



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO
ATTENTION OF

MAINTENANCE DREDGING
NEW PASS
SARASOTA COUNTY, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed the Environmental Assessment (EA) of the proposed action. This Finding incorporates by reference all discussions and conclusions contained in the Environmental Assessment attached hereto. Based on information analyzed in the EA, reflecting pertinent information obtained from other agencies and special interest groups having jurisdiction by law and/or special expertise, I conclude that the proposed action will have no significant impact on the quality of the human environment. Reasons for this conclusion are in summary:

1. The proposed work would not jeopardize the continued existence of any endangered or threatened species.
2. The State Historic Preservation Officer concurred with the U.S. Army Corps of Engineers' determination that there would be no effect on sites of cultural or historical significance.
3. State water quality standards will be met.
4. The proposed project has been determined to be consistent with the Florida Coastal Zone Management Program.
5. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.
6. Benefits to the public will be maintenance of the navigation channel and continued local economic stimulus.

In consideration of the information summarized, I find that the proposed action will not significantly affect the human

environment and does not require an Environmental Impact Statement.

20 October 1979
Date



JOE R. MILLER
Colonel, Corps of Engineers
Commanding

September 1999

Environmental Assessment

Maintenance Dredging

New Pass

Sarasota County, Florida



**U.S. Army Corps
of Engineers**
Jacksonville District

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1. Purpose and Need for Action

1.1 Introduction.

The Jacksonville District, US Army Corps of Engineers is the responsible federal agency for maintaining New Pass, Florida. Certain areas of the Pass develop shoals and impede the navigable capacity of the channel. The Pass has been previously dredged and the material has been placed on the beach north and south of the channel. In order to meet the public need as authorized by Congress, the Federal standard must be maintained.

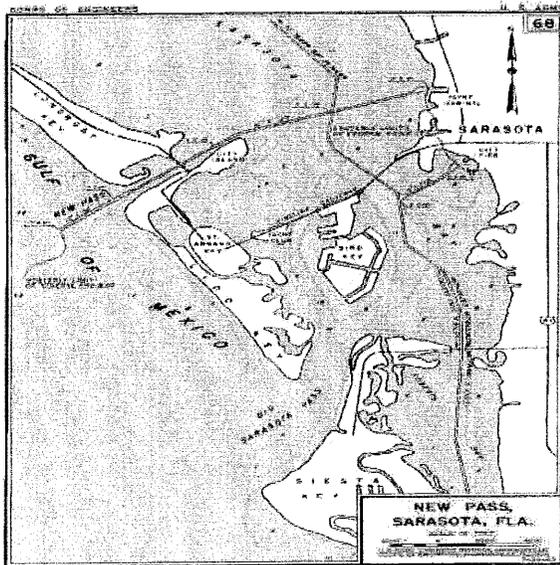


Figure 1, New Pass Navigation Project

1.2 Authority.

House Document 214, 89th Congress, 14 July 1960.

SPONSOR:

Board of County Commissioners
Sarasota County
PO Box 8
Sarasota, Florida 33578

1.3 Decision to be Made.

The decision to be made is to maintain the channel or where to place the material.

1.4 Relevant Issues

- a. Water quality
- b. Benthos
- d. Seagrass
- e. Fisheries
- f. Manatees
- g. Historic Properties
- h. Aesthetics
- i. Recreation
- j. Economics
- k. Navigation

1.5 Permits Required.

The maintenance dredging and placement of the dredged material will require a modification of a Florida Department of Environmental Protection Water Quality Certification in accordance with the Memorandum of Understanding between DEP and the US Army Corps of Engineers, and in accordance with Section 401 of the Clean Water Act. In addition, the work must be consistent with the Florida Coastal Zone Management Program.

1.6 Methodology.

An interdisciplinary team used a systematic approach to analyze the affected area, to estimate the environmental effects, and to write the environmental impact assessment. This included literature searches, coordination with agencies and private groups having expertise in particular areas, and field investigations.

2. ALTERNATIVES.

2.1 Introduction.

The Alternatives section is the heart of this Environmental Assessment. This section

describes in detail the no-action alternative, the proposed action, and other reasonable alternatives that were studied in detail. Then based on the information and analysis presented in the sections on the Affected Environment and the Probable Impacts, this section presents the beneficial and adverse environmental effects of all alternatives in comparative form, providing a clear basis for choice among the options for the decisionmaker and the public. A summary of this comparison is located in the alternative comparison chart, Table 2.1, page 3. This section has five parts:

- a. A description of the process used to formulate alternatives.
- b. A description of alternatives that were considered but were eliminated from detailed consideration.
- c. A description of each alternative.
- d. A comparison of the alternatives.
- e. The identification of the preferred alternative.

2.2 History of Alternative Formulation.

During construction and initial maintenance, dredged material was sidecast adjacent to the channel forming shallow sandbars and islands. Due to the increased water quality and solid substrate seagrasses colonized these areas. As seagrasses were considered more important and beach near the navigation channel became eroded, beach placement the best alternative. So much so that the State of Florida entered into a Memorandum of Understanding with the Corps to pay any additional cost should this cost be more than the normal method.

2.3 Eliminated Alternatives.

Sidecasting of material was eliminated due to its adverse impact on seagrass beds.

2.4 Description of Alternatives.

The only alternative to the No Action Alternative is the maintenance dredging of the channel and placement on the beach.

2.4.1 No Action Alternative.

The No Action Alternative would involve not maintaining the existing channel.

2.4.2 Dredging and Beach Placement.

The project consists of the maintenance dredging of the New Pass. The material would be placed on the beach north and south of the Pass. Each dredging occurrence (3-year cycle) would produce approximately 350,000 cubic yards of material. The impacts to manatees would be mitigated by the implementation of the standard manatee protection conditions (Appendix II). Seagrass impacts would be avoided by requiring special conditions to prevent contact with the seagrass beds and to minimize turbidity levels at the edge of the seagrasses. The project would also include a sea turtle monitoring and relocation program for the beach placement areas during the nesting season 1 March to 30 November. In addition, impacts on migratory bird nesting would be mitigated by the implementation of a bird monitoring and avoidance program. Nesting areas would be monitored during nesting season (1 April through 31 August) if work is conducted during this time period. Should nests be found, they would be avoided and marked to exclude construction.

b. Table 2.1, Alternative Comparison

RESOURCES	NO ACTION	DREDGING AND BEACH PLACEMENT
Water Quality	Minor long-term impact from vessels resuspending silty channel material.	Minor short-term increase in turbidity at dredge site.
Navigation	Long term adverse safety impact from loss of navigable capacity of the channel	Major long-term benefit to navigation.
Benthos	No impact	Minor long-term reduction of benthos at the dredging site
Manatees	No impact	No impact with inclusion of special manatee protection conditions in contract
Fisheries	No impact	No impact.
Seagrass	No impact	No impact if turbidity standards are adhered to at the edge of seagrass beds.
Sea Turtles	No impacts	Minor-short term impact on turtle nesting if work occurs during nesting season 1 March – 30 November. Impacts mitigated by implementing nest monitoring and relocation program. Compaction testing and escarpment monitoring after construction for 3 year period.
Migratory Birds	No impact	Substantial short-term disruption to bird nesting. Impacts mitigated by avoiding bird nesting season (1 April-30 August). If work occurs during nesting season, monitoring program implemented to exclude nesting areas from construction sites.
Historic Properties	No adverse effect	No adverse effect
Recreation	Minor long-term reduction in recreational boat operation from loss of depths	Medium-short term impact on beach recreational activities from presence and operation of construction equipment on the beach. Additional recreation opportunities from shell collecting on the beach after placement.
Aesthetics	No impact	Minor short-term impact from the presence and operation of construction equipment in a commercial port
Economics	Long-term loss of revenue from decreased cargo-handling capability	Medium short-term impact on the local economy from the sale of goods and services in support of the construction.

2.5 PREFERRED ALTERNATIVE.

The preferred alternative would be to maintain the existing channel and place the material on the beach.

3. AFFECTED ENVIRONMENT.

3.1 INTRODUCTION.

The Affected Environment section succinctly describes the existing environmental resources of the areas that would be affected if any of the alternatives were implemented. This section describes only those environmental resources that are relevant to the decision to be made. It does not describe the entire existing environment, but only those environmental resources that would affect or that would be affected by the alternatives if they were implemented. This section, in conjunction with the description of the "no-action" alternative forms the base line conditions for determining the environmental impacts of the proposed action and reasonable alternatives. The environmental issues that are relevant to the decision to be made are the following:

- a. Water quality.
- b. Navigation.
- c. Benthos
- d. Manatees.
- e. Fisheries.
- f. Seagrass
- g. Migratory Birds
- h. Sea Turtles

- i. Historic Properties.
- j. Recreation.
- k. Aesthetics.
- l. Economics.

3.2 GENERAL DESCRIPTION.

New Pass, which connects Sarasota Bay to the Gulf of Mexico, is located along the 35-mile gulf shoreline of Sarasota County. The pass is bordered on the north by Longboat Key and on the south by Lido Key (Figure 24). Longboat Key is approximately 10 miles long and varies in width from about 300 feet to approximately 1 mile. Lido Key is approximately 2.5 miles long and varies in width from about 300 feet to about 2,000 feet. Natural ground elevations on both barrier islands are generally below 10 feet. Both the marine and estuarine environments surrounding New Pass have been directly influenced by the pass. The presence of New Pass allows for the mixing of oceanic and estuarine waters. Currents, water circulation, salinity and temperature regimes within the pass and the surrounding inland waters are predominantly controlled by the tides which occur at the pass and surrounding nearshore area. In addition, the pass also provides access for a variety of estuarine-marine species. It is clear that the methods used to maintain the pass in the future will affect the surrounding environment. The natural resources surrounding New Pass are comprised of three major resource classifications. They include the beach and dune system, and upland areas; the estuarine wetlands; and the nearshore Gulf of Mexico. The following description is based on available references

and aerial photographs, supplemented by limited field investigations.

a. Beach and Dune System and Upland.

Varying amounts of beach and dune habitat currently exist along the coastal barrier islands that border New Pass. The adjacent upland areas are generally flat, ranging from sea level at the pass, to about 10 feet in elevation to the east. The portion of Longboat Key located within the study area consists primarily of privately owned uplands which have been or are presently being developed (Figure 24). Most of the development along the southern portion of Longboat Key consist of hotels and condominiums. Varying amounts of dune vegetation are present between the shoreline and buildings or seawalls. Most of the uplands on Lido Key have also been developed. Recreational usage of the Gulf beach is intense. Upland development on the island consists of hotels, motels and apartment complexes, as well as other establishments devoted to the accommodation and entertainment of visitors to the resort island. Both public and private properties exist along the Gulf shoreline of Lido Key. Upland development and management of the Lido Key shoreline has resulted in four distinct coastal segments that share similar upland and nearshore characteristics. These coastal segments are described below. Segment I extends south from New Pass for approximately 3800 feet and generally encompasses the City-owned North Lido Public Beach. This segment is mostly undeveloped and extends from the Gulf of Mexico to Sarasota Bay. Although undeveloped, a majority of the upland habitat in this segment has been disturbed. The remaining upland vegetation includes both exotic and native species, including Australian pine, sand pine, sea grape and wax myrtle. Closer to the Gulf, a large area

of native dune habitat is present. Dune vegetation in this area consists primarily of pioneer species such as salt grass, sand spur, wild bean, seaside spurge and sea oats. Except for the northernmost tip of Lido Key, the beaches in Segment I have not been artificially enriched with sand and have experienced historical fluctuations of erosion and accretion. These beaches serve as an important nesting habitat for least terns and snowy plovers (Perry, 1992). Segment H lies within the public beach area at Lido Beach and extends for approximately 3200 feet. During recent history, the only native dune vegetation in this segment was an area of planted sea oats located in front of the pavilion. However, sea oats and other dune vegetation are now being planted by the County as part of an ongoing dune restoration project that is scheduled for completion in summer 1992. Supportive recreational facilities such as a bathhouse, parking lots, paths and a swimming pool are present. Additionally, the County has recently completed construction of wooden dune overwalks as part of the dune restoration project. Since 1964, the shoreline in Segment II has been renourished with sand from New Pass on eight occasions. The width of the beach has fluctuated greatly between periods of sand placement. At times, the beach in this area has exhibited vertical escarpments near the water's edge ranging from 1 to 7 feet. Segment III consists of privately owned uplands and extends to the south for approximately 4,600 feet. The uplands have been fully developed and are occupied by hotels and condominiums. Due to development and beach erosion, there is little native vegetation remaining between the shoreline and buildings and/or seawalls. The sandy beach area is generally narrow, with some seawalls interacting with the water during storm events or periods of

erosion. Although sand from the New Pass dredging is not directly placed along the beach in Segment III, the shoreline does benefit from the natural littoral drift of material from the beach in Segment II. The shoreline at Segment III experiences cyclical erosion and accretion.

Segment IV includes the county park (South Lido Park) and extends approximately 1300 feet, to Big Sarasota Pass. This area is largely undeveloped, except for recreational amenities such as picnic shelters, restrooms, parking areas and nature walks. Sparse fragments of sea oats and other native halophytic vegetation exist seaward of a cohesive stand of Australian pines located along the pass shoreline. In contrast, the Gulf beach/dune system is characterized by emerging dune vegetation, mixed with scattered patches of Australian pine (Table 18). The Gulf shoreline fluctuates greatly in Segment IV, indicative of the boundary effects of a tidal inlet. Wildlife on both Lido and Longboat Keys is generally limited to small mammals, snakes, lizards and insects. A variety of shore and wading birds may also be encountered. Commonly observed species include brown pelicans, gulls, terns, plovers, sandpipers and small passerine species. Organisms inhabiting the beach zone include amphipods and various crabs, such as the common ghost crab. The beaches also provide nesting habitat for several threatened or endangered species including least terns, snowy plovers and sea turtles, primarily the loggerhead sea turtle.

b. Estuarine Wetlands - Sarasota Bay

This resource classification includes the tidal wetlands, submerged habitat and impounded wetlands within Sarasota Bay. Sarasota Bay, with the exception of two creek mouths, is designated as an Outstanding Florida Water (Estevez and Merriam, 1989). Sarasota Bay has also been

designated under the National Estuary Program. The shallow estuarine waters within Sarasota Bay support fragmented patches of native vegetation, including mangrove areas, seagrass beds, algal beds and salt marshes (Appendix I, Figure 31). In addition, riprap and artificial reefs (Figure 31) within Sarasota Bay and New Pass provide habitat for varying amounts of hardbottom fauna (Mote Marine, personal communication). Several viable seagrass and algal beds, as well as a few salt marshes currently exist in Sarasota Bay near New Pass. A recent draft report prepared by the National Estuary Program (NEP) estimates that approximately 7.2 acres of seagrass and epiphytic algae exist in the immediate vicinity of New Pass (Culter and Leverone, 1992). Approximately 1038 acres of seagrass exist from just north of the Pass, southward to the Siesta Key Bridge (Culter and Leverone, 1992). The NEP report suggests that the amount of seagrass habitat adjacent to New Pass has increased slightly in recent years (Culter and Leverone, 1992). These seagrass and algal beds serve as both habitat and food source for a variety of organisms. In general, seagrass and algal beds serve as important nursery grounds for snapper, grouper, drum, shrimp and blue crab. Fishes, sea urchins, sea turtles and manatee feed on epiphytic algae and seagrasses. In turn, egrets, terns and herons forage upon the small crustaceans, gastropods, worms and fishes found in the tidal flats surrounding New Pass. Fringing mangrove communities exist in the undeveloped areas within the tidal zone north and south of the pass. Red and black mangroves dominate those areas which are frequently inundated by normal tidal action. In contrast, white mangroves and buttonwoods are usually found at slightly higher elevations, in areas where inundation is less frequent (due primarily to spring tides

or severe wind driven "tides"). These fringing mangroves serve both as habitat and as a food source for fiddler crabs, mangrove snapper, and a variety of wading birds, such as herons and egrets. Mangroves also act as a nursery habitat for snook, mullet and seatrout. Many of the shellfishes and finfishes commonly observed near the pass spend at least a portion of their life in the estuarine system (Appendix I, Tables 21 and 22). The shallow waters of Sarasota Bay once supported several commercial shellfish and finfish fisheries. However, in recent years, commercial harvests of several species have declined or no longer occur. Prior to the mid 1960's, hard clams, oysters and scallops were commercially harvested from Sarasota Bay. Scallops have since disappeared from the bay and have not been commercially harvested since 1964 (Estevez and Merriam, 1989). Commercial oyster landings ended in 1967, whereas, clam landings ended in 1971 (Estevez and Merriam, 1989). Both species, however, are still present in the bay. Harvests of blue crabs and pink shrimp have also declined in recent years, whereas, harvests of stone crab have increased, presumably due to increased demand (Estevez and Merriam, 1989). Present day commercial fisheries within Sarasota Bay include blue crab, pink shrimp, stone crab, baitfish, mullet and spotted seatrout (Estevez and Merriam, 1989).

c. Nearshore Gulf of Mexico.

The nearshore Gulf of Mexico resource classification includes biotic communities mainly associated with two life zones: littoral (intertidal) and sublittoral (offshore). The zone is inhabited by species of polychaete worms, sand bugs, isopods, amphipods, mole crabs and coquina clams. Organisms common to the sublittoral zone include sand dollars, sea urchins, pelecypod mollusks, sea hares, spider crabs, hermit

crabs, various species of shrimp and several gastropod mollusk species. In addition, the coastal waters off both Lido and Longboat Keys contain a wide variety of commercial and sport fishes (Table 22), including tarpon, grouper, red snapper, Spanish mackerel, mullet, amberjack, pompano and bonito. A side-scan sonar survey of the offshore waters immediately adjacent to New Pass was conducted in May 1991. Although preliminary data suggested that hardbottom habitats might exist within the study area (to approximately 1/2 mile offshore), site investigations conducted on October 25, 1991 disproved this hypothesis. The areas identified by the side scan sonar survey were comprised of coarser grain sediments or shell with scattered algal coverage (Figure 3 1). Potential seagrass and/or algal beds were also identified and confirmed through site investigations. Table 23 provides a listing of the algal and seagrass species identified in the vicinity of New Pass. Although no hardbottom was observed within the study area, some hardbottom habitat does exist further offshore. Some sparse, ephemeral hardbottom reportedly occurs in the vicinity of a bridge/concrete rubble artificial reef located approximately 2 miles offshore of New Pass (Figure 31) (Anonymous, 1992; Mote Marine, personal communication). A second bridge rubble artificial reef is located approximately 1.7 miles southwest of New Pass. A third artificial reef comprised of concrete rubble is located approximately two miles northwest of Big Sarasota Pass. These hardbottom areas and artificial reefs reportedly support some hardbottom fauna, including stony corals, sponges and gorgonians.

3.3 RELEVANT ISSUES.

3.3.1 Physical.

a. Water quality. Sarasota Bay, with the exception of two creek mouths, is designated as an Outstanding Florida Water.

3.3.2 Biological.

- a. Benthos. The beach littoral zone is inhabited by species of polychaete worms, sand bugs, isopods, amphipods, mole crabs and coquina clams. Organisms common to the sublittoral. zone include sand dollars, sea urchins, pelecypod mollusks, sea hares, spider crabs, hermit crabs, various species of shrimp and several gastropod mollusk species.
- b. Manatees. The Florida manatee, *Trichechus manatus*, is a federally listed endangered species. They use the estuary for feeding, resting and traveling.
- c. Fisheries. There are no commercial fisheries in the project area. The coastal waters off both Lido and Longboat Keys contain a wide variety of commercial and sport fishes (Table 22), including tarpon, grouper, red snapper, Spanish mackerel, mullet, amberjack, pompano and bonito. Mangroves also act as a nursery habitat for snook, mullet and seatrout. Many of the shellfishes and finfishes commonly observed near the

pass spend at least a portion of their life in the estuarine system (Appendix I, Tables 21 and 22).

- d. Seagrass. Five species of seagrasses are found in the Gulf Intracoastal Waterway; turtlegrass, shoalgrass, manatee grass, widgeon grass, and *Halophila engelmannii* (Lewis, 1984). Sea grass beds offer habitat for juvenile species of red drum, spotted sea trout, silver perch, sheepshead and snook (USFWS, 1998). Several viable seagrass and algal beds, as well as a few salt marshes currently exist in Sarasota Bay near New Pass. A recent draft report prepared by the National Estuary Program (NEP) estimates that approximately 7.2 acres of seagrass and epiphytic algae exist in the immediate vicinity of New Pass (Culter and Leverone, 1992). Approximately 1038 acres of seagrass exist from just north of the Pass, southward to the Siesta Key Bridge (Culter and Leverone, 1992). The NEP report suggests that the amount of seagrass habitat adjacent to New Pass has increased slightly in recent years (Culter and Leverone, 1992). These seagrass and algal beds serve as both habitat and food source for a variety of organisms. In general, seagrass and algal beds serve as important nursery grounds for snapper, grouper, drum, shrimp and blue crab. Fishes, sea urchins, sea turtles and manatee feed on epiphytic algae and

seagrasses. Seagrass beds have been located along the channel in areas of former dredged material placement and adjacent shallow water habitat. Despite continual maintenance and boat usage they persist adjacent to the channel due to the clarity of the water during tidal flushing.

- e. Migratory Birds. Commonly observed species include brown pelicans, gulls, terns, plovers, sandpipers and small passerine species. Snowy plovers and least terns are known to nest on Lido Key.
- f. Sea turtles. This area of beach is typically used by the loggerhead sea turtle, *Caretta caretta*, for nesting. The nesting season lasts from April through August. Nesting success results for Longboat Key from 1987 to 1991 range from 54.2 to 76.7 percent. Results from Lido Key for the same period range from 51.2 to 93.3 percent. In 1990, 10 nests were moved as part of the nest relocation program for a maintenance dredging activity.

3.3.3 Social.

- a. Historic Properties. An archival and literature review, including a review of the current National Register of Historic Places listing and consultation with the Florida State Historic Preservation Officer (SHPO), was conducted to determine if significant cultural resources are present in

the project area. No significant archeological sites or historic properties are recorded in the State Master File for the project area. A remote sensing survey was conducted in January 1997 and diver evaluations of targets were completed in March 1997.

- b. Recreation. Recreational vessels use this channel to transit to and from various mooring facilities throughout the Bay and the Gulf of Mexico or other recreational parts of the Bay. The beach placement areas provide recreational opportunities for tourism and the local community.
- d. Aesthetics. The aesthetics of the dredging area is a mix of recreational, residential and commercial dwellings. The terminus of the project is located at a public launching ramp and dock. The channel connects with the Gulf Intracoastal Waterway. The GIWW is used by boats to travel up and down the Gulf Coast of Florida and access the Gulf of Mexico. A commercial marina, Florida Marine Research Institute facility and some residents are located along the south side of the Pass. A Sarasota County Highway Bridge crosses the Pass.

3.3.4 Economics.

- a. Navigation. The navigation channel allows for recreational

transportation. Marinas also line the channel around the Pass.

- b. Economics. This area of the Gulf is heavily used for tourism. A part of this is the use of the beaches by hotels and public access at community parks. Another facet of recreation is boating which uses the Pass and the Gulf Intracoastal Waterway. Marinas also generate local revenues.

3.4 NO ACTION ALTERNATIVE

3.4.1 Physical.

- a. Water quality. There would a minor long-term impact from not maintaining the channel. This would occur as a result of vessels coming in contact with the silty bottom and resuspending it into the water column.

3.4.2 Biological

- a. Benthos. There would be no impact on this resource.
- b. Manatees. There would be no impact on this resource
- c. Fisheries. There would be no impact on this resource.
- d. Seagrass. There would be no impact on this resource.
- e. Migratory Birds. There would be no impact on this resource.

3.4.3 Social.

- a. Historic Properties. There would be no affect on historic properties included in or eligible for inclusion in the National Register of Historic Places.
- b. Recreation. There would be a reduction in the recreational navigation capacity of the channel.
- c. Aesthetics. There would be no impact on this resource.

3.4.4 Economic.

- a. Navigation. There would be a long-term adverse impact on the navigable capacity of the channel from sedimentation.
- b. Economics. There would be a loss of revenues from not keeping pace with growth potential by increasing channel navigability or maintaining the existing channel.

3.4.5 Cumulative effects.

If this action was considered in conjunction with other similar projects and similar No Actions, there would be no cumulative adverse impact.

3.4.6 Unavoidable effects.

There would be no unavoidable affects.

3.4.7 Irreversible and Irretrievable Resource Commitments.

There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.