The design meets all of the performance standards required in 310 CMR 10.54 4(a)(b).

3.2 Bordering Vegetated Wetlands (310 CMR 10.55) and Buffer Zone

No permanent impacts to BVW are proposed. 1,900 square feet of temporary impacts to BVW are proposed, which are associated with temporary disturbance to vegetation and soils during construction. All areas of temporary impact to BVW will be restored in place by seeding with the New England Wetmix seed mixture from New England Wetland Plants Inc. (NEWP). All BVW restoration areas will be raked prior to seeding to restore any areas of compaction and to ensure good soil/seed contact. All seeded areas will be stabilized with a weed free straw mulch. Erosion and sedimentation controls will be used during construction to minimize the impacts to the adjacent resource areas.

This design complies with the performance standards required within 310 CMR 10.55

3.3 Land Under Waterbodies (310 CMR 10.56)

There are no proposed temporary or permanent impacts to land under waterbodies.

3.4 Bordering Land Subject to Flooding (310 CMR 10.57)

The 100-year floodplain is at elevation 234', according to the FIRM map provided in **Appendix C**. The proposed fishing platform and kayak/canoe launch will occur within BLSF between elevations 230' to 234' and therefore the project requires a Cut/Fill analysis be performed at each individual impacted contour interval. See **Table 3** below for a summary of cut and fill volumes at each 1-foot contour interval within the 100-year floodplain.

	Table 3 – Cut / Fill Analysis Summary			
Contour Interval	***Cut***	***Fill***	***Net****	***Compensatory Storage***
El. 230 – 231	0 CF	84 CF	84 CF	-108 CF
El. 231 – 232	0 CF	89 CF	89 CF	-112 CF
El. 232 - 233	-0 CF	15 CF	15 CF	-134 CF
El. 233 – 234	-57 CF	0 CF	-57 CF	N/A
			131 CF	-354 CF

* *Negative numbers represent net cut values.*

Compensatory storage will be required for this project since the cut/fill analysis resulted in net fill in three of the 1-foot contour intervals within the BLSF (100-year floodplain is at elevation 234', according to the FIRM map provided in **Appendix C**). From El. 230-231 there is a net fill of 91 CF, from El. 231-232 there is a net fill of 89 CF, and from El. 232-233 there is a net fill of 31 CF. The proposed compensatory flood storage design is available on Sheet P-1 of the Permit Plans in **Appendix J**.

The total area of permanent BLSF impacts is 200 square feet, which is less than the 5,000-square foot threshold for being deemed to impair the capacity of the floodplain to provide important wildlife habitat functions. The proposed work will not restrict flows or flood stage velocities. Low-impact foundation elements will be used to minimize flow restriction.