



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1399

31 Mar 2015

CESPD-DE

MEMORANDUM FOR Commander, US Army Corps of Engineers, Los Angeles District, (ATTN: CESPL-EM, Ms. Anne Hutton)

Subject: Verdugo Wash Channel, Los Angeles County, California, Public Law 84-99, Review Plan Approval

1. Verdugo Wash Channel, Los Angeles County, California, Public Law (PL) 84-99, Review Plan that is enclosed is in accordance with Engineering Circular (EC) 1165-2-214, Review of Decision Documents, dated 15 Dec 2012. The South Pacific Division, Emergency Management Branch, 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 Verdugo Wash Channel, Los Angeles County, California, PL 84-99, 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 (SAR).
3. I hereby approve the Review Plan which is subject to change as study circumstances require. This is consistent with study and project development under the Project Management Business Process. Subsequent revisions to the Review Plan after public comment or during project execution will require new written approval from this office.
4. Points of contact for this action are Mr. Marc Goodhue, CESPD-RBT, 415-503-6568, marc.j.goodhue@usace.army.mil and Mr. Paul Bowers, CESPD-PDC, 415-503-6556, paul.w.bowers@usace.army.mil.

BUILDING STRONG and Taking Care of People!

Encl


R. MARK TOY
Brigadier General, USA
Commanding



**US Army Corps
of Engineers** "E"
Los Angeles District

**REVIEW PLAN
VERDUGO WASH CHANNEL
LOS ANGELES COUNTY, CALIFORNIA**

Prepared by:

U.S. Army Corps of Engineers
Los Angeles District

February 2015

ENCL

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1.0 INTRODUCTION

1.1 Purpose

This Review Plan (RP) defines the scope and level of quality management activities for the Verdugo Wash Channel located in Los Angeles County, City of Glendale, California. The work products required to implement this project are the Repair Plans and Specifications (Repair Plans & Specs). The work products are described in detail in the following paragraphs. This RP is prepared for the repair of existing Verdugo Wash Channel project that was authorized by the River and Harbor Act of 1941; Public Law (P.L.) 77-228.

1.2 References

- ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 Aug 1999
- ER 1110-1-12, Engineering and Design Quality Management, 21 Jul 2006
- WRDA 2007 H. R. 1495 Public Law 110-114, 8 Nov 2007
- EC 1165-2-214, Civil Works Review Policy, 15 December 2012
- Army Regulation 15-1, Committee Management, 27 November 1992 (Federal Advisory Committee Act Requirements)
- USACE Disaster Operations Public Law 84-99

1.3 Review Requirements

This Review Plan was developed in accordance with EC 1165-2-214, which establishes the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision and implementation documents through independent review.

This RP describes the scope of review for the proposed work. All appropriate levels of review (DQC, ATR, IEPR and Policy and Legal Review) will be included in this RP and any levels not included will require documentation in the RP of the risk-informed decision not to undertake that level of review. The RP identifies the most important skill sets needed in the reviews and the objective of the review and the specific advice sought, thus setting the appropriate scale and scope of review for the individual project.

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2.0 PROJECT DESCRIPTION

2.1 Project Authority

The Verdugo Wash Channel was originally authorized by the River and Harbor Act of 1941; Public Law (P.L.) 77-228. It is an urban flood damage reduction project that conveys runoff and collects discharges from several canyons on the southeastern slopes of the San Gabriel Mountains. High flows in the Verdugo Wash Channel were produced by unusually high rainfall during the period of November 2009 to February 2010 damaging numerous subdrains and protective covers located within the channel. The general scope for repair of damaged subdrains and protective covers for the project was requested by the sponsor, Los Angeles County, Department of Public Works (LACDWP). The Cooperation Agreement (CA) was signed in February 2015 between the U.S Army Corps of Engineers, Los Angeles District (USACE-LAD) and the LACDWP. There are no project constraints anticipated since work will be done in the existing channel.

2.2 Project Location

The Verdugo Wash Channel project is located in the City of Glendale, Los Angeles County, California, approximately 15 miles north of downtown Los Angeles (see location map on the next page). The project is located in the Verdugo Wash Channel, Los Angeles River Basin, starting at the Verdugo Wash Debris Basin at the upstream end and terminating at the confluence of the Verdugo Wash and the Los Angeles River. The Verdugo Wash Channel is a left bank tributary to the Los Angeles River.

2.3 Project Background

The original Verdugo Wash Channel was constructed in 1937. The project is a flood damage reduction channel that consists of a 27,513-foot long rectangular reinforced concrete channel. The dimensions of Verdugo Wash Channel from downstream of the Verdugo Wash Debris basin to the Los Angeles River are summarized below.

Approximate Location	Shape	Height (feet)	Base Width (feet)	Invert Slope
Spillway Crest to Canada Blvd. (STA 301+38 to STA 255+74)	Trapezoidal	10.8 to 19.0	43.0	0.019 to 0.032
Canada Blvd. to Glorietta Ave. (STA 255+74 to STA 241+07)	Rectangular	14.0 to 25.6	43.0	0.030
Glorietta Ave. to Mountain St. (STA 241+07 to STA 160+00)	Rectangular	9.25 to 12.75	43.0/17.8 ²	0.021 to 0.029
Mountain St. to Brand Blvd. (STA 160+00 to STA 80+87)	Rectangular	9.5 to 11.0	43.0/17.8 ²	0.018 to 0.022
Brand Blvd. to Columbus/Pacific Ave. (STA 80+87 to STA 53+75)	Rectangular	11.75	43.0/17.8 ²	0.019
Columbus/Pacific Ave. to Concord St. (STA 53+75 to STA	Rectangular	12.0	43.0/21.3 ²	0.016

25+80)				
Concord St. to Los Angeles River (STA 25+80 to STA 00+15)	Rectangular	10.7 to 19.1	87	0.016 to 0.018

The drainage area is approximately 26.8 square miles of tributary canyons consisting of mountain terrain, covered with grasses and dense brush. The materials forming the floor and slopes of the canyons erode readily; therefore, the drainage area has relatively high debris potential. The 50-year design discharge was 46,300 cubic feet per second (cfs). The sponsor performed repair to the channel invert and added additional subdrain system in 1994.



Verdugo Wash Channel Authorized Project

The goal of the U.S. Army Corps of Engineers PL84-99 Rehabilitation and Inspection Program is to restore damaged projects caused by a flood. Public Law 84-99 is a discretionary authority given to the U.S. Army Corps of Engineers by Congress to act and respond to emergencies caused by floods, contaminated water sources, drought, or dam failures. This authority allows the Corps to repair and/or rehabilitate any qualified flood control project whether it is federally constructed or locally constructed.

3.0 WORK PRODUCTS TO BE REVIEWED

3.1 Description of Work Products

The work products for this project include the repair plans and specifications consisting of drawings, sketches, shop drawings and manufacture catalog cuts/manuals that are required to replace in-kind the damaged subdrains and protective covers. The Design Documentation Report (DDR), and an O&M Manual are not required for this project because work is considered to be restoration in-kind; therefore, the original design analysis and operation and maintenance instructions remain appropriate. As such, there is no risk of negative impacts to the channel

The USACE-SPL-ED team will put together the repair plan and specifications for the USACE-SPL-EM for restoration under PL84-99 ((33 U.S.C 701n).

3.2 Required Level of Review

The required level of review for each work product is identified below.

3.2.1 DQC

The repair plan and specifications will require DQC. Also accompanying this document for the review will be the approved PIR and Final FONSI for reference.

3.2.2 ATR

ATR is not required based on the Risk Informed Decision as described in Paragraph 4.2 – Agency Technical Review. The project work is considered to be restoration in-kind work. There are no alterations and improvements to the design or changes from the original project according to the as-built drawings.

3.2.3 Type II IEPR (SAR)

The project does not require a Type II IEPR (SAR) based on the Risk Informed Decision as described in Paragraph 4.3 – Independent Technical Peer Review, Type II below.

3.3 Reference Material

Electronic copies of the approved PIR in Adobe Acrobat PDF format will be provided for the District Quality Control (DQC) Reviewers.

4.0 SCOPE OF REVIEW

4.1 DQC

District Quality Control (DQC) activities for the repair Plans & Specs will consist of Quality Checks and Reviews, supervisory reviews, Project Delivery Team (PDT) reviews, and BCOE reviews, as required by the District's Quality Management Requirements.

4.2 Agency Technical Review

The proposed project will not require an Agency Technical Review based on the following Risk Informed Decisions:

1. Does it (review product) include any design (structural, mechanical, hydraulic, etc)? No.
2. Does it evaluate alternative? No.
3. Does it include a recommendation? Yes. The project is to replace existing subdrains and protective covers that were damaged during the flood. Completion of this project will restore channel's functions as designed and prevent further damage to the channel.
4. Does it have a formal cost estimate? No.
5. Does it have or will it require a NEPA document? No.
6. Does it impact a structure or feature of a structure whose performance involves potential life safety risk? No.
7. What are the consequences of non-performance? Damage to the channel and infrastructures.
8. Does it support a significant investment of public monies? Yes. The project calls for replacement of the damaged subdrains and protective covers to prevent further damage to the channel. If the channel gets damaged as the result of malfunctioned subdrains, it could cost millions of dollars to repair the channel reach.
9. Does it support budget request? Yes.
10. Does it change the operation of the project? No.
11. Does it involve excavation, subsurface investigations (drilling or sampling or both), or placement of soil? No.
12. Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided? No.
13. Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions? No.
14. Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos? No.
15. Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc? No.
16. Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc? No.
17. Is there or is there expected to be any controversy surrounding the Federal action associated with the work product? No.

Therefore, an Agency Technical Review is not required.

4.3 Independent External Peer Review, Type II IEPR (SAR)

Type II IEPR. The proposed project will not require a Type II IEPR (SAR) based on the following Risk Informed Decisions:

The reconstruction project is not a new project for purpose of addressing hurricane and storm risk management or flood risk management, or any project where the Federal action is justified by life safety or the failure of the project would pose a significant threat to human life (public safety). The original Channel design and construction was implemented for flood risk management already inherent in the original design of the project. The repair/reconstruction project only replaces the damaged features consistent with the original design intent for these features.

The repair/reconstruction project does not involve 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.

The original project already incorporated inherent redundancy, resiliency and robustness to the operation of the Verdugo Wash Channel flood risk management system. The repair/reconstruction project would reinforce this redundancy, resiliency and robustness.

The repair/reconstruction project does not have unique construction sequencing or a reduced or overlapping design construction schedule; for example, significant project features accomplished using Design-Build or Early Contractor Involvement (ECI) delivery systems. Construction is scheduled in the non-flood season during the normal maintenance period. The project is to replace existing subdrains and protective covers that were damaged during the flood. Completion of this project will restore the channel's functions as originally designed and prevent further damage to the channel.

Therefore, a Type II Independent External Peer Review (IEPR or SAR) is not required.

4.4 Role of The Sponsor During Review Process

The sponsor shall review the repair Plans and Specifications after the 90% DQC review activities have been completed. The sponsor shall ensure the submitted material complies with all city, county and state requirements applicable to the project.

5.0 REVIEW TEAM

All procedures for selecting a review team for each part of the review process shall follow the measures outlined in EC 1165-2-214.

5.1 DQC Review Team

The DQC process will be conducted by the USACE-SPL.

The DQC team members are:

DQC Review Team		
Civil Design Review	Huma Nisar	\$1,000
Soil Design Review	Paul Beaver	\$1,000
Cost Engineering Review	Mark Cooke	\$1,000
Structural Design Review	Naureen Hasib	\$1,000
Environmental	Ken Wong	\$1,000
Construction Review	Cano Fernando	\$1,000

All DQC team members are based in the SPL main office. A charge code for The DQC activities will be established by SPL-EM and distributed to each member of the DQC team. The SPL-EM will be responsible for ensuring there are appropriate funds available for each stage of review. The cost of DQC is included in the labor cost estimates provided by the individual PDT members. The estimated cost for DQC is \$6,000.

5.2 ATR Review Team

Not Required, see Section 4.2.

5.3 Type I IEPR (SAR) Team

Not Required, see Section 4.3.

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6.0 DQC SCHEDULE FOR REVIEW OF THE P&S

Plans and Specification Review P&S Schedule	Submit By	Duration of Review
90% P&S DQC	3/18/15	2 days
100% P&S Submittal For Back-Checks	3/26/15	1 day
Final P&S Approved	3/26/15	--

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7.0 DOCUMENTATION OF REVIEW

7.1 DQC Documentation

Documentation for each DQC activity shall follow procedures dictated by the Major Subordinate Command (MSC) and all applicable district quality control manuals.

The team will use DrChecks to document the DQC process. The Technical Project Leader will facilitate the creation of a project portfolio in the system to allow access by all PDT and DQC team members. An electronic version of the documents and any significant relevant comments shall be posted in Adobe Acrobat PDF format at:

<ftp://ftp.usace.army.mil/pub/>

7.2 ATR Communication and Documentation

Not Required.

7.3 IEPR Communication and Documentation

Not Required.

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8.0 PUBLIC COMMENT

To ensure that the peer review approach is responsive to the wide array of stakeholders and customers, both within and outside the Federal Government, this Review Plan will be published on the district's public internet site following approval by SPD at http://spl.usace.army.mil/review_plans/. This is not a formal comment period and there is no set timeframe for the opportunity for public comment. If and when comments are received, the PDT will consider them and decide if revisions to the review plan are necessary. The public is invited to review and submit comments on the plan as described on the web site.

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9.0 POINTS OF CONTACT

Questions about this Review Plan may be directed to the Los Angeles District Project Delivery Team, Anne Hutton, Chief EM 213-452-3444, Lead Designer, Mr. David Pham at (213) 452-3648, or to the Engineering Supervisor, Robert Kwan at (213) 452-3639. The Chief, Engineering Division, is Mr. Richard J. Leifield, PE at (213) 452-3629.

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10.0 REVIEW PLAN APPROVAL

As described above, the Los Angeles District recommends that the District Quality Control Review be included on the Plans and Specifications for repair and restoration of subdrains and protective covers for the Verdugo Wash Channel Project. The Los Angeles District has determined that an Agency Technical Review and Type II IEPR (SAR) are not necessary for the type of work being proposed based on the Risk Informed Decisions discussed in the Review Plan.

In summary, the Los Angeles District proposes to fully comply with all existing guidance, and conduct DQC in accordance with EC 1165-2-214. Approval of this RP as outlined above will help facilitate the District's completion of the restoration and repair of subdrains and protective covers for the Verdugo Wash Channel project within the authorized schedule. In order to ensure the RP is in compliance with the principles of EC 1165-2-214, the RP must be approved by the MSC, in this case the Commander, SPD. Once the RP is approved, the District will post it to the district public website and notify SPD. If necessary, any changes to the RP will be approved by following the process used for initially approving the plan.

The Los Angeles District requests that the South Pacific Division endorse the above recommendations and approve this Review Plan as described in Appendix B of EC 1165-2-214.

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For Implementation Documents

Date: 26-Feb-2015

Originating District: Los Angeles District

Project/Study Title: Verdugo Wash Channel Project – Damaged Subdrains and Protective Cover Restoration/Replacement, City of Glendale, Los Angeles County, California

PWI #:

District POC: David Pham

SPD Review Coordinator: Paul Bowers

Please fill out this checklist and submit with the draft Review Plan when coordinating with the appropriate Review Management Organization (RMO). For DQC, the District is the RMO; for ATR of Dam and Levee Safety Studies, the Risk Management Center is the RMO; and for non-Dam and Levee Safety projects and other work products, SPD is the RMO; for Type II IEPR, the Risk Management Center is the RMO. Any evaluation boxes checked 'No' indicate the RP possibly may not comply with EC 1165-2-214 and should be explained. Additional coordination and issue resolution may be required prior to MSC approval of the Review Plan.

REQUIREMENT	REFERENCE	EVALUATION
1. Is the Review Plan (RP) a stand alone document?	EC 1165-2-214, Appendix B Para 4a	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
a. Does it include a cover page identifying it as a RP and listing the project/study title, originating district or office, and date of the plan?		a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
b. Does it include a table of contents?		b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
c. Is the purpose of the RP clearly stated and EC 1165-2-214 referenced?	EC 1165-2-214 Para 7a	c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
d. Does it reference the Project Management Plan (PMP) of which the RP is a component including P2 Project #?	EC 1165-2-214 Para 7a (2)	d. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> There is no PMP available for this project because it was originally designed and constructed by Local Sponsor.
e. Does it include a paragraph stating the title, subject, and purpose of the work product to be reviewed?	EC 1165-2-214 Appendix B Para 4a	e. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
f. Does it list the names and disciplines in the home district, MSC and RMO to whom inquiries about the plan may be directed?	EC 1165-2-214,	f. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

<p><i>*Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.</i></p>	<p>Appendix B, Para 4a</p>	
<p>2. Documentation of risk-informed decisions on which levels of review are appropriate.</p>	<p>EC 1165-2-214, Appendix B, Para 4b</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it succinctly describe the three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR)?</p> <p>b. Does it contain a summary of the CW implementation products required?</p> <p>c. DQC is always required. The RP will need to address the following questions:</p> <p>i. Does it state that DQC will be managed by the home district in accordance with the Major Subordinate Command (MSC) and district Quality Management Plans?</p> <p>ii. Does it list the DQC activities (for example, 30, 60, 90, BCOE reviews, etc)</p> <p>iii. Does it list the review teams who will perform the DQC activities?</p> <p>iv. Does it provide tasks and related resource, funding and schedule showing when the DQC activities will be performed?</p> <p>d. Does it assume an ATR is required and if an ATR is not required does it provide a risk based decision of why it is not required? If an ATR is required the RP will need to address the following questions:</p> <p>i. Does it identify the ATR District, MSC, and</p>	<p>EC 1165-2-214 7a</p> <p>EC1165-2-214 Para 15</p> <p>EC1165-2-214 Para 15a</p> <p>EC1165-2-214 Para 8a</p> <p>EC 1165-2-214 Appendix B (1)</p> <p>EC 1165-2-214 Appendix B Para 4g</p> <p>EC 1165-2-214 Appendix B Para 4c</p> <p>EC1165-2-214 Para 15a</p> <p>EC 1165-2-214</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>i. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>ii. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>iii. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>iv. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>d. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Requesting an exemption from ATR based on type of work being proposed (repair/replacement of subdrains & protective covers)</p> <p>i. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>

<p>RMO points of contact?</p> <p>ii. Does it identify the ATR lead from outside the home MSC?</p> <p>iii. Does it provide a succinct description of the primary disciplines or expertise needed for the review (not simply a list of disciplines)? If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?*</p> <p>iv. Does it provide tasks and related resource, funding and schedule showing when the ATR activities will be performed?</p> <p>v. Does the RP address the requirement to document ATR comments using Dr Checks?</p>	<p>Para 7a EC 1165-2-214 Para 9c</p> <p>EC 1165-2-214 Appendix B 4g</p> <p>EC 1165-2-214 Appendix C Para 3e</p> <p>EC 1165-2-214 Para 7d (1)</p>	<p>See "d" above.</p> <p>ii. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>See "d" above.</p> <p>iii. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>See "d" above.</p> <p>iv. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>See "d" above.</p> <p>v. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>See "d" above.</p>
<p><i>*Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.</i></p>		
<p>e. Does it assume a Type II IEPR is required and if a Type II IEPR is not required does it provide a risk based decision of why it is not required including RMC/ MSC concurrence? If a Type II IEPR is required the RP will need to address the following questions:</p> <p>i. Does it provide a defensible rationale for the decision on Type II IEPR?</p> <p>ii. Does it identify the Type II IEPR District, MSC, and RMO points of contact?</p> <p>iii. Does it state that for a Type II IEPR, it will be contracted with an A/E contractor or arranged with another government agency to manage external to the Corps of Engineers?</p> <p>iv. Does it state for a Type II IEPR, that the</p>	<p>EC1165-2-214 Para 15a</p> <p>EC 1165-2-214 Para 7a</p> <p>EC 1165-2-214 Appendix B Para 4a</p> <p>EC 1165-2-214 Appendix B Para 4k (4)</p> <p>EC 1165-2-214</p>	<p>e. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Requesting an exemption from Type II IEPR (SAR) based on type of work being proposed (repair/replacement of subdrains & protective covers)</p> <p>i. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>See RP-Para 4.3, Type II IEPR</p> <p>ii. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>See "e" above</p> <p>iii. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>See "e" above</p> <p>iv. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>

<p>selection of IEPR review panel members will be made up of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of expertise suitable for the review being conducted?</p>	<p>Appendix B, Para 4k(1) & Appendix E, Para's 1a & 7</p>	<p>See "e" above</p>
<p>v. Does it state for a Type II IEPR, that the selection of IEPR review panel members will be selected using the National Academy of Science (NAS) Policy which sets the standard for "independence" in the review process?</p>	<p>EC 1165-2-214 Para 6b (4) and Para 10b</p>	<p>v. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See "e" above</p>
<p>vi. If the Type II IEPR panel is established by USACE, has local (i.e. District) counsel reviewed the Type II IEPR execution for FACA requirements?</p>	<p>EC1165-2-214 Appendix E, Para 7c(1)</p>	<p>vi. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See "e" above</p>
<p>vii. Does it provide tasks and related resource, funding and schedule showing when the Type II IEPR activities will be performed?</p>	<p>EC1165-2-214 Appendix E, Para 5a</p>	<p>vii. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See "e" above</p>
<p>viii. Does it establish a milestone schedule aligned with critical features of the project design and construction?</p>	<p>EC1165-2-214 Appendix E, Para 6c</p>	<p>viii. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See "e" above</p>
<p>ix. Does the project address hurricane and storm risk management or flood risk management or any other aspects where Federal action is justified by life safety or significant threat to human life?</p>	<p>EC1165-2-214 Appendix E Para 2</p>	<p>ix. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See "e" above</p>
<p><i>Is it likely? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></i> <i>If yes, Type II IEPR must be addressed.</i></p>		
<p>x. Does the RP address Type II IEPR factors?</p>		<p>x. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>Factors to be considered include:</p> <ul style="list-style-type: none"> Does the project involve 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 		<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> The RP is for restoration /replacement in-kind document that do not include analytical methods that require compliance with any</p>

<p>prevailing practices?</p> <ul style="list-style-type: none"> Does the project design require redundancy, resiliency and robustness Does the project have unique construction sequencing or a reduced or overlapping design construction schedule; from example, significant project features accomplished using the Design-Build or Early Contractor Involvement (ECI) delivery systems. <p>Is it likely? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>If yes, Type II IEPR must be addressed.</p> <p>g. Does it address policy compliance and legal review? If no, does it provide a risk based decision of why it is not required?</p>	<p>EC 1165-2-214 Para 14</p>	<p>pertinent published Army policies.</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> The RP is for restoration /replacement in-kind document that do not include analytical methods that require compliance with any pertinent published Army policies.</p>
<p>3. Does the RP present the tasks, timing, and sequence of the reviews (including deferrals)?</p>	<p>EC 1165-2-214, Appendix B, Para 4c</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it provide and overall review schedule that shows timing and sequence of all reviews?</p> <p>b. Does the review plan establish a milestone schedule aligned with the critical features of the project design and construction</p>	<p>EC 1165-2-214, Appendix C, Para 3g</p> <p>EC 1165-2-214, Appendix E, Para 6c</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Only for DQC</p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>4. Does the RP address engineering model certification requirements?</p>	<p>EC 1165-2-214, Appendix B, Para 4i</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
<p>a. Does it list the models and data anticipated</p>		<p>a. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>

<p>to be used in developing recommendations?</p> <p>b. Does it indicate the certification /approval status of those models and if certification or approval of any model(s) will be needed?</p> <p>c. If needed, does the RP propose the appropriate level of certification??? /approval for the model(s) and how it will be accomplished?</p>		<p>b. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>c. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
<p>5. Does the RP explain how and when there will be opportunities for the public to comment on the study or project to be reviewed?</p>	<p>EC 1165-2-214, Appendix B, Para 4d</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it discuss posting the RP on the District website?</p> <p>b. Does it indicate the web address, and schedule and duration of the posting?</p>		<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>6. Does the RP explain when significant and relevant public comments will be provided to the reviewers before they conduct their review?</p>	<p>EC 1165-2-214, Appendix B, Para 4e</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>a. Does it discuss the schedule of receiving public comments?</p> <p>b. Does it discuss the schedule of when significant comments will be provided to the reviewers?</p>		<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>7. Does the RP address whether the public, including scientific or professional societies, will be asked to nominate professional reviewers?*</p>	<p>EC 1165-2-214, Appendix B, Para 4h</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not needed for this review type</p>
<p>a. If the public is asked to nominate professional reviewers then does the RP provide a description of the requirements and answer who, what, when, where, and how questions?</p> <p>* Typically the public will not be asked to nominate potential reviewers</p>		<p>a. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>

<p>8. Does the RP address expected in-kind contributions to be provided by the sponsor?</p>	<p>EC 1165-2-214, Appendix B, Para 4j</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Work is to be fully funded under PL84-99 program</p>
<p>a. If expected in-kind contributions are to be provided by the sponsor, does the RP list the expected in-kind contributions to be provided by the sponsor?</p>		<p>a. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See above</p>
<p>9. Does the RP explain how the reviews will be documented?</p> <p>a. Does the RP address the requirement to document ATR comments using Dr Checks and Type II IEPR published comments and responses pertaining to the design and construction activities summarized in a report reviewed and approved by the MSC and posted on the home district website?</p> <p>b. Does the RP explain how the Type II IEPR will be documented in a Review Report?</p> <p>c. Does the RP document how written responses to the Type II IEPR Review Report will be prepared?</p> <p>d. Does the RP detail how the district/PCX/MSC and CECW-CP will disseminate the final Type II IEPR Review Report, USACE response, and all other materials related to the Type II IEPR on the internet?</p>	<p>EC 1165-2-214, Para 7d</p> <p>EC 1165-2-214 Appendix B Para 4k (14)</p> <p>EC 1165-2-214 Appendix B Para 4k (14)</p> <p>EC 1165-2-214 Appendix B Para 5</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>a. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> ATR and Type II IEPR are not required.</p> <p>b. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See above</p> <p>c. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See above</p> <p>d. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> See above</p>
<p>10. Has the approval memorandum been prepared and does it accompany the RP?</p>	<p>EC 1165-2-214, Appendix B, Para 7</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>

AUG 18 2014

MEMORANDUM FOR ANNE HUTTON, CHIEF OF EMERGENCY MANAGEMENT

Subject: Transmittal of PIR's for the Ocean View and Verdugo Channel Projects

1. References:

a. EC 1165-2-214, "Civil Works Review Policy", dated 31 January 2010.

b. QMS 0850-SPL Engineering DQC for ATR Submissions.

c. ER 500-1-1 Emergency Employment of Army and Other Resources Civil Emergency Management Program, dated 30 September 2001.

2. Enclosed is the completed PIR's for the Ocean View and Verdugo Channel Projects along with Engineering Division DQC Certification and accompanying DrChecks report.

3. The Engineering Division District Quality Control Process has been completed for this work product in accordance with references 1a. and 1b. During the DQC, 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. Project cost estimates utilize ER 500-1-1, factors of 10% for contingencies, 6% for Planning Engineering and Design, and 6% for Construction Management. The judgement of Cost Engineering is these factors are too low for actual implementation cost. All important comments resulting from the DQC have been resolved and the comments have been closed in DrChecks.

4. If you have any questions or concerns, the Engineering Division point of contact is Robert Kwan at extension 3939.




RICHARD J. LEIFIELD, P.E.
Chief, Engineering Division

Encls


Ocean View Channel Project, Los Angeles County, California and the Verdugo Wash Channel Project, Orange County, California

COMPLETION OF DISTRICT QUALITY CONTROL ENGINEERING

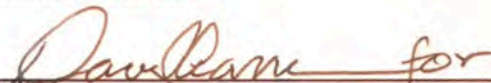
The District Quality Control/Quality Assurance (DQC) Process for Engineering has been completed for the Periodic Inspection Report's for the Ocean View Channel Project, Los Angeles County, California and the Verdugo Wash Channel Project, Orange County, California. The DQC was conducted to comply with the requirements of EC 1165-2-214 and QMS Process 0850-SPL "Engineering DQC for ATR Submissions". During the DQC, 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 important comments resulting from the DQC have been resolved and the comments have been closed in DrChecks. The DrChecks report documenting this is attached.


Baron Arakawa
Work Leader/EM
CESPL-EM


8/4/14
Date


David Pham
DQC Reviewer: Checklists updated Checklists did not require update
CESPL-ED-DA

8/04/14
Date

 for
Robert Kwan
Chief, Design Section A
CESPL-ED-DA

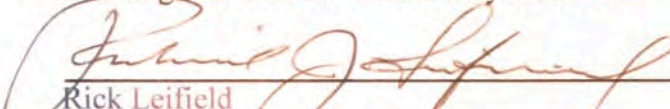
8/04/14
Date


Art Jung
Chief, Design Branch
CESPL-ED-D

8/4/14
Date

CERTIFICATION OF ENGINEERING DIVISION DQC

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


Rick Leifield
Chief, Engineering Division
CESPL-ED

8/12/14
Date



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

CESPL-ED-DA (1110a)

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

SUBJECT: Transmittal of Review Plan for the Verdugo Wash Channel Flood Control Project, Los Angeles County, California

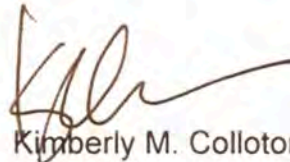
1. Reference Engineering Circular (EC) 1165-2-214, Civil Works Review Policy, 15 December 2012.
2. The enclosed Review Plan for the Verdugo Wash Channel located in the City of Glendale; Los Angeles County, California has been prepared in accordance with EC 1165-2-214 and is presented for your approval.
3. The Verdugo Wash Channel is an urban flood damage reduction project completed in 1937 that conveys runoff and collects discharges from several canyons on the southeastern slopes of the San Gabriel Mountains. High flows in the Verdugo Wash Channel were produced by unusually high rainfall during the period of November 2009 to February 2010 damaging numerous subdrains and protective covers located within the channel. The general scope for repair of damaged subdrains and protective covers for the project was requested by the Non-federal sponsor, Los Angeles County, Department of Public Works (LACDWP) via 33 U.S.C. 701n, commonly referred to as Public Law (PL) 84-99.
4. Based on the Risk Informed Decisions outlined in the Review Plan and the proposed work consisting of repair, replacement/restoration in kind of the existing subdrains and protective covers, the Los Angeles District recommends that the repair project be granted a waiver from Agency Technical Reviews. The Los Angeles District also recommends that Type II Independent External Peer Review/Safety Assurance Review (Type II IEPR/SAR) be excluded on the repair project. Completion of the project will restore the channel's functions as originally designed and prevent further damage to the channel.

CESPL-ED-DA (1110a)

SUBJECT: Transmittal of Review Plan for the Verdugo Wash Channel Flood Control Project, Los Angeles County, California

5. Please provide your approval or comments on the Review Plan by 25 March 2015. For further information, please contact Mrs. Anne Hutton, Chief Emergency Management Office at (213) 452-3444 or Mr. David Pham, Design Lead at (213)-452-3648.

Encl



Kimberly M. Colloton, PMP
COL, EN
Commanding