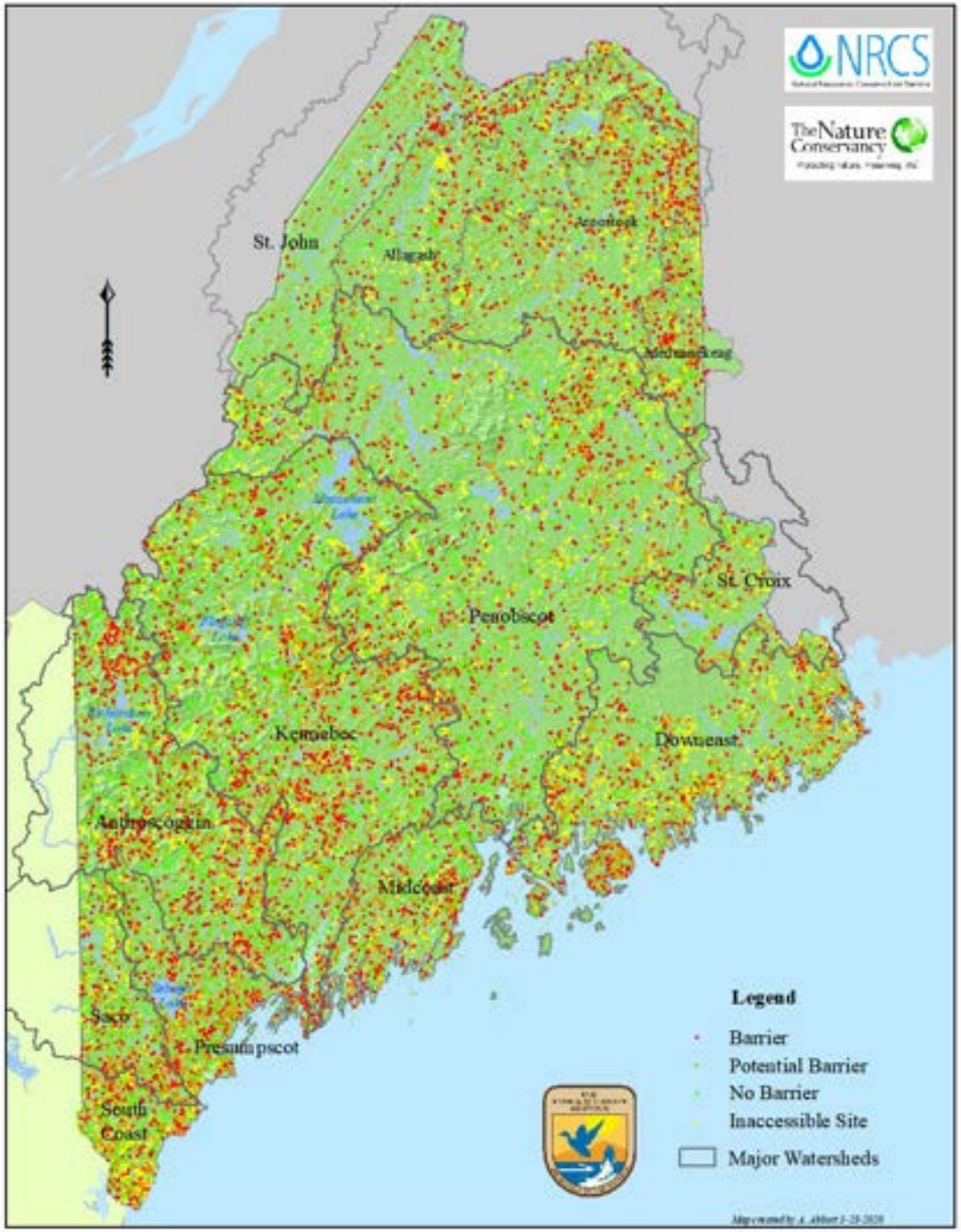
Stream Crossing Data & Prioritization

Alex Abbott - **Stream Restoration Specialist**


NRCS
The Nature Conservancy
St. John
Allagash
Aroostook
Penobscot
St. Croix
Kennebec
Downeast
Androscoggin
Midcoast
Saco
Presumpscot
South Coast
Legend
Barrier
Potential Barrier
No Barrier
Inaccessible Site
Major Watersheds

Species Impacted by Barriers

What is the goal?

Fish Passage h

Aquatic Organism Passage h

Terrestrial Animal Passage h

Stream Crossing Classification

Barrier = Free Fall (Perched) Outlet (≈85%)
or Other Severe Physical Barriers

No Barrier = Span OK *, Inlet & Outlet at Grade, no significant Physical Barriers, Substrate throughout, Adequate water depth

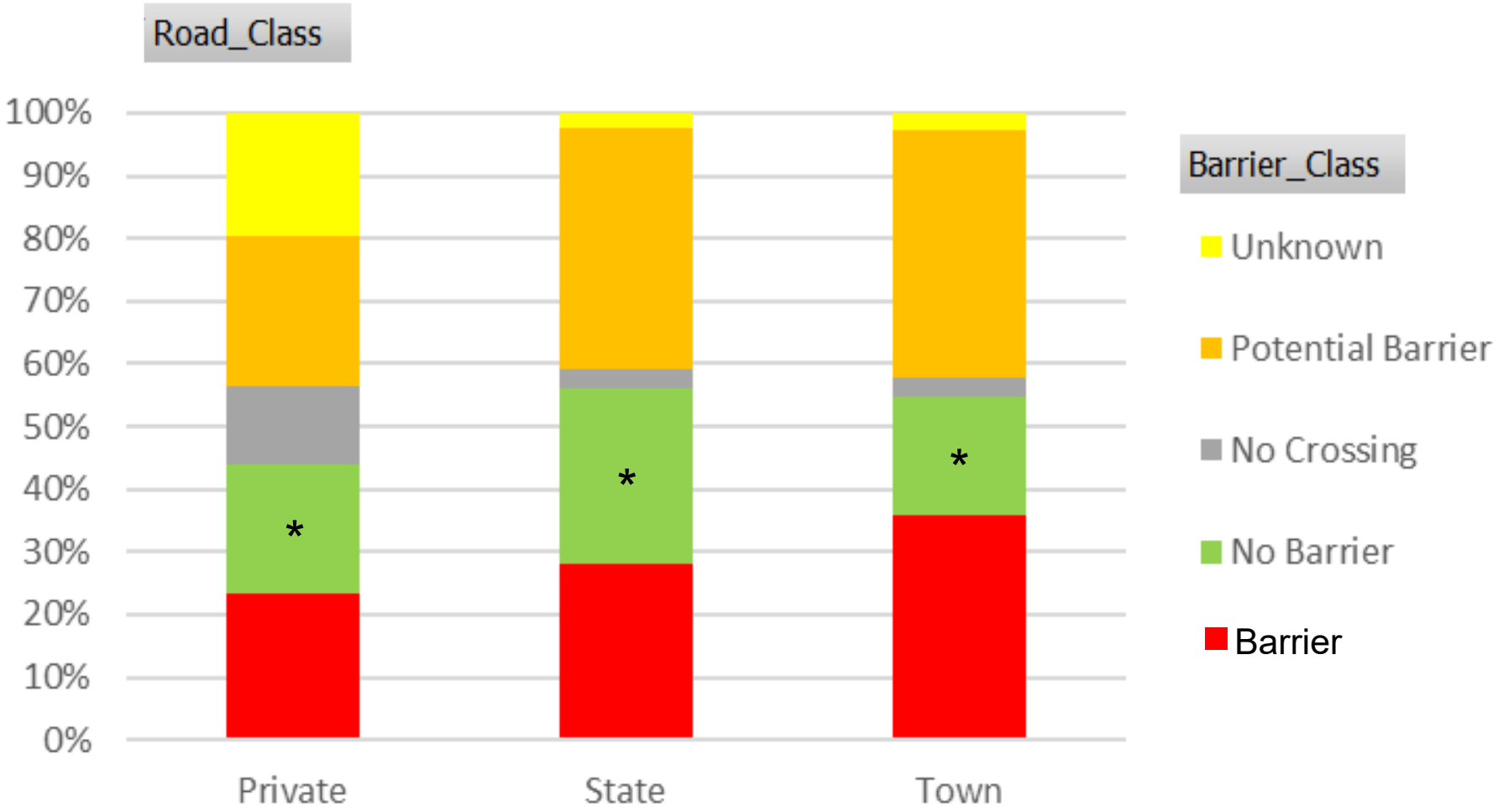
Potential Barrier = All conditions other than above, including minor or moderate physical barriers, shallow water depth, lack of substrate

Unknown = Inaccessible

* At least for fish & other aquatics

Crossing Data

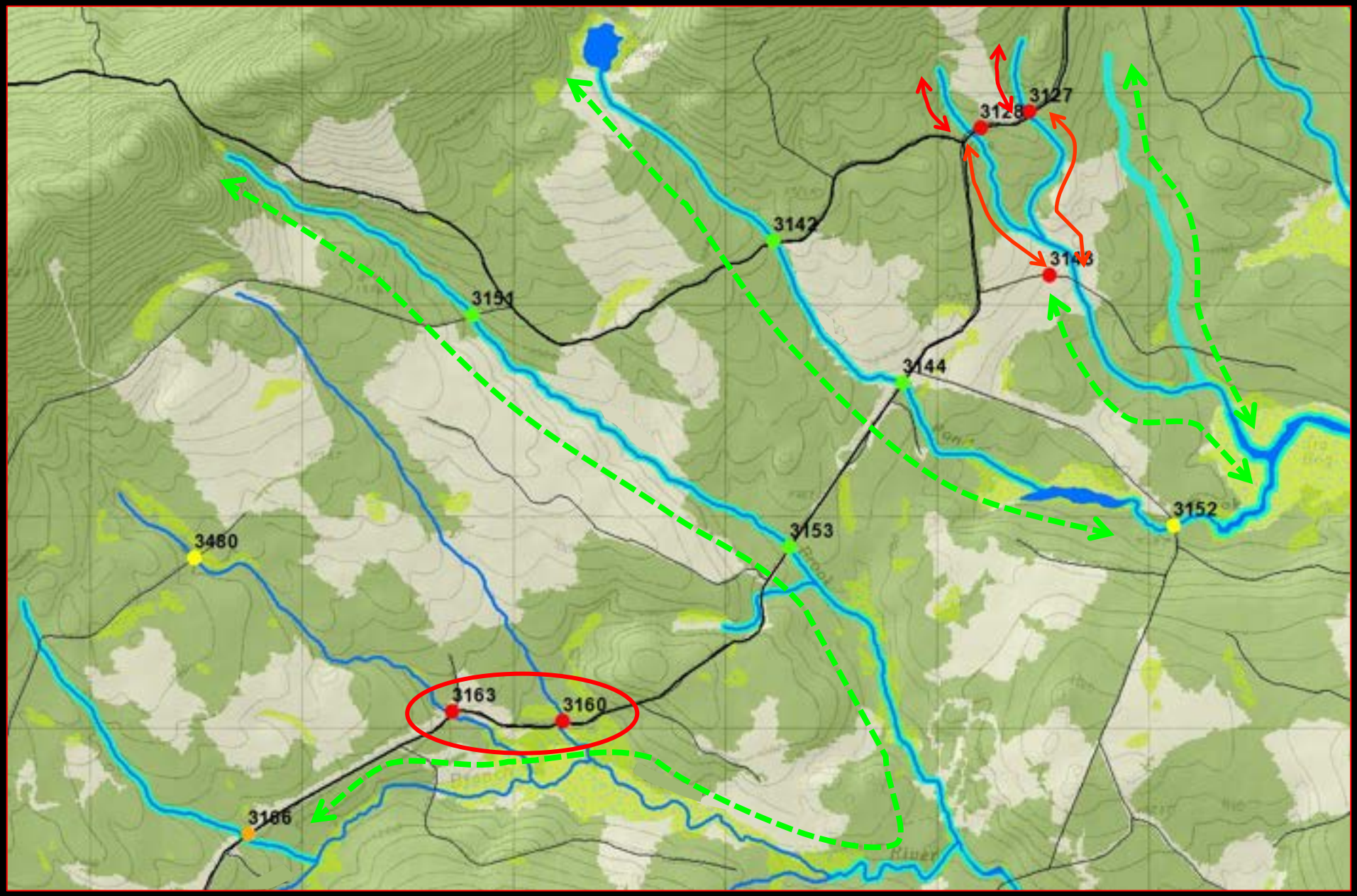
Barrier Class by Road Class



n = 25,338

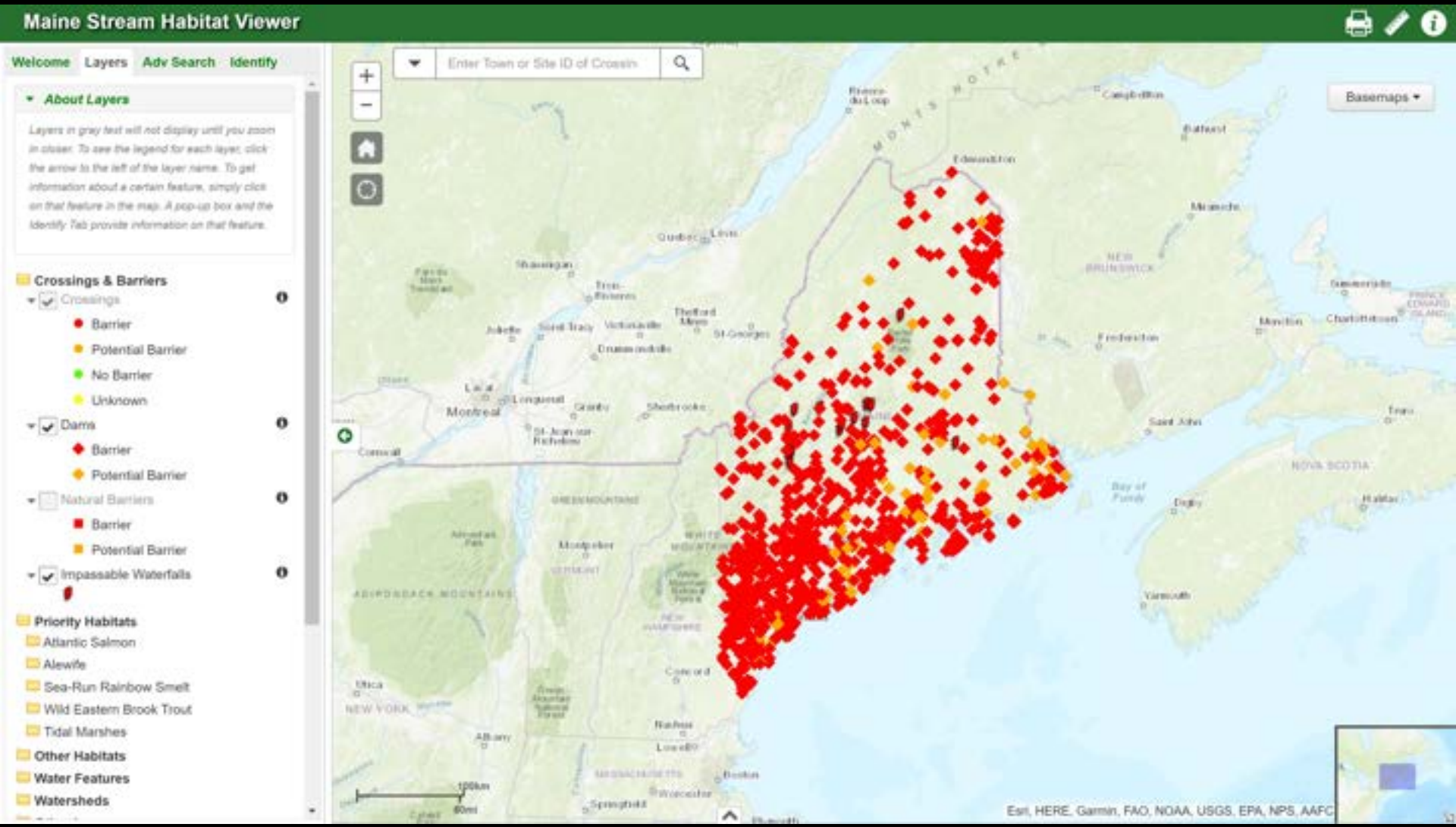
* Mostly Bridges

Crossing Data – BAT Metrics



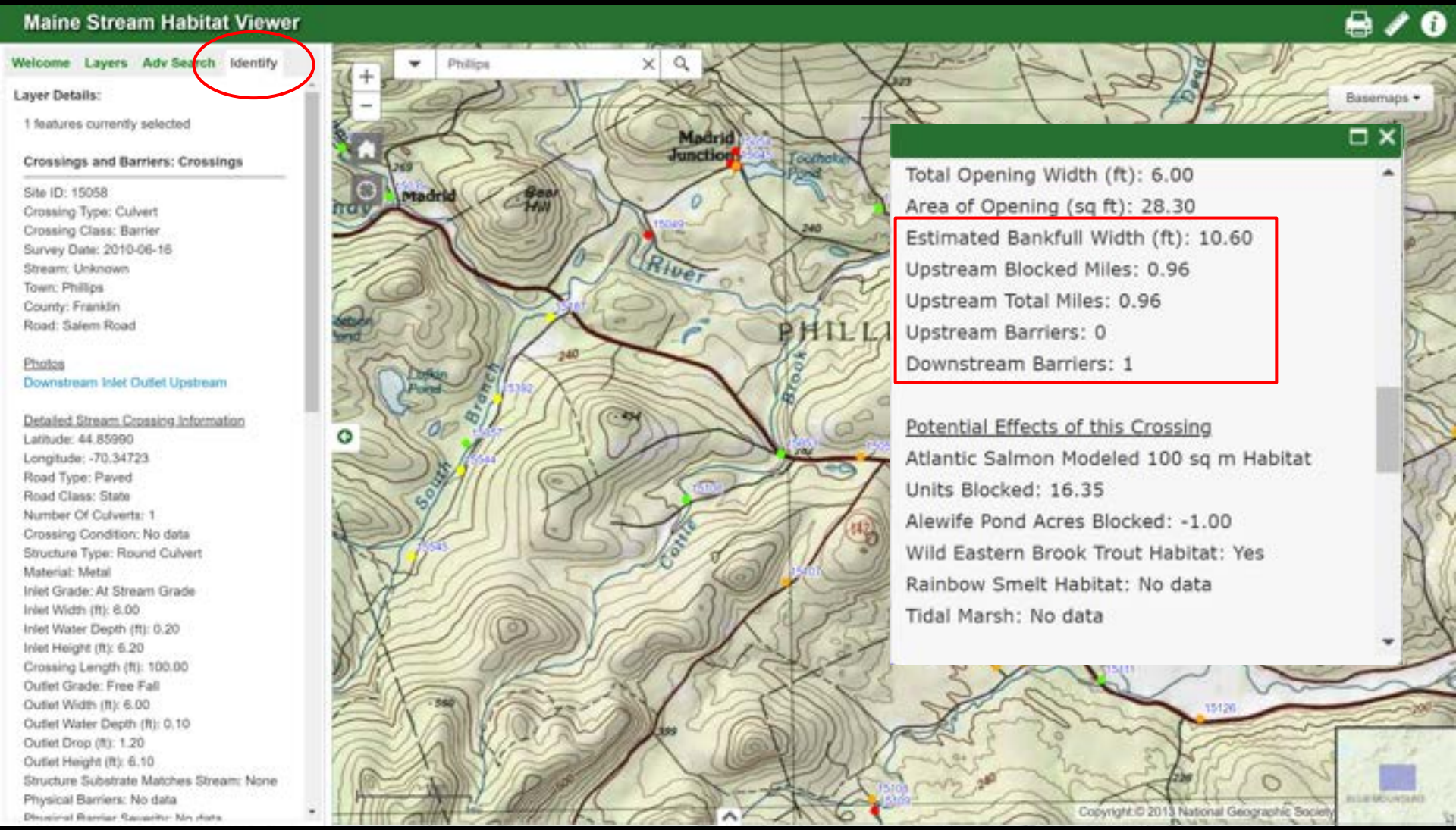
Online Tools

Maine Stream Habitat Viewer



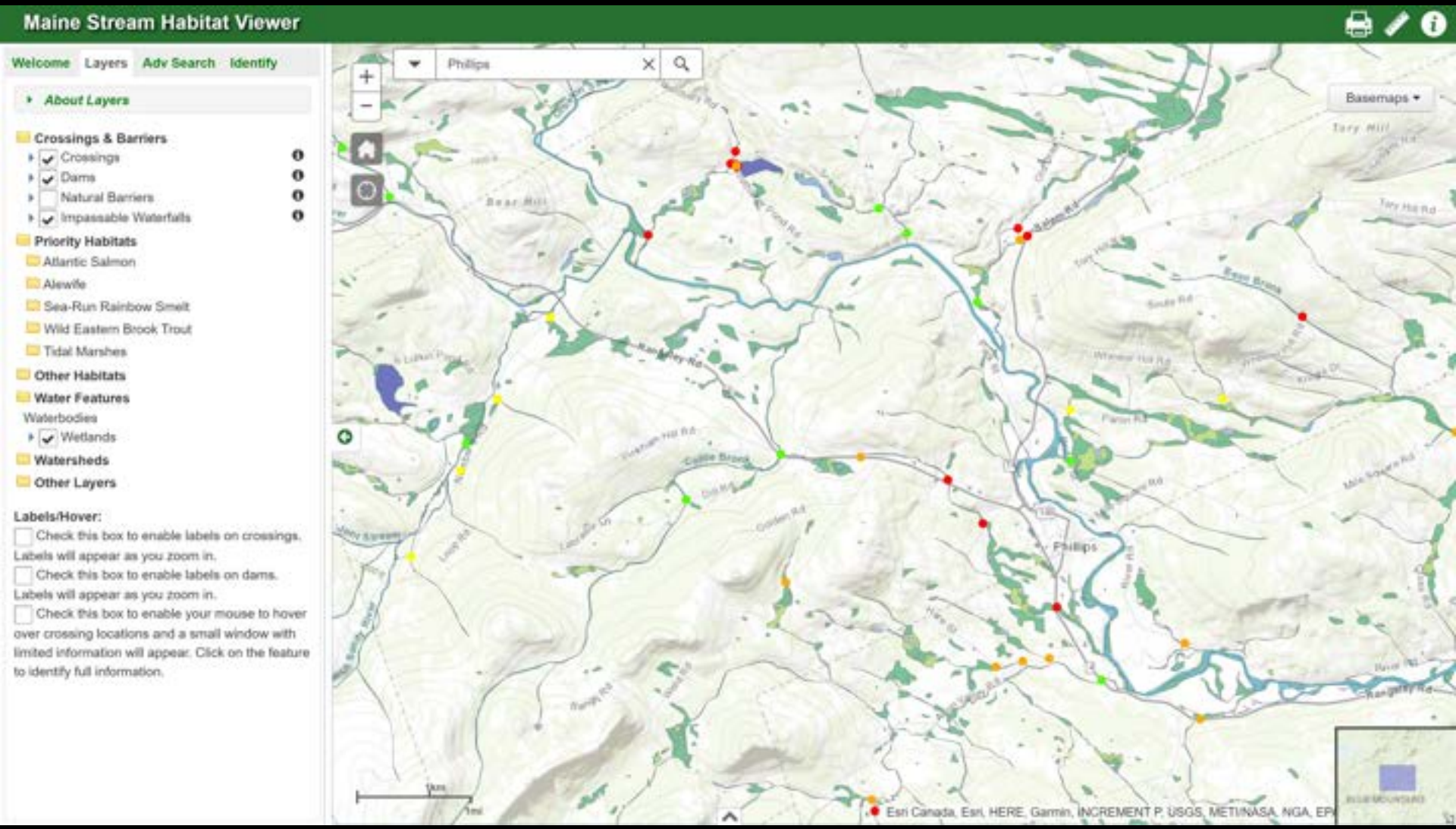
Online Tools

Maine Stream Habitat Viewer

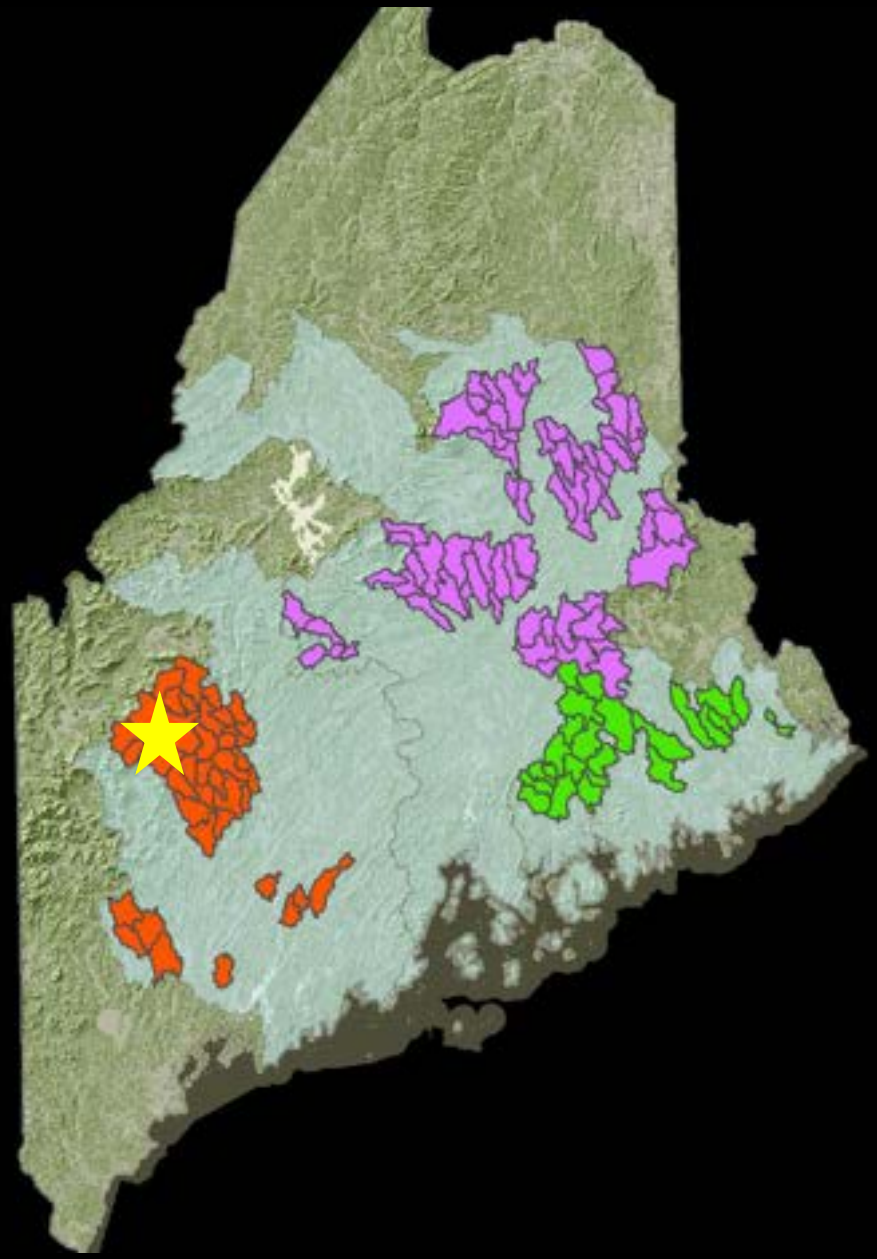


Online Tools

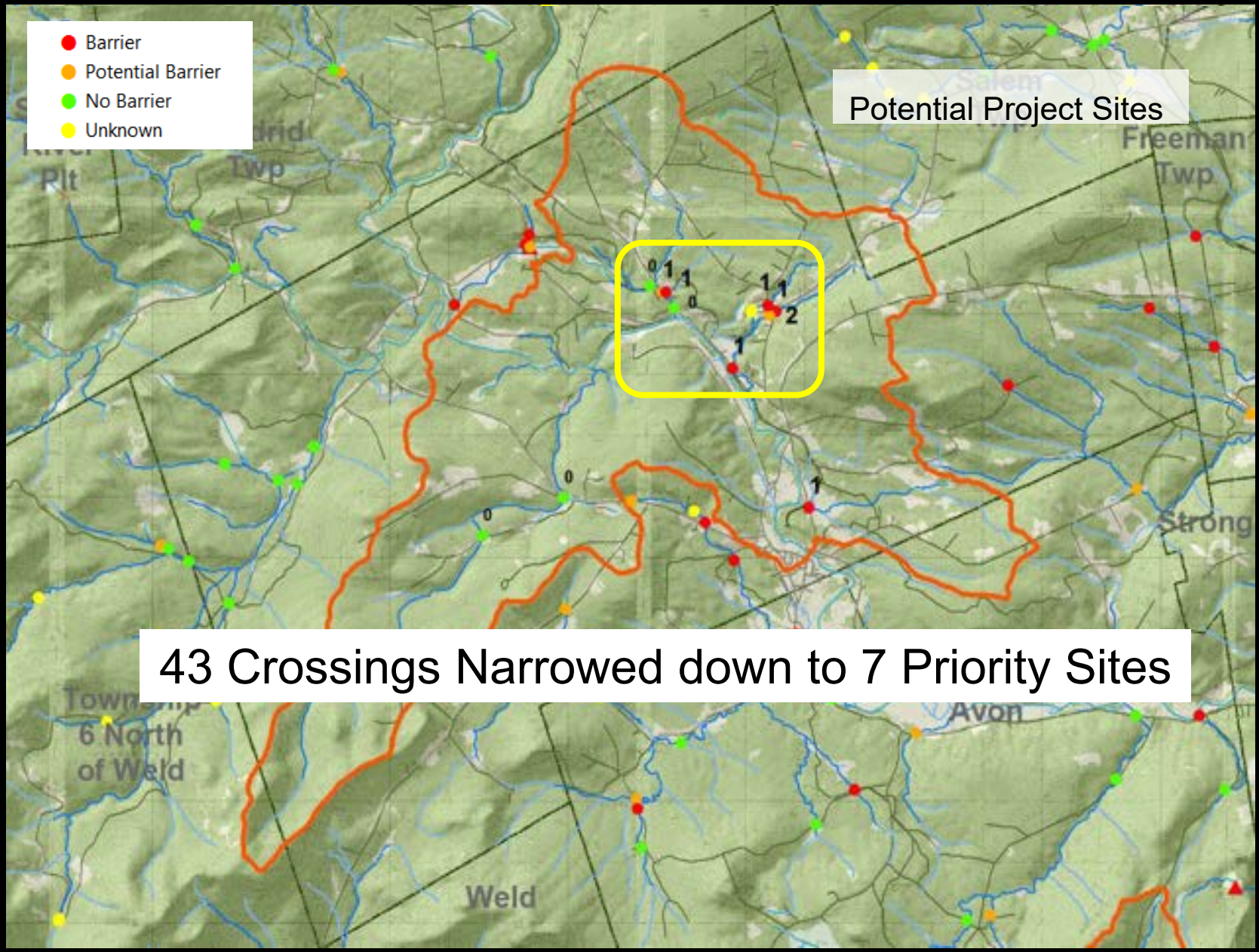
Maine Stream Habitat Viewer



Prioritization – Salmon Focus Areas

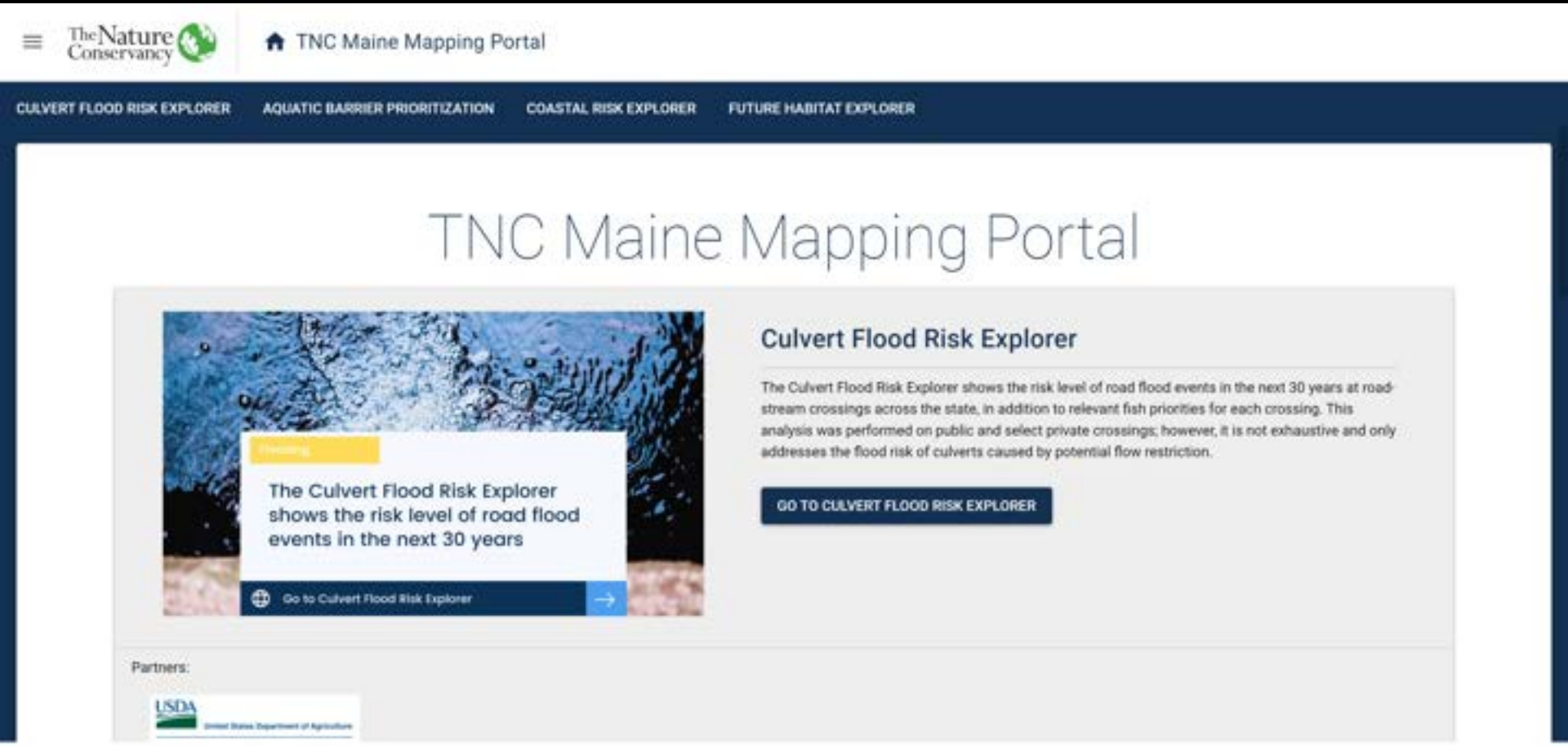


Prioritization – Phillips Focus Area



Online Tools

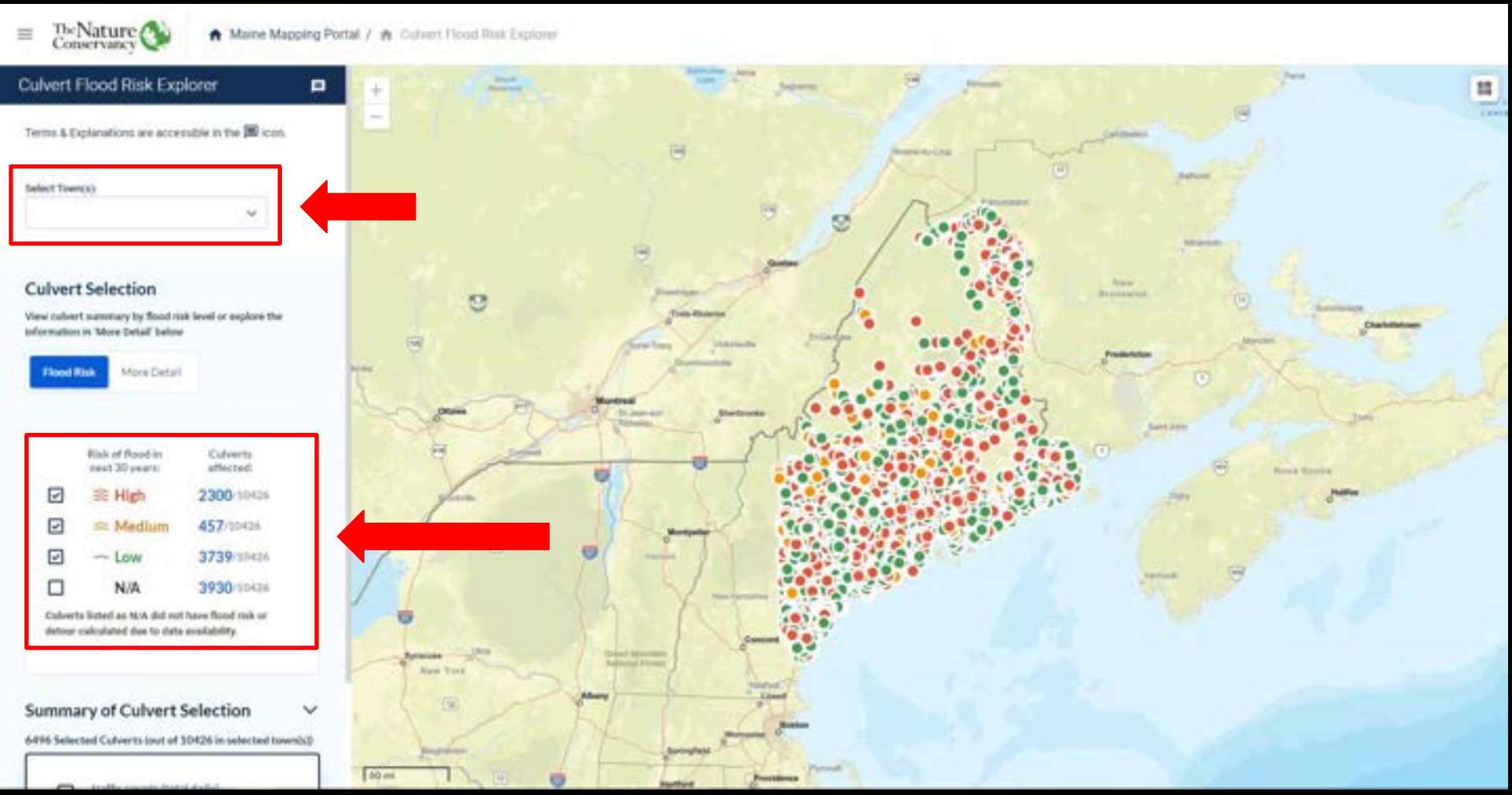
TNC Flood Risk Explorer



https://maps.tnc.org/maine/

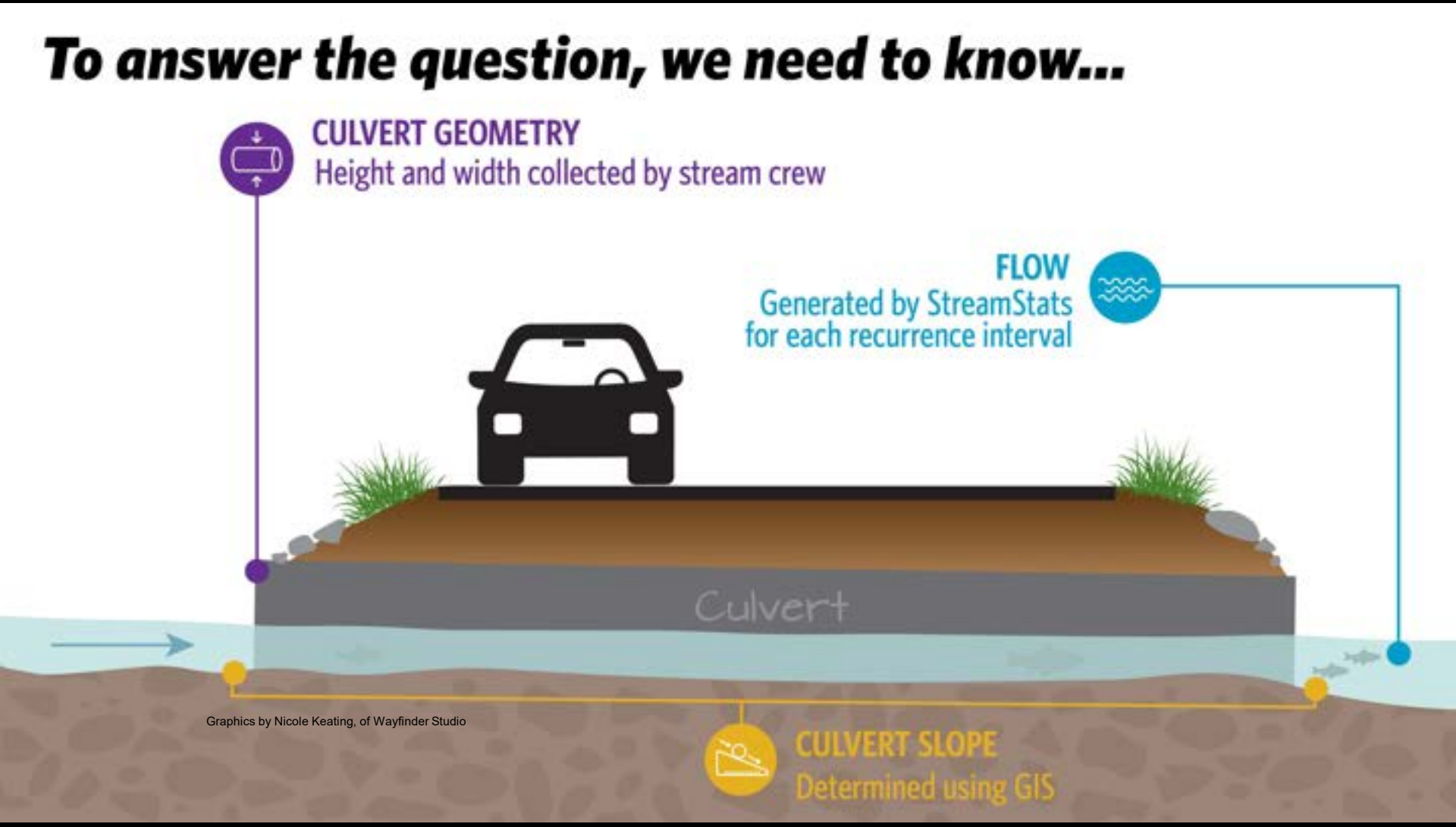
Online Tools

TNC Flood Risk Explorer



Online Tools

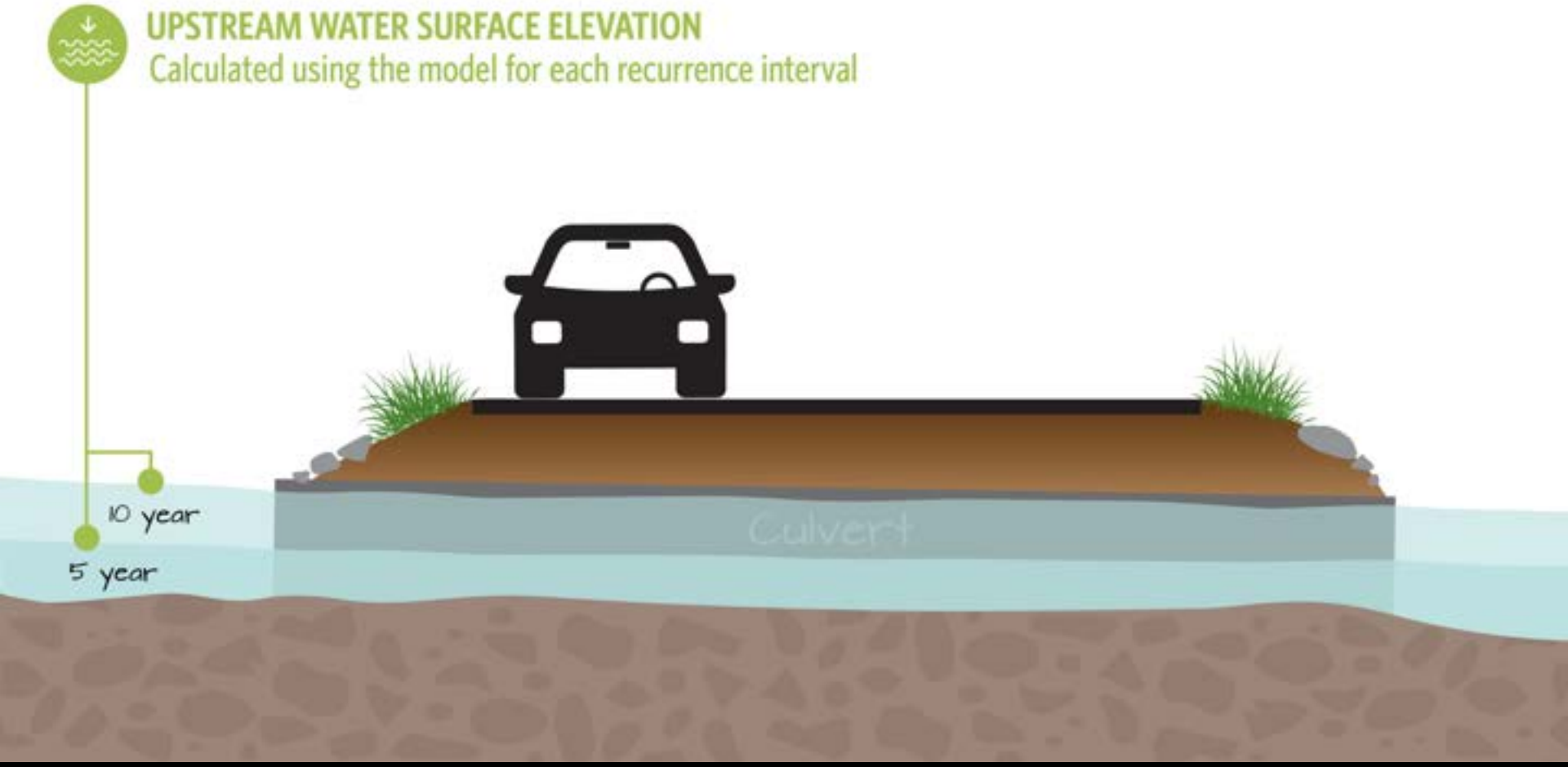
TNC Flood Risk Explorer



Online Tools

TNC Flood Risk Explorer

which allows us to calculate...

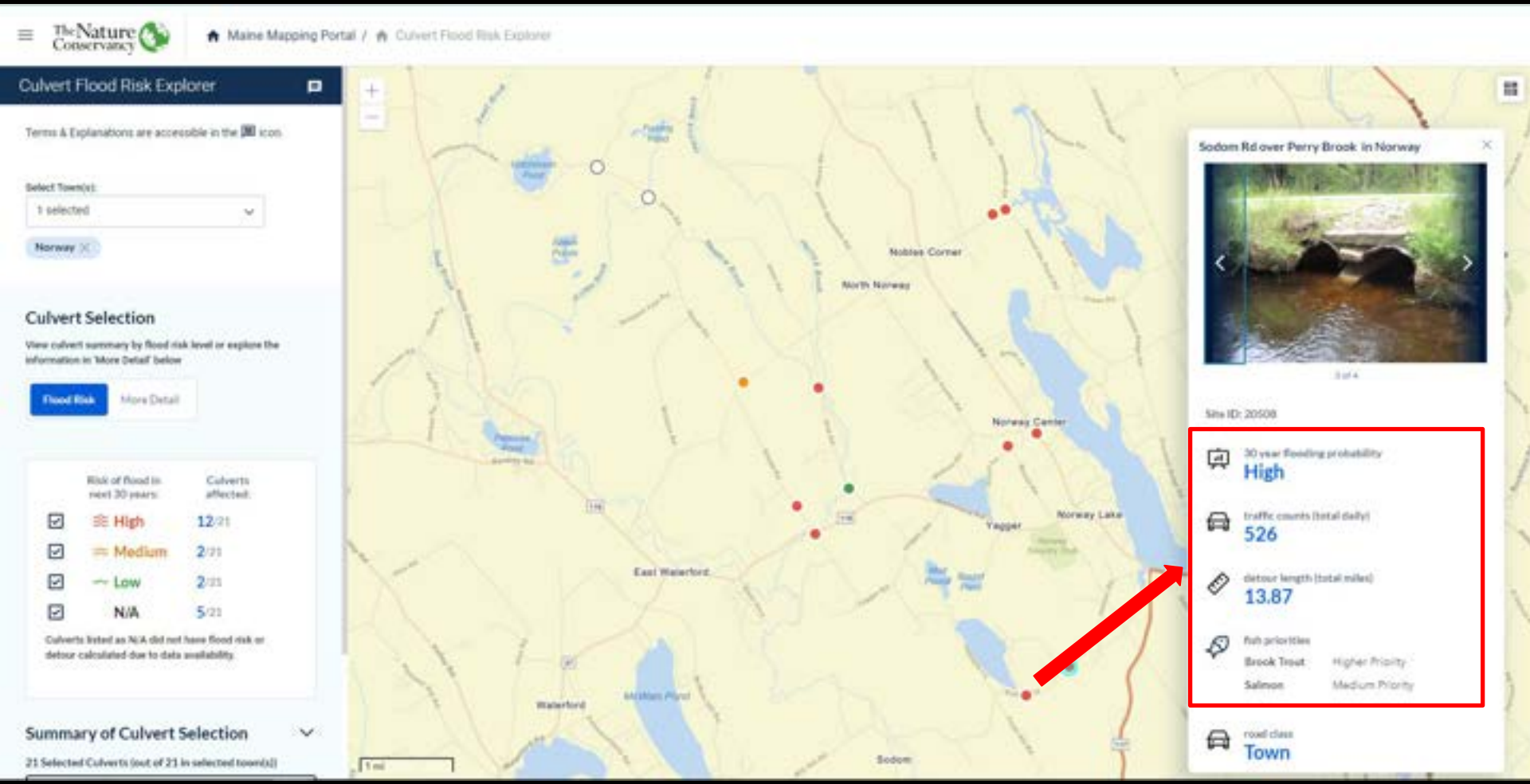


Online Tools

TNC Flood Risk Explorer

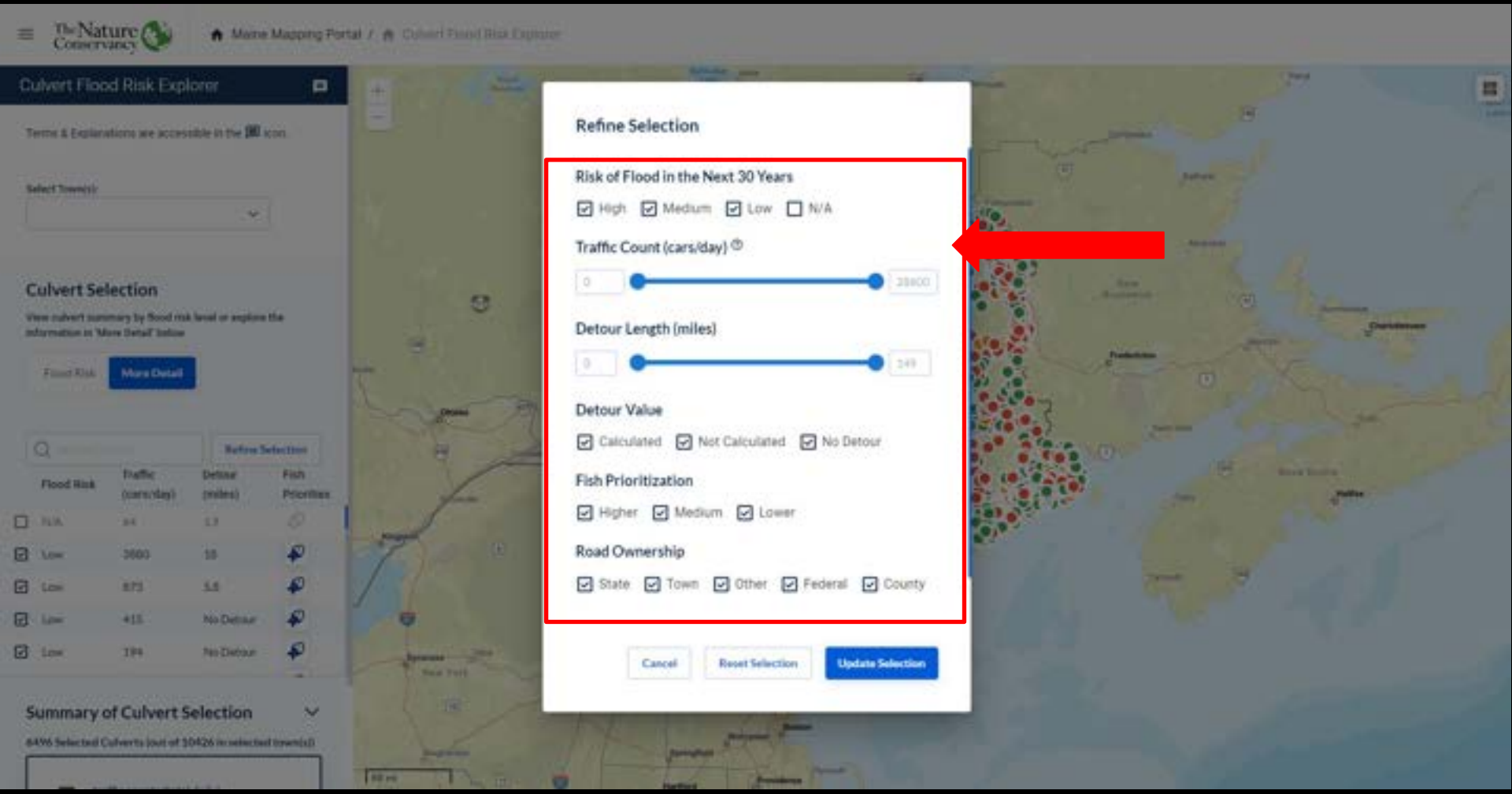
Online Tools

TNC Flood Risk Explorer

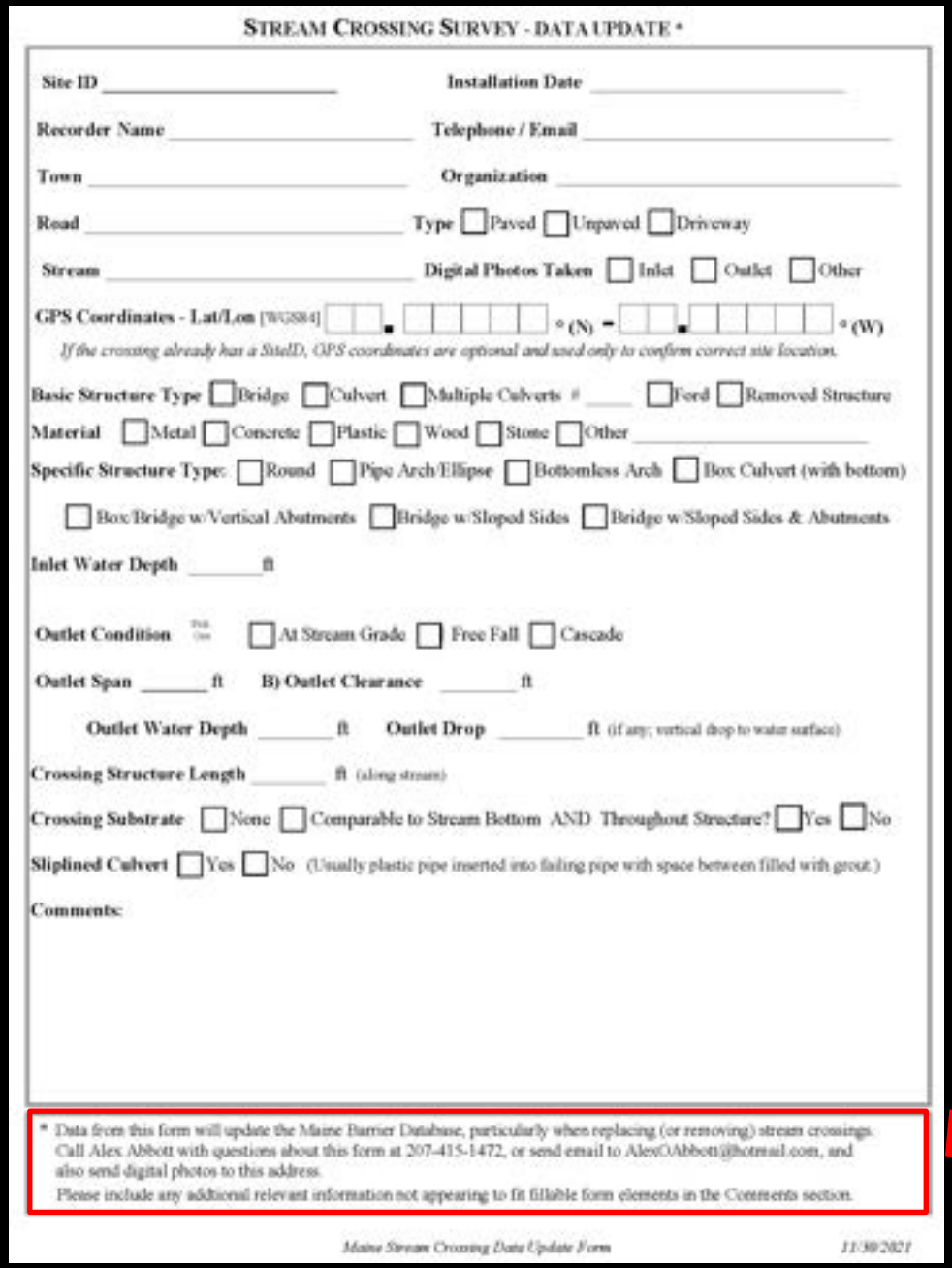


Online Tools

TNC Flood Risk Explorer



Data Update Form



STREAM CROSSING SURVEY - DATA UPDATE *

Site ID _____ Installation Date _____

Recorder Name _____ Telephone / Email _____

Town _____ Organization _____

Road _____ Type ☐ Paved ☐ Unpaved ☐ Driveway

Stream _____ Digital Photos Taken ☐ Inlet ☐ Outlet ☐ Other

GPS Coordinates - Lat/Lon [WGS84] ☐☐.☐☐☐☐ ° (N) - ☐☐.☐☐☐☐ ° (W)

If the crossing already has a SiteID, GPS coordinates are optional and used only to confirm correct site location.

Basic Structure Type ☐ Bridge ☐ Culvert ☐ Multiple Culverts # ____ ☐ Ford ☐ Removed Structure

Material ☐ Metal ☐ Concrete ☐ Plastic ☐ Wood ☐ Stone ☐ Other _____

Specific Structure Type: ☐ Round ☐ Pipe Arch/Ellipse ☐ Bottomless Arch ☐ Box Culvert (with bottom)

☐ Box/Bridge w/Vertical Abutments ☐ Bridge w/Sloped Sides ☐ Bridge w/Sloped Sides & Abutments

Inlet Water Depth _____ ft

Outlet Condition Perch Outlet ☐ At Stream Grade ☐ Free Fall ☐ Cascade

Outlet Span _____ ft B) Outlet Clearance _____ ft

Outlet Water Depth _____ ft Outlet Drop _____ ft (if any; vertical drop to water surface)

Crossing Structure Length _____ ft (along stream)

Crossing Substrate ☐ None ☐ Comparable to Stream Bottom AND Throughout Structure? ☐ Yes ☐ No

Sliplined Culvert ☐ Yes ☐ No (Usually plastic pipe inserted into failing pipe with space between filled with grout.)

Comments:

* Data from this form will update the Maine Barrier Database, particularly when replacing (or removing) stream crossings. Call Alex Abbott with questions about this form at 207-415-1472, or send email to AlexOAbbott@hotmail.com, and also send digital photos to this address.
Please include any additional relevant information not appearing to fit fillable form elements in the Comments section.

Maine Stream Crossing Data Update Form 11/30/2021

The crossing data is only good if it is kept up-to-date!

Remember! Restoration doesn't happen overnight
Crossing upgrades will be done over time.