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Regional Planning and
Environment Division South
Environmental Planning Branch

DECISION RECORD

COMPREHENSIVE ENVIRONMENTAL DOCUMENT

**GREATER NEW ORLEANS HURRICANE AND STORM DAMAGE
RISK REDUCTION SYSTEM**

Description of the Action: As a result of the devastation caused by Hurricane Katrina, Congress and the Administration authorized and funded \$14.6 billion for hurricane and storm damage risk reduction projects in the Greater New Orleans (GNO) area and Southeastern Louisiana. In accordance with that authorization and funding, the United States Army Corps of Engineers (USACE) New Orleans District (CEMVN) embarked on planning, design and construction of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS) to reduce the risk of hurricane and storm damage in metropolitan New Orleans. The HSDRRS was designed to provide risk reduction from a hurricane or storm event that would produce a one percent annual chance exceedance storm surge elevation and associated waves, a so-called "100 year" storm. The Comprehensive Environmental Document (CED) addresses the cumulative impacts of the GNO HSDRRS features that form the 100-year level of risk reduction (LORR) system.¹

The HSDRRS is a 350-mile integrated system located within nine separate sub-basins in southeastern Louisiana within the GNO metropolitan area as shown in Figure 1-1 (Section 1). The HSDRRS consists of two congressionally authorized risk reduction projects - the Lake Pontchartrain & Vicinity Project (LPV) and the Westbank & Vicinity Project (WBV). To ensure the 100-year LORR for potential storm surge traveling up the Mississippi River, a portion of the WBV project is co-located with and built on top of a 15.5-mile reach of the Mississippi River Levee (MRL). That co-located WBV-MRL reach was raised to the 100-year LORR requirements. These WBV-MRL features, the existing MRL and the LPV and WBV perimeter risk reduction features form closed-loop systems on both sides of the river, providing the residents and businesses in the GNO metropolitan area reduced risks from storm events.

The Council on Environmental Quality (CEQ) approved CEMVN's National Environmental Policy Act (NEPA) (42 USC §4321, *et seq.*) Emergency Alternative

¹ "HSDRRS" refers to the 100-year LORR system.

Arrangements (Federal Register Volume 72, Number 48, Tuesday, March 13, 2007) to enable CEMVN to expeditiously complete environmental analysis of the HSDRRS design and construction in emergency circumstances. Under the Alternative Arrangements, CEMVN evaluated individual portions of the HSDRRS in an Individual Environmental Report (IER) once the design for each reach or feature of the system was sufficiently developed to allow environmental analysis, rather than waiting to evaluate the entire system in one Environmental Impact Statement after designing the complete HSDRRS. Following public review and comment on each IER, a decision whether to implement that portion of the HSDRRS was captured in a Decision Record. A total of 66 IERs, supplemental IERs and EAs were prepared to evaluate HSDRRS features.

- IERs 1-17 assessed impacts of the risk reduction features for LPV and WBV HSDRRS.
- IERs 27 and 27a assessed impacts of the outfall canal remediation project.
- IERs 33 and 33a assessed impacts of the WBV-MRL Engineered Alternative Measures and Resilient Features co-located levee feature.
- IERs 18 – 35 (excluding nos. 20, 21, 24 and 34) assessed impacts associated with both government- and contractor- furnished borrow sites and a stockpile site. Seventy-two borrow sites located in twelve parishes in Louisiana, and one county in Mississippi were evaluated.
- Programmatic IERs (PIERs) 36 and 37 assessed the programmatic compensatory mitigation plans for the LPV and WBV, respectively. Specific mitigation sites were further assessed through tiered IERs/EAs.
- Supplemental NEPA (IERs and EAs) documents assessed changes that occurred in the feature engineering and design or location.

In addition to allowing NEPA analysis of individual parts of the system, the Alternative Arrangements also provided that CEMVN would prepare a Comprehensive Environmental Document (CED) to combine the analysis of the IERs and to evaluate cumulative impacts of the HSDRRS. The CED integrates the IERs into a single planning document and contains updated information for IERs that had incomplete or unavailable data at the time the respective IER Decision Record was approved.

The formal termination of the Emergency Alternative Arrangements was announced in the Federal Register (Volume 80, Number 123) on Friday June 26, 2015 (Appendix B). The CEMVN transitioned back to preparing traditional NEPA documents (40 CFR Parts 1500–1508) (1978) in 2015. Once Alternative Arrangements ended, new 100-year HSDRRS construction and mitigation projects were assessed via Environmental Assessments (EAs). In May of 2018, the CEMVN completed the last major risk reduction feature of the 100-year HSDRRS, the Permanent Canal Closures and Pump Stations on the three Orleans Parish outfall canals. The last compensatory mitigation

feature was constructed in the spring of 2021. All but one of the armoring contracts for the 100-year HSDRRS levees are complete.

The CED Phase I and CED Phase II (together, the CED) are incorporated by reference and are available at <https://www.mvn.usace.army.mil/CED>.

Public Involvement: The public involvement process began on March 13, 2007, when the USACE published the NEPA Alternative Arrangements in the Federal Register. Public involvement continued and was actively solicited during the preparation of the IERs using newspaper advertisements, websites, mailing lists, and news releases. Scoping for the HSDRRS under the Alternative Arrangements process was initiated through the placement of advertisements and public notices in the *USA Today* and the New Orleans *Times-Picayune* newspapers. Nine public scoping meetings were held throughout the project area between March and April 2007. A public scoping meeting for the CED was held on September 2, 2009. Throughout the Alternative Arrangement process, the CEMVN regularly provided the public with updates on construction progress. The public was engaged throughout the HSDRRS planning process, including over 200 public meetings, scoping meetings, and workshops.

Information regarding HSDRRS and the NEPA Alternative Arrangements was made readily available to the public through the creation of a website, www.nolaenvironmental.gov, dedicated to providing the public a “one-stop-shop” location to find information regarding the HSDRRS public notices, meetings, calendar of events and NEPA documents. The website was used as a repository for environmental reports, coordination/compliance documents, and design information, as well as information regarding other flood risk reduction projects in southeast Louisiana. The website has since been closed; however, much of the information regarding the HSDRRS efforts and the IERs remain available to the public on CEMVN’s website.

When the NEPA Alternative Arrangements process was outlined in 2007, CEMVN did not anticipate that HSDRRS design and associated environmental compliance activities would continue well beyond 2011, the original target date for construction completion. As planning and construction stretched beyond 2011, CEMVN decided to release the CED in phases.

The first phase of the CED (CED Phase I) was released to the public in May 2013 for 60-day public review and comment and included a cumulative impact assessment of actions evaluated in IERs with a signed Decision Record by November 15, 2010. The second phase of the CED (CED Phase II) includes a full cumulative impact assessment of all the actions evaluated in the IERs (including those addressed in Phase I) as well as other past, present, and reasonably foreseeable future actions in southeastern

Louisiana. Draft CED Phase II was released for 60-day public review and comment in May 2021. After addressing comments received, the Final CED Phase II was released for 30-day public review on October 26, 2021.

The Draft CED Phase II public review period resulted in submission of 16 comments from two agencies and one member of the public. None of the comments received were considered significant or required substantial change to the Final CED Phase II. The comments and CEMVN responses are included in Appendix D. Comments were received from the following:

1. Agency Comments

- a. Louisiana Department of Environmental Quality, Office of Environmental Assessment and Office of Environmental Services letter dated 7 June 2021.
- b. Louisiana Department of Natural Resources, Office of Coastal Management letter dated 13 July 2021.

2. Public Comments

- a. Thomas Thompson, letter dated 5 July 2021.

Agency Coordination: Each IER was coordinated with appropriate congressional, Federal, state, and local agencies, as well as non-governmental agencies and other interested parties. An interagency project delivery team (PDT) was established for each IER. Federal and State agency staff were members of these teams and played an integral role in the project planning and alternative analysis phases of the projects.

Monthly PDT meetings with resource agencies were held to discuss specific project details as well as determine the potential for direct and indirect impacts of the proposed actions. A list of the coordinating agencies is included in CED Phase II, Section 1, Table 3. In addition, Native American Tribal Nations were brought into the coordination and public involvement effort. CEMVN completed all required consultation and coordination under relevant environmental laws with Federal and State agencies prior to signing the Decision Record for each respective IER. Section 6 of the CED Phase II fully describes agency coordination efforts.

Impacts Determinations: The majority of the direct and indirect impacts resulting from construction of the HSDRRS are considered negligible for most resources; approximately 25% are considered minor and 25% are considered moderate. Moderate impacts to water quality, wetlands, and transportation occurred in most sub-basins. The majority of the impacts related to borrow were negligible for most resources in most parishes. There were some minor impacts to soils, bottomland hardwoods and wildlife. There were moderate impacts to transportation for most of the parishes (CED Phase II, Tables 4 and 5, Section 1).

The construction of the HSDRRS had short-term impacts on both the human and natural environment. On a local scale or for individuals residing near construction sites, many of the temporary, short-term construction impacts, such as noise emissions, impacts on recreation resources and aesthetics, and air emissions (e.g., fugitive dust), were minor to moderate. However, on a sub-basin, parish and regional basis, these impacts were temporary and short term, only occurring during the length of the construction period, and were considered negligible or minor in intensity.

For some resources, where the construction activities altered the physical condition of relatively undisturbed areas, the impacts were of greater intensity and were permanent. To reduce these impacts, mitigation measures including avoidance and minimization were implemented to the greatest extent possible. Since the HSDRRS was predominantly constructed within a highly urban environment, construction did not directly impact significant ecological resources beyond the physical boundaries of the constructed features and the excavated borrow sites.

Most resources analyzed in the IERs and the CED were impacted during active construction. Most impacts were either temporary or short term and limited to the length of the period of construction. In general, most of the impacted resources have already returned or will return to pre-construction conditions or nearly so now that the work is complete. Some armoring is still occurring, and impacts related to that work are ongoing until it is concluded.

Construction of the HSDRRS has contributed and will continue to contribute to cumulative impacts in the GNO metropolitan area and in southeastern Louisiana, including major impacts to soils and wetlands and moderate impacts to water quality, uplands, wildlife, essential fish habitat and transportation. There are negligible to minor impacts to the other relevant resources (CED Phase II, Table 6, Section 1).

Other ongoing and proposed projects in southeast Louisiana may provide cumulative benefits. For example, projects such as Coastal Wetlands Planning Protection and Restoration Act projects, and other coastal and wetland restoration projects, including CEMVN's HSDRRS compensatory mitigation projects, will provide long-term benefits to wildlife, fisheries, and sustainability of wetlands regionally.

Mitigation: To the extent practicable, CEMVN minimized impacts on residents, businesses, transportation, and sensitive biological resources during design and implementation. In initial estimates for HSDRRS construction, CEMVN anticipated up to 4000 acres of impacts to wetlands and upland bottomland hardwood forests. Through refinement of designs and avoidance and minimization, CEMVN reduced anticipated impacts to only 1,880.61 acres (951.57 average annual habitat units (AAHUs)) of actual impacts.

Throughout the planning, design, and construction phases, the CEMVN avoided, minimized, and compensated for short-term and permanent impacts on the human and natural environment. For example, early in the planning process, CEMVN determined that it would avoid all impacts to wetlands at borrow sites by not approving excavation in wetlands. CEMVN also required mitigation bank credit purchase to offset non-jurisdictional bottomland hardwood impacts at contractor-furnished borrow sites.

For unavoidable habitat impacts, CEMVN implemented comprehensive mitigation plans for LPV and for WBV to replace habitats destroyed or altered by construction. The LPV mitigation plan included the purchase of 262 acres of swamp mitigation bank credits to offset swamp construction impacts in the LPV basin. Additionally, CEMVN purchased 129.5 acres of bottomland hardwood (BLH) mitigation bank credits and constructed 340 acres of brackish marsh, 126 acres of intermediate marsh and 159 acres of BLH to compensate for impacts to those habitats on the east bank. For WBV, CEMVN purchased 11.1 acres of BLH mitigation bank credits and constructed 920 acres of upland bottomland hardwood forest, 145 acres of wetland bottomland hardwood forest, 307 acres of swamp, and 158 acres of fresh marsh to replace impacts to those habitats on the west bank. In total, CEMVN constructed 2,155 acres of new habitat and purchased bank credits representing 402.6 acres of habitat to compensate for the 1880.61 acres lost to HSDRRS construction.

Environmental Design Commitments: Formal coordination began with the USFWS early in 2007. The Service provided a programmatic Coordination Act Report (CAR) in early 2008 (Appendix Q). The programmatic CAR contains specific recommendations for minimizing adverse impacts on the natural environment from the HSDRRS construction. The CEMVN utilized these recommendations when designing and/or constructing the HSDRRS features, to the greatest extent practicable. In addition to the programmatic CAR for the system-wide HSDRRS effort, the Service provided a CAR with project-specific recommendations for each IER and IER supplemental document. CEMVN responded to each recommendation and incorporated the recommendations into its design and operational commitments for each HSDRRS features as appropriate.

The USACE complied with relevant environmental laws in planning and construction of the HSDRRS including the Clean Water Act, Clean Air Act, Coastal Zone Management Act, the Fish and Wildlife Coordination Act, Endangered Species Act, and National Historic Preservation Act to name a few. See CED Phase II, Section 7 for a table outlining the compliance with applicable laws achieved for each NEPA document.

Decision: The CED Phase II and this Decision Record complete the HSDRRS cumulative impacts evaluation and are the final steps in the Alternative Arrangements process.

I have reviewed the CED and have considered agency and public comments received during the public comment periods. I find that CEMVN conducted its planning, public involvement, environmental evaluation and decision-making for the HSDRRS features in full compliance with the NEPA Emergency Alternative Arrangement procedures as outlined in the Federal Register and approved by the CEQ. Proceeding with NEPA evaluation of the design and construction of the HSDRRS using the more expeditious Alternative Arrangements procedures while still complying with the spirit and intent of NEPA advanced the public interest and encouraged re-building in the Greater New Orleans area after the devastation left by Hurricane Katrina.

01 DEC 2021
Date



Stephen F. Murphy
Colonel, U.S. Army
Commanding