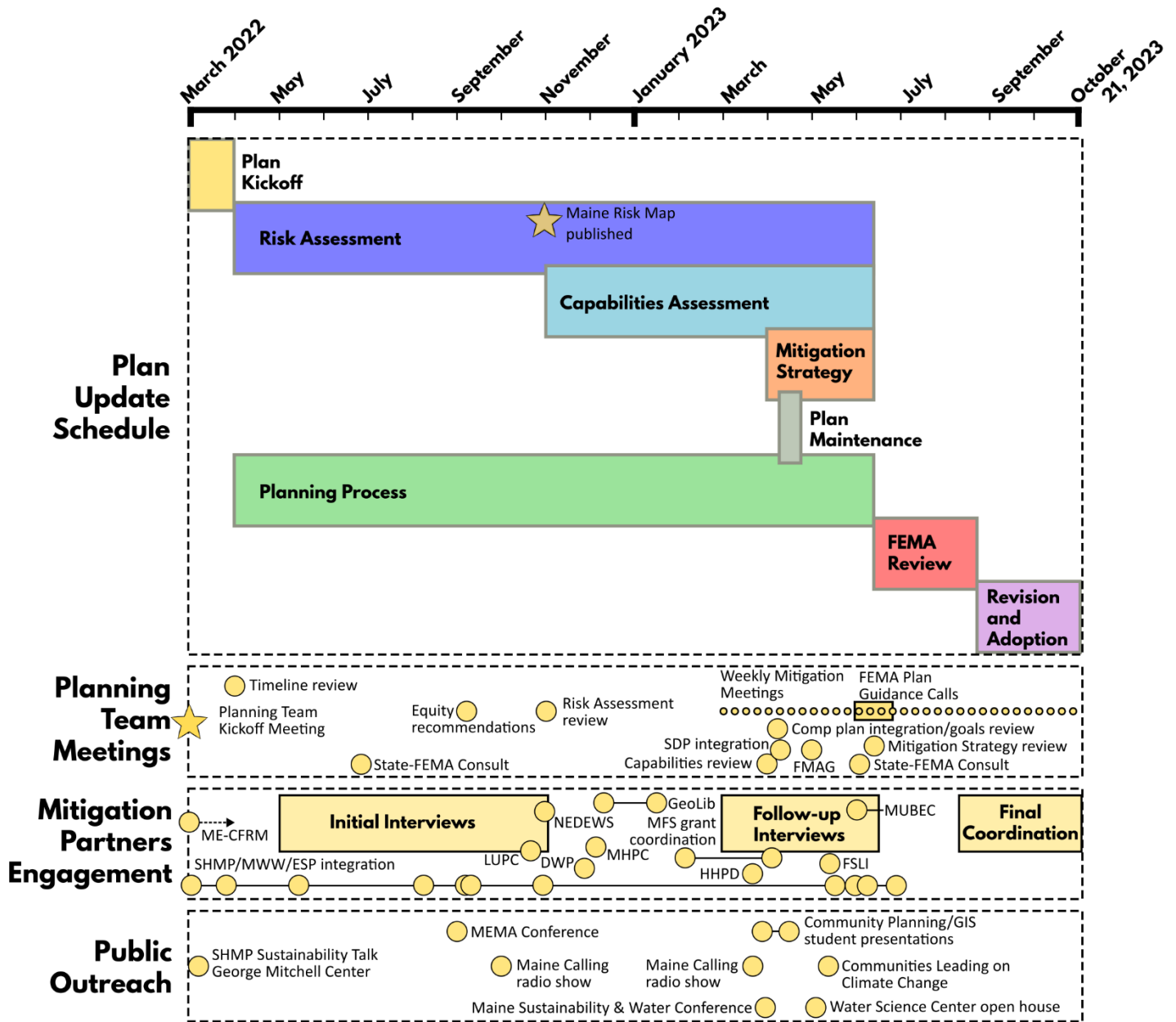


Figure 2.1: SHMP update schedule and milestones, Planning Team meetings, Mitigation Partners engagement activities, and public outreach opportunities.

[Risk Assessment Review](#)

On November 8, 2022, the Planning Team met to review progress on the Risk Assessment. Many substantial changes were made since the 2019 SHMP, based on input and resources provided by Mitigation Partners. The Planning Team decided that the Risk Assessment update was in suitable enough condition to be submitted to FEMA for an informal review and initial feedback. This was an important step because in April 2022, new SHMP review guidelines were presented by FEMA, and the Planning Team wanted to be sure that revisions met these new guidelines.

Some gaps in information were noted and additional minor edits continued after submission of the Risk Assessment to FEMA on November 22, 2022.

### [Weekly Mitigation Meetings](#)

Weekly meetings were established in March 2023 to track progress and better communicate needs for the SHMP update. These meetings are also used to strengthen ties between planning and grant sections of the Mitigation, Planning, and Recovery Division of MEMA. As a result, new information has been incorporated into the capabilities assessment regarding a larger number of funding resources that support hazard mitigation, in addition to FEMA Hazard Mitigation Assistance (HMA).

### [Capabilities Review](#)

On April 4, 2023, the Planning Team presented a review of all documented state and local mitigation capabilities, including policies, programs, practices, regulations, and funding. Particular attention was paid to land use and development regulations, building codes, and FEMA HMA funding, though more than one hundred different capabilities were identified. After this meeting, additional capabilities were added based on frequent suggestions by Mitigation Partners.

### [Comprehensive Plan Integration and Mitigation Goals Review](#)

The Planning Team met on April 5, 2023, to establish a strategy to incorporate the SHMP into MEMA's Comprehensive Plan. This time was also used to check in with team members and institute the new mitigation goals, and the process of integrating the SHMP into other state plans. The mitigation goals are a high-level representation of plan integration, as noted here and in the Mitigation Strategy section.

A more detailed conversation during this meeting led to a review of old mitigation actions, evaluating whether these were completed, ongoing, or required carryover or modification under the new mitigation goals. Additionally, new mitigation actions were also presented, reviewed, and eventually approved by the Planning Team. This meeting also kicked off requests for feedback from Mitigation Partners.

### [Substantial Damage Plan Integration](#)

On April 12, 2023, The Planning Team met to discuss integration with Maine Floodplain Management Program's Substantial Damage Plan (SDP). It was noted that plan integration will need to occur at a later time, given the timeline requirements for SHMP approval, and this was included as a mitigation action. The current SDP is included in the SHMP as an appendix entry.

### [FMAG Requirements Review](#)

On May 1, 2023, the Planning Team met with FEMA partners to discuss the Fire Management Assistance Grants (FMAG) program. After this meeting, the Planning Team confirmed and addressed remaining requirements for the state to remain FMAG compliant through the next SHMP cycle.

### [FEMA Plan Guidance Calls](#)

Starting on May 31, 2023 and proceeding with five meetings through early June, members of the Planning Team met with FEMA Region I Senior Planner and reviewer for the Maine SHMP, to review plan guidelines and better ensure that all plan elements were met.

### [Mitigation Strategy Review](#)

On June 12, 2023, members of the Planning Team finalized the list of mitigation actions. An overview conversation of progress was necessary to organize input from 118 participants, which led to the new creation or carryover of 146 mitigation actions, representing stronger integration of the SHMP with many other state planning mechanisms.

## 2.4.2 Mitigation Partner Activities

Mitigation partner activities consisted of meetings and interviews. The largest meetings were coordinated by the Maine Climate Council Community Resilience and Climate Equity subcommittees, which offered many opportunities to present on the SHMP update process and progress/improvements, request feedback from specific sectors, and to pursue opportunities to integrate the SHMP with other state planning mechanisms. Many of the meetings coordinated by the Planning Team with Mitigation Partners were smaller scale and intended to accomplish specific plan update goals. Further interactions with Mitigation Partners took the form of interviews, where the Planning Team requested more information about risks identified by each partner, capabilities that exist within their organization that aid mitigation, ideas on how to improve mitigation for their organization in the next five years, and current or future planning mechanisms that can be integrated with the SHMP. Finally, many loose ends from meetings and interviews were resolved through emails and phone calls.

### SHMP/MWW/ESP Integration

Mitigation Partners met with the Planning Team members on 11 different occasions to identify opportunities for plan integration between the SHMP and Maine Won't Wait (MWW), however, through this process there became a broader interest for incorporating many other planning mechanisms as well, which are identified above. One of these is the State Energy Security Plan (ESP). The focus on plan integration was an important motivator for Mitigation Partners to participate in the SHMP update process and contribute information relevant to hazard mitigation into all parts of the plan. These meetings were often led or facilitated by GOPIF but involved many additional agencies including the Governor's Energy Office (GEO), Maine DOT, DEP, Department of Administrative and Financial Services (DAFS), DACF, and MEMA.

Specific topics for plan integration focused on establishment of updated SHMP mitigation goals that not only continue to support the mission of hazard mitigation in Maine, but also work to strengthen state capabilities by joining forces with a larger number of agencies interested in climate resilience and climate equity.

Through these meetings, MEMA has also contributed to GEO's process for selecting projects for the Grid Resilience Program, establishment of geospatial grid resilience web tools, and updates to the ESP as noted above.

### Initial Interviews and Follow-up Interviews

The Planning Team hosted numerous interviews in person and virtually using Microsoft Teams and Zoom. Interviewees were selected based on their participation in previous SHMPs, their demonstration of subject matter expertise through other projects, and their involvement in the Maine Climate Council. The focus of these interviews was initially to fulfill requirements for the Risk Assessment, but conversations also focused on capabilities and mitigation actions. These interviews led to the reorganization of the Risk Assessment and inclusion of hazard profiles for new "Tier 2" hazards, which are of growing concern in Maine due to climate change.

Follow-up interviews were conducted later on in the process, after the informal review of the Risk Assessment was completed. Follow-up interviews focused primarily on solidifying State Capabilities, Local Capabilities, and the Mitigation Strategy. Follow-up interviews informed the creation of new goals, problem statements that connect with capability gaps, and mitigation actions that address these gaps.

For example, the Planning Team met with officials from the National Weather Service and US Geological Survey to discuss updating the hazard profile data contained in this plan. Meeting highlights included the discussion of historic storm events, traditional weather patterns, and the degree to which current weather trends are sensitive to climate change impacts.



The Planning Team also met with faculty from the University of Maine Senator George J. Mitchell Center for Sustainability Solutions, to examine opportunities to integrate the University's work, as it relates to climate change and disadvantaged and underserved communities with the SHMP. The Planning Team met with the State Climatologist and many other supportive faculty to update climate change aspects of the Risk Assessment and encourage stronger government-university collaborations in the future. The group also discussed opportunities to collaborate with students on projects pertaining to climate change mitigation, adaptation, and how to incorporate land use planning with post-disaster recovery.

#### [ME-CFRM](#)

Multiple meetings were facilitated by Maine DOT to plan a Maine Coastal Flood Risk Model (ME-CFRM). MEMA provided information from the Risk Assessment on the recurrence interval of major coastal flooding events, and a timetable has been provided for the ME-CFRM model. This model will be a dramatic improvement in current coastal flood models, as it will combine storm surge scenarios with sea level rise and riverine flooding, all based on improved LiDAR data and storm intensity data. The completion of ME-CFRM is a mitigation action in this SHMP update

#### [LUPC Hazard Mitigation Planning Meeting](#)

The Planning Team joined Land Use Planning Commission (LUPC) staff to present on the formal process for LHMP and SHMP update and review. LUPC, a commission within DACF, is a crucial partner for hazard mitigation planning, as they are responsible for enforcing Maine's Shoreland Zoning Law and ensuring participation in the National Flood Insurance Program (NFIP) in the Unorganized Territory, which takes up the majority of Maine's land area. In this LUPC meeting, the Planning Team received information about various risks noted in the unorganized territory, current capabilities to administer land use laws and ordinances, and how these capabilities could be improved in the future for purposes of reducing risk.

#### [NEDEWS Partners Meeting](#)

The Northeast Drought Early Warning System (NEDEWS) Partners Meeting was held on November 1, 2022. In this meeting, members of the Planning Team presented on drought data from Maine's 2020-2022 drought and gained a more comprehensive insight into regional drought trends, locations and intensities, and the recurrence interval of impactful drought. Additional tools for measuring drought risk were also utilized in the SHMP, based on input from this important meeting, which had not been held since prior to the COVID pandemic.

#### [DWP Coordination Meeting](#)

The Maine Department of Human Health, and Services Center for Disease Control Drinking Water Program (DWP), met with the Planning Team to discuss plans to identify vulnerable sources of public water supplies. MEMA coordinated with DWP, who provided GIS locations of water abstraction sites, to conduct an overlay analysis with hazard layers including flood, storm surge, and wildfire hazard overlays. This data was then provided to DWP for their own planning mechanisms. Results were aggregated by MEMA to remove locations of sensitive water infrastructure and presented within the SHMP Risk Assessment, thereby demonstrating basic practice for plan integration.

### [MHPC Coordination Meeting](#)

The Planning Team met with a representative of the Maine Historic Preservation Commission (MHPC) to discuss known vulnerabilities to state and federally recognized historic sites, and whether hazard mitigation is a consideration in preserving these sites. This meeting was initiated by the Planning Team after review of the 2021 MHPC survey report “Weathering Maine: Historic properties and climate change planning in Maine<sup>9</sup>.” This report studied whether historic properties and cultural resources are included in local climate change planning efforts. It was found through this report that only 22% of communities have started planning to prepare for the physical effects associated with extreme weather events or changing climate, while only 11 communities in Maine have specifically considered cultural and historic resources, most of which are located on the coast.

To help communities and the public to identify risk of historic features from flooding and sea level rise, MHPC has developed the Historic Properties Toolkit<sup>10</sup>.

### [GeoLibrary Coordination Meetings](#)

The Maine GeoLibrary (reference to GeoLib) provides public access to crucial geospatial information, including asset locations and hazard layers used for this Risk Assessment. MEMA’s Natural Hazards Planner coordinated with the GeoLibrary Board to incorporate public GIS data to its greatest potential. The GeoLibrary Board Chairperson also offered guidance on a number of GIS-focused mitigation actions that would further enhance the quality of future risk assessments. These conversations focused on the challenges of tracking development trends in Maine, a home rule state with little to no state oversight on construction and septic permitting. One approach may be to track new additions to addressable structures, though the frequency of updates for new addresses differs by municipality. As a result of this process, MEMA has been invited to coordinate with the GeoLibrary Board to contribute to their next strategic plan update.

### [MFS Grant Coordination](#)

The Planning Team met on several occasions with the Maine Forest Service (MFS). These conversations were initiated with a need for updating the Risk Assessment, but quickly transitioned to strategies for mitigation grant coordination. At the time of this SHMP update, MEMA is not yet fully coordinated with MFS, but there is a stronger understanding of how HMA and wildfire mitigation grants overlap, and best practices to direct potential applicants to the most eligible and least competitive program. Please refer to Section 4 – State Capabilities and Section 6 – Mitigation Strategy for more details.

Discussion points from the meeting also included impacts of the 2020-2022 drought on wildfire potential, Maine’s increasing vulnerability to wildfires due to Maine’s aging housing stock, and how the shrinking population base in rural areas makes it more difficult to support volunteer fire departments.

Coordination with MFS also introduced the Planning Team to the 2020 Maine Forest Action Plan and opportunities to incorporate important forest-based mitigation ideas into the SHMP. These conversations led to plan integration with the Director of Forest Health and Monitoring on the topic of invasive and native forest pests, and associated forest health issues that appear to be expanding under current climate change trends. An entire Hazard Profile was included in Section 3 – Risk Assessment in order to address this growing issue and properly integrate the interests of MFS and MEMA.

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<sup>9</sup> Weathering Maine: [https://www.maine.gov/mhpc/sites/maine.gov/mhpc/files/inline-files/Weathering%20Maine%20Report\\_0.pdf](https://www.maine.gov/mhpc/sites/maine.gov/mhpc/files/inline-files/Weathering%20Maine%20Report_0.pdf)

<sup>10</sup> MHPC Historic Properties toolkit: <https://www.maine.gov/mhpc/programs/protection-and-community-resources/climate-change>

### HHPD and Dam Safety Coordination

Members of the Planning Team met on several occasions with the DSP as noted above. In this meeting on March 27, 2023, the Planning Team discussed HHPD requirements with the DSP Administrator. Rules for HHPD eligibility were discussed, and a list of eligible dams was formed. This list is provided as an appendix.

This meeting was also a time to discuss current challenges faced by the understaffed DSP, and is included as a problem statement and series of mitigation actions in Section 6 – Mitigation Strategy.

### FSLI Coordination

MEMA's Natural Hazard Planner applied for and received funds to hire an intern for the summer of 2023 in order to assist with some late-stage aspects of the SHMP update. These funds were provided in part by the Future Sustainability Leaders Internship program, sponsored by the Senator George J. Mitchell Center for Sustainability Solutions at the University of Maine. This meeting was held to coordinate state partners, academic partners, and interns as they began work on various state programs. Many state agencies represented by Mitigation Partners in the SHMP were in attendance at the meeting, and it provided an excellent opportunity to strengthen state and university coordination through unified interests in training students. This meeting, among other interviews with university faculty, led to changes in mitigation goals to represent the importance of research faculty for finding new and innovative ways to reduce risk from natural hazards.

### MUBEC and Building Codes Coordination

The Planning Team met with officials from the Office of the State Fire Marshall (SFM) to discuss the Maine Uniform Building and Energy Code, and its significance for hazard mitigation. Building codes are of great interest because when updated and implemented effectively, they can be used to mitigate against all hazards.

The SFM provided important insight on implementation of MUBEC, as reported in Section 4 – State Capabilities. Currently, MUBEC is undergoing an update process to adopt 2021 building and energy codes from the International Code Council.

There are many challenges with enforcing modern building codes in rural parts of Maine, as SFM is only responsible for updating and managing MUBEC and training code enforcement officers, they have no regulatory authority, nor do they have funding to oversee permitting and inspections that are managed on a municipal level. The challenges and potential solutions to this issue are further described in Section 6 – Mitigation Strategy.

The family of codes included in MUBEC are focused in large part on the environmental factors that can impact structural stability and safety, and as a result share the same objective as the SHMP Risk Assessment.

### Final Coordination

The Planning Team has afforded time after the FEMA plan review process to coordinate with Mitigation Partners once more to confirm potential revisions requested by FEMA and review all aspects of the plan one final time. The Governor will then be presented with a final version of the plan to review and adoption. Refer to Figure 2.1 and Section 7 – Plan Maintenance for more information on the structure of final coordination.

### 2.4.3 Public Outreach Opportunities

The Planning Team took advantage of several public outreach opportunities to present the SHMP update to a broader audience and communicate the importance of hazard mitigation. These opportunities included a talk given by the Natural Hazards Planner in March 2022, two Maine Calling radio shows hosted by Maine Public Radio, presentations to university students in community planning and GIS degree programs, a poster presentation at the Maine Sustainability and Water Conference, and an open house event at the New England Water Science Center. The State Hazard mitigation Officer also attended the Communities Leading on Climate Conference (CLCC).

#### MEMA Conference – Maine Partners in Preparedness

Meeting Dates: August 31 – September 31, 2022

The Maine Partners in Preparedness Conference was attended by over 400 participants from both the private and public sectors. Each year this statewide conference features keynote speakers who address current situations. Since the first conference, topics have ranged widely from local to global hazards. Breakout sessions ranged widely from preparedness to mitigation with topics including school safety, floodplain management and mapping, pet sheltering, and community resilience efforts in coastal Maine.

### 2.4.4 Additional Meetings of Importance

#### County and Local Directors

Monthly Meeting Dates: March 2022 – July 2023

MEMA meets with County Emergency Management Directors and local officials on a monthly basis, with multiple opportunities to coordinate efforts for LHMP and SHMP updates. County EMAs are the primary contributor of information from LHMPs used within the SHMP.

#### Drought Task Force

Meeting Dates: Summer 2020 to Fall 2022

The Drought Task Force, led by members of the state's River Flow Advisory Commission, convened in Summer 2020 for the first time since 2016 and continued to meet monthly during times of significant drought impacts through Fall 2022. The Drought Task Force is co-chaired by MEMA and USGS and brought representatives from the National Weather Service, Maine Geological Survey, Maine Center for Disease Control, the Department of Environmental Protection, and the Maine Public Utilities Commission. All community lifeline sectors are represented in Drought Task Force and River Flow Advisory Commission meetings.

#### River Flow Advisory Commission

Meeting Dates: March (annually)

The River Flow Advisory Commission, which is co-chaired by the Maine Emergency Management Agency and the United States Geological Survey, meets annually in March to facilitate communication of river flow data between dam operators, river basin managers, and state and federal agencies. The Maine River Flow Advisory Commission is composed of representatives from eight major river basin management operations, seven state agencies, two federal agencies, and the University of Maine. This meeting is a crucial opportunity for communicating with high hazard potential dam operators, who contribute information to river flow conditions. As the HHPD program grows in Maine, these contacts will be the first to receive training and technical assistance.

## Technical Assistance to Jurisdictions

(2021 – 2025)

All sixteen of the county (multi-jurisdictional) LHMPs, the University of Maine System LHMP, and a number of Tribal Plans are in the process of being updated by 2025. During this time, the state has provided technical assistance through workshops, individual planning meetings, and individual plan reviews. After initial meetings with planners, most of the draft section reviews were conducted through email and phone calls.

## 2.5 Resources used to Update the Plan

In addition to direct contributions by Mitigation Partners, the 2023 SHMP Update was developed utilizing input from many resources that are referenced throughout the plan as footnote citations. Hundreds of resources were used to improve the plan and cannot be practically listed here. However, there are a smaller number of resources that were instrumental in the plan update process, and these are referenced here:

Maine State Hazard mitigation Plan – 2019 Update<sup>11</sup>

Information obtained during preparation of 2018-2023 county LHMPs

Maine Won't Wait: a Four-Year Plan for Climate Action<sup>12</sup>

Maine's Climate Future: 2020 Update<sup>13</sup>

Maine Risk Map<sup>14</sup>

Review of Maine Dam Safety records

Review of materials, reports and data provided by other agencies

Federal Disaster Declarations and Emergency Declarations for Maine

Review of New England and other approved state plans

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<sup>11</sup>[https://www.maine.gov/mema/sites/maine.gov.mema/files/inline-files/State%20Hazard%20Mitigation%20Plan%202019%20Update\\_10.8.2019.pdf](https://www.maine.gov/mema/sites/maine.gov.mema/files/inline-files/State%20Hazard%20Mitigation%20Plan%202019%20Update_10.8.2019.pdf)

<sup>12</sup>[https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait\\_December2020.pdf](https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf)

<sup>13</sup>[https://digitalcommons.library.umaine.edu/climate\\_facpub/6/](https://digitalcommons.library.umaine.edu/climate_facpub/6/)

<sup>14</sup><https://experience.arcgis.com/experience/202cb7e1444c4881b44b7586136ef9e7/>