Water Resources Planning Committee

Maine Department of Agriculture, Conservation, and Forestry

December 18, 2024

Agenda

1. Introductions and review of WRPC mandate
2. Updates on MGS staff
3. Floods, storms, and drought: the year in review

- 5-MINUTE BREAK -

4. Updates from MGS
5. Updates from other members and groups
6. Legislative and policy discussion
7. Public comment period
8. Future meeting topics

Committee Membership

Seat	Name	Organization
1	vacant	MGS
2	Craig Lapine	DACF Food and Rural Resources
3	Jordan McColman	PUC
4	Mark Margerum	DEP
5	Stacie Beyer	LUPC
6	Susan Breau	DHHS Drinking Water Program
7	Jeannie Tapley	Maine Potato Board
8	Mary Jane Dillingham	MaineWater and Maine Water Utilities Assoc
9	Mark Dubois	Poland Spring
10	Bertrand Kendall	retired Denmark Town Manager
11	vacant	“EXPERTISE IN THE ENVIRONMENT AND CONSERVATION”
12	Dirk Gouwens	Ski Maine
13	Susan Gallo	Maine Lakes
14	Stacy Thompson	City of Saco WRRD
15	Ryan Gordon	MGS
16	Jessica Meeks	MGS
17	David Bell	Cherryfield Foods Inc
18	Annie Watson	Sheepscot Valley Farm
19	Kate Warner	Maine Rural Water Assoc
20	Andrew Beahm	Maine Audubon
21	Dan Kuznierz	Penobscot Nation

WRPC Mandate

APPROVED
APRIL 30, 2019
BY GOVERNOR

CHAPTER
67
PUBLIC LAW

STATE OF MAINE

IN THE YEAR OF OUR LORD

TWO THOUSAND NINETEEN

H.P. 162 - L.D. 199

An Act To Create the Water Resources Planning Committee

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 5 MRSA Pt. 15-C is enacted to read:

PART 15-C

WATER RESOURCES PLANNING COMMITTEE

CHAPTER 357

WATER RESOURCES PLANNING COMMITTEE

§6401. Water Resources Planning Committee

1. Water Resources Planning Committee. The Water Resources Planning Committee, as established in section 12004-I, subsection 68-C and referred to in this subsection as "the committee," is established in the Department of Agriculture, Conservation and Forestry.

Summary of WRPC Goals

Plan for the sustainable use of water resources. The committee shall focus on:

1. Collecting and reviewing information regarding water withdrawal activities;
2. Coordinating state water resources information; and
3. Identifying watersheds at risk by refining the most recent analysis of watersheds at risk performed by the . . . Maine Geological Survey, including:
    a) Conducting appropriate water resources investigations in watersheds at risk;
    b) Considering projected increased water use by population, agricultural irrigation, commercial users, industrial users and other users;
    c) Considering seasonal use;
    d) Considering potential effects of climate change;
    e) Considering the effects of anticipated future water quality classification changes on the availability of water for withdrawal;
    f) In establishing priorities for further investigations, seeking input from the user community, from towns dealing with multimunicipal aquifers and from towns with significant local aquifers; and
    g) Developing guidelines for consistency in further investigations.

Summary of WRPC Goals

Review state policy with regard to:

1. Conservation of water resources;
2. Development of regional sources and solutions to water use issues;
3. Incentives for stewardship of water resources; and
4. Effects of surface water quality improvements on water withdrawal opportunities.

The committee shall provide guidance to municipalities and water districts and develop and disseminate educational materials on water resources and the regulatory regime.

The Year in Review


DACF Maine Foliage

- December 18-19, 2023: Rain and snowmelt flooding
- January 10 and 13, 2024: Coastal storms and high tides
- September-present: flash drought followed by continued dryness


Hallowell (Gordon)


Owls Head (C.L. Alden, Reuters)

December Floods

- December 11: Rainstorm that saturated snow and soil, and raised rivers

- December 18: Warm, slow-moving rainstorm with very high winds and humidity
  - “exceptional” atmospheric river event (NWS)
- Flash snowmelt: 1-4 inches of snowmelt water equivalent
  - “This was an extreme melt event of rare magnitude.” (NWS)
- 19 USGS gages reached major flood stage
- 3rd highest flood on major rivers since 1900
- Small stream and overland erosion was severe, especially in high terrain

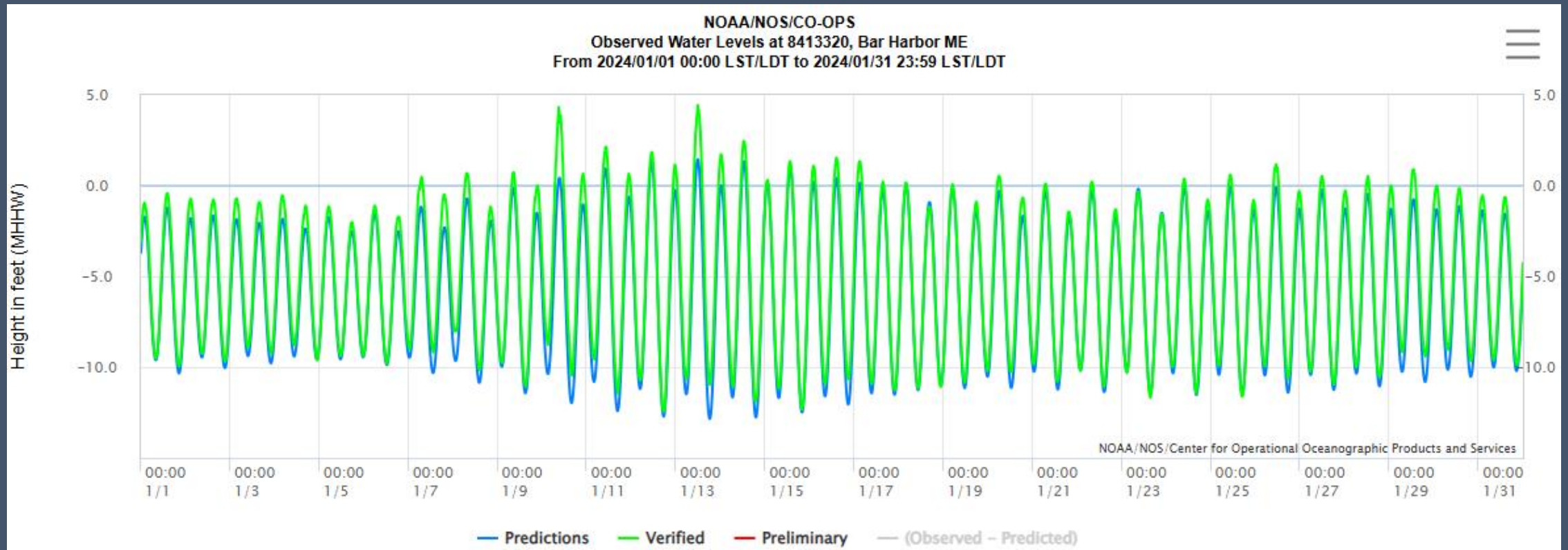
Hallowell (USGS)

Hallowell (Gordon)

Auburn (T. R. Bennett, Bangor Daily News)

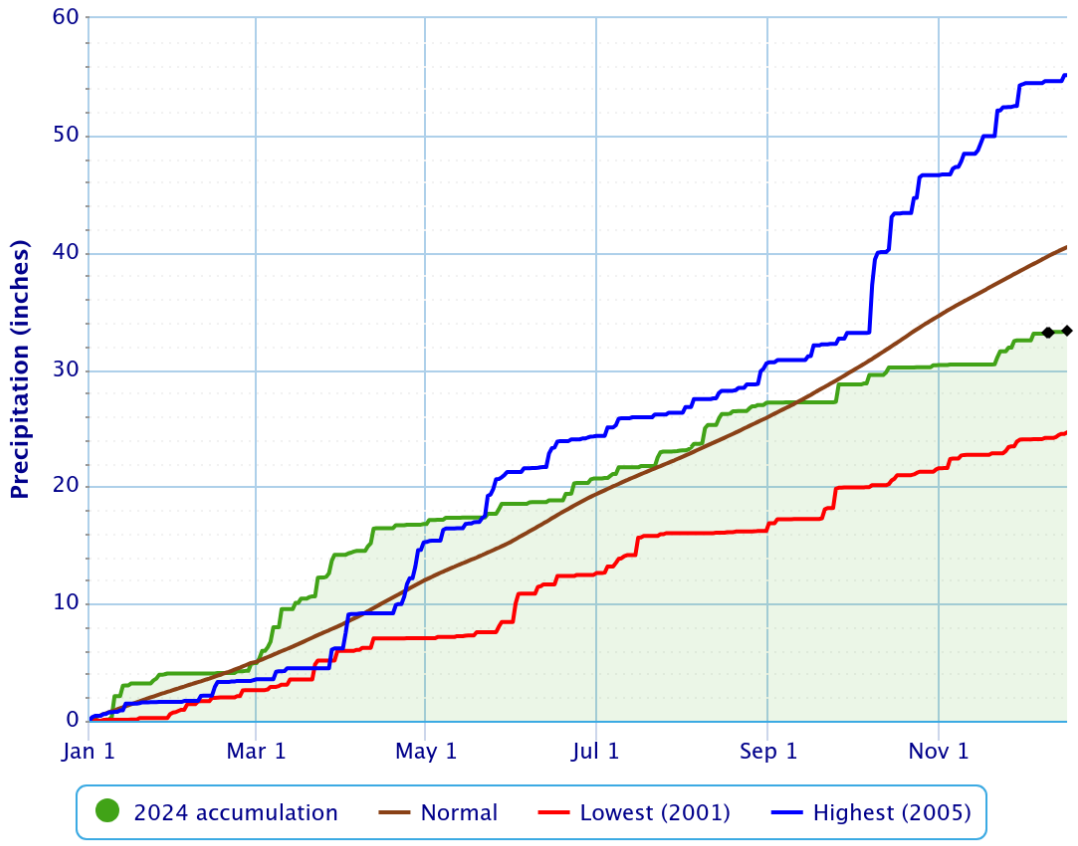
Coastal Storms

- January 10 experienced gale-force winds from the SE (onshore), plus king tides (new moon Jan 11)
- January 13 recorded the highest water levels ever in both Bar Harbor (established 1947) and Portland (established 1910).



Accumulated Precipitation – AUGUSTA STATE AIRPORT, ME

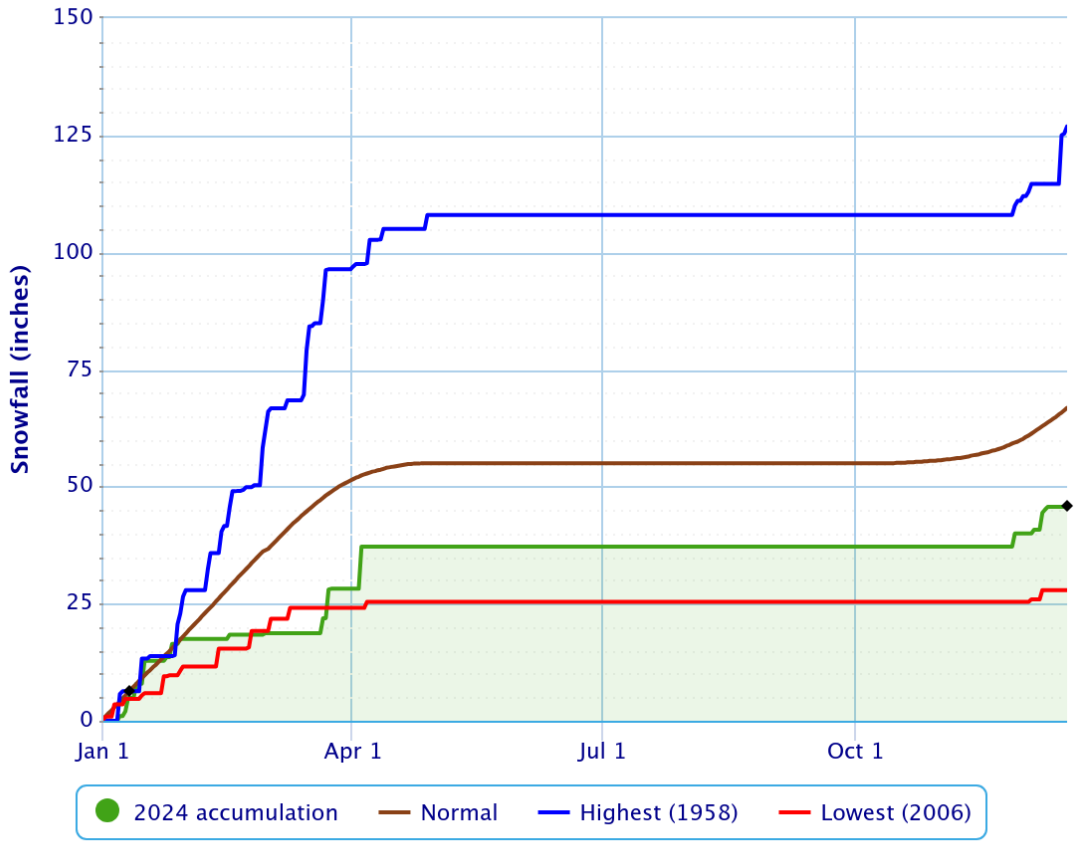
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACIS

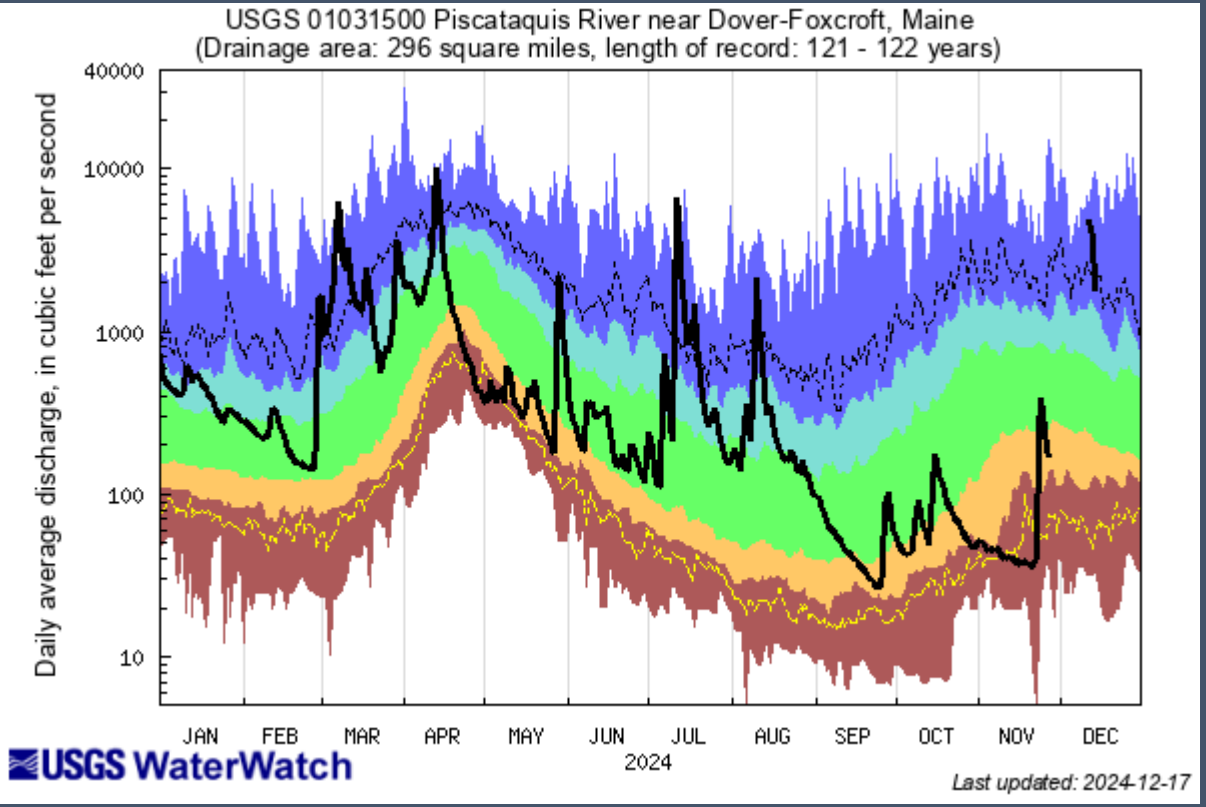
Accumulated Snowfall – BANGOR INTERNATIONAL AIRPORT, ME

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values

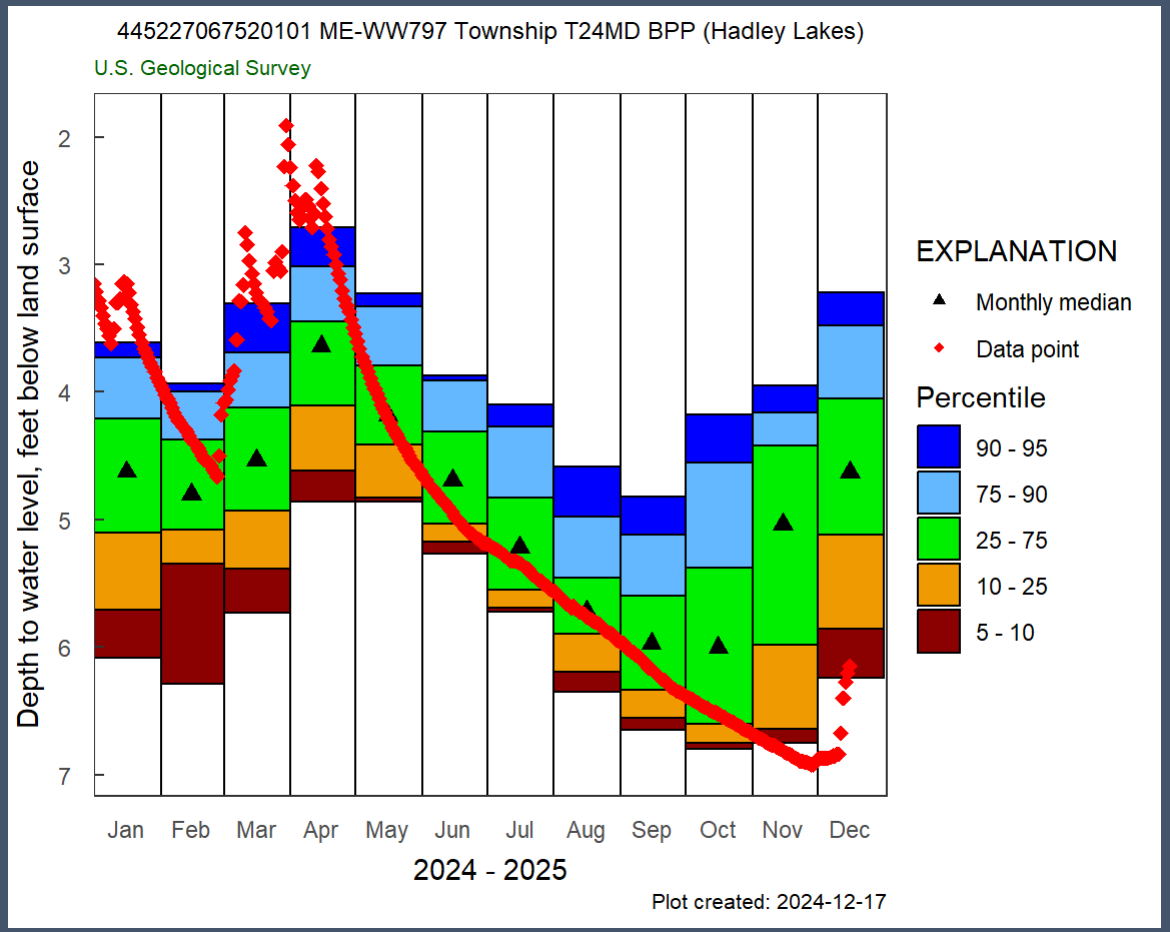


Powered by ACIS

Piscataquis River discharge versus normal



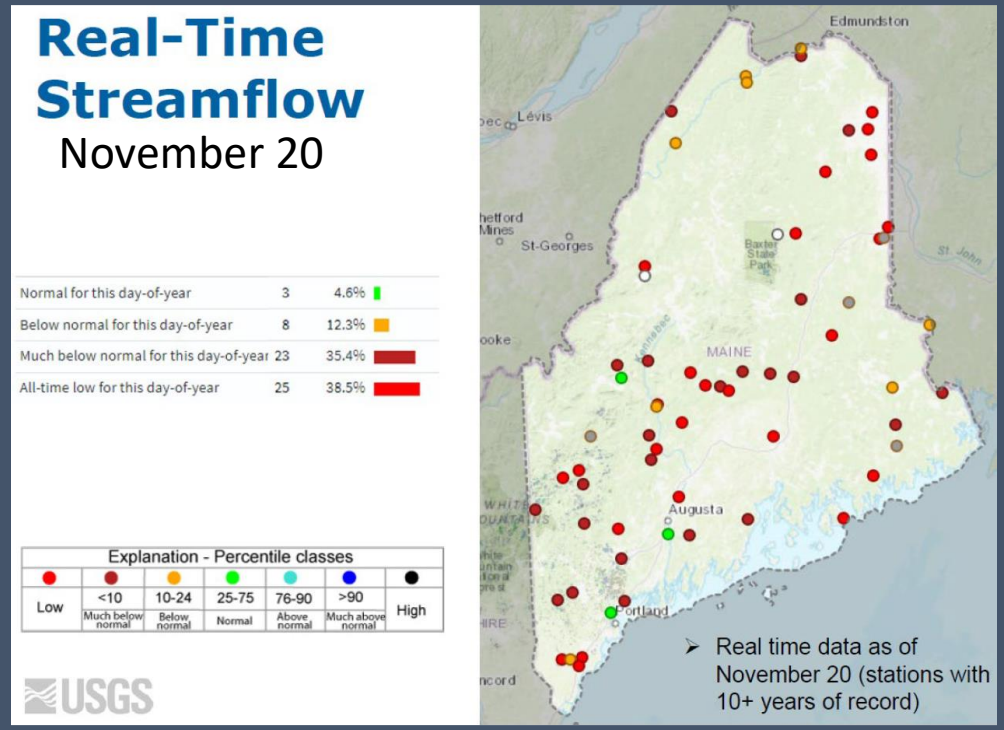
Hadley Lakes outwash aquifer levels versus normal



Autumn Drought

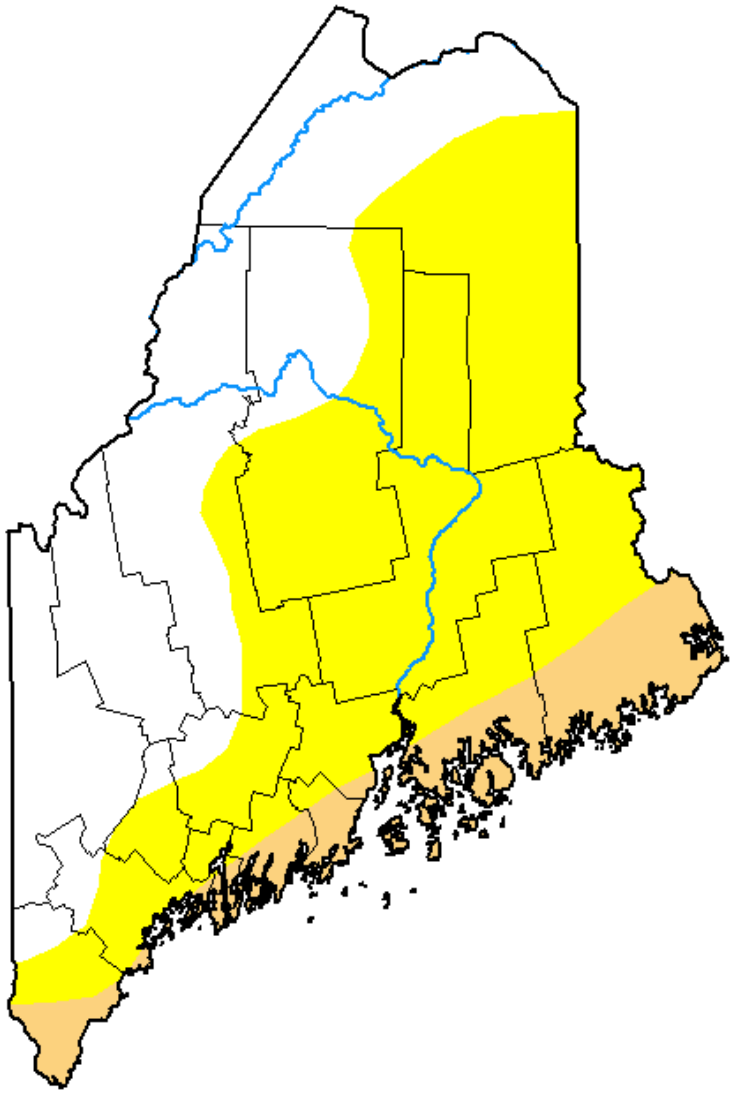
- August saw below normal precipitation.
- September quickly developed into a flash drought with unseasonably warm, dry air.
- Rainfall deficits were 6-10 inches between September 1 and November 20.

- Dry conditions continue, despite some rain and snow events and more normal streamflow.



U.S. Drought Monitor

Maine



September 24, 2024

(Released Thursday, Sep. 26, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	39.15	60.85	10.36	0.00	0.00	0.00
Last Week *09-17-2024*	75.14	24.86	0.00	0.00	0.00	0.00
3 Months Ago *06-25-2024*	82.69	17.31	0.00	0.00	0.00	0.00
Start of Calendar Year *01-02-2024*	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year *09-26-2023*	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago *09-26-2023*	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

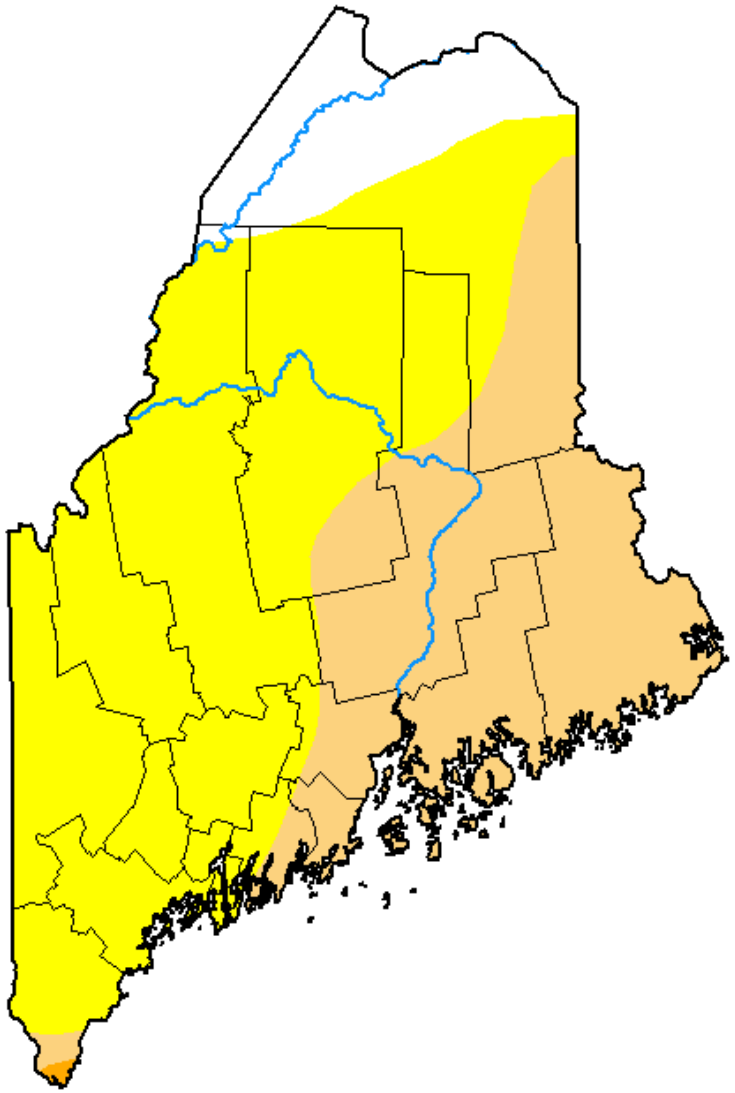
Author:

Brad Rippey
U.S. Department of Agriculture

droughtmonitor.unl.edu

U.S. Drought Monitor

Maine



October 29, 2024

(Released Thursday, Oct. 31, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	9.57	90.43	33.50	0.14	0.00	0.00
Last Week *10-22-2024*	26.25	73.75	33.50	0.00	0.00	0.00
3 Months Ago *07-30-2024*	96.47	3.53	0.21	0.00	0.00	0.00
Start of Calendar Year *01-02-2024*	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year *10-01-2024*	42.72	57.28	8.81	0.00	0.00	0.00
One Year Ago *10-31-2023*	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

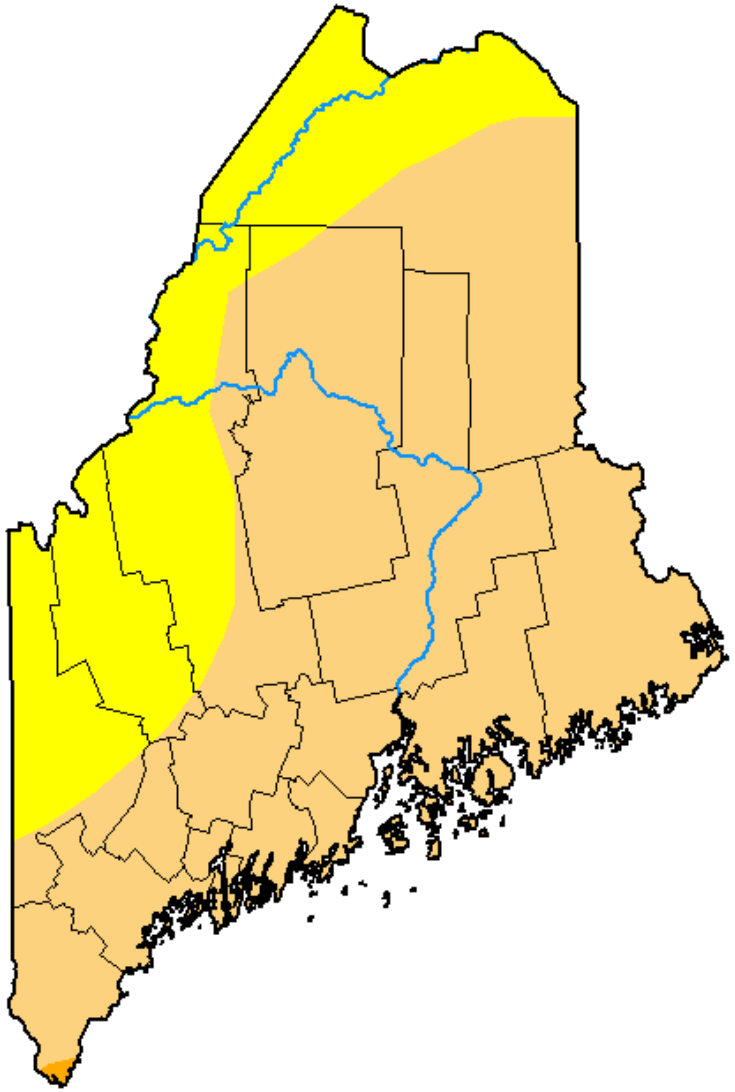
Author:

Brian Fuchs
National Drought Mitigation Center

droughtmonitor.unl.edu

U.S. Drought Monitor

Maine



November 26, 2024

(Released Wednesday, Nov. 27, 2024)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	70.73	0.14	0.00	0.00
Last Week *11-19-2024*	0.00	100.00	70.74	0.14	0.00	0.00
3 Months Ago *08-27-2024*	99.79	0.21	0.00	0.00	0.00	0.00
Start of Calendar Year *01-02-2024*	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year *10-01-2024*	42.72	57.28	8.81	0.00	0.00	0.00
One Year Ago *11-28-2023*	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

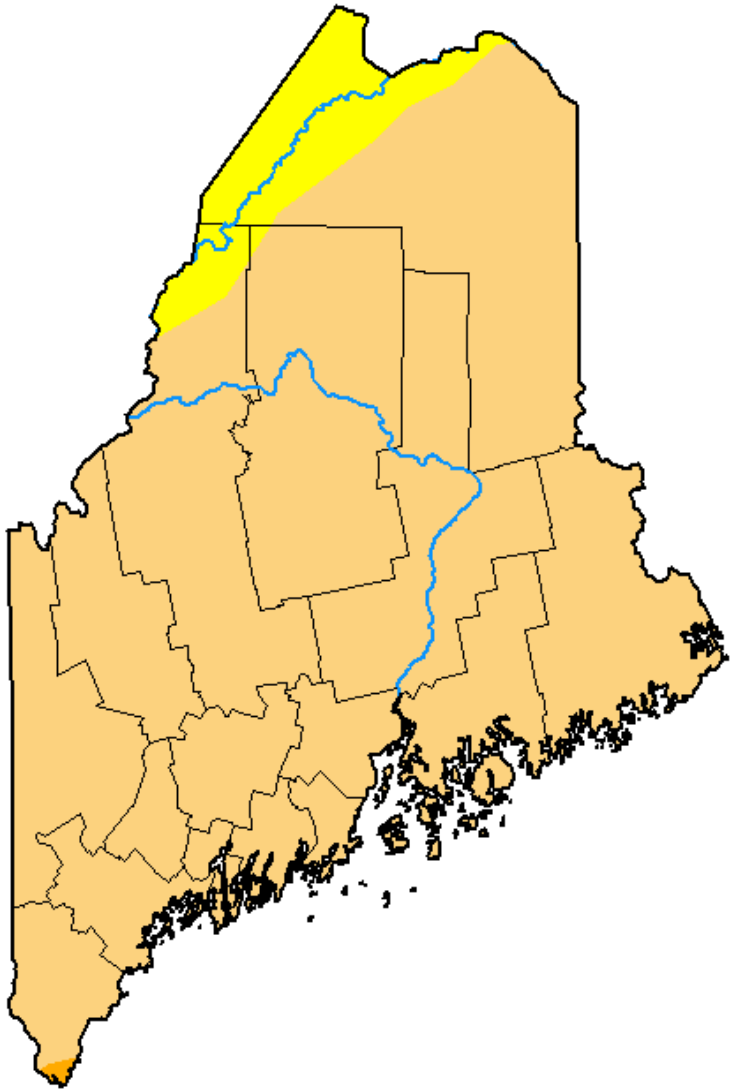
Author:

David Simeral
Western Regional Climate Center

droughtmonitor.unl.edu

U.S. Drought Monitor

Maine



December 10, 2024

(Released Thursday, Dec. 12, 2024)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	92.68	0.14	0.00	0.00
Last Week *12-03-2024*	0.00	100.00	92.68	0.14	0.00	0.00
3 Months Ago *09-10-2024*	99.79	0.21	0.00	0.00	0.00	0.00
Start of Calendar Year *01-02-2024*	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year *10-01-2024*	42.72	57.28	8.81	0.00	0.00	0.00
One Year Ago *12-12-2023*	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

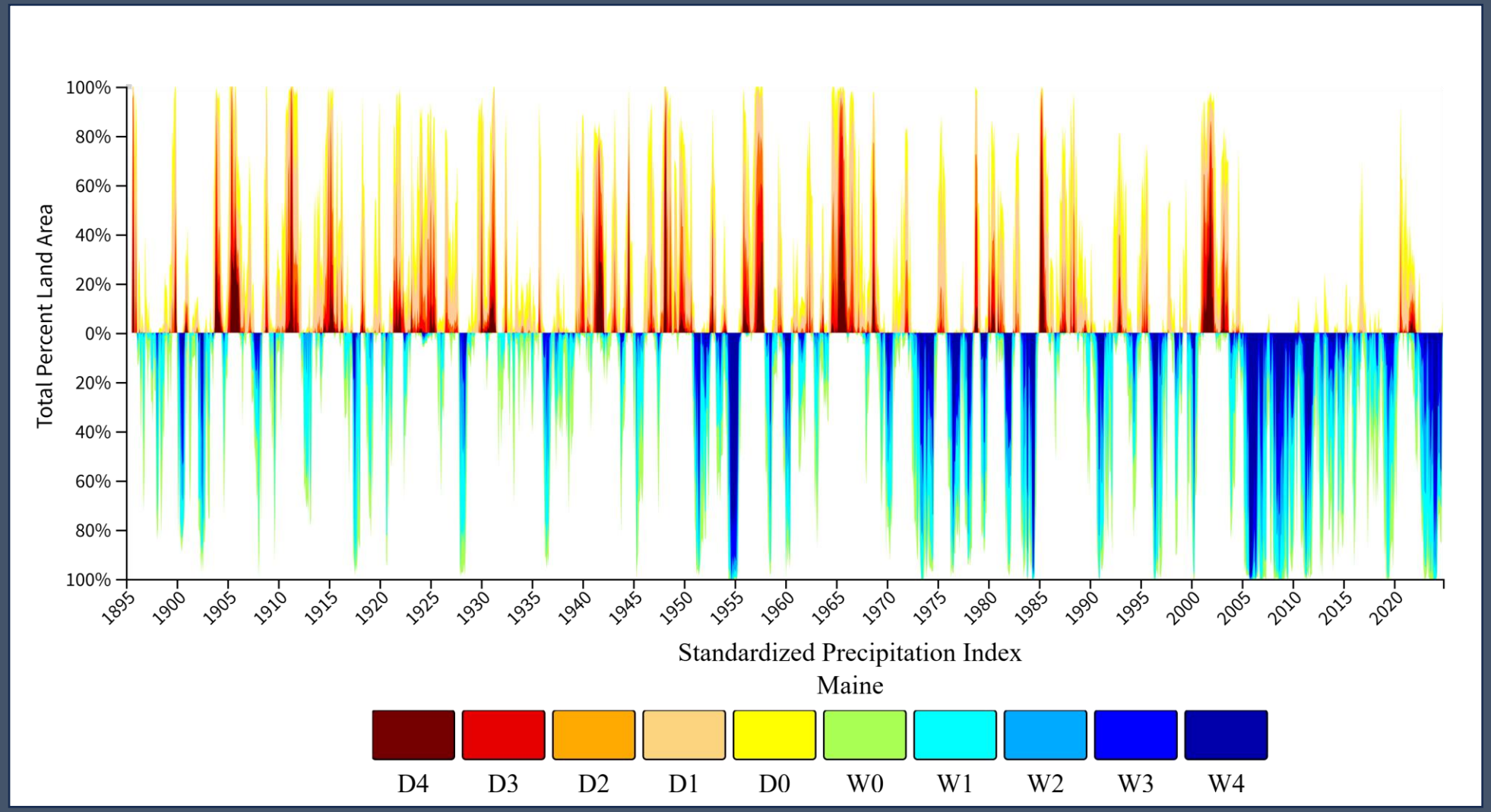
Author:

Curtis Riganti

National Drought Mitigation Center

droughtmonitor.unl.edu

Maine is still getting wetter



NOAA Resilient Maine grant

- $69 million through NOAA's Climate Resilience Regional Challenge
- 5 years of projects: 2024-2029
- Maine Geological Survey leads three projects:

1. coastal saltwater intrusion monitoring network
2. updated bluff stability maps
3. living shoreline bluff stabilization projects (design and construction)

- MGS will also participate in a modeling pilot for inland flooding