

Finding of No Significant Impact

South Branch Pike River Aquatic Ecosystem Restoration Study,
Kenosha County, Wisconsin
Section 206 WRDA 1996
Integrated Feasibility Report and Environmental Assessment

January 2022

The U.S. Army Corps of Engineers Chicago District (Corps), conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The Integrated Feasibility Report and Environmental Assessment (IFR/EA) dated January 2022 for the South Branch Pike River Aquatic Ecosystem Restoration Study addresses past human induced disturbances within the watershed that have altered and modified natural biological processes and have reduced flora and fauna biodiversity, which allows for opportunities and feasibility in Kenosha County, Wisconsin.

The IFR/EA, incorporated herein by reference, evaluated various alternatives that would restore sustainable riverine and riparian habitat in the study area. The Recommended Plan is the National Ecosystem Restoration Plan and includes:

- H1 Hydrologic Reestablishment via In-line Valves & Native Plant Communities – This restoration alternative would reestablish natural surface and subsurface hydrology and hydroperiodicity. Drain tiles will be permanently disabled during construction using in-line valves. This restoration alternative also includes low-intensity grading to adjust microtopography to further refine site hydrology and redirect certain minor flow paths/ditches/tiles to other county storm water systems, or to the new river channel.
- R3 Natural and Sculpted Riverine Establishment – This restoration alternative entails returning riverine habitat structure without natural processes by sculpting the landscape. This would be accomplished via excavation, grading, placing native rock structures and large woody debris. Stream channel and banks would be sculpted to mimic natural geomorphology, where channel development - glide, riffle, run and pool - features would be strategically placed and graded to maintain geomorphology. Low flow channels would be made more sinuous. Stream stability would be induced with large woody debris, rock structures and native plantings. The river channel would be connected to its floodplain.

In addition to the “no action” plan, eight alternatives were evaluated. The alternatives for both phases included varying levels of ecosystem outputs. The Final Array of Alternatives evaluated were deemed “Best Buy” alternatives using IWR Planning Suite Software. The Final Array of Alternatives included the No Action Plan; Phase II H1+R3 (Hydrologic Reestablishment via Valves & Native Plant Communities + Natural and Sculpted Riverine Establishment); and Phase I and II H1 + R3 (Hydrologic Reestablishment via Valves & Native Plant Communities + Natural and Sculpted Riverine Establishment). The Recommended Plan is Phase I and II H1 + R3 (Hydrologic Reestablishment via Valves & Native Plant Communities + Natural and Sculpted Riverine Establishment). The Final Array of Alternatives for both phases along with the evaluation of the alternatives is presented in Chapter 2 and Chapter 3.

For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the recommended plan are listed in Table 1.

Table 1: Summary of Potential Effects of the Recommended Plan

	Insignificant effects	Insignificant effects as a result of mitigation*	Resource unaffected by action
Geology and Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydrology	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydraulics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous, toxic, and radioactive waste	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Air Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plant Communities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Macroinvertebrates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reptiles and Amphibians	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Birds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mammals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Threatened and Endangered Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Archaeological and Historical Properties	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Social Properties	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Recreational Activities	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transportation and Traffic	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Best management practices (BMPs) as detailed in the IFR/EA will be implemented, if appropriate, to minimize impacts.

No compensatory mitigation is required as part of the recommended plan.

Public review of the IFR/EA and FONSI was completed on January 6, 2022. All comments submitted during the public review period were considered before finalizing the IFR/EA and FONSI.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers determined that the Recommended Plan will have no effect on federally listed species or their designated critical habitat.

Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that historic properties would not be adversely affected by the Recommended Plan. The Wisconsin State Historic Preservation office concurred with the determination on November 29, 2021 via email (see Section A5 of Appendix A).

Pursuant to the Clean Water Act of 1972, as amended, the discharge of fill material associated with the Recommended Plan has been found to be in compliance with section 404(b)(1) Guidelines (40 CFR 230).

The Clean Water Act Section 404(b)(1) Guidelines evaluation is found in Appendix A, section A1 of the IFR/EA.

The Recommended Plan would be implemented under Nationwide Permit 27, Aquatic Habitat Restoration, Establishment, and Enhancement Activities, which the Wisconsin Department of Natural Resources has previously certified compliance with section 401 of the Clean Water Act. All conditions of the water quality certification for Nationwide Permit 27 shall be implemented in order to minimize adverse impacts to water quality.

A determination of consistency with the Wisconsin Coastal Zone Management program pursuant to the Coastal Zone Management Act of 1972 will be obtained from the Wisconsin Coastal Management Program prior to construction. In a letter dated November 16, 2021, the State of Wisconsin stated that the recommended plan appears to be consistent with state Coastal Zone Management plans, pending confirmation based on information to be developed during the pre-construction engineering and design phase. All conditions of the consistency determination shall be implemented in order to minimize adverse impacts to the coastal zone

All applicable environmental laws have been considered and coordination with appropriate agencies and officials has been completed.

Technical, environmental, and cost effectiveness criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State, and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date: 26 January 2022



Paul B. Culberson
Colonel, U.S. Army
District Commander