

U.S. Department of Homeland Security
Region IV
3003 Chamblee Tucker Road
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FEMA

SUPPLEMENTAL FINDING OF NO SIGNIFICANT IMPACT *1249-FL UNMET NEEDS*

Bay Point and Saddlebunch Keys Proposed Wastewater Treatment System,
Florida Keys Aqueduct Authority, Monroe County, Florida

In response to Hurricane Georges damages and losses, Congress enacted Public Law 106-31, Emergency Supplemental Appropriations Act for Fiscal Year 1999, to fund long-term disaster recovery projects in Florida counties whose needs were unmet through primary disaster relief funds. The Florida Keys Aqueduct Authority (FKAA) requested "Unmet Needs" Federal assistance, through the Florida Division of Emergency Management to directly improve the Key's wastewater treatment systems, and thereby indirectly improve associated nearshore water quality, by reducing wastewater nutrient loading, which is worsened by flooding.

Pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500 to 1508), and FEMA regulations for NEPA compliance (44 CFR Part 10); FEMA prepared a Programmatic Environmental Assessment (PEA) (finalized on December 23, 2002) to address the likely effects of common physical and technological factors of implementing several wastewater collection, treatment, and disposal alternatives proposed by multiple project applicants. Based on the PEA findings, a Programmatic Finding of No Significant Impact (PFONSI) was signed on January 8, 2003. These documents are incorporated by reference.

Because proposed projects (actions) and their effects vary depending on project location, design alternatives, and other site-specific criteria; a Supplemental Environmental Assessment (SEA) tiering from the PEA has been prepared for the FKAA's proposed project. The SEA was prepared in coordination with FKAA and others, in consultation with State and Federal regulatory agencies, and is incorporated by reference. The proposed action's likely effects are within the scope of the PFONSI, and this Supplemental Finding of No Significant Impact (SFONSI) tiers from that, and addresses site- and project-specific findings and adverse effect mitigation measures.

The FKAA proposes to build a community wastewater treatment plant (WWTP) near Mile Marker 15 (oceanside), at the corner of West Circle Drive and Overseas Highway, and associated wastewater collection system to replace currently inadequate on-site systems in the Bay Point and Saddlebunch Keys service areas. The WWTP will be designed to the Best Available Technology (BAT) standard to meet the Florida Statutory Treatment Standards by 2010 and have a treatment capacity of about 75,000 gallons per day (Average Daily Flow). The WWTP will discharge tertiary treated effluent into shallow injection wells. Removal of existing on-site systems, along with connection to the wastewater collection system, would be the property owner's responsibility, unless otherwise noted. This WWTP Site Alternative (2) is preferred because it is located in the service area and the construction costs are substantially less than Alternative (3)'s construction costs.

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FEMA has made the following project- and site-specific determinations for the eleven major resource categories based upon the PEA and SEA.

Geology, Topography, and Soils:

Effects on geology, topography, and soils are expected to be minimal. A geotechnical study found area bedrock and soils suitable for proposed construction. Sinkhole development near shallow injection wells is possible because of increased limestone dissolution from injecting relatively fresh water into brackish to saline water. This risk is minimal because groundwater on Bay Point and Saddlebunch Keys is about two to four feet below ground surface. Topographic effects would be isolated, limited to surface disturbances from construction site grading and wastewater collection system installation. Soils would be temporarily disturbed and suitable fill used at the WWTP site. Implementation of Best Management Practices during construction would reduce temporary adverse affects from soil erosion. Per the Farmland Protection Policy Act, there are no prime, unique, or other special farmlands on Bay Point and Saddlebunch Keys.

Water Resources and Water Quality:

Bay Point and Saddlebunch Keys are a Monroe County designated water quality "hot spot." The proposed action would incrementally benefit area water resources if implemented and operated in accordance with the State BAT effluent discharge standard (see SEA). Improved wastewater treatment would substantially reduce; from current levels; discharge of suspended solids, nutrients, and pathogens to shallow groundwater. Because the Key's groundwater is hydraulically connected with nearshore waters, these and inland canals would benefit incrementally in the project area. To better quantify water quality improvements, FEMA recommends that the FCAA or County implement a pre- and post-construction nearshore water quality monitoring program in the service area vicinity. The proposed action would not adversely affect stormwater flow quantity and quality if the FCAA complies with applicable construction permits, including implementing soil erosion control measures (see SEA).

Per Presidential Executive Orders (EOs) 11988 (Floodplain Management) and 11990 (Wetlands Protection) and FEMA's implementing regulations at 44 CFR Part 9, FEMA evaluated the proposed action's floodplain and wetland effects. No freshwater wetlands are at the WWTP site or along service area roads. Marine wetlands are next to the service area and would have long-term benefits from improved nearshore water quality. Potential temporary, minor, adverse construction effects on marine wetlands would be mitigated with soil erosion control measures. The proposed action is in the 100-year floodplain, as are much of the Keys; and is considered a "critical facility" (action). Therefore, there are no practicable alternatives to siting WWTPs in the 100-year floodplain. The proposed action would not increase floodplain development since the County's Rate of Growth Ordinance controls this. The 500-year floodplain is the floodplain of concern for "critical actions". Floodplain effects will be minimal and the federal investment protected to the 500-year flood, as long as the FCAA complies with the County's floodplain ordinance and critical action provisions at 44 CFR 9.11 (Mitigation).

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Biological Resources:

The proposed action would indirectly benefit Bay Point and Saddlebunch Keys' nearshore marine ecosystems (e.g., seagrass meadows and coral reefs) by reducing nutrient loading and pathogen releases. Use of ultraviolet radiation to disinfect effluent is recommended to reduce potential environmental risks from other types of disinfection. A biological evaluation for the proposed WWTP site did not identify any special status species or suitable habitat. Per the Endangered Species Act Section 7, the U.S. Fish and Wildlife Service and National Marine Fisheries Service (NMFS) concurred with FEMA's "no effect" determination for threatened or endangered species and their critical habitat. Per the Magnuson-Stevens Fishery Conservation and Management Act, NMFS concurred with FEMA's finding that proposed action would benefit Essential Fish Habitat in the Bay Point and Saddlebunch Keys area.

Air Quality:

Building the proposed action would have temporary, minor, adverse air quality effects from dust and vehicle exhausts. Fugitive dust can be reduced by watering down sites and emissions lessened by limiting construction vehicle idle times. Objectionable odors may occur during WWTP operation, these would be mitigated with odor control equipment at the plant and the FKAA would have to comply with Florida Administrative Codes 62-604.400 and 62-296.320.

Cultural Resources:

A cultural resources assessment for the "area of potential affect" found no historic properties at the proposed WWTP site and identified a potentially historic bridge along part of the collection systems. Per the National Historic Preservation Act Section 106, the Florida State Historic Preservation Officer (SHPO) concurred with FEMA's determination of "no effect" on historic properties. If unanticipated cultural resources are found during construction, work must immediately stop in the affected area to allow further coordination with FEMA and the SHPO.

Socioeconomics:

The SEA considers socioeconomic impacts in terms of public health, tourism and fishing industry, and local fees and taxes. The proposed action's improved wastewater treatment is expected to reduce Bay Point and Saddlebunch Key's inland and nearshore waters' public health risks from potential viral and bacterial infections. Because Bay Point is not a tourism focal area, effects on tourism are expected to be minimal and temporary. The proposed action may indirectly and slightly benefit commercial and recreational fishing near Bay Point and Saddlebunch Keys by improving nearshore water quality. Fisheries dependent on that area and good water quality would benefit most.

The proposed action would increase most service recipients' wastewater management costs, particularly for cesspit or septic system owners. With FEMA and other funding assistance applied to the proposed action's system capital costs, expenses to service recipients are expected to be affordable. The FKAA's estimated service recipient costs including a system capital cost of \$4,259 and monthly operation and maintenance fee of \$53 per Equivalent Dwelling Unit are within the range considered "reasonable and affordable," as determined in the PEA. To mitigate

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immediate expenses, the system capital cost may be amortized over 20 years (at a current estimated rate of 5%) into an annual payment incorporated on property taxes. So long as the FKAA's system capital costs and O&M costs remain within the reasonable and affordable ranges in PFONSI's (\$3,000 to \$4,500 and \$30 to \$60, respectively) no substantial adverse economic effect is expected. It should also be noted that Monroe County has a wastewater cost reasonableness policy, which has per EDU targets of \$2,700 for connection costs and \$35 per month for O&M fees. Most service recipients will be responsible for the entire cost of legally abandoning their existing on-site wastewater system and installing a service lateral to the proposed action's collection system. These costs are expected to range between \$1,500 and \$5,000 per EDU.

Hazardous Materials:

A Phase I Environmental Site Assessment found no evidence of recognized environmental conditions at the proposed WWTP site. Hazardous materials are not permitted in the sewage stream. However common household grease and cleaning products may enter the system. Chemicals used during the wastewater treatment process, but would be dissolved or consumed during disinfecting reactions with organic materials. The residual sludge would be transported and disposed at existing, appropriately licensed facilities in Miami-Dade County.

Demographics and Environmental Justice:

Per EO 12898 (Environmental Justice), implementation of the proposed action would equally benefit (via aforementioned indirect water quality and public health improvements) all Bay Point and Saddlebunch Keys demographic groups. Siting the WWTP at the MM 15 site would not highly disproportionately and adversely affect any minority or low-income populations because none exist near the WWTP site.

Per the PFONSI, Keys low-income service recipients cannot afford increased wastewater management costs and raising these would have a highly disproportionate and adverse economic effect. According to U.S. Census data, there are low-income residents in the Bay Point and Saddlebunch Keys service area. Applying the PEA developed low-income assistance guidelines to the proposed action's system capital costs (as estimated above) and existing system abandonment and lateral connection costs would avoid any highly disproportionate and adverse economic effects on qualified low-income service recipients.

FEMA established a system capital cost limit of \$4,500 for eligible low- and very-low income property owners, as further described in the SEA. Based upon this and other factors, the Monroe County Board of County Commissioners adopted resolution 306-2002, which assures at least 70% and 90% subsidies of these capital costs; and at least 70% and 90% subsidies of the abandonment and lateral connection costs up to a limit of \$3,000; for all eligible low- and very-low income property owners, respectively.

The Monroe County Housing Authority Special Programs Office, in coordination with the FKAA, has adopted an implementation plan for the Bay Point and Saddlebunch Keys project

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consistent with FEMA's guidance to financially help low-income service recipients. Although this assistance is eligible from the FEMA grant, low-income service recipients may be assisted through a Community Development Block Grant. Implementation of the above financial mitigation measures would result in compliance with EO 12898. No FEMA or other known funding assistance is available to reduce monthly O&M fees.

Infrastructure:

Building the proposed action would temporarily increase traffic and disrupt normal traffic patterns in the service area. The FKAA's implementation of a traffic control plan during construction would reduce these adverse affects. Brief, minor disruption of wastewater service and other utilities would occur during construction. Uniform wastewater management in Bay Point and Saddlebunch Keys is expected to be a long-term benefit to utilities overall.

Land Use and Planning:

The proposed action is not expected to change existing County land uses or growth rate and patterns. The Bay Point and Saddlebunch Keys residential service area is mostly developed. The proposed WWTP site is zoned Suburban Commercial, which allows WWTP siting. Growth rates are controlled by the County's Rate of Growth Ordinance. Per the Coastal Zone Management Act, the proposed action is consistent with the State's coastal zone management plan. Per the Coastal Barrier Resources Act, the proposed action would not be in or affect a Coastal Barrier Resource System "Unit" (also known as "CoBRA Zone").

Noise and Visual Resources:

Proposed action effects on current noise levels and visual resources are expected to be minimal. Building the proposed action would temporarily increase local noise levels, but the overall decibel level is not expected to pose any public health risks. Construction activities would have to be in compliance with Monroe County's noise ordinance. Noise effects on construction workers could be more significant than on residents and tourists. However these may be mitigated through compliance with applicable occupational health and safety regulations. Although the service area is not considered high quality scenery, WWTP siting would adversely affect the Bay Point community's entrance aesthetics, including adjacent residents and businesses. FEMA recommends that sufficient landscaping and plantings be incorporated into the site design to reasonably obscure view of the WWTP, thereby reducing adverse viewshed effects. This would also reduce the expected small noise level increase from WWTP operation.

Conclusions

Based upon the PEA and SEA for the proposed action alternatives, and upon other supporting evidence, and in accordance with NEPA, CEQ guidelines for NEPA implementation, FEMA 44 CFR Part 10 (Environmental Considerations), and EOs 11988, 11990, and 12898; FEMA has determined that the proposed action, as long as it is implemented with the PEA and SEA prescribed adverse affect minimization/mitigation measures and the FKAA obtains and adheres to all applicable permits for WWTP and wastewater collection system construction and operation

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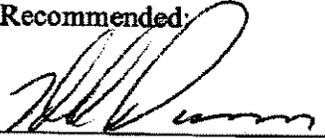
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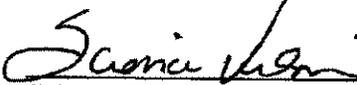
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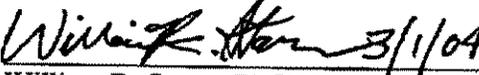
(outlined in SEA), would have no significant adverse impacts on the human environment. Therefore, FEMA has determined that an Environmental Impact Statement will not be prepared. FEMA funding reimbursement is conditioned upon the FCAA fully complying with all applicable permit requirements and adverse effect mitigation measures, and providing FEMA with supporting compliance documentation.

Recommended:


A. Todd Davison, Director Date
Mitigation Division


Science Kilner Date
Lead Environmental Specialist

Approved:


William R. Straw, Ph.D. Date
Regional Environmental Officer