APPENDIX E

SUMMARY OF IMPACTS TABLE

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5A	Alternative 5B	Alternative 5C	Alternative 5D
Salt Marsh	Both negative and positive direct impacts are anticipated as some areas of salt marsh are anticipated to develop while other areas may erode. No cumulative impacts are anticipated.	Same as Alt. 1	No indirect or direct impacts are anticipated. Cumulative impacts may be incurred as a result of reduced inorganic sediment transport through the inlet into the salt marsh resources.	Same as Alt. 3	No permanent indirect or direct impacts are anticipated. No cumulative impacts are anticipated as the volume of material removed from the Nixon Channel navigation feature has not impacted salt marshes in the past. 0.7 acres of temporary direct impacts are expected as a result of construction of a portion of the terminal groin.	Same as Alt. 5A	No permanent indirect or direct impacts are anticipated. No cumulative impacts are anticipated as the volume of material removed from the Nixon Channel navigation feature has not impacted salt marshes in the past. 0.4 acres of temporary direct impacts are expected as a result of construction of a portion of the terminal groin.	Same as Alt. 5C
SAV	No direct, indirect, or cumulative impacts are expected due to the remote location of the SAV	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1

	occurrences to the areas experiencing erosion along Rich Inlet and Nixon Channel.							
Shellfish	No direct, indirect, or cumulative impacts are expected due to the remote location of the shellfish occurrences to the areas experiencing erosion along Rich Inlet and Nixon Channel.	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1
Upland Hammock	No direct or indirect impacts expected due to the remote location of the upland hammock habitat to the areas experiencing erosion along Rich Inlet and Nixon	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1	Same as Alt. 1

	Channel. Cumulative impacts include potential salt water intrusion attributed to sea level rise.							
Inlet Dunes and Dry Beaches	Negative direct impacts are expected to include the burial of infaunal species and disruption of nesting and foraging habitat as a result of the sporadic beach nourishment activities. The burial of infaunal organisms could negatively indirectly affect the birds that forage on these organisms. Negative impacts also include the	Negative indirect and cumulative impacts include the reduction of approximately 7 acres of habitat for shorebirds and recreational opportunities. Positive indirect and cumulative impacts would be anticipated on Hutaff Island as the inlet beaches and dunes are expected to increase in acreage. No cumulative impacts are	The construction of the dike along with the placement of material along the Nixon Channel shoreline are expected to lead to direct impacts of 35-40 acres of inlet dunes and dry beach habitat. This will lead to the burial of infaunal species and disruption of nesting and foraging habitat as a result of the sporadic beach nourishment activities. The	Alternative 4 encompasses the same fill footprint along the shoreline of Nixon Channel as Alternative 3. Approximately 57,000 cubic yards of material will cover approximately 0.6 acres of inlet dry beach under the 2006 shoreline conditions, but will create approximately 1.2 acres of that habitat. This results in a net gain of 0.6 acres. The expansion of this	Delft3D modeling results suggest that 0-5 acres of direct impact to the Inlet Dunes and Dry Beaches on Figure Eight Island with the implementation of Alternative 5A. Of this, 0.7 acres would be directly impacted as a result of the construction of the landward portion of the terminal groin. In addition, roughly 1.2 acres of beach fill would be	Same as Alt. 5A	Delft3D modeling results suggest that 0-5 acres of direct impact to the Inlet Dunes and Dry Beaches on Figure Eight Island with the implementation of Alternative 5C. Of this, 1.1 acres would be directly impacted as a result of the construction of the landward portion of the terminal groin. In addition, roughly 1.2 acres of beach fill would be	Same as Alt. 5C

	reduction in habitat for shorebirds and recreational opportunities. Positive indirect impacts would be anticipated on Hutaff Island as the inlet beaches and dunes are expected to increase in acreage. No cumulative impacts are anticipated as this environment is naturally dynamic.	anticipated as this environment is naturally dynamic.	burial of infaunal organisms could negatively indirectly affect the birds that forage on these organisms. These impacts would be incurred along the inlet beaches of Figure Eight Island and Hutaff Island (in response to the constructed dike). Positive indirect impacts are anticipated to the birds and sea turtles which utilize this habitat for nesting and foraging as the habitat increases. Due to the relocation of the inlet channel, much	shoreline footprint will increase the dry beach and provide additional resting, and potential nesting, habitat for shorebirds, including the piping plover. Indirect impacts suggest that the sand spit projecting off the north end of Figure Eight Island into Rich Inlet initially elongated but stabilized by the end of Year 2 with some slight erosion occurring between Year 4 and 5 of the simulation. The initial elongation of the sand spit appeared to be	placed along the Nixon Channel shoreline. Several biological resources, including shorebirds, which utilize the inlet beaches and dunes for resting will be negatively impacted during and immediately following the placement of sand upon the beach. Indirect impacts suggest that the inlet dunes and beach habitats may be reduced on the Figure Eight Island side of Rich Inlet, the model results indicates the south end of Hutaff Island		placed along the Nixon Channel shoreline. Several biological resources, including shorebirds, which utilize the inlet beaches and dunes for resting will be negatively impacted during and immediately following the placement of sand upon the beach. Indirect impacts suggest that the inlet dunes and beach habitats may be reduced on the Figure Eight Island side of Rich Inlet, the model results indicates the south end of Hutaff Island	

			of the ebb tide delta that currently provides protection to Hutaff Island's Inlet Dunes and Dry Beaches is expected to diminish as the ebb tide delta is expected to reorient southward. As shown by Delft3D model results, portions of the inlet beaches along Hutaff Island are expected to erode within 5 years.	due to sand transported to the north from the oceanfront beach fill. Under the 2006 shoreline conditions, these morphological changes to the inlet dunes and dry beaches indicated an net increase of approximately 4.1 acres of habitat over the 5-year period. This net gain includes the approximate net loss of approximately 0.8 acres of inlet dry beach that was initially created along the Nixon Channel shoreline.	will accrete in response to Alternative 5A between year 0 and year 5 leading to a net indirect impact of 0-5 acres.		will accrete in response to Alternative 5A between year 0 and year 5.	
Intertidal Flats and Shoals	No direct or cumulative impacts are	No direct impacts are anticipated;	Direct impacts include the removal of 20-	Because the permitted dredging area	The activities associated with	Because the permitted dredging area	Same as Alt. 5A	Same as Alt. 5B

	anticipated. Minimal indirect impacts may occur.	however, an increase of material imported into the inlet complex may result in an increase of intertidal flats and shoals thereby resulting in a positive indirect impact. No cumulative impacts are anticipated.	25 acres of intertidal flats and shoals within the permit area. Indirect impacts include a reduction of 1.39M cubic yards of material available for the development of intertidal flats and shoals. No cumulative impacts are anticipated.	associated with Alternative 4 does not include intertidal areas, this alternative is not expected to have direct impacts on intertidal flats and shoals. Delft3D model estimated that an additional 180,200 cubic yards of material would be transported into the inlet as a result of Alternative 4. This influx of material was shown to occur mostly by Year 2, and then diminished for the remaining three years. This sediment could result in the formation of	Alternative 5A would directly impact approximately 25-30 acres of intertidal flats and shoals through direct excavation. There will likely be an overall net reduction of approximately 0-5 acres of intertidal flats and shoals within the project area due to the net deficit of approximately 224,000 cubic yards of material within the inlet system. No cumulative impacts are anticipated.	associated with Alternative 5B does not include intertidal areas, this alternative is not expected to have direct impacts on intertidal flats and shoals. Delft3D modeling suggests that the overall net change in volume compared to the baseline conditions of Alternative 2 was a decrease of 449,700 cubic yards of material in the system. Out of this amount, 289,500 cubic yards was artificially removed by dredging from the previously permitted area		

				approximately 0-5 acres of additional intertidal flats and shoals, especially in the middle shoal area of the inlet, or the flood tide delta.		in Nixon Channel. This could lead to approximately 0-5 acres of indirect impacts. No cumulative impacts are anticipated.		
Oceanfront Dune Communities	Beach scraping will afford some positive direct impacts to the dunes along Figure Eight Island. However, continued erosion is expected to indirectly and cumulatively negatively impact dune vegetation, resulting in a degraded habitat used by several species of roosting, foraging and nesting shorebirds and	No direct impacts are anticipated. Indirect and cumulative impacts would be expected along Figure Eight Island as the chronic erosion would threaten the existing dunes along the northern portion of the island. No impacts are anticipated along Hutaff Island as the dunes are anticipated to naturally	Positive direct and indirect impacts are anticipated due to the construction of dunes leading to increase habitat along the northern portion of Figure Eight Island. The protection of the ocean shoreline along the southern end of Hutaff Island currently provided by the ebb tide delta will diminish and leave the dunes in this location more	Positive direct and indirect impacts are anticipated due to the construction of 4.6 acres of dunes leading to increase habitat along the northern portion of Figure Eight Island. No cumulative impacts are expected.	Same as Alternative 4.	Although the construction of dunes is not a part of the plan for Alternative 5B, the beach fill is intended to provide direct and indirect benefits to the coastal dune communities as it allows for growth and development of dune vegetation thereby providing habitat for roosting, foraging and nesting shorebirds.	Same as Alternative 4.	Same as Alternative 4.

	plant species, such as seabeach amaranth. The dune communities located on Hutaff Island are anticipated to naturally migrate westward through transgression, therefore no impacts are anticipated on Hutaff Island.	migrate westward through transgression.	susceptible to storm-induced damage increasing the potential for overwash. Therefore, Alternative 3 may lead to cumulative impacts to the oceanfront dunes along Hutaff Island.					
Oceanfront Dry Beach Communities	The dry beach community along Figure Eight Island will be directly impacted during and following all beach nourishment, beach scraping events, and the utilization of sandbags. No direct impacts are anticipated to occur on Hutaff Island.	Indirect impacts include a reduction of coastal dry beach habitat by 0-5 acres resulting in a loss of adequate turtle nesting habitat, shorebird and water bird habitat, and recreational opportunities along the	Direct impacts will include 50-55 acres of dry beach habitat. Indirect impacts of 0-5 acres will be anticipated due to the increase of dry beach habitat for birds, turtles, and recreating humans along Figure Eight Island and southern Hutaff Island. No	Direct impacts will include 45-50 acres of dry beach habitat. Indirect impacts will be anticipated due to the increase of dry beach habitat for birds, turtles, and recreating humans along Figure Eight Island and southern Hutaff Island.	Direct impacts will include 45-50 acres of dry beach habitat. Indirect impacts will be anticipated due to the increase of dry beach habitat for birds, turtles, and recreating humans along Figure Eight Island and southern	Direct impacts will include 15-20 acres of dry beach habitat. Indirect impacts will be anticipated due to the increase of dry beach habitat for birds, turtles, and recreating humans along Figure Eight Island and southern	Same as Alt. 5A.	Same as Alt. 5B.

	Indirect impacts on Figure Eight Island will include habitat loss and lost recreational opportunities due to erosion. The dry beach community on Hutaff Island will be expected to experience positive indirect and cumulative impacts as the habitat accretes.	island.	cumulative impacts are anticipated.	No cumulative impacts are anticipated.	Hutaff Island. No cumulative impacts are anticipated.	Hutaff Island. No cumulative impacts are anticipated.		
Wet Beach Communities	The marine intertidal community along Figure Eight Island will be directly impacted during and following all beach nourishment and beach scraping events. Sandbags may	No impacts are anticipated.	10-15 acres of the marine intertidal community along Figure Eight Island will be directly impacted during and following beach nourishment events. Infaunal communities	Same as Alternative 3.	10-15 acres of the marine intertidal community along Figure Eight Island will be directly impacted during and following beach nourishment events. The construction of the terminal	0-5 acres of the marine intertidal community along Figure Eight Island will be directly impacted during and following beach nourishment events. The construction of the terminal	Same as Alt. 5A.	Same as Alt. 5B.

	also reduce wet beach habitat. Infaunal communities will be directly impacted due to burial; however, due to the resilient nature of these organisms, the impacts will be temporary. Indirect impacts to less than 5 acres will affect shorebird, crustacean and fish foraging. The marine intertidal community on Hutaff is not anticipated to be impacted.		will be directly impacted due to burial, however due to the resilient nature of these organisms, the impacts will be temporary. Indirect impacts to 5-10 acres will affect shorebird, crustacean and fish foraging. No cumulative impacts are expected		groin will impact approximately 0.3 acres of wet beach. Infaunal communities will be directly impacted due to burial, however due to the resilient nature of these organisms, the impacts will be temporary. Indirect impacts of 5-10 acres will affect shorebird, crustacean and fish foraging.	groin will impact approximately 0.3 acres of wet beach. Infaunal communities will be directly impacted due to burial, however due to the resilient nature of these organisms, the impacts will be temporary. Indirect impacts of approximately 0-5 acres will affect shorebird, crustacean and fish foraging.		
Softbottom Communities	Direct impacts include increased levels of turbidity, direct removal, and burial of infaunal biota during	No impacts are anticipated.	Direct impacts include the direct removal and burial of infaunal biota during dredging operations and following the	Direct impacts of 25-30 acres of softbottom habitat include the direct removal and burial of infaunal biota during	Direct impacts include the direct removal and burial of infaunal biota during dredging operations and following the	Direct impacts include the direct removal and burial of infaunal biota during dredging operations and following the	Same as Alt. 5A.	Same as Alt. 5B.

	dredging operations and following the disposal of the material during maintenance events within Banks Channel, Nixon Channel, and the AIWW. Negative indirect impacts include the temporary loss of prey for foraging fish and invertebrates from the dredged softbottom habitat. No cumulative impacts are anticipated.		disposal of the material onto Figure Eight Island and construction of the closure dike. A total of 100-110 acres of softbottom will be directly impacted due to the dredging and construction of the closure dike. Negative indirect impacts include the temporary loss of prey for foraging fish and invertebrates from the dredged softbottom habitat. No cumulative impacts are anticipated.	dredging operations and following the disposal of the material onto Figure Eight Island. Because the offshore borrow area has not been delineated, it is not possible to determine the acreage of disturbed softbottom habitat. Negative indirect impacts include the temporary loss of prey for foraging fish and invertebrates from the dredged softbottom habitat. No cumulative impacts are anticipated.	disposal of the material onto Figure Eight Island. A total of 80-90 acres of softbottom from Nixon Channel and the connector channel will be directly impacted due to the dredging activities. Negative indirect impacts include the temporary loss of prey for foraging fish and invertebrates from the dredged softbottom habitat. No cumulative impacts are anticipated.	disposal of the material onto Figure Eight Island. A total of 25-30 acres of softbottom will be directly impacted due to the dredging activities. Negative indirect impacts include the temporary loss of prey for foraging fish and invertebrates from the dredged softbottom habitat. No cumulative impacts are anticipated.		
Turbidity and TSS	Direct impacts include	Aside from a natural	Same as Alternative. 1	Same as Alternative. 1	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

	temporary increases in suspended sediment and turbidity in the immediate area of dredge and fill operations within the nearshore environment. No indirect or direct impacts are anticipated.	increase of turbidity in response to periodic storms, no impacts are anticipated.						
Hydrodynamics and Salinity	No direct, indirect, or cumulative impacts are anticipated.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Public Safety	Positive direct and indirect impacts include storm protection to threatened homes and infrastructure in areas receiving beach fill. Negative direct, indirect, and cumulative	The activity associated with demolition of abandoned homes could expose workers to risk of injury. There is also a strong possibility that some debris could fall into the	Same as Alternative 1.	Same as Alternative 1.	Positive direct and indirect impacts include storm protection to threatened homes and infrastructure in areas receiving beach fill. Negative direct, indirect, and cumulative	Same as Alternative 5A	Same as Alt. 5A.	Same as Alternative 5A.

	impacts include the potential release of sewage and other hazardous materials onto the beach and into the coastal waters as well as closed areas of beach impeding recreation if storm damage occurs in areas not receiving protective beach fill.	nearshore that could pose health threats to swimmers or boaters. As the erosion undermines existing roads and sanitary systems, exposes electrical lines, and ruptures or requires the relocation and rerouting of the water supply system, the public would be exposed to increased risk of injury and/or infection. This would result in negative direct, indirect, and cumulative impacts.			impacts include the potential release of sewage and other hazardous materials onto the beach and into the coastal waters as well as closed areas of beach impeding recreation if storm damage occurs in areas not receiving protective beach fill. The terminal groin will be anticipated to impose impacts to public safety as it will primarily be buried along the dry beach and will remain 3.5 ft NAVD above the water's surface.			
Aesthetic	Direct impacts	Abandoned	Temporary	Temporary	Temporary	Same as Alt.	Same as Alt.	Same as Alt.

Resources	could include the presence of construction equipment which would temporarily detract from the aesthetics of the waterways and beach of Figure Eight Island. Indirect and cumulative impacts could include a significant loss of land, personal property and roads, which would negatively affect the aesthetic quality of Figure Eight Island.	homes could directly and indirectly impact aesthetic resources. Continued erosion of the oceanfront shoreline along the northern portion of Figure Eight Island could also result in a significant loss of land, personal property, and roads causing cumulative impacts.	direct negative impacts to aesthetic resources will occur due to the usage of heavy machinery within Rich Inlet and on the oceanfront shoreline of Figure Eight Island. The removal of the sandbags along the northern portion of Figure Eight Island will improve the aesthetic quality of the island resulting in positive direct impacts. No indirect or cumulative impacts are anticipated.	direct negative impacts to aesthetic resources will occur due to the usage of heavy machinery within Nixon Channel and on the oceanfront shoreline of Figure Eight Island. The removal of the sandbags along the northern portion of Figure Eight Island will improve the aesthetic quality of the island resulting in positive direct impacts. No indirect or cumulative impacts are anticipated.	direct negative impacts to aesthetic resources will occur due to the usage of heavy machinery within Nixon Channel and on the oceanfront shoreline of Figure Eight Island. The removal of the sandbags along the northern portion of Figure Eight Island will improve the aesthetic quality of the island resulting in positive direct impacts. No indirect or cumulative impacts are anticipated as most of the landward portion of the	5A	5A	5A

					groin will not be visible.			
Recreational Resources	Negative direct impacts will include the reduction of recreational opportunities during beach scraping and beach fill events. As the erosion continues along the effected stretch of shoreline on Figure Eight Island, recreational opportunities such and beachcombing, sunbathing, surf fishing, and walking along the beach may be negatively impacted.	Negative impacts are anticipated if homes and associated infrastructure are abandoned and fall into the water. If homes are relocated, these recreational resources will not be impacted.	Negative direct impacts will include the reduction of recreational opportunities during dredging and beach fill events. Positive indirect and cumulative impacts are expected due to the increased size of the dry beach.	Same as Alternative 3.	Negative direct impacts will include the reduction of recreational opportunities during construction of the terminal groin as well as dredging and beach fill events. Positive indirect and cumulative impacts are expected due to the increased size of the dry beach and fishing and snorkeling opportunities afforded by the terminal groin.	Same as Alt. 5A	Same as Alt. 5A	Same as Alt. 5A.
Navigation	Dredging in Nixon Channel will benefit navigation due to a	Negative impacts include considerable shoaling	Navigation will be directly negatively impacted due to the presence	Dredging in Nixon Channel will benefit navigation due to a	Dredging in Nixon Channel and the connector channel will	Dredging in Nixon Channel will benefit navigation due to a	Same as Alt. 5A.	Same as Alt. 5B.

	maintained depth. During the dredging, however, navigation will be temporarily directly impacted due to the presence of pipelines within the waterway. At no time will complete restriction of navigation occur in Nixon Channel during dredge operations.	within the channel connecting Nixon Channel to the inlet gorge and the mouth of Green Channel. Shoaling could lead to the eventual navigable closure of the channel connecting Nixon Channel with the inlet gorge, which would render the channel impassible to most recreational craft that normally use Rich Inlet and the connecting channels.	of the dredge and pipeline during the implementation of Alternative 3. No indirect or cumulative impacts are anticipated.	maintained depth. During the dredging, however, navigation will be temporarily directly impacted due to the presence of pipelines within the waterway. At no time will complete restriction of navigation occur in Nixon Channel during dredge operations. Navigation will also be temporarily restricted within the areas between the offshore borrow area and the disposal areas along the oceanfront shoreline and Nixon Channel shoreline.	benefit navigation due to a maintained depth. During the dredging, however, navigation will be temporarily directly impacted due to the presence of pipelines within the waterway. At no time will complete restriction of navigation occur in Nixon Channel during dredge operations. The terminal groin will be clearly marked; therefore it should not pose a threat to boats.	maintained depth. During the dredging, however, navigation will be temporarily directly impacted due to the presence of pipelines within the waterway. At no time will complete restriction of navigation occur in Nixon Channel during dredge operations. The terminal groin will be clearly marked; therefore it should not pose a threat to boats.		
Infrastructure	Alternative 1	Alternative 2	Alternative 3 is	Same as Alt. 3	Same as Alt. 3	Same as Alt. 3	Same as Alt. 3	Same as Alt. 3

	is expected to have a positive direct and indirect impact on existing infrastructure located on Figure Eight Island due to the short-term protection provided by beach nourishment and beach scraping projects. Cumulative impacts are anticipated to be negative as the threatened homes and infrastructure will not be protected in the long term.	would likely have a negative direct, indirect and cumulative impact on existing infrastructure located on Figure Eight Island due to the abandonment or retreat of homes and infrastructure.	expected to and positively impact the infrastructure on Figure Eight Island due to the long-term protection from erosion.					
Solid Waste	No direct impacts will be anticipated due to the short-term protection provided by beach nourishment	If threatened structures are not relocated, they may ultimately need to be demolished with the debris	Both short and long-term benefits are expected from the reduction of solid waste. This alternative will provide protection	Same as Alt. 3	Same as Alt. 3	Same as Alt. 3	Same as Alt. 3	Same as Alt. 3

	and beach scraping. The debris generated from the demolition of homes and infrastructure could indirectly and cumulatively impact the amount of solid waste deposited in local sanitary landfills.	deposited in local sanitary landfills causing direct impacts. The cumulative effect of demolition and removal of homes and infrastructure debris could reduce the amount of space available at the local landfill over the next ten (10) years.	along portions of Figure Eight Island thereby decreasing the risk of damage to residential buildings and infrastructure. This would alleviate the potential of increased amount of solid waste through demolition.					
Noise Pollution	Dredge and fill operations would temporarily raise noise level in the area; however, no indirect or cumulative impacts pertaining to noise	The demolition or relocation of homes on Figure Eight Island would temporarily raise the noise level in the areas due to the use of heavy machinery,	The relocation of Rich Inlet, dredging of the connector channels, construction of the closure dike, and the placement of beach compatible material on the oceanfront and backbarrier shoreline	Dredging within Nixon Channel and the offshore borrow areas along with the utilization of material from within the upland dredge disposal sites would temporarily raise the noise level in the	The dredging of the Nixon Channel and the connector channel, the placement of beach compatible material on the oceanfront and estuarine shoreline, and construction of the terminal groin would	The dredging of the Nixon Channel, the transport of material from the upland dredge disposal sites, the placement of beach compatible material on the oceanfront and estuarine shoreline, and	Same as Alt. 5A.	Same as Alt. 5B

	pollution are anticipated.	however no indirect or cumulative impacts pertaining to noise pollution are anticipated.	would temporarily raise the noise level in the areas due to the use of heavy machinery. No indirect or cumulative impacts pertaining to noise pollution are anticipated.	areas. No indirect or cumulative impacts pertaining to noise pollution are anticipated.	temporarily raise the noise level in the areas. No indirect or cumulative impacts pertaining to noise pollution are anticipated.	the construction of the terminal groin would temporarily raise the noise level in the areas. No indirect or cumulative impacts pertaining to noise pollution are anticipated.		
Economics	Over the 30-year analysis period, the total cost associated with Alternative 1 would be about $92.5 million.	Over the 30-year analysis period, the total cost associated with Alternative 2 would be about $63.7 million.	Over the thirty year planning period, the total implementation cost for Alternative 3 would be about $63.3 million in current dollars.	Over the thirty year planning period, the total implementation cost for Alternative 4 would be about $69.0 million in current dollars.	Over the 30-year planning period, the total cost for Alternative 5A in current dollars would be about $43.68 million.	Over the 30-year planning period, the total cost for Alternative 5B in current dollars would be approximately $24.76 million.	Over the 30-year planning period, the total implementation cost for Alternative 5C in current dollars would be approximately $43.80 million.	Over the 30-year planning period, the total cost for Alternative 5D in current dollars would be approximately $26.18 million under 2006 conditions.