



Culverts: Not Such a Drain After All

April 29, 2021

Presented by the Kennebec Valley Council of Governments
Hosted by Will Harper, KVCOG

With Ernie Hilton, Selectmen Starks
Sarah Haggarty, Maine Audubon
Gabe Gauvin, KVCOG



▶ Welcome

Ole Amundsen, KVCOG Executive Director

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▶ Flooding Resiliency

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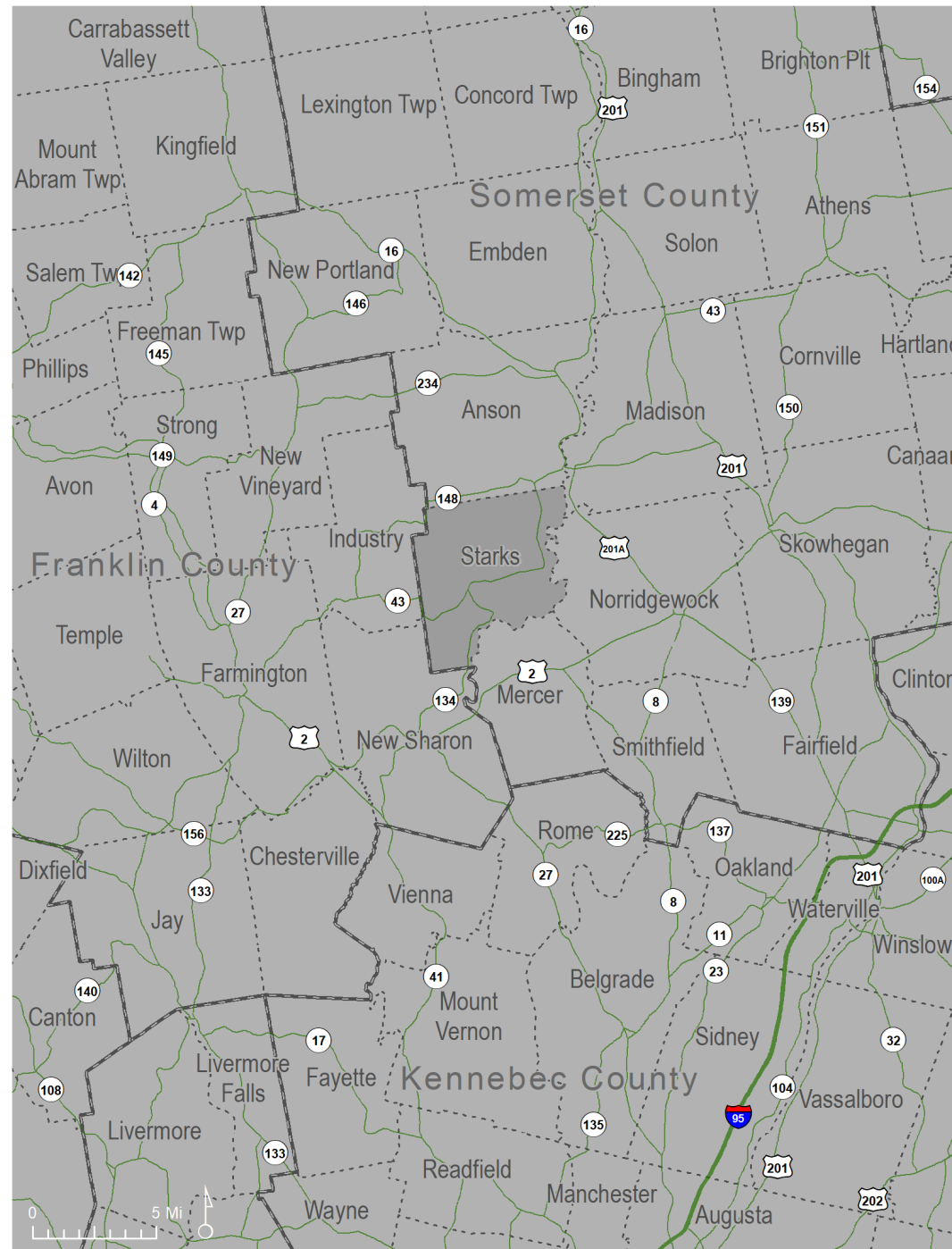
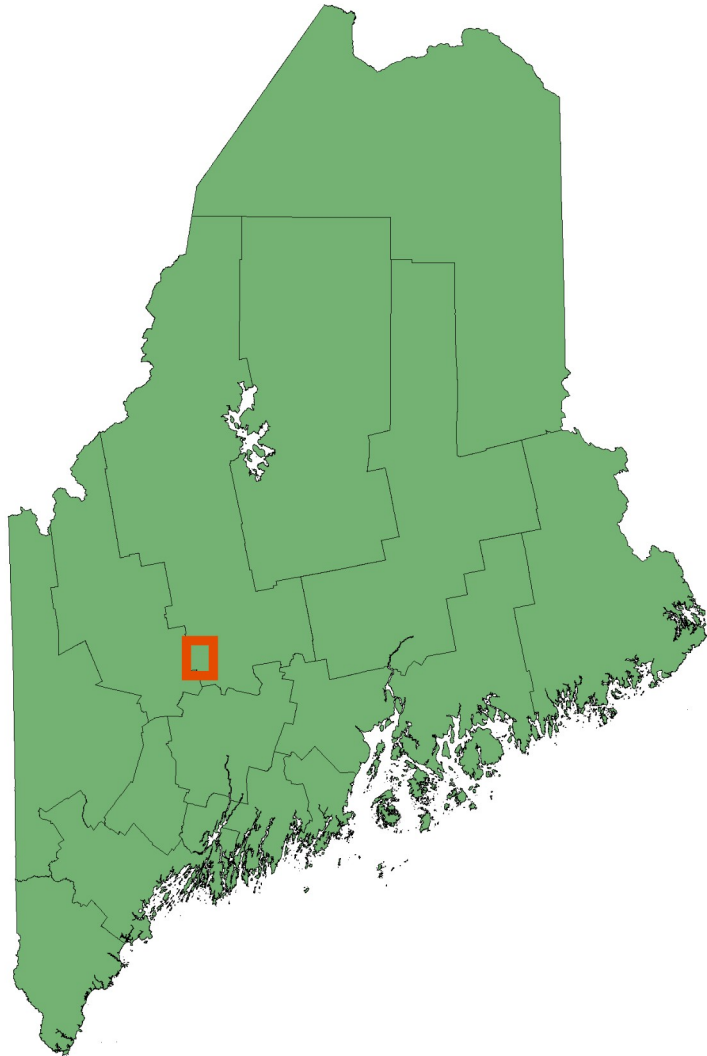


▶ Q & A

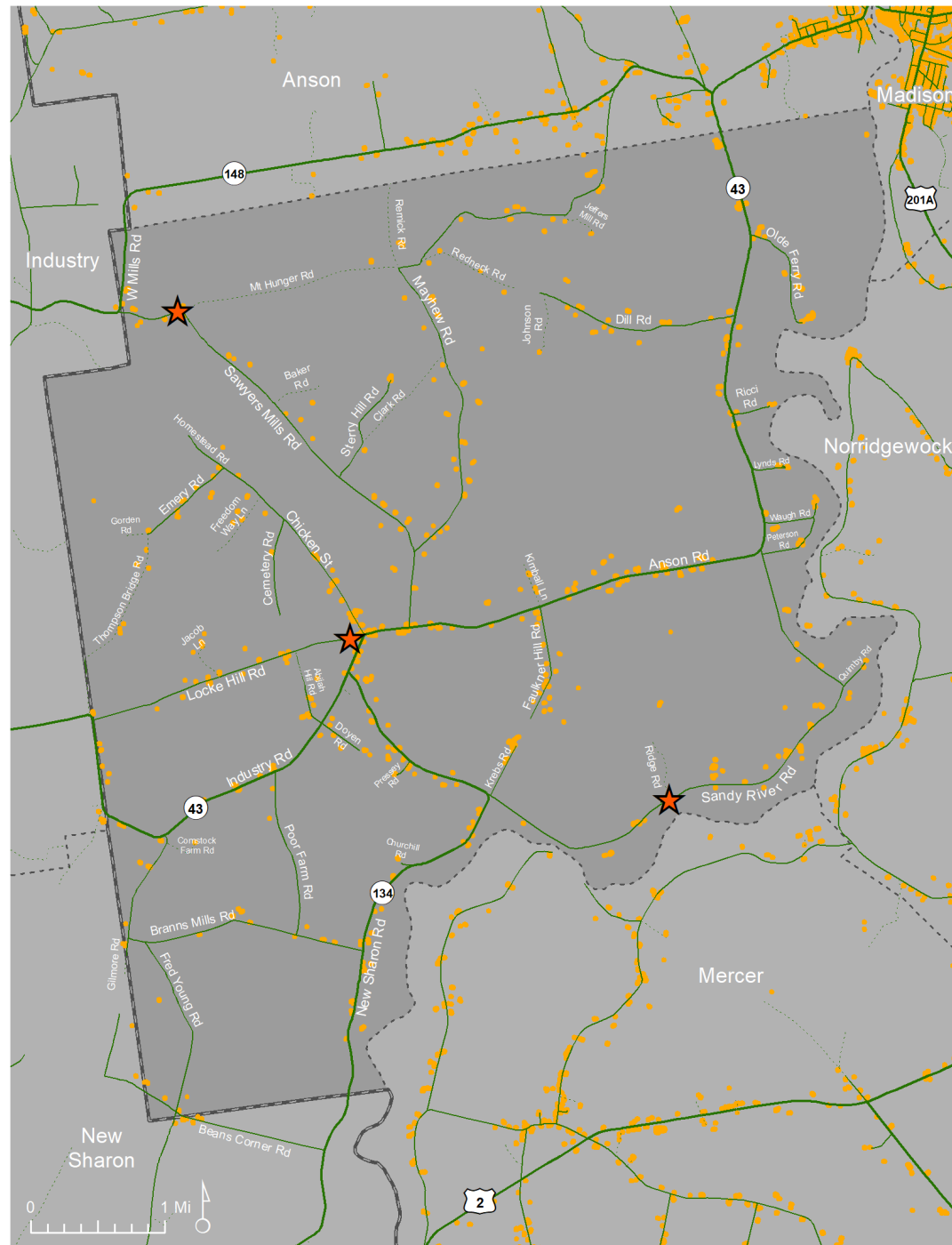
Questions?

Feel free to put them in the chat or turn on your microphone/camera.

Starks, Maine

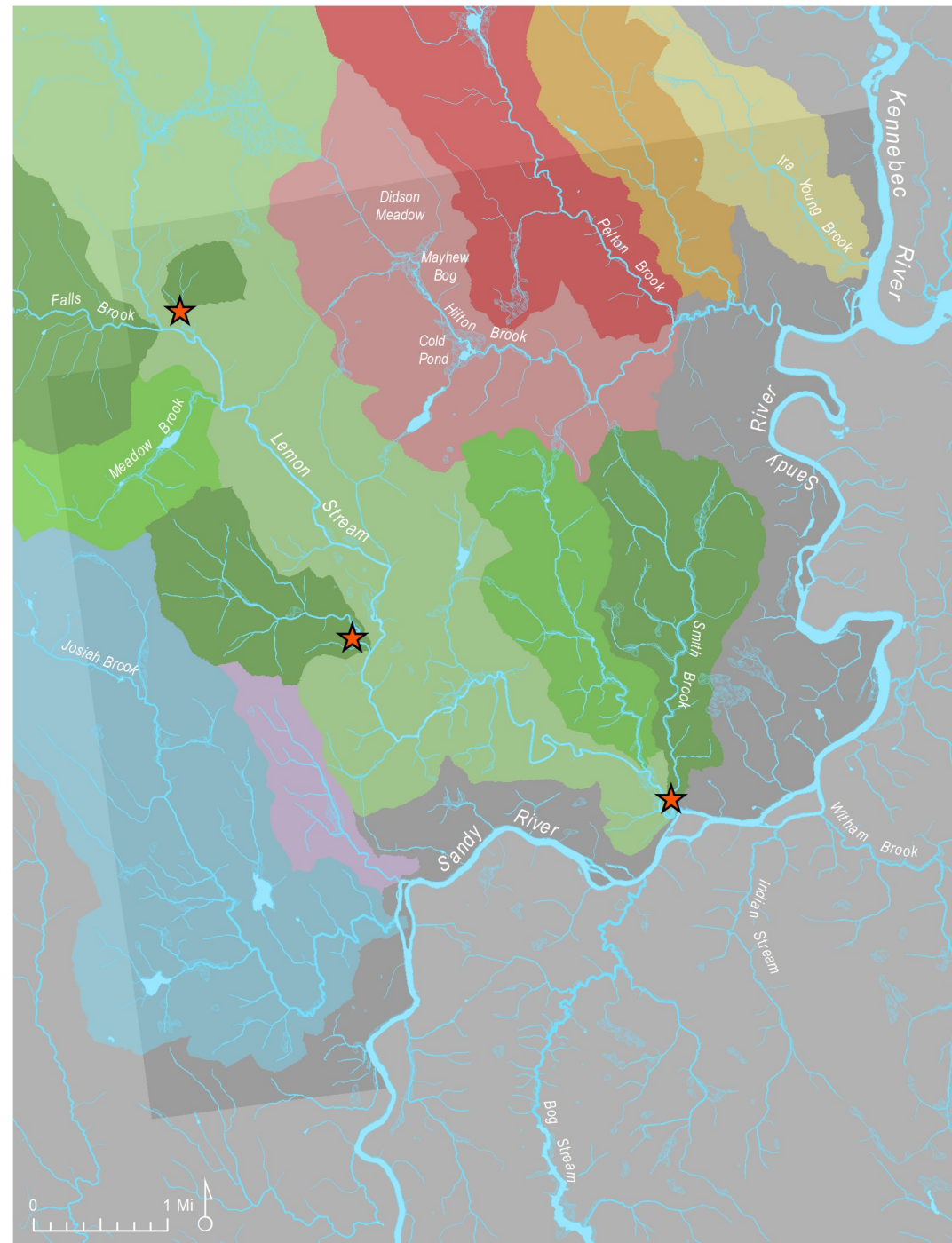


- ▶ Starks is in Western Somerset County adjacent to Anson, Madison, Norridgewock, Mercer, New Sharon(Franklin County), and Industry (Franklin County)
- ▶ Major thruways include Anson Rd/Industry Rd/Rte 43, West Mills Rd/Rte 148, New Sharon Rd/Rte 134, Sawyers Mill Rd, Locke Hill Rd, Mayhew Rd, and Sandy River Rd.
- ▶ Population 650 (houses and other development highlighted in orange).



Rivers and Streams

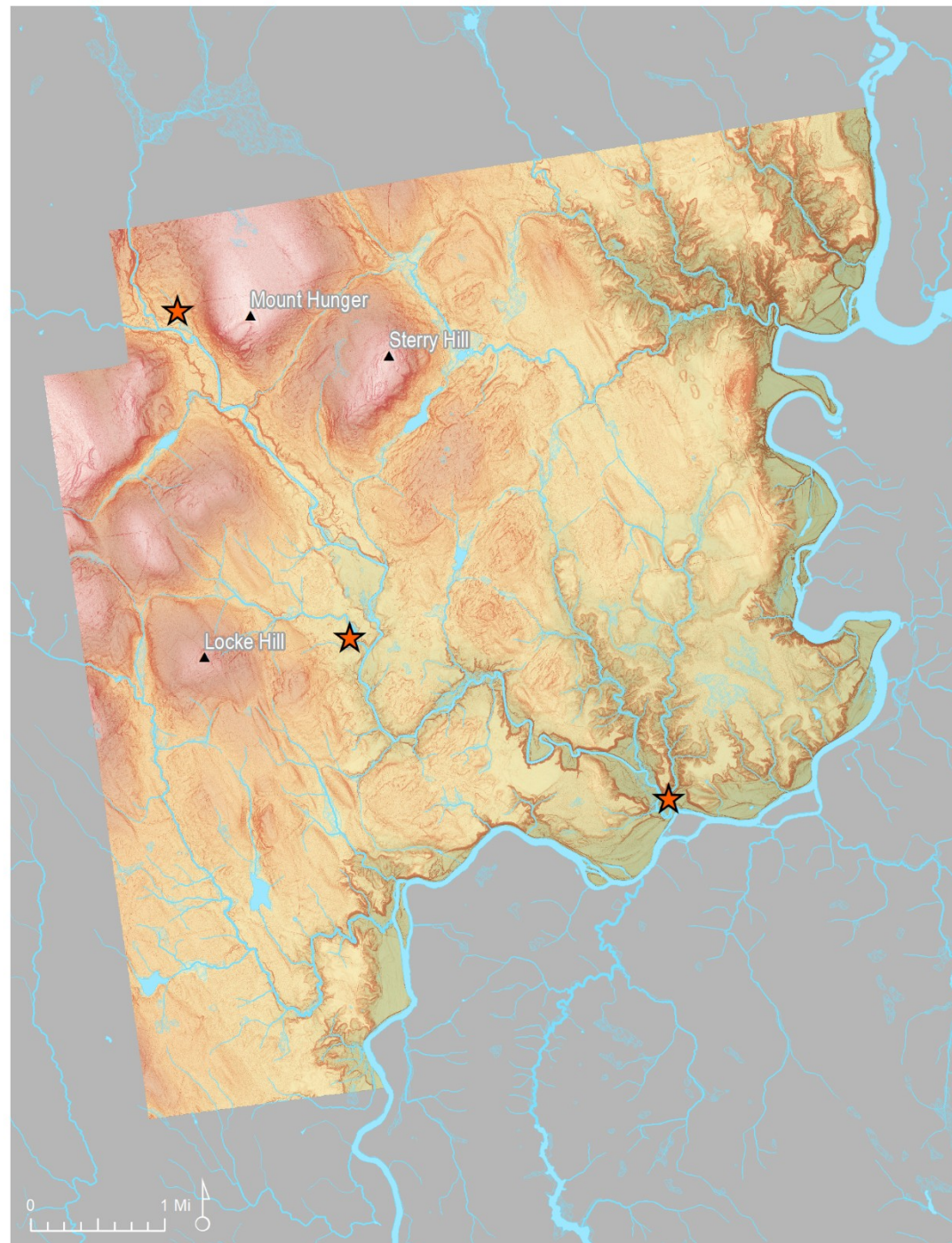
- ▶ Starks is in the Sandy River watershed which covers 595 square miles and flows northeast into the Kennebec River.
- ▶ Major stream systems include:
 - ▶ Lemon Stream (37.87 sq mi) including Falls Brook (12.76 sq mi), Meadow Brook (1.28 sq mi), and Smith Brook (2.10 sq mi) (all in green)
 - ▶ Josiah Brook (blue, 8.29 sq mi)
 - ▶ Hilton Brook (pink, 4.08 sq mi)
 - ▶ Pelton Brook (red, 7.76 sq mi)
 - ▶ Ira Young Brook (yellow, 1.6 sq mi)



Topography and Land Cover

- ▶ Elevation: 156 - 828 ft
- ▶ Mt Hunger: 699 ft
- ▶ Sterry Hill: 666 ft
- ▶ Locke Hill: 606 ft

- ▶ 68.4 % Forests
- ▶ 14.3 % Wetlands / Scrub
- ▶ 11.8% Cultivated / Pasture
- ▶ 4.4% Developed
- ▶ 1.1 % Open Water

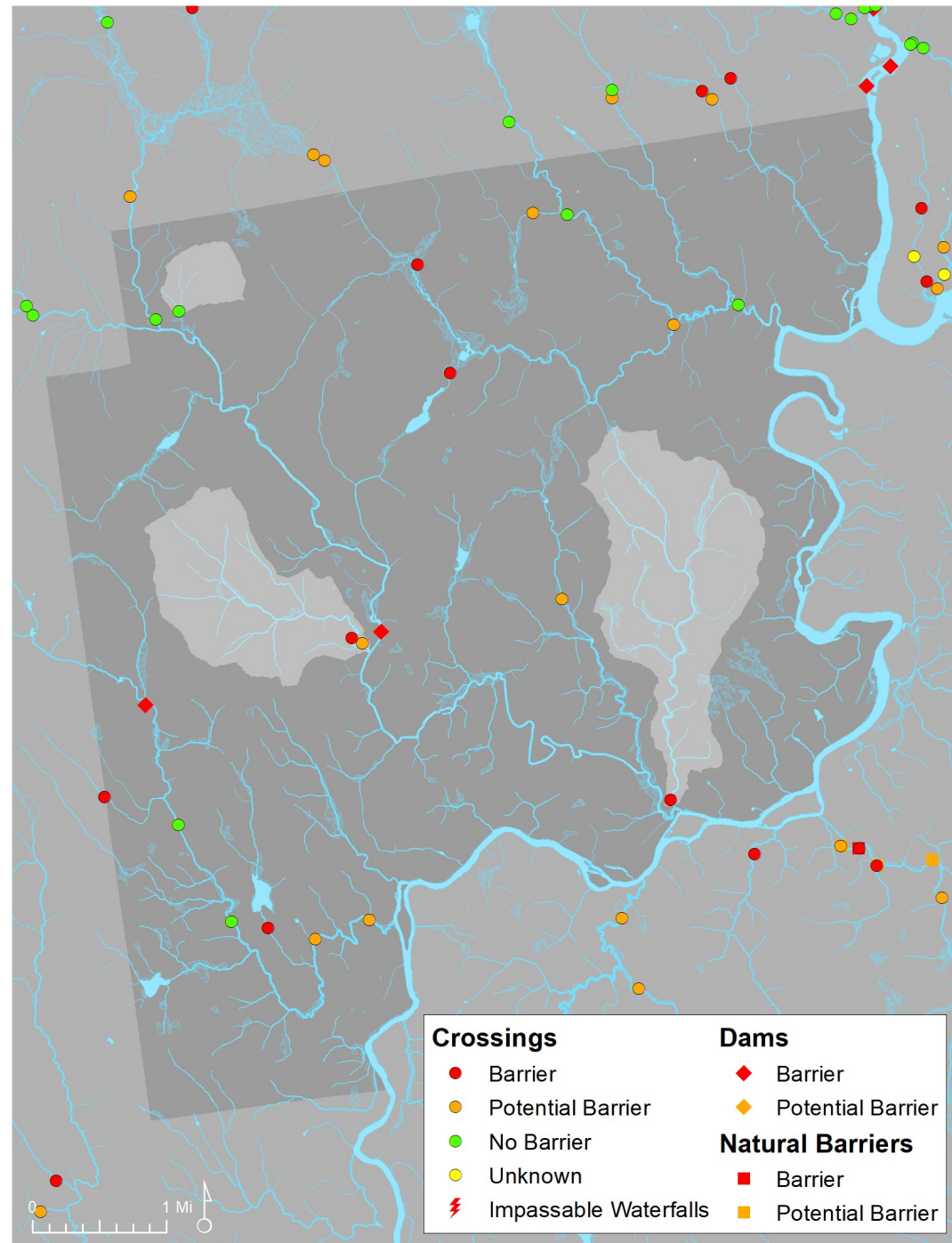


Stream Barriers

- ▶ Culverts and other road crossings.
- ▶ Dams and impoundments.
- ▶ Natural barriers such as waterfalls.

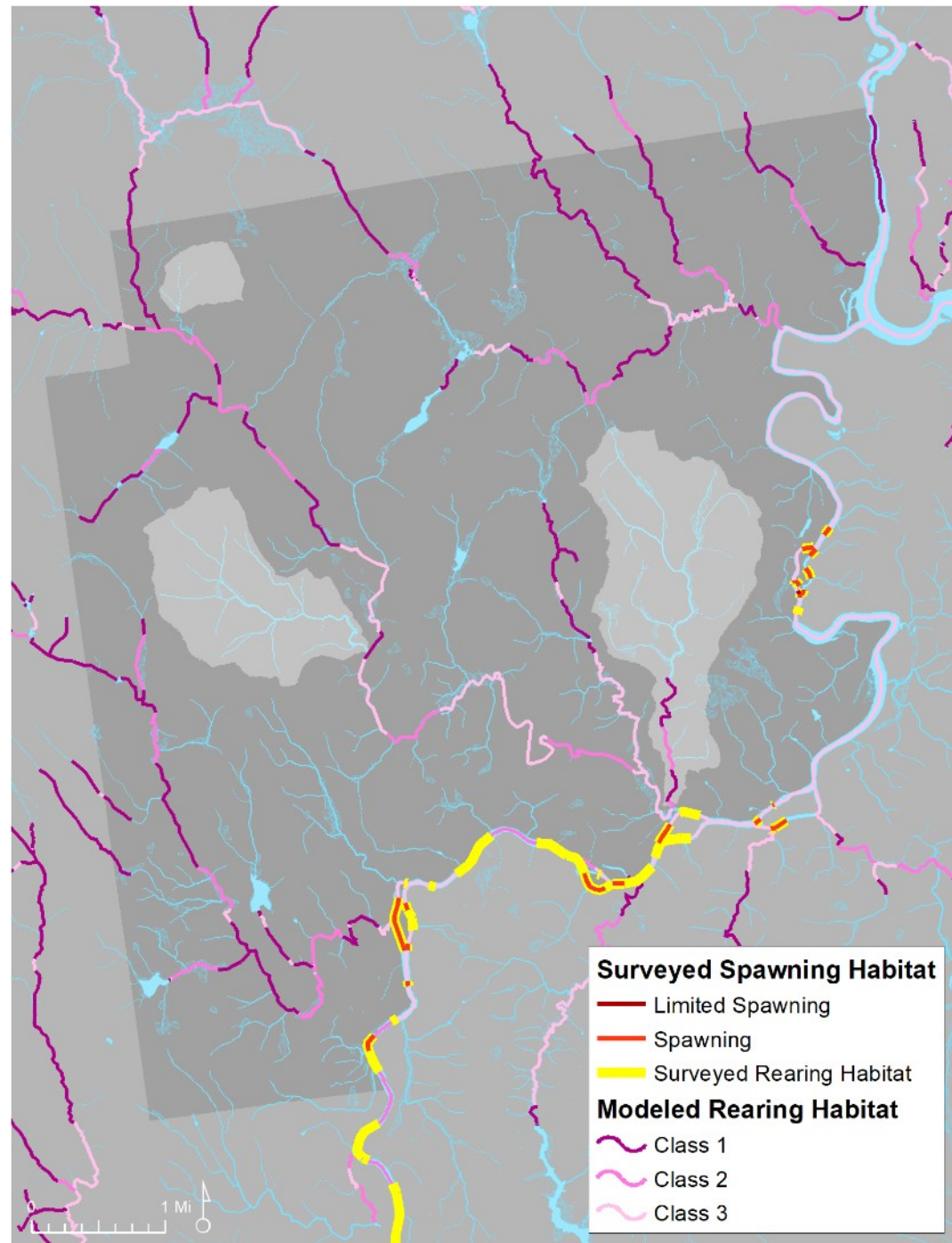
Maine Stream Habitat Viewer:

<https://webapps2.cgis-solutions.com/MaineStreamViewer/>

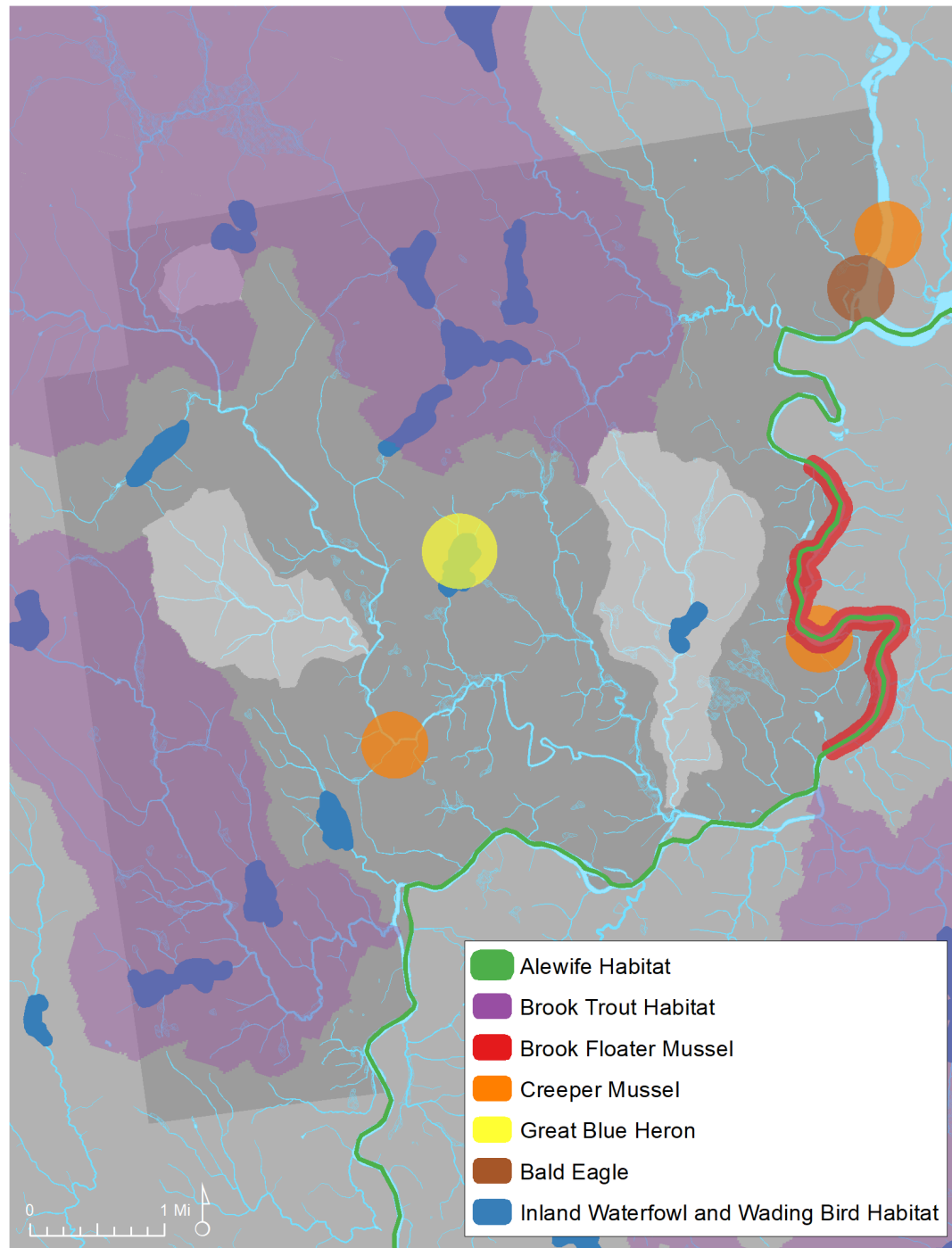


Salmon Habitat

- ▶ Maine is home to the only remaining populations of wild Atlantic salmon (*Salmo salar*) in the United States and are considered endangered.
- ▶ Salmon are anadromous - both freshwater and saltwater - and face many threats including dams, pollution, and (historically) overfishing.



Other Important Habitat





▶ Starks, ME

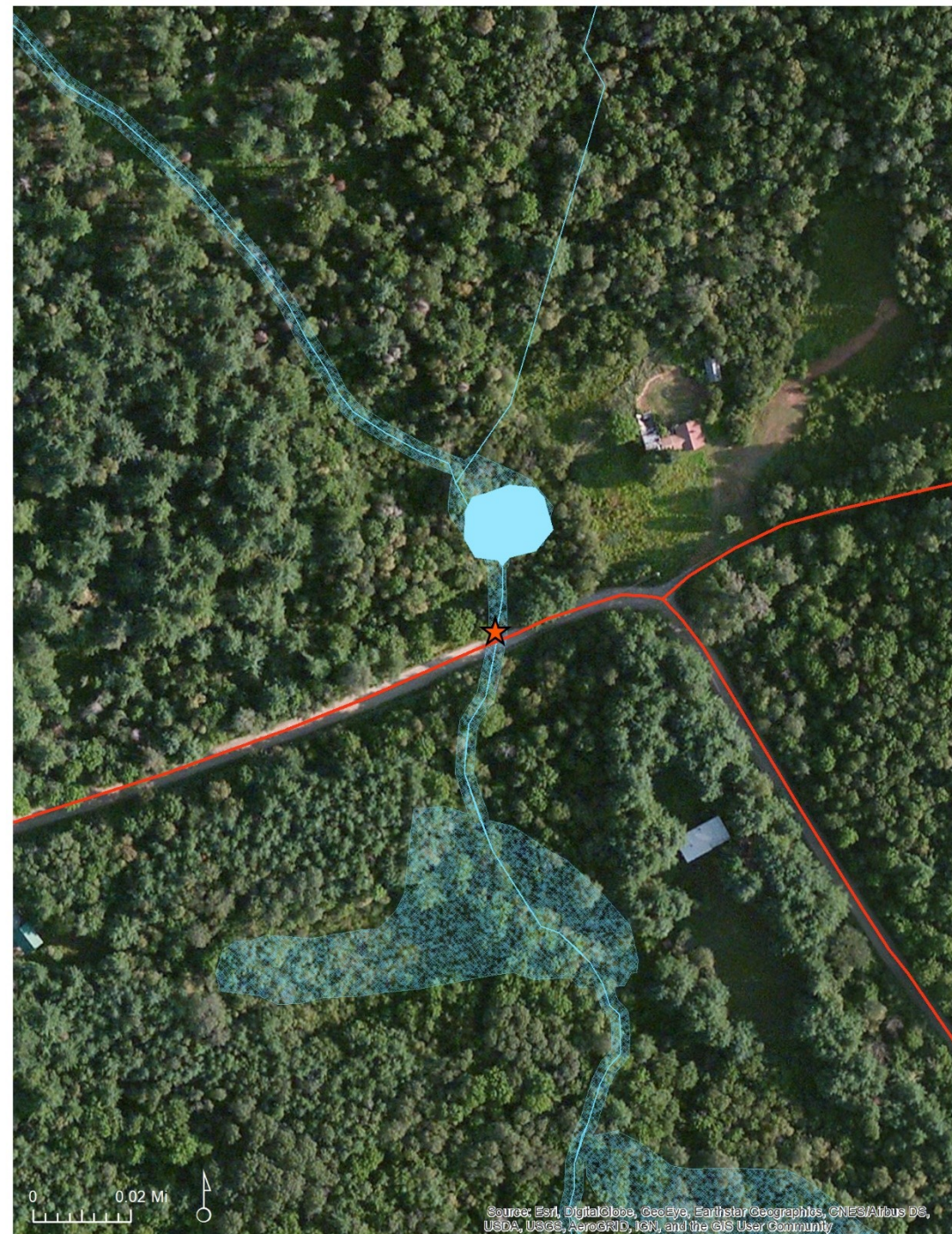
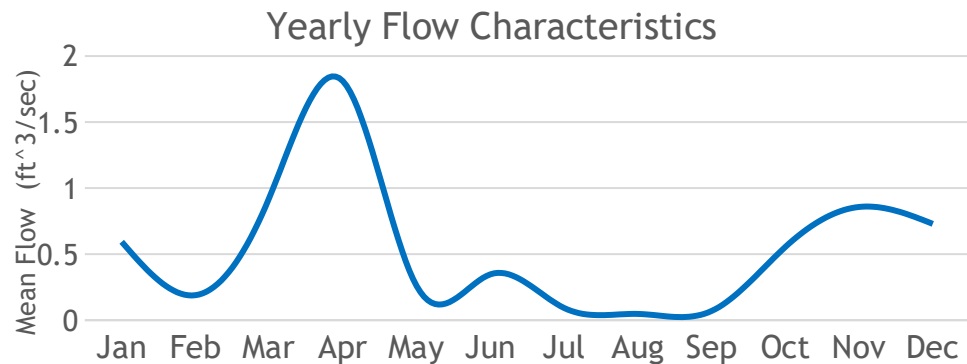
Ernie Hilton

Selectman

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Project One - Watson Corner, Sawyers Mill Rd

- ▶ 0.2 sqmi drainage area, 2% wetlands.
- ▶ 0.43% developed, 0% open water.
- ▶ Bankfull stream flow: 0.958 ft³/s
- ▶ Bankfull width: 3.3 ft
- ▶ Bankfull depth: 0.34 ft
- ▶ Mean Basin Slope: 8.71 %









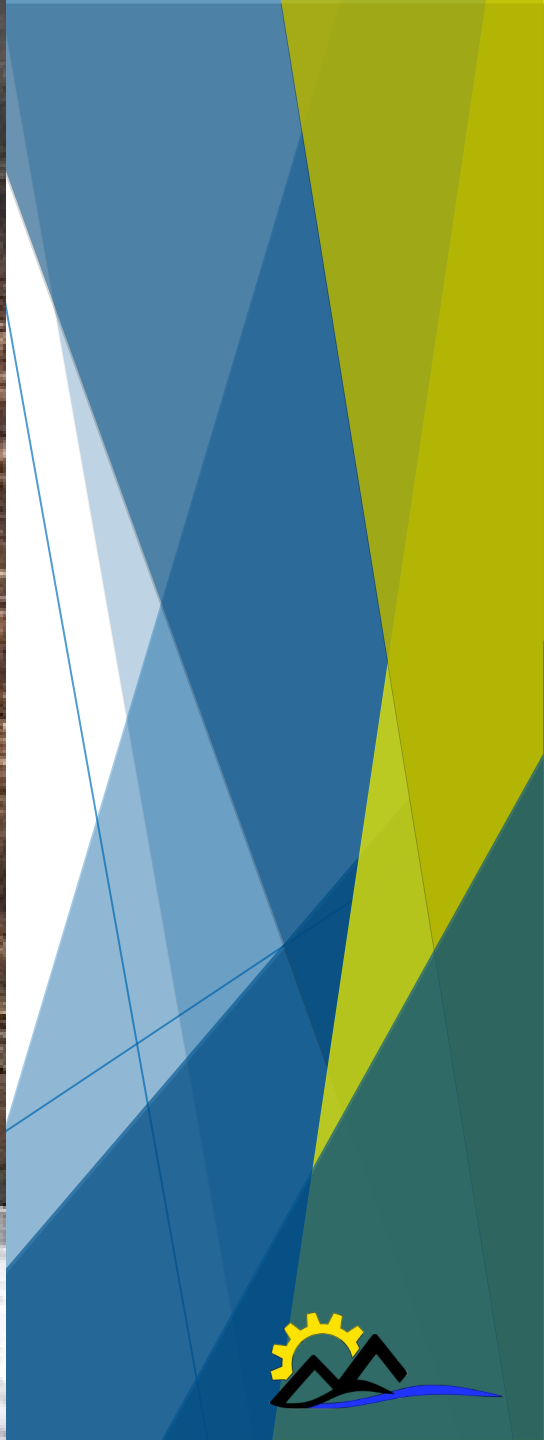






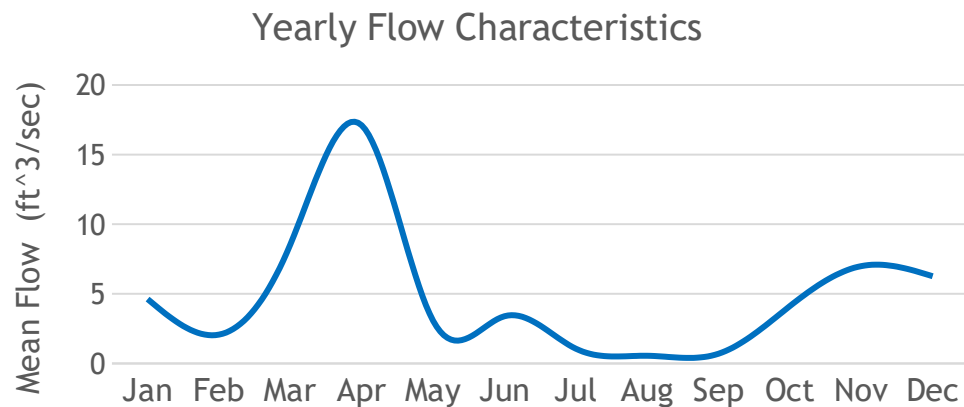






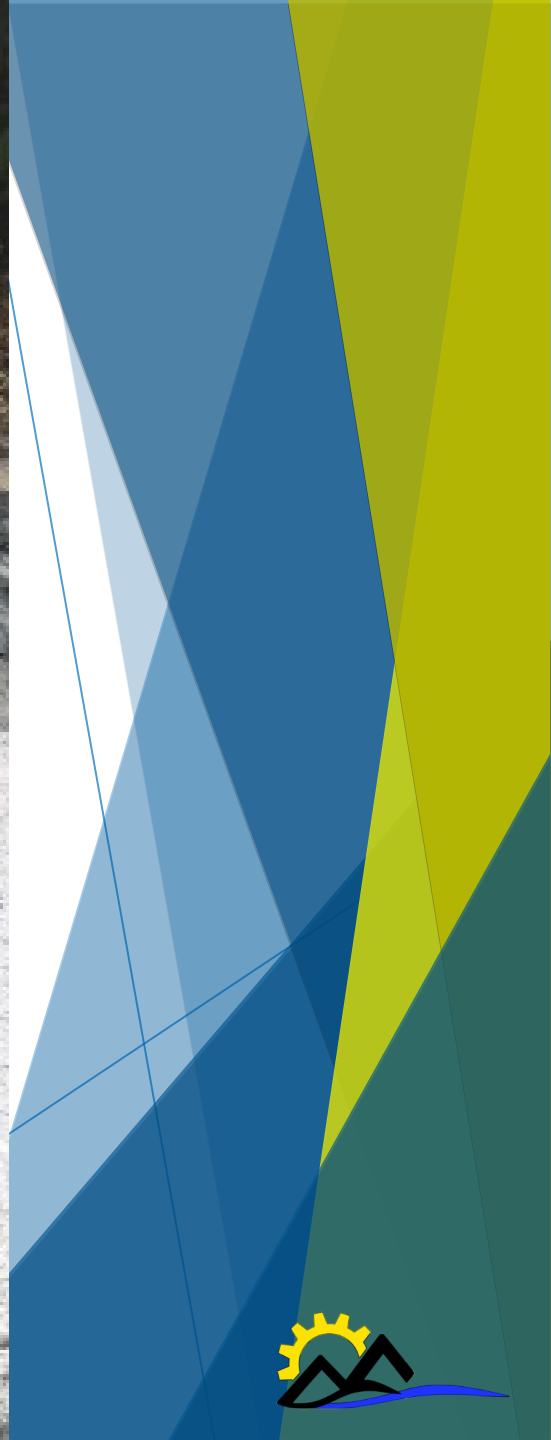
Project Two - Sandy River Rd @ Smith Brook

- ▶ 2.1 sqmi drainage area, 6.4% wetlands.
- ▶ 3.29 % developed, 0.1 % open water.
- ▶ Bankfull stream flow: 11.3 ft³/s
- ▶ Bankfull width: 11.3 ft
- ▶ Bankfull depth: 0.76 ft
- ▶ Mean Basin Slope: 5.7 %







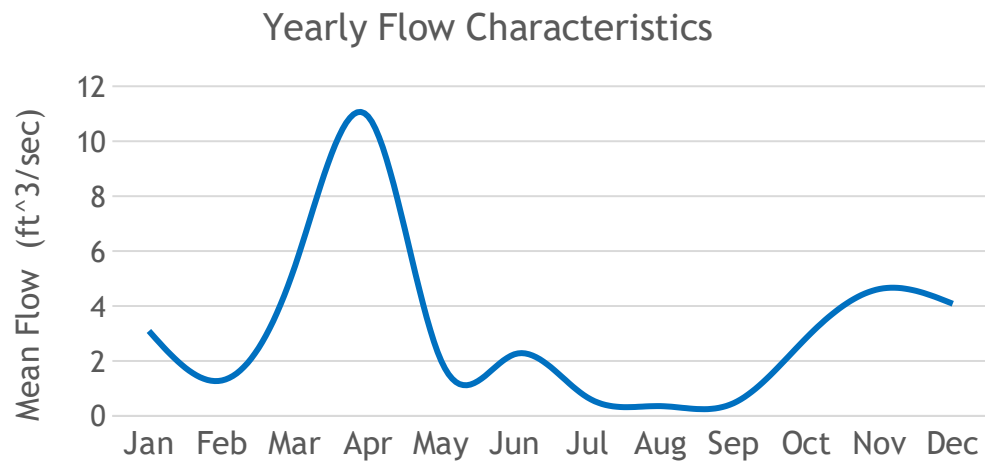






Other Potential Project - Locke Hill Rd

- 1.3 sqmi drainage area, 1.8% wetlands.
- 2.84 % developed, 0% open water.
- Bankfull stream flow: 6.84 ft³/s
- Bankfull width: 8.8 ft
- Bankfull depth: 0.65 ft
- Mean Basin Slope: 8.38 %









▶ Stream Smart

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▶ Q & A

Questions?

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KVCOG's Joint Purchase Program

▶ Culverts

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Community Impact

- ▶ Anson
- ▶ Athens
- ▶ Belgrade
- ▶ Bingham
- ▶ Cambridge
- ▶ Canaan
- ▶ Caratunk
- ▶ China
- ▶ Embden
- ▶ Fairfield
- ▶ Freedom
- ▶ Jackman
- ▶ Litchfield
- ▶ Madison
- ▶ Monmouth
- ▶ Moose River
- ▶ New Portland
- ▶ Norridgewock
- ▶ Palmyra
- ▶ Pittsfield
- ▶ Pleasant Ridge Plt
- ▶ Skowhegan
- ▶ Solon
- ▶ The Forks Plt
- ▶ Unity
- ▶ Wayne
- ▶ Windsor
- ▶ Winslow



Both Galvanized & Plastic Pipe 12" - 48"

Diameter (in.)	Price (LF)
12	\$ 7.89
15	\$ 10.17
18	\$ 15.25
24	\$ 22.99
30	\$ 36.88
36	\$ 45.85
48	\$ 72.66



Other Products

- ▶ Plastic & Galvanized Culvert Pipe
- ▶ Road Salt (Sodium Chloride)
\$54.20/ton
- ▶ Flake Calcium Chloride
\$491.00/ton
- ▶ Geotextiles
 - Silt Fence: \$23/roll
 - Woven: \$402/roll
 - Nonwoven: \$665/roll



Across Maine

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<https://kvcog.org/municipal-services/joint-purchasing>

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▶ Q & A

Questions?

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Stay Connected

KVCOG

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- ▶ Facebook: [@KennebecValleyCOG](https://www.facebook.com/KennebecValleyCOG)
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Maine Audubon Stream Smart

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- ▶ Facebook: [@maineaudubon](https://www.facebook.com/maineaudubon)
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Town of Starks

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