

Culvert Prioritization Results

Top 7 Crossings for Flood Risk

This chart is a summary of town and county-managed road-stream crossings with the shortest flood intervals (i.e. most likely to flood the road) based on modeling performed by the University of Connecticut. Not that only closed-bottomed structures (e.g., culverts) were modeled for risk of failure.

Photo	Flood Interval	Structure #	Road	Map Key	Crossing Code
A	2	27	Mill Road	4E	xy4193453873513191
B	2	106	Kaye Road Detour	2E	xy4200003373496673
C	2	16	Rudd Drive	3E	xy4197944973504130
D	5	24	Mill Road	4E	xy4191837473518146
E	10	52	Boston Corners Road	2E	xy4199734673507936
F	2	25	Mill Road	4E	xy4192036973518111
G	50	53	Boston Corners Road	2E	xy4200652573508196





Town Prioritization Workshop Results

May 4, 2020

HVA distributed copies of the Road-Stream Crossing Inventory document to key decision makers in Northeast., including the Town Supervisor and the Highway Supervisors for North East and Millerton. These individuals were encouraged to share the documents with other key figures for comment.

HVA then held a meeting with the town that was guided by a set of questions developed by HVA to best understand the distinct flood-risk issues at specific sites in each town. The goal of this meeting was to identify sites that were identified as risks by the town participants and determined to have a high potential for ecological restoration. Sites that exemplified the intersection of these two issues, flood resiliency and habitat restoration, were then selected in each town for further project development.

The following road-stream crossings were specifically mentioned in the North East municipal meeting. Crossings that were determined to be high priority are highlighted in gray. Meeting minutes can be found in Appendix C.

Guiding Questions:

- Q#1: Which structures regularly flood the road?
- Q#2: Has water over the road or other crossing failure blocked access for Town residents to essential services, such as Fire/EMS?
- Q#3: Which structures require regular sediment, debris and/or ice removal?
- Q#4: Are you aware of structures that are in poor condition and need to be repaired or replaced?

Photo	Structure #	Map Key	Road	Crossing Code	Notes
A	12	3E	Wakeman Road	xy4195340273517144	Cole Lawrence has observed increased frequency of flooding, about six times per summer. NAACC barrier evaluation = moderate
B	9	3E	South Center Street	xy4194997673508970	The stream takes a 90 degree turn to enter the structure; no water over the road in the past 3 years (since Cole has been around), but the situation seems to be getting worse [with the water hitting the structure as it turns]; Cole Lawrence said he hasn't had to go in and clear out debris
C	88	3E	Route 22	xy4195511973514594	Cole Lawrence densely vegetated and possibly slowing flows on the upstream end, but did not indicate that there are any issues with
D	35	5D	Perrys Corners Road	xy4189638073550359	The last section toward the outlet is pulling apart and causing the road to cave in; they have never seen it flood the road; note that this structure is a conservation priority (significant barrier)

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Photo	Structure #	Map Key	Road	Crossing Code	Notes
E	36	5D	Perrys Corners Road	xy4189754173547786	The only issue is when the inlet gets blocked with the debris, then the water has gone over the road ~once every 5 years; Would make sense to do this structure when they do the one above, ideally within the next 5 years
F	31	5C	Morse Hill Road	xy4190063373576388	Headwall is failing; they don't have issues with flooding or debris
G	13	3E	N Center Street	xy4196367273519163	Concrete is failing; they don't have issues with flooding or debris
H	7	3D	Old post Road 2	xy4197602673525807	Poor condition, nothing left for the guiderail to attach to
I	28	5B	Sheafer Road	xy4190072073616305	There have been on-going discussions of closing the road, it is currently a town road, but there are landowners who are avid fishermen and they want to replace/remove the culvert; o Probably not worth focusing on this one because of those on-





Top Conservation Priorities

All structures ranked as significant or severe barriers to aquatic organism passage that are on town- or county-managed roads. Potential highest priorities based on conservation value are highlighted in green, as determined by being the first barrier up on a major water body or the last barrier before the headwaters. Blue highlighting indicates overlap between barrier status and flood risk.

Crossing Code	Map Index	Structure #	Barrier	Road
xy4203032073504426	1E	1	Severe barrier	Quarry Hill Road
xy4200652573508196	2E	53	Severe barrier	Boston Corners Road
xy4199350273507056	2E	4	Severe barrier	Kaye Road
xy4200081573497078	2E	107	Severe barrier	Kaye Road Detour
xy4199644173496291	2E	104	Significant barrier	Kaye Road Detour
xy4196385073518770	3E	14	Severe barrier	Beilke Road
xy4197837073507700	3E	55	Significant barrier	Rudd Pond Road
xy4193331073596181	4B	60	Severe barrier	Route 83
xy4192376273595950	4B	17	Severe barrier	Shekomeko Road
xy4191393873604909	4B	57	Significant barrier	Smithfield Road, County Road 5
xy4192838573599045	4B	59	Severe barrier	Sn Fri Road, Route 83
xy4194155173595037	4C	67	Severe barrier	McGhee Hill Road, County Road 64
xy4193532273546556	4D	69	Severe barrier	McGhee Hill Road, County Road 64
xy4191935273553896	4D	18	Severe barrier	Silver Mountain Road
xy4193453873513191	4E	27	Severe barrier	Mill Road
xy4190212773579689	5C	32	Severe barrier	Morse Hill Road
xy4190063373576388	5C	31	Significant barrier	Morse Hill Road
xy4190814273577772	5C	75	Severe barrier	Smithfield Road, County Road 5
xy4188695073591041	5C	70	Significant barrier	Smithfield Road, County Road 5
xy4189224373586691	5C	71	Significant barrier	Smithfield Road, County Road 5
xy4188867273545230	5D	33	Severe barrier	Haight Road
xy4189638073550359	5D	35	Severe barrier	Perrys Corners Road

Stream Crossings in Proximity to Vulnerable Populations

The following stream crossings were identified by Emergency Services personnel and North East Community Center (NECC) staff as being in proximity to residents who receive food, transportation, and emergency assistance through NECC. Flooding at these locations would impact NECC's ability to serve these vulnerable parts of the community.

Notes and maps from the June 4, 2021 meeting can be found in Appendix E.

Structure #	Map Key	Road	Crossing Code	Notes
12	3E	Wakeman Road	xy4195340273517144	Flooding associated with this structure exacerbates problems associated with old and failing infrastructure (e.g.. sump pumps and septic) of surrounding households—potential to cause water quality issues.
9	3E	South Center Street	xy4194997673508970	NECC is located just upstream of this crossing. Flooding here cuts off ability for NECC to provide necessary community services.
24	4E	Mill Road	xy4191837473518146	Crossing was recently upsized—putting greater pressure on downstream structure. Flooding at this location cuts off emergency access to at least two households
88	3E	Route 22	xy4195511973514594	Nearby residences served by NECC.
7	3D	Old Post Road	xy4197602673514594	Nearby residences served by NECC.

Multiple-ranked Priority Stream Crossings

The following stream crossings were ranked on at least two of the previous priority lists: conservation priority, risk of failure priority, and/or municipal priority.

Structure #	Map Key	Road	Crossing Code	Conservation Priority	Risk of Failure Priority	Municipal Priority
59	2E	Boston Corners Road	xy4200652573508196			
35	4E	Mill Road	xy4193453873513191			
24	4E	Mill Road	xy4191837473518146			
38	5C	Morse Hill Road	xy4190063373576388			
35	5D	Perrys Corner Road	xy4189638073550359			