APPENDIX I
RESPONSES TO COMMENTS ON REVISION 2: DRAFT RD/RAWP

NAVY RESPONSES TO COMMENTS
REVISION 2: DRAFT-REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
REMEDIAL ACTION AT IR SITE 25
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA
SEPTEMBER 2011

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Comments from Melinda Garvey, United States Environmental Protection Agency, received by e-mail on 16 November 2011					
General Comments					
1	-	-	-	Thank you for the tour. It was helpful to visualize the project. EPA defers to the Water Board and will not be submitting comments.	Comment noted.
Comments from Elizabeth Wells, California Regional Water Quality Control Board, San Francisco Bay Region, dated 16 November 2011					
General Comments					
1	-	-	-	Responses to Water Board staff comments (RTCs) included as Appendix I in the Revised Draft RD/RAWP adequately address Water Board staff comments presented in letters to the Navy dated May 16 and June 7, 2011. Additional Water Board staff comments on the Revised Draft RD/RAWP are presented below.	Comment noted.
Specific Comments from Elizabeth Wells, Water Board					
1	-	1.1	-	Revise the text to reflect that the both the do-not-exceed remediation goal and the site-wide average for each chemical of concern must be reached.	Concur.
2	-	4.2.2	-	a. Confirm that Midpeninsula Regional Open Space District has been informed of the plan to divert water to its portion of Site 25. b. Discuss what calculations, if any, have been performed to determine the volume of water to be moved. In addition, clarify what evaluation has been conducted to confirm the dammed areas can hold the extra volume of water.	a. Concur. The Navy sent Ms. Ana Ruiz the Rev 02 document and has been in communication with her (both telephone and email) during the document review period. However, the Navy has not received comments as of 27 January 2012. b. Excel spreadsheet calculations supporting the Storm Water Retention Pond (SWRP) water diversion include estimates of volume in each portion of the SWRP; required flowrates; and resulting water levels. The proposed water management approach was designed to control the extra volume of water based on these calculations. Copies of the spreadsheets will be included as an attachment to the remedial design drawings (Appendix D to the

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					RD/RAWP).
				c. Include the rationale for the location of the pump intake. Note that as shown on Figure 8, it is located within 10 feet of a contaminated polygon to be excavated. Water Board staff understand that only two or three sample points were used in this area to determine the extent of excavation (Thiessen polygons). Therefore, the actual extent of contaminated sediment could be larger and extend beyond the boundary of the nearby polygon and into the area of the intake. Water Board staff recognize the actual area of contamination could also be smaller. However, to be protective and minimize movement of contaminated Water Board Staff Comment Letter NAS Moffett Field November 16, 2011 Site 25 Revision Number 2 Remedial Design and Remedial Action Work Plan sediment during water diversion, Water Board staff suggest further evaluation to confirm that the pump intake is located in an uncontaminated area.	c. Sheet C-7 in the RD (Appendix D) has been revised to indicate that locations of submerged pump intakes and discharges will be at least 20 feet away from the nearest border of a contaminated polygon. The Navy will test the sediment at the proposed locations for COECs prior to deployment to ensure pump intakes are located in an uncontaminated area.
				d. Discuss why three samples are adequate to characterize the standing water and why the locations chosen are representative. Show the pond sampling locations on a figure.	d. The assumption is that water throughout IR Site 25 is uniformly mixed, due to the dynamics of how the pond is managed and the shallow water column. Chemical concentrations should not be significantly different between locations; therefore, a limited number of water samples (i.e., two or three) are judged to be adequate to characterize the standing water. During the sampling event conducted in June 2011, two surface water samples were collected from the SWRP and two water samples were collected from the Alviso Pond A2E. Figure 4 details the approximate locations of the standing water samples.
				e. Provide and discuss the chemical concentration levels that will be used to evaluate whether the results of the pond water sampling are of concern.	e. As presented in Revision 2: RD/RAWP, the water management plan has been revised to divert water within the IR Site 25 boundary, i.e., no off site discharge of water will be conducted. To assess possible migration of contaminants present in sediment,

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					the Navy will initially sample the locations of pump intakes to assess contaminant concentrations. Also, during pumping, if turbidity (suspended solids) concentrations in the pump effluent rise to 5 times background, the pumps will be shut down and the pumping scheme will be reassessed. A new Table 3 has been developed to present results of surface water sampling conducted in June 2011.
3	-	4.3	-	Clarify why samples collected for waste disposal profiling are not being tested for DDT and polychlorinated biphenols.	Comment noted. Upon further discussion with waste disposal facilities, the approach for waste characterization will be as follows: 1. A four-point composite per 1,000 CY will be collected and analyzed for Title 22 metals, PCBs, and pesticides (including DDT). 2. A four-point composite per 5,000 CY will be collected and analyzed for TPH (all ranges); volatiles by EPA method 8260; and semi-volatiles by EPA method 8270. This approach is consistent for characterization as required by disposal facilities. Text in Section 4.3 has been modified to reflect this comment and response.
4	-	6.4.3	-	Correct the reference to Figure 3, Appendix D. Clarify if confirmation sampling locations are shown on any figure. Appendix D does not contain a "Figure 3."	Concur. The reference has been deleted. Locations of confirmation samples are provided in the SAP (Appendix B of the RD/RAWP), as indicated in the last sentence of the first paragraph of Section 6.4.3.
5	-	8.2 and 10.0	-	Update the reference for the "Erosion and Sediment Control Field Manual." The most recent version of this document is from 2002.	Concur. The reference has been edited to reflect the comment.
6	Table 4	-	-	Confirm the detection limit for the results reported as nondetect (shown as "ND" in the table) are below the site-wide average remediation goal (lower bound).	A review of available historical documents indicates that for several results indicated as ND in the table, the actual result was calculated to be "zero." Additionally, for all the DDT and PCB results listed as ND, individual congeners were reported as ND with MDLs less than the lower bound goals for the totals. A note

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					has been added to Table 4 to reflect this. Please note that the results in Table 4 were for selecting candidate borrow areas, and that extensive sampling of the areas is planned to confirm suitability. The upcoming lab tests will use quantitation limits that are much less than the upper bound goal, as indicated in Worksheet #15 of the SAP (Appendix B to the RD/RAWP).
7	Figure 8	-	-	Differentiate the PortaDam^{tm} and the Aqua Dam^{tm} on the figure. Show the location of NASA building(s) on the figure.	Concur. Information presented on Figure 8 has been moved to Sheet C-7 in the RD (Appendix D). The phrases "PortaDam^{tm} or equal" and "Aqua Dam^{tm} or equal" have been added to the figure as appropriate. A call-out for the NASA building has been added.
8	-	Appendix H, Salt Marsh Habitat Restoration Plan	-	Include the contingency actions to be taken should the performance criteria not be met within the 2-year monitoring period.	Comment noted. As indicated in Section 3.2.3 of the plan, the annual monitoring report will discuss results of monitoring events and will propose necessary actions regarding remedial or adaptive management measures as necessary.
Comments from Libby Lucas, RAB member (comments received by e-mail on 11 November 2011)					
1	-	-	-	As commented in previous submittal, revegetation plantings need to be placed in more dense grid of 1 1/2' on center, rather than 3' on center, and need to be kept moist for couple of weeks when planted; pickleweed needs irrigation all summer, as when planted in late Spring this maintenance will run from July to November; once weeds or invasive cover reach 2 inches they should be removed (note aquatic herbicide regulations). (It might be mentioned that Northern Channel hydroseeding revegetation watering was not competently done.)	Comment noted. The Navy believes that for IR Site 25 remedial action the 3-feet-on-center spacing is adequate for pickleweed to propagate; this spacing was recommended by a botanist with extensive pickleweed experience. There are extensive stands of pickleweed at and near the site, indicating site conditions are extremely conducive to pickleweed growth and propagation. Based on site conditions and technical expert recommendations, the Navy intends to keep the current spacing. The restoration activities will be scheduled so that pickleweed will be adequately irrigated.
2	-	-	-	Site 25 surveys that consultant made for California Clapper Rail and Black Rail was good to see however it would be advisable for an accompanying design for highwater refugia floating islands	Comment noted. However, the recommendation for additional upland areas or high water refugia are not compatible with the current and planned future use of the site, i.e., a storm water

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				were included in study. Such upland or highground refugia might accommodate Salt Marsh Harvest Mouse residents as well as rails. If unseasonal flooding of Crittenden Marsh is incorporated into the action plan then this has to be considered.	management pond.
3	-	-	-	Protocols need to be established to ensure construction and maintenance vehicles are thoroughly cleaned before working on Site 25 in order to reduce incidence of importation of invasives. This concern is based on introduction of arundo and phragmites to county in stream corridors and marshes by construction equipment. Pumping of storm water into Crittenden might have effect of hydroseeding invasives into pickleweed marsh.	Comment noted. Vehicles and equipment will be cleaned and inspected prior to entering the site. Text has been added to Section 8.4 to indicate decon for seeds. Also note that the Navy will use herbicides and monitor restored areas for non-native plants, as described in the restoration plan (Appendix H to the RD/RAWP).
4	-	-	-	The most recent action plan that calls for pumping high volumes of retention pond water from central basin to Crittenden Marsh and to Eastern third of retention basin and later back again, I find overly disruptive of this marsh habitat and likely to contribute to a redistribution of contaminated surface soils (particularly in Area 1). Sandbagging of low points of Cargill/F&WS levee that separates retention basin from Salt Pond A 2 E seems unlikely to withstand levels of disparity between ponds as water levels vary rapidly up and down. Does COE's freeboard criteria concern activities in regards these salt pond levees?	Comment noted. Calculations indicate that the expected rate of water rise is about 1 inch per day (0.0007 inches per minute). The Navy will adhere to practicable precautions in operating the intake and discharge devices to control flow and discharge rates to minimize resuspension of sediment. In addition, the Navy will collect samples at the pump intake areas to confirm pumping is being conducted in areas of uncontaminated sediment. The possibility of negative impacts to levees is considered low.
5	-	-	-	Do think that accommodation needs to be considered for resident wildlife on site rather than expecting them to move off into Stevens Creek or to salt ponds and San Francisco Bay. They need vegetated upland refugia.	Comment noted. NASA plans to continue to operate the EDM and SWRP as a storm water management facility, which has been its purpose for several decades. Installation of uplands and islands is beyond the scope of this cleanup action and could impact NASA's use of the facility. In addition to Stevens Creek, the former salt ponds, and the San Francisco Bay, the Western Diked Marsh (which is actually more of an upland wildlife refuge than a marsh) is an expansive area southwest of IR Site 25 and provides abundant habitat that can be utilized during field activities for resident wildlife.

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6	-	-	-	Please propose an alternative option of installing protective walls around polygons of excavation sites and dewatering small parcels one at a time. Most decontamination locations seem to be adjacent to high ground or levees on which cranes could be grounded. Also, one should advise not to compact wetlands in basin with heavy equipment or it will result in a hardened cement-like surface in which revegetation will not take root. It would seem that all possible efforts need to be made to keep contaminants from leaking out into S.F. Bay.	Comment noted. The use of protective walls around each individual polygon was rejected due to infeasibility. It would increase the time to perform the excavations, which are planned for one dry season. Moving temporary dams many times over to segregate small areas would be extremely disruptive to clean areas of the site and likely cause resuspension of sediments. Minimal disturbance to uncontaminated wetlands and upland areas will be implemented to the extent practical and areas of pickleweed will be completely off limits to vehicles and personnel. In addition, restoration of contaminated wetland areas will be compacted in a way to promote vegetation growth. Best management practices (including decontamination procedures) will be enforced to prevent the spread of contaminants from the site.
7	-	-	-	Lastly, I would like to recommend that as mitigation for the thirty year appropriation and degradation of Crittenden Marsh, that uplands be created to restore marsh to suitable habitat for California Clapper Rail and Salt Marsh Harvest Mouse populations. Proximity of Stevens Creek habitat would contribute viable continuity to such a colony of endangered species. It would also be good to incorporate floating island refugia to make this site better able to accommodate bay rise and high storm water events when NASA's retention pond spills. What is lacking in this draft action plan is the hydrology of NASA's Moffett Field storm water runoff program, both as to volume of runoff that needs to be accommodated in a retention basin and anticipated water quality.	Comment noted. As noted previously, NASA plans to continue to operate the EDM and SWRP as a storm water management facility, which has been the purpose for several decades. It is beyond the scope of remedial action to conduct a hydrology study of Moffett Field. Installation of uplands and islands is considered enhancements, which is beyond the scope of this cleanup action for restoration to original "pre-cleanup" conditions.
8	-	-	-	The draft document I received does not appear to contain Figures 1 through 7	Figures 1 through 7 were originally provided in the draft RD/RAWP dated March 2011 and the revised draft RD/RAWP dated May 2011.
9	-	-	-	Borrow areas as depicted in Figure 10 are referenced in text on page 27 as source of backfill for upland excavated sites but it does not specify how much sediment will be excavated. (If soil is not returned to these sites can it be said to be borrowed?) Think this	Comment noted. The anticipated volumes of borrow sediment for each borrow area have been added on Sheet C-5 of the RD (Appendix D). The maximum allowed depth at any borrow area will be 1 foot. This shallow depth will not cause slumps or

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				is highly dubious proposal as sites are adjacent to low lying levee for Salt Pond A 2 E and removal of basin sediments here is likely to cause slump and breach of levee, with comingling of salt pond waters and slightly contaminated brackish retention basin water. Unnecessary disruption of retention basin wetlands is a severe deficiency in proposed action plan which do urge regulatory review agencies to decline to accept. Clean fill for backfilling should come from off site. Estimated amount of fill for backfilling Eastern Diked Marsh must be extensive and needs to be addressed in a draft document.	breaches in levees. Reasons for using on-site material (versus import material) include: (1) better guarantee for vegetative propagation during restoration activities; (2) less chance of invasive species reaching the site; (3) reduced impacts to Moffett Field infrastructure and operations; and (4) reducing use of fossil fuels burned during transport from off-site sources.
10	-	-	-	Please require in revegetation criteria that plantings and plugs are from local nursery that cultivates natives and attempt to preserve temporarily removed pickleweed for reuse on site.	Comment noted. The restoration contractor will have the option of (1) using on-site pickleweed recovered from clean areas from which to propagate new plants, or (2) using pickleweed from a nursery source.
11	-	-	-	And please note that avoidance of impact will continue to be federal mandate for appropriate environmental impact to wetlands and potential endangered species habitat.	Comment noted. Reducing risk to ecological receptors is the precise reason for conducting this project. From an operations standpoint, the Navy is taking significant steps and protocols to avoid short-term impact to wetlands and habitat.
Comments from Allen Tsao, Associate Toxicologist, and Tami Nakahara, Environmental Scientist, California Department of Fish and Game, on Appendix I, Navy Responses to Comments (Revised), Revised Draft Remedial Design/Remedial Action Work Plan, Remedial Action at IR Site 25, Former NAS Moffett Field, Moffett Field, California, May 2011(no date on comments). Comment numbers are original CDFG comment numbers					
1	-	-	-	DFG-OSPR accepts the Navy's response that, "no material will be imported." However, the Navy's responses on other DFG-OSPR comments do not reflect the Navy's statement above. Please see Specific Comment 10.	Comment noted.
5b	-	-	-	Pages 22-23, Section 5.7 Biological Avoidance and Minimization Measures. DFG-OSPR previously commented that due to the potential for western pond turtles (WPTs) to be present at the EDM and the difficulty in observing and catching by hand or net all WPTs that may be present in the EDM, WPTs should be trapped for a period of three weeks prior to the start of remedial activities. The Navy responded with various reasons why trapping is not necessary, such as: IR 25 has marginal WPT	No direct dewatering of the EDM will be conducted. As indicated in Section 4.2.1 of Revision 2: RD/RAWP, the EDM inflow water will be diverted from manholes upstream of the EDM and lifted to the east side of Moffett Field. This will cause the Settling Basin and EDM to completely dry out. No temporary ditches or other ground modifications in the EDM will be required for water diversion.

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				habitat; no WPTs were observed in NASA's 2003 survey of the EDM; no WPTs have been observed in any recent Navy surveys; and the EDM is not hydrologically connected to any creeks or ditches where WPTs are known to be. DFG-OSPR does not agree with the Navy's reasons not to trap. DFG-OSPR believes the EDM provides potential habitat for WPTs and is similar to the habitat at the Marriage Road Ditch (i.e., dense cattails) where WPTs have been observed. Chris Alderete, the NASA biologist who conducted the 2003 survey of the EDM, explained that the dense cattails limited his ability to conduct visual surveys and trapping. As a result, he surveyed the EDM by walking transects through the cattails rather than visually surveying from specific observation points for 15 to 30-minute intervals as recommended by DFG WPT visual survey protocols. However, visual surveys alone are considered inadequate for determining presence of WPTs since WPTs are very cryptic in nature and tend to hide in vegetation, in undercut areas along the banks, and in the mud. WPTs also have excellent eyesight, are very skittish, and will dive into the water when they see someone approaching, even from several feet away. Thus, turtles are usually out of sight before the surveyor has a chance to see them. That is why visual surveys are adequate only when the surveyor is dressed in camouflage clothing, sitting still and quiet in the same location, observing with binoculars or a spotting scope, for an extended period of time. As a result, the 2003 transect visual survey alone was not adequate to detect WPTs that may have been present in the EDM. Therefore, trapping surveys should also be conducted in conjunction with additional visual surveys, according to DFG recommended survey protocols (Tsao and Nakahara, 2011). Based on the lack of WPTs observed during his 2003 survey, Chris Alderete stated he has not conducted any more surveys of the EDM, either visual or trapping. In addition, although the Navy states no WPTs have been observed in recent Navy surveys,	Mr. Chris Alderete states that he has worked as a NASA biologist for 12 years. During the first year of working at NASA Ames, one WPT was observed in the Settling Basin. The turtle had liver flukes and was taken to the veterinarian before being released to the environment at another location (not IR Site 25). Mr. Alderete indicated that over the past 12 years, no WPTs have been observed at IR Site 25. Additionally, once the water bypass occurs, the concrete Settling Basin (and the EDM shortly after) will be empty and therefore not provide any habitat for potential WPTs. During this process, biologists will be on site to observe for the presence/absence of all wildlife. If any of the protected species are observed (including WPT) the agencies will be notified as detailed in the Work Plan.

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				the Navy has not specifically conducted visual or trapping surveys for WPTs, according to DFG recommended protocols. Furthermore, although the EDM is not hydrologically connected to other areas where multiple WPTs have been observed, the EDM is hydrologically connected to the settling basin where one WPT was observed in 1998. However, WPTs can travel for miles over land; therefore, water bodies don't have to be hydrologically connected in order for WPTs to be present on site. Thus, based on the above information, there is the potential for WPTs to be present in the EDM and trapping should be conducted prior to the start of remedial activities. The Navy also states, "The dense vegetation and the lack of water at the EDM prevent the deployment of the two standard devices used to trap WPT (i.e., hoop traps and basking traps)." DFG-OSPR recommends the Navy conduct trapping for WPTs in early April 2012, for a period of three weeks, prior to the start of the dewatering activities in May 2012. Please note, the three week trapping period is not long enough to clear the EDM of WPTs, but may help in determining what is present on site and how stringent the biological monitor will need to be while searching for WPTs during monitoring of remedial activities. In areas where the water is deepest, cattails should be cut down to the water level and traps set following the trapping protocol DFG-OSPR previously submitted (Tsao and Nakahara, 2011). Traps should also be set at the north and south ends of the culvert under the North Perimeter Road. Please explain how the EDM will be dewatered. Will any areas need to be excavated as part of the dewatering activities to create a ponded area deep enough to install dewatering pumps? In addition to the WPT avoidance, minimization, and mitigation measures recommended by DFG-OSPR (Tsao and Nakahara,	Navy biologists, Navy contractor biologists, and the NASA biologist all agree that trapping for WPTs in the EDM is not warranted. Even during the wettest time of the year, the EDM does not contain a sufficient depth of water to allow for the successful use of trapping devices. As discussed during the site walk on November 15, 2011, the EDM is a flat and expansive area where water flows laterally and is quickly absorbed by vegetation (cattails). Based on the fact that WPTs have not been observed in the area for the past 12 years, the area does not provide desirable habitat or water quality conducive for WPTs, and since trapping cannot provide an efficient use of resources (and therefore provide little evidence for the presence/absence of WPTs), the Navy believes that biological monitors will provide the most efficient protection for species of concern. Biological monitors will be on site for all intrusive activities as detailed in the work plan. If WPTs or any species of concern are identified, the Navy will contact all agencies to reevaluate the path forward.

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				2011), the qualified biologists should physically check any excavated mud (i.e., during vegetation removal, dewatering activities, excavation, etc.) for buried turtles, by thoroughly searching through the mud with their hands, before the mud is hauled off site for disposal. Please include the DFG-OSPR recommended WPT avoidance, minimization, and mitigation measures in the text. The Navy also states they will install silt fences along temporary access roads for the purpose of excluding wildlife. DFG-OSPR agrees that due to the large size of the EDM and the potential for the silt fence to trap WPTs within the EDM during dewatering, vegetation removal, excavation, and backfilling that silt fences will not need to be installed around the EDM. However, silt fences for excluding salt marsh harvest mice (SMHM) should be installed around each polygon to be excavated within or adjacent to pickleweed or upland habitat within 50 feet of pickleweed. In addition, the Navy should follow all the other DFG-OSPR recommended avoidance, minimization, and mitigation measures for these species.	Please see Page 21 for Navy response to comment made during the 15 November 2011 site walk regarding planned use of silt fencing.
5c	-	-	-	Pages 22-23, Section 5.7 Biological Avoidance and Minimization Measures. DFG-OSPR made the previous comment on the Draft RD/RAWP for IR Site 25: The Navy states, "If any active burrowing owl burrows are detected, the NASA ARC biologist will be consulted to determine the appropriate method of avoiding or mitigating impacts." Please add to the text that DFG-OSPR will also be consulted to determine appropriate avoidance, minimization, and mitigation measures. The Navy responded, "The text (now Section 8.4) has been modified to add the following: "Should burrowing owls or active burrows be encountered during site work, the on-site biologist will shut down operations to assess the situation in consultation	Concur. The text in Section 8.4 has been edited to reflect the comment, stipulating coordination with CDFG.

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				with the NASA ARC biologist, to determine the appropriate method of avoiding or mitigating impacts, and appropriate federal and state agencies will be notified for further coordination." The text has been modified to include only a portion of the statement the Navy has proposed in their RTCs. Please revise the text in the document to include the entire statement proposed by the Navy.	
5d(3)	-	-	-	Pages 22-23, Section 5.7 Biological Avoidance and Minimization Measures. DFG-OSPR requested the following avoidance and minimization measure be included in the text: Prior to the initiation of work each day, the qualified biologist shall thoroughly inspect the work area and adjacent habitat areas to determine if SMHM, California Clapper Rails, California Black Rails, or other special-status species are present in these areas. The qualified biologist shall remain on-site throughout these days while work activities are occurring. The Navy responded, "Regarding (d)(3) through (d)(6), the Navy concurs. The text has been modified to reflect the comments." The Navy included the first sentence of the requested avoidance and minimization measure in the text, but revised the second sentence to state, "The qualified biologist(s) will remain on site throughout the duration of earth-moving activities." Please include the original sentence as DFG-OSPR requested. The qualified biologist(s) will need to remain on-site throughout all work activities in habitat areas (i.e., vegetation removal, dewatering activities, installation of silt fence, habitat restoration, etc.) not just during earth-moving activities. DFG-OSPR reserves the right to conduct periodic site visits during removal or remedial activities to confirm implementation of avoidance measures.	Comment noted. The text has been revised to indicate that the biologist will be on site during applicable portions of water management activities, vegetation removal, and earthmoving and site restoration activities. The Navy acknowledges that CDFG and other stakeholders may visit the site during field operations. The Navy respectfully requests advanced notification of such visits so that the Navy RPM, biologist, and/or base environmental coordinator may also participate in the site visit.
8	-	-	-	According to the Navy's reply on DFG-OSPR's Specific Comment 8(a), the Navy indicates that the text "has been modified to add the COECs [chemicals of ecological concern] as analytes for wastewater monitoring." This is inconsistent with its reply in Specific Comment 8(b) described below. DFG-OSPR	All COECS with related analytical methods and method detection limits are presented in Table 4 of the Draft Final: RD/RAWP.

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				does not object to including this information in another document as long as it is available for review prior to the start of the remedial action. In response to DFG-OSPR's Specific 8(b), the Navy indicated that "wastewater monitoring is not directly related to the RGs [remediation goals] and will not be included in the SAP [Sampling and Analysis Plan]…" To DFG-OSPR, this implies that the Navy deems it unnecessary it to provide the detection limits for the wastewater in the SAP. The wastewater should be sampled prior to discharge, and therefore, the evaluation of the sensitivity of the proposed analytical methods is also needed. If the Navy chooses not to include this evaluation in the SAP, it should be provided elsewhere and that document should be identified in the RAWP.	Comment noted. The Navy maintains that wastewater disposal is not pertinent to the sediment cleanup and should not be included in the SAP. Additionally, wastewater disposal requirements are set by the particular disposal facility (which has not yet been selected). The Navy will make certain that all wastewater disposal will be conducted in conformance with all applicable federal, state, and local laws and regulations.
10	-	-	-	According to Navy's response to DFG-OSPR Specific Comment 1 described above, there will be no imported material used. However, the responses to our Specific Comment 10 included discussion of imported material use. DFG-OSPR suggests the text be replaced with "borrow material" to be consistent with the Navy's earlier response, or clarify the conditions under which import material would be used.	Comment noted. The word "import" was inadvertently included and should have been "backfill."
12	-	-	-	DFG-OSPR does not agree that the method detection limits (MDLs) do not need to be at or below the site-wide RGs. Our understanding is that the Navy will perform all the excavations and sampling at the same time such that the Navy could re-evaluate the new area-wide average using the concentrations taken from the borrow/imported material and the extent of the excavations to determine if the overall area-weighted site-wide concentrations meet the upper and low-bound RGs. If the MDLs are in between the do-not-exceed RGs and the site-wide average RGs, it would not be defensible to show that the	Comment noted. However, the ROD for IR Site 25 laid out the mathematical approach that indicates that meeting the upper bound RGs at each polygon to be excavated, the site-wide average will be attained; otherwise, there would have only been one set of limits. The SAP indicates that the MDLs are lower than the upper bound, typically 50 percent lower. If a confirmation result is reported as less than the MDL, the Navy will use the MDL as the representative value in recalculating the actual site-wide average concentration after excavation activities are complete.

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				remedial action has meet the site-wide average RGs. Thus, the site-wide average RGs should be included in the Project Detection Limit and Project Action Limit References.	
17	-	-	-	Appendix E, Biological Assessment, Pages 7 - 10 of 57, Section II.b Measures Proposed to Avoid, Minimize, and Compensate for Effects to Listed (and/or Proposed) Species and Critical Habitat to be Incorporated into the Proposed Action. DFG-OSPR previously requested the following measures be added to the Biological Assessment (BA) (Tsao and Nakahara, 2011). a. 1st bulleted measure. The Navy states, "A qualified biologist will be present on site during all work activities to monitor for federally-listed species during topographic and bathymetric surveys and sediment sampling." Please revise the text to state, "A qualified biologist approved by USFWS and DFG will be present on site during all work activities in habitat areas to monitor for all sensitive species." b. 2nd, 3rd, and 4th bulleted measures. Please add the following avoidance and minimization measure to these sections. If an individual of a special status species (i.e., California Clapper Rail, California Black Rail, Western Snowy Plover, California Least Tern, SMHM, etc.) does not leave the work area on its own volition, then no work shall commence until UFWS and DFG have made a determination on how to proceed. c. 3rd bulleted measure. If California Clapper Rails and California Black Rails are present within 700 feet of the proposed project, the Navy states, "The project applicant will then coordinate with USFWS in regards to appropriate measures to avoid or minimize adverse effects to the species." Since the California Clapper Rail is also a State endangered species and the California Black Rail is a State threatened species (not Federally listed) and both are State fully protected species, please revise the text to state that the project applicant will coordinate with both	

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				USFWS and DFG. d. 4th bulleted measure. The Navy states, "If a mouse of any species is observed within the areas being cleared of pickleweed or within 50 feet of pickleweed, the USFWS will be notified. Unless otherwise approved by the USFWS, the mouse will be allowed to leave on its own volition. Removal of pickleweed and vegetation within 50 feet of pickleweed may begin when no mice are observed, or with USFWS approval…" Since the SMHM is also a State endangered species and State fully protected species, please revise the text to include DFG in the notifications and approvals. e. 4th bulleted measure. Please add the following avoidance and minimization measures to this section for the SMHM. (1) Equipment and personnel shall be limited to the areas where the vegetation has been cut or removed. (2) Visqueen fencing shall be installed between areas of SMHM habitat and work sites immediately following vegetation removal and before excavation activities begin to prevent entry of SMHM into cleared areas. The fencing shall be trenched into the ground and backfilled to prevent SMHM from moving underneath the fencing. Fence stakes shall face towards the work site, away from the habitat. The final design and proposed location of the fencing shall be reviewed and approved by USFWS and DFG prior to placement. The qualified biologist will have the ability to make field adjustments to the location of the fencing depending on site-specific habitat conditions. (3) A qualified biologist or site manager shall monitor site fencing to ensure that the fencing remains an effective barrier to prevent entry of SMHM into work areas. Monitoring of the fencing is required: a) periodically throughout each work day	

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				during work within 300 feet of the fence; b) at least twice per week during clear weather; and c) within 24 hours after every storm or one-quarter inch of precipitation (on the San Rafael gauge at http://cdec.water.ca.gov/precip_maps/) or more within a 24 hour period, or winds greater than 20 miles per hour. Maintenance of the fencing shall be conducted as needed throughout the work period. Any necessary repairs to the fencing shall be completed within 24 hours of the initial observance of the damage. Work shall not continue within 300 feet of the damaged fencing until the fences are repaired and the site is surveyed by a qualified biologist to ensure that SMHM have not entered the work area. None of DFG-OSPR's requested revisions have been made to the BA. Although, the Navy responded to Specific Comments 17b, c, and d, that text edits have been made in the RD/RAWP to include DFG on the list of agencies to be notified, the text does not include under what conditions DFG-OSPR is to be notified (i.e., when a special status species does not leave the work area on its own volition). The measures DFG-OSPR requested to be included in the BA are standard measures that must be implemented to be in substantive compliance with DFG ARARs. DFG ARARs for State fully protected species such as the SMHM, California Clapper Rail, California Black Rail, California Least Tern, and White-tailed Kite, are more stringent than Federal biological ARARs because they do not allow for any take except for scientific research purposes for the recovery of the species. In regards to the SMHM exclusionary fencing, the Navy has proposed to install silt fences only along temporary access roads in vegetated areas. DFG-OSPR still requests the SMHM fencing be installed around each polygon to be excavated within or adjacent to pickleweed, or upland habitat within 50 feet of pickleweed, in order to prevent take of this fully protected species. If our measures are not included in the BA, DFG-OSPR	Comments noted. As was presented in the Navy's previous responses to comments, the BA was formatted deliberately to meet USFWS requirements. Measures for protecting species with State of California interest are described in the work plan narrative in Section 8.4. The conditions triggering CDFG notice have been added as indicated below. The Navy will minimize impacts to wildlife species by the following activities: Pickleweed will be hand-cleared in areas to be excavated. The Navy will extend the cleared boundary to provide a 10-foot buffer into surrounding clean areas (language has been added to the Biological Assessment [Appendix E to the RD/RAWP]). As previously mentioned, the Navy will provide qualified biologists to observe field activities, and if species are observed, USFWS and CDFG will be contacted. In addition, the Navy will take actions as recommended by the biologists, including possible

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				requests our measures be included in the text of the RD/RAWP, in Section 8.4 Biological Avoidance and Minimization Measures.	suspension of site activities or installation of additional physical barriers (i.e. silt fencing) as detailed in response to comments from the 15 November 2011 site walk and from the USFWS comment No. 5 from 11 January 2012.
Comments from Allen Tsao, Associate Toxicologist, and Tami Nakahara, Environmental Scientist, California Department of Fish and Game on Revision 02: Draft Remedial Design/Remedial Action Work Plan, Remedial Action at IR Site 25, Former NAS Moffett Field, Moffett field, California, September 2011(no date on comments). Comment numbers are DFG comment numbers					
1	-	-	-	In response to DFG-OSPR's comment on the draft version of the subject document, the Navy indicated that it will provide additional sampling along the sides of the Thiessen polygons that are greater than 110 feet in distance. However, we were unable to identify a figure that shows where those additional sampling points are. Please include a figure that shows those sampling locations.	Comment noted. The Navy provided this response to USEPA specific comment No. 6 in the RTCs to the draft RD/RAWP: *Comment noted. SAP WS#18 and SAP Figure SP-4 will be edited to add samples to area A4.1 to bring the total number to 10 samples, i.e., approximately 1 per 10,000 ft^2. A frequency of one sample per 10,000 ft^2, correlating to an area of 100' by 100', is more conservative than the 160-foot grid used in characterizing the northern and central portions of the SWRP and the 80-foot sample grid used in the southern portion of the SWRP and in the EDM. SAP WS#18 and SAP Figure SP-5 will be edited to add two samples to area A5.2, resulting in 6 samples for an area of 59,690 ft^2. SAP WS#18 and SAP Figure SP-10 will be edited to add samples at A10.42, resulting in 5 samples for an area of 54,344 ft^2.* The Navy will maintain this approach to confirm that site RGs have been met.
2	-	Table 3, Sampling for Water Diversion	-	The method detection limits (MDLs) for DDE, DDT, DDD, and total PCBs in water are higher than the Water Board's Estuary Aquatic Habitat Goals and the federal National Ambient Water Quality Criteria. Please revise the MDLs so that they are below the aquatic benchmarks to ensure that concentrations above these criteria could be detected. In addition, DFG-OSPR has previously identified a potential analytical laboratory that can achieve MDLs that meet those criteria.	Comment noted. However, the water is not leaving the IR Site 25 boundary. Surface water is not a medium of concern at IR Site 25. The Navy will conduct water sampling to monitor possible dissolved-phase and suspended-phase transport of contaminants from one portion of the site to another. If parameters including turbidity and COECs are detected at concentrations exceeding the values reported during the sampling event conducted in June 2011 (baseline conditions), the Navy will suspend pumping operations

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					and assess the situation. Please note that for a volume of 100 million gallons and a DDT concentration of 0.035 ppb (the average concentration detected), the resulting mass of DDT is less than 1 gram. A new Table 3 in the Draft Final RD/RAWP has been developed to present results of sampling conducted in June 2011.
3	-	Appendix E, Biological Assessment.	-	Please revise Figure 1 to include the areas affected by dewatering activities as "Direct Effects Action Areas", given ground disturbance, vegetation clearing, and surface modification would occur at those areas. Please note, the biological avoidance, minimization, and mitigation measures will also apply to the dewatering areas.	Comment noted. The direct effects action area boundary as currently depicted in Figure 1 of the BA encompasses the Levee Road area where the temporary pumping station will be staged.
4	-	Appendix H, Salt Marsh Habitat Restoration Plan, pp 1-8.	-	The Navy proposes to monitor the restoration for two years. DFG-OSPR does not believe this is an adequate amount of time to determine if the restoration is successful. We recommend monitoring for a period of at least 5 years or until vegetative success criteria are met. The success criteria at the end of 5 years would be a minimum of 90 percent cover of native wetland plant species (i.e., pickleweed, salt grass, fat hen [Atriplex triangularis], alkali heath [Frankenia salina]) with a minimum of 60 percent cover of pickleweed, and less than five percent cover of non-native plant species. If pickleweed cuttings are taken from areas that are not excavated as part of the remedial action, the pickleweed harvest areas shall not be reduced by more than 30 percent and the harvest areas shall also be monitored for at least five years or until vegetative success criteria have been met. Pickleweed harvesting in non-excavated areas shall be conducted on foot, using non-mechanized hand tools, and monitored by a qualified biologist. Please revise the text to include these measures.	Comments noted. The restoration plan was prepared by a team of qualified biologists/botanists with extensive experience in the Bay Area. The Navy will meet the requirements as stipulated therein, which are appropriate to support the habitat in the storm water management pond that existed prior to excavation.

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Ms. Flo Garpidee, U.S. Fish and Wildlife Service (from site walk held 15 November 2011)					
1	-	-	-	The revised biological assessment doesn't address how species will be protected/mitigated now that we'll be managing the water internally to Site 25. In addition, would it be more appropriate to compare water samples using aquatic estuarine threshold criteria instead of acute saltwater.	Comments noted. The current BA (Appendix E) indicates that disturbance of nesting birds shall not be allowed. This approach will be maintained whether the project activity is earthmoving or water diversion. Concern for nesting birds will be heightened because terns and other seabirds are known to nest in mud flat areas, and dewatering may temporarily create mud flat conditions. Possible inundation of habitat of land species due to water diversion will be no different than inundation of habitat due to storm water retention, i.e., environmental conditions created by water diversion at the SWRP will exactly mimic the conditions seen during successive storm events during a wet year. Figure 6 has been provided to indicate the approximate planned high water mark during water management activities. Please note that the Record of Decision for IR Site 25 concluded that no CERCLA action is necessary to protect either human health or the environment with regards to surface water, groundwater, or air. The Navy will periodically sample and test water during diversion activities conducted during the sediment RA and results will be compared to the baseline concentrations (results from June 2011) to monitor possible transport of contaminants in the dissolved and suspended phases.
2	-	-	-	How will vegetation areas be cleared prior to excavation? What will happen if a species such as SHSM is observed? The definition of a species "take" includes forms of harassment due to stress of running from habitat.	During the site walk, Mr. Bartelma, Navy RPM, stated that areas of pickleweed will be hand cleared and other vegetated areas will be walked and flushed (e.g., brush; see response to the 11 January 2012 USFWS comment No. 5) to ensure no species are in the area before cutting vegetation using mechanical means. Everyone will be notified if SMHM (or other protected species) are observed and the species will be allowed the leave the area of its own volition and/or buffer zones will be created.

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3	-	-	-	What will the high water mark be during pumping and will any areas of pickleweed be inundated?	The Navy has estimated that the 2.5-ft msl elevation could be reached during water diversion activities planned for the site. Figure 6 in the Draft Final RD/RAWP has been revised to indicate the 2.5-ft msl elevation. During the site walk, Mr. Bartelma indicated that water will likely inundate fringe areas of pickleweed and showed an example of this in Alviso Pond A2E. Mr. Scott Anderson (Navy BEC) stated that the pumping and redistribution of water will take several weeks, so the rise in water level will be very gradual. Calculations indicate that the water level (assumed to start at 1.1 feet msl) is expected to reach 2.5 feet msl over the 3-week projected pumping period. This elevation is well within the capacity of the SWRP, which is designed and operated to retain storm water. During SWRP water diversion, the expected rate of water rise is 1 inch per day, or 0.0007 inches per minute.
Ms. Flo Garpidee, USFWS, and Ms. Tami Nakahara, CDFG (from site walk held 15 November 2011)					
1	-	-	-	Will diverting water from the settling basin to the east side of Moffett Field cause any disturbance to habitat (flooding of pickleweed stands) or species (WPT at Marraige Road ditch) now that additional volumes of water will be entering the east-side storm water system.	During the site walk, Mr. Chris Alderete, NASA biologist, described the ditches and habitats on the east side. He stated that the additional volume of water should not be a hindrance to habitat because the sediment RA operations will occur during the dry summer months and there are pumping stations along the various ditches that control the water levels. Mr. Bartelma, Navy RPM, stated that the pumping stations along the east side can be periodically inspected to ensure this is the case.
2	-	-	-	Are there historical Navy or NASA wildlife surveys available? Did the 2011 surveys conducted at SWRP also cover the EDM?	Mr. Chris Alderete, NASA biologist, indicated during the site walk that there have been numerous Navy and NASA wildlife surveys, notably in 1994, May 2002, and base-wide in 2004. Most surveys were visual, random grid, and/or bird call surveys. In 1994 there was a Salt Marsh Harvest Mouse (SMHM) trapping survey completed and there was a detection of SMHM. In addition, the 1994 survey detected least tern and snowy plover

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					flying around at or near Site 25. Mr. Bartelma explained the 2011 presence/absence surveys conducted for clapper rail and black rail. No clapper rails were detected; one black rail was detected in the central SWRP. Based on the locations of the listening stations, the survey covered the majority of IR Site 25, including the EDM. Mr. Alderete has also done clapper rail surveys at both Sites 25 and 27, but none were detected.
3	-	-	-	What are the document and project schedules? USFWS in its Biological Opinion would provide an incidental take statement. Sediment sampling for waste characterization purposes can take place prior to the FWS' issuance of the Biological Opinion.	The project schedule (Appendix C to the draft final RD/RAWP) will be revised to indicate that the draft final RD/RAWP will be issued in January 2012. With respect to the USFWS' issuance of a Biological Opinion, please note that it has not been the Navy's intention to initiate the formal administrative processes of Section 7 Consultation to obtain a Biological Opinion for this CERCLA response action. The Navy appreciates USFWS' willingness to coordinate with the Navy in the planning and implementation of the Site 25 CERCLA response action by providing the USFWS input pertaining to biological resources as an integral aspect of the CERCLA process for inclusion in the documents required by CERCLA.
4	-	-	-	The Biological Assessment should reflect mitigation measures for changes in water management.	As previously noted, the current Biological Assessment indicates that disturbance of nesting birds shall not be allowed. This approach will be maintained whether the project activity is earthmoving or water diversion. Concern for nesting birds will be heightened because terns and other seabirds are known to nest in mud flat areas, and dewatering may temporarily create mud flat conditions. Possible inundation of habitat of land species due to water diversion will be no different that inundation of habitat due to storm water retention, i.e., environmental conditions created by water diversion at the SWRP will exactly mimic the conditions seen during successive storm events during a wet year.

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Ms. Carolyn Rech and Ms. Tami Nakahara, CDFG, Ms. Flo Gardipee, USFWS, and Mr. Chris Alderete, NASA (from site walk held 15 November 2011)					
1	-	-	-	What are typical water levels at the EDM and can WPT trapping be conducted at the culvert (EDM outlet to SWRP).	As indicated during the site walk, there is no standing water within the EDM except for a low spot at the EDM outlet. The typical water depth at that location is only a few inches deep, and therefore is not conducive to WPT trapping. In addition, once the water bypass from the settling basin at EDM to the east side of Moffett occurs, all areas will be completely dry.
2	-	-	-	Does IR Site 25 have burrowing owls?	During the site walk, Mr. Chris Alderete, NASA biologist, stated that no burrowing owls have ever been observed at Site 25. In addition, no ground squirrels have been observed at IR Site 25, so without the presence of burrows there is no place for owls to inhabit.
3	-	-	-	Along the levee separating the SWRP Central Basin from the SWRP northeast basin, there is a concern with using watertubes and inundating sections of pickleweed as this could be detrimental to SMHMs if present.	The final alignment and selection of engineering controls will be based on site conditions in May 2012. One possibility is to isolate the area of dense pickleweed by damming both sides of the area in question (an approximate 25 foot section of dense pickleweed was identified during the site walk along each side of the breach separating the eastern and central basins). The watertube will still be utilized along the remainder of the former levee as there is little to no pickleweed along the remaining crest of the former levee. If any pickleweed stands along the remaining crest of the former levee are observed, they will be hand-cleared prior to water tube placement. This approach has been indicated in Sheet C-7 of the RD (Appendix D) and will be evaluated in the field based on real time conditions.

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4	-	-	-	We would like to see silt/exclusion fencing used along all sections of pickleweed habitat adjacent to the remedial action areas.	The work as currently planned includes adequate avoidance and minimization measures, including silt fencing along access areas near pickleweed and in areas deemed necessary at the discretion of the on-site biologist(s). Installing silt fencing for the entire project area or in all areas near pickleweed would be itself an invasive activity, requiring additional vehicle entries possibly resulting in disturbances to species and habitat destruction. For this site, it appears that the potential harm caused by additional extensive silt fencing outweigh possible benefits. The Navy has made additional significant investment in protecting species and habitat by developing the BA; requiring hand clearing of pickleweed; requiring full-time biological monitoring; and developing a biological awareness program for all site workers. If any sensitive species are observed to be present during site operations resulting in incidental take, the Navy will coordinate with USFWS and CDFG. The Navy will consider any recommendations made at that time, including installing physical barriers (i.e. silt fencing) or temporarily suspending operations in the area where special status species are present.
5	-	-	-	We would like to see resumes of biologists. The lead biologist needs qualifications to act in that capacity, i.e., site supervisors or construction managers cannot act as lead biologist.	Comment noted. The Navy will include resumes of qualified biologists in the Draft Final RD/RAWP.
Comments from Florence M. Gardipee, United States Fish and Wildlife Service (USFWS), dated 11 January 2012					
General comments					
-	-	-	-	The proposed project may adversely affect the endangered salt marsh harvest mouse (Reithrodontomys raviventris), the endangered California clapper rail (Rallus longirostris obsoletus), threatened western snowy plover (Charadrius alexandrinus nivosus) and the endangered California least tern (Sternula	Comments noted. The Navy has included conservation measures to be implemented during the proposed project that will minimize adverse effects and prevent take of these listed species. Should incidental take occur during project activities, all work will immediately cease in areas of concern and the Navy will

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				antillarum browni). Incidental take of these species occur as a result of the proposed project. Section 9 of the Endangered Species Act of 1973 (Act) prohibits the take of any federally listed animal species by any person subject to the jurisdiction of the United States. According to the Act, Take is defined as "...to harass, harm, pursue, hunt, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct. "Harm has further been defined to include habitat destruction when it injures or kills a listed species by interfering with essential behavioral patterns, such as breeding, foraging, and resting. Thus, listed species are protected from such activities as collecting and hunting and from actions that cause their death or injury through damage or destruction of their habitats. However, conservation measures may be implemented during the proposed project that may minimize adverse effects and prevent take of these listed species. Take incidental to an otherwise lawful activity may be authorized by one of two procedures. If a federal agency is involved with the permitting, funding, or carrying out of the project and a listed species is going to be adversely affected, then initiation of formal consultation between that agency and the Service pursuant to Section 7 of the Act is required. Such consultation would result in a biological opinion addressing anticipated effects of the project to the listed species and may authorize a limited amount of incidental take. This document does not authorize incidental take for any listed species that may be affected by the proposed project. Should unauthorized take occur during project activities, all work must immediately cease and cannot resume until formal consultation between the Navy and the Service has concluded.	coordinate with the USFWS and CDFG. The Navy will consider any recommendations made at that time, including installing additional physical barriers (i.e. silt fencing) or temporarily suspending operations in the area where special status species are present.
Specific comments regarding protection of the salt marsh harvest mouse					
-	-	-	-	The proposed conservation measures for the salt marsh harvest mouse are inadequate for avoiding and minimizing harm and harassment to this species. The salt marsh harvest mouse is also	Comment noted. Please see responses to numbered comments below.

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				listed as endangered under the California Endangered Species Act. Therefore, it is a fully protected species and no "take" of this species may be allowed to occur as a result of a Federal action or Federally-funded action. The following conservation measures for the salt marsh harvest mouse must be implemented to avoid take of this species during the proposed project:	
1	-	-	-	For each project-level activity, the supervising construction personnel will participate in a Service-approved worker environmental awareness program. Under this program, construction personnel shall be informed about the presence of all listed species and habitats associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Act. Prior to construction activities, a qualified biologist approved by the Service shall instruct all construction personnel about: (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts to these species during project construction and implementation. The awareness program will apply to construction occurring within or adjacent to tidal marsh or slough habitat and within or adjacent to managed pond habitat. A fact sheet conveying this information shall be prepared for distribution to the construction crew and anyone else who enters the project site. A Service representative shall be appointed who will be the contact source for any employee or contractor who might encounter a listed species. The representative(s) shall be identified during the environmental awareness program. The representative's name and telephone number shall be provided to the Service and California Department of Fish and Game (CDFG) prior to the initiation of any activities.	Concur. The biological awareness program was mentioned in Section 8.4 of the RD/RAWP and is detailed in the Biological Assessment (Appendix E, Page 7). A reference to a fact sheet has been added therein. The Navy RPM will be aware of all site activities and will serve as the primary point of contact to USFWS and CDFG. Text has been added to Section 8.4, *Protection of Biological Resources*, to reflect this comment/response. The Navy has included resumes of qualified biologists to USFWS and CDFG in the Drat Final RD/RAWP.

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2	-	-	-	All salt marsh vegetation in the affected area will be cleared by hand. Following the clearing of vegetation, the work area will be fenced with a keyed in silt fence or other non-climbable saltmarsh harvest mouse exclusion fence to prevent salt marsh harvest mice from entering the work area. A Service-approved biological monitor familiar with the salt marsh harvest mouse will inspect the fence during all project related activities.	Comment noted. Silt fence will be installed along temporary access roads and ramps where vehicle traffic will occur and in areas deemed necessary at the discretion of the on-site biologists. All excavation areas plus a 10-foot buffer on all sides will have been cleared and will be inspected by a qualified biologist continually during excavation and restoration activities. A biologist will be present as equipment moves into, through, and out of the work areas. Mice potentially entering these cleared areas will be visible to the on-site biologist. Should the biologist require additional isolation measures to protect the SMHMs, additional silt fence installation (as described by USFWS and CDFG comments) will be considered. The Navy has included resumes of qualified biologists to USFWS and CDFG in the Draft Final RD/RAWP.
3	-	-	-	Levee lowering: Upland vegetation dominated by weed species such as mustard (Brassicaceae spp.) but may be used as upland refugia by clapper rails and harvest mice during extreme high tides. In order to avoid the direct injury and mortality of individual clapper rails and salt marsh harvest mice, levee lowering activities adjacent to tidal marsh habitat will not occur within two hours before or after extreme high tides, or when the marsh plain is inundated, when clapper rails and mice may inhabit these areas. This measure will also reduce harm and harassment of mice during the sensitive high tide period, when refugia cover is limited.	Comment noted. However, tidal influences are not anticipated for this project, as the project site is about 1 mile south of San Francisco Bay and is bounded by levees maintained by USFWS in very good condition. The Navy does not intend to lower any levees maintained by USFWS.
4	-	-	-	When tidal marsh vegetation is inundated during levee breaching, pilot channel construction, sod removal: To minimize or avoid the loss of individual harvest mice, levee breaching or sod removal activities conducted during extreme high tides may only be conducted when tidal marsh vegetation targeted for removal is completely inundated. During these conditions, harvest mice are presumed absent from	Comment noted. Please see response to comment No. 3 above regarding lack of tidal influence at the site. No breaching of levees is planned for this project. Temporary dams are planned to be installed in spring 2012 and will likely remain in place until fall 2012.

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				the inundated portion of the marsh. A Service-approved biologist will be present to ensure appropriate tides have been achieved prior to construction.	
5	-	-	-	When tidal marsh vegetation is not inundated during levee breaching, pilot channel construction, sod removal: To minimize or avoid the loss of individual harvest mice during breach construction activities that occur when tidal marsh vegetation targeted for removal is exposed, vegetation that may harbor harvest mice will be removed prior to construction. The method assumes vegetation removal significantly reduces the probability of use by harvest mice. These removal actions do not include low marsh vegetation (e.g., cordgrass-dominated) where harvest mice are not likely to occur. Pickleweed and other tidal marsh plants will be removed at levee breach locations within one month of construction activities to avoid vegetation re-growth prior to construction. Vegetation removal should occur at low tides. A biologist will oversee the removal of marsh vegetation to avoid impacts during plant removal. Procedure will be performed as follows: 1) biologists familiar with salt marsh harvest mice will walk through and inspect vegetation prior to vegetation removal and search for sign of harvest mice or other sensitive wildlife and plants; 2) following inspection, personnel will disturb (e.g., brush) vegetation to force movement of harvest mice into adjacent tidal marsh areas on either side of the construction location; flushing of vegetation will first occur in the center, then progress toward the two sides of the construction area; 3) personnel will immediately follow vegetation flushing with manual removal of vegetation (e.g., weed whacking), which will also be performed beginning in the center and continue toward the two sides of the construction area; 4) a barrier (silt fence) will be placed along the perimeter of the vegetation removal area (following plant removal) to further reduce the likelihood of harvest mice returning to the mowed area	Comments noted. No levee breachings are planned for this project. If sections of temporary dams are to be removed that would result in release of water, a full review of possible impacts to sensitive habitat will be conducted prior to the removal, including discussions with the qualified biologist(s) and coordination with USFWS and CDFG. No sudden flooding of areas with sensitive habitat will be allowed. The applicable portions of the Work Plan and BA will be revised to include the comment for hand clearing of pickleweed as follows: 1. Biologists familiar with salt marsh harvest mice will walk through and inspect vegetation prior to vegetation removal and search for sign of harvest mice or other sensitive wildlife and plants. 2. Following inspection, personnel will flush (e.g., brush) vegetation to force movement of harvest mice into adjacent tidal marsh areas on either side of the construction location; flushing of vegetation will first occur in the center then progress toward the two sides or in whichever manner that will allow for wildlife egress to areas of safe cover outside of the construction areas. If a SMHM is observed it will be allowed to leave the area of its own volition. Work will not continue in this area until it is deemed clear of SMHM by the on-site biologist(s). 3. Personnel will immediately follow vegetation flushing with manual removal of pickleweed (e.g., weed whacking), which will also be performed beginning in

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				prior to construction.	the center and continue toward the two sides or in whichever manner that will allow for wildlife egress to areas of safe cover outside of the construction areas. Other types of vegetation (grasses, cattails, etc.) will be cleared by mechanical means after vegetation flushing. Equipment and personnel shall be limited to the areas where the vegetation has been cut or removed. 4. Barriers (silt fence) will be keyed in along temporary access roads and ramps where vehicle traffic will occur. Fence stakes shall face towards the work site, away from the habitat. The qualified biologist will have the ability to make field adjustments to the location of the fencing depending on site-specific habitat conditions. Additionally, if deemed necessary by the on-site biologist(s), additional silt fence may be placed along the perimeter of a pickleweed removal area (following plant removal) to further reduce the likelihood of harvest mice returning to the mowed area prior to construction. 5. The qualified biologist or site manager shall monitor site fencing to ensure that the fencing remains an effective barrier to prevent entry of SMHM into work areas. Monitoring of the fencing is required: a) periodically throughout each work day during work within 300 feet of the fence; b) at least twice per week during clear weather; and c) within 24 hours after every storm or one-quarter inch of precipitation (on the San Rafael gauge at http://cdec.water.ca.gov/precip_maps/) or more within a 24 hour period, or winds greater than 20 miles per hour. Maintenance of the fencing shall be conducted as needed throughout the work period. Any necessary repairs to the fencing shall be completed within 24 hours of the initial observance of the damage. Work shall not continue within 300 feet of the damaged fencing until the fences are repaired and the site is surveyed by a

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					qualified biologist to ensure that SMHM have not entered the work area. 6. Should incidental take occur during project activities, all work will immediately cease in areas of concern and the Navy will immediately notify and coordinate with the USFWS and CDFG. The Navy will consider any recommendations made at that time, including installing additional physical barriers (i.e. silt fencing) or temporarily suspending operations in the area where special status species are present.
6	-	-	-	To minimize or avoid the loss of individual harvest mice from any excavation, fill, or construction activities in suitable habitat within tidal marsh areas, vegetation removal will be limited to the minimum amount necessary to permit the activity to occur. Sufficient pickleweed habitat, as determined by a Service-approved biologist, will remain adjacent to the activity area to provide refugia for displaced harvest mice where feasible. Silt fences will be erected adjacent to tidal breach locations to define and isolate potential harvest mouse habitat. Hazard flagging will be placed around isolated patches of interior pickleweed vegetation to avoid equipment mobilization impacts prior to inspection, flushing or vegetation removal. Movement of equipment will be avoided within the vicinity of interior pickleweed patches during extreme high tides to avoid impacts to harvest mice that may move between interior pickleweed patches during extreme high tides.	Comment noted. There are no true tidal marshes or tidal breaches present at this site. The site is not subject to extreme high tides. Pages 8-9 of the BA (Appendix E) describe the approach to be used for clearing sensitive habitat while avoiding the loss of SMHMs. In addition, this section will be revised to include the details provided in USFWS comment No. 5 above.
7	-	-	-	Soil placement: To avoid direct injury and mortality to individual harvest mice during soil placement activities within Site 25 next to potentially suitable salt marsh harvest mice habitat will be flushed prior to soil placement to allow individuals to move into adjacent marsh habitat as follows: 1) Service-approved biologists familiar with harvest mice will walk through and inspect	Comment noted. Site restoration will occur in excavated areas and associated buffer zones that will have been previously cleared of vegetation. There will be no additional disturbance of vegetation during the site restoration activity.

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				vegetation prior to soil placement and search for sign of harvest mice or other sensitive wildlife and plants; and 2) following inspection, personnel will disturb (e.g., brush) vegetation to force movement of harvest mice into adjacent tidal marsh areas away from the soil placement area; personnel will flush vegetation immediately prior to soil placement. Any mice present will be able to move into adjacent upland and tidal marsh vegetation.	
8	-	-	-	To reduce potential impacts from infestation by non-native cordgrass, pepperweed, and other invasive, non-native plant species, all equipment (including personal gear) will be cleaned of soil, seeds, and plant material prior to arriving on site to prevent introduction of undesirable plant species. Equipment and personal gear will be subject to inspection. All infestations occurring within the wetlands would be controlled and removed to the extent feasible without substantially hindering or harming the establishment of native vegetation in the restored wetlands.	Concur. This requirement will be enforced by field managers. Text reflecting this comment has been added to Section 8.4. *Protection of Biological Resources*.
9	-	-	-	All construction activities will cease within two hours of extreme high tides (e.g., high tides exceeding 6.0 feet National Geodetic Vertical Datum) when salt marsh harvest mice are most vulnerable to disturbance and predation.	Comment noted. Major construction activities are planned for the summer months. Tidal influences at SWRP are negligible (SF Bay is approximately 1 mile to the north), and water levels at the site have not approached 6.0 feet msl during summer months within recent history (the Levee Road elevation is approximately 6 feet msl).
10	-	-	-	Construction personnel will adhere to designated project limits and will not go outside these limits.	Concur. This requirement will be part of the biological awareness training and will be enforced by field managers. Text reflecting this comment has been added to Section 8.4, *Protection of Biological Resources*.
11	-	-	-	Project-related vehicles and construction equipment will restrict off-road travel to designated work areas only.	Concur. This requirement will be part of the biological awareness training and will be enforced by field managers. Text reflecting this comment is present in Section 8.4, *Protection of Biological Resources.*

NAVY RESPONSES TO COMMENTS
REVISION 2: DRAFT-REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN
REMEDIAL ACTION AT IR SITE 25
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA
SEPTEMBER 2011

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12	-	-	-	The contractor will provide closed garbage containers for the disposal of all food-related trash items (e.g., wrappers, cans, bottles, food scraps). All garbage and trash will be removed daily from the project area. Construction personnel will not feed or otherwise attract wildlife or potential predators into the project area.	Concur. This requirement will be part of the biological awareness training and will be enforced by field managers. Text reflecting this comment has been added to Section 8.4, *Protection of Biological Resources*.
13	-	-	-	No pets or firearms will be allowed in the project area. To prevent possible resource damage from hazardous materials such as motor oil or gasoline, construction personnel will not service vehicles or construction equipment outside designated staging areas.	Concur. Text reflecting the comment on firearms and pets has been added to Section 5.1, *Security, Access, and Traffic Control*. Text reflecting the comment on vehicle servicing has been added to Section 8.2, *Protection of Surface and Groundwater Resources*.
14	-	-	-	Any construction personnel who inadvertently injure or kill any Federally-listed species will immediately report the incident to the Service-approved biological monitor. The Service-approved biological monitor will immediately notify the Navy, who will immediately notify the Service by telephone and electronic mail. The Navy will follow up with written notification to the Service within five working days of the incident.	Concur. This language has been added to the BA (Appendix E).
15	-	-	-	The Navy will restore all areas temporarily disturbed by construction activities to preconstruction conditions or better, as applicable. This includes areas disturbed for project site access, storage, and staging. All areas will be revegetated with native salt marsh vegetation. Pickleweed that has been hand removed may be replanted following excavation or other project related activities..	Comment noted. The approach to site restoration is reflected in the text in Section 6.5. *After sediment excavation activities are completed, excavated areas will be restored to their pre-excavation condition as appropriate and to the extent practicable. Excavated areas that are routinely inundated will not be backfilled. Wetland habitats that include pickleweed and salt grass that are present over much of the SWRP will be re-vegetated (Appendix H). Other restoration activities will include repairs to and restoration of NASA ARC and USFWS infrastructure including roads, fencing, and levees, to restore them to their pre-construction condition.*

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16	-	-	-	Bladder dams will not be installed in pickleweed habitat because individual salt marsh harvest mice may become trapped and isolated from potential mates and offspring.	Concur. The Navy has incorporated text to reflect the comment into Section 4.2.2: *To separate the Central Basin from the NE Basin, the existing levee will be temporarily improved using a plastic-partition-type dam to isolate areas where sensitive habitat (pickleweed) is present. In other areas along this levee where there is little to no pickleweed, a bladder-type inflatable dam (Aqua Dam™ or equivalent) will be deployed (see RD Sheet C-7 in Appendix D). If any pickleweed stands are observed along the remaining crest of the former levee, they will be hand-cleared prior to bladder placement (see Appendix E for vegetation clearance protocols).*
Comments regarding protection of the California clapper rail, the western snowy plover, and the California least tern					
-	-	-	-	The proposed conservation measures for the California clapper rail, the western snowy plover and the California least tern are inadequate for avoiding and minimizing harm and harassment to this species. The California clapper rail and the California least tern are also listed as endangered under the California Endangered Species Act. Therefore, they are fully protected species and no "take" of these species may be allowed to occur as a result of a Federal action or Federally-funded action. The following conservation measures, in addition to measures listed above for the salt marsh harvest mouse, must be implemented to avoid take of three of these species during the proposed project:	Comment noted. Please see responses to numbered comments below.
1.	-	-	-	Because the proposed project will occur during the breeding season (February 1 through August 31), call count surveys will be conducted to determine breeding activity in habitats adjacent to the project area prior to the commencement of construction activities. Surveys for California clapper rails, western snowy plover, and California least terns will follow the most current Service-	Comment noted. The Navy will commit to conducting surveys for these species in winter-spring 2012, in accordance with protocols established in the previous survey reports (Appendix G of Revision 2: RD/RAWP). In addition, the completed reports for the 2012 surveys will be provided to USFWS and CDFG for continued coordination of project activities.

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				approved protocol. Prior to initiating surveys, a protocol will be developed and provided to the Service and CDFG for review and approval. After the surveys are completed, a complete report will be provided to the Service and CDFG for review and an evaluation of the activities proposed to occur during the breeding season. No project activities will be started until the Service and CDFG has reviewed and approved the survey and proposed activities.	
2.	-	-	-	In the event that active nests within 700 feet of the project action area are detected, the Navy will ensure that noise will not exceed ambient levels at the nests, visually screen nest sites from construction activities, and fully implement all proposed conservation measures. Additionally, a Service-approved biologist will monitor nest activity and potential nest predator activity during construction. If it is determined that construction activities are causing the incubating adult birds to flush or exposing the adults and nest to an increased likelihood of predation, the construction activity in question will cease and the Service and CDFG will be contacted immediately to discuss the effectiveness of the minimization measures. If an active nest is established within 700 feet of the project action area, the Navy will coordinate construction activities in order to finish prior to the nest hatching. If this is not possible, construction activities will be coordinated in consultation with the Service-approved biologist so that the nest is not isolated, by construction activities, from chick rearing habitat.	Concur. The Navy has incorporated text reflecting this comment into Section 8.4, *Biological Avoidance and Minimization Measures.* The Navy has included resumes of qualified biologists to USFWS and CDFG in the Draft Final RD/RAWP.
Comments regarding discharge of water from IR Site 25					
-	-	-	-	The Service has expressed concerns regarding the discharge of water from Site 25, which has high levels of contaminants, into other ponds or waters that currently do not have these contaminants. The Service will not authorize the discharge of water from Site 25 into adjacent ponds. Tom Mauer (Service	Comment noted. Revision 2: RD/RAWP, submitted by the Navy to the regulatory agencies in September 2011, included a plan to divert water within the confines of IR Site 25. No discharge from IR Site 25 is planned.

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				biologist) has reviewed project plan and provided comments regarding this issue in a separate document that will be submitted to the Navy with this document.	