APPENDIX D

BENEFITS

Navigation Benefit Analyses
for
Ponce DeLeon Inlet, Florida

Benefit analyses for Ponce DeLeon Inlet have undergone considerable revision since the inception of detailed feasibility studies in response to efforts to achieve justification based on commercial use in addition to evolution and refinement of engineering assumptions derived from the ongoing process of detailed studies. Engineering efforts have included basic engineering assessment(s) combined with considerable efforts for both physical and numerical modeling of physical inlet processes. In turn, evolving or resulting engineering assumptions concerning expectations for future channel conditions have had profound influence on refinement or determination of economic assumptions and related assessment of economic benefits. Generally, the overall process of project feature assessment has undergone four phases:

Ia. Reconnaissance-level studies; limited to placement of a seaward extension of the south jetty (approximately 1,000 feet in length).

Ib. The Initial phase of detailed studies which resulted in the determination that a seaward extension of the south jetty (approximately 1,000 feet in length) combined with placement of a landward extension of the north jetty (of approximately 800 to 900 feet) in turn connecting to a revetment extending generally further landward along the northern periphery of the interior of the inlet (for a distance of approximately 1,500 to 1,600 feet).

II. The second phase of detailed studies which involved placement of north and south jetty extensions, the interior inlet revetment, and waterway improvements (notably channel deepening) in addition to placement of commercial fishing park facilities in an effort to strengthen justification through intensified commercial use of the inlet.

III. The third and present phase of detailed studies limits efforts for economic justification to only seaward extension of the south jetty (approximately 1,000 feet in length) with a refined alignment derived from modeling studies[1].

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[1] This revision to plan assessment is based on the determination that the north jetty extension and connecting revetment would be constructed in the future when required under requirements for operation and maintenance (O&M) of the existing Federally-sponsored project (and would therefor constitute sunk costs or costs common to both with and without-improvement conditions). In addition, requirements specific to placement of commercial fishing facilities also would not be implemented under this plan as it was ultimately decided the placement and operation of such facilities was unacceptable to the local constituency, and analyses revealed placement of such facilities with locally-mandated restrictions would not sufficiently

The remainder of the economic appendix is written to describe the general assumptions and related economic benefits according to the three latter phases described for detailed studies. Reconnaissance-level studies (phase Ia preceding; completed in January of 1993) are described in a separate document prepared before initiation of detailed studies which are currently in-process.

Description of Economic Analyses as Completed for Economic Justification of the South Jetty Extension, North Jetty Extension, Revetment, and Placement of Commercial Fishing Park Facilities (phases Ib and II preceding; completed in January of 1997; detailed study phases 1 and 2)

Proposed waterway improvements to Ponce DeLeon Inlet involve two measures. These include extending the south jetty approximately 1,000 feet in an alignment parallel to the existing north jetty combined with provision of 1,540 feet of revetment extending landward from the existing north jetty. The purpose of the revetment is to armour and stabilize the north side of the inlet shore bordering the section of the inlet leading to the Halifax River. It is anticipated these improvements will increase stability of the inlet system with a resulting shift of the present entrance channel away from the north jetty, and cessation or control of erosion within interior reaches of the inlet further northward than the alignment of the revetment.

Analyses for proposed improvements are based on the general assumption that proposed improvements will allow provision of unrestricted access to a clear or unoccluded waterway in accordance with design specifications for depth and width in the entrance channel, inlet throat, and tributary access or waterways leading to the Atlantic Intracoastal Waterway (AIWW) excepting uncontrollable restrictions imposed due to inclement weather and other unique or similar conditions. It should be noted that while economic analyses as described herein generally follow or adhere to the techniques and categories for benefits analyzed in reconnaissance studies, assumptions for future with-project and without-project conditions as applied for economic analyses have been revised considerably since release of reconnaissance findings in the latter part of 1993 (reference reconnaissance report for navigation improvements to Ponce de Leon Inlet dated January 1993).

Revisions to assumptions concerning future waterway

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strengthen economic justification to offset total considered improvement costs with commercial benefits.

conditions are primarily as a result of additional information and data derived from physical and numerical modeling undertaken in 1995 and 1996 for detailed engineering and economic analysis of the inlet system. Consequently, a basic description of current or revised assumptions and primary differences from reconnaissance studies are provided in succeeding text.

Reconnaissance studies released in January of 1993 relied significantly on benefits derived from prevention of a catastrophic breakthrough or washout of the spit integral to the north shoreline extending from along the northern periphery of the inlet throat to the southern reaches of the branch waterway known as the Halifax River, which in turn ultimately leads to reaches of the Atlantic Intracoastal Waterway (AIWW) extending north of the subject inlet. It was estimated that such a breakthrough would be induced by a severe climatic event such as a hurricane or storm (i.e., level of occurrence approximately equal to a ten-year event), and that the resulting dispersal of sediment within the general physical confines of the inlet system would result in waterway conditions which by historical precedent, were found to be unnavigable for many commercial vessels which routinely use the inlet. The second category or source of project economic benefits were derived from estimated efficiencies in maintenance for the inlet system, particularly prevention or minimization of damages to the existing or without-project jetty system expected with migration of the channel northward which was anticipated would scour and eventually undermine the foundation material of the jetty itself.

As a consequence of the assumptions and work efforts within the time and scope of reconnaissance-level efforts the structure of average annual equivalent (AAEQ) economic benefits for justification of improvements was as follows:

I. Vessel Operations
- Avoidance of Lost Commercial Operating Income During Catastrophic Breakthrough (of the Spit) --> $49,200
- Commercial Vessel Fuel Savings with Avoidance of Catastrophic Breakthrough Condition(s) --> $29,500
- Reductions in Physical Damages to Commercial Vessels Associated with Catastrophic Breakthrough and Expected Long-Term Without-Improvement Conditions to Commercial Vessels --> $89,000
- Reductions in Physical Damages to Recreational Craft Associated with Catastrophic Breakthrough and Expected Long-Term Without-Improvement Conditions to Commercial Vessels --> $356,000

II. Project Maintenance and Operations (O&M)
- Reductions in Repair or Maintenance to the North Jetty --> $271,000
- Reductions or Elimination of Project\Waterway Repair

Costs Associated with Catastrophic Breakthrough of the Spit --> $357,000

As a result of detailed engineering studies coupled with physical and numerical modeling efforts, it has been determined that the best course for long-term management for operation and maintenance (O&M) of the inlet system with and without improvements would be to let the north spit area erode slowly over time (excluding a catastrophic event) as the branch waterway leading northward to the AIWW migrates northward until the shoreline is generally aligned parallel or coincident with the jetty extension and proposed revetment system. As long as a catastrophic event does not occur and cause significant dispersal of sediment within the inlet system between the base year of project economic life (currently 2001) and the year projected for required placement of the extension and revetment (currently 2002), current findings from modeling efforts indicate there will probably be little or no significant difficulty for navigability. In addition, this regime for inlet management also is complementary to current policies and decision criteria to take advantage of natural depths wherever advantageous as opposed to the rigid maintenance of a fixed waterway alignment at prohibitive costs. Given the relatively short period of time between the project base year and the year for placement of the jetty extension under without-project conditions, the propensity for benefits associated with a catastrophic breach have been virtually eliminated and no longer render a significant benefit for project justification[2]. Therefore benefit analyses have been revised to reflect the propensity(ies) for damage and realization of efficiencies associated with project implementation excluding considerations for a breach of the north spit.

In general, economic analysis of proposed improvements involved two basic components for derivation of project benefits. These included:

a.) Potential cost efficiencies or savings for both commercial and recreational vessel usage of the inlet

and;

b.) Savings in maintenance costs resulting from an analysis of historical and foreseeable repairs to the existing jetty system, and reductions in maintenance costs for removal of sediment or shoaling expected with a

[2] If a catastrophic breach of the spit area were to occur before its gradual erosion projected in 2001 to 2002, then such costs and efforts to clear or correct the waterway would be incurred prior to the beginning of project economic life and would be considered either common to both with and without-improvement conditions (i.e., effectively sunk) and\or would be accommodated under applicable measures for operation and maintenance (O&M).

relatively less stable inlet expected under without-project conditions.

The content of this section of the report addresses efforts to determine project economic benefits for vessel operations. Estimates for maintenance efficiencies from proposed improvements to existing navigation works are described elsewhere either in technical appendices or the main section of the comprehensive project report.

Cost efficiencies for commercial vessel operations entailed analysis of probable reductions in operations costs expected with proposed improvements and associated betterments in waterway conditions for vessel transit. Related efficiencies for commercial vessel operations include:

a.) reduction in expenses for vessel maintenance or physical damages (i.e., due to groundings, etc.),

b.) reductions in waterborne and landside transportation costs for commercial operations established or realigned under with-project conditions.

Analysis of Vessel Usage

Interviews were conducted with commercial fishermen and charter vessel operators to assess the nature of commercial operations and related costs associated with waterborne activities of the inlet. Interviews were also conducted with boatyard and vessel repair facility operators in the study region to assemble information on costs for maintenance or repairs which were\are deemed to be a result of unstable conditions within the inlet. Considerable assistance in gathering information on commercial vessel activities was also provided by the local project sponsor (the municipal government of Volusia County).

Information gathered during the course of interviews, review of available information for vessel registration, and inquiries by local government indicates that the existing commercial fleet for Ponce DeLeon Inlet consists of approximately 80 to 85 vessels that are either based in the area of the inlet or use the inlet on a seasonal or transient basis. Of the total of approximately 85 to 90 vessels identified, a total of 59 vessels have been identified as home port vessels and 24 to 27 were determined to be transient commercial harvest and charter fishing vessels which use the inlet consistently, but on a seasonal or transient basis from year to year. Of the homeport vessels, approximately 37 percent are commercial fishing boats, 58 percent are charter fishing operations, and the remainder, approximately 5 percent, are commercial passenger vessels or "head boats" employed for

party sportfishing or sightseeing excursions, or diving instruction and excursions. The 59 home port vessels identified were distributed between marinas, commercial fish or seafood processors situated along regional waterways, and boat yards located both north and south of the Inlet.

Historical and existing conditions of Ponce DeLeon Inlet have imposed considerable expenses for maintenance or repair of vessel damages. This has been attributable to physical migration of the channel system within the inlet and deposition of sediment in selected areas of the waterway system which sometimes precludes unencumbered passage by various vessels. Under current assumptions for without-project conditions it is anticipated that migration of waterways within the inlet system will continue with seasonal variation and that vessel damages will be incurred during such periods when channel location is relatively unstable.

Based on information assembled from interviews with vessel operators and available information for assessment of future channel conditions, it is estimated that the most significant period for such conditions will be in the late fall and winter of each year. Based on previous experience combined with review of U.S. Coast Guard (USCG) records for recreational vessel groundings, it is anticipated that difficulties with clearance for navigation will persist in areas between the north and south jetty, the throat of the inlet and tributary waterways, notably the Halifax River to the north and to a lesser extent, access via the Indian River to the south during the specified period of the year. Data gathered from various vessel facilities in the inlet area reveals that the most common repairs undertaken are refurbishment or replacement of propellers and shafts, with some repairs required for components of steering gear or fixed hull fittings.

Description of Commercial Benefits by Vessel Use

Investigations completed for detailed studies reveals that benefits will primarily be derived for established charter vessel operations and commercial fishing vessels expected to realign or establish operations at Ponce DeLeon inlet as a consequence of improvements and possible or proposed establishment of a commercial fishing park. Establishment of the proposed commercial fishing park is a consequence of efforts to increase or intensify commercial usage of the inlet and derive sufficient commercial benefits to (ideally) offset applicable project costs. Alternatively, with regard to existing vessel operations inquiries with local vessel operators reveals most commercial fishing vessels (such those employed for long-line fishing operations) would incur little or no difficulty due to familiarity with the inlet and considerable flexibility regarding scheduling of departure and arrival via the inlet system. Given

such findings, potential benefits for such vessels were not investigated given the expected magnitude of such benefits (i.e., minimal) relative to time and budgetary constraints for studies.

Commercial Charter Operations

Generally, one of the first requirements to assess the value of commercial vessel operations or marginal changes thereto for project analysis is to assemble or tabulate costs of operations and associated income. Presented in **Table D-1a** is a summary for annual costs, revenues and income for the aggregate charter vessel configuration applied for analysis. Costs as contained in Table D-1a were assembled via interviews with several vessel owners or operators based in the study area in addition to the application of data derived from past experience with other studies where subject data was not readily available for Ponce DeLeon Inlet. As portrayed, the average commercial charter vessel is approximately 43 feet in length overall with average annual revenues and net operating income of approximately $155,000 and $34,000 respectively[3]. From the cost and revenue structure portrayed in Table D-1a variable operating costs and returns to capital and labor per unit of time or occurrence employed can be measured to asses the benefits of reductions in time or costs of operation.

Investigations reveal that most or nearly all charter vessels experience some difficulty with present or without-project conditions in terms of minor groundings and excessive maintenance due to suspended sediments. Typically such costs involve bent propellers or minor damages to hull or control surfaces resulting from occasional contact with bottom areas which are sometimes less than ideally predictable due to migratory conditions of the channel bed. Other forms of damage or excessive maintenance costs include replacement of impellers and similar mechanisms due to significant sediment transport. While such damages are often minor enough to allow postponement or deferral of repairs, vessel downtime and repair requirements resulting in lost charters often present typical or average incidents and related repair costs when the vessel inventory is viewed as a whole. In addition to direct costs of repairs and lost business, additional costs are incurred as a result of labor time required to secure repairs. Values of marginal labor time or returns to labor are based on the per-unit-of-time returns derived from income and revenue summary (Table D-1a) adjusted for opportunity costs of time assessed at approximately one-third the

[3] It should be noted that some operators are part-time business participants and may earn less while full-time operators typically earn considerably more.

pre-tax wage.

Examination of costs per occurrence per vessel per year reveal costs average approximately $2,800 per year, and as stated previously, is derived from repair charges, loss of revenue or earnings, and the value of time or returns to labor. It should be noted that cost estimates reflect the occurrence almost every year of very minor costs combined with more significant costs or damages incidents which may occur once over a period of years. In addition, occasionally a charter vessel also incurs a significant or severe grounding incident which results in greater repair costs and greater downtime and loss of income[4]. Historically, available information indicates such occurrences number less than one per year on average over the period of time for available historical information (obtained from both local users and the U.S. Coast Guard).

Combined with damages, it is also estimated that many vessels lose between one and two charters per year due to conditions of the inlet when weather would still allow deployment at the insistence of clientele either for fishing or sightseeing. Review of Table D-1b reveals that the average annual equivalent (AAEQ) value of such costs that it is believed can be eliminated or reduced with proposed improvements totals a commercial vessel operations benefit of approximately $259,000. The number of vessels applied for computations is based on the known homeport fleet combined with full-time equivalent (FTE) conversion of seasonal or transient vessels, which results in an applied base of 49 vessels for common or frequent damages and excessive maintenance, and lost returns from canceled or lost charters[5].

A second category of commercial benefit uniquely attributable to inlet stabilization is the reduction in repair and personnel costs for open water trials for a local vessel manufacturer. Due to the changing or migratory conditions of channel bed areas in the inlet, the manufacturer must typically place an extra technician onboard to advise clientele unfamiliar with the inlet where and when (particularly on the south side of the inlet throat) a given vessel can safely pass. Nonetheless, it is estimated that 3 to 5 occurrences of vessel grounding (and related damages and downtime) occur per year resulting in

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[4] Care must be taken to avoid double counting of potential project benefits when more than one category of benefit is being assessed for a particular event or circumstance. With regard to quantification of damages, even though labor time is alternatively use for repairs or efforts to return a given vessel to service, the value for lost income already includes allowances for opportunity costs of time and marginal expenses for vessel operations that would otherwise have taken place (without subject damages or downtime), therefore the estimate of damage cost is a net adjustment to base income with further cost adjustment for associated time and expense of repairs.

[5] Full-time equivalent (FTE) conversion of costs for aggregated analysis of the vessel inventory is based on employment of approximately 1,900 hours per year over a period of approximately 160 to nearly 220 days per year depending upon the vessel operator or nature of individual operations.

excessive direct costs and costs for value of time to company technicians and clientele. **Table 2** presents a summary or overview of costs based on grounding or damage occurrences which involve cost of retrieval of the vessel and passengers, direct costs of repairs, redeployment for completion of trials, and value of labor time for downtime (less adjustment for opportunity costs)[6]. Totaling such costs for reductions in escort personnel and damage occurrences which can be eliminated with improvements (i.e., 3 to 3.5 out of an average of 4.5 incidents per year) renders an average annual equivalent (AAEQ) value of $32,000 per year.

Placement of Proposed Commercial Fishing Park Facilities

Investigations undertaken during the course of the initial draft report for Ponce DeLeon Inlet reveal that many commercial vessel operators would relocate or seasonally call at Ponce DeLeon inlet if sufficient support facilities were available, notably dockage, availability of provisions, and access to a seafood wholesaler in a singular location. With the provision of a commercial fishing park in the proximity of Ponce DeLeon Inlet, it was learned that various business entities were interested in establishing seafood processing facilities, notably for shrimp and shellfish (notably crab and\or scallops). Tentatively, the most promising of these activities is the handling of rock shrimp and golden crab. Interviews with affiliated interests who operate supporting commercial vessels indicate waterway improvements and landside facilities may render efficiencies that could be derived from reduced open water transit time for some deployments in the northern reaches of the rock shrimp fishery while also helping to support the possible opening of a new harvest area for golden crab in the northern zone of the overall golden crab fishery.

As with commercial charter vessels, information on costs and revenues was compiled via interviews for typical vessel configurations expected to harvest rock shrimp and\or golden crab in the foreseeable future. These relationships were used to assemble aggregate vessel operational characteristics from which in turn marginal costs or benefits based on reduced variable costs or value of labor time were derived[7].

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[6] Additional detail is not provided at the request of the vessel manufacturer as such information is considered proprietary or confidential in nature.

[7] Currently, few rock shrimp vessels consistently call at commercial facilities located in the vicinity of Ponce DeLeon Inlet but available information indicates that a total regional vessel inventory of approximately forty (40) to forty-five (45) regional vessels which harvest rock shrimp either on a part-time basis or as a primary catch would benefit from availability of a port of call at the location tentatively proposed for seafood processing facilities. Of these, it is estimated that approximately one third would make one to two calls per year while approximately one-half to two thirds of the remaining vessels would

Table series D-3a through **D-3c** presents costs and revenues for rock shrimp transportation operations. Summary relationships for vessel operation (operating costs and revenues) are listed in Table D-3a followed by Table D-3b which provides the estimated number of vessel trips or transits (and associated changes in variable costs for vessel assets and labor time) which could be efficiently diverted each year or season with establishment of commercial fishing park facilities and relative time to\from harvest grounds versus alternative facilities[8]. Table D-3c presents changes for landside transportation and distribution of whole-weight and processed product based on location of seafood processing facilities proposed for the establishment of the commercial fishing park. As revealed by Table D-3b, reductions in open water transit costs with facilities at Ponce DeLeon Inlet total approximately $30,490 per year, while cost efficiencies for landside transport of landings total approximately $128,230 as listed in Table D-3d. It should be noted that Table D-3d provides efficiencies (due to fishing park location versus alternative processing sites) for transport of catch from alternative docks in mid or southern Florida to fulfill the balance of required processing facility throughput (totaling a minimum of 1,375,000 pounds; whole weight) which cannot be achieved with the estimated number of cost-effective diversions of vessel transits (and average landings per vessel trip). Also presented in Table D-3c is the estimated cost efficiency for distribution of processed product to distributors for furthering to buyers for end-use or consumption throughout the Southeastern United States from a processing facility located north of existing facilities presently located at Port Canaveral or further south such as Miami or Fort Pierce[9]. Combining estimated values for estimated transport cost reductions renders a total benefit for rock shrimp operations of $158,720 per year.

Undertaking the same basic analysis for golden crab as for rock shrimp results in the cost and revenue relationships for golden crab operations as portrayed in Table Series D-4a through D-4d. It should be noted that little information was available regarding a precise vessel configuration for harvest of golden

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call at the realigned location once per year or season. Analyses according to aggregate classes are described later in this economic appendix. It should be noted that class delineations were not disaggregated or analyzed specifically according to draft or length for drafts less than 10 to 10.7 feet as plan formulation was not based on known or predictable changes in reference depths compared to without-project conditions, but measures for stabilization of the existing project. Based on estimates of the regional vessel inventory, it is estimated that commercial facilities will need to be sized to accommodate a minimum of 27 to 28 vessels but no more than approximately 35 vessels at one time (depending on size, etc.) including support facilities for Golden or Red Crab and vessel repair facilities, both of which are later discussed in this appendix.

[8] Associated costs for proposed fishing park facilities are described in the main section of the overall project report.

[9] Benefits include the comparative costs of landside transport necessary for whole versus processed weight of shrimp based on establishment of proposed facilities.

crab and supporting operations that would be based at Ponce DeLeon Inlet[10]. Existing vessels in the fishery employed in south Florida were not necessarily considered representative as the emerging northern zone fishery is believed to be a relatively large-vessel fishery due to rigging and equipment required to efficiently work grounds which are at greater depths and subject to more significant currents (in the northern zone). Therefore, the basic configuration for the 92.4-foot rock shrimp vessel was employed for analysis with adjustments for trip duration, catch, and revenue per pound. Based on described analytical efforts and subject to compliance with applicable fishery management plans, benefits and costs described by Table series D-4a through D-4c total approximately $116,130 per year for waterborne and landside transportation cost efficiencies.

Provision of Commercial Marine Railway or Minor Maintenance Facility(ies)

As stated previously, investigations undertaken during the course of the initial draft report for Ponce DeLeon Inlet reveal that many commercial vessel operators would relocate or seasonally call at Ponce DeLeon inlet if sufficient support facilities were available, notably dockage, availability of provisions, and access to a seafood wholesaler in a singular location. An integral part of such facilities is the provision of a marine railway or minor vessel maintenance facility to serve commercial vessels which would serve seafood processing operations of the proposed park, or other commercial vessels in the local area. The advantage of such a facility is that many commercial operators indicated a need to often travel a considerable distance to find service facilities due to price, unique requirements, or lack of yard or facility capacity at peak periods during the year. Typically, the use of more distant

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[10] Available information for the golden crab fishery indicates that existing operators primarily harvest resource from the southern and to some extent the middle zones, with little or no harvest operations in the northern zone located to the west and north of Ponce DeLeon Inlet. Review of fishery management plans for Golden Crab indicate that yields from the northern reaches of the middle and northern zones could probably support two to five vessels depending on productivity and intensity of employment, and capitalization. Due to uncertainty of some parameters for related fishing operations, benefit analyses are based on employment of three vessels generally configured in size and respective costs for vessels of sufficient class to harvest traps from the deeper waters of the norther zone. The applied allocation of vessels based or homeported at proposed facilities for crab harvests includes one vessel approximately 60 to 65 feet in length overall with two other vessels 90 to 95 feet in length overall (LOA). Of these, it is estimated each vessel derived logistical efficiencies for 14 to 17 deployments per year with a efficiencies for a minor number of potential transient and\or part-time participants. Alternatives for land-based facilities include locations in the Miami area, Marathon Key (Florida Keys), and Port Canaveral to the south, and facilities in Jacksonville (Florida) or further northward. Analyses according to aggregate vessel classes are described later in this economic appendix. It should be noted that class delineations were not disaggregated or analyzed specifically according to draft or length for drafts less than 10 to 10.7 feet as plan formulation was not based on known or predictable changes in reference depths compared to without-project conditions, but measures for stabilization of the existing project. Based on estimates of the regional vessel inventory, it is estimated that commercial facilities will need to be sized to accommodate a minimum of 27 to 28 vessels but no more than approximately 35 vessels (depending on size) at one time including support facilities for Rock shrimp and vessel repair facilities, both of which are discussed elsewhere in this appendix.

repair facilities requires the dispatch and retrieval of the vessel, and transport of the crew to and from the vessel via landside transport. The operation of both the vessel and landside vehicle impose a direct cost of securing vessel repairs while time required of labor imposes a value of time cost either for downtime from productive activities to support the fishery or other activities.

Table D-5 summarizes estimated direct costs for vessel and vehicle operation for marginal transit, and time saved in addition to value of time saved for labor (adjusted for opportunity costs). Unit costs as presented were derived from weighted cost and revenue relationships derived from operation of vessels employed for harvest of rock shrimp and golden crab previously described. A composite was used for vessels projected to serve or call at the commercial fishing park given limited availability of information regarding what vessels would actually use the maintenance facility. As stated previously, the cost of repairs for commercial vessels involves both labor time and direct costs for operations. Such costs as described in Table D-5 include dispatch or transit of the vessel to the repair facility in addition to costs of landside transport to retrieve the crew or personnel after arrival at a given service facility. Upon completion of repairs, costs for landside transport and labor time must also be expended to retrieve the vessel and return it to productive service.

Based on a general assumption that costs of repairs would be comparable to alternative facilities combined with expected operation ten months of the year (at three vessels per month) a total of thirty vessels would be serviced per year resulting in a cost efficiency for minimized or marginal travel of approximately $1,570 per vessel or $47,100 per year. Given an assumption of no increase in growth over the planning horizon, the stated annual value equates to an average annual equivalent (AAEQ) value for project analyses[11].

Recreational Vessel Benefits

The analysis of recreational vessel benefits for Ponce DeLeon Inlet is based on general recreation analysis procedures authorized for USACE-sponsored studies of small harbor projects.

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[11] The assumption of no growth for occurrences is based on the assumption of no growth for the regional commercial fishing fleet associated with the assumption of no significant increase in landings or exploitation of commercial marine resources related to intensity of employment. Distances for vessel and landside vehicle transit are based primarily on usage of alternative facilities in the area of Port Everglades to the south, or Jacksonville (Florida), Savannah (Georgia), and St. Augustine to the north with occasional use of facilities as distant as North and South Carolina depending on the timing of need for repairs and demand for facilities during respective fishing and tourist seasons. Associated costs for placement of repair facilities are covered in the main section or the overall project report.

Little information was readily available quantifying the frequency and nature or extent of use of the inlet by private recreational craft. Cursory interviews were conducted with local marina operators and resulting information was combined with experience derived from other small inlet studies for Florida and available information for estimates of recreational craft based in the region to determine estimates of the nature or frequency of waterway use. Vessel operating characteristics of the inlet were generally assessed and related estimates of usership (based were applied to determine the value of recreational use based on variances in unit day values[12]. In addition to analyses for application of unit day values, related estimates for frequency of operations were also applied to available information on vessel operating parameters to determine costs or expenses (i.e., such as damages) considered to be associated with inlet conditions and which could be eliminated or minimized with waterway improvements.

Particular to costs or expenses which could be minimized or eliminated, it was determined from interviews that most vessel damage costs or expenses attributable to unfavorable migratory conditions of the inlet encompassed three general categories. Subject categories include[13]:

a.) Reductions in damages for severe or significant vessel groundings;

b.) Reductions in damages for vessel capsizings;

and

c.) Reductions in damages for common or unreported incidents (i.e., moderate or minimal damages)

The three aforementioned categories of vessel damages or costs primarily differ with magnitude of average costs and expected or relative frequency. In addition, estimates for frequency and location for severe vessel groundings and capsizings were obtained from data compiled for the Search and Rescue (SAR) reporting system maintained by the United States Coast Guard (USCG). Such events are considered severe or significant given that the Coast Guard is generally directed to respond to such incidents only when lives are in peril or at risk. Unreported incidents pertain to typical or common damages

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[12] **Source(s): Florida State Comprehensive Outdoor Recreation Plan (SCORP); 1994.**

[13] **Benefits for groundings and capsizings are subject to change based on revised or more detailed information to be provided by the United States Coast Guard (USCG) regarding probable cause and location of historical vessel mishaps or incidents for which the USCG has responded or intervened.**

attributable to dynamically changing conditions of the inlet which result in movement or unpredictability of the inlet channel system, and vessels in transit feeling the bottom or side slope of the channel. Such incidents are classed as unreported given that formal reporting of incidents is not undertaken by any formal entity (such as for severe groundings and capsizings by the USCG), and many resulting repairs are performed by either the vessel owner or small local marine repair facilities.

All three categories of vessel damages or costs include assessment of costs for vessel machinery or equipment, and repairs or maintenance for hull surfaces ranging from minimal (such as repitching and recupping a bent propeller) to catastrophic losses or severe vessel damages which occur infrequently. Repairs for damages to hull surfaces include structural repairs to hulls to repair breaches or cracked and punctured hull forms in addition to reglassing and painting of hull surfaces. Damages to machinery or equipment primarily entail damages to propulsion and steering gear equipment such as propellers, rudders, shafts and struts, lower units for outboards or stern drives, and other underfittings such as protective plates or shoes. Catastrophic damages, are generally related to severe groundings or vessel incidents which often require salvage efforts to recover the vessel and\or extensive repairs to both hull surfaces and structural members, and machinery[14].

Information obtained from local marina owners and specialized marine repair vendors (such as for propeller repair or reconditioning) included estimates of vessel damages based largely on general familiarity with historical or past experience. Investigations with both representatives of marinas and vessel operators indicate that adverse or less than ideal conditions for Ponce DeLeon Inlet prevail generally throughout the year with the most notable adverse conditions occurring after severe weather or storm events and during the late fall or winter months spanning a time period of from four to five months, to as long six months. Applicable seasonal duration of conditions which impose operational limitations depends on the variability in prevailing weather conditions from day to day, and on the suitability of a given vessel for such conditions based on physical specifications (i.e., relative to maximum draft, length, freeboard, stability, etc.).

Damage *valuations* were assessed from general estimates according to recent record(s) or local knowledge as available,

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[14] **Efforts to estimate catastrophic vessel damages proved difficult for Ponce DeLeon Inlet within the scope of studies as such occurrences are much less frequent than for typical or common damages as described, and are based on few instances in recent years. Similar to common damages for many craft, the imposition of catastrophic damages typically occurs to many vessel operators who are transient from outside the region and\or not intimately familiar with limitations of the waterway under adverse or sub-optimal conditions. However, based on available information, applied estimates of related damages were cursorily formulated based on general estimates of costs for severe groundings and near loss of vessels in recent years.**

notably the past two to three years, with adjustment to current cost levels. Costs or expenses per occurrence include an assessment of both direct or explicit costs, and costs for the value of time saved with reduction or elimination of related damage incidents.

Costs for the value of time saved to the operator or vessel owner were derived from the avoidance of needing to expend labor time to secure assistance and\or facilitate repairs[15]. As a basis for values, general estimates of labor time potentially saved were assembled from cursory interviews combined with experience based on prior small harbor or inlet studies given limited availability of information for Ponce DeLeon Inlet[16].

Based on experience with other small inlet studies, most common or typical damages require the expenditure of from as little as one or two to nearly twelve man-hours for most vessel owners for repairs performed by others (for pay), with a range of from less than one to three man-days (assuming eight man-hours per day) or more for significant repairs carried out by the owner or operator. Little information is available for Ponce DeLeon Inlet users concerning a precise estimate of employment of professional repair services (i.e., services for hire) versus repairs undertaken by vessel owners\operators themselves. Cursory inquiries indicate that the majority of vessel owners in the region employ professional services for most, but not all, significant vessel service or repair requirements.

Costs or expenses *per occurrence* as reported for vessels damaged while transiting at Ponce DeLeon Inlet, for the purposes of analysis, are assumed to remain constant or invariable from year to year of project economic life. This assumption was based on limited availability or the absence of information concerning any detailed explicit relationship(s) between the incurrence of damages relative to intensity of waterway use needed for variable projection(s). *Growth* in the *frequency* of occurrence(s) was

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[15] Specified value per hour is derived from the estimates for recommended values for time as contained in Institute of Water Resources Report (IWR) 91-R-12 titled Value of Time saved for use in Corps Planning Studies: A Review of the Literature and Recommendations (October 1991). Values per unit of time derived from Table 2; page 23 respective to value of time saved for based on median income as averaged for occurrence and adjusted to projected price levels for calendar 1996. The average of values was selected given that detailed information was not available as to the true disposition of expended time and related opportunity costs (i.e., though time expended for repair for a recreation craft may generally constitute an expenditure for recreational activities, whether the time used actually constitutes marginal social or recreation as opposed to time away from income-earning activities such as work and earnings foregone could not be determined from information at the time of preparation). Therefore, combined with the general limited range of all values for time savings, aggregate values were applied for the purposes of studies.

[16] The amount of time expended to facilitate vessel repairs ranges considerably depending upon the extent of work required and the willingness and skills of individuals to either perform repair work themselves or to diligently seek information and pricing before selection of a particular repair facility. As an example, some individuals may choose to use a preferred facility with which they have an established relationship and therefore may expend as little as one to two man-hours to secure and pay for vessel repair. At the other extreme, severe vessel damages may necessitate the pursuit of competitive bid estimates and significant time for discretion in selection of a repair facility and affiliated professional services.

estimated based on projections for saltwater fishing (by vessel) and saltwater vessel ramp use in the general region as contained in the *Florida State Comprehensive Outdoor Recreation Plan (SCORP)*[17].

Based on the preceding general description, damages for severe or significant groundings of recreational vessels (as responded to by the USCG) which use Ponce DeLeon Inlet total an average for all vessels of approximately $5,030 per occurrence per year based on values for direct costs and value of time totaling $4,810 and $220, respectively. Applying an average of approximately 17.1 vessel occurrences in the base period of projections, 1997 renders a total of approximately $85,760 when adjusted for growth to the base year of project economic life, 2001. Average annual equivalent (AAEQ) tabulations for specified vessel class delineations in addition to overall average estimations are presented in **Table D-6a**, and total approximately $111,640 given growth in vessel use derived from the SCORP, a fifty (50) project economic life, and annual interest or discount rate of 7 1/8 (.07125) percent.

While this number may appear relatively low compared to the total number of recreational vessel groundings as reported by the USCG, it should be noted USCG statistics were reviewed to exclude groundings or incidents attributable to causes which would in likelihood not be uniquely rectified or eliminated with stabilization of the inlet system. It should also be noted that interviews with users or operators of local marinas reveal that many individuals who reside in the area and frequently use the inlet are aware of the inlet's limitations due to seasonal conditions, and they employ such knowledge to, where possible, safely navigate the inlet. Hence, indications are that the majority of common or typical vessel damage costs are attributable to unfamiliarity with seasonal or changing conditions of the inlet stemming from infrequent use by some area vessel operators, and transient use by vessel operators from outside the study region.

The second category of project recreation benefits, reductions in direct costs and value of time expended for damages from vessel capsizings were also assessed in similar form to severe groundings based on a review of USCG statistics and interviews or available information concerning typical expenses or needed repairs for such occurrences. Correspondingly, examination of **Table D-6b** reveals an average occurrence of 4.5 incidents per year for 1997 at a total average cost of approximately $8,780 for direct costs ($8,030) and value of time ($750). Average annual equivalent (AAEQ) benefits total approximately $51,370 given the specified project economic life,

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[17] **Source(s): Florida State Comprehensive Outdoor Recreation Plan (SCORP); 1994.**

interest or discount rate, a project base year of 2001, and growth in inlet use as derived from the SCORP document.

The benefit category of reductions in damages and costs for unreported damage incidents is presented in **Table D-6c** and totals an average annual equivalent (AAEQ) value of approximately $144,830. This value is based on estimates of occurrence and expenses derived from cursory interviews with local interests and operators of repair facilities and is derived from approximately 114 to 115 vessel occurrences per year at a total cost of $980 per occurrence for 1997. Similar to estimates for groundings and capsizings, growth in occurrences were escalated by growth in recreational vessel use as derived from the SCORP document.

In addition to reductions in vessel operating costs, the remainder of recreational benefits are based on variances for unit\user day values (UDVs) assessed for waterway conditions unique to Ponce DeLeon Inlet[18]. Unit day values were assessed for Inlet conditions expected to prevail for recreational craft with and without implementation of proposed improvements. Any net increase or decrease in value per user day or occurrence associated with implementation of proposed improvements is deemed either a net benefit or cost, respectively. The derived unit day value differential ranged from approximately $.75 to $.83 per user-day or occurrence derived from current point monetary values authorized for studies during fiscal year (FY) 1997 and are presented in **Table D-6d**. Point estimates for general hunting and fishing were applied to the average number of vessel occupants or boaters estimated to transit or use waters of the inlet and the adjacent shoreline area. The average increase in unit\user day value was applied to vessel activity or use based on expectations of improved conditions expected with proposed stabilization measures. Based on general estimates of the frequency of use and average vessel occupancy as provided in Table D-6e combined with general prevalence or number of applicable vessels in the study area thought to be routinely employed for open water or near-shore activities, the estimated annual benefit for unit day values totals approximately $107,530 for 1997 and is also provided in Table D-6e. Applying growth projections derived from the SCORP document in similar form to projections for damages previously described, renders average annual equivalent (AAEQ) values totaling $158,330 in Table D-6e for the applied period of project economic life and interest or discount rate.

Combining all benefits as described for recreational vessel operations as described results in a summary total average annual equivalent (AAEQ) value of ***$466,170***. **Table D-6g** provides a

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[18] **Unit day values assessed in accordance with engineering regulation (ER) 1105-2-100; section 6-113 and Economic Guidance Memorandum (EGM) 95-4 dated 18 January 1995; values for general fishing and hunting values.**

summary listing of all recreational vessel benefits according to category and general vessel class.

Summary of Economic Benefits

Combining commercial and recreation benefits results in an estimate of total economic benefits for project justification. A summary of both commercial and recreation benefits as presented in **Table 7** provides average annual equivalent (AAEQ) values for benefits for proposed stabilization measures both with and without placement of commercial fishing park facilities totaling ***$1,079,100*** and ***$757,150***, respectively.

Tab [illegible]b

Ponce DeLeon Inlet, Florida)

Summary Table for Average Annual Equivalent (AAEQ) Benefits by Aggregate Vessel Class

Estimated Economic Benefits for Reductions in Vessel Damages and Lost Charters for Commercial Charter Fishing Vessels

Economic Life:: 50 years
Applied Interest\Discount Rate: 7.125%

General Vessel Class; Length Overall (in feet): 42.6 feet
Applied Number of Vessels: 49 Vessels (per year; average)

Average Number of Lost Charters Avoided: 1.6 Charters
Physical Damages\Excessive Maintenance Avoided: $1,850 per vessel (average)

Losses to Contributions for Fixed Costs Avoided: $520 per vessel (average)
Losses to Direct Returns to Labor Avoided: $290 per vessel (average)
Value of Labor Time Saved: $170 per vessel (average)

Benefits by Category for Specified Aggregate Charter Vessel Class

General Vessel Damages\Maintenance Avoided

General Vessel Class; Length Overall (in feet): 42.6 feet
Applied Number of Vessels: 49 Vessels (per year; average)

Average Number of Lost Charters Avoided: 1.5 Charters
Physical Damages\Excessive Maintenance Avoided: n/a per vessel (average)

Losses to Contributions for Fixed Costs Avoided: $430 per vessel (average)
Losses to Direct Returns to Labor Avoided: $240 per vessel (average)
Value of Labor Time Saved: n/a per vessel (average)

Charters Lost or Foregone Avoided

General Vessel Class; Length Overall (in feet): 42.6 feet
Applied Number of Vessels: 0.80 Vessels (per year; average)

Average Number of Lost Charters Avoided: 5.2 Charters
Physical Damages\Excessive Maintenance Avoided: $6,370 per vessel (average)

Losses to Contributions for Fixed Costs Avoided: $1,500 per vessel (average)
Losses to Direct Returns to Labor Avoided: $850 per vessel (average)
Value of Labor Time Saved: $560 per vessel (average)

Severe Damages\Catastrophic Losses Avoided

Summary Total(s), All Benefit Categories

General Vessel Class; Length Overall (in feet): 42.6 feet

Average Number of Lost Charters Avoided: 3.4 Charters
Physical Damages\Excessive Maintenance Avoided: $1,954 per vessel (approximate average)

Losses to Contributions for Fixed Costs Avoided: $974 per vessel (approximate average)
Losses to Direct Returns to Labor Avoided: $544 per vessel (approximate average)
Value of Labor Time Saved: $179 per vessel (approximate average)

Year	Period	Discount Coefficient 7.125%	Projected Growth [1.]	Nominal Value(s) by Year: Direct Cost(s)	Value of Labor Time	Total	Discounted value(s) by Year	Nominal Value(s) by Year: Direct Cost(s)	Value of Time	Total	Discounted value(s) by Year	Nominal Value(s) by Year: Direct Cost(s)	Value of Time	Total	Discounted value(s) by Year	Summary Total(s), All Benefit Categories: Direct Cost(s)	Value of Time	Total	Discounted value(s) by Year
2001	0	1.00000	13.66%	$131,990	$25,618	$157,608	$157,610	$23,946	$13,366	$37,314	$37,310	$7,156	$1,282	$8,438	$8,440	$163,094	$40,266	$203,360	$203,360
2002	1	0.93349	2.14%	$134,810	$26,165	$160,975	$150,270	$24,460	$13,652	$38,111	$35,580	$7,309	$1,309	$8,618	$8,050	$166,579	$41,126	$207,705	$193,890
2003	2	0.87140	2.07%	$137,602	$26,707	$164,310	$143,180	$24,966	$13,934	$38,901	$33,900	$7,460	$1,337	$8,797	$7,670	$170,029	$41,978	$212,007	$184,740
2004	3	0.81344	2.01%	$140,368	$27,244	$167,613	$136,340	$25,466	$14,214	$39,683	$32,280	$7,610	$1,363	$8,974	$7,300	$173,447	$42,822	$216,269	$175,920
2005	4	0.75934	1.95%	$143,110	$27,776	$170,887	$129,760	$25,966	$14,492	$40,458	$30,720	$7,759	$1,390	$9,149	$6,950	$176,835	$43,658	$220,493	$167,430
2006	5	0.70884	1.90%	$145,830	$28,304	$174,135	$123,430	$26,459	$14,766	$41,227	$29,220	$7,906	$1,416	$9,323	$6,610	$180,196	$44,486	$224,684	$159,260
2007	6	0.66169	1.85%	$148,530	$28,828	$177,358	$117,360	$26,949	$15,041	$41,990	$27,780	$8,053	$1,443	$9,495	$6,280	$183,532	$45,312	$228,844	$151,420
2008	7	0.61768	1.81%	$151,212	$29,349	$180,560	$111,530	$27,436	$15,312	$42,748	$26,400	$8,198	$1,469	$9,667	$5,970	$186,845	$46,130	$232,975	$143,900
2009	8	0.57660	1.76%	$153,877	$29,866	$183,743	$105,950	$27,919	$15,582	$43,501	$25,080	$8,343	$1,495	$9,837	$5,670	$190,139	$46,943	$237,082	$136,700
2010	9	0.53825	1.72%	$156,528	$30,381	$186,909	$100,600	$28,400	$15,851	$44,251	$23,820	$8,486	$1,520	$10,007	$5,390	$193,414	$47,752	$241,166	$129,810
2011	10	0.50245	1.69%	$159,167	$30,893	$190,059	$95,500	$28,879	$16,118	$44,997	$22,610	$8,629	$1,546	$10,175	$5,110	$196,675	$48,557	$245,232	$123,220
2012	11	0.46903	1.65%	$161,795	$31,403	$193,198	$90,620	$29,356	$16,384	$45,740	$21,450	$8,772	$1,571	$10,343	$4,850	$199,922	$49,359	$249,281	$116,920
2013	12	0.43783	1.62%	$164,414	$31,911	$196,326	$85,960	$29,831	$16,649	$46,480	$20,350	$8,914	$1,597	$10,511	$4,600	$203,159	$50,156	$253,317	$110,910
2014	13	0.40871	1.59%	$167,027	$32,418	$199,445	$81,520	$30,305	$16,914	$47,219	$19,300	$9,056	$1,622	$10,678	$4,360	$206,388	$50,955	$257,342	$105,180
2015	14	0.38153	1.56%	$169,634	$32,924	$202,559	$77,280	$30,776	$17,176	$47,956	$18,300	$9,197	$1,648	$10,845	$4,140	$209,610	$51,750	$261,360	$99,720
2016	15	0.35615	1.54%	$172,239	$33,430	$205,668	$73,250	$31,251	$17,442	$48,692	$17,340	$9,338	$1,673	$11,011	$3,920	$212,827	$52,545	$265,372	$94,510
2017	16	0.33247	1.51%	$174,841	$33,935	$208,776	$69,410	$31,723	$17,705	$49,428	$16,430	$9,479	$1,698	$11,177	$3,720	$216,043	$53,338	$269,381	$89,560
2018	17	0.31035	1.49%	$177,443	$34,440	$211,883	$65,760	$32,195	$17,969	$50,164	$15,570	$9,620	$1,723	$11,344	$3,520	$219,258	$54,132	$273,391	$84,850
2019	18	0.28971	1.47%	$180,047	$34,945	$214,992	$62,290	$32,667	$18,232	$50,900	$14,750	$9,761	$1,749	$11,510	$3,330	$222,476	$54,927	$277,402	$80,370
2020	19	0.27044	1.45%	$182,653	$35,451	$218,105	$58,980	$33,140	$18,496	$51,637	$13,960	$9,903	$1,774	$11,677	$3,160	$225,697	$55,722	$281,418	$76,110
2021	20	0.25245	1.43%	$185,265	$35,958	$221,223	$55,850	$33,614	$18,761	$52,375	$13,220	$10,044	$1,799	$11,844	$2,990	$228,923	$56,518	$285,441	$72,060
2022	21	0.23566	1.41%	$187,881	$36,466	$224,347	$52,870	$34,089	$19,026	$53,115	$12,520	$10,186	$1,825	$12,011	$2,830	$232,157	$57,317	$289,473	$68,220
2023	22	0.21999	1.40%	$190,506	$36,975	$227,481	$50,040	$34,565	$19,292	$53,857	$11,850	$10,328	$1,850	$12,179	$2,680	$235,399	$58,117	$293,516	$64,570
2024	23	0.20536	1.38%	$193,138	$37,486	$230,625	$47,360	$35,043	$19,558	$54,601	$11,210	$10,471	$1,876	$12,347	$2,540	$238,652	$58,920	$297,573	$61,110
2025	24	0.19170	1.37%	$195,781	$37,999	$233,780	$44,820	$35,522	$19,826	$55,348	$10,610	$10,615	$1,902	$12,516	$2,400	$241,918	$59,727	$301,644	$57,820
2026	25	0.17895	1.36%	$198,435	$38,514	$236,949	$42,400	$36,004	$20,095	$56,098	$10,040	$10,758	$1,927	$12,686	$2,270	$245,197	$60,536	$305,733	$54,710
2027	26	0.16705	1.34%	$201,101	$39,032	$240,132	$40,110	$36,487	$20,365	$56,852	$9,500	$10,903	$1,953	$12,856	$2,150	$248,491	$61,350	$309,840	$51,760
2028	27	0.15594	1.33%	$203,780	$39,552	$243,332	$37,940	$36,973	$20,636	$57,609	$8,960	$11,048	$1,979	$13,027	$2,030	$251,802	$62,167	$313,969	$48,960
2029	28	0.14556	1.32%	$206,474	$40,075	$246,549	$35,890	$37,462	$20,909	$58,371	$8,500	$11,194	$2,005	$13,200	$1,920	$255,131	$62,989	$318,120	$46,310
2030	29	0.13586	1.31%	$209,184	$40,601	$249,785	$33,940	$37,954	$21,183	$59,137	$8,040	$11,341	$2,032	$13,373	$1,820	$258,480	$63,816	$322,295	$43,790
2031	30	0.12685	1.30%	$211,911	$41,130	$253,041	$32,100	$38,449	$21,459	$59,908	$7,600	$11,489	$2,058	$13,547	$1,720	$261,849	$64,647	$326,496	$41,410
2032	31	0.11841	1.30%	$214,656	$41,663	$256,318	$30,350	$38,947	$21,737	$60,684	$7,190	$11,638	$2,085	$13,723	$1,620	$265,240	$65,485	$330,725	$39,160
2033	32	0.11053	1.29%	$217,419	$42,199	$259,618	$28,700	$39,448	$22,017	$61,465	$6,790	$11,788	$2,112	$13,899	$1,540	$268,655	$66,326	$334,983	$37,030
2034	33	0.10318	1.28%	$220,203	$42,739	$262,942	$27,130	$39,953	$22,299	$62,252	$6,420	$11,939	$2,139	$14,077	$1,450	$272,094	$67,177	$339,271	$35,010
2035	34	0.09632	1.27%	$223,007	$43,283	$266,290	$25,650	$40,462	$22,583	$63,045	$6,070	$12,091	$2,166	$14,257	$1,370	$275,559	$68,032	$343,591	$33,090
2036	35	0.08991	1.27%	$225,832	$43,832	$269,664	$24,250	$40,975	$22,869	$63,844	$5,740	$12,244	$2,193	$14,437	$1,300	$279,051	$68,894	$347,945	$31,280
2037	36	0.08393	1.26%	$228,681	$44,385	$273,065	$22,920	$41,491	$23,157	$64,649	$5,430	$12,398	$2,221	$14,619	$1,230	$282,570	$69,763	$352,333	$29,570
2038	37	0.07835	1.26%	$231,552	$44,942	$276,494	$21,660	$42,012	$23,448	$65,461	$5,130	$12,554	$2,249	$14,803	$1,160	$286,119	$70,639	$356,758	$27,950
2039	38	0.07314	1.25%	$234,446	$45,504	$279,953	$20,480	$42,538	$23,741	$66,279	$4,850	$12,711	$2,277	$14,988	$1,100	$289,697	$71,523	$361,220	$26,420
2040	39	0.06827	1.25%	$237,370	$46,071	$283,441	$19,350	$43,068	$24,037	$67,105	$4,580	$12,869	$2,306	$15,175	$1,040	$293,307	$72,414	$365,721	$24,970
2041	40	0.06373	1.24%	$240,317	$46,643	$286,960	$18,290	$43,603	$24,336	$67,938	$4,330	$13,029	$2,334	$15,363	$980	$296,946	$73,313	$370,261	$23,600
2042	41	0.05949	1.24%	$243,290	$47,220	$290,511	$17,280	$44,142	$24,637	$68,779	$4,090	$13,190	$2,363	$15,553	$930	$300,623	$74,220	$374,843	$22,300
2043	42	0.05554	1.23%	$246,292	$47,803	$294,095	$16,330	$44,687	$24,941	$69,627	$3,870	$13,353	$2,392	$15,745	$870	$304,331	$75,136	$379,467	$21,070
2044	43	0.05184	1.23%	$249,321	$48,391	$297,712	$15,430	$45,236	$25,248	$70,484	$3,650	$13,517	$2,422	$15,939	$830	$308,075	$76,060	$384,135	$19,910
2045	44	0.04840	1.23%	$252,380	$48,985	$301,364	$14,580	$45,791	$25,557	$71,349	$3,450	$13,683	$2,451	$16,134	$780	$311,854	$76,993	$388,847	$18,820
2046	45	0.04518	1.22%	$255,468	$49,584	$305,052	$13,780	$46,352	$25,870	$72,222	$3,260	$13,851	$2,481	$16,332	$740	$315,670	$77,935	$393,606	$17,780
2047	46	0.04217	1.22%	$258,587	$50,189	$308,776	$13,020	$46,917	$26,186	$73,103	$3,080	$14,020	$2,512	$16,531	$700	$319,524	$78,887	$398,411	$16,800
2048	47	0.03937	1.22%	$261,737	$50,801	$312,537	$12,300	$47,489	$26,505	$73,994	$2,910	$14,190	$2,542	$16,733	$660	$323,416	$79,848	$403,264	$15,880
2049	48	0.03675	1.22%	$264,918	$51,418	$316,336	$11,620	$48,066	$26,827	$74,893	$2,750	$14,363	$2,573	$16,936	$620	$327,347	$80,818	$408,166	$15,000
2050	49	0.03430	1.21%	$268,132	$52,042	$320,174	$10,980	$48,649	$27,153	$75,802	$2,600	$14,537	$2,604	$17,141	$590	$331,319	$81,799	$413,118	$14,170
2051	50	0.03202	1.21%	$271,380	$52,672	$324,052	$10,380	$49,239	$27,481	$76,720	$2,460	$14,713	$2,636	$17,349	$560	$335,332	$82,789	$418,121	$13,390
Summation of Present Worth:							$2,726,790				$845,560				$146,020				$3,518,340
Average Annual Equivalent (AAEQ) Value(s):							***$200,710***				***$47,520***				***$10,750***				***$258,970***
Summary Total Average Annual Equivalent Benefits ----------->							***$258,960***												

[1.] Florida State Comprehensive Outdoor recreation Plan (SCORPS); from base year of 1996. [2.] Depths in feet projected without proposed waterway improvements, and referenced to mean low water (MLW).

Table 2
Ponce DeLeon Inlet, Florida
Estimated Benefits for Sea Trials Undertaken Via Ponce DeLeon Inlet
*Reduced Labor and Damage Costs for Sea Trials **

	Without–Project	With–Project
Total Estimated Number of Vessel Deployments Per Year for Open Water Trials (average):	58.5	58.5
Deployments With No Significant Difficulties Attributable to Inlet Dynamics Unique to Without–Project Conditions:		
Average Deployment of Vessels Per Year	54.0	57.5
Technicians Involved (average per trip)	2.5	1.5
Customers\Observers Involved (average per trip)	3	3
Total Estimated Labor Costs	**$94,720**	**$82,530**
Estimated Costs Due to Grounding or Damages Attributable to Dynamic or Migratory Inlet Conditions:		
Estimated Number of Damage Occurrences (per Year)	4.5	1.0
Technicians Involved (average per occurrence)	2.5	1.5
Customers\Observers Involved (average per occurrence)	3.0	3.0
Retrieval Crewman Involved (per occurrence)	1.5	1.5
Repair Technicians Involved (per occurrence)	1.5	1.5
Total Estimated Labor Costs	$14,170	$2,710
Total Direct Costs of Repairs	$1,880	$420
Subtotal(s)	**$16,050**	**$3,130**
Requirements for Resumption\Completion of Sea Trials:		
Number of Vessel Redeployments	4.5	1.0
Technicians Involved (average per occurrence)	2.5	1.5
Customers\Observers Involved (average per occurrence)	3.0	3.0
Total Estimated Labor Costs (average per occurrence)	$1,510	$1,130
Marginal Customer Travel\Accommodation Costs (per occurrence)	$350	$350
Subtotal(s)	**$8,370**	**$1,480**
Total Applied Cost(s)	$119,140	$87,140
Reduction or Differential (i.e., project benefit)		$32,000

* *Detail of labor and operating costs not presented as associated information is considered proprietary by vessel manufacturer.*

Table D–1a
Ponce DeLeon Inlet, Florida
Commercial Charter Fishing Vessels
Summary Table for Example of Aggregate Average Annual Costs, Revenues, and Income

Vessel Aggregate Class Statistics		
Average Vessel Length (Overall; in feet)		42.6
Average Vessel Length at Wateriline (or between perpendiculars; in feet)		39.9
Average Vessel Breadth or Beam (extreme; in feet)		14.6
Average Vessel Draft (loaded; in feet)		5.1
Operating Costs		
Fixed Operational Costs		
– Interest and Amortization (Hull\Superstructure)		$32,160
– Hull & Superstructure		$310
– Propulsion\Power Plant(s)		$470
– Rigging		$490
– Support Facility\Berthing Expenses		$4,340
– Insurance		$3,650
– Administration\Accounting\Legal\Permits\Licensure		$4,160
	Subtotal	$45,580
Variable Maintenance Costs		
– Hull & Superstructure\Rigging		$5,750
– Propulsion\Power Plant(s)		$6,810
	Subtotal	$12,560
Variable Operational Cost(s)		
– Fuel		$34,220
– Oil\Lubrication		$2,200
– Bait\Tackle		$2,760
– Ice		$2,060
– Consumables\Subsistence		$1,900
– Advertising\Booking & Schedule Adminstration		$7,080
– Hired Crew Compensation		$12,490
	Subtotal	$62,710
Average Total Cost(s)		
Fixed Operational Cost(s)		$45,580
Variable Maintenance Cost(s)		$12,560
Variable Operating Cost(s)		$62,710
	Subtotal	$120,850
Average Annual Revenue		$154,820
Net Average Operating Income		$33,970
Average Number of Days Employed Per Year		163
Average Number of Trips per Year		172
Average Duration of Trip (hours)		10.2
Average Hours Employed Per Year		1,756
Average Wage Per Hour for Hired Crewman		$7.11
Average Wage\Return Per Hour for Captain		$16.88

Table D–3a
Ponce DeLeon Inlet, Florida
Commercial Fishing Vessels (Rock Shrimp)
Summary Table for Example of Aggregate Average Annual Costs, Revenues, and Income

Vessel Aggregate Class Statistics			
Average Vessel Length (Overall; in feet)		69.7	92.4
Average Vessel Length at Waterline (or between perpendiculars; in feet)		63.2	85.5
Average Vessel Breadth or Beam (extreme; in feet)		18.3	21.9
Average Vessel Draft (loaded; in feet)		10.7	12.3
Operating Costs			
Fixed Operational Costs			
– Interest and Amortization (Hull\Superstructure)		$34,960	$54,500
– Hull & Superstructure		$560	$740
– Propulsion\Power Plant(s)		$840	$1,120
– Rigging		$880	$1,160
– Support Facility\Berthing Expenses		n/a	n/a
– Insurance		$5,540	$5,830
– Administration\Accounting\Legal\Permits\Licensure		$6,370	$6,290
	Subtotal	$49,150	$69,640
Variable Maintenance Costs			
– Hull & Superstructure\Rigging		$14,100	$21,800
– Propulsion\Power Plant(s)		$12,710	$17,570
	Subtotal	$26,810	$39,370
Variable Operational Cost(s)			
– Fuel		$31,300	$39,720
– Oil\Lubrication		$4,880	$7,390
– Consumables\Subsistence		$2,980	$2,480
– Hired Crew Compensation		$49,280	$82,100
	Subtotal	$88,440	$131,690
Average Total Cost(s)			
Fixed Operational Cost(s)		$49,150	$69,640
Variable Maintenance Cost(s)		$26,810	$39,370
Variable Operating Cost(s)		$88,440	$131,690
	Subtotal	$164,400	$240,700
Average Annual Revenue		$239,980	$365,460
Net Average Operating Income		$75,580	$124,760
Average Number of Days Employed Per Year		126	105
Average Number of Trips per Year		11.5	5.3
Average Duration of Trip (Days)		11.0	20.0
Average Hours Employed Per Year		1,575	1,313
Average Wage Per Hour for Hired Crewman(men);	2 in number	$8.97	$17.93
Average Wage\Return Per Hour for Captain;	1 in number	$13.35	$26.70

Table D–3b
Ponce DeLeon Inlet, Florida
Commercial Fishing Vessels (Rock Shrimp)
Summary Table for Reductions in Variable Vessel Costs
With
Placement or Location of Commercial Fishing Park

General Vessel Class [1.]		
Average Vessel Length (Overall; in feet)	69.7	92.4
Average Vessel Draft (loaded; in feet)	10.7	12.3
Average Number of Trips Per Year for Which Shorter Transit Time is Applicable:	37.2	1.7
Average Number of Hours Trip Transit Time is Reduced Per Transit Leg:	8.5	8.5
Applicable Number of Transit Legs Per Trip for Reduced Time: [2.]	1.5	1.5
Average Variable Cost(s):		
– Vessel Operating Costs	$38.55	$63.63
– Value of Labor Time (net of opportunity costs)	$20.86	$41.70
Subtotal(s)	$59.41	$105.33
Estimated Reduced Costs by Class per Year:	$28,200	$2,290
Estimated Total Reduced Waterborne Logistical Costs (i.e., benefit):		**$30,490**
Total Poundage Carried Via Realigned Vessel Operations:		
– Average per Trip (whole or live weight)	19,410	53,200
– Total Poundage (whole or live weight)	722,580	90,770
Total Poundage (whole or live weight)		813,350

[1.] Aggregate classes represent a total fleet of approximately 40 to 45 individual vessels of which approximately sixty–five to seventy percent approximate the 60.7–foot class and the remainder approximate or are aggregated for the 92.4–foot class.

[2.] An average of 1.5 trip legs or transits is applied given that some proportion of the time, either for the inbound or outbound leg, a given vessel will be closer to equidistant from another land–based facility depending on the geographical location of the vessel upon completion of the final deployment of harvest gear (or "drag" of netting equipment) while fishing in a northward or southward direction. Such physical placement does not constitute a marginal logistical betterment for location of the proposed fishing park and associated facilities. In the absence of specific information concerning vessel geographical placement, a proportion of .5 or fifty percent was applied to one leg or transit for a each trip.

Table D-3c
Ponce DeLeon Inlet, Florida
Commercial Fishing Vessels (Rock Shrimp)
Summary Table for Reductions in Landside Transportation Costs
With
Placement or Location of Commercial Fishing Park

Estimated Lanside Transport Cost Reductions:	
Estimated Minimum Annual Poundage Throughput of On-Site Processing Facility (whole or live weight)	1,375,000
Poundage Originating from Realigned Vessel Operations (whole or live weight)	813,350
Poundage Transported Landside from Alternative Dockage Facilities for Processing (whole or live weight)	561,650
Estimated Cost(s) for Landside Shipment Per Pound Per Hundred Miles	
– Per pound; Whole or Live Weight	$0.077
– Per pound; Processed Weight	$0.108
Estimated Dockage Cost Per Pound from Alternative Facility (whole or live weight)	$0.055
Approximate Conversion Factor (for whole-to-processed weight)	1.670
Landside Transport Costs Without Commercial Park:	
Transport of Whole or Live-Weight Poundage to Processing Facility(ies)	
– Applied Pre-Processed Poundage	1,375,000
– Associated Dockage or Facility Offloading and Handling Charges [1.]	$75,630
– Average Minimum Landside Transport Distance (miles)	90.0
– Associated Landside Transport Charges	$95,290
Transport of Processed Poundage for Further Distribution:	
– Applied Processed Poundage	823,350
– Applied Marginal Distance Without Proposed Commercial Fishing Park (miles)	20.0
– Associated Landside Transport Charges	$17,700
Summary Total Cost(s):	**$188,620**
Landside Transport Costs With Commercial Park:	
Transport of Whole or Live-Weight Poundage	
– Applied Pre-Processed Poundage	813,350
– Associated Dockage Handling Charges [1.]	$44,730
– Average Landside Transport Distance (miles)	25.0
– Associated Landside Transport Charges	$15,660
Summary Total Cost(s):	**$60,390**
Net Reduction in Transportation Costs (i.e. benefit):	**128,230**

[1.] Illustrates only the marginal cost of a second facility initially offloading and handling landings before transport to processor located at alternative without-project facilities. Marginal costs for placement of the proposed facility are netted or accounted for in the cost analysis section of the main project report.

Table D–4a
Ponce DeLeon Inlet, Florida
Commercial Fishing Vessels (Golden & Red Crab)
Summary Table for Example of Aggregate Average Annual Costs, Revenues, and Income

Vessel Aggregate Class Statistics			
Average Vessel Length (Overall; in feet)		69.7	92.4
Average Vessel Length at Waterline (or between perpendiculars; in feet)		63.2	85.5
Average Vessel Breadth or Beam (extreme; in feet)		18.3	21.9
Average Vessel Draft (loaded; in feet)		10.7	12.3
Operating Costs			
Fixed Operational Costs			
– Interest and Amortization (Hull\Superstructure)		$34,960	$54,500
– Hull & Superstructure		$560	$740
– Propulsion\Power Plant(s)		$840	$1,120
– Rigging		$880	$1,160
– Support Facility\Berthing Expenses		n/a	n/a
– Insurance		$5,540	$5,830
– Administration\Accounting\Legal\Permits\Licensure		$6,370	$6,290
	Subtotal	$49,150	$69,640
Variable Maintenance Costs			
– Hull & Superstructure\Rigging		$14,100	$21,800
– Propulsion\Power Plant(s)		$12,710	$17,570
	Subtotal	$26,810	$39,370
Variable Operational Cost(s)			
– Fuel		$36,530	$47,090
– Oil\Lubrication		$4,880	$7,390
– Consumables\Subsistence		$2,980	$2,480
– Hired Crew Compensation		$23,580	$43,200
	Subtotal	$67,970	$100,160
Average Total Cost(s)			
Fixed Operational Cost(s)		$49,150	$69,640
Variable Maintenance Cost(s)		$26,810	$39,370
Variable Operating Cost(s)		$67,970	$100,160
	Subtotal	$143,930	$209,170
Average Annual Revenue		$182,520	$277,950
Net Average Operating Income		$38,590	$68,780
Average Number of Days Employed Per Year		126	105
Average Number of Trips per Year		25.2	17.5
Average Duration of Trip (Days)		5.0	6.0
Average Hours Employed Per Year		1,575	1,313
Average Wage Per Hour for Hired Crewman(men);	2 in number	$4.29	$9.43
Average Wage\Return Per Hour for Captain;	1 in number	$6.39	$14.05

Table D–4b
Ponce DeLeon Inlet, Florida
Commercial Fishing Vessels (Golden & Red Crab)
Summary Table for Reductions in Variable Vessel Costs
With
Placement or Location of Commercial Fishing Park

General Vessel Class [1.]		
Average Vessel Length (Overall; in feet)	69.7	92.4
Average Vessel Draft (loaded; in feet)	10.7	12.3
Average Number of Trips Per Year for Which Shorter Transit Time is Applicable:	16.4	34.1
Average Number of Hours Trip Transit Time is Reduced Per Transit Leg:	8.5	8.5
Applicable Number of Transit Legs Per Trip for Reduced Time: [2.]	1.5	1.5
Average Variable Cost(s):		
– Vessel Operating Costs	$38.55	$63.63
– Value of Labor Time (net of opportunity costs)	$9.98	$21.94
Subtotal(s)	$48.53	$85.57
Estimated Reduced Costs by Class per Year:	$10,140	$37,230
Estimated Total Reduced Waterborne Logistical Costs (i.e., benefit):		**$47,370**
Total Poundage Carried Via Realigned Vessel Operations:		
– Average per Trip (whole or live weight)	6,340	7,610
– Total Poundage (whole or live weight)	103,850	259,690
Total Poundage (whole or live weight)		363,540

[1.] Aggregate classes represent a total fleet of approximately 3 to 4 individual vessels of which one vessel approximates the 60.7–foot class and the remainder approximate or are aggregated for the 92.4–foot class.

[2.] An average of 1.5 trip legs or transits is applied given that some proportion of the time, either for the inbound or outbound leg, a given vessel will be closer to equidistant from another land–based facility depending on the geographical location of the vessel upon completion of the final deployment of harvest gear (or "drag" of netting equipment) while fishing in a northward or southward direction. Such physical placement does not constitute a marginal logistical betterment for location of the proposed fishing park and associated facilities. In the absence of specific information concerning vessel geographical placement, a proportion of .5 or fifty percent was applied to one leg or transit for a each trip.

Table D-4c
Ponce DeLeon Inlet, Florida
Commercial Fishing Vessels (Golden & Red Crab)
Summary Table for Reductions in Landside Transportation Costs
With
Placement or Location of Commercial Fishing Park

Estimated Lanside Transport Cost Reductions:	
Estimated Minimum Annual Poundage Throughput of On-Site Processing Facility (whole or live weight)	596,300
Poundage Originating from Realigned Vessel Operations (whole or live weight)	363,540
Poundage Transported Landside from Alternative Dockage Facilities for Processing (whole or live weight)	232,760
Estimated Cost(s) for Landside Shipment Per Pound Per Hundred Miles	
– Per pound; Whole or Live Weight	$0.073
– Per pound; Processed Weight	$0.108
Estimated Dockage Cost Per Pound from Alternative Facility (whole or live weight)	$0.055
Approximate Conversion Factor (for whole-to-processed weight)	1.000
Landside Transport Costs Without Commercial Park:	
Transport of Whole or Live-Weight Poundage to Processing Facility(ies)	
– Applied Pre-Processed Poundage	596,300
– Associated Dockage or Facility Offloading and Handling Charges [1.]	$32,800
– Average Minimum Landside Transport Distance (miles)	115.0
– Associated Landside Transport Charges	$49,720
Transport of Processed Poundage for Further Distribution:	
– Applied Processed Poundage	596,300
– Applied Marginal Distance Without Proposed Commercial Fishing Park (miles)	20.0
– Associated Landside Transport Charges	$12,820
Summary Total Cost(s):	**$95,340**
Landside Transport Costs With Commercial Park:	
Transport of Whole or Live-Weight Poundage	
– Applied Pre-Processed Poundage	363,540
– Associated Dockage Handling Charges [1.]	$19,990
– Average Landside Transport Distance (miles)	25.0
– Associated Landside Transport Charges	$6,590
Summary Total Cost(s):	**$26,580**
Net Reduction in Transportation Costs (i.e. benefit):	**68,760**

[1.] Illustrates only the marginal cost of a second facility initially offloading and handling landings before transport to processor located at alternative without-project facilities. Marginal costs for placement of the proposed facility are netted or accounted for in the cost analysis section of the main project report.

Table D-5
Ponce DeLeon Inlet, Florida
Commercial Fishing Vessel Maintenance and Repair Costs
Summary Table for Reductions in Landside Transportation Costs
Placement or Location of Marine Railway with Commercial Fishing Park

Total Vessel Dispatch and Return Transit Time Without Proposed Facilities:			
– Without Proposed Facilities		19.50	hours
– With Proposed Facilities		2.75	hours
Differential or Reduction		16.75	hours
Applied Aggregate Values per Hour for Vessel Transit Time:			
– Variable Vessel Operating Costs		$47.78	per hour
– Value or Cost of Time for Labor		$28.80	per hour
Estimated Reductions In Operations Costs for Vessel Dispatch and Return Time:			
– Variable Vessel Operating Costs		$800	
– Value or Cost of Time for Labor		$482	
	Subtotal:	$1,283	
	Rounded:	**$1,280**	
Associated Costs for Vehicle(s) and Labor Required for Landside Transport (in the interim between vessel dispatch and return) *			
Approximate Vessel Dispatch Radius:			
Average Vessel Speed:		8.5	knots
Approximate Distance (nautical miles) Given Speed of Vessel and Transit Time:		71.2	naut. miles
Applied Approximate Landside Statute Miles		82.0	stat. miles
Appplied Total Cost of Vehicle Per Statute Mile:		$0.31	
Total Landside Driving Distance:		328	stat. miles
Total Landside Driving Time:		6.6	hours
Applied Lanside Transportation Cost(s)			
– Vehicle		$102	
– Cost of Labor		$190	
	Subtotal:	$292	
	Rounded:	**$290**	
Summary of Total Applied Costs for Vessel, Landside Vehicle, and Associated Labor Time:			
– Vessel		$800	
– Landside Vehicle		$102	
– Costs or value of Labor:		$672	
	Subtotal:	$1,574	
	Rounded:	**$1,570**	
or;			
– Vessel Dispatch and Return Costs (including labor)		$1,280	
– Landside Transportation Costs (including labor)		$290	
	Subtotal:	**$1,570**	
Approximate Number of Months Per Year Repair Facility Will Be Operational:		10	
Approximate Number of Repairs Per Month:		3	
Total Estimated Cost Efficiencies Per Year With Marine Repair Facilities:		***$47,100***	

* *Applied distance(s) and time(s) for vehicle travel allow for travel to and from facility with vessel dispatch, and to and from facility for retrieval of vessel after repairs are complete*

Ponce DeLeon Inlet, Florida
Summary Table for Average Annual Equivalent (AAEQ) Benefits by Specified Vessel Class(es)
Recreation Navigation Benefits for Inlet Stabilization
(Based on Recreation Vessel Grounding Statistics as Reported by the United States Coast Guard (USCG))

				Vessel Class 1				Vessel Class 2				Vessel Class 3				Summary Total Nominal and Discounted Values					
Economic Life:: 50 years Applied Interest\Discount Rate: 7.125%																					
General Vessel Class --->				< 20.0 Feet Length Overall (LOA)				>= 20.0, < 25.0 Feet Length Overall (LOA)				>= 25.0 Feet Length Overall (LOA)				Estimated Benefits According to Year and Sub-Category of Benefit for Recreation All Vessels \ Vessel Classes					
Number of Vessels\Observations --->				7.9 Vessels				10.0 Vessels				10.7 Vessels									
Percentage of Occurrences Considered Preventable With Improved Conditions:				59.5%				60.0%				59.8%									
Adjusted Number of Vessels or Occurrences:				4.7 Vessels				6.0 Vessels				6.4 Vessels				17.1 Vessels					
Physical Damages Avoided --->				$3,510 per occurrence (average)				$4,600 per occurrence (average)				$4,450 per occurrence (average)				$4,610 per occurrence (average)					
Value of Time Saved --->				$190 per occurrence (average)				$190 per occurrence (average)				$190 per occurrence (average)				$220 per occurrence (average)					
Total --->				$3,700 per occurrence (average)				$4,790 per occurrence (average)				$4,640 per occurrence (average)				$5,030 per occurrence (average)					
		Discount	Projected	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted Value(s) by Year		
Year	Period	Coefficient 7.125%	Growth [1.]	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Direct Cost(s)	Value of Time	Total
2001	0	1.00000	13.10%	$18,656	$1,010	$19,666	$19,666	$31,215	$1,289	$32,504	$32,504	$32,210	$1,375	$33,585	$33,585	$82,083	$3,674	$85,757	$82,083	$3,674	$85,757
2002	1	0.93349	2.61%	$19,181	$1,038	$20,219	$18,874	$32,091	$1,325	$33,416	$31,193	$33,114	$1,414	$34,528	$32,232	$84,386	$3,777	$88,163	$78,773	$3,526	$82,299
2003	2	0.87140	2.69%	$19,697	$1,066	$20,763	$18,093	$32,954	$1,361	$34,315	$29,902	$34,004	$1,452	$35,456	$30,896	$86,655	$3,879	$90,534	$75,511	$3,380	$78,891
2004	3	0.81344	2.56%	$20,204	$1,093	$21,297	$17,324	$33,803	$1,396	$35,199	$28,632	$34,880	$1,489	$36,369	$29,584	$88,887	$3,978	$92,865	$72,305	$3,236	$75,540
2005	4	0.75934	2.47%	$20,703	$1,120	$21,823	$16,571	$34,637	$1,430	$36,067	$27,387	$35,741	$1,526	$37,267	$28,298	$91,081	$4,076	$95,157	$69,182	$3,095	$72,257
2006	5	0.70884	2.37%	$21,193	$1,146	$22,339	$15,835	$35,456	$1,464	$36,920	$26,170	$36,586	$1,562	$38,148	$27,041	$93,235	$4,172	$97,407	$66,088	$2,957	$69,046
2007	6	0.66169	2.27%	$21,673	$1,172	$22,845	$15,116	$36,260	$1,497	$37,757	$24,983	$37,415	$1,597	$39,012	$25,814	$95,348	$4,266	$99,614	$63,091	$2,823	$65,914
2008	7	0.61768	2.17%	$22,144	$1,197	$23,341	$14,417	$37,047	$1,530	$38,577	$23,828	$38,228	$1,632	$39,860	$24,621	$97,419	$4,359	$101,778	$60,174	$2,692	$62,866
2009	8	0.57660	2.08%	$22,605	$1,222	$23,827	$13,739	$37,818	$1,562	$39,380	$22,706	$39,024	$1,666	$40,690	$23,462	$99,447	$4,450	$103,897	$57,341	$2,566	$59,907
2010	9	0.53825	1.99%	$23,056	$1,246	$24,302	$13,081	$38,572	$1,593	$40,165	$21,619	$39,802	$1,699	$41,501	$22,338	$101,430	$4,538	$105,968	$54,595	$2,443	$57,037
2011	10	0.50245	1.91%	$23,497	$1,270	$24,767	$12,444	$39,309	$1,623	$40,932	$20,566	$40,563	$1,731	$42,294	$21,251	$103,369	$4,624	$107,993	$51,936	$2,323	$54,261
2012	11	0.46903	1.83%	$23,927	$1,293	$25,220	$11,829	$40,029	$1,653	$41,682	$19,550	$41,306	$1,763	$43,069	$20,201	$105,262	$4,709	$109,971	$49,371	$2,209	$51,580
2013	12	0.43783	1.75%	$24,347	$1,316	$25,663	$11,236	$40,731	$1,682	$42,413	$18,570	$42,031	$1,794	$43,825	$19,188	$107,109	$4,792	$111,901	$46,896	$2,098	$48,994
2014	13	0.40871	1.68%	$24,756	$1,338	$26,094	$10,665	$41,416	$1,710	$43,126	$17,626	$42,738	$1,824	$44,562	$18,213	$108,910	$4,872	$113,782	$44,513	$1,991	$46,504
2015	14	0.38153	1.61%	$25,155	$1,360	$26,515	$10,116	$42,083	$1,738	$43,821	$16,719	$43,426	$1,853	$45,279	$17,275	$110,664	$4,951	$115,615	$42,222	$1,889	$44,111
2016	15	0.35615	1.54%	$25,543	$1,381	$26,924	$9,589	$42,733	$1,765	$44,498	$15,848	$44,096	$1,882	$45,978	$16,375	$112,372	$5,028	$117,400	$40,022	$1,791	$41,812
2017	16	0.33247	1.48%	$25,921	$1,401	$27,322	$9,084	$43,365	$1,791	$45,156	$15,015	$44,748	$1,910	$46,658	$15,512	$114,034	$5,102	$119,136	$37,912	$1,696	$39,609
2018	17	0.31035	1.42%	$26,288	$1,421	$27,709	$8,600	$43,980	$1,816	$45,796	$14,213	$45,382	$1,937	$47,319	$14,686	$115,650	$5,174	$120,824	$35,892	$1,606	$37,498
2019	18	0.28971	1.36%	$26,645	$1,440	$28,085	$8,137	$44,577	$1,841	$46,418	$13,448	$45,998	$1,963	$47,961	$13,895	$117,220	$5,244	$122,464	$33,960	$1,519	$35,479
2020	19	0.27044	1.30%	$26,992	$1,459	$28,451	$7,694	$45,157	$1,865	$47,022	$12,717	$46,597	$1,989	$48,586	$13,140	$118,746	$5,313	$124,059	$32,114	$1,437	$33,551
2021	20	0.25245	1.25%	$27,329	$1,477	$28,806	$7,272	$45,720	$1,888	$47,608	$12,019	$47,178	$2,014	$49,192	$12,419	$120,227	$5,379	$125,606	$30,352	$1,358	$31,710
2022	21	0.23566	1.19%	$27,656	$1,495	$29,151	$6,870	$46,266	$1,911	$48,177	$11,354	$47,742	$2,038	$49,780	$11,731	$121,664	$5,444	$127,108	$28,672	$1,283	$29,955
2023	22	0.21999	1.14%	$27,973	$1,512	$29,485	$6,486	$46,796	$1,933	$48,729	$10,720	$48,288	$2,061	$50,350	$11,076	$123,056	$5,506	$128,564	$27,071	$1,211	$28,283
2024	23	0.20536	1.10%	$28,280	$1,529	$29,809	$6,122	$47,309	$1,954	$49,263	$10,117	$48,819	$2,084	$50,903	$10,453	$124,408	$5,567	$129,975	$25,546	$1,143	$26,691
2025	24	0.19170	1.05%	$28,577	$1,545	$30,122	$5,774	$47,808	$1,975	$49,781	$9,543	$49,332	$2,106	$51,438	$9,861	$125,715	$5,626	$131,341	$24,099	$1,078	$25,178
2026	25	0.17895	1.01%	$28,865	$1,561	$30,426	$5,445	$48,288	$1,995	$50,283	$8,998	$49,829	$2,127	$51,956	$9,297	$126,982	$5,683	$132,665	$22,723	$1,017	$23,740
2027	26	0.16705	0.97%	$29,144	$1,576	$30,720	$5,132	$48,754	$2,014	$50,768	$8,481	$50,310	$2,146	$52,456	$8,763	$128,208	$5,738	$133,946	$21,417	$959	$22,375
2028	27	0.15594	0.92%	$29,414	$1,591	$31,005	$4,835	$49,205	$2,033	$51,238	$7,990	$50,775	$2,166	$52,943	$8,256	$129,394	$5,792	$135,186	$20,177	$903	$21,080
2029	28	0.14556	0.89%	$29,675	$1,605	$31,280	$4,553	$49,641	$2,051	$51,692	$7,525	$51,225	$2,187	$53,412	$7,775	$130,541	$5,843	$136,384	$19,002	$851	$19,853
2030	29	0.13586	0.85%	$29,927	$1,619	$31,546	$4,287	$50,063	$2,068	$52,131	$7,084	$51,660	$2,206	$53,866	$7,319	$131,650	$5,893	$137,543	$17,889	$801	$18,690
2031	30	0.12685	0.81%	$30,171	$1,632	$31,803	$4,034	$50,470	$2,085	$52,555	$6,666	$52,080	$2,224	$54,304	$6,888	$132,721	$5,941	$138,662	$16,835	$754	$17,589
2032	31	0.11841	0.78%	$30,406	$1,645	$32,051	$3,795	$50,864	$2,101	$52,965	$6,272	$52,466	$2,241	$54,727	$6,480	$133,756	$5,987	$139,743	$15,838	$709	$16,547
2033	32	0.11053	0.75%	$30,633	$1,657	$32,290	$3,569	$51,244	$2,117	$53,361	$5,898	$52,878	$2,258	$55,136	$6,094	$134,755	$6,032	$140,787	$14,895	$667	$15,562
2034	33	0.10318	0.72%	$30,852	$1,669	$32,521	$3,356	$51,611	$2,132	$53,743	$5,545	$53,257	$2,274	$55,531	$5,730	$135,720	$6,075	$141,795	$14,004	$627	$14,631
2035	34	0.09632	0.69%	$31,064	$1,680	$32,744	$3,154	$51,965	$2,147	$54,112	$5,212	$53,622	$2,290	$55,912	$5,385	$136,651	$6,117	$142,768	$13,162	$589	$13,751
2036	35	0.08991	0.66%	$31,268	$1,691	$32,959	$2,963	$52,307	$2,161	$54,468	$4,897	$53,975	$2,305	$56,280	$5,060	$137,550	$6,157	$143,707	$12,367	$554	$12,921
2037	36	0.08393	0.63%	$31,465	$1,702	$33,167	$2,784	$52,637	$2,175	$54,812	$4,601	$54,315	$2,320	$56,635	$4,754	$138,417	$6,197	$144,614	$11,618	$520	$12,138
2038	37	0.07835	0.60%	$31,655	$1,712	$33,367	$2,614	$52,955	$2,188	$55,143	$4,320	$54,643	$2,334	$56,977	$4,464	$139,253	$6,234	$145,487	$10,910	$488	$11,399
2039	38	0.07314	0.58%	$31,838	$1,722	$33,560	$2,455	$53,261	$2,201	$55,462	$4,056	$54,659	$2,348	$57,307	$4,191	$140,058	$6,271	$146,329	$10,244	$459	$10,702
2040	39	0.06827	0.55%	$32,014	$1,732	$33,746	$2,304	$53,556	$2,213	$55,769	$3,808	$55,264	$2,361	$57,625	$3,934	$140,834	$6,306	$147,140	$9,615	$431	$10,046
2041	40	0.06373	0.53%	$32,184	$1,741	$33,925	$2,162	$53,840	$2,225	$56,065	$3,573	$55,558	$2,374	$57,932	$3,692	$141,582	$6,340	$147,922	$9,023	$404	$9,428
2042	41	0.05949	0.51%	$32,348	$1,750	$34,098	$2,029	$54,114	$2,236	$56,350	$3,353	$55,841	$2,386	$58,227	$3,464	$142,303	$6,372	$148,675	$8,466	$379	$8,845
2043	42	0.05554	0.49%	$32,506	$1,759	$34,265	$1,903	$54,378	$2,247	$56,625	$3,145	$56,113	$2,398	$58,511	$3,250	$142,997	$6,404	$149,401	$7,942	$356	$8,297
2044	43	0.05184	0.47%	$32,658	$1,767	$34,425	$1,785	$54,632	$2,257	$56,889	$2,949	$56,376	$2,409	$58,784	$3,046	$143,665	$6,433	$150,098	$7,446	$334	$7,782
2045	44	0.04840	0.45%	$32,804	$1,775	$34,579	$1,673	$54,877	$2,267	$57,144	$2,766	$56,627	$2,420	$59,047	$2,858	$144,308	$6,462	$150,770	$6,984	$313	$7,297
2046	45	0.04518	0.43%	$32,945	$1,783	$34,728	$1,569	$55,112	$2,277	$57,389	$2,593	$56,870	$2,430	$59,300	$2,679	$144,927	$6,490	$151,417	$6,547	$293	$6,840
2047	46	0.04217	0.41%	$33,080	$1,790	$34,870	$1,471	$55,339	$2,286	$57,625	$2,430	$57,104	$2,440	$59,544	$2,511	$145,523	$6,516	$152,039	$6,137	$275	$6,412
2048	47	0.03937	0.39%	$33,210	$1,797	$35,007	$1,378	$55,557	$2,295	$57,852	$2,277	$57,329	$2,450	$59,779	$2,353	$146,096	$6,542	$152,638	$5,751	$258	$6,009
2049	48	0.03675	0.38%	$33,335	$1,804	$35,139	$1,291	$55,767	$2,304	$58,071	$2,134	$57,545	$2,459	$60,004	$2,205	$146,647	$6,567	$153,214	$5,389	$241	$5,630
2050	49	0.03430	0.38%	$33,456	$1,811	$35,267	$1,210	$55,969	$2,312	$58,281	$1,999	$57,753	$2,468	$60,221	$2,066	$147,178	$6,591	$153,769	$5,049	$226	$5,275
2051	50	0.03202	0.35%	$33,572	$1,817	$35,389	$1,133	$56,163	$2,320	$58,483	$1,873	$57,953	$2,477	$60,430	$1,935	$147,688	$6,614	$154,302	$4,729	$212	$4,941
Summation of Present Worth							$347,852				$574,868				$594,013	$6,175,700	$276,423	$6,452,123	$1,451,785	$64,967	$1,516,752
Average Annual Equivalent (AAEQ) Value(s):							*$25,600*				*$42,320*				*$43,720*				*$106,860*	*$4,780*	*$111,640*
Summary Total Average Annual Equivalent (AAEQ) Benefits ------->							*$111,640*														

[1.] Florida State Comprehensive Outdoor recreation Plan (SCORPS); base year percentage from growth subsequent to 1997.

Ponce DeLeon Inlet, Florida
Summary Table for Average Annual Equivalent (AAEQ) Benefits by Specified Vessel Class(es)
Recreation Navigation Benefits for Inlet Stabilization
(Based on Recreation Vessel Capsizing Statistics as Reported by the United States Coast Guard (USCG))

				Vessel Class 1				Vessel Class 2				Vessel Class 3				Summary Total Nominal and Discounted Values					
Economic Life:: 50 years Applied Interest\Discount Rate: 7.125%				< 20.0 Feet Length Overall (LOA) 5.3 Vessels				>= 20.0; < 25.0 Feet Length Overall (LOA) 4.3 Vessels				>= 25.0 Feet Length Overall (LOA) 1.1 Vessels				Estimated Benefits According to Year and Sub-Category of Benefit for Recreation All Vessels \ Vessel Classes					
General Vessel Class ---> Number of Vessels\Observations --->: Percentage of Occurrences Considered Preventable With Improved Conditions: Adjusted Number of Vessels or Occurrences:				41.6% 2.2 Vessels				41.9% 1.8 Vessels				45.5% 0.5 Vessels				4.5 Vessels					
Physical Damages Avoided --->: Value of Time Saved --->: Total --->:				$5,870 per occurrence (average) $560 per occurrence (average) $6,430 per occurrence (average)				$7,840 per occurrence (average) $730 per occurrence (average) $8,570 per occurrence (average)				$9,620 per occurrence (average) $810 per occurrence (average) $10,630 per occurrence (average)				$8,030 per occurrence (average) $750 per occurrence (average) $8,780 per occurrence (average)					
		Discount Coefficient	Projected Growth	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted Value(s) by Year		
Year	Period	7.125%	(1.)	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Direct Cost(s)	Value of Time	Total
2001	0	1.00000	13.10%	$14,605	$1,393	$15,998	$15,998	$15,960	$1,486	$17,446	$17,446	$5,553	$458	$6,011	$6,011	$36,118	$3,337	$39,455	$36,118	$3,337	$39,455
2002	1	0.93349	2.81%	$15,015	$1,432	$16,447	$15,353	$16,408	$1,528	$17,936	$16,743	$5,709	$471	$6,180	$5,769	$37,132	$3,431	$40,563	$34,662	$3,203	$37,865
2003	2	0.87140	2.69%	$15,419	$1,470	$16,889	$14,717	$16,849	$1,569	$18,418	$16,049	$5,862	$484	$6,346	$5,530	$38,130	$3,523	$41,653	$33,227	$3,070	$36,296
2004	3	0.81344	2.58%	$15,818	$1,508	$17,324	$14,092	$17,283	$1,609	$18,892	$15,368	$6,013	$496	$6,509	$5,295	$39,112	$3,613	$42,725	$31,815	$2,939	$34,754
2005	4	0.75934	2.47%	$16,206	$1,545	$17,751	$13,479	$17,710	$1,649	$19,359	$14,700	$6,161	$508	$6,669	$5,064	$40,077	$3,702	$43,779	$30,432	$2,811	$33,243
2006	5	0.70884	2.37%	$16,589	$1,582	$18,171	$12,880	$18,129	$1,688	$19,817	$14,047	$6,307	$520	$6,827	$4,839	$41,025	$3,790	$44,815	$29,060	$2,686	$31,766
2007	6	0.66169	2.27%	$16,965	$1,618	$18,583	$12,296	$18,540	$1,726	$20,266	$13,410	$6,450	$532	$6,982	$4,620	$41,955	$3,876	$45,831	$27,761	$2,565	$30,326
2008	7	0.61768	2.17%	$17,333	$1,653	$18,986	$11,727	$18,943	$1,763	$20,706	$12,790	$6,590	$544	$7,134	$4,407	$42,866	$3,960	$46,826	$26,478	$2,446	$28,924
2009	8	0.57660	2.08%	$17,694	$1,687	$19,381	$11,175	$19,337	$1,800	$21,137	$12,188	$6,727	$555	$7,282	$4,199	$43,756	$4,042	$47,800	$25,231	$2,331	$27,561
2010	9	0.53825	1.99%	$18,047	$1,721	$19,768	$10,640	$19,723	$1,836	$21,559	$11,604	$6,861	$566	$7,427	$3,998	$44,631	$4,123	$48,754	$24,023	$2,219	$26,242
2011	10	0.50245	1.91%	$18,392	$1,754	$20,146	$10,122	$20,100	$1,871	$21,971	$11,039	$6,992	$577	$7,569	$3,803	$45,484	$4,202	$49,686	$22,853	$2,111	$24,965
2012	11	0.46903	1.83%	$18,726	$1,786	$20,515	$9,622	$20,466	$1,905	$22,373	$10,494	$7,120	$588	$7,708	$3,615	$46,317	$4,279	$50,596	$21,724	$2,007	$23,731
2013	12	0.43783	1.75%	$19,058	$1,817	$20,875	$9,140	$20,827	$1,938	$22,765	$9,967	$7,245	$598	$7,843	$3,434	$47,130	$4,353	$51,483	$20,635	$1,906	$22,541
2014	13	0.40871	1.68%	$19,378	$1,848	$21,226	$8,675	$21,177	$1,971	$23,148	$9,461	$7,367	$608	$7,975	$3,259	$47,922	$4,427	$52,349	$19,586	$1,809	$21,396
2015	14	0.38153	1.61%	$19,690	$1,878	$21,568	$8,229	$21,518	$2,003	$23,521	$8,974	$7,488	$618	$8,104	$3,092	$48,694	$4,499	$53,193	$18,578	$1,717	$20,295
2016	15	0.35615	1.54%	$19,994	$1,907	$21,901	$7,800	$21,850	$2,034	$23,884	$8,506	$7,602	$628	$8,230	$2,931	$49,446	$4,569	$54,015	$17,610	$1,627	$19,236
2017	16	0.33247	1.46%	$20,290	$1,935	$22,225	$7,389	$22,173	$2,064	$24,237	$8,058	$7,714	$637	$8,351	$2,776	$50,177	$4,636	$54,813	$16,682	$1,541	$18,223
2018	17	0.31035	1.42%	$20,578	$1,962	$22,540	$6,995	$22,487	$2,093	$24,580	$7,628	$7,823	$646	$8,469	$2,628	$50,888	$4,701	$55,589	$15,793	$1,459	$17,252
2019	18	0.28971	1.38%	$20,857	$1,989	$22,846	$6,619	$22,792	$2,121	$24,913	$7,218	$7,929	$655	$8,584	$2,487	$51,578	$4,765	$56,343	$14,943	$1,380	$16,323
2020	19	0.27044	1.30%	$21,128	$2,015	$23,143	$6,259	$23,089	$2,149	$25,238	$6,825	$8,032	$664	$8,696	$2,352	$52,249	$4,828	$57,077	$14,130	$1,306	$15,436
2021	20	0.25245	1.25%	$21,391	$2,040	$23,431	$5,915	$23,377	$2,176	$25,553	$6,451	$8,132	$672	$8,804	$2,223	$52,900	$4,888	$57,788	$13,355	$1,234	$14,589
2022	21	0.23566	1.19%	$21,647	$2,064	$23,711	$5,588	$23,656	$2,202	$25,858	$6,094	$8,229	$680	$8,909	$2,100	$53,532	$4,946	$58,478	$12,616	$1,166	$13,781
2023	22	0.21999	1.14%	$21,895	$2,086	$23,983	$5,276	$23,927	$2,227	$26,154	$5,754	$8,323	$688	$9,011	$1,982	$54,145	$5,003	$59,148	$11,911	$1,101	$13,012
2024	23	0.20536	1.10%	$22,135	$2,111	$24,246	$4,979	$24,190	$2,251	$26,441	$5,430	$8,414	$696	$9,110	$1,871	$54,739	$5,058	$59,797	$11,241	$1,039	$12,280
2025	24	0.19170	1.05%	$22,368	$2,133	$24,501	$4,697	$24,444	$2,275	$26,719	$5,122	$8,502	$703	$9,205	$1,765	$55,314	$5,111	$60,425	$10,604	$980	$11,583
2026	25	0.17895	1.01%	$22,593	$2,154	$24,747	$4,428	$24,690	$2,298	$26,988	$4,829	$8,586	$710	$9,296	$1,664	$55,871	$5,162	$61,033	$9,998	$924	$10,922
2027	26	0.16705	0.97%	$22,811	$2,175	$24,986	$4,174	$24,928	$2,320	$27,248	$4,552	$8,671	$717	$9,388	$1,568	$56,410	$5,212	$61,622	$9,423	$871	$10,294
2028	27	0.15594	0.92%	$23,022	$2,195	$25,217	$3,932	$25,159	$2,341	$27,500	$4,288	$8,751	$724	$9,475	$1,477	$56,932	$5,260	$62,192	$8,878	$820	$9,698
2029	28	0.14556	0.88%	$23,226	$2,214	$25,440	$3,703	$25,382	$2,362	$27,744	$4,039	$8,829	$730	$9,559	$1,391	$57,437	$5,306	$62,743	$8,361	$772	$9,133
2030	29	0.13586	0.85%	$23,423	$2,233	$25,656	$3,486	$25,596	$2,382	$27,980	$3,802	$8,904	$736	$9,640	$1,310	$57,925	$5,351	$63,276	$7,871	$727	$8,598
2031	30	0.12685	0.81%	$23,614	$2,251	$25,865	$3,281	$25,806	$2,401	$28,207	$3,579	$8,979	$742	$9,718	$1,233	$58,396	$5,394	$63,790	$7,407	$684	$8,091
2032	31	0.11841	0.76%	$23,798	$2,269	$26,067	$3,087	$26,007	$2,420	$28,427	$3,366	$9,048	$748	$9,794	$1,160	$58,851	$5,437	$64,288	$6,968	$644	$7,612
2033	32	0.11053	0.75%	$23,976	$2,286	$26,262	$2,903	$26,201	$2,438	$28,639	$3,166	$9,114	$754	$9,868	$1,091	$59,291	$5,478	$64,769	$6,554	$606	$7,159
2034	33	0.10318	0.72%	$24,148	$2,302	$26,450	$2,729	$26,389	$2,455	$28,844	$2,976	$9,178	$759	$9,938	$1,025	$59,715	$5,516	$65,232	$6,162	$569	$6,731
2035	34	0.09632	0.69%	$24,314	$2,316	$26,632	$2,565	$26,570	$2,472	$29,042	$2,797	$9,242	$764	$10,006	$964	$60,126	$5,554	$65,680	$5,791	$535	$6,326
2036	35	0.08991	0.66%	$24,474	$2,333	$26,807	$2,410	$26,745	$2,488	$29,233	$2,628	$9,303	$769	$10,072	$906	$60,522	$5,590	$66,112	$5,442	$503	$5,944
2037	36	0.08393	0.63%	$24,628	$2,348	$26,976	$2,264	$26,913	$2,504	$29,417	$2,469	$9,362	$774	$10,136	$851	$60,903	$5,626	$66,529	$5,112	$472	$5,584
2038	37	0.07835	0.60%	$24,777	$2,362	$27,139	$2,126	$27,075	$2,519	$29,594	$2,319	$9,419	$779	$10,198	$799	$61,271	$5,660	$66,931	$4,801	$443	$5,244
2039	38	0.07314	0.58%	$24,920	$2,376	$27,296	$1,996	$27,232	$2,534	$29,766	$2,177	$9,473	$784	$10,257	$750	$61,625	$5,694	$67,319	$4,507	$416	$4,924
2040	39	0.06827	0.55%	$25,058	$2,389	$27,447	$1,874	$27,383	$2,548	$29,931	$2,044	$9,526	$788	$10,314	$704	$61,967	$5,725	$67,692	$4,231	$391	$4,622
2041	40	0.06373	0.53%	$25,191	$2,402	$27,593	$1,759	$27,526	$2,562	$30,090	$1,916	$9,577	$792	$10,369	$661	$62,296	$5,756	$68,052	$3,970	$367	$4,337
2042	41	0.05949	0.51%	$25,319	$2,414	$27,733	$1,650	$27,666	$2,575	$30,243	$1,799	$9,626	$796	$10,422	$620	$62,613	$5,785	$68,398	$3,725	$344	$4,069
2043	42	0.05554	0.49%	$25,442	$2,426	$27,868	$1,548	$27,803	$2,588	$30,391	$1,688	$9,673	$800	$10,473	$582	$62,918	$5,814	$68,732	$3,494	$323	$3,817
2044	43	0.05184	0.47%	$25,561	$2,437	$27,998	$1,452	$27,933	$2,600	$30,533	$1,583	$9,716	$804	$10,522	$545	$63,212	$5,841	$69,053	$3,277	$303	$3,580
2045	44	0.04840	0.45%	$25,675	$2,448	$28,123	$1,361	$28,058	$2,612	$30,670	$1,484	$9,762	$808	$10,570	$512	$63,495	$5,868	$69,363	$3,073	$284	$3,357
2046	45	0.04518	0.43%	$25,785	$2,459	$28,244	$1,276	$28,178	$2,623	$30,801	$1,391	$9,804	$811	$10,615	$480	$63,767	$5,893	$69,660	$2,881	$266	$3,147
2047	46	0.04217	0.41%	$25,891	$2,469	$28,360	$1,196	$28,294	$2,634	$30,928	$1,304	$9,844	$814	$10,658	$449	$64,029	$5,917	$69,946	$2,700	$250	$2,950
2048	47	0.03937	0.39%	$25,993	$2,479	$28,472	$1,121	$28,405	$2,644	$31,049	$1,222	$9,883	$817	$10,700	$421	$64,281	$5,940	$70,221	$2,531	$234	$2,764
2049	48	0.03675	0.38%	$26,091	$2,488	$28,579	$1,050	$28,512	$2,654	$31,166	$1,145	$9,920	$820	$10,740	$395	$64,523	$5,962	$70,485	$2,371	$219	$2,590
2050	49	0.03430	0.36%	$26,185	$2,497	$28,682	$984	$28,616	$2,664	$31,279	$1,073	$9,956	$823	$10,779	$370	$64,756	$5,984	$70,740	$2,221	$205	$2,427
2051	50	0.03202	0.35%	$26,276	$2,506	$28,782	$922	$28,714	$2,673	$31,387	$1,005	$9,991	$826	$10,817	$346	$64,981	$6,005	$70,986	$2,081	$192	$2,273
Summation of Present Worth							$282,941				$306,562				$106,313	$2,717,315	$251,055	$2,968,370	$636,800	$59,017	$697,817
Average Annual Equivalent (AAEQ) Value(s):							*$20,630*				*$22,710*				*$7,630*				*$47,020*	*$4,340*	*$51,360*
Summary Total Average Annual Equivalent (AAEQ) Benefits ------>							*$51,370*														

(1.) Florida State Comprehensive Outdoor recreation Plan (SCORP8); base year percentage from growth subsequent to 1997.

Table 6c

Ponce DeLeon Inlet, Florida
Summary Table for Average Annual Equivalent (AAEQ) Benefits by Specified Vessel Class(es)
Recreation Navigation Benefits for Inlet Stabilization
Unreported Damage Incidents

				Vessel Class 1				Vessel Class 2				Vessel Class 3				Summary Total Nominal and Discounted Values					
Economic Life:: 50 years Applied Interest\Discount Rate: 7.125%				< 20.0 Feet Length Overall (LOA) 104 Vessels				>= 20.0; < 25.0 Feet Length Overall (LOA) 83.2 Vessels				>= 25.0 Feet Length Overall (LOA) 20.8 Vessels				Estimated Benefits According to Year and Sub-Category of Benefit for Recreation All Vessels \ Vessel Classes					
General Vessel Class ---> Number of Vessels\Observations ---> Percentage of Occurrences Considered Preventable With Improved Conditions: Adjusted Number of Vessels or Occurrences:				55.0% 57.2 Vessels				55.0% 45.8 Vessels				55.3% 11.5 Vessels				114.5 Vessels					
Physical Damages Avoided ---> Value of Time Saved --->: Total --->				$610 per occurrence (average) $120 per occurrence (average) $730 per occurrence (average)				$840 per occurrence (average) $170 per occurrence (average) $1,010 per occurrence (average)				$750 per occurrence (average) $150 per occurrence (average) $900 per occurrence (average)				$610 per occurrence (average) $170 per occurrence (average) $980 per occurrence (average)					
		Discount Coefficient	Projected Growth	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted	Nominal Value(s) by Year			Discounted Value(s) by Year		
Year	Period	7.125%	[1.]	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Total(s) by Year	Direct Cost(s)	Value of Time	Total	Direct Cost(s)	Value of Time	Total
2001	0	1.00000	13.10%	$39,482	$7,763	$47,225	$47,225	$43,511	$8,806	$52,317	$52,317	$9,755	$1,951	$11,706	$11,706	$92,728	$18,520	$111,248	$92,728	$18,520	$111,248
2002	1	0.93349	2.61%	$40,569	$7,981	$48,550	$45,321	$44,732	$9,053	$53,785	$50,208	$10,029	$2,006	$12,035	$11,235	$95,330	$19,040	$114,370	$88,999	$17,774	$106,763
2003	2	0.87140	2.68%	$41,660	$8,196	$49,856	$43,445	$45,935	$9,296	$55,231	$48,126	$10,299	$2,060	$12,359	$10,770	$97,894	$19,552	$117,446	$85,305	$17,038	$102,343
2004	3	0.81344	2.56%	$42,733	$8,407	$51,140	$41,600	$47,118	$9,535	$56,653	$46,084	$10,564	$2,113	$12,677	$10,312	$100,415	$20,055	$120,470	$81,682	$16,314	$97,996
2005	4	0.75934	2.47%	$43,788	$8,615	$52,403	$39,792	$48,281	$9,770	$58,051	$44,080	$10,825	$2,165	$12,990	$9,864	$102,894	$20,550	$123,444	$78,132	$15,604	$93,736
2006	5	0.70884	2.37%	$44,824	$8,819	$53,643	$38,024	$49,423	$10,001	$59,424	$42,122	$11,081	$2,216	$13,297	$9,425	$105,328	$21,036	$126,364	$74,660	$14,911	$89,571
2007	6	0.66169	2.27%	$45,840	$9,019	$54,859	$36,300	$50,543	$10,226	$60,771	$40,212	$11,332	$2,266	$13,598	$8,998	$107,715	$21,513	$129,228	$71,274	$14,235	$85,509
2008	7	0.61768	2.17%	$46,836	$9,215	$56,051	$34,622	$51,641	$10,450	$62,091	$38,352	$11,578	$2,315	$13,893	$8,581	$110,055	$21,980	$132,035	$67,979	$13,577	$81,555
2009	8	0.57660	2.08%	$47,811	$9,407	$57,218	$32,992	$52,716	$10,667	$63,383	$36,547	$11,819	$2,363	$14,182	$8,177	$112,346	$22,437	$134,783	$64,779	$12,937	$77,716
2010	9	0.53825	1.99%	$48,764	$9,595	$58,359	$31,412	$53,787	$10,880	$64,667	$34,796	$12,055	$2,410	$14,465	$7,786	$114,586	$22,885	$137,471	$61,676	$12,318	$73,994
2011	10	0.50245	1.91%	$49,696	$9,778	$59,474	$29,883	$54,784	$11,088	$65,882	$33,102	$12,285	$2,456	$14,741	$7,407	$116,775	$23,322	$140,097	$58,673	$11,718	$70,392
2012	11	0.46903	1.83%	$50,606	$9,957	$60,563	$28,406	$55,797	$11,291	$67,088	$31,466	$12,510	$2,501	$15,011	$7,041	$118,913	$23,749	$142,662	$55,774	$11,139	$66,913
2013	12	0.43783	1.75%	$51,494	$10,132	$61,626	$26,982	$56,776	$11,489	$68,265	$29,889	$12,729	$2,545	$15,274	$6,687	$120,999	$24,166	$145,165	$52,976	$10,581	$63,558
2014	13	0.40871	1.68%	$52,360	$10,302	$62,662	$25,611	$57,730	$11,682	$69,412	$28,370	$12,943	$2,588	$15,531	$6,348	$123,033	$24,572	$147,605	$50,285	$10,043	$60,328
2015	14	0.38153	1.61%	$53,203	$10,468	$63,671	$24,292	$58,660	$11,870	$70,530	$26,908	$13,151	$2,630	$15,781	$6,021	$125,014	$24,968	$149,982	$47,697	$9,526	$57,223
2016	15	0.35615	1.54%	$54,024	$10,630	$64,654	$23,027	$59,565	$12,053	$71,618	$25,507	$13,354	$2,671	$16,025	$5,707	$126,943	$25,354	$152,297	$45,211	$9,030	$54,241
2017	16	0.33247	1.46%	$54,823	$10,787	$65,610	$21,813	$60,446	$12,231	$72,677	$24,163	$13,552	$2,711	$16,263	$5,407	$128,821	$25,729	$154,550	$42,829	$8,554	$51,383
2018	17	0.31035	1.42%	$55,600	$10,940	$66,540	$20,651	$61,303	$12,404	$73,707	$22,875	$13,744	$2,749	$16,493	$5,119	$130,647	$26,093	$156,740	$40,547	$8,098	$48,645
2019	18	0.28971	1.36%	$56,355	$11,089	$67,444	$19,539	$62,136	$12,572	$74,708	$21,644	$13,931	$2,786	$16,717	$4,843	$132,422	$26,447	$158,869	$38,364	$7,662	$46,026
2020	19	0.27044	1.30%	$57,066	$11,233	$68,321	$18,477	$62,945	$12,736	$75,681	$20,467	$14,112	$2,822	$16,934	$4,580	$134,145	$26,791	$160,936	$36,278	$7,245	$43,524
2021	20	0.25245	1.25%	$57,800	$11,373	$69,173	$17,463	$63,730	$12,895	$76,625	$19,344	$14,288	$2,857	$17,145	$4,328	$135,818	$27,125	$162,943	$34,288	$6,848	$41,136
2022	21	0.23566	1.19%	$58,491	$11,509	$70,000	$16,496	$64,491	$13,049	$77,540	$18,273	$14,459	$2,891	$17,350	$4,089	$137,441	$27,449	$164,890	$32,390	$6,469	$38,859
2023	22	0.21999	1.14%	$59,161	$11,641	$70,802	$15,576	$65,229	$13,198	$78,427	$17,253	$14,625	$2,924	$17,549	$3,861	$139,015	$27,763	$166,778	$30,562	$6,108	$36,669
2024	23	0.20538	1.10%	$59,810	$11,769	$71,579	$14,699	$65,945	$13,343	$79,288	$16,282	$14,785	$2,956	$17,741	$3,643	$140,540	$28,068	$168,608	$28,861	$5,764	$34,625
2025	24	0.19170	1.05%	$60,439	$11,893	$72,332	$13,866	$66,638	$13,483	$80,121	$15,359	$14,940	$2,987	$17,927	$3,437	$142,017	$28,363	$170,380	$27,225	$5,437	$32,662
2026	25	0.17895	1.01%	$61,048	$12,013	$73,061	$13,074	$67,309	$13,619	$80,928	$14,482	$15,090	$3,017	$18,107	$3,240	$143,447	$28,649	$172,096	$25,670	$5,127	$30,796
2027	26	0.16705	0.97%	$61,637	$12,129	$73,766	$12,322	$67,959	$13,750	$81,709	$13,649	$15,236	$3,046	$18,282	$3,054	$144,832	$28,925	$173,757	$24,194	$4,832	$29,026
2028	27	0.15594	0.92%	$62,207	$12,241	$74,448	$11,609	$68,588	$13,877	$82,465	$12,859	$15,377	$3,074	$18,451	$2,877	$146,172	$29,192	$175,364	$22,794	$4,552	$27,346
2029	28	0.14556	0.88%	$62,758	$12,349	$75,107	$10,933	$69,196	$14,000	$83,196	$12,110	$15,513	$3,101	$18,614	$2,710	$147,467	$29,450	$176,917	$21,466	$4,287	$25,753
2030	29	0.13588	0.85%	$63,291	$12,454	$75,745	$10,292	$69,784	$14,119	$83,903	$11,401	$15,645	$3,127	$18,772	$2,551	$148,720	$29,700	$178,420	$20,209	$4,036	$24,244
2031	30	0.12685	0.81%	$63,806	$12,555	$76,361	$9,686	$70,352	$14,234	$84,586	$10,729	$15,772	$3,152	$18,924	$2,400	$149,930	$29,941	$179,871	$19,016	$3,798	$22,816
2032	31	0.11841	0.78%	$64,304	$12,653	$76,957	$9,112	$70,901	$14,345	$85,246	$10,094	$15,895	$3,177	$19,072	$2,258	$151,100	$30,175	$181,275	$17,892	$3,573	$21,465
2033	32	0.11053	0.75%	$64,784	$12,748	$77,532	$8,570	$71,431	$14,452	$85,883	$9,493	$16,014	$3,201	$19,215	$2,124	$152,229	$30,401	$182,630	$16,826	$3,360	$20,187
2034	33	0.10318	0.72%	$65,248	$12,839	$78,087	$8,057	$71,942	$14,555	$86,497	$8,925	$16,129	$3,224	$19,353	$1,997	$153,319	$30,618	$183,937	$15,820	$3,159	$18,979
2035	34	0.09632	0.69%	$65,696	$12,927	$78,623	$7,573	$72,436	$14,655	$87,091	$8,389	$16,240	$3,248	$19,488	$1,877	$154,372	$30,828	$185,200	$14,869	$2,969	$17,838
2036	35	0.08991	0.66%	$66,128	$13,012	$79,140	$7,116	$72,912	$14,751	$87,663	$7,882	$16,347	$3,267	$19,614	$1,764	$155,387	$31,030	$186,417	$13,971	$2,790	$16,761
2037	36	0.08393	0.63%	$66,545	$13,094	$79,639	$6,684	$73,371	$14,844	$88,215	$7,404	$16,450	$3,288	$19,738	$1,657	$156,366	$31,226	$187,592	$13,124	$2,621	$15,745
2038	37	0.07835	0.60%	$66,947	$13,173	$80,120	$6,277	$73,814	$14,934	$88,748	$6,953	$16,549	$3,308	$19,857	$1,556	$157,310	$31,415	$188,725	$12,325	$2,461	$14,787
2039	38	0.07314	0.56%	$67,334	$13,249	$80,583	$5,894	$74,241	$15,020	$89,261	$6,528	$16,645	$3,327	$19,972	$1,461	$158,220	$31,596	$189,816	$11,572	$2,311	$13,883
2040	39	0.06827	0.55%	$67,707	$13,322	$81,029	$5,532	$74,652	$15,103	$89,755	$6,128	$16,737	$3,345	$20,082	$1,371	$159,096	$31,770	$190,866	$10,862	$2,169	$13,031
2041	40	0.06373	0.53%	$68,067	$13,393	$81,460	$5,192	$75,048	$15,183	$90,231	$5,751	$16,826	$3,363	$20,189	$1,287	$159,941	$31,939	$191,880	$10,194	$2,036	$12,229
2042	41	0.05949	0.51%	$68,413	$13,461	$81,874	$4,871	$75,430	$15,260	$90,690	$5,396	$16,912	$3,380	$20,292	$1,207	$160,755	$32,101	$192,856	$9,564	$1,910	$11,474
2043	42	0.05554	0.49%	$68,747	$13,527	$82,274	$4,569	$75,798	$15,334	$91,132	$5,061	$16,994	$3,396	$20,390	$1,132	$161,539	$32,257	$193,796	$8,971	$1,791	$10,763
2044	43	0.05184	0.47%	$69,066	$13,590	$82,658	$4,285	$76,152	$15,406	$91,558	$4,747	$17,073	$3,412	$20,485	$1,062	$162,293	$32,408	$194,701	$8,414	$1,680	$10,094
2045	44	0.04840	0.45%	$69,377	$13,651	$83,028	$4,018	$76,493	$15,475	$91,968	$4,451	$17,149	$3,427	$20,576	$996	$163,019	$32,553	$195,572	$7,889	$1,575	$9,465
2046	45	0.04518	0.43%	$69,675	$13,710	$83,385	$3,767	$76,821	$15,541	$92,362	$4,173	$17,223	$3,442	$20,665	$934	$163,719	$32,693	$196,412	$7,398	$1,477	$8,873
2047	46	0.04217	0.41%	$69,961	$13,768	$83,727	$3,531	$77,137	$15,605	$92,742	$3,911	$17,294	$3,458	$20,750	$875	$164,392	$32,827	$197,219	$6,933	$1,384	$8,317
2048	47	0.03937	0.39%	$70,237	$13,820	$84,057	$3,309	$77,441	$15,666	$93,107	$3,665	$17,362	$3,470	$20,832	$820	$165,040	$32,956	$197,996	$6,497	$1,297	$7,794
2049	48	0.03675	0.36%	$70,502	$13,872	$84,374	$3,101	$77,733	$15,725	$93,458	$3,434	$17,428	$3,483	$20,911	$766	$165,663	$33,080	$198,743	$6,088	$1,216	$7,304
2050	49	0.03430	0.36%	$70,757	$13,922	$84,679	$2,905	$78,014	$15,782	$93,796	$3,218	$17,491	$3,498	$20,987	$720	$166,262	$33,200	$199,462	$5,704	$1,139	$6,842
2051	50	0.03202	0.35%	$71,002	$13,970	$84,972	$2,721	$78,264	$15,837	$94,121	$3,014	$17,552	$3,508	$21,060	$674	$166,838	$33,315	$200,153	$5,343	$1,067	$6,409
Summation of Present Worth							$635,289				$925,279				$207,038	$6,976,534	$1,393,252	$8,369,786	$1,640,059	$327,546	$1,967,605
Average Annual Equivalent (AAEQ) Value(s):							*$61,460*				*$88,110*				*$15,240*				*$120,720*	*$24,110*	*$144,830*
Summary Total Average Annual Equivalent (AAEQ) Benefits ------->							*$144,830*														

[1.] Florida State Comprehensive Outdoor recreation Plan (SCORPS); base year percentage from growth subsequent to 1997.

Table D-6d

Estimation of Unit\User-Day Values (UDV) for Recreational Boating According to General Vessel Class for With and Without Project Conditions

Ponce DeLeon Inlet, Florida

						Without-Project (1.)	*With-Project (1.)*	*Estimated Differentials (1.)*
For Vessel Classes Less Than 20.0 Feet in Length Overall (LOA)								
Recreation Experience	0	to	30	points		10.42	15.13	
Availability of Opportunity	0	to	18	points		7.21	10.52	
Carrying Capacity	0	to	14	points		7.25	9.75	
Accessibility	0	to	18	points		10.21	12.10	
Environmental	0	to	20	points		11.17	11.58	
					Subtotal(s)	**46.25**	**59.08**	**12.83**
Nature of Recreation: General Hunting and Fishing Values								
Lower Bound UDV Ponit Value(s):						40	50	
Lower Bound UDV Monetary Value(s):						$5.35	$5.83	
Upper Bound UDV Ponit Value(s):						50	60	
Upper Bound UDV Monetary Value(s):						$5.83	$6.46	
Interpolated\Applied Value(s):						**$5.65**	**$6.40**	**$0.75**
For Vessel Classes Greater Thar 20.0 Feet Length Overall (LOA), But Less Than 25.0 Feet in Length Overall (LOA)								
Recreation Experience	0	to	30	points		11.46	17.11	
Availability of Opportunity	0	to	18	points		7.39	11.48	
Carrying Capacity	0	to	14	points		7.14	10.21	
Accessibility	0	to	18	points		9.71	12.26	
Environmental	0	to	20	points		11.29	12.14	
					Subtotal(s)	**47.00**	**63.21**	**16.21**
Nature of Recreation: General Hunting and Fishing Values								
Lower Bound UDV Ponit Value(s):						40	60	
Lower Bound UDV Monetary Value(s):						$5.35	$6.46	
Upper Bound UDV Ponit Value(s):						50	70	
Upper Bound UDV Monetary Value(s):						$5.83	$6.77	
Interpolated\Applied Value(s):						**$5.69**	**$6.56**	**$0.87**
For Vessel Classes Greater Thar 25.0 Feet in Length Overall (LOA)								
Recreation Experience	0	to	30	points		11.42	17.04	
Availability of Opportunity	0	to	18	points		7.79	11.60	
Carrying Capacity	0	to	14	points		7.17	10.00	
Accessibility	0	to	18	points		9.71	12.42	
Environmental	0	to	20	points		11.42	11.58	
					Subtotal(s)	47.50	62.65	**15.15**
Nature of Recreation: General Hunting and Fishing Values								
Lower Bound UDV Ponit Value(s):						40	60	
Lower Bound UDV Monetary Value(s):						$5.35	$6.46	
Lower Bound UDV Monetary Value(s):						50	70	
Upper Bound UDV Ponit Value(s):						$5.83	$6.77	
Upper Bound UDV Monetary Value(s):						**$5.71**	**$6.54**	**$0.83**

(1.) Number of decimal places does not necessarily denote precison; values are calculated as averages based on individual UDV point value assessments.

Table D-6e

Estimation of Present Annual Inlet Use and Benefit for Recreational Boating
According to General Vessel Class and Unit\User Day Valuations
for
*With-Project Conditions **

Ponce DeLeon Inlet, Florida

Potential Average Number of Vessel Transits Per Day Per Year:	155
Less Adjustment for Cancelled Trips per Year:	17.5%
Applied Average Number of Vessel Transits Per Day Per Year:	128.0

General Recreational Vessel Class (According to Length Overall [LOA] in Feet)	< 20	> 20; < 25	>= 25	Total(s) All Classes
Estimated Used	27.5%	35.0%	37.5%	100.0%
Applied Number of Vessel Transits Per Day According to Vessel Class	35.2	44.8	48.0	128.0
Average Estimate of Vessel Compliment or Users per Vessel Transit	2.8	2.8	2.8	2.8
Average Estimate of Vessel User Occassions per Day	98.6	125.4	134.4	121.4
Average Marginal Benefit Per User-Occasion Derived from Changes in Unit\User Day Valuations for With Versus Without Project Conditions	$0.75	$0.87	$0.83	$0.82
Average Estimated Benefit Per Day by Vessel Class	$73.92	$109.13	$111.55	$100.36
Total Estimated Benefits Per Day				$294.60
Applied Number of Days Per Year				365
Total Estimated Benefit per Year by Vessel Class for Unit\User Day Valuations for Recreational Vessel Use	$26,981	$39,833	$40,716	$107,531
			Rounded:	$107,530

* *Estimated benefit(s) are estimated for calendar year 1997 and do not include allowances for projected growth derived from the Florida State Comprehensive Outdoor recreation Plan (SCORP; 1994) for the study region. With-project conditions includes efforts to improve in stabilization, but excludes consideration of limited deepening also proposed for intensified commercial usage of the inlet.*

Table 6

Ponce DeLeon Inlet, Florida

Summary Table for Average Annual Equivalent (AAEO) Benefits by Specified Vessel Class(es)

Recreation Navigation Benefits for Inlet Stabilization

Unit\User Day Valuation(s) (UDV)

Economic Life::	50 years			Vessel Class 1				Vessel Class 2				Vessel Class 3				Summary Total Nominal and Discounted Values Estimated Benefits According to Year and Class			
Applied Interest\Discount Rate:	7.125%																		
General Vessel Class --->				< 20.0 Feet Length Overall (LOA)				>= 20.0, < 25.0 Feet Length Overall (LOA)				>= 25.0 Feet Length Overall (LOA)				All Vessels \ Vessel Classes			
Number of Vessels\Observations --->				35.2 Vessels				44.8 Vessels				48.0 Vessels							
Applicable Percentage of Vessel Transits:				100.0%				100.0%				100.0%							
Adjusted Number of Vessels or Occurrences:				35.2 Vessels per Day (average)				44.8 Vessels per Day (average)				48.0 Vessels per Day (average)				128.0 Vessels per Day (average)			
Applicable Number of Days Per Year:				365 Days				365 Days				365 Days				365 Days			
Average Estimate of Vessel Users Per Transit:				2.8 Passengers per Vessel (average)				2.8 Passengers per Vessel (average)				2.8 Passengers per Vessel (average)				2.8 Passengers per Vessel (average)			
Average Number of User Occassions Per Day:				98.6 Passengers per Day (average)				125.4 Passengers per Day (average)				134.4 Passengers per Day (average)				358.4 Passengers per Day (average)			
Average Value per User Occassion:				$0.750 Per Passenger Occassion (ave.)				$0.870 Per Passenger Occassion (ave.)				$0.830 Per Passenger Occassion (ave.)				$0.822 Per Passenger Occassion (ave.)			
Year	Period	Discount Coefficient 7.125%	Projected Growth [1.]	Vessel Occasions Per Year	User Occasions Per Year	User\Unit Day Value Per Year	Discounted Total(s) by Year	Vessel Occasions Per Year	User Occasions Per Year	User\Unit Day Value Per Year	Discounted Total(s) by Year	Vessel Occasions Per Year	User Occasions Per Year	User\Unit Day Value Per Year	Discounted Total(s) by Year	Vessel Occasions Per Year	User Occasions Per Year	User\Unit Day Value Per Year	Discounted Total(s) by Year
2001	0	1.00000	13.10%	14,531	40,686	$30,515	$30,515	18,494	51,782	$45,051	$45,051	19,815	55,481	$46,049	$46,049	52,839	147,950	$121,615	$121,615
2002	1	0.93349	2.61%	14,938	41,826	$31,371	$29,284	19,013	53,235	$46,315	$43,234	20,371	57,038	$47,341	$44,192	54,322	152,100	$125,026	$116,711
2003	2	0.87140	2.69%	15,340	42,952	$32,214	$28,071	19,524	54,666	$47,560	$41,444	20,918	58,571	$48,614	$42,362	55,782	156,189	$128,387	$111,877
2004	3	0.81344	2.58%	15,735	44,056	$33,044	$26,879	20,027	56,074	$48,785	$39,684	21,457	60,060	$49,866	$40,563	57,219	160,213	$131,695	$107,126
2005	4	0.75934	2.47%	16,124	45,146	$33,859	$25,711	20,521	57,458	$49,989	$37,959	21,987	61,563	$51,097	$38,800	58,631	164,167	$134,945	$102,470
2006	5	0.70864	2.37%	16,505	46,214	$34,660	$24,566	21,006	58,816	$51,171	$36,272	22,507	63,019	$52,306	$37,076	60,018	168,050	$138,137	$97,917
2007	6	0.66169	2.27%	16,879	47,261	$35,446	$23,454	21,482	60,151	$52,331	$34,627	23,017	64,447	$53,491	$35,395	61,378	171,859	$141,268	$93,476
2008	7	0.61766	2.17%	17,246	48,288	$36,216	$22,370	21,949	61,457	$53,467	$33,028	23,517	65,847	$54,653	$33,756	62,711	175,591	$144,336	$89,153
2009	8	0.57660	2.08%	17,604	49,292	$36,969	$21,316	22,406	62,736	$54,560	$31,471	24,006	67,217	$55,790	$32,168	64,016	179,245	$147,339	$84,956
2010	9	0.53825	1.99%	17,955	50,275	$37,706	$20,295	22,852	63,987	$55,668	$29,983	24,485	68,557	$56,902	$30,628	65,293	182,819	$150,277	$80,887
2011	10	0.50245	1.91%	18,299	51,236	$38,427	$19,306	23,289	65,209	$56,732	$28,505	24,953	69,867	$57,990	$29,137	66,540	186,312	$153,149	$76,949
2012	11	0.46903	1.83%	18,634	52,174	$39,130	$18,353	23,715	66,403	$57,771	$27,098	25,409	71,146	$59,051	$27,697	67,758	189,724	$155,953	$73,147
2013	12	0.43783	1.75%	18,960	53,069	$39,817	$17,433	24,132	67,568	$58,784	$25,738	25,855	72,395	$60,087	$26,308	68,947	193,052	$158,689	$69,479
2014	13	0.40871	1.68%	19,279	53,982	$40,486	$16,547	24,537	68,704	$59,773	$24,430	26,290	73,612	$61,098	$24,971	70,106	196,298	$161,357	$65,949
2015	14	0.38153	1.61%	19,590	54,851	$41,139	$15,696	24,932	69,811	$60,735	$23,172	26,713	74,797	$62,062	$23,686	71,236	199,460	$163,956	$62,554
2016	15	0.35615	1.54%	19,892	55,698	$41,774	$14,878	25,317	70,888	$61,673	$21,985	27,126	75,952	$63,040	$22,452	72,335	202,538	$166,487	$59,295
2017	16	0.33247	1.46%	20,186	56,522	$42,391	$14,094	25,692	71,937	$62,585	$20,907	27,527	77,075	$63,973	$21,269	73,405	205,534	$168,949	$56,170
2018	17	0.31035	1.42%	20,472	57,323	$42,992	$13,343	26,058	72,957	$63,472	$19,899	27,917	78,168	$64,879	$20,135	74,445	208,447	$171,344	$53,177
2019	18	0.28971	1.38%	20,751	58,101	$43,576	$12,624	26,410	73,947	$64,334	$18,838	28,296	79,229	$65,760	$19,051	75,456	211,278	$173,671	$50,314
2020	19	0.27044	1.30%	21,021	58,858	$44,143	$11,938	26,753	74,910	$65,171	$17,625	28,664	80,260	$66,616	$18,016	76,438	214,027	$175,931	$47,579
2021	20	0.25245	1.25%	21,283	59,591	$44,694	$11,283	27,087	75,844	$65,984	$16,658	29,022	81,261	$67,447	$17,027	77,392	216,696	$178,124	$44,968
2022	21	0.23566	1.19%	21,537	60,304	$45,228	$10,659	27,411	76,750	$66,772	$15,736	29,369	82,232	$68,253	$16,085	78,316	219,286	$180,253	$42,479
2023	22	0.21999	1.14%	21,784	60,994	$45,745	$10,064	27,725	77,629	$67,537	$14,857	29,705	83,174	$69,034	$15,187	79,213	221,796	$182,317	$40,108
2024	23	0.20538	1.10%	22,023	61,663	$46,247	$9,497	28,029	78,480	$68,278	$14,021	30,031	84,086	$69,791	$14,332	80,082	224,230	$184,317	$37,851
2025	24	0.19170	1.05%	22,254	62,311	$46,734	$8,959	28,323	79,305	$68,996	$13,226	30,346	84,970	$70,525	$13,520	80,924	226,587	$186,254	$35,705
2026	25	0.17895	1.01%	22,478	62,939	$47,204	$8,447	28,609	80,104	$69,691	$12,471	30,652	85,828	$71,238	$12,748	81,739	228,869	$188,131	$33,666
2027	26	0.16705	0.97%	22,695	63,547	$47,660	$7,961	28,885	80,878	$70,363	$11,754	30,948	86,654	$71,923	$12,015	82,528	231,079	$189,947	$31,730
2028	27	0.15594	0.92%	22,905	64,134	$48,101	$7,501	29,152	81,628	$71,014	$11,074	31,234	87,456	$72,588	$11,319	83,291	233,216	$191,704	$29,894
2029	28	0.14556	0.88%	23,108	64,703	$48,527	$7,064	29,410	82,349	$71,644	$10,429	31,511	88,231	$73,232	$10,660	84,030	235,283	$193,403	$28,153
2030	29	0.13588	0.85%	23,304	65,252	$48,939	$6,650	29,660	83,048	$72,252	$9,818	31,779	88,980	$73,854	$10,035	84,743	237,281	$195,045	$26,503
2031	30	0.12685	0.81%	23,494	65,783	$49,338	$6,258	29,902	83,724	$72,840	$9,239	32,037	89,705	$74,455	$9,444	85,433	239,212	$196,632	$24,942
2032	31	0.11841	0.78%	23,677	66,296	$49,722	$5,888	30,135	84,377	$73,408	$8,692	32,287	90,404	$75,035	$8,885	86,099	241,077	$198,166	$23,465
2033	32	0.11053	0.75%	23,854	66,792	$50,094	$5,537	30,360	85,006	$73,957	$8,175	32,528	91,080	$75,596	$8,356	86,742	242,879	$199,646	$22,068
2034	33	0.10316	0.72%	24,025	67,270	$50,452	$5,206	30,577	85,616	$74,486	$7,686	32,781	91,732	$76,137	$7,856	87,384	244,618	$201,076	$20,747
2035	34	0.09632	0.69%	24,190	67,731	$50,799	$4,893	30,787	86,204	$74,997	$7,224	32,986	92,381	$76,660	$7,384	87,963	246,296	$202,455	$19,500
2036	35	0.08991	0.66%	24,349	68,177	$51,133	$4,597	30,989	86,770	$75,490	$6,788	33,203	92,988	$77,164	$6,938	88,541	247,915	$203,788	$18,323
2037	36	0.08393	0.63%	24,502	68,606	$51,455	$4,319	31,165	87,317	$75,966	$6,376	33,412	93,554	$77,650	$6,517	89,099	249,477	$205,070	$17,212
2038	37	0.07835	0.60%	24,650	69,020	$51,765	$4,056	31,373	87,844	$76,424	$5,988	33,614	94,119	$78,118	$6,121	89,637	250,983	$206,308	$16,164
2039	38	0.07314	0.58%	24,793	69,420	$52,065	$3,808	31,554	88,352	$76,866	$5,622	33,808	94,683	$78,570	$5,747	90,155	252,435	$207,501	$15,176
2040	39	0.06827	0.55%	24,930	69,804	$52,353	$3,574	31,729	88,842	$77,292	$5,277	33,996	95,188	$79,008	$5,394	90,655	253,834	$208,651	$14,246
2041	40	0.06373	0.53%	25,063	70,175	$52,631	$3,354	31,898	89,314	$77,703	$4,952	34,176	95,693	$79,425	$5,062	91,136	255,182	$209,760	$13,369
2042	41	0.05949	0.51%	25,190	70,532	$52,899	$3,147	32,060	89,766	$78,095	$4,648	34,350	96,180	$79,830	$4,749	91,600	256,481	$210,827	$12,543
2043	42	0.05554	0.49%	25,313	70,878	$53,157	$2,952	32,216	90,206	$78,479	$4,359	34,518	96,649	$80,219	$4,455	92,047	257,731	$211,855	$11,766
2044	43	0.05184	0.47%	25,431	71,207	$53,405	$2,769	32,367	90,627	$78,846	$4,088	34,679	97,101	$80,594	$4,178	92,477	258,936	$212,845	$11,035
2045	44	0.04840	0.45%	25,545	71,528	$53,645	$2,596	32,512	91,033	$79,199	$3,833	34,834	97,536	$80,955	$3,918	92,891	260,095	$213,796	$10,347
2046	45	0.04516	0.43%	25,655	71,833	$53,875	$2,434	32,651	91,424	$79,539	$3,593	34,984	97,954	$81,302	$3,673	93,290	261,211	$214,715	$9,700
2047	46	0.04217	0.41%	25,760	72,128	$54,096	$2,281	32,788	91,800	$79,866	$3,368	35,127	98,357	$81,636	$3,443	93,673	262,285	$215,598	$9,092
2048	47	0.03937	0.39%	25,862	72,412	$54,309	$2,138	32,915	92,161	$80,180	$3,156	35,266	98,744	$81,958	$3,226	94,042	263,318	$216,447	$8,521
2049	48	0.03675	0.36%	25,959	72,686	$54,514	$2,003	33,039	92,509	$80,453	$2,958	35,399	99,117	$82,267	$3,023	94,397	264,312	$217,284	$7,984
2050	49	0.03430	0.36%	26,053	72,949	$54,712	$1,877	33,158	92,844	$80,774	$2,771	35,527	99,475	$82,565	$2,832	94,739	265,268	$218,050	$7,480
2051	50	0.03202	0.35%	26,143	73,202	$54,901	$1,758	33,273	93,166	$81,054	$2,596	35,650	99,820	$82,851	$2,653	95,067	266,187	$218,806	$7,007
Summation of Present Worth:							$539,692				$796,768				$814,446				$2,150,926
Average Annual Equivalent (AAEO) Value(s):							*$39,730*				*$58,650*				*$59,950*				*$158,320*
Summary Total Average Annual Equivalent (AAEO) Benefits ------>							*$158,330*												

[1.] Florida State Comprehensive Outdoor recreation Plan (SCORP8); base year percentage from growth subsequent to 1997.

Table D–6g

*Summary of Average Annual Equivalent (AAEQ) Values for Recreational Vessels According to General Vessel Class and Category of Benefit **

Ponce DeLeon Inlet, Florida

General Recreational Vessel Class (According to Length Overall [LOA] in Feet)	< 20	> 20; < 25	>= 25	Total(s)
Reductions in Damages Attributed to Severe or Significant Vessel Groundings:	$25,600	$42,320	$43,720	$111,640
Reductions in Damages Attributed to Vessel Capsizings:	$20,830	$22,710	$7,830	$51,370
Reductions in Damages Attributed to Unreported Vessel Damage Incidents:	$61,480	$68,110	$15,240	$144,830
Benefits derived from Changes in Unit\User Day Valuation(s) [UDV]:	$39,730	$58,650	$59,950	$158,330
Summary Total(s):	$147,640	$191,790	$126,740	$466,170

* *Average annual equivalent (AAEQ) valuations based on a project economic life of fifty (50) years and an interest or discount rate of 7 1/8 (.07125) percent as authorized for assessment of water resources development projects for fiscal year (FY) 1998.*

Table D-7

Ponce DeLeon Inlet, Florida

Summary of Average Annual Equivalent (AAEQ) Benefits With Proposed Improvements:

	Without Commercial Fishing Park	*With Commercial Fishing Park*
Commercial Benefits		
Charter Fishing Vessels	$258,980	$258,980
Efficiencies for Open Water Vessel Trials	$32,000	$32,000
Commercial Fishing Vessels		
– Rock Shrimp Fishery		
* Vessel Transit Efficiencies	n/a	$30,490
* Landside Transportation Efficiencies	n/a	$128,230
– Golden & Red Crab Fishery		
* Vessel Transit Efficiencies	n/a	$47,370
* Landside Transportation Efficiencies	n/a	$68,760
Placement of Marine Railway or Repair Facility	n/a	$47,100
Total(s); Commercial Benefits	**$290,980**	**$612,930**
Recreational Benefits		
Private Recreational Vessels		
– Reductions in Damages for Severe Vessel Groundings	$111,640	$111,640
– Reductions in Damages for Vessel Capsizings	$51,370	$51,370
– Reductions in Damages for Unreported Damage Incidents	$144,830	$144,830
– Enhancement of Unit Day value(s)	$158,330	$158,330
Total(s); Recreation Benefits	**$466,170**	**$466,170**
Benefit Summary		
Commercial Benefits	**$290,980**	**$612,930**
Recreational Benefits	**$466,170**	**$466,170**
Summary Total(s); All Benefits	**$757,150**	**$1,079,100**

Description of Economic Analyses as Completed for Economic Justification of the South Jetty Extension (phase III as described preceding; completed in July of 1998; detailed study phases 3)

Subsequent to completion of the economic assessment of the north and south jetty extensions, revetment and fishing park, after further evaluation by the local constituency it was determined that the placement and operation of commercial seafood processing facilities was an unacceptable specification of the overall proposed project. Therefore, such landside features have been eliminated from further consideration for construction or placement. In addition, it was determined by the Jacksonville District with HQUSACE review that placement of the proposed revetment could be achieved or justified under requirements for future operation and maintenance (O&M) for the existing Federally-sponsored project. This represented a change in general position approximately four to five years earlier that any significant augmentation of the existing project would have to be economically justified as new work.

In an effort to explore the minimization of costs that would have to be economically justified (as new work), discussion(s) with Construction-Operations Division of the Jacksonville District subsequent to the determination that significant features would have to be primarily justified as new work did result in the allowance of the first 800 to 900 feet of a total landward extension of the north jetty (totaling 2,400 to 2,500) feet as a without-project condition requirement to protect integrity of the north jetty. The remainder of the landward extension therefore has been termed a revetment to clarify the difference between construction allowances that until recently would be Federally-sponsored under without-project conditions (an extension) compared to total and\or marginal allowances of the north jetty system that would be described for new work justification (a revetment). Given that the recent determination allows both the north jetty extension and connecting revetment to be placed under assumptions concerning requirements for future operation & maintenance, the only remaining costs to be analyzed for justification pertain to the south jetty extension. To determine related economic benefits, the separable or incremental effects of described features would have to be reasonably determined for economic studies. Previously is was presumed from an engineering and economic position that all waterway features as originally proposed were non-seperable and required together or in combination to achieve acceptable stabilization of the inlet system. To assess effects specific to the south Jetty, the location of sedimentation within the inlet system that may be prevented by the south jetty extension had to be assessed. Historical maintenance requirements were reviewed combined with further numerically-based sediment modeling to arrive at basic determination as to where sedimentation would occur and possibly

influence vessel operations. Related efforts resulted in findings that indicate the vast majority of sediment that would be precluded from entering the inlet system by the south jetty extension would other fall within reaches of the Intracoastal Waterway (IWW) extending from reaches to the north of the halifax river to the south past the confluence with the inlet waterway. As such it was determined that beneficial effects of the jetty extension regarding sediment transport would largely pertain to savings in maintenance for the IWW as opposed to reductions in vessel damages, especially for commercial vessels. Correspondingly, benefit estimates have been revised to reflect current assumptions. Revised estimates for benefits to commercial vessels total an average annual equivalent (AAEQ) value of $48,000, while benefits to recreational craft total $262,600.

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b.) savings in operations costs associated with marginal waterborne transit time due to occluded access waterways resulting from seasonal dynamics of the inlet system,

and;

c.) lost operating revenue and income due to unnavigable conditions for commercial operators. Cost efficiencies or economic benefits for recreational craft were limited primarily to reductions in physical vessel damages, and applicable reductions in costs for reduced transit time (where applicable).

The estimated costs for such repairs for commercial vessels typically ranges from a low of about $220 to a high of over $2,300 with an average of approximately $860 per occurrence. In addition, to benefits associated with direct costs of repairs or maintenance, benefits were also assessed for the operations expenses of delays or transit diversion due to inlet conditions unique to without-project conditions (i.e., such addition fuel or oil expended, etc.) and the value of time required for repairs or downtime, lost business or additional transit time and delays based on either computations for opportunity costs derived from vessel operations data, or in reference to general procedures as outlined in the IWR publication *The Value of Time Saved for Use in Corps Planning Studies - A Review of the Literature and Recommendations (IWR publication 91-R-12; dated October 1991)*. As a result, average annual benefit valuations for commercial and recreational vessels is as follows:

- Reductions in Physical Damages to All Commercial Vessels (commercial fishing and charter sportfishing) -- > **$91,640**
- Opportunity Costs Saved in Association with Reduction(s) in Physical Damages (Charter Operations) -- > **$29,250**
- Operations Costs for Diversion and Delays for Commercial Fishing Vessels Due to Inlet Conditions --> **$17,910**
- Harvest Yield Foregone for Commercial Vessels (longline and *shrimp harvest operations*) --> **$11,290**
- Net Income Associated with Business Lost or Foregone for Charter Operations --> **$27,650**
- Operations Costs for Diversion and Delays for Charter Fishing Vessels Due to Inlet Conditions --> **$4,640**
- Opportunity Costs Saved in Association with Reduction(s) in Physical Damages (Longline\Commercial Fishing -- > **$11,180**
- Operations Costs for Diversion and Delays for Transient or Seasonal Commercial Fishing Vessels Due to Inlet Conditions --> **$29,660**

- Opportunity Costs Saved in Association with Reduction(s) in Physical Damages -- > **$15,720**

Described benefits total **$238,940** for the existing vessel base which routinely uses the inlet system.
inflicting damages to propellers and hull surfaces which often do not required immediate pulling of the vessel for inspection and repair.

Therefore, based a preceding information, a weighted average of approximately 7.5 man-hours was utilized for incidence of labor time require for repairs. The aggregate applied value per unit of time for reduction of expenses associated with damages and related repairs or maintenance area is approximately $11.48 per hour based on the value of 7.5 man-hours per occurrence for damage repairs deemed attributable to correctable conditions of the inlet

Reductions in Damages to Vessels. A density plot of a USCG search and rescue data base, figure _, indicates a total of 347 vessels aground during the FY-81 to FY-91 period. Almost all of the groundings shown are between the north and south jetties of the inlet, the Halifax River channel to the north, the Indian River channel to the south, or the throat of the inlet at the junction of Rock House Creek with those two channels. Discussions with USCG personnel at their Ponce De Leon Inlet Station, indicate that if a vessel runs aground and is not in immediate danger no USCG response is required. Grounded vessels not in immediate danger must rely on others such as salvage boat operators to assist them. The numbers shown represent only those vessels that went aground and required a USCG response.

An interview with a boat yard owner located on the north side of the inlet, reveals that he keeps his radio on constantly to assist boats passing along the Halifax River channel since it is not marked by the USCG. Many vessels run aground trying to reach his boat yard or the entrance channel but do not make it there for fear of running aground again. As a result those boaters go around the unmarked Halifax River channel by way of the AIWW.

Interviews with commercial vessel operators and boat yard owners in the area indicate an average of 35 to nearly 50 minutes one way as the additional time required to use the AIWW and the Indian River as an alternative access to the entrance channel when the Halifax River channel was shoaled-in during the prior breakthrough. During that breakthrough commercial charter boat and head boat operators as well as a boat yard located behind the north spit were shoaled in until the breakthrough was stopped and the shoals in their access channels and the Federal channel in the Halifax River were removed. All boat traffic along the Halifax River channel had to use the Intracoastal Waterway and

the Indian River channels as an alternative means of getting out of the inlet.

As a result of the continued migration of the entrance channel up against the north jetty and spit, unscheduled maintenance is estimated to start during the end of FY-93. The current plan involves placing maintenance material from the AIWW near Rock House Creek on the north spit in way of the potential breakthrough area. Other projected maintenance within the next three to six years involves placement of a scour apron along the landward end of the north jetty and placement of rock to fill in slumped areas. Estimates for the scour apron and additional rock to fill in slumped areas of the north jetty total $1,444,000 and $126,000 respectively (See Engineering Analysis Appendix B Plans C and D for details). Interviews with personnel from four marinas or boat yards and one propeller and shaft repair facility owner indicate an average of 3 propeller and shaft jobs per week over the course of a year. All of the Marinas or boat yards involved in the interview were located north of the inlet and were capable of hauling out boats for removal of propellers and shafts. The average cost of repairs was $782. The total yearly cost for repairs to propellers and shafts from those four repair facilities is $488,124.

With improvements to the inlet resulting in a more stable north channel which the USCG would agree to mark, it is estimated that 90 percent of the propeller and shaft repairs could be eliminated resulting in a savings of $439,312 per year. Of that amount approximately 10 percent ($43,391) is estimated to represent commercial vessels and 90 percent ($395,380) recreational vessels.

If generally described improvements are not implemented improvements are not made, it is assumed that the following without improvement conditions will result.

Information assembled to-date indicates that an average minimum of 40 to 45 occurrences are expected each year which require vessel operators or owners to secure or perform repair services resulting in minimum value of time saved totaling approximately $3,660 annually. Based on preceding values, the value for reductions in damages and associated labor time total approximately *$57,100* per year.

The values total or average on an annual basis approximately $7,000 to $9,000 dollars for hull or structural damages and approximately $8,500 to $12,000 for mechanical or machinery damages such as damaged propellers and steering gear. Allowing for application of averages of approximately $15,500 and $21,000 for hull and machinery damages respectively, annual estimated damages for catastrophic loss or severe damage incidents total an

expected minimum average of $15,500 per year.

only during months of the year previously described when waterway conditions were deemed less than ideal.

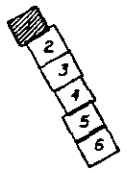
Estimated costs for such repairs for commercial vessels typically ranges from a low of about $220 to a high of over $2,300 with an average of approximately $860 per occurrence. In addition, to benefits associated with direct costs of repairs or maintenance, benefits were also assessed for the operations expenses of delays or transit diversion due to inlet conditions unique to without-project conditions (i.e., such addition fuel or oil expended, etc.) and the value of time required for repairs or downtime, lost business or additional transit time and delays based on either computations for opportunity costs derived from vessel operations data, or in reference to general procedures as outlined in the IWR publication *The Value of Time Saved for Use in Corps Planning Studies - A Review of the Literature and Recommendations (IWR publication 91-R-12; dated October 1991)*. As a result, average annual benefit valuations for commercial and recreational vessels is as follows:

Described benefits total **$238,940** for the existing vessel base which routinely uses the inlet system. In addition, recent information indicates that a new fishery will soon be open for the harvest of golden and red crab and it is projected the opening of this fishery will bring approximately 11 vessels to the inlet area for operations. Based on applicable procedures for analysis of net income, it is estimated that improved conditions will enable each vessel to increase its intensity of employment and harvest yield by approximately 4 to 5 percent or enable approximately two to three additional trips per year. Net income for exvessel compensation of harvests ranges from a probable minimum of approximately $4,000 per trip to in excess of $8,200 per trip. Applying and average of 2.5 trips per year per vessel and an average net increase in income $5,290 per trip renders a benefit of approximately $145,480 per year. Estimated benefits for these vessels for savings in time and operations expenses under with-project conditions total an additional 53,540 per year for a total commercial project economic benefit of **$437,960** per year. Corresponding benefits for reduction in damages to recreational craft and value of time saved for inlet users equals approximately **$248,210** and **$24,290** respectively. These values provide a summary total of **$710,460** of average annual equivalent benefits.

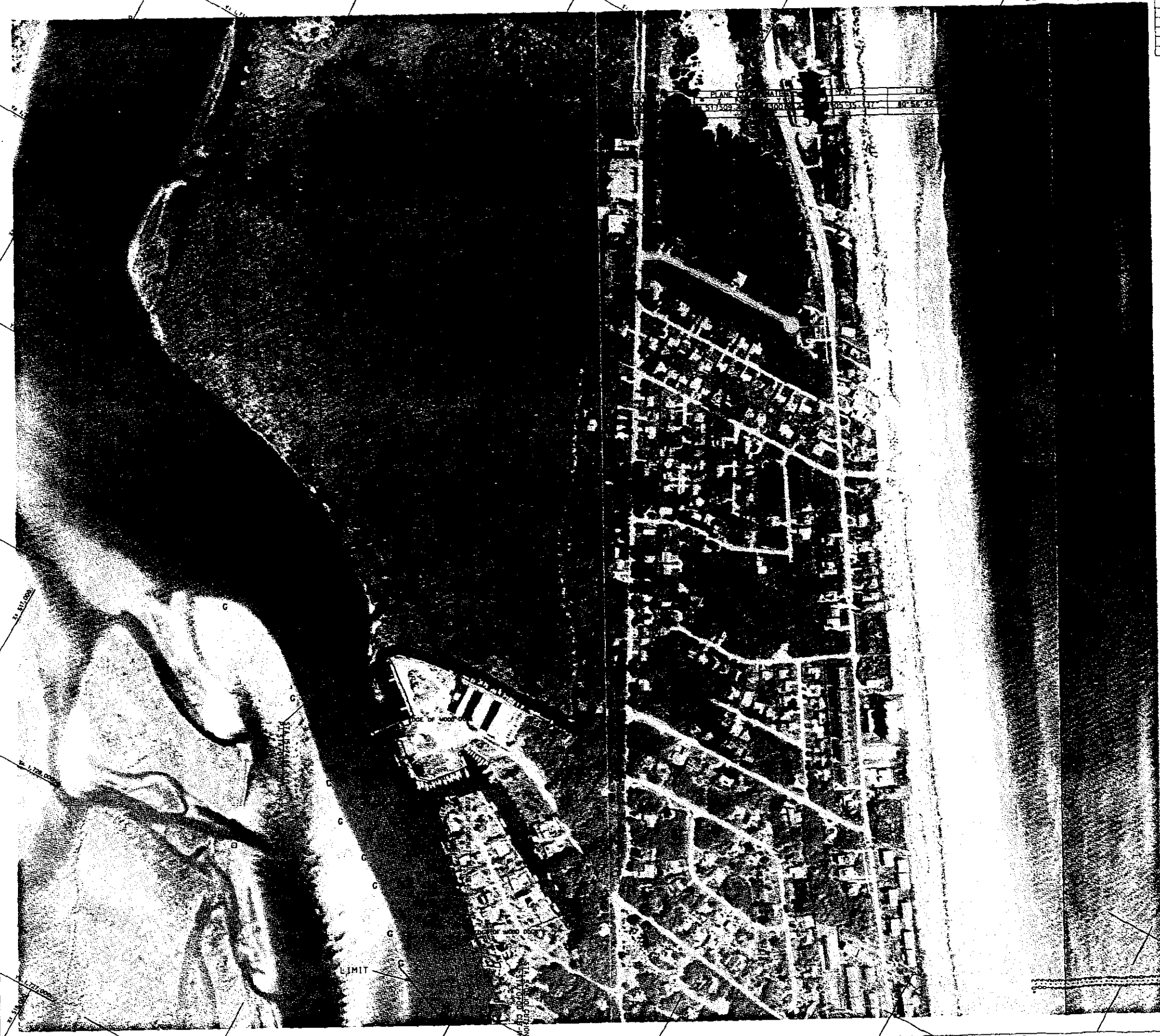
SAFETY ON THE JOB DEPENDS ON YOU

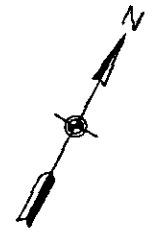
REVISIONS					
NO.	BY	M	ZONE	DESCRIPTION	DATE / APPROVED

LEGEND:
G = APPROXIMATE VESSEL GROUNDING AREA
B = ESTIMATE BUOY LOCATION AS OF 28 SEPT 95



SHEET INDEX





NOTES:
1. REFER TO SURVEY NO. 94-325
2. SEE SHEET NO. 1 FOR SURVEY NOTES
3. VESSEL GROUNDINGS LOCATED BASED ON 28 SEPT 95 MEETING WITH PONCE DE LEON INLET U.S. COAST GUARD AIDS TO NAVIGATION TEAM AND LIGHTHOUSE BOATYARD REPRESENTATIVES.

200 100 0 200 400FT
GRAPHIC SCALE: 1" = 200'

PONCE DE LEON INLET
FEASABILITY STUDY
VESSEL GROUNDINGS

DRAWN:		SIZE: F	DWG. NO. FIGURE
SCALE: AS SHOWN	DATE: JUNE 1996	SHEET 1 OF 6	

D.O. FILE NO: 230-37.197

SAFETY ON THE JOB DEPENDS ON YOU

REVISIONS

NO.	SYM	ZONE	DESCRIPTION	DATE	APPROVED

LEGEND:
G = APPROXIMATE VESSEL GROUNDING AREA
B = ESTIMATE BUOY LOCATION AS OF 28 SEPT 95

SHEET INDEX

NOTES:
1. REFER TO SURVEY NO. 94-325
2. SEE SHEET NO. 1 FOR SURVEY NOTES
3. VESSEL GROUNDINGS LOCATED BASED ON 28 SEPT 95 MEETING WITH PONCE DE LEON INLET U.S. COAST GUARD AIDS TO NAVIGATION TEAM AND LIGHTHOUSE BOATYARD REPRESENTATIVES.

200 100 0 200 400FT
GRAPHIC SCALE: 1"= 200'

PONCE DE LEON INLET
FEASABILITY STUDY
VESSEL GROUNDINGS

SCALE: AS SHOWN | DATED: JUNE 1996 | SHEET 2 OF 6

D.O. FILE NO: 230-37.197

NO.	SYM	ZONE	REVISIONS DESCRIPTION	DATE	APPROVED

LEGEND:
G : APPROXIMATE VESSEL GROUNDING AREA
B : ESTIMATED BUOY LOCATION AS OF 28 SEPT 95

SHEET INDEX

NOTES:
1. REFER TO SURVEY NO. 94-325
2. SEE SHEET NO. 1 FOR SURVEY NOTES
3. VESSEL GROUNDINGS LOCATED BASED ON 28 SEPT 95 MEETING WITH PONCE DE LEON INLET U.S. COAST GUARD AIDS TO NAVIGATION TEAM AND LIGHTHOUSE BOATYARD REPRESENTATIVES.

200 100 0 200 400FT
GRAPHIC SCALE: 1"= 200'

PONCE DE LEON INLET
FEASABILITY STUDY
VESSEL GROUNDINGS

INV. NO. | SIZE F | DWG. NO.
DATED:
SCALE AS SHOWN | DATED: JUNE 1996 | SHEET 4 OF 6

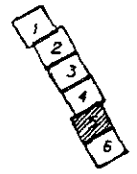
D.O. FILE NO: 23D-37,197

SAFETY ON THE JOB DEPENDS ON YOU

REVISIONS					
NO.	SYM	ZONE	DESCRIPTION	DATE	APPROVED

LEGEND:
G = APPROXIMATE VESSEL GROUNDING AREA
B = ESTIMATED BUOY LOCATION AS OF 28 SEPT 95

SHEET INDEX



NOTES:
1. REFER TO SURVEY NO. 94-325
2. SEE SHEET NO. 1 FOR SURVEY NOTES
3. VESSEL GROUNDINGS LOCATED BASED ON 28 SEPT 95 MEETING WITH PONCE DE LEON INLET U.S. COAST GUARD AIDS TO NAVIGATION TEAM AND LIGHTHOUSE BOATYARD REPRESENTATIVES.

200 400 0 200 400FT
GRAPHIC SCALE: 1" = 200'

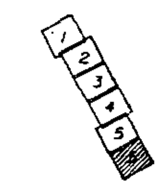
PONCE DE LEON INLET
FEASIBILITY STUDY
VESSEL GROUNDINGS

DWG. NO.	SIZE	DWG. NO.	
	F	FIGURE	
DATE: SCALE: AS SHOWN	DATE: JUNE 1996	SHEET 5 OF 6	

D.O. FILE NO: 23D-37.197

NO.	SYM	ZONE	REVISIONS DESCRIPTION	DATE	APPROVED

LEGEND:
G : APPROXIMATE VESSEL GROUNDING AREA
B : ESTIMATED BUOY LOCATION AS OF 28 SEPT 95



SHEET INDEX

NOTES:
1. REFER TO SURVEY NO. 94-395
2. SEE SHEET NO. 1 FOR SURVEY NOTES
3. VESSEL GROUNDINGS LOCATED BASED ON 28 SEPT 95 MEETING WITH PONCE DE LEON INLET U.S. COAST GUARD AIDS TO NAVIGATION TEAM AND LIGHTHOUSE BOATYARD REPRESENTATIVES.

200 100 0 200 400FT
GRAPHIC SCALE: 1"= 200'

PONCE DE LEON INLET
FEASABILITY STUDY
VESSEL GROUNDINGS

SIZE F | FIGURE ...
SCALE: AS SHOWN | DATED: JUNE 1996 | SHEET 6 OF 6

D.O. FILE NO: 230-37,197

MAINTENANCE SAVINGS

Ponce DeLeon Inlet - North Jetty Maintenance Without Project 07/22/98 Form8.xls

Project Economic Life: 50 Years

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):

rent Rate:	7.125%	7.125%	----->	0.073607
calated Rate:	9.125%	9.125%	----->	0.092424
OMB Rate:	10.000%	10.000%	----->	0.100859

Total Present Valuation(s), Excluding Base Period:

Average Annual Equivalent Valuations:

7.125%	----->	$1,203,313	7.125% ----->	$88,572
9.125%	----->	$924,568	9.125% ----->	$85,452
10.000%	----->	$831,708	10.000% ----->	$83,885

Year	Period	Applied Discount Factors 7.125%	9.125%	10.000%	Stream Values	7.125%	9.125%	10.000%
2001	0	1.00000	1.00000	1.00000	$7,500	$7,500	$7,500	$7,500
2002	1	0.93349	0.91638	0.90909	$7,500	$7,001	$6,873	$6,818
2003	2	0.87140	0.83975	0.82645	$7,500	$6,536	$6,298	$6,198
2004	3	0.81344	0.76953	0.75131	$7,500	$6,101	$5,771	$5,635
2005	4	0.75934	0.70518	0.68301	$7,500	$5,695	$5,289	$5,123
2006	5	0.70884	0.64622	0.62092	$7,500	$5,316	$4,847	$4,657
2007	6	0.66169	0.59218	0.56447	$7,500	$4,963	$4,441	$4,234
2008	7	0.61768	0.54266	0.51316	$7,500	$4,633	$4,070	$3,849
2009	8	0.57660	0.49729	0.46651	$7,500	$4,324	$3,730	$3,499
2010	9	0.53825	0.45570	0.42410	$1,347,500	$725,289	$614,060	$571,472
2011	10	0.50245	0.41760	0.38554	$7,500	$3,768	$3,132	$2,892
2012	11	0.46903	0.38268	0.35049	$7,500	$3,518	$2,870	$2,629
2013	12	0.43783	0.35068	0.31863	$7,500	$3,284	$2,630	$2,390
2014	13	0.40871	0.32135	0.28966	$7,500	$3,065	$2,410	$2,172
2015	14	0.38153	0.29448	0.26333	$7,500	$2,861	$2,209	$1,975
2016	15	0.35615	0.26986	0.23939	$7,500	$2,671	$2,024	$1,795
2017	16	0.33247	0.24729	0.21763	$7,500	$2,493	$1,855	$1,632
2018	17	0.31035	0.22661	0.19784	$7,500	$2,328	$1,700	$1,484
2019	18	0.28971	0.20767	0.17986	$7,500	$2,173	$1,557	$1,349
2020	19	0.27044	0.19030	0.16351	$7,500	$2,028	$1,427	$1,226
2021	20	0.25245	0.17439	0.14864	$7,500	$1,893	$1,308	$1,115
2022	21	0.23566	0.15981	0.13513	$7,500	$1,767	$1,199	$1,013
2023	22	0.21999	0.14644	0.12285	$7,500	$1,650	$1,098	$921
2024	23	0.20536	0.13420	0.11168	$1,347,500	$276,719	$180,830	$150,486
2025	24	0.19170	0.12298	0.10153	$7,500	$1,438	$922	$761
2026	25	0.17895	0.11269	0.09230	$7,500	$1,342	$845	$692
2027	26	0.16705	0.10327	0.08391	$7,500	$1,253	$775	$629
2028	27	0.15594	0.09463	0.07628	$7,500	$1,170	$710	$572
2029	28	0.14556	0.08672	0.06934	$7,500	$1,092	$650	$520
2030	29	0.13588	0.07947	0.06304	$7,500	$1,019	$596	$473
2031	30	0.12685	0.07282	0.05731	$7,500	$951	$546	$430
2032	31	0.11841	0.06673	0.05210	$7,500	$888	$501	$391
2033	32	0.11053	0.06115	0.04736	$7,500	$829	$459	$355
2034	33	0.10318	0.05604	0.04306	$7,500	$774	$420	$323
2035	34	0.09632	0.05135	0.03914	$7,500	$722	$385	$294
2036	35	0.08991	0.04706	0.03558	$7,500	$674	$353	$267
2037	36	0.08393	0.04312	0.03235	$7,500	$629	$323	$243
2038	37	0.07835	0.03952	0.02941	$1,347,500	$105,577	$53,251	$39,628
2039	38	0.07314	0.03621	0.02673	$7,500	$549	$272	$201
2040	39	0.06827	0.03319	0.02430	$7,500	$512	$249	$182
2041	40	0.06373	0.03041	0.02209	$7,500	$478	$228	$166
2042	41	0.05949	0.02787	0.02009	$7,500	$446	$209	$151
2043	42	0.05554	0.02554	0.01826	$7,500	$417	$192	$137
2044	43	0.05184	0.02340	0.01660	$7,500	$389	$176	$125
2045	44	0.04840	0.02145	0.01509	$7,500	$363	$161	$113
2046	45	0.04518	0.01965	0.01372	$7,500	$339	$147	$103
2047	46	0.04217	0.01801	0.01247	$7,500	$316	$135	$94
2048	47	0.03937	0.01650	0.01134	$7,500	$295	$124	$85
2049	48	0.03675	0.01512	0.01031	$7,500	$276	$113	$77
2050	49	0.03430	0.01386	0.00937	$7,500	$257	$104	$70
2051	50	0.03202	0.01270	0.00852	$7,500	$240	$95	$64

Ponce DeLeon Inlet - North Jetty Maintenance With Project 07/22/98 Form9.xls

Project Economic Life: 50 Years

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):

Current Rate:	7.125%	7.125% ----->	0.073607
Escalated Rate:	9.125%	9.125% ----->	0.092424
OMB Rate:	10.000%	10.000% ----->	0.100859

Total Present Valuation(s), Excluding Base Period:

Average Annual Equivalent Valuations:

7.125% ----->	$306,680	7.125% ----->	$22,574
9.125% ----->	$204,488	9.125% ----->	$18,900
10.000% ----->	$172,074	10.000% ----->	$17,355

Year	Period	Applied Discount Factors 7.125%	9.125%	10.000%	Stream Values	7.125%	9.125%	10.000%
2001	0	1.00000	1.00000	1.00000	$7,500	$7,500	$7,500	$7,500
2002	1	0.93349	0.91638	0.90909	$0	$0	$0	$0
2003	2	0.87140	0.83975	0.82645	$0	$0	$0	$0
2004	3	0.81344	0.76953	0.75131	$7,500	$6,101	$5,771	$5,635
2005	4	0.75934	0.70518	0.68301	$0	$0	$0	$0
2006	5	0.70884	0.64622	0.62092	$0	$0	$0	$0
2007	6	0.66169	0.59218	0.56447	$7,500	$4,963	$4,441	$4,234
2008	7	0.61768	0.54266	0.51316	$0	$0	$0	$0
2009	8	0.57660	0.49729	0.46651	$0	$0	$0	$0
2010	9	0.53825	0.45570	0.42410	$7,500	$4,037	$3,418	$3,181
2011	10	0.50245	0.41760	0.38554	$0	$0	$0	$0
2012	11	0.46903	0.38268	0.35049	$0	$0	$0	$0
2013	12	0.43783	0.35068	0.31863	$7,500	$3,284	$2,630	$2,390
2014	13	0.40871	0.32135	0.28966	$0	$0	$0	$0
2015	14	0.38153	0.29448	0.26333	$0	$0	$0	$0
2016	15	0.35615	0.26986	0.23939	$7,500	$2,671	$2,024	$1,795
2017	16	0.33247	0.24729	0.21763	$0	$0	$0	$0
2018	17	0.31035	0.22661	0.19784	$0	$0	$0	$0
2019	18	0.28971	0.20767	0.17986	$7,500	$2,173	$1,557	$1,349
2020	19	0.27044	0.19030	0.16351	$0	$0	$0	$0
2021	20	0.25245	0.17439	0.14864	$0	$0	$0	$0
2022	21	0.23566	0.15981	0.13513	$7,500	$1,767	$1,199	$1,013
2023	22	0.21999	0.14644	0.12285	$0	$0	$0	$0
2024	23	0.20536	0.13420	0.11168	$1,340,000	$275,179	$179,824	$149,649
2025	24	0.19170	0.12298	0.10153	$7,500	$1,438	$922	$761
2026	25	0.17895	0.11269	0.09230	$0	$0	$0	$0
2027	26	0.16705	0.10327	0.08391	$0	$0	$0	$0
2028	27	0.15594	0.09463	0.07628	$7,500	$1,170	$710	$572
2029	28	0.14556	0.08672	0.06934	$0	$0	$0	$0
2030	29	0.13588	0.07947	0.06304	$0	$0	$0	$0
2031	30	0.12685	0.07282	0.05731	$7,500	$951	$546	$430
2032	31	0.11841	0.06673	0.05210	$0	$0	$0	$0
2033	32	0.11053	0.06115	0.04736	$0	$0	$0	$0
2034	33	0.10318	0.05604	0.04306	$7,500	$774	$420	$323
2035	34	0.09632	0.05135	0.03914	$0	$0	$0	$0
2036	35	0.08991	0.04706	0.03558	$0	$0	$0	$0
2037	36	0.08393	0.04312	0.03235	$7,500	$629	$323	$243
2038	37	0.07835	0.03952	0.02941	$0	$0	$0	$0
2039	38	0.07314	0.03621	0.02673	$0	$0	$0	$0
2040	39	0.06827	0.03319	0.02430	$7,500	$512	$249	$182
2041	40	0.06373	0.03041	0.02209	$0	$0	$0	$0
2042	41	0.05949	0.02787	0.02009	$0	$0	$0	$0
2043	42	0.05554	0.02554	0.01826	$7,500	$417	$192	$137
2044	43	0.05184	0.02340	0.01660	$0	$0	$0	$0
2045	44	0.04840	0.02145	0.01509	$0	$0	$0	$0
2046	45	0.04518	0.01965	0.01372	$7,500	$339	$147	$103
2047	46	0.04217	0.01801	0.01247	$0	$0	$0	$0
2048	47	0.03937	0.01650	0.01134	$0	$0	$0	$0
2049	48	0.03675	0.01512	0.01031	$7,500	$276	$113	$77
2050	49	0.03430	0.01386	0.00937	$0	$0	$0	$0
2051	50	0.03202	0.01270	0.00852	$0	$0	$0	$0

Ponce DeLeon Inlet - South Jetty Maintenance | Form10.xls | 07/22/98

Project Economic Life: 50 Years

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):

rent Rate:	7.125%	7.125% ---->	0.073607
lated Rate:	9.125%	9.125% ---->	0.092424
B Rate:	10.000%	10.000% ---->	0.100859

Total Present Valuation(s), Excluding Base Period:			Average Annual Equivalent Valuations:		
7.125%	---->	$213,049	7.125%	---->	$15,682
9.125%	---->	$139,767	9.125%	---->	$12,918
10.000%	---->	$116,567	10.000%	---->	$11,757

		Applied Discount Factors			Stream			
Year	Period	7.125%	9.125%	10.000%	Values	7.125%	9.125%	10.000%
2001	0	1.00000	1.00000	1.00000	$1,000	$1,000	$1,000	$1,000
2002	1	0.93349	0.91638	0.90909	$0	$0	$0	$0
2003	2	0.87140	0.83975	0.82645	$0	$0	$0	$0
2004	3	0.81344	0.76953	0.75131	$1,000	$813	$770	$751
2005	4	0.75934	0.70518	0.68301	$0	$0	$0	$0
2006	5	0.70884	0.64622	0.62092	$0	$0	$0	$0
2007	6	0.66169	0.59218	0.56447	$1,000	$662	$592	$564
2008	7	0.61768	0.54266	0.51316	$0	$0	$0	$0
2009	8	0.57660	0.49729	0.46651	$0	$0	$0	$0
2010	9	0.53825	0.45570	0.42410	$1,000	$538	$456	$424
2011	10	0.50245	0.41760	0.38554	$0	$0	$0	$0
2012	11	0.46903	0.38268	0.35049	$0	$0	$0	$0
2013	12	0.43783	0.35068	0.31863	$1,000	$438	$351	$319
2014	13	0.40871	0.32135	0.28966	$0	$0	$0	$0
2015	14	0.38153	0.29448	0.26333	$0	$0	$0	$0
2016	15	0.35616	0.26986	0.23939	$1,000	$356	$270	$239
2017	16	0.33247	0.24729	0.21763	$0	$0	$0	$0
2018	17	0.31036	0.22661	0.19784	$0	$0	$0	$0
2019	18	0.28971	0.20767	0.17986	$1,000	$290	$208	$180
2020	19	0.27044	0.19030	0.16351	$0	$0	$0	$0
2021	20	0.25245	0.17439	0.14864	$0	$0	$0	$0
2022	21	0.23566	0.15981	0.13513	$1,000	$236	$160	$135
2023	22	0.21998	0.14644	0.12285	$0	$0	$0	$0
2024	23	0.20536	0.13420	0.11168	$1,017,000	$208,849	$136,478	$113,577
2025	24	0.19170	0.12298	0.10153	$1,000	$192	$123	$102
2026	25	0.17895	0.11269	0.09230	$0	$0	$0	$0
2027	26	0.16706	0.10327	0.08391	$0	$0	$0	$0
2028	27	0.15594	0.09463	0.07628	$1,000	$156	$95	$76
2029	28	0.14556	0.08672	0.06934	$0	$0	$0	$0
2030	29	0.13588	0.07947	0.06304	$0	$0	$0	$0
2031	30	0.12685	0.07282	0.05731	$1,000	$127	$73	$57
2032	31	0.11841	0.06673	0.05210	$0	$0	$0	$0
2033	32	0.11053	0.06115	0.04736	$0	$0	$0	$0
2034	33	0.10318	0.05604	0.04306	$1,000	$103	$56	$43
2035	34	0.09632	0.05135	0.03914	$0	$0	$0	$0
2036	35	0.08991	0.04706	0.03558	$0	$0	$0	$0
2037	36	0.08393	0.04312	0.03235	$1,000	$84	$43	$32
2038	37	0.07836	0.03952	0.02941	$0	$0	$0	$0
2039	38	0.07314	0.03621	0.02673	$0	$0	$0	$0
2040	39	0.06827	0.03319	0.02430	$1,000	$68	$33	$24
2041	40	0.06373	0.03041	0.02209	$0	$0	$0	$0
2042	41	0.05949	0.02787	0.02009	$0	$0	$0	$0
2043	42	0.05554	0.02554	0.01826	$1,000	$56	$26	$18
2044	43	0.05184	0.02340	0.01660	$0	$0	$0	$0
2045	44	0.04840	0.02145	0.01509	$0	$0	$0	$0
2046	45	0.04518	0.01965	0.01372	$1,000	$45	$20	$14
2047	46	0.04217	0.01801	0.01247	$0	$0	$0	$0
2048	47	0.03937	0.01650	0.01134	$0	$0	$0	$0
2049	48	0.03675	0.01512	0.01031	$1,000	$37	$15	$10
2050	49	0.03430	0.01386	0.00937	$0	$0	$0	$0
2051	50	0.03202	0.01270	0.00852	$0	$0	$0	$0

Ponce DeLeon Inlet/IWW - INLET \ OF PROJECT CONDITIONS, BEACH AND UPLAND DISPOSAL 3/22/98 12:18 PM form3.xls

Project Economic Life: $0 Years

Current Rate: 7.125%
Escalated Rate: 7.000%
OMB Rate: 10.000%

ASSUMPTIONS:

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $1,532,228
7.000% ----> $1,565,708
10.000% ----> $975,149

Average Annual Equivalent Valuations:
7.125% ----> $112,783
7.000% ----> $113,451
10.000% ----> $98,353

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $2,068,476
7.000% ----> $2,113,873
10.000% ----> $1,316,431

Average Annual Equivalent Valuations:
7.125% ----> $152,255
7.000% ----> $153,156
10.000% ----> $132,774

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $850,406
7.000% ----> $866,967
10.000% ----> $541,220

Average Annual Equivalent Valuations:
7.125% ----> $62,598
7.000% ----> $62,867
10.000% ----> $54,587

Average Annual Equivalent (AAEQ) Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $1,145,598
7.000% ----> $1,170,628
10.000% ----> $728,087

Average Annual Equivalent Valuations:
7.125% ----> $84,324
7.000% ----> $84,824
10.000% ----> $73,535

Year	Period	Applied Discount Factors 7.125%	7.000%	10.000%	Stream Values	This column left blank 7.125%	7.000%	10.000%	Stream Values	Without project upland d/o 7.125%	7.000%	10.000%	Stream Values	Without project beach d/o 7.125%	7.000%	10.000%	Stream Values	With project upland d/o 7.125%	7.000%	10.000%	Stream Values	With project beach d/o 7.125%	7.000%	10.000%
2001	0	1.00000	1.00000	1.00000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2002	1	0.93349	0.93458	0.90909	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2003	2	0.87140	0.87344	0.82645	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2004	3	0.81344	0.81630	0.75131	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2005	4	0.75934	0.76290	0.68301	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2006	5	0.70884	0.71299	0.62092	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2007	6	0.66169	0.66634	0.56447	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2008	7	0.61768	0.62275	0.51316	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2009	8	0.57660	0.58201	0.46651	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2010	9	0.53825	0.54393	0.42410	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2011	10	0.50245	0.50835	0.38554	$0	$0	$0	$0	$1,567,489	$787,583	$796,832	$604,335	$2,116,078	$1,063,220	$1,075,707	$815,840	$869,878	$437,118	$442,252	$335,413	$1,171,860	$588,850	$595,765	$451,841
2012	11	0.46903	0.47509	0.35049	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2013	12	0.43783	0.44401	0.31863	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2014	13	0.40871	0.41496	0.28966	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2015	14	0.38153	0.38782	0.26333	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2016	15	0.35615	0.36245	0.23939	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	16	0.33247	0.33873	0.21763	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2018	17	0.31035	0.31657	0.19784	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	18	0.28971	0.29586	0.17986	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2020	19	0.27044	0.27651	0.16351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2021	20	0.25245	0.25842	0.14864	$0	$0	$0	$0	$1,567,489	$395,720	$405,068	$233,991	$2,116,078	$534,214	$546,835	$314,542	$869,878	$219,629	$224,818	$129,318	$1,171,860	$295,867	$302,857	$174,204
2022	21	0.23566	0.24154	0.13513	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2023	22	0.21999	0.22571	0.12285	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2024	23	0.20536	0.21095	0.11168	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2025	24	0.19170	0.19715	0.10153	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2026	25	0.17895	0.18425	0.09230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2027	26	0.16705	0.17220	0.08391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2028	27	0.15594	0.16093	0.07628	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2029	28	0.14558	0.15040	0.06934	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2030	29	0.13588	0.14056	0.06304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2031	30	0.12685	0.13137	0.05731	$0	$0	$0	$0	$1,567,489	$188,079	$205,917	$89,831	$2,116,078	$268,415	$277,883	$121,269	$869,878	$110,353	$114,288	$49,857	$1,171,860	$148,658	$153,957	$67,163
2032	31	0.11841	0.12277	0.05210	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	32	0.11053	0.11474	0.04736	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	33	0.10318	0.10723	0.04306	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	34	0.09632	0.10022	0.03914	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	35	0.08991	0.09366	0.03558	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	36	0.08393	0.08754	0.03235	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2038	37	0.07835	0.08181	0.02941	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	38	0.07314	0.07646	0.02673	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	39	0.06827	0.07146	0.02430	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	40	0.06373	0.06676	0.02209	$0	$0	$0	$0	$1,567,489	$89,801	$104,878	$34,634	$2,116,078	$134,865	$141,312	$46,755	$869,878	$55,448	$58,093	$18,232	$1,171,860	$74,693	$78,284	$25,894
2042	41	0.05948	0.06241	0.02009	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	42	0.05554	0.05833	0.01828	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	43	0.05184	0.05451	0.01660	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	44	0.04840	0.05095	0.01509	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	45	0.04518	0.04761	0.01372	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2047	46	0.04217	0.04450	0.01247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	47	0.03937	0.04159	0.01134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	48	0.03675	0.03887	0.01031	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2050	49	0.03430	0.03632	0.00937	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2051	50	0.03202	0.03395	0.00852	$0	$0	$0	$0	$1,567,489	$50,195	$53,213	$13,353	$2,116,078	$67,763	$71,838	$18,026	$869,878	$27,859	$29,514	$7,411	$1,171,860	$37,528	$39,785	$9,983

Ponce DeLeon Inlet/IWW - IWW WITH PROJECT Upland and Beach DA ############## form2.xls

Project Economic Life:
50 Years
Current Rate: 7.125%
Escalated Rate: 7.000%
OMB Rate: 10.000%

ASSUMPTIONS:

Average Annual Equivalent (AAEQ) or
Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s),
Excluding Base Period:
7.125% ----> $1,444,969
7.000% ----> $1,478,542
10.000% ----> $919,615

Average Annual Equivalent
Valuations:
7.125% ----> $106,360
7.000% ----> $108,990
10.000% ----> $92,752

Average Annual Equivalent (AAEQ) or
Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s),
Excluding Base Period:
7.125% ----> $2,164,313
7.000% ----> $2,220,356
10.000% ----> $1,255,148

Average Annual Equivalent
Valuations:
7.125% ----> $159,309
7.000% ----> $160,867
10.000% ----> $126,593

Average Annual Equivalent (AAEQ) or
Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s),
Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent
Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent (AAEQ) or
Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s),
Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent
Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent (AAEQ) or
Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s),
Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent
Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Year	Period	Applied Discount Factors 7.125%	7.000%	10.000%	Stream Values	Beach D/A 7.125%	7.000%	10.000%	Stream Values	Upland D/A 7.125%	7.000%	10.000%
2001	0	1.00000	1.00000	1.00000	$0	$0	$0	$0	$0	$0	$0	$0
2002	1	0.93348	0.93458	0.90909	$0	$0	$0	$0	$0	$0	$0	$0
2003	2	0.87140	0.87344	0.82645	$0	$0	$0	$0	$0	$0	$0	$0
2004	3	0.81344	0.81630	0.75131	$0	$0	$0	$0	$0	$0	$0	$0
2005	4	0.75934	0.76290	0.68301	$0	$0	$0	$0	$0	$0	$0	$0
2006	5	0.70884	0.71299	0.62092	$0	$0	$0	$0	$0	$0	$0	$0
2007	6	0.66169	0.66634	0.56447	$0	$0	$0	$0	$0	$0	$0	$0
2008	7	0.61768	0.62275	0.51316	$0	$0	$0	$0	$0	$0	$0	$0
2009	8	0.57660	0.58201	0.46651	$0	$0	$0	$0	$0	$0	$0	$0
2010	9	0.53825	0.54393	0.42410	$0	$0	$0	$0	$0	$0	$0	$0
2011	10	0.50245	0.50835	0.38554	$1,478,222	$742,731	$751,453	$569,918	$1,063,118	$534,162	$540,435	$409,878
2012	11	0.46903	0.47509	0.35049	$0	$0	$0	$0	$0	$0	$0	$0
2013	12	0.43783	0.44401	0.31863	$0	$0	$0	$0	$0	$0	$0	$0
2014	13	0.40871	0.41496	0.28966	$0	$0	$0	$0	$0	$0	$0	$0
2015	14	0.38153	0.38782	0.26333	$0	$0	$0	$0	$0	$0	$0	$0
2016	15	0.35616	0.36245	0.23939	$0	$0	$0	$0	$0	$0	$0	$0
2017	16	0.33247	0.33873	0.21763	$0	$0	$0	$0	$0	$0	$0	$0
2018	17	0.31035	0.31657	0.19784	$0	$0	$0	$0	$0	$0	$0	$0
2019	18	0.28971	0.29586	0.17986	$0	$0	$0	$0	$0	$0	$0	$0
2020	19	0.27044	0.27651	0.16351	$0	$0	$0	$0	$0	$0	$0	$0
2021	20	0.25245	0.25842	0.14864	$1,478,222	$373,186	$382,001	$219,728	$1,063,118	$268,389	$274,730	$158,026
2022	21	0.23566	0.24151	0.13513	$0	$0	$0	$0	$3,813,329	$922,229	$945,120	$526,610
2023	22	0.21999	0.22571	0.12285	$0	$0	$0	$0	$0	$0	$0	$0
2024	23	0.20536	0.21095	0.11168	$0	$0	$0	$0	$0	$0	$0	$0
2025	24	0.19170	0.19715	0.10153	$0	$0	$0	$0	$0	$0	$0	$0
2026	25	0.17895	0.18425	0.09230	$0	$0	$0	$0	$0	$0	$0	$0
2027	26	0.16705	0.17220	0.08391	$0	$0	$0	$0	$0	$0	$0	$0
2028	27	0.15594	0.16093	0.07628	$0	$0	$0	$0	$0	$0	$0	$0
2029	28	0.14556	0.15040	0.06934	$0	$0	$0	$0	$0	$0	$0	$0
2030	29	0.13588	0.14056	0.06304	$0	$0	$0	$0	$0	$0	$0	$0
2031	30	0.12685	0.13137	0.05731	$1,478,222	$187,506	$194,190	$84,716	$1,063,118	$134,852	$139,658	$60,926
2032	31	0.11841	0.12277	0.05210	$0	$0	$0	$0	$0	$0	$0	$0
2033	32	0.11053	0.11474	0.04736	$0	$0	$0	$0	$0	$0	$0	$0
2034	33	0.10318	0.10723	0.04306	$0	$0	$0	$0	$0	$0	$0	$0
2035	34	0.09632	0.10022	0.03914	$0	$0	$0	$0	$0	$0	$0	$0
2036	35	0.08991	0.09366	0.03558	$0	$0	$0	$0	$0	$0	$0	$0
2037	36	0.08393	0.08754	0.03235	$0	$0	$0	$0	$0	$0	$0	$0
2038	37	0.07835	0.08181	0.02941	$0	$0	$0	$0	$0	$0	$0	$0
2039	38	0.07314	0.07646	0.02673	$0	$0	$0	$0	$0	$0	$0	$0
2040	39	0.06827	0.07146	0.02430	$0	$0	$0	$0	$0	$0	$0	$0
2041	40	0.06373	0.06678	0.02209	$1,478,222	$94,212	$98,716	$32,661	$1,063,118	$67,755	$70,995	$23,480
2042	41	0.05948	0.06241	0.02009	$0	$0	$0	$0	$0	$0	$0	$0
2043	42	0.05554	0.05833	0.01826	$0	$0	$0	$0	$0	$0	$0	$0
2044	43	0.05184	0.05451	0.01660	$0	$0	$0	$0	$3,813,329	$202,881	$213,326	$64,062
2045	44	0.04840	0.05095	0.01509	$0	$0	$0	$0	$0	$0	$0	$0
2046	45	0.04518	0.04761	0.01372	$0	$0	$0	$0	$0	$0	$0	$0
2047	46	0.04217	0.04450	0.01247	$0	$0	$0	$0	$0	$0	$0	$0
2048	47	0.03937	0.04159	0.01134	$0	$0	$0	$0	$0	$0	$0	$0
2049	48	0.03675	0.03887	0.01031	$0	$0	$0	$0	$0	$0	$0	$0
2050	49	0.03430	0.03632	0.00937	$0	$0	$0	$0	$0	$0	$0	$0
2051	50	0.03202	0.03395	0.00852	$1,478,222	$47,337	$50,182	$12,592	$1,063,118	$34,044	$36,090	$9,056

Beach D/A

Upland D/A then pump to beach

Year	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%
2001	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2002	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2003	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2004	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2005	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2006	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2007	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2008	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2009	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2010	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2011	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2012	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2013	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2014	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2015	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2016	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2018	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2020	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2021	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2022	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2023	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2024	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2025	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2026	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2027	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2028	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2029	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2030	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2031	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2032	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2038	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2042	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2047	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2050	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2051	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Ponce Deleon Inlet\WW - WW TAL TENANCE\ WITHOUT PROJECT Beach DA ########## Form3.xls

Project Economic Life: 50 Years

Current Rate: 7.125%
Escalated Rate: 7.000%
OMB Rate: 10.000%

ASSUMPTIONS:

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $3,998,721
7.000% ----> $4,077,159
10.000% ----> $2,878,192

Average Annual Equivalent Valuations:
7.125% ----> $294,334
7.000% ----> $295,430
10.000% ----> $288,919

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $3,123,439
7.000% ----> $3,187,626
10.000% ----> $2,038,232

Average Annual Equivalent Valuations:
7.125% ----> $229,907
7.000% ----> $230,975
10.000% ----> $205,574

Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $3,066,312
7.000% ----> $3,133,312
10.000% ----> $1,951,478

Average Annual Equivalent Valuations:
7.125% ----> $225,702
7.000% ----> $227,038
10.000% ----> $196,825

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Year	Period	Applied Discount Factors 7.125%	7.000%	10.000%	Stream Values	0 FEET ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	1 FOOT ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	2 FEET ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	3 FEET ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	4 FEET ADVANCED MAINTENANCE 7.125%	7.000%	10.000%
2001	0	1.00000	1.00000	1.00000	$2,582,985	$2,582,985	$2,582,985	$2,582,985	$2,808,313	$2,808,313	$2,808,313	$2,808,313	$3,138,877	$3,138,877	$3,138,877	$3,138,877	$0	$0	$0	$0	$0	$0	$0	$0
2002	1	0.93348	0.93458	0.90909	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2003	2	0.87140	0.87344	0.82645	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2004	3	0.81344	0.81630	0.75131	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2005	4	0.75934	0.76290	0.68301	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2006	5	0.70884	0.71299	0.62092	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2007	6	0.66169	0.66634	0.56447	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2008	7	0.61768	0.62275	0.51316	$2,582,985	$1,583,094	$1,596,088	$1,315,206	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2009	8	0.57660	0.58201	0.46651	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2010	9	0.53825	0.54393	0.42410	$0	$0	$0	$0	$2,808,313	$1,510,493	$1,526,448	$1,190,151	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2011	10	0.50245	0.50835	0.38554	$0	$0	$0	$0	$0	$0	$0	$0	$3,138,877	$1,516,118	$1,594,829	$1,209,403	$0	$0	$0	$0	$0	$0	$0	$0
2012	11	0.46903	0.47508	0.35048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2013	12	0.43783	0.44401	0.31863	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2014	13	0.40871	0.41498	0.28966	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2015	14	0.38153	0.38782	0.26333	$2,582,985	$977,847	$993,962	$674,909	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2016	15	0.35615	0.36245	0.23939	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	16	0.33247	0.33873	0.21763	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2018	17	0.31035	0.31657	0.19784	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	18	0.28971	0.29586	0.17986	$0	$0	$0	$0	$2,808,313	$813,020	$830,287	$504,740	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2020	19	0.27044	0.27651	0.16351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2021	20	0.25245	0.25842	0.14864	$0	$0	$0	$0	$0	$0	$0	$0	$3,138,877	$781,918	$810,628	$458,237	$0	$0	$0	$0	$0	$0	$0	$0
2022	21	0.23566	0.24151	0.13513	$2,582,985	$603,998	$618,990	$346,335	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2023	22	0.21999	0.22571	0.12285	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2024	23	0.20538	0.21095	0.11168	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2025	24	0.19170	0.19715	0.10153	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2026	25	0.17895	0.18426	0.09230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2027	26	0.16705	0.17220	0.08391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2028	27	0.15594	0.16093	0.07628	$0	$0	$0	$0	$2,808,313	$433,606	$451,021	$214,058	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2029	28	0.14558	0.15040	0.06934	$2,582,985	$323,038	$385,476	$133,725	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2030	29	0.13588	0.14058	0.06304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2031	30	0.12685	0.13137	0.05731	$0	$0	$0	$0	$0	$0	$0	$0	$3,138,877	$397,899	$412,082	$179,770	$0	$0	$0	$0	$0	$0	$0	$0
2032	31	0.11841	0.12277	0.05210	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	32	0.11053	0.11474	0.04736	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	33	0.10318	0.10723	0.04306	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	34	0.09632	0.10022	0.03914	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	35	0.08991	0.09368	0.03558	$2,582,985	$230,443	$240,055	$81,201	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	36	0.08393	0.08754	0.03235	$0	$0	$0	$0	$2,808,313	$235,541	$245,852	$80,782	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2038	37	0.07835	0.08181	0.02941	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	38	0.07314	0.07648	0.02673	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	39	0.06827	0.07146	0.02430	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	40	0.06373	0.06678	0.02209	$0	$0	$0	$0	$0	$0	$0	$0	$3,138,877	$198,824	$209,482	$89,309	$0	$0	$0	$0	$0	$0	$0	$0
2042	41	0.05949	0.06241	0.02008	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	42	0.05554	0.05833	0.01826	$2,582,985	$142,340	$149,494	$46,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	43	0.06184	0.05451	0.01660	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	44	0.04840	0.05095	0.01509	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	45	0.04518	0.04761	0.01372	$0	$0	$0	$0	$2,808,313	$126,778	$133,618	$36,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2047	46	0.04217	0.04450	0.01247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	47	0.03937	0.04159	0.01134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	48	0.03676	0.03887	0.01031	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2050	49	0.03430	0.03632	0.00937	$2,582,985	$83,921	$93,097	$24,018	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2051	50	0.03202	0.03395	0.00852	$0	$0	$0	$0	$0	$0	$0	$0	$3,138,877	$100,451	$106,496	$26,722	$0	$0	$0	$0	$0	$0	$0	$0

Beach D/A

Beach D/A

Beach D/A

Ponce DeLeon Inlet/WW - PWW (ADVANCED MAINTENANCE) WITHOUT PROJECT Upland DA ########## Form4.xls

Project Economic Life: 50 Years
Current Rate: 7.125%
Escalated Rate: 7.000%
OMB Rate: 10.000%

ASSUMPTIONS:

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $6,939,814
7.000% ----> $7,080,117
10.000% ----> $4,521,876

Average Annual Equivalent Valuations:
7.125% ----> $510,827
7.000% ----> $513,024
10.000% ----> $401,116

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $6,348,094
7.000% ----> $6,476,549
10.000% ----> $4,142,514

Average Annual Equivalent Valuations:
7.125% ----> $467,265
7.000% ----> $469,435
10.000% ----> $417,811

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $9,294,583
7.000% ----> $9,426,459
10.000% ----> $4,026,309

Average Annual Equivalent Valuations:
7.125% ----> $683,328
7.000% ----> $685,680
10.000% ----> $411,133

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Year	Period	Applied Discount Factors 7.125%	7.000%	10.000%	Stream Values	0 FEET ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	1 FOOT ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	2 FEET ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%
2001	0	1.00000	1.00000	1.00000	$1,856,437	$1,856,437	$1,856,437	$1,856,437	$1,790,237	$1,790,237	$1,790,237	$1,790,237	$1,983,653	$1,983,653	$1,983,653	$1,983,653	$0	$0	$0	$0	$0	$0	$0	$0
2002	1	0.93348	0.93458	0.90909	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2003	2	0.87140	0.87344	0.82645	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2004	3	0.81344	0.81630	0.75131	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2005	4	0.75934	0.76290	0.68301	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2006	5	0.70884	0.71299	0.62092	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2007	6	0.66169	0.66634	0.56447	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2008	7	0.61788	0.62275	0.51316	$1,856,437	$1,023,149	$1,031,548	$850,014	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2009	8	0.57660	0.58201	0.46651	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2010	9	0.53825	0.54383	0.42410	$3,913,328	$2,106,342	$2,128,592	$1,659,634	$5,703,566	$3,069,933	$3,102,362	$2,418,869	$3,913,328	$2,106,342	$2,128,592	$1,658,834	$0	$0	$0	$0	$0	$0	$0	$0
2011	10	0.50245	0.50835	0.38554	$0	$0	$0	$0	$0	$0	$0	$0	$1,983,653	$996,684	$1,008,389	$764,784	$0	$0	$0	$0	$0	$0	$0	$0
2012	11	0.46903	0.47509	0.35048	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2013	12	0.43783	0.44401	0.31863	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2014	13	0.40871	0.41496	0.28966	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2015	14	0.38153	0.38782	0.26333	$1,856,437	$831,980	$842,395	$638,192	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2016	15	0.35615	0.36245	0.23939	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	16	0.33247	0.33883	0.21763	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2018	17	0.31035	0.31657	0.19784	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	18	0.28971	0.29586	0.17986	$3,913,328	$1,133,734	$1,157,813	$703,647	$5,703,566	$1,652,369	$1,687,479	$1,025,938	$3,913,328	$1,133,734	$1,157,813	$703,647	$0	$0	$0	$0	$0	$0	$0	$0
2020	19	0.27044	0.27651	0.16351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2021	20	0.25245	0.25842	0.14864	$0	$0	$0	$0	$0	$0	$0	$0	$1,983,653	$500,782	$512,614	$294,857	$0	$0	$0	$0	$0	$0	$0	$0
2022	21	0.23566	0.24151	0.13513	$1,856,437	$390,362	$400,051	$223,835	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2023	22	0.21999	0.22571	0.12285	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2024	23	0.20536	0.21095	0.11168	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2025	24	0.19170	0.19715	0.10153	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2026	25	0.17895	0.18425	0.09230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2027	26	0.16705	0.17220	0.08391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2028	27	0.15594	0.16093	0.07628	$3,913,328	$610,230	$629,773	$298,500	$5,703,566	$889,393	$917,877	$435,055	$3,913,328	$610,230	$629,773	$298,500	$0	$0	$0	$0	$0	$0	$0	$0
2029	28	0.14556	0.15040	0.06934	$1,856,437	$241,118	$249,132	$114,883	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2030	29	0.13588	0.14058	0.06304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2031	30	0.12685	0.13137	0.05731	$0	$0	$0	$0	$0	$0	$0	$0	$1,983,653	$251,017	$260,587	$113,680	$0	$0	$0	$0	$0	$0	$0	$0
2032	31	0.11841	0.12277	0.05210	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	32	0.11053	0.11474	0.04736	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	33	0.10318	0.10723	0.04306	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	34	0.09632	0.10022	0.03914	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	35	0.08991	0.09368	0.03558	$1,856,437	$148,935	$155,147	$58,943	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	36	0.08393	0.08754	0.03235	$3,913,328	$328,455	$342,555	$126,583	$5,703,566	$478,714	$499,264	$184,506	$3,913,328	$328,455	$342,555	$126,593	$0	$0	$0	$0	$0	$0	$0	$0
2038	37	0.07835	0.08181	0.02941	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	38	0.07314	0.07646	0.02673	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	39	0.06827	0.07146	0.02430	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	40	0.06373	0.06679	0.02208	$0	$0	$0	$0	$0	$0	$0	$0	$1,983,653	$126,425	$132,469	$43,829	$0	$0	$0	$0	$0	$0	$0	$0
2042	41	0.05948	0.06241	0.02008	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	42	0.05554	0.05833	0.01826	$1,856,437	$91,994	$96,618	$30,247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	43	0.05184	0.05451	0.01660	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	44	0.04840	0.05095	0.01509	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	45	0.04518	0.04761	0.01372	$3,913,328	$176,790	$186,327	$53,688	$5,703,566	$257,662	$271,567	$78,248	$3,913,328	$176,790	$186,327	$53,688	$0	$0	$0	$0	$0	$0	$0	$0
2047	46	0.04217	0.04450	0.01247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	47	0.03937	0.04159	0.01134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	48	0.03675	0.03887	0.01031	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2050	49	0.03430	0.03632	0.00937	$1,856,437	$56,823	$60,169	$15,521	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2051	50	0.03202	0.03395	0.00852	$0	$0	$0	$0	$0	$0	$0	$0	$1,983,653	$63,522	$67,341	$16,898	$0	$0	$0	$0	$0	$0	$0	$0

Upland D/A

Upland D/A

Upland D/A

Prince DeLeon Inlet/W - REACH - MAINTENANCE) WITHOUT PROJECT Beach DA ########## Form5.xls

Project Economic Life: 50 Years

		Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):		Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):		Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):		Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):		Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):	
Current Rate:	7.125%	7.125% ---->	0.073807	7.125% ---->	0.073807	7.125% ---->	0.073807	7.125% ---->	0.073807	7.125% ---->	0.073807
Escalated Rate:	7.000%	7.000% ---->	0.072460	7.000% ---->	0.072460	7.000% ---->	0.072460	7.000% ---->	0.072460	7.000% ---->	0.072460
OMB Rate:	10.000%	10.000% ---->	0.100859	10.000% ---->	0.100859	10.000% ---->	0.100859	10.000% ---->	0.100859	10.000% ---->	0.100859

ASSUMPTIONS:

	Total Present Valuation(s), Excluding Base Period:		Total Present Valuation(s), Excluding Base Period:		Total Present Valuation(s), Excluding Base Period:		Total Present Valuation(s), Excluding Base Period:		Total Present Valuation(s), Excluding Base Period:	
7.125%	7.125% ---->	$6,457,114	7.125% ---->	$5,581,832	7.125% ---->	$5,126,807	7.125% ---->	$0	7.125% ---->	$0
7.000%	7.000% ---->	$6,583,230	7.000% ---->	$5,707,697	7.000% ---->	$5,241,360	7.000% ---->	$0	7.000% ---->	$0
10.000%	10.000% ---->	$4,121,041	10.000% ---->	$3,483,081	10.000% ---->	$3,218,558	10.000% ---->	$0	10.000% ---->	$0

	Average Annual Equivalent Valuations:		Average Annual Equivalent Valuations:		Average Annual Equivalent Valuations:		Average Annual Equivalent Valuations:		Average Annual Equivalent Valuations:	
7.125%	7.125% ---->	$475,289	7.125% ---->	$410,862	7.125% ---->	$377,369	7.125% ---->	$0	7.125% ---->	$0
7.000%	7.000% ---->	$478,034	7.000% ---->	$413,579	7.000% ---->	$378,784	7.000% ---->	$0	7.000% ---->	$0
10.000%	10.000% ---->	$415,645	10.000% ---->	$351,301	10.000% ---->	$324,418	10.000% ---->	$0	10.000% ---->	$0

		Applied Discount Factors			Stream	0 FEET ADVANCED MAINTENANCE			Stream	1 FOOT ADVANCED MAINTENANCE			Stream	2 FEET ADVANCED MAINTENANCE			Stream	3 FEET ADVANCED MAINTENANCE			Stream	4 FEET ADVANCED MAINTENANCE		
Year	Period	7.125%	7.000%	10.000%	Values	7.125%	7.000%	10.000%	Values	7.125%	7.000%	10.000%	Values	7.125%	7.000%	10.000%	Values	7.125%	7.000%	10.000%	Values	7.125%	7.000%	10.000%
2001	0	1.00000	1.00000	1.00000	$7,217,485	$7,217,485	$7,217,485	$7,217,485	$7,460,813	$7,460,813	$7,460,813	$7,460,813	$7,701,377	$7,701,377	$7,701,377	$7,701,377	$0	$0	$0	$0	$0	$0	$0	$0
2002	1	0.93348	0.93458	0.90909	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2003	2	0.87140	0.87344	0.82645	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2004	3	0.81344	0.81630	0.75131	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2005	4	0.75934	0.76290	0.68301	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2006	5	0.70884	0.71299	0.62092	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2007	6	0.66169	0.66634	0.56447	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2008	7	0.61769	0.62275	0.51315	$2,582,865	$1,583,094	$1,596,088	$1,325,208	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2009	8	0.57660	0.58201	0.46651	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2010	9	0.53825	0.54393	0.42410	$0	$0	$0	$0	$2,808,313	$1,510,483	$1,526,448	$1,190,151	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2011	10	0.50245	0.50835	0.38554	$0	$0	$0	$0	$0	$0	$0	$0	$3,136,877	$1,576,118	$1,594,629	$1,209,402	$0	$0	$0	$0	$0	$0	$0	$0
2012	11	0.46903	0.47509	0.35049	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2013	12	0.43783	0.44401	0.31863	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2014	13	0.40871	0.41498	0.28966	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2015	14	0.38153	0.38782	0.26333	$2,582,865	$827,647	$993,982	$824,909	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2016	15	0.35615	0.36245	0.23939	$4,654,500	$1,657,317	$1,683,005	$1,114,250	$4,654,500	$1,657,317	$1,683,005	$1,114,250	$4,654,500	$1,657,317	$1,683,005	$1,114,250	$0	$0	$0	$0	$0	$0	$0	$0
2017	16	0.33247	0.33873	0.21763	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2018	17	0.31035	0.31652	0.19784	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	18	0.28971	0.29586	0.17986	$0	$0	$0	$0	$2,808,313	$813,020	$830,287	$504,740	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2020	19	0.27044	0.27651	0.16351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2021	20	0.25245	0.25843	0.14864	$0	$0	$0	$0	$0	$0	$0	$0	$3,136,877	$791,918	$810,628	$466,227	$0	$0	$0	$0	$0	$0	$0	$0
2022	21	0.23566	0.24151	0.13513	$2,582,865	$803,998	$818,890	$346,335	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2023	22	0.21899	0.22571	0.12285	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2024	23	0.20536	0.21095	0.11168	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2025	24	0.19170	0.19715	0.10153	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2026	25	0.17895	0.18425	0.09230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2027	26	0.16705	0.17220	0.08391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2028	27	0.15594	0.16093	0.07628	$0	$0	$0	$0	$2,808,313	$437,606	$451,621	$214,059	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2029	28	0.14556	0.15040	0.06934	$2,582,865	$373,078	$385,476	$177,725	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2030	29	0.13586	0.14056	0.06304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2031	30	0.12685	0.13137	0.05731	$4,654,500	$590,402	$611,448	$266,743	$4,654,500	$590,402	$611,448	$266,743	$4,654,500	$590,402	$611,448	$266,743	$0	$0	$0	$0	$0	$0	$0	$0
2032	31	0.11841	0.12277	0.05210	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	32	0.11053	0.11474	0.04738	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	33	0.10318	0.10723	0.04308	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	34	0.09632	0.10022	0.03914	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	35	0.08991	0.09366	0.03558	$2,582,865	$230,443	$240,055	$91,201	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	36	0.08393	0.08754	0.03235	$0	$0	$0	$0	$2,808,313	$235,541	$245,652	$90,782	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2038	37	0.07835	0.08181	0.02941	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	38	0.07314	0.07646	0.02675	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	39	0.06827	0.07146	0.02430	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	40	0.06373	0.06678	0.02209	$0	$0	$0	$0	$0	$0	$0	$0	$3,136,877	$105,924	$209,482	$69,308	$0	$0	$0	$0	$0	$0	$0	$0
2042	41	0.05949	0.06241	0.02009	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	42	0.05554	0.05833	0.01828	$2,582,865	$142,340	$149,484	$46,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	43	0.05184	0.05451	0.01660	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	44	0.04840	0.05095	0.01509	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	45	0.04518	0.04761	0.01372	$4,654,500	$210,274	$221,617	$63,656	$2,460,813	$332,053	$355,235	$102,256	$4,654,500	$210,274	$221,617	$63,656	$0	$0	$0	$0	$0	$0	$0	$0
2047	46	0.04217	0.04450	0.01247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	47	0.03937	0.04158	0.01134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	48	0.03675	0.03887	0.01031	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2050	49	0.03430	0.03632	0.00937	$2,582,865	$87,921	$93,097	$24,018	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2051	50	0.03202	0.03395	0.00852	$0	$0	$0	$0	$0	$0	$0	$0	$3,136,877	$100,451	$106,490	$26,722	$0	$0	$0	$0	$0	$0	$0	$0

Reach W without project condition is the superimposition of the without project conditions for Cuts 22-2B and the remainder of the reach.

Ponce DeLeon Inlet/WW - REACH IV [ADVANCED MAINTENANCE] WITHOUT PROJECT Upland DA 1/22/98 12:47 PM Form8.xls

Project Economic Life: 50 Years

Current Rate: 7.125%
Escalated Rate: 7.000%
OMB Rate: 10.000%

ASSUMPTIONS:

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):

7.125%	----->	0.073607
7.000%	----->	0.072460
10.000%	----->	0.100859

Total Present Valuation(s), Excluding Base Period:

7.125%	----->	$8,275,831
7.000%	----->	$8,449,385
10.000%	----->	$5,356,927

Average Annual Equivalent Valuations:

7.125%	----->	$609,148
7.000%	----->	$612,241
10.000%	----->	$540,295

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):

7.125%	----->	0.073607
7.000%	----->	0.072460
10.000%	----->	0.100859

Total Present Valuation(s), Excluding Base Period:

7.125%	----->	$7,693,850
7.000%	----->	$7,847,617
10.000%	----->	$4,927,566

Average Annual Equivalent Valuations:

7.125%	----->	$565,566
7.000%	----->	$568,652
10.000%	----->	$496,990

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):

7.125%	----->	0.073607
7.000%	----->	0.072460
10.000%	----->	0.100859

Total Present Valuation(s), Excluding Base Period:

7.125%	----->	$7,630,339
7.000%	----->	$7,785,727
10.000%	----->	$4,861,361

Average Annual Equivalent Valuations:

7.125%	----->	$561,647
7.000%	----->	$564,877
10.000%	----->	$490,313

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):

7.125%	----->	0.073607
7.000%	----->	0.072460
10.000%	----->	0.100859

Total Present Valuation(s), Excluding Base Period:

7.125%	----->	$0
7.000%	----->	$0
10.000%	----->	$0

Average Annual Equivalent Valuations:

7.125%	----->	$0
7.000%	----->	$0
10.000%	----->	$0

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):

7.125%	----->	0.073607
7.000%	----->	0.072460
10.000%	----->	0.100859

Total Present Valuation(s), Excluding Base Period:

7.125%	----->	$0
7.000%	----->	$0
10.000%	----->	$0

Average Annual Equivalent Valuations:

7.125%	----->	$0
7.000%	----->	$0
10.000%	----->	$0

Applied Discount Factors

Year	Period	7.125%	7.000%	10.000%	Stream Values	0 FEET ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	1 FOOT ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	2 FEET ADVANCED MAINTENANCE 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%
2001	0	1.00000	1.00000	1.00000	$4,185,437	$4,185,437	$4,185,437	$4,185,437	$4,319,237	$4,319,237	$4,319,237	$4,319,237	$4,512,653	$4,512,653	$4,512,653	$4,512,653	$0	$0	$0	$0	$0	$0	$0	$0
2002	1	0.93349	0.93458	0.90909	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2003	2	0.87140	0.87344	0.82645	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2004	3	0.81344	0.81630	0.75131	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2005	4	0.75934	0.76290	0.68301	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2006	5	0.70894	0.71299	0.62092	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2007	6	0.66169	0.66634	0.56447	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2008	7	0.61788	0.62275	0.51316	$1,858,437	$1,023,149	$1,031,546	$850,014	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2009	8	0.57690	0.58201	0.46651	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2010	9	0.53825	0.54393	0.42410	$3,913,329	$2,108,342	$2,128,592	$1,659,834	$5,703,566	$3,069,933	$3,102,362	$2,418,869	$3,913,328	$2,108,342	$2,128,592	$1,659,834	$0	$0	$0	$0	$0	$0	$0	$0
2011	10	0.50245	0.50835	0.38554	$0	$0	$0	$0	$0	$0	$0	$0	$1,883,853	$998,884	$1,008,389	$784,784	$0	$0	$0	$0	$0	$0	$0	$0
2012	11	0.46903	0.47509	0.35049	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2013	12	0.43783	0.44401	0.31863	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2014	13	0.40871	0.41496	0.28966	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2015	14	0.38163	0.38782	0.26333	$1,858,437	$831,980	$842,396	$638,192	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2016	15	0.35615	0.36245	0.23939	$2,529,000	$900,713	$916,626	$605,422	$2,529,000	$900,713	$916,626	$605,422	$2,529,000	$900,713	$916,626	$605,422	$0	$0	$0	$0	$0	$0	$0	$0
2017	16	0.33243	0.33873	0.21763	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2018	17	0.31035	0.31652	0.19784	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	18	0.28931	0.29586	0.17986	$3,913,329	$1,133,734	$1,157,813	$703,847	$5,703,566	$1,652,388	$1,687,478	$1,025,836	$3,913,328	$1,133,734	$1,157,813	$703,847	$0	$0	$0	$0	$0	$0	$0	$0
2020	19	0.27044	0.27651	0.16351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2021	20	0.25245	0.25842	0.14864	$0	$0	$0	$0	$0	$0	$0	$0	$1,883,853	$500,782	$512,614	$284,697	$0	$0	$0	$0	$0	$0	$0	$0
2022	21	0.23586	0.24151	0.13513	$1,858,437	$390,362	$400,051	$223,835	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2023	22	0.21999	0.22571	0.12285	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2024	23	0.20538	0.21095	0.11168	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2025	24	0.19170	0.19715	0.10153	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2026	25	0.17895	0.18425	0.09230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2027	26	0.16706	0.17220	0.08391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2028	27	0.15594	0.16092	0.07628	$3,913,329	$610,230	$628,773	$298,500	$5,703,566	$889,393	$917,877	$435,055	$3,913,328	$610,230	$628,773	$298,500	$0	$0	$0	$0	$0	$0	$0	$0
2029	28	0.14556	0.15040	0.06934	$1,858,437	$241,119	$249,132	$114,883	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2030	29	0.13588	0.14056	0.06304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2031	30	0.12685	0.13137	0.05731	$2,529,000	$320,782	$332,227	$144,933	$2,529,000	$320,782	$332,227	$144,933	$4,512,653	$572,410	$592,814	$258,614	$0	$0	$0	$0	$0	$0	$0	$0
2032	31	0.11841	0.12277	0.05210	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	32	0.11053	0.11474	0.04736	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	33	0.10319	0.10723	0.04306	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	34	0.09632	0.10022	0.03914	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	35	0.08991	0.09368	0.03558	$1,858,437	$148,935	$155,147	$58,943	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	36	0.08393	0.08754	0.03235	$3,913,329	$328,455	$342,555	$126,593	$5,703,566	$478,714	$499,284	$184,506	$3,913,328	$328,455	$342,555	$126,593	$0	$0	$0	$0	$0	$0	$0	$0
2038	37	0.07835	0.08180	0.02941	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	38	0.07314	0.07646	0.02673	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	39	0.06827	0.07146	0.02430	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	40	0.06373	0.06678	0.02209	$0	$0	$0	$0	$0	$0	$0	$0	$1,883,853	$126,425	$132,469	$43,828	$0	$0	$0	$0	$0	$0	$0	$0
2042	41	0.05948	0.06241	0.02008	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	42	0.05554	0.05833	0.01828	$1,858,437	$91,994	$98,618	$30,247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	43	0.05184	0.05451	0.01660	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	44	0.04840	0.05095	0.01509	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	45	0.04518	0.04761	0.01372	$6,442,329	$291,042	$306,742	$88,384	$8,232,566	$371,918	$391,961	$112,944	$6,442,328	$291,042	$306,742	$88,384	$0	$0	$0	$0	$0	$0	$0	$0
2047	46	0.04217	0.04450	0.01247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	47	0.03937	0.04159	0.01134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	48	0.03675	0.03887	0.01031	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2050	49	0.03430	0.03632	0.00937	$1,858,437	$58,823	$60,189	$15,521	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2051	50	0.03202	0.03395	0.00852	$0	$0	$0	$0	$0	$0	$0	$0	$1,883,853	$53,522	$57,341	$16,898	$0	$0	$0	$0	$0	$0	$0	$0

Reach IV without project condition is the superimposition of the without project conditions for Cuts 22-28 and the remainder of the reach.

Ponce Deleon Inlet/W.W. -REACH IV CONDITION: Upland and Beach DA ########## Form2.xls

Project Economic Life: 50 Years

Current Rate: 7.125%
Escalated Rate: 7.000%
OMB Rate: 10.000%

ASSUMPTIONS:

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $3,903,383
7.000% ----> $3,896,812
10.000% ----> $2,364,464

Average Annual Equivalent Valuations:
7.125% ----> $287,315
7.000% ----> $289,594
10.000% ----> $238,478

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $3,500,069
7.000% ----> $3,589,624
10.000% ----> $2,040,200

Average Annual Equivalent Valuations:
7.125% ----> $257,630
7.000% ----> $260,104
10.000% ----> $205,773

Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent (AAEQ) or Capital Recovery Factor(S):
7.125% ----> 0.073607
7.000% ----> 0.072460
10.000% ----> 0.100859

Total Present Valuation(s), Excluding Base Period:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Average Annual Equivalent Valuations:
7.125% ----> $0
7.000% ----> $0
10.000% ----> $0

Applied Discount Factors

Year	Period	7.125%	7.000%	10.000%	Stream Values	Beach D/A 7.125%	7.000%	10.000%	Stream Values	Upland D/A 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%	Stream Values	Left blank intentionally 7.125%	7.000%	10.000%
2001	0	1.00000	1.00000	1.00000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2002	1	0.93349	0.93458	0.90909	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2003	2	0.87140	0.87344	0.82645	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2004	3	0.81344	0.81630	0.75131	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2005	4	0.75934	0.76290	0.68301	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2006	5	0.70884	0.71299	0.62092	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2007	6	0.66169	0.66634	0.56447	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2008	7	0.61788	0.62275	0.51316	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2009	8	0.57680	0.58201	0.46651	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2010	9	0.53825	0.54393	0.42410	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2011	10	0.50245	0.50835	0.38554	$1,478,222	$742,731	$751,453	$569,818	$1,063,118	$534,162	$540,435	$409,878	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2012	11	0.46903	0.47508	0.35049	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2013	12	0.43783	0.44401	0.31863	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2014	13	0.40821	0.41496	0.28966	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2015	14	0.38153	0.38782	0.26333	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2016	15	0.35816	0.36245	0.23938	$4,654,500	$1,667,717	$1,687,005	$1,114,250	$2,529,000	$906,713	$918,628	$605,422	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2017	16	0.33247	0.33873	0.21763	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2018	17	0.31035	0.31657	0.19784	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2019	18	0.28971	0.29586	0.17986	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2020	19	0.27044	0.27651	0.16351	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2021	20	0.25245	0.25842	0.14864	$1,478,222	$373,184	$382,001	$219,728	$1,063,118	$268,389	$274,730	$158,026	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2022	21	0.23568	0.24151	0.13513	$0	$0	$0	$0	$3,913,328	$922,728	$945,120	$528,810	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2023	22	0.21999	0.22571	0.12285	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2024	23	0.20538	0.21095	0.11168	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2025	24	0.19170	0.19715	0.10153	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2026	25	0.17895	0.18425	0.09230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2027	26	0.16705	0.17220	0.08391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2028	27	0.15594	0.16093	0.07628	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2029	28	0.14558	0.15040	0.06934	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2030	29	0.13588	0.14058	0.06304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2031	30	0.12685	0.13137	0.05731	$6,132,722	$777,908	$805,838	$351,453	$3,592,118	$455,644	$471,886	$205,859	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2032	31	0.11841	0.12277	0.05210	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2033	32	0.11053	0.11474	0.04738	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2034	33	0.10318	0.10723	0.04308	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2035	34	0.09632	0.10022	0.03914	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2036	35	0.08991	0.09366	0.03558	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2037	36	0.08393	0.08754	0.03235	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2038	37	0.07835	0.08181	0.02941	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2039	38	0.07314	0.07648	0.02673	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2040	39	0.06827	0.07148	0.02430	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2041	40	0.06373	0.06678	0.02209	$1,478,222	$94,212	$98,716	$32,661	$1,063,118	$67,756	$70,995	$23,490	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2042	41	0.05948	0.06241	0.02009	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2043	42	0.05554	0.05833	0.01826	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2044	43	0.05184	0.05451	0.01660	$0	$0	$0	$0	$3,913,328	$202,681	$213,328	$64,862	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2045	44	0.04840	0.05095	0.01509	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2046	45	0.04518	0.04761	0.01372	$4,654,500	$210,274	$221,617	$63,856	$2,529,000	$114,751	$120,415	$34,698	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2047	46	0.04217	0.04450	0.01247	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2048	47	0.03937	0.04159	0.01134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2049	48	0.03675	0.03887	0.01031	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2050	49	0.03430	0.03632	0.00937	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2051	50	0.03202	0.03395	0.00852	$1,478,222	$47,337	$50,182	$12,592	$1,063,118	$34,044	$36,090	$9,058	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Beach D/A

Upland D/A then pump to beach

COST ESTIMATE

Maintenance Efficiencies

Ponce de Leon Inlet
Feasibility Report
Volusia County, Florida

Designed By: Jacksonville District Office
Estimated By: M Fascher

Prepared By: M Fascher

Preparation Date: 07/15/98
Effective Date of Pricing: 07/15/98

Sales Tax: 6.00%

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SUMMARY REPORTS SUMMARY PAGE

No Detailed Estimate...

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Descriptions of Project:
These are a series of comparison estimates to be used for determining benefits of the selected plan.

Contingencies:

20% Contingencies were used for Construction Costs in the estimate due to the unpredictable availability of Marine Equipment.

** PROJECT OWNER SUMMARY - Contract **

		QUANTITY	UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
01	IWW - Without Project - Bch D/A	322000.00	CY	2,135,804	427,161	2,562,965	7.96
02	IWW - Without Project - Bch D/A	397000.00	CY	2,338,594	467,719	2,806,313	7.07
03	IWW - Without Project - Bch D/A	471000.00	CY	2,614,064	522,813	3,136,877	6.66
04	IWW - Without Project - Up D/A	322000.00	CY	1,380,364	276,073	1,656,437	5.14
05	IWW - Without Project - Up D/A	397000.00	CY	1,491,864	298,373	1,790,237	4.51
06	IWW - Without Project - Up D/A	471000.00	CY	1,653,044	330,609	1,983,653	4.21
07	IWW - With Project - Bch D/A	92000.00	CY	1,231,852	246,370	1,478,222	16.07
08	IWW - With Project - Up D/A	92000.00	CY	885,932	177,186	1,063,118	11.56
09	Upland D/A to Bch D/A Meth 1	515000.00	CY	3,261,108	652,222	3,913,329	7.60
10	Upland D/A to Bch D/A Meth 2	515000.00	CY	4,032,578	806,516	4,839,093	9.40
11	PDL - Without Project - Up D/A	200000.00	CY	1,306,241	261,248	1,567,489	7.84
12	PDL - Without Project - Bch D/A	200000.00	CY	1,805,065	361,013	2,166,078	10.83
13	PDL - With Project - Up D/A	68000.00	CY	724,980	144,996	869,976	12.79
14	PDL - With Project - Bch D/A	68000.00	CY	976,633	195,327	1,171,960	17.23
15	Rgn4 - Without Project - Bch D/A	180000.00	CY	4,654,000	930,800	5,584,800	31.03
16	Rgn4 - Without Project - Bch D/A	310000.00	CY	5,088,900	1,017,780	6,106,680	19.70
17	Rgn4 - Without Project - Bch D/A	440000.00	CY	5,373,600	1,074,720	6,448,320	14.66
18	Rgn4 - Without Project - Bch D/A	570000.00	CY	5,708,200	1,141,640	6,849,840	12.02
19	Rgn4 - Without Project - Bch D/A	700000.00	CY	6,320,000	1,264,000	7,584,000	10.83
20	Rgn4 - Without Project - Up D/A	180000.00	CY	2,529,319	505,864	3,035,183	16.86
21	Rgn4 - Without Project - Up D/A	310000.00	CY	2,777,600	555,520	3,333,120	10.75
22	Rgn4 - Without Project - Up D/A	440000.00	CY	2,933,800	586,760	3,520,560	8.00
23	Rgn4 - Without Project - Up D/A	570000.00	CY	3,120,500	624,100	3,744,600	6.57
24	Rgn4 - Without Project - Up D/A	700000.00	CY	3,453,000	690,600	4,143,600	5.92
25	Rgn4 - With Project - Up D/A	232000.00	CY	1,731,080	346,216	2,077,296	8.95
26	Rgn4 - With Project - Bch D/A	232000.00	CY	2,723,760	544,752	3,268,512	14.09

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY	UOM	CONTRACT	CONTING	TOTAL COST	UNIT CO.
01 IWW - Without Project - Bch D/A						
01- A Construction Cost						
01- A/12 Navigation Ports & Harbors						
01- A/12.02 Harbors						
01- A/12.02.01 Mob, Demob & Preparatory Work						
01- A/12.02.01/ 1 Mob, Demob & Preparatory Work			532,244	106,449	638,693	
TOTAL Mob, Demob & Preparatory Work			532,244	106,449	638,693	
01- A/12.02.16 Pipeline Dredging						
01- A/12.02.16/ 2 Channel	322000.00	CY	1,603,560	320,712	1,924,272	5.98
TOTAL Pipeline Dredging			1,603,560	320,712	1,924,272	
TOTAL Harbors			2,135,804	427,161	2,562,965	
TOTAL Navigation Ports & Harbors			2,135,804	427,161	2,562,965	
TOTAL Construction Cost			2,135,804	427,161	2,562,965	
01- B Non-Construction Cost						
01- B/31 Construction Management (S&I)						
TOTAL IWW - Without Project - Bch D/A	322000.00	CY	2,135,804	427,161	2,562,965	7.96
02 IWW - Without Project - Bch D/A						
02- A Construction Cost						
02- A/12 Navigation Ports & Harbors						
02- A/12.02 Harbors						
02- A/12.02.01 Mob, Demob & Preparatory Work						
02- A/12.02.01/ 1 Mob, Demob & Preparatory Work			532,244	106,449	638,693	
TOTAL Mob, Demob & Preparatory Work			532,244	106,449	638,693	

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
02- A/12.02.16 Pipeline Dredging					
02- A/12.02.16/ 2 Channel	397000.00 CY	1,806,350	361,270	2,167,620	5.46
TOTAL Pipeline Dredging		1,806,350	361,270	2,167,620	
TOTAL Harbors		2,338,594	467,719	2,806,313	
TOTAL Navigation Ports & Harbors		2,338,594	467,719	2,806,313	
TOTAL Construction Cost		2,338,594	467,719	2,806,313	
02- B Non-Construction Cost					
02- B/31 Construction Management (S&I)					
TOTAL IWW - Without Project - Bch D/A	397000.00 CY	2,338,594	467,719	2,806,313	7.07
03 IWW - Without Project - Bch D/A					
03- A Construction Cost					
03- A/12 Navigation Ports & Harbors					
03- A/12.02 Harbors					
03- A/12.02.01 Mob, Demob & Preparatory Work					
03- A/12.02.01/ 1 Mob, Demob & Preparatory Work		532,244	106,449	638,693	
TOTAL Mob, Demob & Preparatory Work		532,244	106,449	638,693	
03- A/12.02.16 Pipeline Dredging					
03- A/12.02.16/ 2 Channel	471000.00 CY	2,081,820	416,364	2,498,184	5.30
TOTAL Pipeline Dredging		2,081,820	416,364	2,498,184	
TOTAL Harbors		2,614,064	522,813	3,136,877	
TOTAL Navigation Ports & Harbors		2,614,064	522,813	3,136,877	
TOTAL Construction Cost		2,614,064	522,813	3,136,877	
03- B Non-Construction Cost					

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY	UOM	CONTRACT	CONTING	TOTAL COST	UNIT CO
03- B/31 Construction Management (S&I)						
TOTAL IWW - Without Project - Bch D/A	471000.00	CY	2,614,064	522,813	3,136,877	6.66
04 IWW - Without Project - Up D/A						
04- A Construction Cost						
04- A/12 Navigation Ports & Harbors						
04- A/12.02 Harbors						
04- A/12.02.01 Mob, Demob & Preparatory Work						
04- A/12.02.01/ 1 Mob, Demob & Preparatory Work			475,544	95,109	570,653	
TOTAL Mob, Demob & Preparatory Work			475,544	95,109	570,653	
04- A/12.02.16 Pipeline Dredging						
04- A/12.02.16/ 2 Channel	322000.00	CY	904,820	180,964	1,085,784	3
TOTAL Pipeline Dredging			904,820	180,964	1,085,784	
TOTAL Harbors			1,380,364	276,073	1,656,437	
TOTAL Navigation Ports & Harbors			1,380,364	276,073	1,656,437	
TOTAL Construction Cost			1,380,364	276,073	1,656,437	
04- B Non-Construction Cost						
04- B/31 Construction Management (S&I)						
TOTAL IWW - Without Project - Up D/A	322000.00	CY	1,380,364	276,073	1,656,437	5.14
05 IWW - Without Project - Up D/A						
05- A Construction Cost						
05- A/12 Navigation Ports & Harbors						
05- A/12.02 Harbors						
05- A/12.02.01 Mob, Demob & Preparatory Work						

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
05- A/12.02.01/ 1 Mob, Demob & Preparatory Work		475,544	95,109	570,653	
TOTAL Mob, Demob & Preparatory Work		475,544	95,109	570,653	
05- A/12.02.16 Pipeline Dredging					
05- A/12.02.16/ 2 Channel	397000.00 CY	1,016,320	203,264	1,219,584	3.07
TOTAL Pipeline Dredging		1,016,320	203,264	1,219,584	
TOTAL Harbors		1,491,864	298,373	1,790,237	
TOTAL Navigation Ports & Harbors		1,491,864	298,373	1,790,237	
TOTAL Construction Cost		1,491,864	298,373	1,790,237	
05- B Non-Construction Cost					
05- B/31 Construction Management (S&I)					
TOTAL IWW - Without Project - Up D/A	397000.00 CY	1,491,864	298,373	1,790,237	4.51
06 IWW - Without Project - Up D/A					
06- A Construction Cost					
06- A/12 Navigation Ports & Harbors					
06- A/12.02 Harbors					
06- A/12.02.01 Mob, Demob & Preparatory Work					
06- A/12.02.01/ 1 Mob, Demob & Preparatory Work		475,544	95,109	570,653	
TOTAL Mob, Demob & Preparatory Work		475,544	95,109	570,653	
06- A/12.02.16 Pipeline Dredging					
06- A/12.02.16/ 2 Channel	471000.00 CY	1,177,500	235,500	1,413,000	3.00
TOTAL Pipeline Dredging		1,177,500	235,500	1,413,000	
TOTAL Harbors		1,653,044	330,609	1,983,653	
TOTAL Navigation Ports & Harbors		1,653,044	330,609	1,983,653	
TOTAL Construction Cost		1,653,044	330,609	1,983,653	

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT Cost
06- B Non-Construction Cost					
06- B/31 Construction Management (S&I)					
TOTAL IWW - Without Project - Up D/A	471000.00 CY	1,653,044	330,609	1,983,653	4.21
07 IWW - With Project - Bch D/A					
07- A Construction Cost					
07- A/12 Navigation Ports & Harbors					
07- A/12.02 Harbors					
07- A/12.02.01 Mob, Demob & Preparatory Work					
07- A/12.02.01/ 1 Mob, Demob & Preparatory Work		476,532	95,306	571,838	
TOTAL Mob, Demob & Preparatory Work		476,532	95,306	571,838	
07- A/12.02.16 Pipeline Dredging					
07- A/12.02.16/ 2 Channel	92000.00 CY	755,320	151,064	906,384	9.85
TOTAL Pipeline Dredging		755,320	151,064	906,384	
TOTAL Harbors		1,231,852	246,370	1,478,222	
TOTAL Navigation Ports & Harbors		1,231,852	246,370	1,478,222	
TOTAL Construction Cost		1,231,852	246,370	1,478,222	
07- B Non-Construction Cost					
07- B/31 Construction Management (S&I)					
TOTAL IWW - With Project - Bch D/A	92000.00 CY	1,231,852	246,370	1,478,222	16.07
08 IWW - With Project - Up D/A					
08- A Construction Cost					
08- A/12 Navigation Ports & Harbors					
08- A/12.02 Harbors					
08- A/12.02.01 Mob, Demob & Preparatory Work					

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
08- A/12.02.01/ 1 Mob, Demob & Preparatory Work		476,532	95,306	571,838	
TOTAL Mob, Demob & Preparatory Work		476,532	95,306	571,838	
08- A/12.02.16 Pipeline Dredging					
08- A/12.02.16/ 2 Channel	92000.00 CY	409,400	81,880	491,280	5.34
TOTAL Pipeline Dredging		409,400	81,880	491,280	
TOTAL Harbors		885,932	177,186	1,063,118	
TOTAL Navigation Ports & Harbors		885,932	177,186	1,063,118	
TOTAL Construction Cost		885,932	177,186	1,063,118	
08- B Non-Construction Cost					
08- B/31 Construction Management (S&I)					
TOTAL IWW - With Project - Up D/A	92000.00 CY	885,932	177,186	1,063,118	11.56
09 Upland D/A to Bch D/A Meth 1					
09- A Construction Cost					
09- A/12 Navigation Ports & Harbors					
09- A/12.02 Harbors					
09- A/12.02.01 Mob, Demob & Preparatory Work					
09- A/12.02.01/ 1 Mob, Demob & Preparatory Work		463,789	92,758	556,547	
TOTAL Mob, Demob & Preparatory Work		463,789	92,758	556,547	
09- A/12.02.16 Pipeline Dredging					
09- A/12.02.16/ 2 Channel	515000.00 CY	1,488,350	297,670	1,786,020	3.47
TOTAL Pipeline Dredging		1,488,350	297,670	1,786,020	
09- A/12.02.20 Disposal Areas					
09- A/12.02.20/01 Transport to Staging Area	515000.00 CY	1,308,969	261,794	1,570,762	3.05

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT C.
TOTAL Disposal Areas		1,308,969	261,794	1,570,762	
TOTAL Harbors		3,261,108	652,222	3,913,329	
TOTAL Navigation Ports & Harbors		3,261,108	652,222	3,913,329	
TOTAL Construction Cost		3,261,108	652,222	3,913,329	
09- B Non-Construction Cost					
09- B/31 Construction Management (S&I)					
TOTAL Upland D/A to Bch D/A Meth 1	515000.00 CY	3,261,108	652,222	3,913,329	7.60
10 Upland D/A to Bch D/A Meth 2					
10- A Construction Cost					
10- A/12 Navigation Ports & Harbors					
10- A/12.02 Harbors					
10- A/12.02.01 Mob, Demob & Preparatory Work					
10- A/12.02.01/ 1 Mob, Demob & Preparatory Work		500,000	100,000	600,000	
TOTAL Mob, Demob & Preparatory Work		500,000	100,000	600,000	
10- A/12.02.15 Mechanical Dredging					
10- A/12.02.15/01 Mechanical Dredging	515000.00 CY	2,223,609	444,722	2,668,331	5.18
TOTAL Mechanical Dredging		2,223,609	444,722	2,668,331	
10- A/12.02.20 Disposal Areas					
10- A/12.02.20/01 Transport to Staging Area	515000.00 CY	1,308,969	261,794	1,570,762	3.05
TOTAL Disposal Areas		1,308,969	261,794	1,570,762	
TOTAL Harbors		4,032,578	806,516	4,839,093	
TOTAL Navigation Ports & Harbors		4,032,578	806,516	4,839,093	
TOTAL Construction Cost		4,032,578	806,516	4,839,093	

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY	UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
10- B Non-Construction Cost						
10- B/31 Construction Management (S&I)						
TOTAL Upland D/A to Bch D/A Meth 2	515000.00	CY	4,032,578	806,516	4,839,093	9.40
11 PDL - Without Project - Up D/A						
11- A Construction Cost						
11- A/12 Navigation Ports & Harbors						
11- A/12.02 Harbors						
11- A/12.02.01 Mob, Demob & Preparatory Work						
11- A/12.02.01/ 1 Mob, Demob & Preparatory Work			442,241	88,448	530,689	
TOTAL Mob, Demob & Preparatory Work			442,241	88,448	530,689	
11- A/12.02.16 Pipeline Dredging						
11- A/12.02.16/ 2 Channel	200000.00	CY	864,000	172,800	1,036,800	5.18
TOTAL Pipeline Dredging			864,000	172,800	1,036,800	
TOTAL Harbors			1,306,241	261,248	1,567,489	
TOTAL Navigation Ports & Harbors			1,306,241	261,248	1,567,489	
TOTAL Construction Cost			1,306,241	261,248	1,567,489	
11- B Non-Construction Cost						
11- B/31 Construction Management (S&I)						
TOTAL PDL - Without Project - Up D/A	200000.00	CY	1,306,241	261,248	1,567,489	7.84
12 PDL - Without Project - Bch D/A						
12- A Construction Cost						
12- A/12 Navigation Ports & Harbors						
12- A/12.02 Harbors						
12- A/12.02.01 Mob, Demob & Preparatory Work						

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT C
12- A/12.02.01/ 1 Mob, Demob & Preparatory Work		469,065	93,813	562,878	
TOTAL Mob, Demob & Preparatory Work		469,065	93,813	562,878	
12- A/12.02.16 Pipeline Dredging					
12- A/12.02.16/ 2 Channel	200000.00 CY	1,336,000	267,200	1,603,200	8.02
TOTAL Pipeline Dredging		1,336,000	267,200	1,603,200	
TOTAL Harbors		1,805,065	361,013	2,166,078	
TOTAL Navigation Ports & Harbors		1,805,065	361,013	2,166,078	
TOTAL Construction Cost		1,805,065	361,013	2,166,078	
12- B Non-Construction Cost					
12- B/31 Construction Management (S&I)					
TOTAL PDL - Without Project - Bch D/A	200000.00 CY	1,805,065	361,013	2,166,078	10
13 PDL - With Project - Up D/A					
13- A Construction Cost					
13- A/12 Navigation Ports & Harbors					
13- A/12.02 Harbors					
13- A/12.02.01 Mob, Demob & Preparatory Work					
13- A/12.02.01/ 1 Mob, Demob & Preparatory Work		429,180	85,836	515,016	
TOTAL Mob, Demob & Preparatory Work		429,180	85,836	515,016	
13- A/12.02.16 Pipeline Dredging					
13- A/12.02.16/ 2 Channel	68000.00 CY	295,800	59,160	354,960	5.22
TOTAL Pipeline Dredging		295,800	59,160	354,960	
TOTAL Harbors		724,980	144,996	869,976	
TOTAL Navigation Ports & Harbors		724,980	144,996	869,976	
TOTAL Construction Cost		724,980	144,996	869,976	

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
13- B Non-Construction Cost					
13- B/31 Construction Management (S&I)					
TOTAL PDL - With Project - Up D/A	68000.00 CY	724,980	144,996	869,976	12.79
14 PDL - With Project - Bch D/A					
14- A Construction Cost					
14- A/12 Navigation Ports & Harbors					
14- A/12.02 Harbors					
14- A/12.02.01 Mob, Demob & Preparatory Work					
14- A/12.02.01/ 1 Mob, Demob & Preparatory Work		471,393	94,279	565,672	
TOTAL Mob, Demob & Preparatory Work		471,393	94,279	565,672	
14- A/12.02.16 Pipeline Dredging					
14- A/12.02.16/ 2 Channel	68000.00 CY	505,240	101,048	606,288	8.92
TOTAL Pipeline Dredging		505,240	101,048	606,288	
TOTAL Harbors		976,633	195,327	1,171,960	
TOTAL Navigation Ports & Harbors		976,633	195,327	1,171,960	
TOTAL Construction Cost		976,633	195,327	1,171,960	
14- B Non-Construction Cost					
14- B/31 Construction Management (S&I)					
TOTAL PDL - With Project - Bch D/A	68000.00 CY	976,633	195,327	1,171,960	17.23
15 Rgn4 - Without Project - Bch D/A					
15- A Construction Cost					
15- A/12 Navigation Ports & Harbors					
15- A/12.02 Harbors					
15- A/12.02.01 Mob, Demob & Preparatory Work					

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT CO.
15- A/12.02.01/ 1 Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
TOTAL Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
15- A/12.02.16 Pipeline Dredging					
15- A/12.02.16/ 2 Channel	180000.00 CY	3,654,000	730,800	4,384,800	24.36
TOTAL Pipeline Dredging		3,654,000	730,800	4,384,800	
TOTAL Harbors		4,654,000	930,800	5,584,800	
TOTAL Navigation Ports & Harbors		4,654,000	930,800	5,584,800	
TOTAL Construction Cost		4,654,000	930,800	5,584,800	
15- B Non-Construction Cost					
15- B/31 Construction Management (S&I)					
TOTAL Rgm4 - Without Project - Bch D/A	180000.00 CY	4,654,000	930,800	5,584,800	31.
16 Rgm4 - Without Project - Bch D/A					
16- A Construction Cost					
16- A/12 Navigation Ports & Harbors					
16- A/12.02 Harbors					
16- A/12.02.01 Mob, Demob & Preparatory Work					
16- A/12.02.01/ 1 Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
TOTAL Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
16- A/12.02.16 Pipeline Dredging					
16- A/12.02.16/ 2 Channel	310000.00 CY	4,088,900	817,780	4,906,680	15.83
TOTAL Pipeline Dredging		4,088,900	817,780	4,906,680	
TOTAL Harbors		5,088,900	1,017,780	6,106,680	
TOTAL Navigation Ports & Harbors		5,088,900	1,017,780	6,106,680	
TOTAL Construction Cost		5,088,900	1,017,780	6,106,680	

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
16- B Non-Construction Cost					
16- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Bch D/A	310000.00 CY	5,088,900	1,017,780	6,106,680	19.70
17 Rgn4 - Without Project - Bch D/A					
17- A Construction Cost					
17- A/12 Navigation Ports & Harbors					
17- A/12.02 Harbors					
17- A/12.02.01 Mob, Demob & Preparatory Work					
17- A/12.02.01/ 1 Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
TOTAL Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
17- A/12.02.16 Pipeline Dredging					
17- A/12.02.16/ 2 Channel	440000.00 CY	4,373,600	874,720	5,248,320	11.93
TOTAL Pipeline Dredging		4,373,600	874,720	5,248,320	
TOTAL Harbors		5,373,600	1,074,720	6,448,320	
TOTAL Navigation Ports & Harbors		5,373,600	1,074,720	6,448,320	
TOTAL Construction Cost		5,373,600	1,074,720	6,448,320	
17- B Non-Construction Cost					
17- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Bch D/A	440000.00 CY	5,373,600	1,074,720	6,448,320	14.66
18 Rgn4 - Without Project - Bch D/A					
18- A Construction Cost					
18- A/12 Navigation Ports & Harbors					
18- A/12.02 Harbors					
18- A/12.02.01 Mob, Demob & Preparatory Work					

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COL
18- A/12.02.01/ 1 Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
TOTAL Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
18- A/12.02.16 Pipeline Dredging					
18- A/12.02.16/ 2 Channel	570000.00 CY	4,708,200	941,640	5,649,840	9.91
TOTAL Pipeline Dredging		4,708,200	941,640	5,649,840	
TOTAL Harbors		5,708,200	1,141,640	6,849,840	
TOTAL Navigation Ports & Harbors		5,708,200	1,141,640	6,849,840	
TOTAL Construction Cost		5,708,200	1,141,640	6,849,840	
18- B Non-Construction Cost					
18- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Bch D/A	570000.00 CY	5,708,200	1,141,640	6,849,840	12
19 Rgn4 - Without Project - Bch D/A					
19- A Construction Cost					
19- A/12 Navigation Ports & Harbors					
19- A/12.02 Harbors					
19- A/12.02.01 Mob, Demob & Preparatory Work					
19- A/12.02.01/ 1 Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
TOTAL Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
19- A/12.02.16 Pipeline Dredging					
19- A/12.02.16/ 2 Channel	700000.00 CY	5,320,000	1,064,000	6,384,000	9.12
TOTAL Pipeline Dredging		5,320,000	1,064,000	6,384,000	
TOTAL Harbors		6,320,000	1,264,000	7,584,000	
TOTAL Navigation Ports & Harbors		6,320,000	1,264,000	7,584,000	
TOTAL Construction Cost		6,320,000	1,264,000	7,584,000	

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
19- B Non-Construction Cost					
19- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Bch D/A	700000.00 CY	6,320,000	1,264,000	7,584,000	10.83
20 Rgn4 - Without Project - Up D/A					
20- A Construction Cost					
20- A/12 Navigation Ports & Harbors					
20- A/12.02 Harbors					
20- A/12.02.01 Mob, Demob & Preparatory Work					
20- A/12.02.01/ 1 Mob, Demob & Preparatory Work		527,719	105,544	633,263	
TOTAL Mob, Demob & Preparatory Work		527,719	105,544	633,263	
20- A/12.02.16 Pipeline Dredging					
20- A/12.02.16/ 2 Channel	180000.00 CY	2,001,600	400,320	2,401,920	13.34
TOTAL Pipeline Dredging		2,001,600	400,320	2,401,920	
TOTAL Harbors		2,529,319	505,864	3,035,183	
TOTAL Navigation Ports & Harbors		2,529,319	505,864	3,035,183	
TOTAL Construction Cost		2,529,319	505,864	3,035,183	
20- B Non-Construction Cost					
20- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Up D/A	180000.00 CY	2,529,319	505,864	3,035,183	16.86
21 Rgn4 - Without Project - Up D/A					
21- A Construction Cost					
21- A/12 Navigation Ports & Harbors					
21- A/12.02 Harbors					
21- A/12.02.01 Mob, Demob & Preparatory Work					

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT CO
21- A/12.02.01/ 1 Mob, Demob & Preparatory Work		527,000	105,400	632,400	
TOTAL Mob, Demob & Preparatory Work		527,000	105,400	632,400	
21- A/12.02.16 Pipeline Dredging					
21- A/12.02.16/ 2 Channel	310000.00 CY	2,250,600	450,120	2,700,720	8.71
TOTAL Pipeline Dredging		2,250,600	450,120	2,700,720	
TOTAL Harbors		2,777,600	555,520	3,333,120	
TOTAL Navigation Ports & Harbors		2,777,600	555,520	3,333,120	
TOTAL Construction Cost		2,777,600	555,520	3,333,120	
21- B Non-Construction Cost					
21- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Up D/A	310000.00 CY	2,777,600	555,520	3,333,120	10
22 Rgn4 - Without Project - Up D/A					
22- A Construction Cost					
22- A/12 Navigation Ports & Harbors					
22- A/12.02 Harbors					
22- A/12.02.01 Mob, Demob & Preparatory Work					
22- A/12.02.01/ 1 Mob, Demob & Preparatory Work		527,000	105,400	632,400	
TOTAL Mob, Demob & Preparatory Work		527,000	105,400	632,400	
22- A/12.02.16 Pipeline Dredging					
22- A/12.02.16/ 2 Channel	440000.00 CY	2,406,800	481,360	2,888,160	6.56
TOTAL Pipeline Dredging		2,406,800	481,360	2,888,160	
TOTAL Harbors		2,933,800	586,760	3,520,560	
TOTAL Navigation Ports & Harbors		2,933,800	586,760	3,520,560	
TOTAL Construction Cost		2,933,800	586,760	3,520,560	

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
22- B Non-Construction Cost					
22- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Up D/A	440000.00 CY	2,933,800	586,760	3,520,560	8.00
23 Rgn4 - Without Project - Up D/A					
23- A Construction Cost					
23- A/12 Navigation Ports & Harbors					
23- A/12.02 Harbors					
23- A/12.02.01 Mob, Demob & Preparatory Work					
23- A/12.02.01/ 1 Mob, Demob & Preparatory Work		527,000	105,400	632,400	
TOTAL Mob, Demob & Preparatory Work		527,000	105,400	632,400	
23- A/12.02.16 Pipeline Dredging					
23- A/12.02.16/ 2 Channel	570000.00 CY	2,593,500	518,700	3,112,200	5.46
TOTAL Pipeline Dredging		2,593,500	518,700	3,112,200	
TOTAL Harbors		3,120,500	624,100	3,744,600	
TOTAL Navigation Ports & Harbors		3,120,500	624,100	3,744,600	
TOTAL Construction Cost		3,120,500	624,100	3,744,600	
23- B Non-Construction Cost					
23- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Up D/A	570000.00 CY	3,120,500	624,100	3,744,600	6.57
24 Rgn4 - Without Project - Up D/A					
24- A Construction Cost					
24- A/12 Navigation Ports & Harbors					
24- A/12.02 Harbors					
24- A/12.02.01 Mob, Demob & Preparatory Work					

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
24- A/12.02.01/ 1 Mob, Demob & Preparatory Work		527,000	105,400	632,400	
TOTAL Mob, Demob & Preparatory Work		527,000	105,400	632,400	
24- A/12.02.16 Pipeline Dredging					
24- A/12.02.16/ 2 Channel	700000.00 CY	2,926,000	585,200	3,511,200	5.02
TOTAL Pipeline Dredging		2,926,000	585,200	3,511,200	
TOTAL Harbors		3,453,000	690,600	4,143,600	
TOTAL Navigation Ports & Harbors		3,453,000	690,600	4,143,600	
TOTAL Construction Cost		3,453,000	690,600	4,143,600	
24- B Non-Construction Cost					
24- B/31 Construction Management (S&I)					
TOTAL Rgn4 - Without Project - Up D/A	700000.00 CY	3,453,000	690,600	4,143,600	
25 Rgn4 - With Project - Up D/A					
25- A Construction Cost					
25- A/12 Navigation Ports & Harbors					
25- A/12.02 Harbors					
25- A/12.02.01 Mob, Demob & Preparatory Work					
25- A/12.02.01/ 1 Mob, Demob & Preparatory Work		527,000	105,400	632,400	
TOTAL Mob, Demob & Preparatory Work		527,000	105,400	632,400	
25- A/12.02.16 Pipeline Dredging					
25- A/12.02.16/ 2 Channel	232000.00 CY	1,204,080	240,816	1,444,896	6.23
TOTAL Pipeline Dredging		1,204,080	240,816	1,444,896	
TOTAL Harbors		1,731,080	346,216	2,077,296	
TOTAL Navigation Ports & Harbors		1,731,080	346,216	2,077,296	
TOTAL Construction Cost		1,731,080	346,216	2,077,296	

** PROJECT OWNER SUMMARY - UserDefi **

	QUANTITY UOM	CONTRACT	CONTING	TOTAL COST	UNIT COST
25- B Non-Construction Cost					
25- B/31 Construction Management (S&I)					
TOTAL Rgn4 - With Project - Up D/A	232000.00 CY	1,731,080	346,216	2,077,296	8.95
26 Rgn4 - With Project - Bch D/A					
26- A Construction Cost					
26- A/12 Navigation Ports & Harbors					
26- A/12.02 Harbors					
26- A/12.02.01 Mob, Demob & Preparatory Work					
26- A/12.02.01/ 1 Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
TOTAL Mob, Demob & Preparatory Work		1,000,000	200,000	1,200,000	
26- A/12.02.16 Pipeline Dredging					
26- A/12.02.16/ 2 Channel	232000.00 CY	1,723,760	344,752	2,068,512	8.92
TOTAL Pipeline Dredging		1,723,760	344,752	2,068,512	
TOTAL Harbors		2,723,760	544,752	3,268,512	
TOTAL Navigation Ports & Harbors		2,723,760	544,752	3,268,512	
TOTAL Construction Cost		2,723,760	544,752	3,268,512	
26- B Non-Construction Cost					
26- B/31 Construction Management (S&I)					
TOTAL Rgn4 - With Project - Bch D/A	232000.00 CY	2,723,760	544,752	3,268,512	14.09

No errors detected...

* * * END OF ERROR REPORT * * *