

2 4 AUG 2018

CESPD-PDC

MEMORANDUM FOR Commander, US Army Corps of Engineers, Los Angeles District, 915 Wilshire Blvd, Los Angeles, CA 90017 (ATTN: CESPL-PM-N, Ms. Susan Ming)

Subject: San Gabriel River to Newport Bay Beach Renourishment Project (Surfside-Sunset) - Stage 13, Orange County, California, Review Plan Approval

1. The U.S. Army Corps of Engineers Los Angeles District's San Gabriel River to Newport Bay Beach Renourishment Project (Surfside-Sunset) - Stage 13, located in Orange County, California, Review Plan that is enclosed is in accordance with Engineering Circular (EC) 1165-2-217, Review of Decision Documents, dated 20 Feb 2018. The South Pacific Division, Planning and Policy Division, Regional Business Technical Division, and Los Angeles District Support Team have reviewed the Review Plan that has been submitted. The South Pacific Division approves the subject Los Angeles District's San Gabriel River to Newport Bay Beach Renourishment Project (Surfside-Sunset) - Stage 13 Review Plan.

2. With MSC approval the Review Plan will be made available for public comment via the internet and the comments received will be incorporated into future revisions of the Review Plans. The Review Plan excludes Independent External Peer Review Type II Review. The Los Angeles District Chief of Engineering has determined that IEPR II is not required in accordance with EC 1165-2-217.

3. I hereby approve the Review Plan which is subject to change as study circumstances require. This is consistent with study development under the Project Management Business Process. Subsequent revisions to the Review Plan after public comment or during project execution which meet the criteria in EC 1165-2-217 will require new written approval from this office.

4. Point of contact for this action are Mr. Paul Bowers, CESPD-PDC, 415-503-6556, paul.w.bowers@usace.army.mil

BUILDING STRONG!

KIMBERLY M. COLLOTON, PMP COL, EN Commanding

Encl



DEPARTMENT OF THE ARMY LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS 915 WILSHIRE BOULEVARD, SUITE 930 LOS ANGELES, CALIFORNIA 90017

MAY 2 4 2018

CESPL-ED (1110a)

MEMORANDUM FOR Commander, South Pacific Division (CESPD-PDC / Mr. Paul Bowers)

SUBJECT: Transmittal of the Review Plan for the San Gabriel River to Newport Bay Beach Renourishment – Stage 13, located in Orange County, California

1. Reference Engineering Circular (EC) 1165-2-217, Civil Works Review Policy, 20 February 2018.

2. The enclosed Review Plan for the San Gabriel River to Newport Bay Beach Renourishment Project (Surfside-Sunset) – Stage 13, located in Orange County, California, has been prepared in accordance with EC 1165-2-217 and is presented for your approval. The Review Plan outlines the review processes for the Preconstruction Engineering and Design Phase which includes development of the Design Documentation Report and Plans & Specifications.

3. The project was authorized in the Rivers and Harbors Act of 1962, Section 101, Beach Erosion under the title of "Orange County, California." The purpose of the project is to alleviate the beach erosion problem caused by 1) flood control and water conservation along the Los Angeles, San Gabriel and Santa Ana Rivers, 2) general navigation improvements in Long Beach, and 3) federal jetties constructed at the entrance to Anaheim Bay. The project consists of periodic beach nourishment through construction of a feeder beach at Surfside-Sunset and also includes backpassing of sand to fill in the cells of the Newport Beach groin field which was constructed during earlier stages of this project.

4. As described in the enclosed Review Plan, the Los Angeles District recommends that DQC and ATR be conducted on the Design Documentation Report and Plans & Specifications for the Surfside-Sunset, Stage 13 Project. A risk informed review concludes minimal risk to life safety and therefore a Type II Independent External Peer Review, or Safety Assurance Review (SAR) is not recommended for this project.

5. Please provide your approval or comments on the Review Plan by 25 May 2018. For further information, please contact Susie Ming at 213-452-3789, or Chris Hayward at 213-452-3675.

GARY J∂LEE Chief, Engineering Division

2 Encls

CESPL-ED

SUBJECT: Transmittal of the Review Plan for the San Gabriel River to Newport Bay Beach Renourishment – Stage 13, located in Orange County, California

CF: CESPL-ED (w/ encl) CESPL-EDD (w/ encl) CESPL-EDD-C (w/ encl) CESPL-PMN (Susie Ming) (w/ encl)





US Army Corps of Engineers ⁿ Los Angeles District

Review Plan: San Gabriel River to Newport Bay Beach Nourishment – Stage 13 Orange County, California

Preconstruction Engineering and Design Phase

May 2018

Review Plan: Orange County Beach Erosion Control Project, San Gabriel River to Newport Bay, Orange County, California, Stage 13, Plans and Specifications

REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page/Paragraph Number
	Revised ATR Team to be comprised of personnel from the USACE	
13-Sep-18	Honolulu District (POH)	Page 7, Section 5.4.3

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Attachment 2 – Sample Statement of Agency Technical Review for Plans & Specifications

1 PURPOSE

The purpose of this Review Plan is to outline the review processes that will be implemented for the Preconstruction Engineering and Design (PED) Phase of the Orange County Beach Erosion Control Project, Stage 13 San Gabriel River to Newport Bay, Orange County, California. The project delivery team (PDT) performing the work for the PED Phase will be comprised of personnel from the Los Angeles District (SPL). The South Pacific Division (SPD) is the designated Review Management Organization (RMO) for the project. Inquiries about this Review Plan should be directed to the following:

- Program Manager, Civil Works Integration, South Pacific Division
- Project Manager, Programs & Project Management, Coastal Section, Los Angeles District
- Engineering Technical Lead, Coastal Engineering Section, Los Angeles District

2 REFERENCES

1) EC 1165-2-217, Civil Works Review Policy, 20 February 2018

2) ER 415-1-11, Biddability, Constructibility, Operability, Environmental and Sustainability (BCOES) Reviews, 1 January 2013

- 3) ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 Aug 1999
- 4) ER 1110-1-12, Quality Management, 30 Sep 2006
- 5) ER 1110-1-8159, Engineering and Design, DrChecks, 1 Jan 2015

3 DESCRIPTION OF PROJECT

3.1 Project Authority

This project consists of periodic beach nourishment to construct a feeder beach at Surfside-Sunset Beach, Orange County, California. The project is Stage 13 of the San Gabriel River to Newport Bay, Beach Replenishment Project authorized by act of Congress, Public Law 87-874, 87th Congress, 2nd session, approved October 23, 1962, in accordance with House Document 602, 87th Congress.

3.2 Location and Description

The project area is along the northern coastline of Orange County, California extending approximately 13 miles between Anaheim Bay and Newport Beach Pier. The shoreline is nearly a continuous sandy beach. The northern limit is marked by the Anaheim Bay Harbor; the southern limit is marked by the Newport Submarine Canyon whose terminus lies in close proximity to Newport Pier. The stretch of sandy beach is broken by the low coastal cliffs in Huntington Beach. The entire stretch of shoreline is considered a single littoral unit along which sand may pass unrestricted from one end to the other.

The purpose of the project is to provide storm damage protection to the immediate section of shoreline landward of the beach fill and act as a feeder beach for the 13 miles of downdrift shoreline. The general features of the project to date have included periodic beach nourishment at Surfside and Newport Beach as well as the construction of a groin field and sand fill operations at west Newport Beach. Since 1964, approximately 17.1 million cubic yards of sand have been placed in the project area, and eight groins have been constructed in Newport Beach. The sand borrow and placement areas are shown in Figure 1.

<text>

Review Plan: Orange County Beach Erosion Control Project, San Gabriel River to Newport Bay, Orange County, California, Stage 13, Preconstruction Engineering and Design Phase

Figure 1: Project Location - Borrow and Placement Areas

Approximately 1,500,000 cubic yards of sand will be pumped from an offshore borrow area to the beach at Surfside-Sunset during Stage 13. Beach fill operations are typically performed utilizing a hydraulic pipeline dredge, with placement of fill material at Surfside Colony. The work is typically conducted during the fall/winter time period due to environmental restrictions. Stage 13 construction is expected to initiate in October 2018.

In addition to the hydraulic dredging and placement operations, a sand backpassing operation will be performed in Newport Beach by moving sand from the mouth of the Santa Ana River and placing it within the groin field located approximately 1 mile south. Similar work was performed as part of the Stage 11 and Stage 12 operations. Construction costs for completion of Stage 13 are estimated to be around \$15 million.

4 DESIGN CONSIDERATIONS AFFECTING THE SCOPE AND LEVEL OF REVIEW

4.1 Design Criteria

The design criteria for this project will be based on guidance from the USACE Coastal Engineering Manual for design of beach nourishment projects, this includes berm dimensions, material characteristics, historical erosion and sediment transport rates and dredging and

placement methodologies. The design criteria includes considerable project construction history at the site, standard engineering practice, and applicable engineering regulations, criteria, guides, memoranda, policies, and procedures.

4.2 Design Complexity

The project includes proposed construction features for which the engineering analyses and design is considered non-complex. These features include hydraulic dredging and beach placement to specific elevations, widths and grades. Projects requiring these methods and procedures, including earlier stages of this project have been routinely designed and constructed within the South Pacific Division (SPD) boundaries.

4.3 Construction Complexity

Construction of the project components is considered non-complex. Projects of similar size and scope are performed routinely within the SPD boundaries. This project will be constructed using a hydraulic dredge and conventional earthmoving equipment. The construction site is a public beach with reasonable access for construction equipment and crew.

4.4 Sensitive or Security Information

A portion of the fill area fronts the U.S. Naval Weapons Station at Seal Beach but is primarily on public property and the staging area footprint is located on Navy property. The staging area and fill areas will be restricted from public access and therefore there will not be any sensitive or security related information or vulnerabilities to existing infrastructure as a result of this project.

4.5 Special Considerations

Although construction of the project components is considered non-complex, environmental considerations require the work to be done during the fall/winter period. Storms and/or heavy seas will require the contractor to employ extra precautions to avoid potential damages to plant and/or equipment during dredging operations.

4.6 Model Certifications / acceptance

This project component will not utilize any modeling.

5 REVIEW PROCESS

The review process will consist of multiple standard reviews of all work products. The work products for this phase include the Design Documentation Report, final Plans and Specifications, any environmental compliance documentation, Engineering Considerations and Instructions for Field Personnel (ECIFP), and the Operations & Maintenance manual. There are no in-kind contributions or technical products expected by the non-Federal Sponsor to be included in the review process.

Based on the design considerations described in Section 4, implementation of the project is not considered to pose a significant risk to the environment or human life and the review process has been developed accordingly. The reviews to be conducted for these work products include District Quality Control (DQC); Agency Technical Review (ATR); Biddability, Constructability, Operability, Environmental and Sustainability Review (BCOES); a Policy and Legal Compliance Review; and the Non-Federal Sponsor Review. Additionally, a discipline quality check of each design discipline will be performed prior to DQC. The consideration of risk used in determining the need for an Independent External Peer Review (IEPR) is discussed in

detail in Section 6. The execution plan for the review process, detailing how reviews will be accomplished and documented is summarized below:

5.1 Design Review and Checking System (DrChecks)

The DQC, ATR, BCOES, Policy and Legal Review, and Sponsor review teams will document all comments and recommendations in the DrChecks module in ProjNet in accordance with ER 1110-1-8159. Comments will be written to give a clear statement of the concern, basis of concern, and actions necessary to resolve the concern. Comments should cite appropriate references (ER, design memorandums, etc.). The PDT will evaluate and respond to each comment in DrChecks. Responses will clearly state concurrence or non-concurrence with the comment. Non-concurrence will include an explanation or a proposed alternative action to address the concern. Concurrence will include what corrective action will be taken, when, and where it will be done (plan sheet #, specifications section #, etc.). All comments shall be resolved and back-checked in the DrChecks project record prior to the corresponding review certification.

5.2 Issue Resolution

If issues cannot be resolved between the PDT team members and the reviewer counterpart, the issue will be raised to the next level of management for both the PDT discipline and the review team discipline, and if necessary to the MSC or HQUSACE.

5.3 District Quality Control (DQC)

District Quality Control (DQC) is an internal review process of all work products conducted to include a comprehensive evaluation of correct application of methods, validity of assumptions, adequacy of basic data, completeness of documentation, compliance with guidance and standards, and biddability, constructability, operability, and environmental considerations.

The DQC review will be performed in accordance with SPL Engineering Division Review Policy. The SPL Review Policy for the DQC process includes regular Quality Checks on all products produced within each section, a Supervisory Review, a PDT Review of the full work product, and a Formal DQC Review. The Quality Checks will be documented and signed by the appropriate Section Chief. The Section Chief will also perform a Supervisory Review prior to the work being included in the PDT Review or the Formal DQC Review. The PDT Review will be performed by the entire PDT Team and will coordinated and documented by the Technical Lead.

The Formal DQC Review will be performed by an independent DQC Team. The DQC team will be comprised of district staff members not directly involved in the design; Section and/or Branch Chiefs; and/or their representative staff member to ensure consistency and effective coordination across all disciplines, and to assure overall coherence and integrity of the final products.

The Formal DQC comments will be provided in DrChecks in accordance with Section 5.1 above. If necessary, as part of the Formal DQC Review, a formal comment review conference will be convened by the DQC Review Team Leader between the DQC Review Team and the PDT to resolve critical comments and issues. Once the DQC Team concurs that all comments have been addressed satisfactorily and all DrChecks comments have been closed out, the DQC Team, shall complete the Statement of DQC Certification (example presented in Attachment 1). Final work products will not be released for Agency Technical Review until DQC review is complete and the DQC Certification has been approved.

5.4 Agency Technical Review (ATR)

5.4.1 Process

Agency Technical Review (ATR) is undertaken to "ensure the quality and credibility of the government's scientific information" is in accordance with EC 1165-2-217 and ER 1110-1-12. An ATR will be performed on the DDR and the Plans & Specifications.

ATR will be conducted by individuals and organizations that are external to the Los Angeles District. The ATR Team Leader is a USACE employee from outside the South Pacific Division. The required disciplines and experience of the ATR Team are described below in Section 5.4.2.

All ATR comments shall be documented in the DrChecks in accordance with paragraph 5.1 above. At the conclusion of the ATR effort, the ATR team will prepare a Review Report summarizing the review. This Review Report will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organization, their position, and relevant expertise;
- Include the charge to the reviewer;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issues (if any); and
- Include a verbatim copy of each reviewer's comments, or represent the views of the group as a whole, including any disparate and dissenting views.

The ATR team, upon review of the revised final work products, shall complete the Statement of ATR Certification (example presented in Attachment 2).

5.4.2 ATR Team Members and Responsibilities

As stipulated in ER 1110-1-12, ATR members will be sought from the following sources: regional technical specialists; appointed subject matter experts from other districts; senior level experts from other districts; Center of Expertise staff; experts from other USACE commands; contractors; academic or other technical experts; or a combination of the above. All ATR Team members should The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels:

- <u>Coastal Engineering</u>: The team member should be a technical expert in coastal engineering and have at least 10 years of experience in beach nourishment and dredging projects.
- <u>Geotechnical Engineering</u>: The team member should be a registered professional with experience with coastal geology, beach nourishment, and dredging projects.
- <u>Environmental</u>: The team member should have experience in National Environmental Policy Act (NEPA) compliance activities, preparation of Environmental Assessments, and preparing "Environmental Protection" specifications for storm damage reduction projects.
- <u>ATR Team Lead</u>. The ATR Team Lead should have experience with beach nourishment and dredging projects. The ATR Team Lead may be a co-duty to one of the above review disciplines.

5.4.3 ATR Team

The ATR Team will be comprised of Honolulu District (POH) personnel. Individual ATR Team members will be certified by their respective CoPs to be approved ATR reviewers and will be identified with the specialty knowledge described in Section 5.4.2 as the project progresses.

Due to the non-complex characterization of the project, it is recommended that a site visit will not be necessary for the ATR Team.

5.5 Biddability, Constructability, Operability, Environmental and Sustainability Review

Biddability, Constructability, Operability, Environmental and Sustainability (BCOES) Review are conducted to ensure that:

- contract documents can be understood, bid, administered, and executed;
- the designed project can be built with ease;
- the project can be operated and maintained with ease; and
- the air, water, land, animals, plants and other natural resources are protected from the effects of the construction and operation of the project.

5.5.1 Process

The BCOES team members will review the work products for biddability, constructability, operability, environmental and sustainability characteristics in accordance with ER 415-1-11. All comments and responses shall be stated and provided in DrChecks in accordance with paragraph 5.1 above. The BCOES team, upon review of the revised final work products, shall complete the Statement of BCOES Certification.

5.6 Policy and Legal Compliance Review

Policy and legal compliance reviews are usually conducted only on decision documents, the subsequent design and implementation documents are based on these policy and legally compliant documents. Guidance for policy and legal compliance reviews is addressed in ER 1105-2-100, Appendix H. Since all work products will be design and implementation documents, there will not be a formal review on policy and legal compliance however these topics will be considered during the DQC and ATR review processes.

5.7 Value Engineering Review

A Value Engineering (VE) Study of the USACE South Pacific Division Regional Dredging Program was performed in August 2013 by Value Management Strategies, Inc. The purpose of the VE Study was to review the SPD Dredging Program to be consistent with requirements for performance, reliability, quality and maintainability. The Surfside-Sunset project was included in this study and the results of the study continue to be relevant, therefore no additional VE Review will be performed during this phase of the project.

5.8 Public and Agency Review

Since all work products will be design and implementation work products and not study/decision documents, there will be no formal agency or public review for any of the work products listed in this Review Plan. However, in accordance with NEPA compliance the appropriate Resource Agencies will be consulted as necessary in the development of the plans and specifications.

5.9 Sponsor Review

A sponsor review will be conducted to ensure the customer's expectations as agreed upon for the project are met. The sponsor review will take place concurrently with the ATR.The

sponsor review team members will review all work products. All comments and responses shall be stated and provided in DrChecks in accordance with paragraph 5.2 above.

6 INDEPENDENT EXTERNAL PEER REVIEW

6.1 Type I Independent External Peer Review

In accordance with EC 1165-2-217, a Type I Independent External Peer Review (IEPR) is required to be conducted on project studies. Because all work products are design and implementation work products and not study/decision documents, it is recommended that a Type I IEPR should not performed.

6.2 Type II Independent External Peer Review (Safety Assurance Review)

6.2.1 Life Safety

A Type II IEPR (Safety Assurance Review (SAR)) shall be conducted on design and construction activities for any project where: a) the Federal action is justified by life safety; b) potential hazards pose a significant threat to human life (public safety); or c) the failure of the project would pose a significant threat to human life. This applies to new projects and to the major repair, rehabilitation, replacement, or modification of existing facilities. Any project where the Federal action would pose a significant threat to human life (public safety) requires a Type II review.

External panels will review the design and construction activities prior to initiation of physical construction and periodically thereafter until construction activities are completed. The review shall be 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 that good science, sound engineering, and public health, safety, and welfare.

The District Chief of Engineering, as the Engineer-In-Responsible-Charge, needs to assess whether the threat is significant and document that in the Review Plan. A recommendation to not conduct a SAR shall (like any Review Plan recommendation) have the endorsement of the RMO prior to approval of the Review Plan.

When a Type II review is included in the project's approved Review Plan, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, is responsible for ensuring the Type II review is conducted in accordance with this Circular, and will fully coordinate with the Chief of Construction, the Chief of Operations, and the project manager through the Pre-Construction, Engineering, and Design (PED) and construction phases.

6.2.2 Other Factors

Other factors to consider for conducting a Type II IEPR (Safety Assurance Review) of a project or components of a project are:

(1) The project involves the use of innovative materials or techniques where the engineering is based on novel methods, presents complex challenges for interpretations, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices;

(2) The project design requires redundancy, resiliency, and robustness.

(a) Redundancy. Redundancy is the duplication of critical components of a system with the intention of increasing reliability of the system, usually in the case of a backup or fail-safe.

(b) Resiliency. Resiliency is the ability to avoid, minimize, withstand, and recover from the effects of adversity, whether natural or manmade, under all circumstances of use.

(c) Robustness. Robustness is the ability of a system to continue to operate correctly across a wide range of operational conditions (the wider the range of conditions, the more robust the system), with minimal damage, alteration or loss of functionality, and to fail gracefully outside of that range.

(3) The project has unique construction sequencing or a reduced or overlapping design construction schedule; for example, significant project features accomplished using the Design-Build or Early Contractor Involvement (ECI) delivery systems.

6.2.3 Risk Informed Assessment

In accordance with EC 1165-2-217, a risk informed assessment was made as to whether this project poses a significant threat to human life (public safety). The key factors considered are:

a. The Orange County Beach Erosion Control Project, Stage 13 San Gabriel River to Newport Bay, Orange County, California, was originally authorized for the principal purpose of providing increased storm damage protection by constructing a protective beach in the vicinity of Surfside-Sunset with the expectation that natural wave action will distribute the sand alongshore thereby protecting the downdrift shoreline. Life safety was not a justification in this Congressional authorization.

b. The constructed project will result in an increase in the beach width. The constructed beach will mimic the naturally occurring beach in berm elevation, foreshore slope, and texture (grain size). Other than an increased beach width within the immediate construction area, the nourished beach within the 13 mile project area will be indistinguishable from the naturally occurring beach. There are little/no potential hazards due to the constructed project.

c. This project does not protect life essential and/or critical public facilities. The project does not protect a primary or intermediate storm evacuation route. All storm evacuations can be accomplished by other thoroughfares within the project area. Failure of the shore protection component would most likely take the form of substantial erosion during a significant coastal storm event. This occurred during the 1997-1998 El Nino winter storm season where the beach in the project footprint was substantially but not completely eroded. No storm related damages to public/private property were recorded.

d. The project will result in an increase in the beach width along approximately 1.5 miles of shoreline. Previous beach fill operations over the project life since 1962 has resulted in no human injuries and/or deaths. It is similarly expected that this Federal action will pose no new hazards to public safety and/or threats to human life.

6.2.4 Chief of Engineering Life Safety Assessment

The Los Angeles District Chief of Engineering has determined that:

a) the Federal action is not justified by life safety;

b) potential hazards do not pose a significant threat to human life (public safety);

c) the failure of the project would not pose a significant threat to human life;

d) the Federal action would not pose a significant threat to human life (public safety); and

e) the "Other Factors", cited in paragraph 6.2 above, to consider for conducting a Type II IEPR (Safety Assurance Review) of a project are not applicable to this project.

Therefore, it is recommended that a Type II IEPR, or Safety Assurance Review (SAR), will not be conducted on the design and construction activities for this project.

7 DOCUMENTATION

The engineering technical team leader (ETL) will maintain a file of quality control records for the project. Documents to be stored in the project quality control file will include, but not be limited to: Review Plan, annotated DrChecks comments for all reviews, and Formal DQC and ATR review certifications. In addition, each PDT member is responsible for keeping adequate records of all design decisions, calculations, and process. Records should include applicable e-mails, meeting notes, telephone notes, and design notes.

8 PROJECT DELIVERY TEAM

The Project Delivery Team will be comprised of the following personnel.

Project Manager	CESPL-PMN-C
Coastal Engineering (ETL)	CESPL-EDD-C
Geotechnical Engineering	CESPL-EDG-G
Environmental	CESPL-PDR-Q
Cost Engineering	CESPL-EDD-S
Real Estate	CESPL-REC

9 REVIEW PLAN APPROVAL AND UPDATES

The Los Angeles District requests that the South Pacific Division Commander endorse the above recommendations and approve this Review Plan as described in Section 7, of EC 1165-2-217.

The Review Plan is a living document and may change as the project progresses. The Los Angeles District is responsible for keeping the Review Plan up to date. Future minor changes to the Review Plan will be documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) will be re-approved by the South Pacific Division Commander following the process used for initially approving the plan.

10 DISCLAIMER

This information is distributed solely for the purpose of pre-dissemination review under applicable information quality guidelines. It has not been formally disseminated by USACE. It does not represent and may not be construed to represent any agency determination or policy.

ATTACHMENT 1: SAMPLE STATEMENT OF DQC REVIEW

PDT/SUPERVISORY REVIEW SIGN-OFF SHEET ENGINEERING DIVISION

The Project Delivery Team (PDT) Review has been completed for the [Plans and Specification and/or Design Documentation Report /or Other Product] for [Project Title, Location, State]. Compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. Each PDT member has completed a review of the P&S, a complete reading of the DDR, and accompanying appendices [or Other Product]. By signing this sheet, each PDT member is certifying the overall coherence and integrity of the P&S, DDR, technical appendices [or Other Product], and recommendations; and that their work has been correctly represented. All comments have been resolved (comments and responses attached). By signing, each Section Chief is certifying that their supervisor reviews have been completed, and, together with the PDT, recommend that the [P&S and/or DDR /or Other Product] be submitted for DQC review.

[PDT Member], PE Civil Design - Technical Lead	Date	[PDT Member] Realty Specialist	Date
[PDT Member] Structural Engineer	Date	[Section Chief] Civil Design	Date
[PDT Member] Cost Engineer	Date	[Section Chief] Structural Engineering	Date
[PDT Member] Specification Engineer	Date	[Section Chief] Cost Engineering & Specification	Date
[PDT Member] Survey Engineer	Date	[Section Chief] Survey & Mapping	Date
[PDT Member] Hydraulic Engineer	Date	[Section Chief] Hydraulics	Date
[PD1 Member] Geotechnical Engineer	Date	[Section Chief] Soils Design & Materials	Date
[PDT Member] Geologist	Date	[Section Chief] Geology & Investigations	Date
[PDT Member]	Date		

Environmental Biologist

[Project Title] [Project Location, State]

COMPLETION OF DISTRICT QUALITY CONTROL ENGINEERING DIVISION

The formal District Quality Control (DQC) Review has been completed for the [Plans and Specification and/or Design Documentation Report /or Other Product] for [Project Title. Location, State]. The DQC review was conducted as defined in the Review Plan to comply with the requirements of EC 1165-2-214 and SPL Engineering Division DQC Policy. During the DQC review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. All critical comments identified during DQC have been resolved and the comments have been closed in DrChecks. The [P&S and/or DDR /or Other Product] may be released for Agency Technical Review (ATR).

[Name], PE Technical Lead CESPL-ED[X-X]

Name], PE DQC Team Leader CESPL-ED[X-X]

Recommended for DQC Certification by:

[Name], PE Chief, Design Branch CESPL-EDD

[Name], PE Chief, Hydraulies Branch CESPL-EDH

[Name], PE Chief, Geotechnical Branch CESPL-EDG Date

Date

Date

Date

Date

CERTIFICATE OF DISTRICT QUALITY CONTROL

As noted above, DQC has been conducted for this Engineering work product and all resulting concerns have been fully resolved.

This DQC Certification and the attached DrChecks report will be included as an appendix within the final DDR (as applicable).

[Name], PE Chief, Engineering Division CESPL-ED Date

ATTACHMENT 2: SAMPLE STATEMENT OF AGENCY TECHNICAL REVIEW

COMPLETION OF AGENCY TECHNICAL REVIEW

This Statement of Technical Review has been completed by the ATR Team for the [product type & short description of item] for [project name and location], see attached summary of unresolved issues and future commitments, the Charge questions, a brief resume of ATR reviewers, and a printout of all DrCheckssm comments with resolution. The ATR was conducted as defined in the project's RP to comply with the requirements of EC 1165-2-217. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing USACE policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have either been resolved or have been elevated and are attached. All comments in DrCheckssm are closed.

SIGNATURE	
[Name]	Date
ATR Team Lead	
[Office Symbol or Name of A-E Firm]	
SIGNATURE	
[Name]	Date
Project Manager (home district)	
[Office Symbol]	
SIGNATURE	
[Name]	Date
Architect Engineer Project Manager ¹	
[Company, location]	
SIGNATURE	
[Name]	Date
Review Management Office Representative	
(Office - 2	

1 Only needed if some portion of the ATR was contracted

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CERTIFICATIONOF AGENCY TECHNICAL REVIEW

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

[Describe the major technical concerns and their resolution and specifically list any agreed-upon deferrals to be completed in the next phase of work or state "There are no significant concerns or any unresolved comments".]

As noted above, all concerns resulting from the ATR of the project have been fully resolved or have been elevated and documented with this certification.

[Name]	Date
Chief, Engineering Division (home district)	
[Office Symbol]	
SIGNATURE	
[[Name]	Date
Chief, Planning Division ² (home district)	
[Office Symbol]	
Add appropriate additional signatures (Operations, Construction,	
A-E principal for ATR solely conducted by A-E, etc.) and/or	
A-E principal for ATR solely conducted by A-E, etc.) and/or modify to accommodate local organizational structure.	
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A-E principal for ATR solely conducted by A-E, etc.) and/or modify to accommodate local organizational structure. <u>SIGNATURE</u> [Name]	Date
A-E principal for ATR solely conducted by A-E, etc.) and/or modify to accommodate local organizational structure. <u>SIGNATURE</u> [Name] [as appropriate]	Date
A-E principal for ATR solely conducted by A-E, etc.) and/or modify to accommodate local organizational structure. <u>SIGNATURE</u> [Name] [as appropriate] [as appropriate]	Date
A-E principal for ATR solely conducted by A-E, etc.) and/or modify to accommodate local organizational structure. <i>SIGNATURE</i> [Name] [as appropriate] [as appropriate] <i>SIGNATURE</i>	Date
A-E principal for ATR solely conducted by A-E, etc.) and/or modify to accommodate local organizational structure. <u>SIGNATURE</u> [Name] [as appropriate] [as appropriate] [SIGNATURE [Name]	Date
A-E principal for ATR solely conducted by A-E, etc.) and/or modify to accommodate local organizational structure. <i>SIGNATURE</i> [as appropriate] [as appropriate] <i>SIGNATURE</i> [Name] [as appropriate]	Date Date

2 Only needed for Decision Documents

** Instructions: [Input] – Information in Blue brackets and text is required. Once the input is provided, text should be formatted in black and the brackets should be deleted. Delete these instructions in the completed form.