

Alternatives Analysis

Narrative Description summarizing key aspects of the Art. 97 Action

Action on land designated protected open space under Article 97 is comprised of easements and temporary access on 15,977 square feet to facilitate reconstruction of the Stillwater Bridge. There are two parcels involved (tax map 89-11 and 89-13) owned by Great River Hydro LLC on which the Department of Conservation and Recreation holds a Conservation Restriction. The table below summarizes the easements and temporary construction access sought:

Parcel ROW Plan	Titleholder	Easement		Remarks
		Type	Area (SQ FT)	
E-1	GREAT RIVER HYDRO LLC	PERM.	2,218	BRIDGE COMPONENTS, GRADING (MAX 2:1), LOAM & SEED
E-2			2,976	BRIDGE COMPONENTS
E-3			1,105	BRIDGE COMPONENTS, GRADING (MAX 2:1), LOAM & SEED, TREE REMOVAL
D-S-1			548	INSTALL DRAINAGE, INSTALL INFILTRATION BASIN
D-1			570	INSTALL DRAINAGE OUTFALL
S-1			16	INSTALL INFILTRATION BASIN
PUE-6			164	OVERHEAD WIRE RELOCATION
TCA-1		TEMP.	6,912	TEMPORARY CONSTRUCTION AREA - TO BE GRANTED BY AGREEMENT
A		TEMP.	214	GRADING (MAX 2:1), DRIVEWAY RECONSTRUCTION
B			623	GRADING (MAX 2:1), INSTALL DRAINAGE
C			62	GRADING (MAX 2:1)
D			28	GRADING (MAX 2:1), LOAM & SEED
E			541	OVERHEAD WIRE RELOCATION

Nature of the Proposed Art. 97 Action

(what the Action will involve, essentially a project description, including natural resources that would be impacted)

The purpose of the project is to replace the bridge due to the existing structure's functional obsolescence and structural deficiencies. It has been recommended that the bridge be replaced with a new superstructure supported by cantilever abutments in the existing locations and new piers in new locations. The Bridge construction will be completed in two stages with one eleven-foot travel lane and a four-foot shoulder provided during both stages. Temporary traffic signals will be used during staged construction to control one-lane alternating traffic on the bridge. Beyond the bridge itself, proposed work includes full-depth reconstruction of approximately 50 feet of the south approach and 300 feet of the north approach. Impacted natural resources are documented in Exhibit C: Bridge Type Selection Worksheet developed by Green International Affiliates. These include wetland areas a regulatory floodway/100-year flood plain and Priority Habitat and Estimated Habitat of Rare Wildlife.

Public Purpose/Interest Advanced: Why is the proposed Art. 97 Action necessary? *Funding in Lieu requests must demonstrate that a significant public interest is served.*

The existing Stillwater Bridge, Bridge No. D-06-001, carrying Upper Road over the Deerfield River needs to be replaced due to the deteriorated condition of the structure. There is notable deterioration to the bridge deck, steel beams and bearings, and concrete substructure elements. The bridge is currently posted with a weight limit below the FHWA statutory vehicle loads due to the reduced capacity of the bridge. The piers and South Abutment are also susceptible to scour and undermining from flood events since they are not supported on deep foundations. The Deerfield River has experienced multiple intense storms and high flood events in the past 15 years. The northernmost pier required an emergency repair after Irene which closed the bridge temporarily. A steel sheeting cofferdam was installed around the entire perimeter of the pier to address the undermining. The bridge was closed again last year after a large flood event so it could be inspected before being opened to public use. The replacement of this bridge is necessary for public safety, and its replacement entails impacts to Article 97 land.

Waiver or modification requests for an impact on Art. 97 land under 2,500 sf must demonstrate: i) that a significant public interest is served and ii) that the parcel lacks significant natural resource and recreation value

N/A

Alternatives Evaluated: Demonstrate that the scope of alternatives considered is commensurate with the Art. 97 Action and indicate why each alternative is infeasible or not equivalent. *If associated with a waiver request for the transfer of property interests without a change in use, explain the rationale for the transfer. If associated with a funding in lieu request, demonstrate that there will be no adverse impact on an environmental justice population, public notice has been provided, and it is not feasible to contemporaneously designate replacement land, and indicate how funds will be held and used to obtain replacement land within three years.*

As part of the MassDOT Project Development Process, a Bridge Type Selection Worksheet was prepared to evaluate structure alternatives. Additionally, a Reasonable Alternatives Analysis was performed to evaluate the horizontal and vertical geometry of the new bridge and approach roadways. As part of both processes, coordination with the local community and MassDOT on the proposed width of the bridge in the temporary and final condition was evaluated based on the roadway classification and state standards. Please refer to Appendix C to review these reports and alternative assessment in more detail.

Actions to Minimize an Unavoidable Impact: Describe specific actions that have been or will be taken to reduce impacts to land and relevant natural resources

There is Article 97 property at 3 of the 4 corners of the existing bridge. The bridge and alignment alternative selected to widen the structure to the west is based on the improved safety in the north approach and intersection with Lower Road. It allows for staged construction with a one way alternating lane of traffic maintained. The proposed typical section is the minimum required per the state standards. There was no alternative for a new bridge that met the state and federal standards that would not impact Article 97 in the proposed condition. The alternative selected minimized these impacts as much as possible, while still providing access over the bridge during construction to meet the needs of the community.

Mitigation: Describe parcels considered to provide replacement land to mitigate the impact of the proposed Art. 97 Action. *Demonstrate, in writing and by including maps or other information, that the proposed replacement land is comparably located.*

The Town of Deerfield identified a 5.5-acre parcel of municipally-owned land off of Mill Village Road/Martin Falls Road as suitable replacement land. The parcel is along the east bank of the Deerfield River within one mile of the existing Article 97 land as the crow flies. The land has an appraised fair market value of \$11,000. Access would be provided via purposive and geographical extension of existing easements that the Town holds for dike maintenance on an abutting parcel.

Public Comment (Describe means of soliciting/collecting and provide comments and responses)

All impacted property owners were interviewed prior to appraisal for determination of just compensation, including Great River Hydro LLC, the owner of the existing Article 97 land. The project has been publicly discussed at a number of Selectboard meetings in 2024 and 2025 and was the subject of three articles (two of which carried unanimously) at Annual Town Meeting on April 28, 2025.