



Draft Environmental Assessment

REPLACEMENT OF THE ESCAMBIA COUNTY MOSQUITO CONTROL FACILITY

FEMA Orlando Long Term Recovery Office
FEMA-1551-DR-FL

July 2006



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DRAFT ENVIRONMENTAL ASSESSMENT

**REPLACEMENT OF THE
ESCAMBIA COUNTY – MOSQUITO CONTROL FACILITY**

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Section 1 -Introduction

1.1 Project Authority

Hurricane Ivan followed a west-northwest course at about 10 mph on Saturday and Sunday (September 11th and 12th, 2004) as it approached the Yucatan Channel. Ivan made a gradual turn toward the northwest and then north on Monday and Tuesday (September 13th and 14th). On Wednesday, September 15th, Ivan turned more northerly as it approached the Gulf Coast. After making landfall near Gulf Shores, Alabama (approximately 35 miles west of Santa Rosa Island, Florida), Ivan's track turn more northeasterly as it moved across Pensacola, much of the Deep South and the Appalachians.

As a result of the impending landfall of Hurricane Ivan, and its impacts on the State of Florida, Governor Jeb Bush requested an expedited disaster declaration for the State of Florida.

President George Bush issued a major disaster declaration (FEMA - 1551 – DR - FL) in conformance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Public Law 106-390, the Disaster Mitigation Act of 2000. Subsequently, Escambia County has petitioned the Federal Emergency Management Agency (FEMA) for Section 406 Public Assistance funding under the provisions of the same act. Refer to Appendix A - Exhibit 1 for those Florida counties included in this disaster declaration.

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500 through 1508), and FEMA regulations for NEPA compliance (*44 CFR Part 10*), FEMA must fully understand and consider the environmental consequences of actions proposed for federal funding.

The purpose of this Environmental Assessment (EA) is to meet FEMA's responsibilities under NEPA and to determine whether to prepare a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS) for the proposed project

1.2 Project Location

Escambia County, Florida has applied for a federal grant to fund the demolition, removal, relocation, and replacement of the Hurricane Ivan storm damaged Escambia County Mosquito Control Facility from its current location at 603 West Romana Street, Pensacola, Florida to 601 County Highway 297A, Escambia County, Florida (Property Reference Number: 161N314101000000). Refer to the series of Location Maps in Appendix A - Exhibit 2, and Photograph Collections #1 (Aerial views of both the existing and preferred locations), #2 (Ground level panorama of the existing site, with additional shots of the adjacent neighborhood), #3 (ground level shots of damage to the existing site – see also cover photo), and #4 (Ground level panorama of the preferred site).

1.3 Purpose and Need

The objective of FEMA's Public Assistance Program is to reduce the impacts of natural disasters on the built environment; assist the community in recovering from damages caused by disasters; reduce future losses resulting from natural disasters; and protect the health, safety and welfare of citizens. The purpose of the action presented in this EA is the replacement of Escambia County's Mosquito Control Facility that was heavily damaged by Hurricane Ivan. The need is to provide for a safe and secure location from which the County can manage their mosquito control operations, which are needed for the health and welfare of County residents.

1.4 Existing Facility

Escambia County's Mosquito Control Facility is currently located at 603 W. Romana Street, Pensacola, FL. The Facility was composed of seven buildings or structures which housed offices, an entomology laboratory, chemical storage, vehicles, and vehicle maintenance. The structures, mostly built in 1956, included:

- Building 109 was a 1,275- square foot structure which housed the main offices
- Building 110 was a 1,670-square foot building that housed the laboratory and storage
- Building 111 was an 840-square foot building that was a garage with attached 165 square foot mechanical shed and a 250-square foot chemical storage shed
- Building 112 was a 250-square foot chemical storage shed
- A 2,700-square foot vehicle storage shed (built in 1990) was located at the Facility before the storm event; it has been replaced with a partially enclosed metal canopy to keep the vehicles and equipment sheltered during rain events
- A 497-square foot canopy covered the 10,000 gallon chemical tank before the storm event
- A wooden canopy is still in place and covers additional chemical tanks

Most of the buildings/structures have been demolished and temporary trailers have been rented for the Facility. Currently, Building 111 is still located at the Facility but is not being utilized because of extensive damage and a missing roof. In addition to the buildings/structures, chemical tanks and chemical storage are situated at two locations within the Facility. Both chemical storage areas have cement block containment systems surrounding them. The first chemical storage consists of a 10,000-gallon chemical tank. The second storage area houses smaller drums and containers of various chemicals.

Mosquito control work is currently being conducted out of the rented trailers and a vehicle storage shed that has been installed to replace the damaged vehicle shed. (This new vehicle storage shed is removable and it is Escambia County's intention to relocate it to the new Facility once it has been constructed.) The existing Facility is partially covered with gravel parking and access drives, the remnants of the concrete pads from the demolished structures, and the remainder with mowed lawn.

Photographs of the existing facilities, including damages caused by Hurricane Ivan, can be seen in Appendix A - Photo Collection 3.

The Mosquito Control Facility is located within an area consisting of mixed zoning. Residential and some light industrial facilities surround the Facility. A community park is located to the south of the Facility, and the Emerald Coast Wastewater Treatment Plant is located south of the community park.

The current location of the Mosquito Control Facility is not located within a mapped 100-year floodplain, but the Facility has been subject to several flood events in its history. Because of its location, the Facility is vulnerable to hurricane winds and storm surges. Additionally, the presence of the wastewater treatment plant south of the Facility has resulted in several occurrences where electrical failures at the treatment plant resulted in the neighborhood being flooded with raw sewage. During power outages, the wastewater treatment plant's pumping stations fail and sewage backs up into the surrounding neighborhood. On several occasions, the sewage has overwhelmed the chemical secondary containment system resulting in the release of mosquito control chemicals into the environment.

1.5 Project Description

The Mosquito Control Facility's primary purpose is to provide for mosquito control within Escambia County. Mosquitoes are a public nuisance and are harmful to the comfort and health of county residents. In Florida, mosquitoes are responsible for spreading West Nile virus, arboviral encephalitis, and canine heartworm. They are also capable of carrying malaria, dengue fever, and yellow fever. Escambia County utilizes chemicals to control both the larvae and adult stages in mosquitoes. These chemicals, as well as the equipment needed to disburse them, an entomology laboratory, and support services are all housed at the Mosquito Control Facility. The project consists of the replacement of the damaged Mosquito Control Facility buildings in order for Escambia County to continue to provide this needed health service.

Section 2 - Alternatives

Alternative courses of action for the replacement of Escambia County's Mosquito Control Facility were considered. The alternatives were evaluated based upon engineering constraints, environmental impacts, and available property. Budgetary impacts were considered, but were not the controlling factor. Below is a discussion of the alternatives currently being considered.

2.1 No - Action Alternative

The *No-Action Alternative* consists of not replacing or permanently relocating the Mosquito Control Facility. If this alternative were chosen, Escambia County would continue to provide mosquito control from the four rented trailers that are currently at the Facility. A vehicle storage shed has been installed and is serving as a garage, but storage for the tools and equipment necessary for maintaining the vehicles and other equipment is currently occurring within a make-shift plywood storage area. The trailer facilities are small and do not provide sufficient space for efficient operations. Additionally, the trailers are more susceptible to storm and flood damage than permanent structures, and are very vulnerable at the current location. The Facility is close to Pensacola Bay and has been subject to hurricane force winds and storm surges in the past. Additionally, the nearby wastewater treatment plant has failed on multiple occasions, flooding the neighborhood with sewage and overtopping the chemical secondary containment systems, thereby causing the release of mosquito control chemicals into the environment.

Further discussions related to this alternative will refer to it as the *No-Action Alternative*.

2.2 Replace Reduced Facilities at Alternate Location (Preferred Alternative)

The Replace Facility at Alternate Location consists of relocating the entire Mosquito Control Facility to 611 Highway 297-A in Escambia County, FL. This location consists of a larger facility that houses both Escambia County Road Department operations and a prison camp. The facility is accessed off of Highway 297-A via Upland Road, which divides the facility into two halves. The prison camp is located on the north side of Upland Road, the Road Department occupies the south side of Upland Road. An undeveloped portion of the facility is located in the southeast section, east of the Road Department. Escambia County is proposing to locate the Mosquito Control Facility in this undeveloped portion.

The proposed Mosquito Control Facility would consist of four structures and associated parking, landscaping, and stormwater detention. Building A would be a 1,527-square foot office building. Building B would be a second office building, consisting of 2,971-square feet. Building C would be a 2,705-square foot storage structure. Building D would be a 920-square foot chemical storage structure, with associated secondary containment. A site plan showing the layout of the proposed Mosquito Control Facility can be found in Appendix A, Exhibit 3, with general notes related to the construction in Exhibits 4 and 5 and a detailed plan of the chemical storage and secondary containment in Exhibit 6.

The proposed location for this alternative is more centrally located within Escambia County. It is located in a more rural part of the County than the current location in Pensacola; there are no residential properties near this location. One of the advantages of this location that influenced its choice for the Mosquito Control Facility is the fact that it is a secure site. Due to the County Road Department operations and the presence of the prison camp, the entire facility is fenced and monitored. This will provide additional security for the chemicals that are stored at the Mosquito Control Facility. This location also has a helicopter landing pad which will permit the Mosquito Control Facility to do aerial spraying.

Further discussions throughout this document related to this Replace Facility at Alternate Location Alternative will refer to it as the *Preferred Alternative*.

2.3 Restore to Pre-Disaster Conditions

The *Restore to Pre-Disaster Conditions Alternative* consists of replacing the damaged structures at the current location at 603 W. Romana Street, Pensacola, FL. If this alternative were chosen, the structures that were demolished would be rebuilt. It is likely that different structures, perhaps in slightly different locations, would be constructed. The Facility would still be in the same location, but the building designs would reflect the current needs of the Mosquito Control Facility. Approximate square footage and functions would remain the same. Office space, storage space, an entomology laboratory, garage, and mechanical storage would all be constructed at the Facility. The current chemical storage, including the 10,000-gallon chemical tank, is already located at the Facility. New canopies would be added to cover this storage area.

If this alternative were chosen, the Facility would remain at the current location within a mixed residential and commercial/industrial area. Its proximity to the wastewater treatment plant would not change. This location is vulnerable to hurricane force winds and storm surges, and has historically been inundated with sewage. The risk of flood events and/or sewage overflowing the chemical storage secondary containment and releasing mosquito control chemicals to the environment would continue.

Further discussions related to this alternative will refer to it as the *Restore to Pre-Disaster Conditions Alternative*.

Section 3 - Affected Environment and Environmental Consequences

This section addresses specific information related to environmental resources, sensitive issues, locations of interest, obstructive features, avoidance measures, and impacts that may occur as a result of the project. Tabular data, as appropriate, and a Summary Table are included to provide a more comprehensive picture and understanding of the issues for the repair or replacement of the storm damaged Mosquito Control Facility. Environmental resource issues and areas identified as potentially impacted by the proposed action, or which require discussion pursuant to applicable laws and regulations, are addressed in this section. Proposed mitigation is referenced and/or discussed within the respective environmental issue area. *Environmental resource topics which have been found not to be pertinent to the proposed actions, or that have no impacts on the environment, are not discussed in detail, rather they are noted in the Table 2 Impact Summary as “none”, indicating no involvement.* Those areas that have no environmental impacts will not be discussed in this section.

3.1 Physical Environment

3.1.1 Topography and Soils, Geology, Seismicity (including Executive Order 12699)

Topography

Escambia County - Appendix A – Exhibits 7 and 8 are the USGS topographic maps for the existing location and the preferred relocation site.

Both sites are essentially flat. The existing site (Romana Street) has been graded, as has the entire neighborhood. The preferred relocation site is flat, with grass that is regularly mowed. A ditch runs east to west along the southern edge of the site.

No impacts to topography are anticipated from any of the alternatives considered.

Seismicity

The project area is located in northwestern Florida along a belt of mostly seaward-facing normal faults that border the northern Gulf of Mexico in westernmost Florida, southwestern Alabama, and southern Mississippi, all of Louisiana, southernmost Arkansas, and eastern and southern Texas (Ewing and Lopez, 1991 #2023). This belt of gulf-margin normal faults from Florida through Texas has strikingly low historical seismicity; the stress field and seismogenic potential of the underlying crust are unknown; the ability of the fault belt to generate significant seismic ruptures that could cause damaging motion is unclear. Accordingly, the fault belt is assigned to Class B¹. The project area is identified as being in the lower hazard zone (2-4%g)² for ground shaking, as indicated in Ground Shaking Hazards of Earthquakes³ (Appendix A - Exhibit 9). Exhibit 9 shows the peak acceleration (%g) with 2% probability of exceedance in 50 years, as identified in the zone of 2-4%g. Generally, the earthquake frequency expected throughout the entire State of Florida is the same as the project area.

The most recent Florida earthquake occurred on November 18, 1952, a slight tremor was felt by many at Quincy, a small town about 20 miles northwest of Tallahassee. Windows and doors rattled, but no serious effects were noted. Because of the extremely low ground shaking hazard, Executive Order 12699 (EO 12699), Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction, does not apply.

¹ Gulf-margin normal faults, Alabama and Florida (Class B) No. 2654; <http://qfaults.cr.usgs.gov>. Class B is defined as: Geologic evidence demonstrates the existence of Quaternary deformation, but either (1) the fault might not extend deeply enough to be a potential source of significant earthquakes, or (2) the currently available geologic evidence is too strong to confidently assign the feature to Class C but not strong enough to assign it to Class A.

² G or g is the force of gravity (an acceleration equal to 9.78 meters/second²). When there is an earthquake, the forces caused by the shaking can be measured as a percent of the force of gravity, or percent g.

³ USGS website http://earthquake.usgs.gov/hazmaps/products_data/2002/2002April03/US/US5hz2500v4.pdf

Special seismic related design criteria are not required for construction projects in this project area. There are no adverse seismic impacts associated with any of the alternatives considered.

Soils

The Soil Survey of Escambia County, FL does not indicate any soil type at the location of the existing Mosquito Control Facility. The existing Facility is located within the city limits of Pensacola, and the soils have therefore been disturbed due to grading and fill.

The Soil Survey of Escambia County, FL indicates only one soil type at the preferred location. This soil, Arents-Urban land complex (Soils Map designation 16), is a fill type material used in urbanizing areas and not a naturally occurring soil type.

Soils maps of the existing and preferred Escambia County Mosquito Control Facility can be found in Appendix A - Exhibit 10.

Prime Farmland

The Farmland Protection Policy Act (FPPA) [PL 97-98, Sec. 1539-1549; 7 USC 4201, et seq.], which states that federal agencies must “minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses,” was considered in this EA. No farmlands of any type are located near the project location. Further, all of the soils are fill materials consisting of Arents-Urban land complex.

None of the alternatives will have any impacts on soils, seismicity, topography, geology or prime farmland.

3.1.2 Water Resources and Water Quality

Surface Water

Escambia County is located in the Panhandle of northern Florida. The southern portion of the County borders Escambia Bay and Pensacola Bay of the Gulf of Mexico. The current location of the Mosquito Control Facility is less than one half mile from Pensacola Bay. The location proposed for the *Preferred Alternative* is located approximately 15 miles north of the current location. The nearest surface water body to the *Preferred Alternative* is an unnamed tributary to Elevenmile Creek.

Water quality in the vicinity of the *No-Action* and *Restore to Pre-Disaster Conditions Alternatives*’ location varies depending on the water body. Bayou Texar, located approximately two miles east of the *No-Action* and *Restore to Pre-Disaster Conditions Alternatives*’ location, is noted by the U.S. Environmental Protection Agency (USEPA) as being impaired.⁴ This is most likely due to both point and non-point sources from within the City of Pensacola. Water quality within Pensacola Bay, located approximately one half mile south of the existing Facility, is identified as having water quality that supports fish and wildlife propagation (Class III).⁵

Water quality within the unnamed tributary to Elevenmile Creek, the closest surface water to the proposed location for the *Preferred Alternative*, is unknown. This unnamed tributary is immediately adjacent to the location proposed for the *Preferred Alternative*, and runs through the larger Road Department facility and travels southeast until it meets with Elevenmile Creek. Water quality within Elevenmile Creek, which is located east of the *Preferred Alternative*, is noted by the USEPA as having water quality that can be used for the propagation of a healthy, well balanced population of fish and wildlife (Class III).⁶ Elevenmile Creek is approximately one half mile south of the *Preferred Alternative*’s location.

⁴ US EPA EnviroMapper at <http://134.67.99.56/scripts/esrimap.dll?Name=NHDMAPPER&Cmd=Init&USE=1>

⁵ ibid

⁶ ibid

Class I surface waters are “Potable Water Supplies”, Class II waters are those designated as “Shellfish Propagation or Harvesting”, while Class III waters are classified as “Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife”. Class III is the statewide default classification intended to meet the goal of the federal Clean Water Act (*i.e.*, all waters should be “fishable/swimmable”).⁷

Water quality reported by the Florida Department of Health for the public beach area at Sanders Beach, the nearest monitoring location within the Gulf of Mexico to the *No-Action* and *Restore to Pre-Disaster Conditions Alternatives*’ location, during April of 2006 was most often “**Good**” for *Enterococcus* [0-35 *Enterococcus* sp per 100 ml of marine water], *Enterococcus* Geometric Mean [0-35 CFU/100mL *Enterococcus* sp Geometric Mean], and fecal *coliform* [0-99 fecal *Coliform* organisms per 100ml of marine water]. On April 17, 2006, the water quality dropped to “**Moderate**” for *Enterococcus* [36-104 *Enterococcus* sp per 100ml of marine water].⁸

Groundwater⁹

For much of northwest Florida, the Floridan Aquifer is the primary source of groundwater. Wells tap the limestone that makes up the aquifer. As you move west towards Okaloosa County, the Floridan Aquifer gradually dips deeper into the subsurface and it becomes thinner and less productive. The Floridan Aquifer underlying Escambia County contains concentrations of dissolved minerals that are not suitable for most water supplies. Consequently, Santa Rosa and Escambia Counties rely solely on the shallow aquifer system for their drinking water supplies.

Beneath the land surface in Escambia County lies a thick sequence of sands, gravels, silts, and clays. This shallow water bearing section of the subsurface is referred to as the Sand-and-Gravel Aquifer System. The sediments making up this aquifer are exposed at land surface throughout Escambia County.

In much of Escambia County, the groundwater flow is in the same direction as the surface water flow. Groundwater flow at the existing Mosquito Control Facility flows southerly, towards Pensacola Bay. At the *Preferred Alternative*, groundwater flow would be expected to occur southerly, towards the unnamed tributary to Elevenmile Creek, but does not. International Paper has a paper processing facility located northeast of the *Preferred Alternative* that uses 23 million gallons of groundwater per day in its operations. Because of this tremendous drawdown from the wells operated by International Paper, groundwater at the *Preferred Alternative* flows northeast towards the International Paper mill.

Although Escambia County receives nearly 60 inches of rain each year, not all of the rain becomes part of the groundwater because only a small fraction of the rainfall reaches the water table. Most of the rain is lost to runoff to streams or is returned to the atmosphere by evaporation and transpiration by plants. Rainfall recharges the Sand-and-Gravel Aquifer as it moves through the soils and unsaturated portion of its surficial zone to the water table. A majority of the volume of water occurring during low flows of the rivers and tributaries in Escambia County comes from the discharge of this groundwater. Because of the flow and make-up of the Sand-and-Gravel Aquifer, any disposal of waste products or misuse of toxic chemicals on the land surface, whether accidentally or on purpose, has a high probability for impacting the groundwater in both the shallow and deep aquifers. Contaminants would be introduced into the aquifer along with the same waters that infiltrate to recharge the supply. As this aquifer is the sole source of drinking water supplies, any contamination of the groundwater will have an impact on the drinking water supply.

Groundwater circumstances are summarized as follows:

⁷ Water Body Classifications Nutrient TAC meeting May 27, 2004, “Florida Surface Water Classifications”.

⁸ The Florida Department of Health; Beach Water Sampling Franklin County, St. George Island State Park, January 2006 through March 2006.

⁹ Extracted and paraphrased from; <http://escambia.ifas.ufl.edu/grndwater.htm>

- The Sand-and-Gravel Aquifer is the sole-source of potable water supply for Escambia County. The Sand-and-Gravel Aquifer is replenished by rainfall infiltrating through the soil zone and accounts for nearly all available groundwater.
- The central and Pensacola areas of the Sand-and-Gravel Aquifer yield supplies as great as 2,000 gallons per minute from a single large-diameter well.
- Contaminants found within surface water will be introduced into the aquifer along with the same waters that replenish the supply.
- Any disposal of waste products or misuse of toxic chemicals on the land surface, whether accidentally or on purpose, has a high probability for impacting the groundwater.
- As the aquifer is the sole source of drinking water supplies, any contamination of the groundwater and subsequent impact on the Sand-and-Gravel Aquifer, has the potential to impact drinking water.

The Emerald Coast Utilities Association (ECUA) provides water to consumers in Escambia County; and drinking water comes from the Sand-and-Gravel Aquifer. ECUA has 31 wells distributed throughout its service area that pump water from this aquifer. In general, ECUA customers receive water from the wells located closest to their residence. Hence, the water delivered to a customer at any set time, changes slightly based on the characteristics of the source water. Each well is considered a separate treatment plant, where water quality parameters are adjusted to comply with operating standards. Calcium hydroxide (lime) is added for pH adjustment; phosphoric acid (H₃PO₄) is added for corrosion control in the distribution system and chlorine gas is added for water disinfection. Granular activated carbon (GAC) filters are installed on 12 wells, nine for organic contamination removal and three for iron removal. Hydrofluosilicic acid (H₂SiF₆) is added at select wells as a source of fluoride treatment of the entire system. The ECUA began a fluoridation program in September 2001 which is operated in accordance with guidelines established by the U.S. Department of Health and Human Services, the Centers for Disease Control, the USEPA, and the Florida Department of Environmental Protection (FDEP).

The recharge area for ECUA wells is limited to the area of Escambia County south of Cantonment. Because the Sand-and-Gravel Aquifer does not have a confining layer above it, everything that falls on the ground has the potential to reach the main producing zone of the aquifer and affect the quality of the water supply. This concern is referenced in the *Northwest Florida Water Management District Public Information Bulletin 87-2*, March 1990 and again, in the *Escambia County 2004 Grand Jury Report on Groundwater Contamination*. This second report can be viewed on-line at: www.clerk.co.escambia.fl.us/downloads/22004_Grand_Jury_Ground_Water_Contamination.tif.¹⁰

The ECUA was contacted (See Appendix C – Contact 06) with regard to their wells’ locations. All are located south of the *Preferred Alternative*, which is immediately south of Cantonment and the same general area as the recharge area for the ECUA wells.

Groundwater contamination is known to have occurred at the *Preferred Alternative* location. The adjacent Escambia County Road Department has been responsible for petroleum soil contamination due to a release from their fuel depot; the petroleum contamination has migrated to the groundwater. The Road Department has installed a remediation system, but this system was damaged as a result of Hurricane Ivan and has not been working since that time. The site has been entered into the State of Florida’s clean-up program and further work related to soil remediation is on-going.

¹⁰ Emerald Coast Utility Authority web site at <http://www.ecua.org/WaQARpt04.htm>

There is no designated Sole Source Aquifer by the USEPA in the Panhandle area of Florida. The two Sole Source Aquifers in Florida are the Biscayne Aquifer, with its stream flow and recharge zones located in Broward, Dade, Monroe & Palm Beach Counties [44 FR 58797, (10/11/79)] and the Volusia-Floridan Aquifer located in Flagler & Putnam Counties [52 FR 44221 (11/18/87)]. Both are along the east coast area of Florida, beyond the influence of this project.¹¹

3.1.2.1 No-Action Alternative

Surface Water

The structures that are located at the Facility and that would remain if the *No-Action Alternative* were chosen would not impact surface water directly. Impacts to surface water would occur due to Facility operations, however.

Stormwater at the existing location is currently directed to storm sewers, which eventually discharge directly into Pensacola Bay. Because the City of Pensacola has a storm sewer system separate from its wastewater sewer system, stormwater is discharged into Pensacola Bay without any treatment. The existing location has been subject to several floods because of its location within one half mile of Pensacola Bay. Storm surges and back-ups from the nearby wastewater treatment plant have resulted in the secondary containment of the chemical storage areas being overtopped. When this has occurred in the past, mosquito control chemicals have been released into the environment. When the chemicals are released to the stormwater, neighborhood residents are exposed and potential soil contamination may occur. Additionally, the chemicals are eventually released to Pensacola Bay. Under the *No-Action Alternative*, these occurrences would continue. Water quality in Pensacola Bay is rated as Class III (supports fish and wildlife propagation), so the previous incidents have not created a significant impact. It is expected that future occurrences, if they were to happen, would also not have a significant impact due to the dilution factor that occurs within the Bay. Although it would not cause significant impacts, any release of mosquito control chemicals into Pensacola Bay would be detrimental.

Exposure of neighborhood residents to mosquito control chemicals in floodwaters has minimal health risks. The chemicals used and stored by the Escambia County Mosquito Control Facility have been classified as having slight human health effects.

Exposure of the environment from mosquito control chemicals has potential impacts. Risks to fish and aquatic species are minimal from three of the chemicals, but one chemical is toxic to fish and aquatic species. It is believed that dilution factors within the Bay will minimize these impacts, however. See Section 3.2 for a complete discussion of the potential environmental impacts from the proposed chemicals used and stored at the Facility. Temporary construction activities would have no measurable negative impacts on surface waters. The contractor would be responsible for guaranteeing that no accidental spills that could migrate to the Facility's storm sewers would occur, and would likely do so with Best Management Practices (BMP's). Appropriate erosion control and BMPs would be utilized to minimize any impacts resulting from erosion and/or sedimentation during construction. Possible BMPs that could be implemented include siltation fences, impervious barriers, and/or straw bales to prevent or contain spills or excessive flows. If an accidental spill were to occur during construction, the contractor would be responsible for minimizing the amount spilled and for any clean-up required. Federal and state regulations regarding the reporting and clean-up of accidental spills would be complied with.

Groundwater

The structures that are located at the Facility and that would remain if the *No-Action Alternative* were chosen would not impact groundwater directly, but impacts would occur due to Facility operations.

¹¹ Last updated by the USEPA on Tuesday, February 28th, 2006 URL: <http://www.epa.gov/ogwdw/swp/ssa/reg4.html>

Accidental spills of mosquito control chemicals into the environment have occurred in the past during power outages when sewage from the nearby wastewater treatment facility has overtopped the secondary containment. The location is also vulnerable to storm surges which could overtop the secondary containment. Potential for future releases of mosquito control chemicals to the environment would continue if this alternative were chosen. Impacts to the Sand-and-Gravel Aquifer would occur.

3.1.2.2 Preferred Alternative

Surface Water

The structures that would be constructed if the *Preferred Alternative* were chosen would not impact surface water directly.

Surface water flows at the *Preferred Alternative's* location are captured in a series of ditches that transfer stormwater to a series of retention ponds and/or an unnamed tributary to Elevenmile Creek. Elevenmile Creek eventually feeds into Perdido Bay at the Florida/Alabama border. The undeveloped lot where the Mosquito Control Facility will be constructed under the *Preferred Alternative* has a ditch at the southern end of the lot. This ditch is part of the overall stormwater management for the entire facility and as such, feeds into the stormwater retention ponds and/or the unnamed tributary to Elevenmile Creek.

The *Preferred Alternative* includes a retention pond on the western side of the Mosquito Control Facility. Stormwater from the buildings and the parking would be directed to the retention pond. Surface flow of stormwater from the eastern portion of the site, including the chemical storage area, would flow to the ditch at the southern end of the lot. The site development plan indicates that secondary containment for the chemical storage area will be installed, thereby preventing the accidental release of mosquito control chemicals to the drainage ditch. Since the area is not located within a mapped 100-year floodplain (Flood Zone 'x' per February 23, 2000; Flood Insurance Rate Map (FIRM) # 12033C0280 F, Appendix A – Exhibit 11), it is not expected that flooding would occur to such an extent as to overtop the secondary containment, thereby resulting in a release of chemicals to the environment.

No impacts to surface water are expected during construction of the Facility. The contractor would be responsible for guaranteeing that no accidental spills that could migrate to the ditch located at the southern boundary of the property would occur, and would likely do so with BMP's. Appropriate erosion control and BMPs would be utilized to minimize any impacts resulting from erosion and/or sedimentation during construction. Possible BMPs that could be implemented include siltation fences, impervious barriers, and/or straw bales to prevent or contain spills or excessive flows. Specific requirements and responsibilities are detailed in the "General Notes" shown on the Site Plan Appendix A – Exhibits 4 and 5.

Groundwater

Groundwater contamination at the *Preferred Alternative* location has already occurred due to Escambia County's Road Department activities. The Mosquito Control Facility operations are not expected to add further contamination. The *Preferred Alternative* would result in the Mosquito Control Facility moving their operations to a location where it would not be subject to storm surges or sewage overflow during power outages. Potential for future releases of mosquito control chemicals to the environment would therefore be minimal if this alternative were chosen. If an accidental spill of mosquito control chemicals were to occur, secondary containment would prevent a release to the environment. Additionally, the presence of International Paper to the northeast results in the drawing down of all groundwater from this area and impacts from groundwater contamination to public water supplies does not occur (see Section

3.2 for a complete discussion of this mechanism). Additional impacts to the Sand-and-Gravel Aquifer would not be anticipated if this alternative were chosen.

No impacts are expected during construction of the Facility. Impacts during construction would be minimized through the use of BMPs to prevent the discharge of contaminated surface waters which could impact the Sand-and-Gravel Aquifer. If an accidental spill were to occur during construction, the contractor would be responsible for minimizing the amount spilled and for any clean-up required. Federal and state regulations regarding the reporting and clean-up of accidental spills would be complied with.

3.1.2.3 *Restore to Pre-Disaster Conditions*

Surface Water

Impacts to surface water would be similar under this alternative as those that could be expected to occur under *the No-Action Alternative*. Stormwater at the existing location is currently directed to storm sewers, which eventually discharge it directly into Pensacola Bay. Storm surges and back-ups from the nearby wastewater treatment plant have resulted in the secondary containment of the chemical storage areas being overtopped. When this occurs, mosquito control chemicals are released into the environment. It is expected that future occurrences, if they were to happen, would also not have a significant impact due to the dilution factor that occurs within Pensacola Bay. Although it would not cause significant impacts, any release of mosquito control chemicals into Pensacola Bay would be detrimental. Exposure of neighborhood residents to mosquito control chemicals in floodwaters has minimal health risks (see Section 3.2).

Temporary construction activities would have no measurable negative impacts on surface waters. The contractor would be responsible for guaranteeing that no accidental spills that could migrate to the Facility's storm sewers would occur, and would likely do so with BMP's. Appropriate erosion control and BMPs will be utilized to minimize any impacts resulting from erosion and/or sedimentation during construction. Possible BMPs that could be implemented include siltation fences, impervious barriers, and/or straw bales to prevent or contain spills or excessive flows.

Groundwater

The *Restore to Pre-Disaster Conditions Alternative* would result in the Mosquito Control Facility continuing to operate at its current location. Accidental spills of mosquito control chemicals into the environment have occurred in the past during power outages when sewage from the nearby wastewater treatment facility overtops the secondary containment. The location is also vulnerable to storm surges which could overtop the secondary containment. Potential for future releases of mosquito control chemicals to the environment might continue if this alternative were chosen. A higher secondary containment system might be considered if this alternative were chosen, but the Facility would still be at risk to overtopping from sewage releases and storm surges. Impacts to the Sand-and-Gravel Aquifer could occur.

Impacts during construction would be minimized through the use of BMPs to prevent the discharge of contaminated surface waters which could impact the Sand-and-Gravel Aquifer. If an accidental spill were to occur during construction, the contractor would be responsible for minimizing the amount spilled and for any clean-up required. Federal and state regulations regarding the reporting and clean-up of accidental spills would be complied with. Impacts to groundwater would occur due to Facility operations, however.

3.1.3 Floodplain Management (Executive Order 11988)

Executive Order 11988 (EO 11988) requires federal agencies to take action to minimize occupancy and modification of the floodplain. Specifically, EO 11988 prohibits federal agencies from funding construction in the 100-year floodplain unless there are no practicable alternatives. FEMA's regulations for complying with EO 11988 are promulgated in *44 CFR Part 9*.

FEMA applies the "Eight-Step Decision-Making Process" to ensure that it funds projects consistent with EO 11988. Step 1 requires that a determination be made as to whether the project is located within a wetland or 100-year floodplain (500-year for critical actions). Neither the existing location nor the *Preferred Alternative* location is within a mapped 100-year floodplain. Exhibit 11 is the FIRM panel for the *No-Action* and *Restore to Pre-Disaster Conditions Alternatives* site (FIRM panel 12033C0280F), Exhibit 12 is the FIRM panel for the *Preferred Alternative* site (FIRM panel 12033C0386F).

Because neither of the project locations is located within a mapped 100-year floodplain, no further steps are required for the protection of floodplains and their values.

3.1.4 Air Quality

The National Ambient Air Quality Standards (NAAQS), established by the USEPA, set maximum allowable concentration limits for six criteria air pollutants to protect the public health, safety, and welfare as a result of the Federal Clean Air Act of 1970 (CAA). The Clean Air Act Amendments of 1990 (CAAA), [42 USC 7401, *et. seq.*], mandated a reduction in the emissions of the following six criteria pollutants: nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), lead (Pb), ozone (O₃), and particulate matter (PM, microscopic solid or liquid particles suspended in air). Areas in which air pollution levels persistently exceed the NAAQS may be designated as "non-attainment." States in which a non-attainment area is located must develop and implement a State Implementation Plan (SIP) containing policies and regulations that will bring about attainment of the NAAQS.

No portion of this project is within a designated non-attainment area for any of the criteria air pollutants (<http://www.epa.gov/oar/oaqps/greenbk/>) per the USEPA web site, as last updated on Wednesday, March 15th 2006. The project does not involve increasing automobile traffic in the area or increasing traffic capacity, and does not have the potential to change emissions; therefore, an air quality conformity determination under "Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Funded or Approved under Title 23 USC or the Federal Transit Act" [40 CFR Part 93] is not required.

3.1.4.1 No-Action Alternative

There would be no replacement, relocation, or construction activities associated with this alternative. The *No-Action Alternative* would not affect air quality.

3.1.4.2 Preferred Alternative

The *Preferred Alternative* has the potential to have short-term air quality impacts due to construction equipment. The air quality impacts would be short-term, occurring only while construction work is in progress. Construction equipment would generate a minimal amount of fugitive dust (particulate matter). Other emissions would be from the exhaust of construction equipment. Vehicles used by construction crews to reach the work site would also generate engine exhaust emissions; these would be expected to be insignificant. Although significant air quality issues associated with the implementation of this alternative are not expected to occur, the project should incorporate appropriate measures to control fugitive dust.

Dust and airborne dirt generated by construction activities shall be controlled through general dust control BMPs or a specific dust control plan could be developed if warranted. The contractor and Escambia County Mosquito Control personnel will, if necessary, meet to review the nature and extent of potential and known dust-generating activities and will cooperatively develop specific types of control techniques that may be appropriate to the project and the local situations. Some of the techniques that may warrant consideration include measures such as minimizing the tracking-out of soil onto nearby publicly-traveled roads, reducing speed on unpaved surfaces, covering (tarpaulin-covered) haul vehicles, and applying water to exposed surfaces, particularly those on which construction vehicles travel. Any burning of materials, vegetation or debris would be undertaken according to relevant State of Florida and local laws and ordinances, including, but not limited to, the current Escambia County ordinances or regulations of the FDEP. Appropriate traffic control plans may also serve to limit localized concentrations of airborne emissions during construction.

If project activities include the stockpiling of soil on-site, the contractor would be required at the direction of Escambia County to cover the soil to help prevent fugitive dust and erosion. Following construction activities, exposed, compacted soil would be graded and restored.

No permanent air quality impacts are expected from the operation of the Facility. The *Preferred Alternative* would not change the total regional emissions of pollutants. The area to be covered by the Facility's services remains the same and the distribution of trips within Escambia County are not expected to change as a result of constructing the *Preferred Alternative*; there should be no significant statistical difference in the distances traveled annually.

The *Preferred Alternative* does not have the potential for long-term, adverse air quality effects and none are anticipated.

3.1.4.3 *Restore to Pre-Disaster Conditions*

The impacts of implementing the *Restore to Pre-Disaster Conditions Alternative* are the same as with the *Preferred Alternative*, as discussed above.

3.1.5 *Terrestrial and Aquatic Environment*

The environments at both the existing and proposed locations have been developed. The existing location is composed of gravel access drives, foundations, and mowed lawn. The proposed location is composed of mowed lawn. There are therefore no local terrestrial or aquatic environmental issues or impacts involved with any of the alternatives.

3.1.6 *Wetlands (Executive Order 11990)*

Executive Order 11990 (EO 11990), Protection of Wetlands, requires federal agencies to take action to minimize the loss of wetlands. FEMA's regulations for complying with EO 11990 are promulgated in *44 CFR Part 9*. The NEPA compliance process also requires the identification of any direct or indirect impacts to wetlands which may result from federally funded actions.

FEMA applies the "Eight-Step Decision-Making Process" to ensure that it funds projects consistent with EO 11990. This process is the same process as required for compliance with EO 11988 (Floodplain Management).

The National Wetland Inventory (NWI) maps depicting wetlands in Escambia County, Florida by the U.S. Fish and Wildlife Service (USF&WS) Geocortex Internet Mapping Framework Wetlands Online Mapper was examined for information related to the presence of wetlands within the project area. (See Appendix A – Exhibits 13 and 14.) The NWI maps indicate that there are no wetlands involved with either the existing site or the preferred site. Additionally, the soil type present at the proposed site is Arents-Urban land complex,

classified as rarely flooded by the U.S. Natural Resource Conservation Service (NRCS) Soil Survey of Escambia County. This soil is not on the state hydric soils list.

Photographs were taken during a site visit and are shown in Appendix A - Photographs. Collection 1 shows the existing and preferred locations as aerial photographs. Appendix A – Photographs, Collection 2 shows a ground level panoramic view of the existing site. Collection 3 shows additional ground level photos of damaged facilities. Collection 4 shows a panoramic view of the preferred site. The existing site is composed of gravel access roads, foundations, and mowed lawn; the preferred location is mowed lawn. From the photographs, soil survey, and the NWI data, a Professional Wetland Scientist confirmed that wetlands are not directly or indirectly associated with either the existing or the proposed site. Wetlands will not be impacted by the project.

3.1.7 Threatened and Endangered Species

With regards to threatened and endangered species, FEMA has conducted a thorough investigation of the relevant literature, environmental resource maps and conducted field visits. FEMA has determined that any of the alternatives would result in a no-effect determination. The existing location is within an urban community composed of mixed residential and commercial/light industrial facilities. There is no habitat associated with this location. The proposed location is within a complex that is developed, and the lot the new Facility will be built on consists of mowed lawn. There is no habitat present at this location, either. No threatened or endangered species are known to inhabit or visit either location site.

Pursuant to the Endangered Species Act (ESA), FEMA has requested concurrence on its no effect determination. Copies of correspondence requesting concurrence, as well as the response (when received), can be found in Appendix C, Contact 1.

Because of the reasons stated above, the project will have no effect on federal or state protected species. USF&WS advised their concurrence on May 10, 2006 that the project is not likely to adversely affect any Threatened or Endangered species.

3.2 Hazardous and Special Waste Materials

In general hazardous materials¹² are substances that are classified as either flammable, corrosive, reactive, or toxic. The proposed project location is not located near any identified Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites included in the USEPA CERCLIS listing last updated as of 27 October 2005.

Hazardous chemicals are associated with mosquito control operations and will be found at the Facility. Typical mosquito control chemicals and agents used and stored by the Escambia County Mosquito Control Facility¹³ are:

Adulticides

- Kontrol 4-4 (Permethrin 4%, PBO 4%), EPA Reg. 550-194

Larvicids

- Altosid Pellets (Methoprene 4.25%), EPA Reg. 2724-448
- Altosid 30 Day Brq (Methoprene 8.62%), EPA Reg. 2724-375
- Altosid XR 150 Day Brq (Methoprene 2.1%), EPA Reg. 2724.421
- Agnique MMF (Polyoxy-1,2-ethandiyl), EPA Reg. 53263-28

¹² Those substances defined by Comprehensive Environmental Response Compensation and Liability Act (CERCLA), [42 USC 6901 et seq.], and the Resource Conservation Act, [42 USC 6901 et seq.], as amended.

¹³ Typical Adulticides and Larvicides information extracted from the State of Florida Department of Agriculture and Consumer Services, Mosquito Control Monthly Activity Report for Escambia County, March 2006, Fiscal Year 2005-2006

- AquaBac 200 G (B.t.i. 2.86%), EPA Reg. 62637-3
- AquaBac XT (B.t.i. 8.0%), EPA Reg. 62637-1

The use of these and any other chemicals appropriate to fulfill the charge of Escambia County for mosquito abatement and control do not pose any significant adverse impact in relation to the alternative courses of action when stored, handled and used by trained personnel in accordance with USEPA, U.S. Department of Agriculture, and FDEP guidelines and regulations. The potential for spillage of the above chemicals and contamination at the existing location during storm events, however, poses a risk of soil and groundwater contamination (see Section 3.1.2).

Table 1 is a summary of the mosquito control chemicals used by the Escambia County Mosquito Control Facility, and their associated hazards, as classified by the U.S. Department of Transportation (DOT).

Hazardous/Special Waste Summary - Table 1

Chemical	DOT Hazard Classification	Stability	Effect of Overexposure	NFPA Codes	
				Health	Fire - Reactivity
<u>Adulticid</u>					4 = Severe
Kontrol 4-4	Hazardous	Stable	Eye or skin irritation	1 - 1 - 0	3 = Serious
<u>Larvicids</u>					2 = Moderate
Altosid Pellets	Non-Hazardous*	Stable	None	0 - 0 - 0	1 = Slight
Altosid 30 Day Brq	Non-Hazardous*	Stable	None	0 - 0 - 0	0 = Minimal
Altosid XR 150 Day Brq	Non-Hazardous*	Stable	Irritation	0 - 0 - 0	
Agnique MMF		Stable	Minor eye irritation	1 - 1 - 0	
AquaBac 200 G	Non-Hazardous*	Stable	None	0 - 0 - 0	
AquaBac XT	Non-Hazardous*	Stable	None	0 - 0 - 0	

* Not classified by DOT as Hazardous

Sources: MSDS sheets for each Adulticid and Larvicid, see Appendix F

3.2.1 No-Action Alternative

The *No-Action Alternative* results in the potential for hazardous materials to be released into the terrestrial and aquatic environment. The release of hazardous chemicals from the existing Mosquito Control Facility has occurred during the past under flood conditions. When this has occurred, the released chemicals have mixed with floodwaters.

The National Fire Protection Agency (NFPA) has classified several of the chemicals as having slight human health effects. It is expected that these health effects would be minimized due to dilution of the chemicals within the floodwaters.

Three of the chemicals stored are not toxic to fish or aquatic species and would pose no risks to the environment during an accidental release. One chemical, “Kontrol”, is highly toxic to fish and aquatic invertebrates, with marine species being more sensitive than freshwater species. It is not known if historical releases of this chemical resulted in any aquatic species being impacted; it assumed that dilution within the floodwaters has resulted in a minimization of the impacts.

Three of the chemicals pose slight to moderate fire hazards due to their flammability. These chemicals do not become diluted in water, however, but float on top of water and remain flammable. There have been no occurrences of fire accompanying flood events, and this physical property of these three chemicals has not posed a hazard to date.

3.2.2 Preferred Alternative

The *Preferred Alternative* includes hazardous materials in its operations, but the probability of a release to the environment is minimal. Hazardous chemicals have only been released at the previous Mosquito Control Facility in the past when in association with extreme floods or storm surges. These occurrences are not anticipated at the new location. The possibility for an accidental release still exists, but built-in secondary containment facilities and procedures should confine the spill area to the immediate terrestrial areas and prevent any release from reaching the surface water and groundwater environment.

If there were an extreme flood or storm event that resulted in the release of mosquito control chemicals to the environment, the physical constraints and terrestrial environment surrounding the *Preferred Alternative* would minimize exposure and impacts. Most of any spill that occurred would be released to surface waters, carried by surface or sheet flow to the area ditch, then to the tributary to Elevenmile Creek and Elevenmile Creek. Once encompassed within these surficial waters, the mosquito abatement chemicals would be significantly diluted and not expected to pose any serious risks. The one chemical (Kontrol) that is highly toxic to fish and aquatic invertebrates, is more toxic to marine species, which would not be in the vicinity of the proposed alternative. The various toxicities of the chemicals to be stored indicate minimal human hazards, if any, and short half-lives. The smaller percentage of chemicals that might reach the groundwater would be drawn downward and northwards towards the array of wells operated by International Paper Company. The 23 million gallons per day of water drawn by International Paper will almost assuredly include any spillage from the Mosquito Control Facility that would enter the groundwater and thereby avoid migration into the groundwater that is part of Escambia County's potable water supply.

With the use and storage methods being implemented, containment facilities to catch and hold any accidental spills, and the flushing and dilution factor of nearby surface waters, and the drawdown of groundwater by International Paper, the environmental impacts from an accidental chemical spill and also an extreme flood or storm event at the *Preferred Alternative* location are considered minimal.

3.2.3 Restore to Pre-Disaster Conditions

The *Restore to Pre-Disaster Conditions Alternative* results in the potential for hazardous materials to be released into the environment. The release of hazardous chemicals from the existing Mosquito Control Facility was previously discussed for the *No-Action Alternative* and the hazards would remain the same for this alternative. The probabilities could be reduced if additional secondary containment were constructed at the time the Facility is rebuilt. Final designs are not available, however, and it is unknown if additional secondary containment would be installed.

3.3 Socioeconomics

3.3.1 Zoning and Land Use

Escambia County's existing Mosquito Control Facility is located within an area that is mixed residential and commercial/industrial. The location of the *Preferred Alternative* is within a County owned property that includes the Road Department and a prison camp.

3.3.1.1 No-Action Alternative

The *No-Action Alternative* would not result in any changes to existing land use and would have no impacts on zoning.

3.3.1.2 Preferred Alternative

The *Preferred Alternative* would result in the removal of the existing Mosquito Control Facility from an area that is primarily residential. The Facility would undergo clean-up and the property would be released for re-use. Escambia County does not have any current plans for re-use, but is considering converting the property to open space/park land, to be used in association with the existing park which is adjacent. The *Preferred Alternative* would result in land use change, and possible changes in zoning. These impacts would be beneficial to the neighboring residential community.

3.3.1.3 Restore to Pre-Disaster Conditions

The *Restore to Pre-Disaster Conditions Alternative* would not result in any changes to existing land use and would have no impacts on zoning.

3.3.2 Aesthetics and Visual Resources

The present Escambia County Mosquito Control Facility is located in a mixed use residential and light industrial area. See Appendix A – Photo Collection 2. The proposed location of the new Facility is located in a rural non-residential area. See Appendix A – Photo Collection 4.

3.3.2.1 No-Action Alternative

The *No-Action Alternative* would not impact visual resources.

3.3.2.2 Preferred Alternative

The *Preferred Alternative* is proposed to be a complex of four single story buildings (See Appendix A – Exhibits 3, 4, & 5) on what is now a mowed lawn on an Escambia County owned parcel already containing the Road Department, a correctional facility and gravel parking lots. Landscaping identified on the “Site Plan” is scheduled as part of the project to enhance the Facility. Proposed landscaping will include Dahoon holly (*Ilex cassine*) [i.e., Yaupon holly (*Ilex vomitoria*)], flowering dogwood (*Cornus florida*), and wax myrtle (*Myrica cerifera*). The Facility would be constructed with concern for aesthetics, to an extent commensurate with funding. The new complex would be more aesthetically pleasing than the existing Facility on Romana Street.

3.3.2.3 Restore to Pre-Disaster Conditions

The *Restore to Pre-Disaster Conditions* would result in the reinstallation of a variety of structures to function as the Mosquito Control Facility. The aesthetics of the area are unknown at this time since an actual design has not been proposed.

3.3.3 Noise

Noise, defined for the purposes of this discussion as undesirable sound, is federally regulated by the Noise Control Act (NCA) enacted in 1972 (PL 92-574). Although the NCA gives the USEPA authority to prepare guidelines for acceptable ambient noise levels, it only charges federal agencies that operate noise-producing facilities or equipment to implement noise standards. The USEPA guidelines, and those of many federal agencies, state that outdoor sound level in excess of 55 dBA (decibels, “A-weighted” noise scale) are “normally unacceptable” for noise-sensitive residential land uses such as residences, schools and hospitals, especially when there is identified outside human activity. The range of human hearing is from approximately 20 dBA (the threshold of hearing) to 120 dBA (the threshold of pain). Under most conditions, persons with normal hearing would require a change of 5 dBA, either more or less, before a noticeable change in the noise environment

would occur. A change of 3 dBA, either more or less, would be at the lower end of barely perceptible change. The affects of noise on people usually result in general annoyance, disturbance with sleep, and interference with vocal communication.

3.3.3.1 *No-Action Alternative*

The *No-Action Alternative* would not generate any construction or operating noise. This alternative would not result in any changes in the existing or future ambient noise of the surrounding residential neighborhood.

3.3.3.2 *Preferred Alternative*

The existing ambient noise levels in the vicinity of the location of the *Preferred Alternative* are consistent with levels experienced throughout the public and government use areas of Escambia County (*i.e.*, Escambia County Road Department, prison camp and vacant lands). Occupied office and equipment storage of the Mosquito Control Facility will not normally generate or directly contribute to the ambient noise levels in the area. The Facility is situated south of the prison camp, south of Upland Road, and to the east of the Road Department. There are no identified noise sensitive receptors or outdoor use areas in the vicinity.

Construction noise is expected to be generated from the site as a result of machinery and truck traffic necessary for the supply of materials and building erection. All of the construction noises would be of short duration and would not have a sustained affect on the surrounding area. Construction equipment, delivery and storage would be located in already accessed areas used by the Escambia County Road Department. Because of the short durations of noise generated, there would be no significant adverse noise impacts resulting from the alternative.

3.3.3.3 *Restore to Pre-Disaster Conditions*

The *Restore to Pre-Disaster Conditions Alternative* would have the same noise impacts as the *Preferred Alternative* except that adjacent areas are residential. Short term noise impacts would occur during the construction phase to the adjacent residential areas. Because of the short term duration of the construction noise, no significant adverse noise impacts would result from this alternative. Operating noise of the facilities vehicles would remain the same as pre-disaster conditions.

3.3.4 *Public Services and Utilities*

The concept of Public Service, when discussed with potential projects, generally refers to police, fire, ambulance, transit, etc. A roadway project can facilitate access. A commercial building or shopping center can cause congestion on the streets and require more public services. This project is quite different; it is a public service facility providing health services to the general public of Escambia County. Currently, the complete and efficient service that was provided by the Escambia Mosquito Control Facility before the disaster is not adequately provided for.

With regards to public services and utilities required by the Escambia County Mosquito Control Facility, it is expected that none of the alternatives would result in impacts to police, fire, or emergency services, nor would any impacts to the supply of potable water, sewer systems, electrical supplies, or heating services occur.

3.3.4.1 *No-Action Alternative*

If the *No-Action Alternative* is selected, the mosquito abatement and control services will be poorly provided for out of the trailers located at the existing Facility. These facilities are at risk for damages during future storm events or power outages.

3.3.4.2 Preferred Alternative

Under the *Preferred Alternative*, public services would be restored to a level that was present before Hurricane Ivan. The implementation of the *Preferred Alternative* would have benefits to all residents of Escambia County.

3.3.4.3 Restore to Pre-Disaster Conditions

Under the *Restore to Pre-Disaster Conditions Alternative*, public services would be restored to a level that was present before Hurricane Ivan. The implementation of this alternative would benefit Escambia County, but the Facility would continue to be at risk from future storm events or power outages.

3.3.5 Traffic and Circulation, Volume, Parking, and Access

The existing Facility is located in a residential / commercial neighborhood. The preferred alternate, a relocation to the Highway 297A location, would be in an area surrounded by other County run facilities.

Access to and from the Facility, regardless of which is alternative is implemented, would have to be county-wide. There is no difference between the three alternatives regarding access. The number of vehicles using/visiting the site in the future is anticipated to be significantly less than the capacity of the local roadway networks. The volume of mosquito control related vehicles that would have to be added to the usage for the capacity of the roadway network to be stressed would be an additional 400 vehicles, entering or leaving during the peak hours of travel. This is far beyond the capacity of the yard itself. Parking is provided within the site and thus it would not have any external impacts.

There are no traffic related impacts associated with any of the alternatives under consideration.

3.3.6 Environmental Justice (Executive Order 12898)¹⁴

On February 11, 1994, President Clinton signed Executive Order 12898 (EO 12898), entitled, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”. This EO directs federal agencies, “to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States. . . .” Its goals are to achieve environmental justice, foster non-discrimination in federal programs that substantially affect human health or the environment, and to give minority or low-income communities greater opportunities for public participation in and access to information on matters relating to human health and the environment.

In compliance with FEMA’s policy implementing EO 12898, Environmental Justice, the socioeconomic conditions and potential effects related to the *No-Action Alternative*, the *Preferred Alternative* and the *Restore to Pre-Disaster Conditions Alternative* have been reviewed.

3.3.6.1 No-Action Alternative

The *No-Action Alternative* course of action would have a disproportionately high impact on minority and low income populations within Escambia County. The residential neighborhood surrounding the existing Facility is low income and primarily African-American. The existing Facility has on several occasions released mosquito control chemicals into the environment as a result of flood events or sewer back-ups from the nearby wastewater treatment center. When this occurs, the neighborhood is flooded with water contaminated with a combination of raw sewage and mosquito control chemicals. These events pose a health risk to the residents.

¹⁴ E.O 12898; signed 11 February 1994; 59 FR 7629, 16 February 1994; amends E.O 12250, 2 November 1980; amended by: E.O 12948, 30 January 1995.

3.3.6.2 Preferred Alternative

The construction of the *Preferred Alternative* will provide a benefit to the residential neighborhood adjacent to the existing Facility by removing the mosquito control chemicals that have been released in the past. This would provide a benefit to a population that is low income and primarily African-American.

Location of the Facility at the *Preferred Alternative* would have no disproportionately high or adverse impacts on minority or low-income populations in Escambia County. This location does not have any residential properties in the vicinity.

3.3.6.3 Restore to Pre-Disaster Conditions

The *Restore to Pre-Disaster Conditions Alternative* would, similar to the *Preferred Alternative*, have disproportionately adverse impacts on minority or low-income populations. The dangers of mosquito abatement chemical spills and distribution into the adjacent residential neighborhood would remain the same. This alternative could develop additional BMP's to prevent accidental spillage, and redundant systems to capture any chemical releases that may occur before they can enter the environment, thereby minimizing the disproportionately high or adverse impacts associated with this alternative.

3.3.7 Public Health and Safety (including Executive Order 13045)

The purpose and need of this project is to provide for a safe and secure location from which Escambia County can manage their mosquito control operations, which are needed for the health and welfare of the entire population of Escambia County.

On 21 April 1997, President Clinton signed Executive Order 13045 (EO 13045)¹⁵ entitled "Protection of Children from Environmental Health Risks and Safety Risks". EO 13045 directs federal agencies to "make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks." EO 13045 does apply to the project because the alternatives affect the safety and security children.

When Hurricane Ivan damaged the exiting facilities, the damage created a public health and safety situation for continued mosquito abatement for all of Escambia County. Hazardous materials or special wastes at the site are addressed in Section 3.2. Seismic preparedness is not an issue in this geological area (see Section 3.1.1). Periodic flooding is an issue, as discussed in Sections 3.1.2, 3.2 and 3.3.6.

The primary health issues for this project are public health and the preservation of quality of life. The chemicals at the Mosquito Control Facility pose a health risk at the Facility's current location. Without the mosquito control services, however, the health and safety needs of Escambia County residents would not be met.

3.3.7.1 No-Action Alternative

The *No-Action Alternative* results in adverse impacts to the general public and children because it is vulnerable to flooding and the resulting release of mosquito control chemicals. Both the general public, and children live in the adjacent residential neighborhood and would be exposed to the released chemicals. Additionally, the mobile trailers that make up the current Facility are at risk during any future storm events that produce high winds or flooding. If the mobile trailers were damaged or lost during a future event, mosquito control operations would be jeopardized throughout Escambia County. If this were to occur, the entire population of Escambia County could be adversely impacted.

¹⁵ EO 13045; signed 21 April 1997; 62 FR 19885, 23 April 1997; revoked E.O 12606, 2 September 1987; amended by: EO 13229, 9 October 2001; EO 13296, 18 April 2003.

The *No-Action Alternative* would not result in construction impacts that could adversely affect the population in general. There would therefore be no potential risks to the safety of construction personnel during construction activities.

3.3.7.2 Preferred Alternative

The implementation of the *Preferred Alternative* will have beneficial impacts on public health and safety by relocating the Facility to an area that is not prone to flooding, and thereby minimizing the risk of the release of mosquito abatement chemicals to the environment. Additionally, the location of the *Preferred Alternative* is not adjacent to a residential community. The *Preferred Alternative* would also result in the provision of a permanent mosquito abatement facility that is less vulnerable to storm events.

During construction of the Facility, the *Preferred Alternative* could present safety risks to those performing the construction activities. To minimize risks to safety and human health, all construction activities will be performed using qualified personnel trained in the proper use of the appropriate equipment, including all appropriate safety precautions; additionally, all activities will be conducted in a safe manner in accordance with the standards specified in Occupational Safety and Health Act (OSHA) regulations. The construction site is located within a secure facility area operated with the Escambia County Road Department. Potential safety impacts to children during construction would therefore not occur, and EO 13045 would not apply because of construction impacts.

3.3.7.3 Restore to Pre-Disaster Conditions

The potential safety impacts of the *Restore to Pre-Disaster Conditions* are similar as those for the *No-Action Alternative*. Both the general public and the children that live in the adjacent residential neighborhood would be exposed to released chemicals during flood events. The installation of permanent structures would minimize the risk of the Facility to high winds, however, and additional secondary storage around the chemical storage areas would minimize the risk of chemical release during flood events.

The impacts to public safety would be minimized during construction because this site is secure and limited in access. A slight increase in risk to children living in the adjacent neighborhood would occur as a result of the truck traffic necessary to deliver building supplies.

3.4 Cultural Resources

As one of the considerations of the NEPA, impacts to historic properties are to be considered and protected under Section 106 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800. These and other related statutes require Federal agencies to take into account the potential consequences of their decisions, and to incorporate into their actions measures as appropriate and to the maximum extent possible or practicable to avoid, minimize or mitigate any adverse impacts to historic resources resulting from such actions.

FEMA must also determine, in consultation with the appropriate State Historic Preservation Officer (SHPO) and (if applicable) Tribal Historic Preservation Officer (THPO), what effect, if any, their actions will have on historic properties and determine if the project will have an adverse effect on these properties. FEMA must consult with the appropriate agencies on ways to avoid, minimize, or mitigate the adverse effect.

To comply with and expedite the review process under Section 106, the Florida SHPO, State of Florida Department of Community Affairs, Division of Emergency Management (DEM) and FEMA have entered into a Programmatic Agreement (PA) for the administration of FEMA programs in Florida. In accordance with this agreement, when FEMA is determined to be the lead agency, FEMA will coordinate the Section 106 review activities of all Federal agencies and Tribes that participate.

3.4.1 *Historic Architecture*

In accordance with the PA, a FEMA historic specialist has reviewed this project. The National Park Service's National Register of Historic Places database, Florida Master Site File, and the FEMA-EST databases were consulted and no historic buildings or structures were located or identified within the area of potential effect (APE) or immediate adjacent areas.¹⁶ Based on this information, FEMA has determined that this undertaking will have no adverse effects on historic buildings or structures.

3.4.2 *Archaeological Resources*

FEMA as reviewed the Florida Master Site File, and the FEMA-EST database indicated that no prehistoric or historic archaeological sites are located within the APE. The project area and immediate adjacent areas have been the subject of three previous archaeological / historic surveys (Appendix A – Exhibit 15). These include;

- *Archaeological and Historic Survey of the Proposed Cantonment 201 Facility Plan Area, Escambia County*, Raymond F. Willis, 1978. Survey No. 315.
- *Cantonment Cell Tower Survey*, Prentice M. Thomas Jr., 2001. Universal Engineering Services. Survey No. 7378.
- *Gonzales Cell Tower*, Prentice M. Thomas Jr., 2001. Universal Engineering Services. Survey No. 7380.

FEMA has reviewed the existing data and based on available information has determined that the proposed undertaking work will not adversely affect any known archaeological resources within the APE or immediate adjacent areas.

The Escambia County Facilities Management Department engaged the Archaeology Institute of the University of West Florida to investigate this site with respect to determining if there would be a likelihood of encountering and/or impacting archaeological sites. A letter was received from Archaeologist John C. Phillips indicating that the area in question is in an area of low probability for archaeological sites and that no further archaeological investigations are warranted. (See Appendix – C, Contact 3.).

In accordance with the PA between FEMA, the Florida SHPO, the State of Florida Department of Community Affairs, and DEM the PA established certain activities that do not require review by the Florida SHPO. In accordance with Appendix B, Section I; ground disturbing activities and site work when all work is performed in previously disturbed or archaeological surveyed area and is consistent with the Secretary of Interior Standards, or any other applicable standards, no additional review under Section 106 is required.

To ensure that during the construction process any items of archaeological, historical or architectural interest are protected, Escambia County and its contractors shall monitor excavation activities. In the event any items of interest are discovered, Escambia County will make all reasonable efforts to protect the items and to avoid further harm to the items until the significance of the discovery can be determined. The applicant shall notify FEMA and the Florida SHPO immediately.

The following table summarizes the summary of the issues and anticipated impacts for the replacement of the Escambia County – Mosquito Control Facility.

¹⁶ The FEMA-EST database was established as a disaster recovery response tool. The database is intended to provide decision making support to emergency response personnel. The FEMA-EST tools and reports provide information and analysis and help determine the potential impact on environmental and historic resources. - The FEMA-EST is a customized version of the FL DOT's Efficient Transportation Decision Making (ETDM) Environmental Screening Tool.

Affected Environment and Consequences - Table 2 Impact Summary

AFFECTED ENVIRONMENT and CONSEQUENCES				
Table 1- Impact Summary				
Affected Environment Issue Areas	Location in Text (Section)	Summary of Impacts Alternatives		
		<i>No-Action</i>	<i>Replace Facility at Alternate Location (Preferred Alternative)</i>	<i>Restore to Pre-Disaster Conditions</i>
Physical Environment	3.1			
<i>Topography and Soils, Seismicity & Prime Farmland (E.O. 12699)</i>	3.1.1	<i>None</i>	<i>None</i>	<i>None</i>
<i>Water Resources and Water Quality: Surface Water & Groundwater</i>	3.1.2	<i>Impacts to both surface water and groundwater in the Sand-and-Gravel aquifer will occur during future flood events if secondary containment is overtopped and mosquito control chemicals are released to the environment.</i>	<i>There is a low probability that Impacts to both surface water and groundwater in the Sand-and-Gravel aquifer may occur. Short term impacts to surface waters may occur as a result of construction activities. Appropriate erosion control and BMPs would be utilized to minimize any construction impacts.</i>	<i>Impacts to both surface water and groundwater in the Sand-and-Gravel aquifer will occur during future flood events if secondary containment is overtopped and mosquito control chemicals are released to the environment. If additional secondary containment is added, probabilities of impacts can be lowered. Short term impacts to surface waters may occur as a result of construction activities. Appropriate erosion control and BMPs would be utilized to minimize any impacts.</i>
<i>Floodplain Management (E.O. 11988)</i>	3.1.3	<i>None</i>	<i>None</i>	<i>None</i>
<i>Air Quality</i>	3.1.4	<i>None</i>	<i>This alternative has the potential to have short-term very localized air quality impacts due to construction equipment. Dust and airborne dirt generated by construction activities shall be controlled through general dust control BMPs or a specific dust control plan could be developed if warranted. No permanent air quality impacts are expected from the operation of the Facility.</i>	<i>This alternative has the potential to have short-term very localized air quality impacts due to construction equipment. Dust and airborne dirt generated by construction activities shall be controlled through general dust control BMPs or a specific dust control plan could be developed if warranted. No permanent air quality impacts are expected from the operation of the Facility.</i>
<i>Coastal Zone Management</i>	3.1.5	<i>None</i>	<i>None</i>	<i>None</i>
<i>Coastal Barriers Resources</i>	3.1.6	<i>None</i>	<i>None</i>	<i>None</i>
Biological Environment	3.2			

AFFECTED ENVIRONMENT and CONSEQUENCES

Table 1- Impact Summary

Affected Environment Issue Areas	Location in Text (Section)	Summary of Impacts Alternatives		
		<i>No-Action</i>	<i>Replace Facility at Alternate Location (Preferred Alternative)</i>	<i>Restore to Pre-Disaster Conditions</i>
<i>Terrestrial and Aquatic Environment</i>	3.2.1	None	None	None
<i>Wetlands (E.O. 11990)</i>	3.2.2	None	None	None
<i>Threatened and Endangered Species</i>	3.2.3	None	None	None
Hazardous and Special Waste Materials	3.3	The potential for spillage and the release of hazardous chemicals into the environment exists. The probability of this occurring is high due to the vulnerability of the site to flood events.	The potential for spillage and the release of hazardous chemicals into the environment exists. The probability of this occurring is low due to location of the site away from the wastewater treatment plant.	The potential for spillage and the release of hazardous chemicals into the environment exists. The probability of this occurring is high due to the vulnerability of the site to flood events.
Socio-Economics	3.4			
<i>Zoning and Land Use</i>	3.4.1	None	This alternative results in the removal of the existing Mosquito Control Facility from an area that is primarily residential and allows for the area to undergo land use change and possible zoning change. The impacts are expected to be beneficial.	None
<i>Aesthetics and Visual Resources</i>	3.4.2	None	The Facility would be constructed with concern for aesthetics, to an extent commensurate with funding.	The aesthetics of the area are unknown at this time since an actual design has not been proposed.
<i>Noise</i>	3.4.3	None.	Construction noise is expected to be generated from the site as a result of machinery and truck traffic necessary for building erection and supply of materials. All of the construction noises would be of short duration and would not have a sustained affect on the surrounding adjacent areas occupied by the Escambia County Road Department, prison camp, or surrounding vacant lands. No significant adverse noise impacts would result from this alternative.	Construction noise is expected to be generated from the site as a result of machinery and truck traffic necessary for building erection and supply of materials. All of the construction noises would be of short duration and would not have a sustained affect on the surrounding adjacent residential areas of Escambia County No significant adverse noise impacts would result from this alternative.

AFFECTED ENVIRONMENT and CONSEQUENCES

Table 1- Impact Summary

Affected Environment Issue Areas	Location in Text (Section)	Summary of Impacts Alternatives		
		<i>No-Action</i>	<i>Replace Facility at Alternate Location (Preferred Alternative)</i>	<i>Restore to Pre-Disaster Conditions</i>
<i>Public Service</i>	3.4.4	Public services of mosquito control vulnerable to disruption during future storm events.	Provides for the public service of mosquito control at a safe location.	Reduces the vulnerability of the public service of mosquito control, but does not eliminate risk during future storm events.
<i>Traffic and Circulation, Volume, Parking and Access</i>	3.4.5	None	None	None
<i>Environmental Justice (E.O. 12898)</i>	3.4.6	Has a disproportionately high impact on minority and low income populations by placing them at risk to flood water contaminated with mosquito abatement chemicals.	None	Has a disproportionately high impact on minority and low income populations by placing them at risk to flood water contaminated with mosquito abatement chemicals.
<i>Public Health and Safety (E.O. 13045)</i>	3.4.7	Impacts public health and safety by exposing residential neighborhood to flood water contaminated with mosquito abatement chemicals and by failing to provide adequate mosquito abatement and control and support facilities.	Will help maintain public health and safety by providing adequate mosquito abatement and control and support facilities for the residents of Escambia County.	Impacts public health and safety by exposing residential neighborhood to flood water contaminated with mosquito abatement chemicals. Will help maintain public health and safety by providing safe mosquito abatement and control and support facilities.
Cultural Resources	3.5			
<i>Historic Architecture</i>	3.5.1	None	None	None
<i>Archaeological Resources</i>	3.5.2	None	None	None
<i>Indian Coordination and Religious Sites</i>	3.5.3	None	None	None

Section 4 -Public Participation

Disaster-wide initial public notice was published state wide, with publication in the Pensacola News Journal on December 03, 2004. No comments were received from that notice. Final public notice will be published in the Pensacola News Journal on July 7, 2006. The public will be advised on the project and the fact that a Draft EA has been developed. The public will be advised on how to obtain copies of the EA and invited to comment.

The Draft EA will be made available to interested parties through publication on FEMA's website (<http://www.fema.gov/plan/ehp/envdocuments/index.shtm>) and by distribution within the adjacent community. The Draft EA will be distributed to interested parties and the following locations.

Pensacola Public Library
200 West Gregory Street
Pensacola, Florida 32502

(850) 436-5060

Lucia M. Tryon Branch Library
5740 North Ninth Avenue
Pensacola, Florida 32504

(850) 494-7373

The public will be invited to comment on the proposed project.

Section 5 -Mitigation Measures and Permits

5.1 Mitigation Measures

Appropriate erosion control and BMPs will be utilized to minimize any impacts resulting from disturbance of approximately 1.82 acres of land. Areas of equipment and storage and parking will incorporate erosion and sediment control structures per FDEP and USEPA standards for runoff, erosion and/or sedimentation transport during construction. More specific and related issues to all the various issues of mitigation are shown on the “Site Plan” under the heading “General Notes”. See Appendix A – Exhibits 4 and 5.

Dust and airborne dirt generated by construction activities shall be controlled through general dust control BMPs or a specific dust control plan could be developed if warranted. The contractor and Escambia County personnel will meet to review the nature and extent of potential and known dust-generating activities and will cooperatively develop specific types of control techniques appropriate to the project and local situations. Some of the techniques that may warrant consideration include measures such as minimizing the tracking-out of soil onto nearby publicly-traveled roads, reducing speed on paved roads or unpaved areas, covering (tarpaulin-covered) haul vehicles, and applying water to exposed surfaces, particularly those on which construction vehicles travel. Any burning of materials, vegetation or debris would be undertaken according to relevant local laws and ordinances, including, but not limited to, the current Escambia County ordinances or regulations of the FDEP. Appropriate public traffic control plans may also serve to limit localized concentrations of airborne emissions during construction.

If an accidental spill occurs during construction, the contractor will be responsible for minimizing the amount spilled and any clean-up required. Federal and state regulations regarding the reporting and clean-up of accidental spills will be adhered to.

To minimize risks to safety and human health, all construction activities will be performed using qualified personnel trained in the proper use of the appropriate equipment, including all appropriate safety precautions; additionally, all activities will be conducted in a safe manner in accordance with the standards specified in Occupational Safety and Health Act (OSHA) regulations.

To ensure that during the construction process any items of archaeological, historical or architectural interest are protected, Escambia County and its contractors shall monitor excavation activities. In the event any items of interest are discovered, FDEP will make all reasonable efforts to protect the items and to avoid further harm to the items until the significance of the discovery can be determined. The FDEP shall notify FEMA and the FL SHPO immediately.

5.2 Permits

The following permit issues have been evaluated for need and, where required, will be secured for the implementation of the *Preferred Alternative*.

Section 404 Permit - A U.S. Army Corps of Engineers Section 404 permit is not required. There are no wetlands located within the project vicinity, nor are there Waters of the U.S. involved in the project.

NPDES Permit - A National Pollutant Discharge Elimination System (NPDES) general construction permit is required. Approximately 1.8 acres of ground disturbance will occur.

Section 6 - Consultations , References and Credits

6.1 Consultations

Coordination has occurred with various resource and regulatory agencies. In addition, the following agencies and organizations were sent the Draft EA for their comments.

Federal Emergency Management Agency Mr. Richard Myers Environmental Liaison Officer 100 Sunport Lane Orlando, FL 32809 (407) 858-2705	J. Marcus Faulkner Escambia County Special Projects Coordinator 100 E. Blount St. Pensacola, FL 32501 (850) 595-3190
US Fish & Wildlife Service Gail Carmody, Project Leader Panama City Field Office 1601 Balboa Avenue Panama City, FL 32405-3721 (850) 769-0552	Mr. Bill Lawing Escambia County Architect 100 E. Blount St. Pensacola, FL 32501 (850) 595-3190
Mr. Shaun Condon Farm Hill Utilities Inc 120 Madrid Road Cantonment, FL 32533 (850) 968-2573	Larry McCurley, Associate Emerald Coast Utilities Association Ellyson Industrial Park 9255 Sturdevant Avenue Pensacola, FL 32514 (850)476-0480
Elizabeth Willard Florida Dept. of Environmental Protection Drinking Water Program 160 Government Center Pensacola, FL 32502 (850)595-8300 X-1147 Elizabeth.Willard@DEP.state.fl.us	Bill Evans Florida Dept. of Environmental Protection Ground Water Program 160 Government Center Pensacola, FL 32502 (850)595-8300 X-1172 Bill.Evans@DEP.state.FL.US
Terry L. Couch, Ph.D. Becker Microbial Products, Inc. 11146 NW 69 th Place Parkland, FL 33076 (954)345-9321	Dean Oester NA Business Manager COGNIS Specialty Solutions (513)482-2332 Dean.oester@connis.com
Tom Pratt Northwest Florida Water Management District 81 Water Management Drive Havana, FL 32333-4756 (850)539-2777	Blaine Oakeson Vector Industry Manager Univar USA Inc. 11149 Research Boulevard Austin, TX 78759 (801)731-8210

6.2 References

- <http://topozone.com/map.asp?lat=30.598122&lon=-87.330794&u=1> Topo Zone map
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA), [42 USC 6901 et seq.], and the Resource Conservation act, [42 USC 6901 et seq.], as amended
- Designated Sole Source Aquifers in USEPA Region 4: <http://www.epa.gov/safewater/swp/ssa/reg4.html>
- Earthquake History of Florida; http://neic.usgs.gov/neis/states/florida/florida_history.html
- EO 12898; signed 11 February 1994; 59 FR 7629, 16 February 1994; amends EO 12250, 2 November 1980; amended by: E.O 12948, 30 January 1995.
- EO 13045; signed 21 April 1997; [62 FR 19885], 23 April 1997; revoked EO 12606, 2 September 1987; amended by: EO 13229, 9 October 2001; EO 13296, 18 April 2003
- FEMA regulations for NEPA compliance [44 CFR Part 10]
- Gulf-margin normal faults, Alabama and Florida (Class B) No. 2654; <http://qfaults.cr.usgs.gov>
- Mehta, Madan; Johnson, James; Rocafort, Jorge: Architectural Acoustics – Principles and Design; Prentice Hall, 1999
- USDA/NRCS Soils Survey for Escambia County (2004)
- National Environmental Policy Act of 1969 (NEPA)
- National Register of Historic Places (NRHP) [36 CFR 60.4]
- Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Public Law 106-390, the Disaster Mitigation Act of 2000
- Stewart, Stacy R.; “Tropical Cyclone Report Hurricane Ivan 2-24 September 2004”, National Oceanic & Atmospheric Administration (NOAA), National Weather Service, National Hurricane Center 16 December 2004, Revised: 3 June 2005
- The Council on Environmental Quality (CEQ) regulations implementing NEPA [40 CFR Parts 1500 through 1508]
- The State of Florida’s Master Site File (Archeology & Historic Buildings)
- USEPA established air quality standards (<http://www.epa.gov/oarqps/greenbk>)

6.3 Credits for Photographs, Maps and Plans

Environmental Assessment

Cover Photo FEMA, Orlando, FL

Appendix A Exhibits

Exhibit 1	Designated Counties for FEMA – DR – 1551 – FL	FEMA
Exhibit 2	Location Maps	Yahoo Maps & Google Earth
Exhibits 3, 4 & 5	Site Plan	McCall Architects/Escambia County
Exhibit 6	Pesticide Storage	McCall Architects/Escambia County
Exhibit 7	Topographic Map – Pensacola Topographic Quadrangle	USGS
Exhibit 8	Topographic Map – Cantonment Topographic Quadrangle	USGS
Exhibit 9	National Seismic Hazard Map	USGS
Exhibit 10	Soils Survey Escambia County	Florida DEP
Exhibit 11	NWI Wetland Map for Existing Site	USFWS
Exhibit 12	NWI Wetland Map for Preferred Site	USFWS
Exhibit 13	FIRMETTE Map for Preferred relocation site	FEMA
Exhibit 14	FIRMETTE Map for Existing location	FEMA
Exhibit 15	Architecture / Historic Previous Search sites	FEMA-EST Data Base & Google-Earth

Appendix B Photo Collections

Collections 1-4 Photos of Escambia County FEMA, Orlando, FL

Section 7 -Secondary and Cumulative Impacts

This section addresses the secondary and cumulative impacts of the proposed action. Secondary effects are those impacts which are “. . . caused by an action and are later in time or further removed in distance but are still reasonably foreseeable” (40 CFR 1508.8), such as a new development attracted to the vicinity of an intersection created by a new highway facility. Cumulative effects are those “. . . impacts which result from the incremental consequences of an action when added to other past and reasonably foreseeable future actions” (40 CFR 1508.7). An example of a cumulative effect would be the degradation of a stream’s water quality by several developments which taken individually would have minimal effects, but as a collective action would cause a measurable negative impact.

This project consists of the replacement of existing facilities, either where they were prior to Hurricane Ivan in the *No-Action* and *Restore to Pre-Disaster Conditions Alternatives*, or at another location in the *Preferred Alternative*. At the existing location, all of the land surrounding the site is already fully developed, with no planned or anticipated actions, consequences or impacts associated with implementation of that action. The *Preferred Alternative* will be taking place at a large County-owned site in a generally undeveloped/industrial area. The County has no plans for any other developments in the Highway 297A area that the construction of the Mosquito Control Facility would result in more intense or more rapid development. No secondary or cumulative impacts anticipated.

Section 8 -List of Preparers

This EA was prepared by:

Consoer Townsend Envirodyne Engineers Inc. (CTE)
303 East Wacker Drive, Suite 600
Chicago, IL 60601-5276

Developed with contributions by:

- Brian Smith, Senior Project Manager – QC/QA, Natural Resources – CTE
- Cheryl Nash, Senior Project Scientist – EA Manager, QC/QA – CTE
- Ivan Johnson, Floodplain Specialist - FEMA
- J. Marcus Faulkner, Special Projects Coordinator – Planning, Coordination – Escambia County
- Kenneth Hemstreet, Senior Project Engineer – Environmental / Planning – CTE
- Lisa Sagami, Senior Project Engineer – GIS, Graphics, Research – CTE
- William Barbel, Senior Project Scientist – Environmental / Planning – CTE
- William Henry, Historic Specialist – Archaeology, Historic, Tribal Coordination - FEMA, LTRO Orlando, FL

Questions and comments can be directed to:

Richard Myers, Environmental Officer
FEMA Long Term Recovery Office
100 Sunport Drive
Orlando, FL 32809

or

Cheryl Nash, Senior Environmental Scientist
CTE Engineers Inc.
303 E. Wacker Drive
Chicago, IL 60601

Richard.Myers@dhs.gov
(407) 858-2705

Cheryl.Nash@cte.aecom.com
(312) 304-1023

APPENDIX A - EXHIBITS

Table of Contents

Note: Not all of the exhibits or photographs are included in this web site file. Only those in **bold** below are included. To view all of the exhibits, hard copies of the full Environmental Assessment are available at the two locations listed in Section 4 (Page 27).

Exhibit No	Description
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Exhibit 1	Counties In Florida Affected By President's Disaster Declaration
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Exhibit 2	Location Maps: State, Regional, Local
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Exhibit 2 is a project location map that has the State of Florida as background, with an aerial photograph of Escambia County overlaid over the State and lines indicating the County's location within the State. Two additional aerial photographs with close-ups of the Existing and Preferred Locations are overlaid adjacent to the County aerial photograph. The close-up aerial photographs are connected to the Escambia County aerial photograph by lines that indicate their location within Escambia County.

Exhibit 3	Site Plan for Preferred Alternative – Plan
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Exhibit 3 is an engineering plan that provides an overview of the proposed new Mosquito Control Facility at the Preferred Alternative location. The plan indicates the structures will be placed south of Upland Road. Asphalt parking will be provided on the west side of the facility. Stormwater detention will be provided within a drainage ditch to be installed west of the facility; this detention area will connect to the existing drainage swale located south of the proposed structures. Building A will be a shop and storage building, located in the north-central portion of the property. Building C will be a vehicle storage building located immediately south of and adjacent to Building A. Building B will be an office and lab building located east of Building A. Building D will be the insecticide storage building located south of Building B. Secondary containment for the chemicals is located immediate east of and adjacent to Building D. The locations of miscellaneous items such as curb and gutters, landscaping, concrete areas, and fencing are also included.

Exhibit 4	Site Plan for Preferred Alternative – Plan – General Notes
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Exhibit 5	Site Plan for Preferred Alternative – Plan – General Notes Continued
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Exhibit 6	Details of Pesticide Storage Building Spill Containment
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Exhibit 7	Topographic Quadrangle Map for Existing Site
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Exhibit 8	Topographic Quadrangle Map for Preferred Relocation Site
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Exhibit 9	Ground Shaking Hazards of Earthquakes
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Exhibit 10	Soils Survey of Escambia County
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Exhibit 11	Firmette of Preferred Relocation Site
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Exhibit 12	Firmette of Existing Site
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Exhibit 13	NWI Map of Existing Site
Exhibit 14	NWI Map of Preferred Relocation Site
Exhibit 15	Architecture / Historic Previous Search sites

APPENDIX A – PHOTOGRAPHS

Photographs	Description
Collection # 1 Neighborhood	Existing site – Romana Street, Pensacola – Panorama and associated

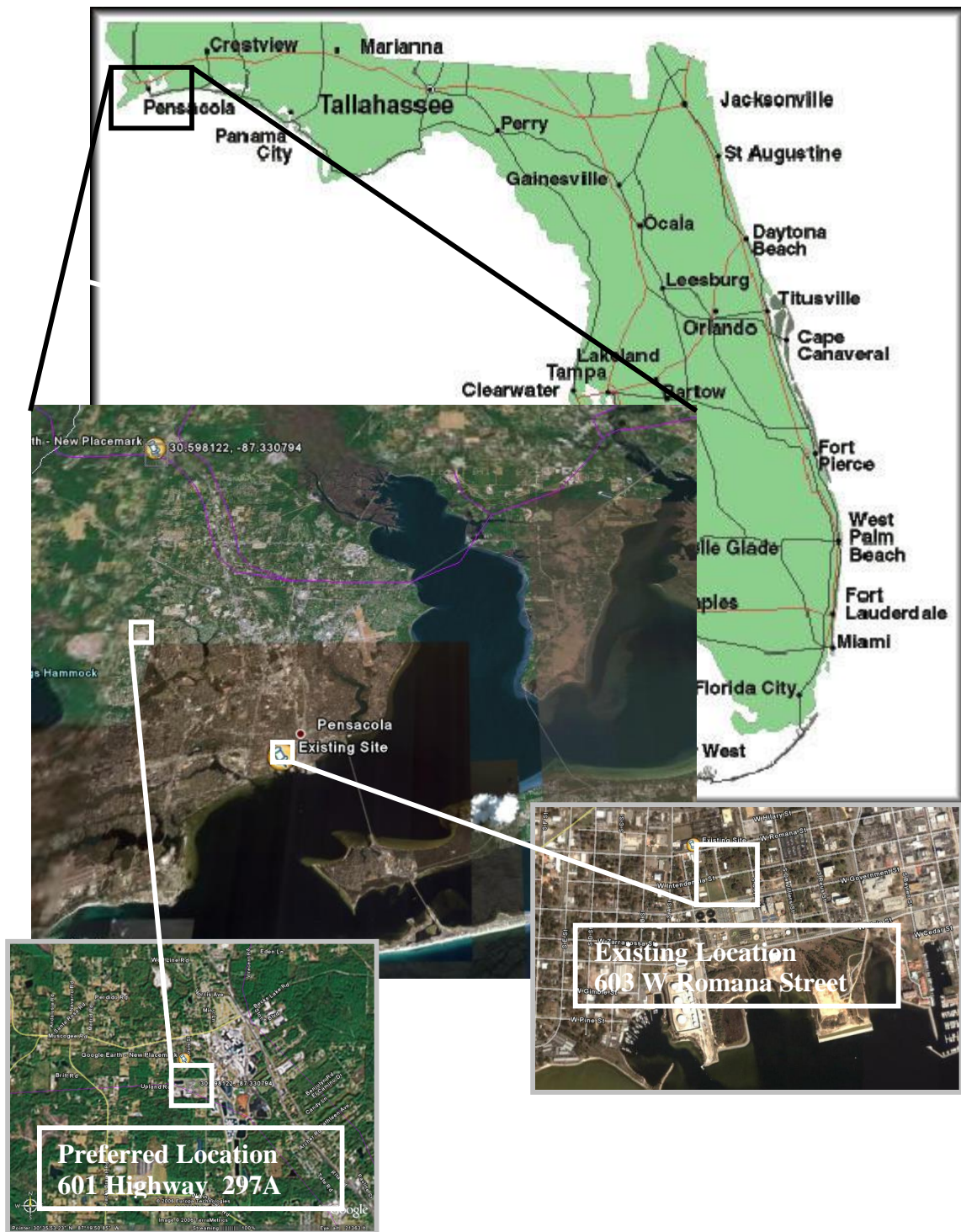
There are three photographs in this collection. The top photograph is a panoramic view of the Existing Facility, taken from Romana Street facing south. The panorama shows the rented trailers and the damaged Building 111 that has not yet been demolished. The bottom left photograph is of Romana Street and shows the residential neighborhood adjacent to the Mosquito Control Facility. The bottom right photograph is of the public park located south of the Mosquito Control Facility.

Collection # 2	Preferred site – 601 Highway 297A, - Panorama
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This collection consists of multiple photographs that have been spliced together to form one panoramic view of the Preferred Alternative location. The photograph was taken from Upland Road facing south. The left side of the photograph indicates the eastern portion where the proposed facility will be built. It currently consists of mowed lawn. West of this mowed lawn area are structures belonging to the adjacent County Road Department facility; gravel access drives and parking associated with the Road Department are also visible.

Collection # 3	Existing & Preferred Site Photos
Collection # 4	Existing site – Romana Street, Pensacola – Damaged Facilities

APPENDIX - A



Location Maps

APPENDIX A

Exhibit 2

APPENDIX A



Existing Mosquito Control Facility on West Romana Street



Romana Street in vicinity of existing facility – Residential



Public Park across Street from existing facility.

Existing Facility Photographs

APPENDIX A



Preferred Relocation Site on Upland Road

The left one-third of this panorama is the moved grass area proposed for the relocated mosquito control facility

APPENDIX A - PHOTOGRAPHS
Collection 2

Preferred Site Photographs

CTE

303 East Wacker Drive, Suite 600, Chicago, IL 60601-5276
T 312.938.0300 F 312.373.6834 www.cte.aecom.com

May 3, 2006

U.S. Fish & Wildlife Service
Gail Carmody, Project Leader
Panama City Field Office
1601 Balboa Avenue
Panama City, FL 32405-3721

**Subject: Endangered Species Act Consultation
Escambia County
Mosquito Control Facility
FEMA-FL-1551-DR, PW 1537
T1N R31W SE 1/4 Section 16**

Dear Ms. Carmody:

On behalf of the Federal Emergency Management Agency (FEMA), CTE is hereby requesting informal consultation pursuant to the Endangered Species Act. In September of 2004, Hurricane Ivan made landfall along the Florida Gulf Coast causing damage in a wide geographic area. Destroyed during this storm was the Escambia County Mosquito Control Facility located in Pensacola, at 603 W. Romana Street. The seven structures within the Mosquito Control facility were either destroyed completely or to an extent where repair costs warrant complete replacement.

The County of Escambia is proposing to relocate the facility and replace it entirely at a more remote location on a county owned parcel along Upland Road, just west of County Highway 297-A. FEMA is proposing funding the demolition of the seven storm damaged structures within the existing mosquito control facility, and funding the replacement and permanent relocation of these former structures at the Upland Road location. An Environmental Assessment (EA) is being conducted to document potential impacts from proposed alternative courses of action and determine the ultimate selection of an alternative.

The two locations being considered in the EA are identified as the "Existing Location" (603 W. Romana Street, Pensacola 30.40953°, -87.22516°), and the "Preferred Location" (Upland Road 30.598122°, -87.373794°). Both locations are shown on the Location Maps and the USGS Maps Exhibits attached hereto.

FEMA has determined that both project locations would result in a no effect determination. The existing location is within an urban community composed of mixed residential and commercial/light industrial facilities. There is no habitat associated with this location. The proposed location is within a complex that is developed, and the lot the new facility will be built on consists of mowed lawn. There is no habitat present at this location, either. No threatened or endangered species are known to inhabit or visit either location site. We are hereby requesting your concurrence on FEMA's no-effect determinations.

A P P E N D I X D

Contact 1
Page 1 of 2

Ms. Gail Carmody
U.S. Fish & Wildlife Service

July 6, 2006
Page 2

Please feel free to contact me at either office 312.373.6825 or cell 630.337.7539 telephone or via e-mail at william.barbel@cte.aecom.com if you have any questions.

Sincerely,

William Barbel
Senior Project Scientist
Environmental Specialist for FEMA

Attachments: Location Maps See Appendix A, Exhibit 2
USGS Maps See Appendix A, Exhibits 3 & 4
Photo Collection # 1 (Romana Street location) See Appendix A, Photo
Collection # 1
Photo Collection # 2 (Upland Road location) See Appendix A, Photo Collection
2

c: Richard Myers, Environmental Liaison Officer, FEMA

A P P E N D I X D

Contact 1
Page 2 of 2

CTE
 909 East Wacker Drive, Suite 600, Chicago, IL 60601-6716
 T 312.938.6040 F 312.938.1100 www.aecom.com

FILE

May 3, 2006

U.S. Fish & Wildlife Service
 Gail Carmody, Project Leader
 Panama City Field Office
 1601 Balboa Avenue
 Panama City, FL 32405-3721

RECEIVED
 MAY 08 2006

**Subject: Endangered Species Act Consultation
 Escambia County
 Mosquito Control Facility
 FEMA-FL-1551-DR, PW 1537 FWS # 4-P-06-17/
 T1N R31W SE 1/4 Section 16**

Dear Ms. Carmody:

On behalf of the Federal Emergency Management Agency (FEMA), CTE is hereby requesting informal consultation pursuant to the Endangered Species Act. In September of 2004, Hurricane Ivan made landfall along the Florida Gulf Coast causing damage in a wide geographic area. Destroyed during this storm was the Escambia County Mosquito Control Facility located in Pensacola, at 603 W. Romana Street. The seven structures within the Mosquito Control facility were either destroyed completely or to an extent where repair costs warrant complete replacement.

The County of Escambia is proposing to relocate the facility and replace it entirely at a more remote location on a county owned parcel along Upland Road, just west of County Highway 297-A. FEMA is proposing funding the demolition of the seven storm damaged structures within the existing mosquito control facility, and funding the replacement and permanent relocation of these former structures at the Upland Road location. An Environmental Assessment (EA) is being conducted to document potential impacts from proposed alternative courses of action and determine the ultimate selection of an alternative.

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FEMA has determined that both project locations would result in a no effect determination. The existing location is within an urban community composed of mixed residential and commercial/industrial facilities. There is no habitat associated with this location. The proposed location is within a complex that is developed, and the lot the new facility will be built on consists of mowed lawn. There is no habitat present at this location, either. No threatened or endangered species are known to inhabit or visit either location site. We are hereby requesting your concurrence on FEMA's no-effect determinations.



U.S. Fish and Wildlife Service
 1601 Balboa Avenue
 Panama City, Florida 32401
 (850) 763-6333 Fax (850) 763-2117

PW Log No. 4-P-06-17

The proposed action is not likely to adversely affect resources protected by the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). This finding fulfills the requirements of the Act.

Gail A. Carmody
 Gail A. Carmody, Project Leader

shidco
 Gail

APPENDIX C

Contact 2

Page 1 of 2

Ms. Gail Carmody
U.S. Fish & Wildlife Service

Mar 3, 2006
Page 2

Please feel free to contact me at either office 312.373.6825 or cell 630.337.7539 telephone or via e-mail at william.barbel@cte.arcdm.com if you have any questions.

Sincerely,



William Barbel
Senior Project Scientist
Environmental Specialist for FEMA

Attachments: Location Maps
USGS Maps
Photo Collection # 1 (Romana Street location)
Photo Collection # 2 (Upland Road location)

c: Richard Myers, Environmental Liaison Officer, FEMA

CTE | ARCDM

February 17, 2006

Mr. George Bush
Escambia County Facilities Management Department
100 East Blount Street
Pensacola, FL 32501

RE: Archaeological Review of Proposed Mosquito Control/Renov-0110-0204

Dear Mr. Bush:

I have reviewed the above referenced county project for impacts to archaeological resources. The proposed area lies in an area of low probability for archaeological sites. No further archaeological investigations are warranted.

Sincerely,



John C. Phillips
Archaeologist

cc: **File**