

Ballona Wetlands Restoration Project
Project Management Team comments on the Admin Draft USACE Section 408 Permit - Submittal A
Consultant Team responses to comments provided for Screen-check Draft Submittal A

Comment			Response					Concurrence
Page Number	Line Number	Comment	Reviewer Name	Contact Info	Response	Lead	Follow up required in subsequent analyses?	Concurrence by Commenting Agency (Y/N/note)
General Comments								
n/a	n/a	Language needs to be added to the Cover Letter, Project Description and Preliminary Design Report that a new long term Operation and Maintenance Agreement (between LACFCD, CDFG and all project proponents) will need to be established identifying all new operation and maintenance responsibilities that address 1) the newly modified channel and levees 2) water control structures 3) habitat and vegetation and 4) a number of other miscellaneous proposed items. The new long term Operation and Maintenance Agreement will identify those responsible for flood control and non-flood control aspects of the project.	Yvonne M. Taylor (LACDPW Flood Maintenance Div)	ytaylor@ladpw.org	This language has been added	ESA PWA		OK for Submittal A, but further discussion is needed regarding O&M responsibilities and cost imposed on LACFCD.
n/a	n/a	The bike lanes on Lincoln Boulevard south of Jefferson should be extended to Fiji Way. While many cyclists may be going to the coastal Venice area, others are trying to travel north on Lincoln Boulevard. Future bike lanes on this portion of Lincoln Boulevard may be beyond the scope of this project; however, the planning of the bike lanes should be coordinated with the Westside Mobility Plan, which will include a project to improve Lincoln Boulevard between Fiji Way and Jefferson Boulevard	Michael Tripp (Dept. of Beaches & Harbors)	MTripp@bh.lacounty.gov	The proposed bike path allows for bikers to take the proposed bridge across the channel and then travel north parallel to Lincoln, but on DFW property. This could provide easy access to continue on Lincoln. Continuing the bike bath along Lincoln Blvd would require Caltrans to widen the road, which is beyond this project's scope as noted. Will look to coordinate with Westside Mobility Plan.	Psomas	Y	OK for submittal A. We would like further consideration/discussion prior to Submittal B.
n/a	n/a	We recommend the Marvin Braude Bike Path (MBBP) at the south end of Admiralty Way, where it turns to the west on Fiji Way, be extended southerly to the proposed bike/pedestrian paths. This short connection would provide a more direct connection for bicyclists on the MBBP who wish to ride southerly	Michael Tripp (Dept. of Beaches & Harbors)	MTripp@bh.lacounty.gov	Crossing the Fiji ditch is not within the project scope. Connection approximately 950 feet west of Admiralty to the bike path can be accommodated.	Psomas	Y	OK for submittal A. We would like further consideration prior to Submittal B. It is our experience with the present bike path crossing of Fiji Way, that a new crossing of Fiji way approximately 950 feet west of Admiralty Way is undesirable because of the potential conflicts between bikes and motor vehicles. The conflicts will increase in the future with additional development and increased traffic volumes along Fiji Way. Considering that the purpose of the new bicycle path in Area A is to provide for pedestrian and bicycle access to Ballona Wetlands Restoration area, we believe it would be appropriate to include the ditch crossing at Admiralty Way in the scope and connect the MBBP with the bike path in Area A.
n/a	n/a	Any additional soft bottom area that is added the channel will likely result in increased sediment deposit near the entrance of the Marina. The Marina entrance already must be dredged every 5 years, and we are concerned that the proposed project may increase the need for dredging	Michael Tripp (Dept. of Beaches & Harbors)	MTripp@bh.lacounty.gov	We have initiated a sedimentation analysis, which will be completed in subsequent phases to address this concern and evaluate the potential impacts for the EIR/S including harbor entrance dredging. Our hypothesis is that sediment deposition in the harbor entrance is due to a combination of sand transport and deposition from the coast/beaches and intermittent transport of sediment from the Ballona Creek watershed and channel during high Ballona Creek flows. Additional analysis will be completed to address the question of whether the restoration will increase sediment deposition in the harbor entrance.	ESA PWA	Y	OK for Submittal A. If after your research is completed, it is found that the project will increase the sediment deposits, we would like the Flood Control District to mitigate this by contributing a fair share amount towards the ongoing dredging of the Marina.
n/a	n/a	Add a Table of Acronyms	Josh Svensson	jsvensson@dpw.lacounty.gov	acronym table added, all acronyms spelled out in first instance	ESA PWA		Y

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Preliminary Design Report									
2	25	gates: What type of gates? Auto/manual/flap gates? Is this addressed later in document?	Josh Svensson	jsvensson@dpw.lacounty.gov	See Section 2.8. The type and design of the gates will be developed in subsequent phases of the design. Culverts & gates for management of stormwater runoff and to provide muted tidal action in Area B south of the Culver Road levee have not yet been fully detailed. These structures are likely to include adjustable flap gates with either an automatic closure mechanism based on floats and/or a mechanical closure relying on either control system or manual shutdown. We have used all types of these gates in other settings and will provide photos/specs in the final design phases.	ESA PWA	Y	Y	
2	34	Introduce the acronym after Sea Level Rise (SLR)	Josh Svensson	jsvensson@dpw.lacounty.gov	acronym table added, all acronyms spelled out in first instance	ESA PWA		Y	
cover letter	3 & 10	Address block is addressed to Richard Leifield, but the salutation is to Mr. Swenson	Reyna Soriano	rsoriano@dpw.lacounty.gov	corrected	ICF		Y, will be fixed by County staff	
Description of Project and Alternatives									
1	28	Figures 1 and 2 are missing	Josh Svensson	jsvensson@dpw.lacounty.gov	added	ICF		Y	
2	7	Creak Creek	Josh Svensson	jsvensson@dpw.lacounty.gov	corrected	ICF		Y	
2	13	some storm events?	Josh Svensson	jsvensson@dpw.lacounty.gov	deleted "while protecting against some storm events."	ICF		Y	
2	29	Project areas map is missing	Josh Svensson	jsvensson@dpw.lacounty.gov	added	ICF		Y	
3	21	.....equivalent or increased level of flood protection: page 2 line 18 states "existing levels of flood protection"	Josh Svensson	jsvensson@dpw.lacounty.gov	Revised components list to say equivalent or increased	ICF		Y	
3	26	level levee	Josh Svensson	jsvensson@dpw.lacounty.gov	corrected	ICF		Y	
3	28	.....Culver Boulevard and areas to the south: page 2 line 11 states "Culver Boulevard and surrounding areas"	Josh Svensson	jsvensson@dpw.lacounty.gov	Revised components list to say "areas to the south"	ICF		Y	
3	40	Habitat Restoration Plan figure is missing	Josh Svensson	jsvensson@dpw.lacounty.gov	added	ICF		Y	
4	16	General comment: who will maintain the new bike path and the bridge?	Josh Svensson	jsvensson@dpw.lacounty.gov	Maintenance responsibilities will be developed and specified in the new O&M agreement for the Joint Powers Authority between the County, CDFW, and SMBRC.	ESA PWA	Y	Y	
4	31	General comment: Does the new Visitor's Center result in loss of previous surface/habitat?	Josh Svensson	jsvensson@dpw.lacounty.gov	Yes, but it is degraded habitat and the restoration and landscaping for the visitor center will provide beneficial habitat.	ESA PWA		Y	
5	4	animals animals	Reyna Soriano	rsoriano@dpw.lacounty.gov	corrected	ICF		Y	
5	14	.....site would be accessed....	Reyna Soriano	rsoriano@dpw.lacounty.gov	corrected	ICF		Y	
5	33	Alternative A: shouldn't the alternatives be numerical? Should it be "Alternative 1"?	Reyna Soriano	rsoriano@dpw.lacounty.gov	corrected	ICF		Y	

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Preliminary Hydrology and Hydraulics Report								
1	5	West-Los-Angeles	Josh Svensson	jsvensson@dpw.lacounty.gov	deleted	ESA PWA		Y
2	figure 1	Call out Ballona Creek shared municipal boundaries	Josh Svensson	jsvensson@dpw.lacounty.gov	Separate exhibit created to show boundaries. See PDR Appendix A.	PSOMAS		Y
3	30	SPF not defined	Josh Svensson	jsvensson@dpw.lacounty.gov	added [SPF] after "standard project flood" in first sentence of the paragraph	ESA PWA		Y
6	32	Should we reference the State of California climate change mitigation strategy (http://www.climatechange.ca.gov/adaptation/documents/Statewide_Adaptation_Strategy_-_Chapter_6_-_Ocean_and_Coastal_Resources.pdf)? Is this the best authority on SLR? Should we reference the USACE report? (http://www.iwr.usace.army.mil/index.php?option=com_content&view=article&id=790:climate-change-adaptation-plan-submitted-to-presidents-council-on-environmental-quality&catid=72:news-2011)	Josh Svensson	jsvensson@dpw.lacounty.gov	The State of California climate change mitigation strategy uses a sea level rise projection range of 20-55 in and the USACE report noted in this comment refers to older USACE documents. We reference the more recent USACE report (2011) which has an estimate of 59 in. We are using the more recent/current and conservative value for our analyses.	ESA PWA		Y
8	3	What is the expected 100 yr. flow? Is it a given that the channel is over-sized?	Josh Svensson	jsvensson@dpw.lacounty.gov	deleted "and over-sized channel"	ESA PWA		Y
8	8	Is one foot adequate for free board? (however, design crest elevation provides a higher level of protection)	Josh Svensson	jsvensson@dpw.lacounty.gov	One foot of freeboard is used in this discussion to approximate a minimum levee height elevation above the 100-year total coastal water level including waves and creek flow. The conceptual design levee crest elevation of 20.5 ft NAVD is above the approximated 17.6 ft NAVD minimum elevation and allows for approximately 4 ft of freeboard. The design levee elevations will be refined in future phases based on further consideration of coastal and fluvial flood levels. Clarification added to the text	ESA PWA		Y
8	14	Results are presented in 1? (Figure 1? Table 1?)	Josh Svensson	jsvensson@dpw.lacounty.gov	Added "Appendix" before the 1	ESA PWA		Y
11	figure 3	What do these numbers mean? What are their units?	Josh Svensson	jsvensson@dpw.lacounty.gov	added "elevation in" to scale label and "with station numbers" to cross-section label	ESA PWA		Y
12	3	plans from LA county or LACFCD?	Josh Svensson	jsvensson@dpw.lacounty.gov	Changed to LACFCD. Added to acronym table	ESA PWA		N, add LACFCD - Los Angeles County Flood Control District to list of acronyms
12	4	What does DEM mean?	Josh Svensson	jsvensson@dpw.lacounty.gov	acronym table added, all acronyms spelled out in first instance. Corrected DEM to DTM, which is defined and listed in acronym table.	ESA PWA		N, add "DEM" to acronym table
24	figure 6	Tidal Level (measured at the tide gate)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
26	figure 7	Is Thalweg defined in this report? Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	changed text to channel. Added definition of thalweg (page 25)	ESA PWA		N
27	figure 8	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
28	figure 9a	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
29	figure 9b	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
30	figure 10	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
31	20	Define thalweg	Josh Svensson	jsvensson@dpw.lacounty.gov	acronym table added, all acronyms spelled out in first instance. Added definition of thalweg (page 25)	ESA PWA		N, add brief definition at first usage: "with the current project thalweg ('thalweg' is defined as the line following the lowest point in a channel)"
33	figure 11	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
34	figure 12	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y

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35	figure 13	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
36	figure 14a	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
37	figure 14b	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
38	figure 15	Horizontal distance (ft.) from ... (add to the horizontal axis title)	Josh Svensson	jsvensson@dpw.lacounty.gov	added text	ESA PWA		Y
41	3	Spell out PDR	Josh Svensson	jsvensson@dpw.lacounty.gov	acronym table added, all acronyms spelled out in first instance	ESA PWA		Y
42	figure 16	Has Oxford basin already been modeled?	Josh Svensson	jsvensson@dpw.lacounty.gov	Oxford basin is included in the EFDC model; however, we have not analyzed conditions in Oxford basin	ESA PWA		Y
48	figure 19	figure 19a	Josh Svensson	jsvensson@dpw.lacounty.gov	changed to Figure 18	ESA PWA		Y
49	figure 19	figure 19b. This chart has less value in this form. Perhaps 1/10 as many arrows? Color-coded as previous figure?	Josh Svensson	jsvensson@dpw.lacounty.gov	Figure 19 is now the correct number- see comment response above. Unfortunately, the arrows and colors cannot be changed in EFDC Explorer.	ESA PWA		Y
55	11	This -These data did not include	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised	ESA PWA		Y
68	1	Title? What is the context of this page?	Josh Svensson	jsvensson@dpw.lacounty.gov	moved title block to top left of page	ESA PWA		Y
Appendix 1 page	9	Tsunamis (in appropriately often referred to as "tidal waves" for the way they approach similar to the rising tide) are a series	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised	ESA PWA		Y
Appendix 3 page	Table 2	Table 2: Define Q _{br} . Table of acronyms?	Josh Svensson	jsvensson@dpw.lacounty.gov	added Q _{br} after first instance of "bankfull discharge"	ESA PWA		Y
Appendix 3 page	figure 3	Bedload Yield (tons per hr.?). Is it necessary to have numbers to the tenths in Discharge (cfs)? This would look better if they were rounded to nearest 250.	Josh Svensson	jsvensson@dpw.lacounty.gov	tenths have been dropped	ESA PWA		Y
Project Geotechnical Memo								
1	oikikk	Recommend that we update this before submission.	Josh Svensson	jsvensson@dpw.lacounty.gov	These preliminary recommendations will accompany Submittal A and a supplemental memo/report will be prepared detailing the results of the 2012 field exploration.	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
4	11	Factor of Safety (FOS)	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
4	20	Factor of Safety (FOS) FOS	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
4	28 & 34	EL +18 ft.? 2ft freeboard does not match with hydraulic report page 39.	Josh Svensson	jsvensson@dpw.lacounty.gov	The high water elevation +18 ft was selected conservatively in the early stages of the geotechnical design and remains a conservative value. Please note that the geotechnical recommendations are not affected by minor variations of elevation.	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
4	28 & 34	free board freeboard	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
5	2	similar to page 4 comments	Josh Svensson	jsvensson@dpw.lacounty.gov	The high water elevation +18 ft was selected conservatively in the early stages of the geotechnical design and remains a conservative value. Please note that the geotechnical recommendations are not affected by minor variations of elevation.	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
6	Table 1	Is freeboard in page 39 of the hydraulic report same reference levee top?	Josh Svensson	jsvensson@dpw.lacounty.gov	For preliminary analyses, the levee top was assumed to be at Elevation +20 across the site. The H&H report assumed a levee height of +20.5 for project conditions. Levee elevations will be refined in future phases of the design.	Group Delta/ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
6	Table 2	mitigation necessary: 2 feet of freeboard?	Josh Svensson	jsvensson@dpw.lacounty.gov	The levees will be overbuild to accommodate the anticipated settlements.	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
7	5	It was assumed that..... seems overly conservative	Josh Svensson	jsvensson@dpw.lacounty.gov	Same as the response to comment on Page 4, line 28 & 34	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B

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12	34	Define CPT	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised (Cone Penetration Test)	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
14	12	Define CBC	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised (California Building Code)	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
17	1	Los angels County Flood Control District (?)	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B
Appendix A	Photos	Label all photos (Location, year, description)	Josh Svensson	jsvensson@dpw.lacounty.gov	text revised	Group Delta	Y	OK for Submittal A. Needs to be addressed in Submittal B

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Preliminary Design Report								
2	3	The sentence is confusing. We think it is trying to convey that the elevations in Area B are below coastal flood levels and tributary properties rely on Area B for storm runoff storage. Is this correct? If so, please revise.	LT/MA	LACDPW-WRD County of Los Angeles	Yes, Area B behind the existing levee is below fluvial and coastal flood elevations and currently drains to Ballona Creek through existing gates. Text edited and added to clarify.	ESA PWA		Y
2	3rd full paragraph	Can you add an explanation on what "fluvial design water level" is?	LT/MA	LACDPW-WRD	Explanation added.	ESA PWA		Y
3	top paragraph	Sea Level Rise in the H&H report is 59in (4.92ft), which is different than 4.6ft reported here.	LT/MA	LACDPW-WRD	revised to 59 in	ESA PWA		Y
Section 2.3, Section 4		The report states the new levees are to be engineered levees, and portions of this levee are to be vegetated. These levees will need to be maintained in accordance with the Corps' maintenance requirements, which presently call for no animal burrows (any that crop up will have to be filled in), and no woody vegetation on the levees themselves or within 15 ft of the toes of the levees. It is our understanding that the Corps does not compromise on this standard. We also understand keeping levees clear for inspection purposes is also a requirement of the Corps, therefore the Corps may have issues with the proposed buried levees. If the perimeter levees are not maintained to the Corps' standards, LA County Flood Control District would be ineligible for disaster assistance from the Corps under its PL 84-99 Program.	Patricia Wood	County of Los Angeles Department of Public Works	PDR Appendix D-2. Levee Protection Memo, includes additional discussion of levee armoring approaches and Corps guidelines for vegetation on levees. Levee armoring approaches and allowable vegetation will be discussed with the Corps based on the preliminary studies included in the PDR and H&H Reports. The intent is to work closely with the Corps and LA County to develop an approach that meets the Corps' and County guidelines and requirements. Note that the largest vegetation proposed in the transition habitat zones adjacent to the levees includes coastal scrub and shrubs suitable for the restored salt marsh-upland transition zone (ie, no large, woody vegetation). Examples of the proposed conceptual approach to be discussed with the Corps are included in Appendix D-2.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
Section 2.3, Section 4		Impacts arising from maintenance activities that will be needed to comply with the Corps' maintenance requirements must be addressed and mitigated up-front. Additionally, operation and maintenance of the tidal gates should also be addressed and mitigated up-front. Since this project, which includes the perimeter levees and new gates, is being requested by non-LA County Flood Control District entities, those entities should be the ones to fulfill and pay for the mitigation requirements. LA County Flood Control District should not be liable for any mitigation requirements, now or in the future, regarding the construction, operation and maintenance of the perimeter levees and new gates.	Patricia Wood	County of Los Angeles Department of Public Works	Agreed. O&M activities will be defined in coordination with the PMT and County. The potential impacts of O&M activities will be evaluated and mitigated as needed in the EIR/EIS.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
Preliminary Hydrology and Hydraulics Report								
1	last paragraph, 5th sentence	Delete "such"	LT/MA	LACDPW-WRD	deleted	ESA PWA		Y
6	last sentence	59in = 4.92ft. This is different from the 4.6ft stated in the PDR.	LT/MA	LACDPW-WRD	PDR has been changed to use 59 in.	ESA PWA		Y
6	Table 3	Include the datum epoch in the notes.	LT/MA	LACDPW-WRD	text revised	ESA PWA		Y
8	1st full paragraph	The math needs to be revised. 9ft + 4ft + 59in = 17.9ft, not 17.6ft as stated in report.	LT/MA	LACDPW-WRD	text revised	ESA PWA		Y
13	last paragraph	Our experience is that as-built plans may not accurately depict the bridge geometry due to changes to the structure over time. Was a field check considered to verify if the bridge geometry in the Corps model was accurate?	LT/MA	LACDPW-WRD	Bridge geometry has been field-checked for bridges from the Creek mouth to the Highway 90 bridge. Additional field-checking will be provided for the Centinella Ave bridge. Bridge geometry will be verified before the H&H analysis for Submittal B is finalized.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
25	last paragraph, 2nd sentence	In the sediment transport analysis portion of this report, Figure 22 shows linear accretion of soil up to Lincoln Blvd. Why not model the aggradation for the entire soft-bottom reach up to Centinella Blvd?	LT/MA	LACDPW-WRD	The bed aggradation scenario assumes that the influence of SLR on sediment deposition will taper off at the upstream limit of tidal influence (approximately Culver). Upstream of Culver, bed conditions reflected in Fig 22 are likely related to the channel design and fluvial forces, not tidal patterns (as discussed in the text on p 52). Fig 22 shows bed accretion up to Highway 1, and erosion between Highway 1 and Centinella.	ESA PWA	Y	OK for Submittal A. Please address our follow-up comments in revised report for Submittal B. 1) Fig 22 does not show erosion between PCH and Centinella. It appears that PCH was mistaken for 90Fwy. Please confirm. 2) Can streets/fwys be labeled on all maps? 3) Can unique numbers be given to all the figures? Currently there are multiple Figures 1's and other numbers in the H&H and its appendices.
31	3rd paragraph, mid	In the sediment transport analysis portion of this report, Figure 22 shows linear accretion of soil up to Lincoln Blvd. Why not model the aggradation for the entire soft-bottom reach up to Centinella Blvd?	LT/MA	LACDPW-WRD	See above response	ESA PWA	Y	OK for Submittal A. Please address our follow-up comments in revised report for Submittal B. See response above.
39	top paragraph, last sentence	If looking downstream, appears that the levee directions of north and south are mixed.	LT/MA	LACDPW-WRD	text revised	ESA PWA		Y

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39	last sentence	Figure 12 shows that for the Project Conditions with Bed Aggradation at MHHW+SLR (10.1ft NAVD), there will be some overtopping on the left levee at the downstream end. This part of the levee should be raised.	LT/MA	LACDPW-WRD	For without project conditions and a high-end sea level rise scenario of 59 inches in 2100, portions of the existing levees within the project reach and offsite (downstream of the project limits) are below the elevation of the design flood (46,000 cfs with a 7.6 ft NAVD tide, which is greater than the 100-year flood of 44,270 cfs). Off-site flooding in this future sea-level rise scenario is therefore not a project effect. The project will improve levees on-site to account for future sea-level rise; however, the project would not be required to address an off-site existing/future without project conditions flooding issue. Note that results shown in Figure 12 for the 100-year event indicate overtopping of the left levee at the channel mouth, which is overtopping of the lower elevation jetty onto the beach.	ESA PWA	Y	OK for Submittal A. Please address our follow-up comments in revised report for Submittal B. Someone from DPW should address whether this is OK. Last group discussion on this, there seemed to be disagreement.
46	3rd paragraph	If the shear stress is above the permissible for Q100, it will be even higher for the design Q. Why was the design Q not the main focus of analysis?	LT/MA	LACDPW-WRD	The Q100 was used for the preliminary erosion analysis in the H&H Report. We agree that the higher design Q will result in higher shear; however, the Q100 (44,270) and design Q (46,000) are similar and results are expected to be similar. The design Q will be modeling in subsequent sediment transport modeling and/or hydrodynamic modeling.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
60	1st paragraph	The Santa Clara River is a stream in Southern California and its forming discharges are those from large infrequent storm events. Can the consultant provide more support for why Q5 is the forming discharge for Ballona Creek?	LT/MA	LACDPW-WRD	Q5 was selected as a "representative" design flow for sediment transport modeling - ie design flow that would demonstrate ST conditions for a typical sediment mobilizing event. Q5 was selected because natural channels in Southern California generally have bankfull channels that correspond to an event between about Q2 and Q5 (see for example the work by Eric Stein, Coleman and Bledsoe on dominant discharge in Southern California) (Coleman, D., C. MacRae, and E.D. Stein. 2005. Effect of increases in peak flows and imperviousness on the morphology of southern California streams. Research Project Technical Report #450. Report from the Stormwater Monitoring Coalition, Southern California Coastal Water, Westminster, CA.) Stillwater Sciences did a dominant discharge assessment of the Santa Clara River. Their study is almost unique in finding dominant discharge to be much higher than on other southern Californian systems. A key difference between the Santa Clara River and Ballona Creek is that the Santa Clara River has a huge source of sediment (sand) in its braided channel and the very high yielding undeveloped watershed headwaters (which are formed in rapidly eroding marine sandstones). Systems with high sediment yields are more likely to have higher dominant discharges. By contrast Ballona Creek is very sediment limited due to urbanization and the presence of debris basins - very high floods would tend to be supply limited for sediment and so the dominant discharge curve would be lower	ESA PWA	Y	OK for Submittal A. Please address our follow-up comments in revised report for Submittal B. can this explanation of Ballona being sediment limited (compared to Santa Clara River) and reference to Eric Stein's work be included in the report?
60	1st paragraph	On page 2 of Appendix 3, there is a description of how the dominant discharge was determined. Bank full flow rates in the range of 2,900 to 4,650 cfs were determined. How was the Q5 selected as forming discharge?	LT/MA	LACDPW-WRD	Design flow hydrographs were available from previous studies for Q2, Q5 and lower frequency events. Q5 was selected as a "representative" event for sediment transport modeling - ie an event that would demonstrate ST conditions for a typical sediment mobilizing event. In retrospect, using Q2 as the representative event would have been more consistent with the dominant discharge analysis presented in Appendix 3. A more detailed sediment transport analysis including small, more frequent events will be completed prior to Submittal B.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
60	2nd to last paragraph	Both a high tide and a low tide should be modeled to determine the range of sediment potentials along the study reach since high tide can increase aggradation and low tide increase scour.	LT/MA	LACDPW-WRD	Yes, we will test additional boundary conditions as we proceed with the sediment analysis. We only ran a couple of representative events/conditions for this preliminary analysis.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
61	Last two paragraphs	The sediment transport analysis only looked at the results for the 5-yr flood. Why wasn't the design Q also analyzed?	LT/MA	LACDPW-WRD	a full range will be assessed in the subsequent phase	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B

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61	Section 5.2	For what sediment transport function are model results discussed here? Were modeling results using Yang and Toffaleti functions compared? No discussion was included in report.	LT/MA	LACDPW-WRD	all model results use the Yang transport function which was found to better represent expected sediment transport behavior for the system. Text revised	ESA PWA		Y
63	Figure 25	What transport function modeling results are being shown in this figure, Yang or Toffaleti?	LT/MA	LACDPW-WRD	all model results use the Yang transport function which was found to better represent expected sediment transport behavior for the system. Figure revised	ESA PWA		Y
		A discussion should be included in the report as to why a long-term sediment transport model was not performed. The sediment transport modeling was only for the Q5 event (single-event).	LT/MA	LACDPW-WRD	Our approach is to develop a long-term sediment budget and geomorphic analysis that incorporates sediment transport modeling and erosion estimates for a range of storm events, watershed sediment load, wetland and channel deposition, sedimentation/erosion at the channel mouth, and reference site assessments. The H&H Report includes the first steps in this analysis (hydraulic and hydrodynamic modeling, initial sediment transport modeling, and initial geomorphic assessments), as well as a discussion of the initial results and next steps in the analysis. The next steps are to complete the sediment transport modeling, perform additional erosion analyses using site-specific sediment property data that has been collected, and complete the sediment budget and geomorphic assessment using these results and reference site data. The analysis will be completed to inform future design phases and address potential effects for the EIR/S. This work is best completed after we discuss with the USACE their perspective on sediment transport analysis requirements. We will discuss with the USACE after submittal of 408A.		Y	OK for Submittal A. Needs to be addressed in Submittal B
Appendix 1, page 3	top paragraph, last sentence	The sentence says that the Ballona Levees range in elevation from 13 to greater than 16 feet and would prevent tsunami waters from entering the rest of the site. Is this for existing conditions, since the PDR shows that all proposed levees will be at Elevation 20.5? Please clarify.	LT/MA	LACDPW-WRD	The elevations are for existing conditions. Text revised	ESA PWA		Y
Appendix 3, page 2	1st paragraph, 3rd sentence	This section describes how the dominant discharge was determined. Bank full flow rates in the range of 2,900 to 4,650 cfs were determined. However, page 60 of the report states that the Q5 was selected as the forming discharge. Shouldn't the two be consistent?	LT/MA	LACDPW-WRD	Q5 was selected as a "representative" event for sediment transport modeling - ie an event that would demonstrate ST conditions for a typical sediment mobilizing event. We do not say that Q5 is channel forming event for this system	ESA PWA	Y	OK for Submittal A. Please address our follow-up comments in revised report for Submittal B: 1) What is the difference between the "representative" and the "dominant" sediment transport event? Can this explanation be added to the report. 2) Page 60 states "Q5 typically represents a channel forming discharge as it represents the combination of flow magnitude and frequency that make it most significant in affecting the long-term channel geometry". Please revise sentence so that it doesn't imply that the Q5 is the dominant discharge. 3) Can appendices have unique page numbers as well? (For example, A-1, A-2, B-1, B-2, ...) Currently, it is difficult to be scrolling through not sure which appendix I'm in.
		Could the proposed levees and water surface elevations potentially have an impact on interior drainage?	LT/MA	LACDPW-WRD	Interior drainage will be analyzed in the next phase of design and impact analyses. Specifically, the proposed managed wetlands behind the Culver levee (including water control structures) will be designed to maintain the existing flood levels and storm drainage capacity behind the levee.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
Appendix 1, 3	Area B EC & PC Exhibit	Shade or use unique line color to distinguish between the different drainage area boundaries. Show flow rates and total tributary area at the outfalls.	LT/MA	LACDPW-WRD	Updated exhibit for drainage outfall flow rates & acreages.	PSOMAS		Y
Appendix 1, 4	Area C EC Exhibit	There are two different outfalls for Area C, the open ditch under Lincoln Blvd to the northwest and the existing storm drain to Ballona Creek near the Culver Blvd/Lincoln Blvd transition ramps. Show flow rates and total tributary area at the outfalls.	LT/MA	LACDPW-WRD	Updated exhibit for drainage outfall flow rates & acreages.	PSOMAS		Y
Appendix 1, 5	Area D EC Exhibit	Is this the same area as the Freshwater Marsh/Riparian Wetlands watershed? No hydrology was provided. Show flow rates and total tributary area at the outfalls.	LT/MA	LACDPW-WRD	Hydrology is provided within the Area B write-up. Exhibit updated for outfall flow rates and acreages.	PSOMAS		Y

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Appendix I, 6	Area C PC Exhibit	Show proposed grading for fill material and how runoff from proposed fill will be collected.	LT/MA	LACDPW-WRD	Final grading design has yet to be determined. Will update as design is completed. Level of current design is conceptual to calculate volumes and overall impacts.	PSOMAS	Y	OK for Submittal A. Needs to be addressed in Submittal B
Appendix I, 6	Area C PC Exhibit	Will Subarea 4A flows be conveyed by the proposed storm drain?	LT/MA	LACDPW-WRD	No, runoff is conveyed to the existing storm drain system within Culver Blvd which then outlets into Ballona Creek	PSOMAS		Y
Appendix I, 6	Area C PC Exhibit	Show flow rates and total tributary area at the outfalls.	LT/MA	LACDPW-WRD	Updated exhibit for drainage outfall flow rates & acreages.	PSOMAS		Y
Appendix I, 7	2nd paragraph	Who will maintain the new drainage facilities: LACDPW/LACFCD, City of LA, others?	LT/MA	LACDPW-WRD	Storm drain lying within City of LA roadways will be maintained by City of LA. Storm drain within DFW boundary will either be maintained by DFW or the County. Maintenance responsibilities TBD.	PMT/ PSOMAS	Y	OK for Submittal A. Needs to be addressed in Submittal B
Appendix I, 7	2nd paragraph	Four day storm volume is required to be analyzed for detention facilities.	LT/MA	LACDPW-WRD	Yes, calculations will be provided at a later submittal. This is too early for Submittal A.	PSOMAS	Y	OK for Submittal A. Needs to be addressed in Submittal B
Appendix I, 7	2nd paragraph	SUSMP or 85th Percentile rainfall required for water quality.	LT/MA	LACDPW-WRD	Yes, calculations will be provided at a later submittal. This is too early for Submittal A.	PSOMAS	Y	OK for Submittal A. Needs to be addressed in Submittal B
Appendix I, 7	5th paragraph	There are two different outfalls for Area C, the open ditch under Lincoln Blvd to the northwest and the existing storm drain to Ballona Creek near the Culver Blvd/Lincoln Blvd transition ramps. Flow rates should be reported for each outfall.	LT/MA	LACDPW-WRD	Updated report accordingly	PSOMAS		Y
Appendix I, 8	2nd paragraph	The timing of the high tide and the hydrographs should be adjusted so that the high tide and peak discharge are coincident.	LT/MA	LACDPW-WRD	Agreed. This will be addressed in subsequent storm drainage analyses.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B
Appendix I, 9	2nd paragraph	The hydrology study for Pershing Drain is 22 years old. Suggest revising it since the current LACDPW hydrology standards and policies have changed since then.	LT/MA	LACDPW-WRD	Hydrology for the tributary area is current, however the diversion amount has never been confirmed. The worst case scenario in which no diversion occurs can be assumed, or in order to obtain the actual diversion amount a physical inspection of the pipe along with further calculations would be required. To be discussed and determined.	PSOMAS	Y	OK for Submittal A. Needs to be addressed in Submittal B
Description of Project and Alternatives								
		In regards to the NEPA document, impacts from operation and maintenance of the perimeter levees and new gates need to be addressed in the document up-front, along with the impacts of construction. Since this project, which includes the perimeter levees and new gates, is being requested by non-LA County Flood Control District entities, those entities should be the ones to fulfill and pay for the mitigation requirements. LA County Flood Control District should not be liable for any mitigation requirements, now or in the future, regarding the construction, operation and maintenance of the perimeter levees and new gates.	Patricia Wood	County of Los Angeles Department of Public Works	O&M activities and responsibilities will be defined in coordination with the PMT and County. The potential impacts of O&M activities will be evaluated and mitigated as needed in the EIR/EIS.	ESA PWA	Y	OK for Submittal A. Needs to be addressed in Submittal B

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Project Geotechnical Memo										
Appendix B	Soils Report	Address potential effects of seismically induced lateral spreading. Provide analyses, calculations, conclusions and recommendations.	Yoshiya Morisaku	ymorisaku@dpw.lacounty.gov	They will be addressed in the final report.	Group Delta	Y			
Appendix B	Soils Report	Address the cumulative effect of static consolidation and post-liquefaction settlement in relation to the required levee free-board. Verify the settlement will not cause loss of levee freeboard height/elevation.	Yoshiya Morisaku	ymorisaku@dpw.lacounty.gov	It will be addressed in the final report. Levees will be overbuilt to accommodate expected settlements.	Group Delta	Y			
Appendix B	Soils Report	Address the effect of static long-term consolidation of silty and clayey soils in relation to roads alignments and appertenances. Address areas of new/additional overburden pressures, including but not limited to areas of levee compacted core. Provide calculations and recommendations.	Yoshiya Morisaku	ymorisaku@dpw.lacounty.gov	They will be addressed in the final report.	Group Delta	Y			
Appendix B	Soils Report	Address long term effects of overburden pressure on existing and proposed pipes/drains/culverts. Address areas of new/additional overburden pressures. Provide calculations and recommendations.	Yoshiya Morisaku	ymorisaku@dpw.lacounty.gov	It will be addressed in the final report.	Group Delta	Y			
Appendix B	Soils Report	Clarify locations and alignment of referenced existing levees to remain in place. Provide additional analyses, calculations, conclusions and recommendations for seismic conditions of the existing levees to remain in place. Address and provide mitigation measures, as necessary.	Yoshiya Morisaku	ymorisaku@dpw.lacounty.gov	It will be addressed in the final report.	Group Delta	Y			
Appendix B	Soils Report	Provide additional cross sections as well as updated cross sections for the subject site. Cross Sections should include but not be limited to, Area A (western portion), Area C, North Area B, etc.	Yoshiya Morisaku	ymorisaku@dpw.lacounty.gov	Additional cross section will be provided in the final report.	Group Delta	Y			
Appendix B	Soils Report	Provide updated map which includes the revised levee alignment. Updated map should include protection of existing gas wells located within the project development area.	Yoshiya Morisaku	ymorisaku@dpw.lacounty.gov	It will be addressed in the final report.	Group Delta	Y			
Preliminary Design Report										
8		3 Provide the, "preliminary geotechnical recommendations for specific levee sections are described below in Section 5.2" There is no Section 5.2 in the report. Section 5 is a List of Acronyms.	Yoshiya Morisaku	ymorisaku@dpw.lacounty.gov	See Section 2.3.2. Section reference corrected.	ESA PWA	Y			

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Preliminary Design Report							
10	Paragraph 2	If the 100 year flood would crest the current south levee in West Area B in 2100 with sea level rise, and we want to create a new levee in this area that accommodates that flood event on the restoration site, are we responsible for raising the southern levee past the western boundary of the Ecological Reserve, because it continues on to the west and currently protects off-site developments? I am assuming the residential neighborhood to the west protected by the current south levee would be inundated in 2100 without the raising of the levee west of the Ecological Reserve. Off-site levee raising is proposed on the north levee west of Area A on page 14, paragraph 2, but not on the south?	D. Lawhead	CDFW	For without project conditions and a high-end sea level rise scenario of 59 inches in 2100, portions of the existing levees within the project reach and offsite (downstream of the project limits) are below the elevation of the design flood (46,000 cfs with a 7.6 ft NAVD tide, which is greater than the 100-year flood of 44,270 cfs). Off-site flooding in this future sea-level rise scenario is therefore not a project effect. The project will improve levees on-site to account for future sea-level rise; however, the project would not be required to address an off-site existing/future without project conditions flooding issue. The north levee raising west of Area A discussed in PDR Section 2.3.2.1, page 14, paragraph 2 is within the project area/property boundary and may be required to maintain/improve the existing level of flood protection.	ESA PWA	
15	Paragraph 5	How stable will levee construction be in Area B if the soil surface is "close to groundwater" and there is only over-excavation of 2-4 feet for the base of the levee. Can a levee base be adequately stabilized on moist soils with such a shallow excavation? What about liquefaction problems in this area?	D. Lawhead	CDFW	The construction of levees in West Area B will be performed in a slow controlled manner, and fill placement will happen slowly. The soft soils will consolidate to a denser state, and gain strength during the placement of the levee fill. This type of slow construction has been used successfully in softer soils (e.g., in Louisiana) and will ensure the static stability of the levees. The new levee slope at about 10:1 and are thus are very flat (significantly flatter than the existing levees that are built on similar soft soils). The very flat slopes result in high Factors of Safety for slope stability (static and dynamic). The effects of liquefaction were considered (settlement and lateral spread). Liquefaction settlement was estimated to be on the order of 1 to 3 inches and lateral spread less than 1.5 inches. Since the levees are very flat these displacements do not present a geotechnical challenge. More importantly, loss of freeboard would not be an issue. In our opinion, the West Area B levees can be designed as planned using the proposed cross sections.	Group Delta	
35	Section 2.9.6	Is the Gas Co. going to be incorporating their well abandonment plans into our project, and thus include it in our EIR/EIS, or is it now on a separate planning and regulatory schedule? For our planning process, can we assume that certain wells will be removed, or do we now have to work around them all?	D. Lawhead	CDFW	The Gas Company has developed a project description for their activities that will be included as part of the project for the purposes of environmental review and permitting.	ESA PWA	Y
Figure 9		I have some concerns about extending the tidal channels to far to the east in East Area B, as it may deplete surface freshwater and groundwater from the freshwater marsh and other brackish or freshwater habitats in the vicinity. This drainage may be helpful in flooding circumstances, but during drier times it may de-water those freshwater habitats.	D. Lawhead	CDFW	The managed wetland design south of the Culver levee will be developed as a next step in the design process. The design will seek to allow for management flexibility to achieve a mix of tidal and seasonally-closed salt, brackish, and freshwater marsh as possible and desired by the PMT. The conceptual tidal channel enhancements shown in the PDR are intended to provide tidal inundation and circulation, but are only schematic and will be refined or removed to achieve the desired habitats as the design is developed.	ESA PWA	Y
Figure 6		The levee at the east end of Area A does not show it being connected to the existing north levee. Is this an error in the drawing? This connection is shown in other figures.	D. Lawhead	CDFW	The east end of the Area A levee is shown as being tied in to the existing high ground/Culver embankment in Figure 6. Figure 6D indicated that the Culver embankment would be armored. The intent is for the line of flood protection to extend to the existing north Ballona Creek levee. The levee tie-ins and armoring will be detailed in subsequent phases of the design.	ESA PWA	Y

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Figure 6D		With the need to armor portions of the newly created meandering Ballona Creek channel to counteract the potential impacts of scour, will the new channel be for the most part fixed in place and not have the ability to shift position as a natural channel would do over time? This would seem to be at odds with the goal to restore a more natural system. How much shifting will the channel be able to do given the proposed armoring?	D. Lawhead	CDFW	In Figure 6D, the majority of the realigned channel bank is shown as "Level 3" erosion risk, meaning there is the potential for erosion but the consequences of erosion are considered low (see discussion in PDR Section 2.3.3, page 17). Any armor design for these Level 3 channel banks will be developed in future phases of the design, and would consider non-traditional erosion protection alternatives and no armoring. Treatment of the Level 3 erosion potential channel banks would be intended to allow for some level of natural channel bank erosion and adjustment/movement to occur. The amount of potential erosion that may occur during storm events will be estimated in future analyses to inform the design and analyze potential impacts for the EIR/S. The Level 1 armoring shown across the existing channel would be installed to allow construction of the channel meanders (see PDR Section 2.4.3) and would remain to limit the potential for the channel to avulse back into a straight alignment during extreme events. The downstream-most Level 1 channel bank armoring (along the last outside meander bend before the channel rejoins the existing straight alignment) is intended to limit erosion potential near the Culver levee where the flow reconverges into the straight channel alignment.	ESA PWA	Y
Table 6		Under "Planting/Erosion Control" a cost should be included for the monitoring program proposed in the Adaptive Management Plan. Also, there should be a cost assumption on the need to do a certain percentage of re-planting during the construction phase, as it is likely that some remedial work will be necessary.	D. Lawhead	CDFW	We added Adaptive Management monitoring and vegetation maintenance (removal of non-natives and replacement of some plants) to the table and will include this when the project cost estimate is developed.	ESA PWA	Y
H & H Report Comments							
Page 25	Section 3.3.3	This section mentions sea level rise was factored into the analysis of existing conditions into the future, but does not indicate the amount of sea level rise. Should I assume that the SLR used was 59 inches in 2100?	D. Lawhead	CDFW	Yes, a sea level rise scenario of 59 in in 2100 was used. The text has been revised to clarify.	ESA PWA	
Page 30	Figure 10	This figure seems to indicate that there is sufficient levee height in West Area B such that the 100 year flood under 2100 SLR existing conditions will not crest the levee. However, in the PDR, Section 2.3., it states that under existing conditions in the future that the levee adjacent to West Area B will not contain the 100 year flood waters. Please clarify.	D. Lawhead	CDFW	In PDR Section 2.3 and Table 2, levee design heights and freeboards are referenced to the design flood (46,000 cfs) water surface profile, whereas the 100-year flood (44,270 cfs) is lower and has a lower water surface profile. With 59 in of sea-level rise in 2100, the design flood would overtop the levees as indicated in PDR Table 2; however, the 100-year flood would not overtop the levees as shown in H&H Report Figure 12. With 59 in of sea-level rise, the 100-year flood would only overtop the south jetty onto the beach. The PDR and H&H report text has been revised to clarify this.	ESA PWA	
Page 31	Para.2, & Figure 11	Very interesting that the 100 year flood elevations are actually higher under the project conditions than existing conditions. The spreading out of the waters onto the wider floodway created by the project is counteracted by the flow resistance from vegetation, and I assume the "back-up" that occurs from the water having to re-enter the flood control channel downstream. I guess we can't say that the project actually provides an improved flood protection function, just maintains existing conditions (?).	D. Lawhead	CDFW	The project is expected to result in very minor changes in the water levels during major floods. There are decreases in some locations, and minor increases shown where the flows reconverge to re-enter the downstream channel. The project will improve the existing level of flood protection by constructing new levees engineered to meet current standards at higher elevations that accommodate future sea-level rise. The higher levees will more than compensate for the ~1 ft increase in the water surface profile.	ESA PWA	
Page 69	Section 6.2.1	With removal of levees and replacement by a primarily soft-sided channel, will channel geometry evolve toward a reduced channel dimension via erosion/deposition and towards hydraulic equilibrium given that the current channel is over-sized? If the new Ballona Creek channel is reduced in size, how will that affect flood risk? Will that scenario be analyzed?	D. Lawhead	CDFW	The channel may experience deposition, but is not expected to reach the predicted equilibrium due to limited sediment supply and potential channel scouring during storm events. Any reduced channel section/size proposed in the design will be analyzed for flood performance and accounted for in levee design heights in future phases of the design.	ESA PWA	Y

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Page 73	Section 6.2.3 and	Page 83, Section 6.3.1. In this section of the Geomorphic Analyses (Sect. 6.2) chapter there is a discussion regarding wetland accretion which indicates that wetland sediment deposition is calculated to be less than what the watershed can supply. However, there is no discussion of a wetland erosion rate and its relationship to watershed sediment supply. Doesn't there need to be an assessment of both deposition and erosion to give a clear picture of wetland accretion? Should there be more discussion of expected (modeled) rates of erosion in this report section?	D. Lawhead	CDFW	Wetland and channel erosion potential is analyzed and discussed in Section 4.6, which indicates that modeled shear stresses for the 100-year event are generally within the range of permissible shear stresses for native vegetation. More detailed analysis of potential erosion analysis will be performed based on site specific data that has been collected and additional modeling. The initial geomorphic and sediment budget analysis discussed in the H&H report will be completed in subsequent phases of the design and to analysis potential impacts for the EIR/S. This will include additional erosion analysis and assessment of long-term deposition and erosion patterns.	ESA PWA	Y
Page 84	Section 6.3.2	It seems that a major component of assessing the project, sediment erosion, is deferred to a later analysis. Will the Army Corps find this initial application inadequate without at least some preliminary analyses regarding erosion rates?	D. Lawhead	CDFW	The hydrodynamic analysis in Section 4.6 and initial sediment transport modeling in Section 5 provide an initial analysis of potential erosion. The sediment transport analysis required by the Corps will be provided subsequent to the H&H report.	ESA PWA	Y
Page 84	Section 6.3.2	Paragraph 4. While this paragraph makes up a small portion of the report, the question it raises about the project wetland's ability to recover from potential erosion during large storm events, is a critical question to answer to justify taking down the existing levees. This was also a key question the Science Advisory Committee said needed addressing in their Ballona feasibility study assessment. It's unclear to me why this analysis is deferred until later.	D. Lawhead	CDFW	Our approach is to develop a long-term sediment budget and geomorphic analysis that incorporates sediment transport modeling and erosion estimates for a range of storm events, watershed sediment load, wetland and channel deposition, sedimentation/erosion at the channel mouth, and reference site assessments. The H&H Report includes the first steps in this analysis (hydraulic and hydrodynamic modeling, initial sediment transport modeling, and initial geomorphic assessments), as well as a discussion of the initial results and next steps in the analysis. The next steps are to complete the sediment transport modeling, perform additional erosion analyses using site-specific sediment property data that has been collected, and complete the sediment budget and geomorphic assessment using these results and reference site data. The analysis will be completed to inform future design phases and address potential effects for the EIR/S. This work is best completed after we discuss with the USACE their perspective on sediment transport analysis requirements. We will discuss with the USACE after submittal of 408A.	ESA PWA	Y
Project Description Letter Comments							
Page 1	lines 13 and 14	Recommend the last sentence in this paragraph be changed to: "The project site provides habitat for a diversity of plant and wildlife species, but many on-site habitats have been degraded and support reduced physical and biological functions and services."	D. Lawhead	CDFW	Agreed - done	ICF	
Page 1	line 19	Change to: "...Ballona Wetlands would play a more important role in providing seasonal habitat..."	D. Lawhead	CDFW	Agreed - done	ICF	
Page 1	line 20	Substitute "well functioning" for "optimally functioning."	D. Lawhead	CDFW	Agreed - done	ICF	
Page 1	line 21	Delete phrase "and enhance the quality of tidal waters." I don't think we can make that claim at this point, since that is driven primarily by upstream contaminant sources.	D. Lawhead	CDFW	Agreed - done	ICF	
Page 1	line 27	The 605 acre figure includes the Freshwater Marsh, which is not part of the project. Subtracting out the FWM acreage, I believe the Ecological Reserve acreage is 571 acres.	D. Lawhead	CDFW	Revised acreages and text to approximately 601 acres (excluding the FWM and Gas Co parcel, including approximately 40 acres of roads and the Ballona Creek channel and levees within the property boundary)	ICF	
Page 2	line 4	The listing following "The main components of the project are:" really describe Alternative 1. I would recommend that lines 4 through 33 be incorporated into the Alternative 1 description (move line 34 up to line 4)	D. Lawhead	CDFW	Lines 4-28 on page 2 moved to a new paragraph below line 3 on page 3. Done	ESA PWA	
Page 3	line 26	"level" should be "levee"	D. Lawhead	CDFW	Agreed - done	ICF	
Page 4	line 35	"environmental sensitive" should be "environmentally sensitive."	D. Lawhead	CDFW	Agreed - done	ICF	
Page 4	line 39	There should be an "and" before "landscape elements."	D. Lawhead	CDFW	Agreed - done	ICF	
Page 4	line 40	"not" should be "no"	D. Lawhead	CDFW	Agreed - done	ICF	
Page 4	line 41	"building(s)" should be "building(s) space."	D. Lawhead	CDFW	Change to ... 45,000 square feet of building space ... (note change 46,00 to 46,000 and building(s) to building)	ICF	
Page 5	line 3	"house" should be "housed."	D. Lawhead	CDFW	Agreed - done	ICF	
Page 5	line 10	Should be an "and" after "wetlands."	D. Lawhead	CDFW	Agreed - done	ICF	

Ballona Wetlands Restoration Project
Project Management Team comments on the Admin Draft USACE Section 408 Permit - Submittal A
Consultant Team responses to comments provided for Screen-check Draft Submittal A

Comment					Response		
Page Number	Line Number	Comment	Reviewer Name	Contact Info	Response	Lead	Follow up required in subsequent analyses?
PRELIMINARY DESIGN REPORT							
2	Middle	Section 1.2, last bullet. It's implicative that SoCalGas' existing facilities are protected from inundation as well as stormwater runoff that may pond in areas due to the proposed levees. Appropriate drainage facilities will need to be included in the design to avoid flooding.	A. Klecha	aklecha@semprautilities.com	Where Gas Co facilities are left in place and surrounded by new levees, culverts with flap gates will be provided for drainage as needed.	ESA PWA	Y
4	Bottom of page	Section 1.6, #3. Recommend inserting language that identifies SoCalGas' potential future abandonment/relocation activities. Also, please note there are many more lines in the wetlands that were abandoned historically by SoCalGas. We will provide drawings that show all lines which we have knowledge of, along with our project description, which will be provided to you by the end of January 2013.	A. Klecha	aklecha@semprautilities.com	The project will incorporate the Gas Co's project description information into the Project Description and the PDR prior to providing Submittal A to the Corps.	ESA PWA	Y
21	Bottom of page	Section 2.5, 2nd paragraph. The reference to Section 2.10.2 appears incorrect. Might be 2.9.5.	A. Klecha	aklecha@semprautilities.com	text revised	ESA PWA	
25	2nd paragraph	Section 2.6.2.1, 2nd paragraph. The reference to Section 2.10 appears incorrect. Might be 2.9.5.	A. Klecha	aklecha@semprautilities.com	text revised	ESA PWA	
29	Center	Section 2.7.3, Note. SoCalGas is unclear as to which pipeline you are referring to. There are three active pipelines that traverse Area B: two (9019 and 9020) in Area B South that serve Del Rey Wells 13, 14, 15, 19, 18 and 19; and a transmission line (1167) in Area B East that runs in a north-south direction, then continues along Jefferson Boulevard. In addition, the pipelines are not shown on Figure 4 or described in Section 2.10.4, rather they appear on Figure 3 and are discussed in Section 2.9.7. Please clarify which pipeline you are referring to and revise the figures and text as necessary. Furthermore, the project should stipulate that SoCalGas' transmission line 1167 in Area B East be relocated to the Gas Company Road so that it would not be submerged underneath a restored wetland (this line is shown in Appendix F, Figure 23).	A. Klecha	aklecha@semprautilities.com	The project will incorporate the Gas Co's project description and gas line information into the Project Description and the PDR prior to providing Submittal A to the Corps. Section and figure numbers have been updated.	ESA PWA	Y
34-35	Bottom/Top	Section 2.9.4. The document should state that Del Rey 12 will have to be replaced prior to its abandonment, and that coordination with SoCalGas should occur to determine an appropriate replacement wellsite. The document should also state that access road and wellpad locations for any wells to be abandoned will have to be upgraded to support heavy equipment up to 80,000 pounds. For access roads, a 2-inch thick graded gravel road 12 feet in width on the straightaways and 20 feet in width at the corner of the turns will have to be established. For the wellsite locations, a 2-inch thick graded gravel work pad 120 feet by 170 feet centered at the wellhead will have to be established. In addition, the document should state that each abandoned wellsite will need to be accessible to install soil gas monitoring probes and monitored for gas leakage for two months following abandonment. If gas leakage is detected, deeper probes will need to be installed and monitored for six months. After it has been determined that there is no further gas leakage, the probes can be removed. SoCalGas will continue to conduct well gas leakage surveys on each abandoned well every six months. In the case of a well subsequently being submerged under water, another means of monitoring the well will be determined, such as checking for gas bubbles percolating in the water above the abandoned well. If well leakage occurs that requires re-abandonment, then the roads and wellpads will have to be re-established to execute the work.	A. Klecha	aklecha@semprautilities.com	The project will incorporate the Gas Co's project description information into the Project Description and the PDR prior to providing Submittal A to the Corps.	ESA PWA	Y
35	Top	Section 2.9.5. The document should clarify that access to any wellsites that will be avoided will not be affected. Continued access to these sites will be required.	A. Klecha	aklecha@semprautilities.com	The intent is to maintain existing Gas Co access to all facilities that are protected.	ESA PWA	
35	Bottom	Section 2.9.7. The discussion references two pipelines to be removed and relocated. However, there may be four. In addition to the two pipelines shown on Figure 3, there is an additional line in Area B South and another in Area B East that should be identified. Also, the reference to Section 2.10.4 is incorrect - it doesn't exist. See comment above for Section 2.7.3. Any pipeline abandonments and relocations should be coordinated with SoCalGas.	A. Klecha	aklecha@semprautilities.com	The project will incorporate the Gas Co's project description information into the Project Description and the PDR prior to providing Submittal A to the Corps. Section numbers have been corrected.	ESA PWA	Y
41	Demo	Table 6. The table does not include costs for well or pipeline abandonment and relocations, or access road and wellpad upgrades.	A. Klecha	aklecha@semprautilities.com	Costs to the project for protection, abandonment, and relocation of Gas Co facilities will be added to subsequent cost estimates. The intent at this stage is to focus project funding on restoration actions and to keep any project costs related to Gas Co facilities to a minimum.	ESA PWA	Y
48	Bottom	Section 3.2, Interim Phase, 1a). The plans described here to abandon or protect in place the gas wells in Areas A and B are inconsistent with the previous discussions in Sections 2.9.4 and 2.9.5. Please clarify.	A. Klecha	aklecha@semprautilities.com	text revised	ESA PWA	
49	Top	Section 3.2, Interim Phase, 1b). The plans described here to abandon or protect in place the gas wells in Area B are inconsistent with the previous discussions in Section 2.9.5. Please clarify.	A. Klecha	aklecha@semprautilities.com	text revised	ESA PWA	

Ballona Wetlands Restoration Project
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Comment					Response		
Page Number	Line Number	Comment	Reviewer Name	Contact Info	Response	Lead	Follow up required in subsequent analyses?
49	Bottom	Section 3.2, Interim Phase, 3a). With respect to the 30-inch transmission line, please see comments above for Sections 2.7.3 and 2.9.7. The project should stipulate that SoCalGas' transmission line 1167 be relocated to the Gas Company Road so that it would not be submerged underneath a restored wetland.	A. Klecha	aklecha@semprouilities.com	Will review Gas Co pipelines and update based on the project description and information provided by the Gas Co. The intent is to work with the Gas Co to relocate major pipelines to the Gas Co road.	ESA PWA	Y
Preliminary Design Report FIGURES							
Figure 1		The property boundary should not include SoCalGas' tank farm in Area B South. Please see attached Grant Deed, dated January 12, 2004, and revise the boundary line as necessary.	A. Klecha	aklecha@semprouilities.com	The property boundary will be updated prior to providing Submittal A to the Corps as appropriate.	PSOMAS	Y
Figure 3		The portion of SoCalGas' line 1167 in East Area B proposed to be replaced should be highlighted in black. The project should stipulate that SoCalGas' transmission line 1167 be relocated to the Gas Company Road so that it would not be submerged underneath a restored wetland.	A. Klecha	aklecha@semprouilities.com	The project will incorporate the Gas Co's project description information into the Project Description and the PDR when it is received and prior to providing Submittal A to the Corps.	ESA PWA	Y
APPENDIX F - CONSTRUCTION PHASING FIGURES							
Table	Sequence #1	The gas line (9021) in the eastern portion of Area A is currently inactive and will not have to be relocated. The line travels across Area A, down the creek embankment then crosses the creek along with 9019 and 9020. All three of these lines then travel together to the plant.	A. Klecha	aklecha@semprouilities.com	Line will not need to be relocated, but must still be removed. Table updated.	PSOMAS	
Table	Sequence #6	Two addition gas pipelines may have to be relocated: one in Area B South and one in Area B East (refer to comments on 2.7.3, 2.9.7, and 3.2 Phase 3a) above).	A. Klecha	aklecha@semprouilities.com	The Area B South pipeline is already indicated to be relocated and the Area B East line is not within this phase	PSOMAS	
Table	Sequence #7	The table should include the well relocation for Del Rey 12 as well as the required road and wellpad upgrade (see comment for Section 2.9.4 above).	A. Klecha	aklecha@semprouilities.com	The well will be relocated prior to abandoning	PSOMAS	Y
Exhibit 1	Sequence #1	The gas line in the eastern portion of Area A is currently inactive and will not have to be relocated. Please coordinate with SoCalGas in developing new alignments.	A. Klecha	aklecha@semprouilities.com	Exhibit updated accordingly	PSOMAS	
Exhibit 6	Sequence #6	Please coordinate with SoCalGas in developing new pipeline alignments.	A. Klecha	aklecha@semprouilities.com	Will coordinate with Gas Company	PSOMAS	Y
Exhibit 7	Sequence #7	Please coordinate with SoCalGas in developing new pipeline alignments.	A. Klecha	aklecha@semprouilities.com	Will coordinate with Gas Company	PSOMAS	Y
Exhibit 23	Sequence #23	The project should stipulate that SoCalGas' transmission line 1167 be relocated to the Gas Company Road so that it would not be submerged underneath a restored wetland.	A. Klecha	aklecha@semprouilities.com	The project will incorporate the Gas Co's project description and gas line information into the Project Description and the PDR prior to providing Submittal A to the Corps.	PSOMAS	Y