

REVIEW PLAN

**Canaveral Harbor, Florida
Integrated Section 203 Navigation Study Report &
Draft Environmental Assessment**

Canaveral Port Authority



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1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan defines the scope and level of peer review for the Canaveral Harbor, Florida Integrated Section 203 Navigation Study Report & Draft Environmental Assessment.

b. References

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2012
- (2) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (3) ER 1165-2-122, Studies of Harbor or Inland Harbor Projects by Non-Federal Interests, 26 August 1991
- (4) Project Management Plan, Port Canaveral, FL, Navigation Improvements, Section 203 Study, June 2004
- (5) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011

c. Requirements

This review plan was developed in accordance with EC 1165-2-209, which establishes the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision documents through independent review. This review plan has been prepared by the Canaveral Port Authority (CPA), since the decision document is being conducted by CPA under the authority of Section 203 of WRDA 1986. The EC outlines three levels of review: District Quality Control, Agency Technical Review, and Independent External Peer Review. In addition to these three levels of review, decision documents are subject to policy and legal compliance review and, if applicable, safety assurance review and model certification/approval.

- (1) District Quality Control (DQC). DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). It is managed in the home district¹ and may be conducted by staff in the home district as long as they are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before approval by the District Commander. The Major Subordinate Command (MSC)/District quality management plans address the conduct and documentation of this fundamental level of review; DQC is not addressed further in this review plan.
- (2) Agency Technical Review (ATR). ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district² that is not involved in the day-to-day production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional

¹ Since the Decision Document has been prepared by the Canaveral Port Authority (CPA) rather than a Corps District, District Quality Control (DQC) in this case refers to the reviews conducted by the CPA. The study area is located within the boundaries of the Jacksonville District, USACE.

² The CPA contracted with Jacksonville District, USACE to assemble the Corps' ATR team. The leader of ATR is the Deputy Director, Deep Draft Navigation Center of Expertise (DDNPCX).

- practices. The ATR team reviews the various work products and assure that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC.
- (3) Independent External Peer Review (IEPR). IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. IEPR is generally for feasibility and reevaluation studies and modification reports with Environmental Impact Statements (EISs). IEPR is managed by an outside eligible organization (OEO) that is described in Internal Revenue Code Section 501(c) (3), is exempt from Federal tax under section 501(a), of the Internal Revenue Code of 1986; is independent; is free from conflicts of interest; does not carry out or advocate for or against Federal water resources projects; and has experience in establishing and administering IEPR panels. The scope of review will address all the underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project.
 - (4) Policy and Legal Compliance Review. Decision documents will be reviewed throughout the study process for their compliance with law and policy. These reviews culminate in Washington-level determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the Chief of Engineers. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100, Planning Guidance Notebook. When policy and/or legal concerns arise during DQC or ATR that are not readily and mutually resolved by the PDT and the reviewers, the District will seek issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H, ER 1105-2-100. IEPR teams are not expected to be knowledgeable of Army and administration polices, nor are they expected to address such concerns. The home district Office of Counsel is responsible for the legal review of each decision document and signing a certification of legal sufficiency.
 - (5) Safety Assurance Review. In accordance with Section 2035 of Water Resources Development Act (WRDA) of 2007, EC 1165-2-209 requires that all projects addressing flooding or storm damage reduction undergo a safety assurance review of the design and construction activities prior to initiation of physical construction and periodically thereafter until construction activities are completed on a regular schedule sufficient to inform the Chief of Engineers on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare. A future circular will provide a more comprehensive Civil Works Review Policy that will address the review process for the entire life cycle of a Civil Works project. That document will address the requirements for a safety assurance review for the Pre-Construction Engineering Phase, the Construction Phase, and the Operations Phase. The decision document phase is the initial design phase; therefore, EC 1165-2-209 requires that safety assurance factors be considered in all reviews for decision document phase studies.
 - (6) Model Certification/Approval. EC 1165-2-209 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. The EC defines planning models as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision-making. The EC does not cover engineering models used

in planning. Engineering software is being address under the Engineering and Construction (E&C) Science and Engineering Technology (SET) initiative. Until an appropriate process that documents the quality of commonly used engineering software is developed through the SET initiative, engineering activities in support of planning studies shall proceed as in the past. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed.

2. STUDY INFORMATION

a. Decision Document

The Canaveral Harbor, Florida, Integrated Section 203 Navigation Study Report & Draft Environmental Assessment has been prepared by the Canaveral Port Authority (CPA) under the authority granted by Section 203 of Water Resources Development Act (WRDA) of 1986 (P.L. 99-662). Section 203 of WRDA 1986 allows non-Federal interests, such as the Canaveral Port Authority, to undertake feasibility studies of proposed harbor projects and submit them to the Secretary of the Army. The Canaveral Port Authority has conducted this Section 203 study to determine the feasibility of deepening and widening the channels, wideners, and turning basins at Port Canaveral to accommodate the most modern vessels in the world's cruise ship fleet and to allow for the passage of deeper draft cargo vessels within the Port.

The Secretary will review this study to determine whether the study, and the process under which it was developed, complies with Federal laws and regulations applicable to feasibility studies of navigation projects for deep draft harbors. Following that review, the Secretary will transmit to Congress, in writing, the results of his review and any recommendations the Secretary may have concerning the project.

As part of the Secretary's review, this draft report will be submitted by the Secretary for agency and public review and comment following the requirements of the National Environmental Policy Act (NEPA) and the U.S. Army Corps of Engineers (Corps) implementing regulations, ER 200-2-2. To facilitate that review, this report has been prepared following the format and requirements of an integrated feasibility report and environmental assessment, complying with requirements of the Council of Environmental Quality, and the Corps of Engineers' ER 1105-2-100, Planning Guidance Notebook, and ER 1165-2-122, Studies of Harbor or Inland Harbor Projects by Non-Federal Interests.

b. Study Description

Port Canaveral is located on the east coast of Florida in Brevard County, directly south of the John F. Kennedy Space Center, and approximately five to six miles north of Cocoa Beach. The Port is located about 155 miles south of Jacksonville Harbor, FL, about 168 miles north-northwest of Miami Harbor, and 50 miles east of Orlando, FL. The Port occupies both sides of the Canaveral Barge Canal and the Inner Reach of the deep water entrance Channel.

The purpose of this Section 203 study is to determine the feasibility of improvements to the existing Federal navigation project at Port Canaveral and to identify the solution that best meets the economic, environmental, physical, and social needs of the region and the nation. Pursuant to Section 203 of WRDA 1986, this study is also intended to determine the advisability and extent of both Federal and non-Federal participation in cost sharing the proposed improvements. This study identifies the plan that has the greatest net economic benefits consistent with protection of the Nation's environment.

The existing Federal navigation project at Port Canaveral was authorized by the Rivers and Harbors Acts of 2 March 1945 and 23 October 1962, and Sections 101, 114, and 117 of the Water Resources Development Act (WRDA) of 30 October 1992. The Federal navigation project consists of four channel segments that lead to the three turning basins and terminate at the Barge Canal.

The deep water entrance to the Port is via a dredged channel approaching from the southeast, then in an east-west direction across the entrance to the east and middle basins on the north side of the channel. The deep draft channel then continues westerly for approximately 3,570 feet, terminating at the entrance to west basin to the north side of the channel. The shallow draft Barge Canal runs from the western end of the West Access Channel in a westerly direction to the Canaveral Locks, operated by the US Army Corps of Engineers. The north side of the Barge Canal and the south side of the existing 400' deep draft channel share a common boundary from middle to west basins. The Canaveral Barge Canal continues through the lock, across the Banana River, and through Merritt Island to connect with the Atlantic Intracoastal Waterway running north-south in the Indian River.

The Port is a multiple-use facility composed of cruise ship berths, cargo berths, U.S. Navy, U.S. Coast Guard, and Military Sealift Command (MSC) berths. The Canaveral Port Authority is the owner of all cruise terminal and cargo berth facilities, which are leased to tenants on a term basis. Commercial waterfront facilities are located along the south side of the main channel, along the north side of the channel west of the Middle Basin, and along the sides of the Middle and West Basins. Approaching from the Atlantic Ocean, the East Basin (also referred to as the Trident Basin) is used by U.S. Navy vessels; the Middle Basin is jointly used by commercial, U.S. Navy and MSC vessels; and the West Basin is used by commercial traffic, cruise ships, and home to the U.S. Coast Guard Station, Port Canaveral, Seventh District, Jacksonville Sector. The berths situated on the Inner Reach of the Entrance Channel are used primarily by cruise ships, cargo ships and tankers. The primary U.S. Navy facilities at Port Canaveral consist of the Trident Wharf on the east side of the East (Trident) Basin, the Poseidon Wharf on the southeast side of the Middle Basin, and the Military Traffic Management Command (MTMC) Wharf on the north side of the Middle Basin.

The last major navigation improvements to the Federal navigation project at Port Canaveral were completed by the Corps of Engineers in 1995. Since that time, the use of the Port by larger and deeper cruise ships and cargo vessels has increased. Opportunities exist to improve the efficiency of existing operations by providing deeper and wider channels that allow larger cruise ships to use the Port and larger cargo vessels to carry greater loads. There are vessels presently calling at Port Canaveral that could benefit from deeper, wider channels, as well as new vessels currently on order that would use Port Canaveral if existing channels were improved.

Projections for cruise traffic and cargo movements indicate rapid and sustained growth. The costs of transporting commodities and passengers could be significantly reduced if larger, more fully loaded vessels could call at Port Canaveral.

This study identifies and evaluates alternatives to solve the following problems and take advantage of the following opportunities: 1) reduce ship congestion at Port Canaveral; 2) accommodate recent and anticipated future growth in cargo and cruise vessel traffic; 3) improve the efficiency of operations and improve safety for cruise ships and cargo vessels within the Port complex; 4) allow for use of the Port by larger cruise ships and larger and more efficient cargo vessels; and 5) allow for development of additional terminals/berths without encroaching on the existing Federal channels and turning basins.

Potential improvements evaluated in this study include: the No Action Plan; non-structural alternatives; and structural alternatives such as deepening and widening of navigational channels, expansion of the turning basins, and expanded wideners at the port. All viable alternative plans were considered that had the potential to improve the efficiency of operations and reduce the costs to shippers, cruise lines, and passengers. The only viable alternatives identified in the analysis involved various combinations of channel deepening, widening, turning basin extensions, and expanded wideners that would allow larger vessels to operate more efficiently and safely in the Federal navigation project.

The formulation of alternative plans carefully considered the optimization of channel widths and depths to maximize net average annual benefits and contributions to the National Economic Development (NED) account. This included identification of design vessels (cruise and cargo) and associated dredging

requirements, identification of structural and non-structural improvements, and estimation of incremental costs and benefits. The plan formulation process also considered the characteristics and quality of dredged material and requirements for disposal. All non-Federal ancillary facilities that are required to deliver project benefits were identified, costs estimated, and are included as associated costs in the alternative evaluation and economic analysis. All plans were evaluated using the System of Accounts framework established in the Principles and Guidelines (P&G 1983). The final alternatives were evaluated based on comparison to the No Action Plan, in order to identify the plan that maximized net economic benefits to the nation (the NED Plan). Environmental impacts were identified and evaluated to determine conformity with environmental laws, policies, and other guidelines. Finally, the views of the public were solicited and considered in the alternative formulation and evaluation process.

The recommended (NED) plan consists of widening the main ship channel from the entrance (outer reach, cut 1A) inland to the West Turning Basin and West Access Channel, Cut A from its current authorized width of 400 feet to 500 feet. In addition to widening, deepening of the existing Federal project and expansion of turning basins is recommended in the following reaches:

- Outer Reach, Cut 1A: deepen from -44' to -46' for a length of 11,000'
- Outer Reach, Cut 1B: deepen from -44' to -46' depth for a length of 5,500'
- Outer Reach, Cut 1: deepen from -44' to -46' for the 5,300' long portion of Cut 1 that is seaward of buoys 7/8 (Station 0+00 to Station 53+00). The remainder of Cut 1 from buoys 7/8 to the apex of the channel turn, a length of 7,200', would remain at the existing project depth of -44'
- US Navy Turn Widener: deepen from -44' to -46' X 7.7 acres (triangular shaped area) bounded by outer and middle reaches to the north and northeast and the civil turn widener to the southwest
- Civil Turn Widener: deepen from -41' to -46' X 15.6 acres (irregular shaped area) bounded to the north and northeast by the middle reach and the US Navy turn widener
- New 203 Turn Widener: deepen to -46' X 23.1 acres (irregular shaped area) bounded to the north and northeast by the civil turn widener and Cut 1 of the outer reach
- Middle Reach: deepen from -44' to -46' for a length of 5,658'. The middle reach extends from the apex of the channel turn westward to the western boundary of the Trident access channel
- Inner Reach, Cut 2 and Cut 3: deepen from -40' to -44' for a length of 3,344'
- Middle Turning Basin: expand and deepen to encompass 68.9 acres to a project depth of -43' and a turning circle diameter of 1422'. The existing -39' federal project provides a turning circle diameter of 1200'
- West Access Channel (east of Station 260+00): deepen from -39' to -43' for a length of 1,840'
- West Turning Basin and West Access Channel, Cut A (west of Station 260+00): expand the turning circle diameter from 1,400' to 1,925' X 141 acres at a depth of -35'. Note that WRDA 2007 provides for Federal assumption of maintenance responsibility for the West Turning Basin under a favorable determination by the Secretary of the Army.

The recommended plan for commercial navigation is economically feasible and the Plan with the greatest net benefits of plans considered (the sponsor has requested a categorical exemption from developing and recommending the NED plan). Total project costs (including mitigation) were certified by the Cost TCX at \$43,340,000 (FY 2012 Price Levels), which is below the \$45 million IEPR threshold established in EC 1165-2-209.

The Section 203 Study report includes an integrated Draft Environmental Assessment, intended to be processed by the U.S. Army Corps of Engineers, and was prepared in accordance with the requirements

of the National Environmental Policy Act. This Draft Environmental Assessment presents the assessment and evaluation of impacts to environmental resources and other attributes in accordance with Federal and State laws, ordinances, regulations, statutes, and other guidelines. The recommended plan will result in minor, short-term adverse impacts related to temporary disruptions to the marine algal community, sea turtle feeding habitat, a temporary increase in turbidity, and temporary transportation disruptions during construction. The recommended plan has been found to be in conformance with Federal, State, and local statutes and policies.

Coordination with the public and with Federal, State, and local agencies (Section 8: Public Involvement, Review and Consultation) was conducted to aid in the formulation and evaluation of the recommended plan. Public and agency views including comments received to date from representatives of the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, National Marine Fisheries, and Florida Department of Environmental Protection have indicated no opposition or major issues with the proposed action.

The Project Delivery Team

The project delivery team (PDT) for the Canaveral Harbor Section 203 Study includes the following.

Role	Discipline	Organization
Project Director / Manager	Civil Engineer	Canaveral Port Authority
Planning Technical Lead	Planner	David Miller & Associates, Inc.
Engineering Technical Lead	Civil Engineer	CH2MHILL
Geotechnical Analysis	Geologist	Canaveral Port Authority
Cost Engineering	Cost Engineer	CH2MHILL
Hydrodynamic Modeling	Hydraulic Engineer	Canaveral Port Authority
Ship Simulation Modeling	Civil Engineer	STAR Center
Environmental Analysis	Botanist	Dial, Cordy & Associates, Inc.
Real Estate Evaluation	Real Estate Specialist	Canaveral Port Authority
Economic Analysis	Economist	David Miller & Associates, Inc.
Legal Evaluation	Attorney	Canaveral Port Authority

All work products and reports, evaluations, and assessments shall undergo necessary and appropriate District Quality Control/Quality Assurance (DQC). District Quality Control is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery DQC efforts will include the necessary expertise to address compliance with published Corps policy. When policy and/or legal concerns arise during DQC efforts that are not readily and mutually resolved by the PDT and the reviewers, the District or study team will seek immediate issue

resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H, ER 1105-2-100 or other appropriate guidance. Team (PDT) reviews, etc.

For this study DQC was performed by individuals working for the main study participants, the Canaveral Port Authority and their consultants, David Miller & Associates, , Dial, Cordy & Associates, and CH2MHILL. A record of the comments and responses is contained in the Quality Control Report, an attachment to the report documentation.

Agency Technical Review (ATR)

ATR is performed at key points in the study process to ensure the proper application of appropriate regulations and professional procedures. Skilled and experienced personnel who have not been associated with the development of the study products perform the ATR. ATR team members may be employees of U.S. Army Corps of Engineer Districts, other Federal agencies, state or local government agencies, universities, private contractors or other institutions. The key factor is extensive, expert knowledge in their field of expertise.

The Canaveral Port Authority provided funding to the Jacksonville District, US Army Corps of Engineers, to coordinate the ATR for the Section 203 Study. In turn, the Jacksonville District engaged the Deep Draft Navigation Center of Expertise (DDNPCX) to serve as the Review Management Organization (RMO) for the Section 203 Study. Additional Corps of Engineers' Centers of Expertise were also engaged as part of the ATR, including the Walla Walla Cost Engineering Technical Center of Expertise (Cost TCX) for cost evaluation, and ERDC for certification of ship simulation modeling. DrChecks document review and comment software was used to document the ATR.

Technical disciplines determined to be appropriate for review of the draft and final reports included: plan formulation, economics, environmental/NEPA compliance, hydraulics and hydrology, geotechnical engineering, cost engineering, and real estate. SAJ and the DDNPCX collaborated to produce detailed scopes of work prior to each review. All ATR members were well-versed in conduct of deep draft navigation studies that potentially include both the deepening and widening of channels and all associated activities.

c. Factors Affecting the Scope and Level of Review

This section of the Review Plan discusses the factors necessary to determine the appropriate scope and level of review for the decision document as specified in EC 1165-2-209. This information has been used to recommend the appropriate level of review and select the types of expertise represented on the review teams. The following "mandatory triggers were evaluated to determine whether Type I IEPR should be undertaken on the Canaveral Harbor Section 203 Study.

a. Is there a significant threat to human life?

No significant threat to human life exists. The project involves deepening and widening existing Federal navigation channels.

b. Does the estimated total cost of the project, including mitigation costs, exceed \$45 million?

No. The feasibility phase cost estimate is \$43.3 million and the TPCS has been certified by the Walla Walla Cost Engineering Technical Center of Expertise (February 8, 2012). The cost risk analysis did not identify any significant issues with the project cost estimate likely to result in a cost increase beyond \$45 million threshold.

c. Has the Governor of the affected State (Florida) requested a peer review by independent experts?

No.

- d. Has the Chief of Engineers determined that the project study is controversial due to significant public dispute over either the size, nature, or effects of the project or the economic or environmental costs or benefits of the project.**

No. In addition, the public involvement process conducted by the Canaveral Port Authority has not identified any controversy regarding the proposed project.

- e. Has the head of a Federal or state agency charged with reviewing the project study determined that the project is likely to have a significant adverse impact on environmental, cultural, or other resources under the jurisdiction of the agency after implementation of proposed mitigation plans and has he/she requested an IEPR.**

No. Federal and state agencies charged with review of the project have not determined that there are any significant adverse impacts resulting from the proposed project. No mitigation has either been proposed or requested.

In summary, the Canaveral Harbor Section 203 Study does not invoke any of the mandatory triggers requiring IEPR.

d. In-Kind Contributions

The Canaveral Harbor Section 203 Study has been conducted at 100% non-Federal expense by the Canaveral Port Authority. DQC and ATR have also been funded by CPA.

3. AGENCY TECHNICAL REVIEW (ATR)

- a. General.** ATR for decision documents covered by EC 1105-2-410 are managed by the appropriate Planning Center of Expertise (PCX) with appropriate consultation with the allied Communities of Practice such as engineering and real estate. The ATR shall ensure that the product is consistent with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and the results in a reasonably clear manner for the public and decision makers. Members of the ATR team will be from outside the home district. The ATR lead will be from outside the home MSC. The leader of the ATR team will participate in milestone conferences and the Civil Works Review Board (CWRB) to address review concerns.
- b. Products for Review.** ATR was first conducted in November 2007 on the October 2007 Draft Integrated Section 203 Navigation Study Report & Environmental Document (Section 203 Report) (including supporting documentation). Subsequent to the ATR review, modifications were made to address critical issues in the areas of cruise ship benefit analysis and cost engineering. The Section 203 Report was modified in March 2008 to address these concerns and a HQUSACE Policy Compliance Review Comments were issued on 26 April 2008. The Section 203 Report (including supporting documentation) was modified and resubmitted for ATR and HQUSACE Policy Compliance Review in November 2008. Subsequent changes were made to the Section 203 Report to address remaining concerns regarding the cruise ship benefit analysis and plan formulation presentation. Final changes have been made and the Section 203 Report is being submitted for final ATR in February 2010. Final ATR certification was received on 22 February 2011.
- c. Required ATR Team Expertise.** There are 11 members of the ATR team for the project with technical expertise in the following disciplines: plan formulation, engineering design, geotechnical analysis, cost engineering, hydrology and hydraulics, operations, environmental, real estate, and budget analysis. ATR team members were selected by the Deep Draft Navigation Center of Expertise (DDNPCX), the Review Management Organization (RMO) for the Section 203 Study. ATR

members from other Centers of Expertise were included on the ATR team, as appropriate. The names, organizations, contact information, and credentials, of the ATR members are included in Attachment 1. Below is an example of the type of information that might be included in this section.

d. Documentation of ATR.

DrChecks review software has been used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments have been limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in or to then assess whether further specific concerns may exist. The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical coordination, and lastly the agreed upon resolution. The ATR team will prepare a Review Report which includes a summary of each unresolved issue; each unresolved issue will be raised to the vertical team for resolution. Review Reports will be considered an integral part of the ATR documentation and shall:

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions; and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to HQUSACE for resolution and the ATR documentation is complete. Certification of ATR should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample certification is included in ER 1110-2-12.

4. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

- a. General.** IEPR is conducted for decision documents if there is a vertical team decision (involving the district, MSC, PCX, and HQUSACE members) that the covered subject matter meets certain criteria (described in EC 1105-2-410) where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside the USACE is warranted. IEPR is coordinated by the appropriate PCX and managed by an Eligible Outside Organization (OEO) external to the USACE. IEPR panels shall evaluate whether the interpretations of analysis and conclusions based on analysis

are reasonable. To provide effective review, in terms of both usefulness of results and credibility, the review panels should be given the flexibility to bring important issues to the attention of decision makers; however, review panels should be instructed to not make a recommendation on whether a particular alternative should be implemented, as the Chief of Engineers is ultimately responsible for the final decision on a planning or reoperations study. IEPR panels will accomplish a concurrent review that covers the entire decision document and will address all the underlying engineering, economics, and environmental work, not just one aspect of the study. Whenever feasible and appropriate, the office producing the document shall make the draft decision document available to the public for comment at the same time it is submitted for review (or during the review process) and sponsor a public meeting where oral presentations on scientific issues can be made to the reviewers by interested members of the public. An IEPR panel or OEO representative will participate in the CWRB.

b. Decision on IEPR.

This Review Plan documents the determination by the Chief of Engineers to exclude the project from Type I IEPR. Compliance with Paragraph 15, Risk-Informed Decisions On Appropriate Reviews, is discussed below. None of the criteria identified in EC 1165-2-209 indicating the need for IEPR were met.

ER 1165-2-209 states that a project study may be excluded from Type I IEPR by the Chief of Engineers in cases where none of the above mandatory triggers are met and the following conditions also apply, which are evaluated below.

It does not include an EIS, and the Chief determines that the project:

- Is not controversial; and
- Has no more than negligible impact on scarce or unique tribal, cultural, or historic resources;
- Has no substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures; and
- Has, before implementation of mitigation measures, no more than a negligible adverse impact on a species listed as endangered or threatened species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) or the critical habitat of such species designated under such Act.

In response to these IEPR exclusion conditions, the Canaveral Harbor Section 203 Study meets all requirements for exclusion. Specifically, the proposed project:

- includes an Environmental Assessment, not an EIS;
- has no impact on scarce or unique tribal, cultural, or historic resources;
- Has no substantial adverse impacts on fish and wildlife species and no required mitigation measures; and
- Has negligible adverse temporary, construction-related impacts on species listed as endangered or threatened species or the critical habitat of such species.

Evaluations of individual decision criteria are discussed in the following paragraphs.

Technical, institutional, and social challenges?

The proposed project does not appear to involve any significant challenges. Dredging methods are standard and have been applied numerous times at Port Canaveral for past dredging projects and O&M dredging. All institutional requirements are in place and have been utilized for past projects. No social impacts or challenges are anticipated.

Unusually high risk or magnitude indicated?

The proposed project does not appear to include risks that are greater than normally would be expected for a deep draft navigation project. As well, total project cost is not expected to exceed the proposed trigger of \$45 million. Preliminary reviews by the Cost Estimating DX have not identified any significant issues with the project cost estimate likely to result in a cost increase beyond \$45 million. The primary source of uncertainty was the impact of dredge fuel costs on the project cost estimate, and this has been incorporated into the calculation of contingencies.

Likelihood of influential scientific information or highly influential scientific assessments?

The proposed project is a proposed widening and deepening of an existing Federal navigation project and has not produced influential scientific information or required any non-standard scientific assessments.

Likelihood of the project having significant economic, environmental, and/or social effects to the Nation?

The project does not have significant economic, environmental, or social effects on the Nation. While the project BCR is positive, the relatively small size of the project (\$38 million) will have negligible effects on the national economy. Environmental and social effects are not significant, as is documented in the Draft Environmental Assessment.

Is the project/study likely to have significant interagency interest?

All relevant Federal and state agencies have been contacted and coordinated with throughout the Section 203 study. Inter-agency coordination conducted to date has indicated no significant interagency interest.

Is there a significant threat to human life / safety?

No significant threat to human life exists. The project involves deepening and widening existing Federal navigation channels using safe and proven methods.

Is the project highly controversial?

Public and agency involvement and coordination conducted from the initiation of the study has indicated no public controversy whatsoever associated with the proposed navigation improvements at Port Canaveral.

Study conclusions based upon novel methods?

Study conclusions are based on standard methods typically employed on all deep draft navigation projects, and do not appear to warrant IEPR on this basis.

Study conclusions present complex challenges for interpretation?

The study conclusions for this project (widening and deepening existing Federal navigation channels), are typical conclusions for a deep draft navigation project and do not present complex challenges for interpretation.

Study conclusions contain precedent-setting methods or models?

Well established analytical methods and models were employed and are not considered precedent-setting.

Study conclusions likely to change prevailing practices?

Study conclusions are typical of a deep draft navigation project and involve standard practices for widening and deepening of the existing Federal navigation channels to accommodate larger vessels. There will be no change in prevailing practices.

c. Products for Review

Not Applicable

d. Required IEPR Panel Expertise

Not Applicable

e. Documentation of IEPR

Not Applicable

f. Summary Status of IEPR Exclusion Request

A request for exclusion from Type 1 IEPR was initially submitted by the Jacksonville District to the South Atlantic Division on April 9, 2010 and endorsed by SAD to CECW-SAD on April 19, 2010. CECW-SAD made a determination not to grant an exclusion from IEPR on August 16, 2010 citing the unique and potentially precedent setting nature of the economic benefits claimed in the report. On April 13, 2012, CECW reconsidered and granted the exclusion request. The rationale cited for granting the exclusion request at this time noted changes that had been made to the economic analysis, certification by the Cost TCX of the costs estimate as less than \$45 million, lack of threats to health and safety, lack of controversy, and no request for IEPR from a Governor or head of a Federal or State Agency.

5. MODEL CERTIFICATION AND APPROVAL

a. General. The use of certified or approved models for all planning activities is required by EC 1105-2-412. This policy is applicable to all planning models currently in use, models under development and new models. The appropriate PCX will be responsible for model certification/approval. The goal of certification/approval is to establish that planning products are theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. The use of a certified or approved model does not constitute technical review of the planning product. Independent review of the selection and application of the model and the input data and results is still required through conduct of DQC, ATR, and, if appropriate, IEPR. Independent review is applicable to all models, not just planning models. Both the planning models (including the certification/approval status of each model) and engineering models used in the development of the decision document are described below:

b. Planning Models. The following planning models are anticipated to be used:

- The transportation or navigation model used for the study is a Microsoft Excel based spreadsheet model that has been reviewed by the Deep Draft Navigation Center of Expertise (DDNPCX) as part of the ATR process and was approved by for one time use on 19 June 2012.

c. Engineering Models. The following engineering models are anticipated to be used:

- **Ship Simulation Model:** The Port Canaveral Berth Access Simulation Study conducted at the STAR Center, Dania Beach, FL.
- **Hydrodynamic Models:** RMA2, a 2-dimensional depth-averaged finite element hydrodynamic model, was used to model circulation within the port. RMA2 computes water surface elevations and horizontal velocity components for subcritical, free-surface two-dimensional flow fields. RMA2 is part of the Corps of Engineers' Surface Water Modeling System (SMS). SMS provides a pre- and post-processor and a platform for running RMA2 as well as a number of other models for modeling circulation, water quality, sediment transport, and wave dynamics for inland and coastal water bodies. SMS was used for setting up the model, running RMA2, and extracting data from the model simulations.
- **Cost Estimating:** Micro-Computer Aided Cost Estimating System (MCACES) 2nd Generation (MII), Version 2.2 was used to estimate project costs. MII is one of the Tri-Services Automated Cost Engineering System (TRACES) suite of software tools. MII is the detailed cost estimating

application used by the U. S. Army Corps of Engineers (USACE) and its A-E contractors for military, civil works and hazardous, toxic and radioactive waste (HTRW) projects.

6. REVIEW SCHEDULES AND COSTS

- a. ATR Schedule and Cost.** ATR was first conducted in November 2007 on the October 2007 Draft Integrated Section 203 Navigation Study Report & Environmental Document (Section 203 Report) (including supporting documentation). Final ATR certification was received from the DDNPCX on 22 February 2011. The total cost of ATR is estimated to be \$225,000.
- b. IEPR Schedule and Cost.** Not Applicable
- c. Model Certification/Approval Schedule and Cost.** The schedule and cost for necessary certification or approval of planning models that were used in the development of the decision document are included in the ATR schedule and cost identified above. All the models used in the Section 203 Study are already certified or approved for use, or have been approved as part of earlier ATR efforts on the Study. The economic model was reviewed and forwarded by the PCX to CECW, and was approved for use on 19 June 2012

7. PUBLIC PARTICIPATION

Prior to preparation by the Canaveral Port Authority of the Integrated Section 203 Navigation Study Report & Draft Environmental Assessment, public involvement was conducted throughout the course of the study. At the request of CPA, the Jacksonville District, U.S. Army Corps of Engineers published a Notice of Intent in the Federal Register. While not required at this stage of the Section 203 study process, CPA requested that the Corps initiate the public scoping process in order to solicit public input while plan formulation and evaluation was still being conducted by CPA.

A public scoping meeting was held by the Corps, as was a study initiation public meeting hosted by CPA at Port Canaveral. Coordination with resource agencies was conducted through agency coordination letters that solicited their comments. The Canaveral Port Authority considered the comments received by letter and statements made at public meetings in the plan formulation, evaluation, and alternative selection process. Individuals and agencies were provided the opportunity to present written comments relevant to the Section 203 study or request to be placed on the mailing list for announcements and for the eventual distribution of the Draft Environmental Assessment (DEA) by the Headquarters, U.S. Army Corps of Engineers (HQUSACE). The comments received were limited, but were considered in the preparation of the Integrated Section 203 Navigation Study Report & Draft Environmental Assessment.

The Canaveral Harbor Integrated Section 203 Navigation Study Report & Draft Environmental Assessment was circulated by the Jacksonville District for formal public and agency review and comment on April 11, 2012.

8. PCX COORDINATION

Review plans for decision documents and supporting analyses outlined in EC 1165-2-209 are coordinated with the appropriate Planning Center(s) of Expertise (PCXs) based on the primary purpose of the basic decision document to be reviewed. The lead PCX for this study is the Deep Draft Navigation Center of Expertise (DDNPCX). Because the Section 203 Study Report will require Congressional authorization, the DDNPCX has coordinated with the Walla Walla Cost Engineering Technical Center of Expertise (Cost TCX) to certify the cost estimate, construction schedules and contingencies.

9. MSC APPROVAL

The MSC that oversees the home district is responsible for approving the review plan. Approval is provided by the MSC Commander. The commander's approval should reflect vertical team input (involving district, MSC, PCX, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the RP is a living document and may change as the study progresses. Changes to the RP should be approved by following the process used for initially approving the RP. In all cases the MSCs will review the decision on the level of review and any changes made in updates to the project.

10. REVIEW PLAN POINTS OF CONTACT

Questions and/or comments on this review plan can be directed to the following points of contact:

Canaveral Port Authority/Jacksonville District

- John Walsh, PE, Deputy Executive Director, Infrastructure, Canaveral Port Authority (CPA), 321-783-7831 x 217
- David Miller, President, David Miller & Associates, Inc. (CPA Lead Consultant), 703-255-1300
- Osvaldo Rodriguez, Jacksonville District, 904-232-2909

South Atlantic Division/MSC

- Terry Stratton, South Atlantic Division, 404-562-5228

DDNPCX/Lead PCX

- Bernard Moseby, Deputy Director, DDNPCX, 251-694-3884

ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM (PDT) ROSTER

Provided below is the PDT Roster. Because the Canaveral Harbor Integrated Section 203 Navigation Study Report & Draft Environmental Assessment was prepared under the authority granted by Section 203 of Water Resources Development Act (WRDA) of 1986 (P.L. 99-662), the PDT consists of employees of the Canaveral Port Authority and its consultants.

PDT Member	Role in Study	Credentials / Years of Experience (YOE)	Organization
John Walsh, P.E.	Project Director	Civil Engineer / 32 YOE	Canaveral Port Authority
David Miller	Planning Technical Lead	MBA / 33 YOE	David Miller & Associates, Inc.
Jim Moore, P.E.	Engineering Technical Lead	Civil Engineer / 30 YOE	CH2MHILL
Mohamed Al-hawaree, P.E.	Geotechnical Analysis	Civil Engineer / 15 YOE	Ardaman & Associates
Jack Archambeault	Cost Engineering	Cost Estimator / 33 YOE	CH2MHILL
Don Kingery, P.E.	Hydrodynamic Modeling	Hydraulic Engineer / 20 YOE	CH2MHILL
Bruce Fuchs	Ship Simulation Modeling	Head, Modeling & Research / 30 YOE	STAR Center
Lee Swain	Environmental Assessment	Botanist / 25 YOE	Dial, Cordy & Associates, Inc.
Linda Batz, P.E.	Real Estate Evaluation	Real Estate Specialist / 16 YOE	CH2MHILL
Jerry Diamantides, Ph.D.	Economic / Benefit Analysis	Economist / 20 YOE	David Miller & Associates, Inc.
Lee Terzis	Cultural Resources	Anthropology, Archeology / 17 YOE	PBS&J
Harold Bistline	Legal Evaluation	Attorney	Canaveral Port Authority

AGENCY TECHNICAL REVIEW (ATR) TEAM ROSTER

Provided below is the ATR Roster. The ATR was led by Bernard Moseby, Deputy Director, DDNPCX; and the ATR team consisted of DDNPCX and Mobile District, USACE senior technical staff.

ATR Team Member	Discipline / ATR Role	Organization
Bernard Moseby	ATR Lead	CESAM-PD-FE
Johnny L. Grandison	Plan Formulation	CESAM-PD-FP
Michael A. McKown	Engineering Design	CESAM-EN-GG
Ed W. Harman	Geotechnical Analysis	CESAM-EN-GG
Joseph H. Ellsworth	Cost Engineering	CESAM-EN-E
James Neubauer	Cost Engineering	CENWW-EC-X
Wade A. Ross	Hydrology & Hydraulics	CESAM-EN-HH
Carl E. Dyess	Operations	CESAM-OP-M
Elizabeth S. Godsey	Environmental	CESAM-PD-EC
James A. Wagoner	Real Estate	CESAM-OC
Phyllis O. Bruce	Budget Analyst	CESAM-PD

ATTACHMENT 2: ATR CERTIFICATION TEMPLATE

COMPLETION OF AGENCY TECHNICAL REVIEW

The Canaveral Port Authority (CPA) has completed the Canaveral Harbor Integrated Section 203 Navigation Study Report & Draft Environmental Assessment (Section 203 Study). The Section 203 Study was prepared under the authority granted by Section 203 of Water Resources Development Act (WRDA) of 1986 (P.L. 99-662). Notice is hereby given that an agency technical review has been conducted as defined in the Review Plan that is appropriate to the level of risk and complexity inherent in the project. During the agency technical review, compliance with established policy principals and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions; methods, procedures, and material used in analysis; alternatives evaluated; the appropriateness of data used and level obtained; and reasonableness of the result, including whether the product meets the customer's needs consistent with law and existing Corps policy. The Agency Technical Review team members were from outside the home district. The ATR team leader was from outside the home MSC.

(Signature) _____
Agency Technical Review Team Leader

(Date) _____

(Signature) _____
Project Manager

(Date) _____

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows:

(Describe the major technical concerns, possible impact, and resolution)

As noted above, all concerns resulting from the agency technical review of the Canaveral Harbor Integrated Section 203 Navigation Study Report & Draft Environmental Assessment (Section 203 Study) have been fully resolved.

(Signature) _____
Chief, Technical Services Division

(Date) _____

ATTACHMENT 3: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	OMB	Office and Management and Budget
ASA(CW)	Assistant Secretary of the Army for Civil Works	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
ATR	Agency Technical Review	OEO	Outside Eligible Organization
CPA	Canaveral Port Authority	OSE	Other Social Effects
DQC	District Quality Control	PCX	Planning Center of Expertise
DX	Directory of Expertise	PDT	Project Delivery Team
EA	Environmental Assessment	PMP	Project Management Plan
EC	Engineer Circular	PL	Public Law
EIS	Environmental Impact Statement	QMP	Quality Management Plan
EO	Executive Order	QA	Quality Assurance
FSM	Feasibility Scoping Meeting	QC	Quality Control
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RED	Regional Economic Development
IEPR	Independent External Peer Review	RMO	Review Management Organization
NED	National Economic Development	RTS	Regional Technical Specialist
NEPA	National Environmental Policy Act	USACE	U.S. Army Corps of Engineers
O&M	Operation and Maintenance	WRDA	Water Resources Development Act
MSC	Major Subordinate Command		