(a) Salinity
Salinity is not expected to change.
(b) Water Chemistry
There may be minor changes to water chemistry as a result of suspended sediment during construction. Long-term changes to water chemistry are not expected.
(c) Clarity
Water clarity may be temporarily impacted but will return to base levels after construction. No long-term effects anticipated.
(d) Color
Minor impacts associated with turbidity may affect watercolor during construction. Erosion and sediment control best management practices will be implemented during construction to minimize turbidity.
(e) Odor
No effects are anticipated.
(f) Taste
No effects are anticipated.
(g) Dissolved Gas Levels
Dissolved oxygen levels will be increased as water temperatures are anticipated to decrease.
(h) Nutrients
Nutrient load may increase during construction as a result of resuspension of sediments during removal of the dam. Erosion and sediment control best management practices will be implemented during construction to minimize the suspension of nutrient laden sediment during construction.
(i) Eutrophication
Eutrophication is not expected to occur during construction due to the implementation of erosion and sediment control best management practices.
(j) Others as Appropriate
No other effects are anticipated.

2) Current Patterns and Circulation
(a) Current Patterns and Flow
Moodna creek will now flow unimpeded to the Hudson River. Normal water surface elevation would drop approximately 10 feet above AOP 2, 3, and 2 feet above AOP 1.
(b) Velocity
Velocities are not expected to slightly increase through the dam removal.
(c) Stratification
Stratification is not anticipated to be impacted.
(d) Hydrologic Regime
Surface water hydrology would be restored to a more natural condition.

3) Normal Water Level Fluctuations (tides, river stage, etc.)

Water level fluctuations are not anticipated to change.

4) Salinity Gradients
Salinity gradients will not change.

c. Actions That Will Be Taken to Minimize Impacts
Impacts are anticipated to be short term and to occur only during construction activities.

d. Suspended Particulate/Turbidity Determinations

1) Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Disposal Site
Minor impacts in suspended particulates and turbidity are expected during the construction however, levels should return to normal post construction.

2) Effects on Chemical and Physical Properties of the Water Column
(a) Light Penetration
Minor impacts to light penetration may occur during construction as sediments rise in the water column during construction.
(b) Dissolved Oxygen
Dissolved oxygen levels may be reduced during construction however; they are anticipated to increase after construction.
(c) Toxic Metals and Organics
There is a potential that construction activities may disturb sediments contaminated with organics. Erosion and sediment controls such as silt fence and turbidity curtains with help mitigate that potential.
(d) Pathogens
No effects on pathogens are anticipated
(e) Aesthetics
No effects on aesthetics are anticipated
(f) Others as Appropriate
No other effects anticipated

3) Effects on Biota
(a) Primary Production, Photosynthesis
Primary production is not anticipated to change.
(b) Suspension/Filter Feeders
Construction activities could create turbid conditions that would temporarily impact suspension/filter feeders. Erosion and sediment control best management practices will be implemented during construction to reduce sedimentation.
(c) Sight Feeders
Construction activities could create turbid conditions that would temporarily impact sight feeders. Erosion and sediment control best management practices will be implemented during construction to reduce sedimentation

4) Actions taken to Minimize Impacts

Measures to be implemented to minimize adverse impacts include: implementation of erosion and sediment control best management practices such as turbidity curtains and on-site restoration of temporary workspaces.

e. Contaminant Determinations

There are no concerns with contaminant within the alternative area. All fill material will be clean and will not pose a risk.

f. Aquatic Ecosystem and Organism Determinations

1) Effects on Plankton
An increase in sedimentation/nutrients during construction may increase some plankton species such as algae. Erosion and sediment control best management practices will be implemented to reduce this potential.

2) Effects on Benthos
Benthos is not expected to change.

3) Effects on Nekton
Mobile aquatic life will move from area during construction.

4) Effects on Aquatic Food Web
The project will have temporary adverse impacts on the food web as a result of turbidity. Permanent significant adverse impacts are not expected from implementation of the project.

5) Effects on Special Aquatic Sites

(a) Sanctuaries and Refuges
The site is within the NY Department of State (DOS) Significant Coastal Fish and Wildlife Habitat and a DOS Significant Scenic Area. Effects include increased feeding, hiding, and spawning habitat for fishes, as they will be able to run further upstream.

(b) Wetlands
Wetlands will be positively impacted shallow areas in the impoundment area are expected to naturally revert to wetlands after the AOPs are removed.

(c) Mud Flats
There are no mud flats in the area.

(d) Vegetated Shallows
Vegetated shallow will be positively impacted as shallow areas in the impoundment area are expected to naturally revert to wetlands after the AOPs are removed.

(e) Coral Reefs
There are no coral reefs at the site.

(f) Riffle and Pool Complexes
There are no riffle and pool complexes will be maintained at the sites.

6) Threatened and Endangered Species
Threatened and Endangered Species will not be negatively impacted

7) Other Wildlife
Other wildlife will be temporarily impacted during construction but will be temporary.

8) Actions to Minimize Impacts
The impacts will be temporary in nature and only occur during construction.

g. Proposed Disposal Site Determinations

1) Mixing Zone Determination
The mixing zone will not be impacted.

2) Determination of Compliance with Applicable Water Quality Standards
All fill used to construct the project will be comprised of clean material that meets water quality standards and comes from a state approved and permitted source.

3) Potential Effects on Human Use Characteristic

(a) Municipal and Private Water Supply
Municipal and private water supply will not be impacted.

(b) Recreational and Commercial Fisheries
There are no commercial fisheries in the project area. Recreational fisheries may be positively impacted with the increase of available habitat. It is possible that, the fish consumption advisories for the Hudson River would be expanded to a new upstream extent on Moodna Creek.

(c) Water Related Recreation
Water related recreation will be positively impacted as flow will be unimpeded from Salisbury Mills Dam to the Hudson River

(d) Aesthetics
Aesthetics will be altered as the dam is removed, the surface water level will decrease by 10 feet near AOP 2 and 3 and 2 feet near AOP 1.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves
There will be no adverse impact on Parks, National and Historical Monuments, National Seashores, Wilderness Areas, or Research Sites.

h. Determination of Cumulative Effects on the Aquatic Ecosystem
Herring and eel would be able continue further upstream to the natural ledges, at Salisbury Mills Dam upstream.

i. Determination of Secondary Effects on the Aquatic Ecosystem
There are no secondary effects on the aquatic ecosystem.

IX Findings of Compliance or Non-Compliance With the Restrictions on Discharge

a. Adaptation of the Section 404(b)(I) Guidelines to this Evaluation
No significant adaptation of the Section 404(b)(1) guidelines was made relative to this evaluation.

b. Evaluation of Availability of Practicable Alternatives to the Proposed Discharge Site Which Would Have Less Adverse Impact on the Aquatic Ecosystem
The other alternatives would not have less adverse impacts.

c. Compliance with Applicable State Water Quality Standards
The alternative will comply will a state water quality standards.

d. Compliance with Applicable Toxic Effluent Standard or Prohibition Under Section 307 Of the Clean Water Act

The proposed activity will not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.

e. Compliance with Endangered Species Act of 1973

The proposed alternative will not harm any endangered species or their critical habitats under the Endangered Species Act of 1973.

f. Compliance with Specified Protection Measures for Marine Sanctuaries Designated by the Marine Protection. Research, and Sanctuaries Act of 1972

The proposed alternative will not impact the any Marine Sanctuaries.

g. Evaluation of Extent of Degradation of the Waters of the United States

1) Significant Adverse Effects on Human Health and Welfare

(a) Municipal and Private Water Supplies

The proposed alternative will not result in significant adverse effects on human health and welfare including municipal and private waters supplies.

(b) Recreation and Commercial Fisheries

The proposed alternative will not result in significant adverse effects on human health and welfare including recreation and commercial fisheries.

(c) Plankton

The proposed alternative will not result in significant adverse effects on human health and welfare including plankton.

(d) Fish

The proposed alternative will not result in significant adverse effects on human health and welfare including fish.

(e) Shellfish

The proposed alternative will not result in significant adverse effects on human health and welfare including shellfish.

(f) Wildlife

The proposed alternative will not result in significant adverse effects on human health and welfare including wildlife.

(g) Special Aquatic Sites

The proposed alternative will not result in significant adverse effects on human health and welfare including special aquatic sites

2) Significant Adverse Effects on Life Stages of Aquatic Life and Other Wildlife Dependent on Aquatic Ecosystems

The proposed alternative will not result in significant adverse effects on life stages of aquatic life and other wildlife dependent on aquatic ecosystems.

3) Significant Adverse Effects on Aquatic Ecosystem Diversity, Productivity and Stability

The proposed alternative will not have significant adverse effects on aquatic ecosystem diversity, productivity, and stability.

4) Significant Adverse Effects on Recreational, Aesthetic, and Economic Values

The proposed alternative will not have significant adverse effects on recreational, aesthetic, and economic values.

h. Appropriate and Practicable Steps Taken to Minimize Potential Adverse Impacts of the Discharge on the Aquatic Ecosystem

Appropriate steps to minimize potential adverse impacts of the discharge of fill material include the implementation of an erosion and sediment control plan and judicious engineering practices.

i. On the Basis of the Guidelines. The Proposed Disposal Site(s) for the Discharge of Dredged or Fill Material

1) Specified as complying with the requirements of these guidelines.