Appendix 2: Summary of Public Comments – RSA and Road Realignment Project

The following table provides a summary of comments received by the RMIEPA on the RSA and realignment project. Comments have been received and considered both during the formal period for public comments, from 13 October 2011 to 11 November 2011, and prior to and post this period. Where a written comment raises a number of salient points these have been bracketed, assigned a comment reference number in the table and a response made to the specific comment. Copies of the written comments, in full, are attached in Appendix 3 with the assigned bracket and comment reference number annotated to the comment document.

Agency/Individual	Comment Reference	Comments	Response
Dean Jacobson	DJ1	Concern is expressed over the proposed mining at the reservoir site.	The comment is noted. Method and site options have been evaluated against a suite of criteria that consider environmental, social, economic and cultural values to determine an optimal site and dredging method.
	DJ2	The reefs near the airport are among the healthiest in Majuro. Other reefs in the area are affected by pollution, Crown of Thorn infestation and algae.	The comment is noted. The coral reefs in the Majuro atoll have been affected by a number of anthropogenic activities.
	DJ3	The FAA would not have halted the proposed dredging at the "picnic reef" without just cause. The reef is special and unique and supports an unusual abundance of marine life.	The RMIPA and their contractor halted the dredging at the "picnic reef" site following concerns raised by the public. This site had previously been approved for dredging by the RMIEPA. Following further analysis and consideration, including input through a public hearing process, RMIPA proposed the current site east of the airport adjacent to the reservoirs. This site had been previously disturbed and, to a degree, local coral had regenerated.
	DJ4	An alternative dredging site should have been selected.	A suite of options for sites and methods have been evaluated against criteria that consider environmental, social, economic and cultural values to determine an optimal site and dredging method.
	DJ5	The mining at the proposed site is a short term economic saving relative to the ecological costs.	RMI environmental legislation requires development projects such as this to consider their environmental effects alongside considerations of social, cultural and economic values. The Marshall Islands have noted examples of pristine coral in the Republic. However, the values of the marine environment in the Majuro atoll have been significantly degraded by anthropogenic

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			activities.
	DJ6	Concern is expressed over the appointed contactor's previous methods of operation.	The contractor will be subject to the detailed provisions of an EMP approved by the RMIEPA that will, to the extent practicable, follow standard best practice methods.
	DJ7	Local fishing resources will be impacted by the dredging project.	The effects on marine life will be minimized to the extent practicable through the implementation of the EMP.
	DJ8	Why are coral reefs allowed to be destroyed by the dredging?	A suite of options have been evaluated against criteria that consider environmental, social, economic and cultural values to determine an optimal site and dredging method. The final decision takes account of a balanced consideration of often conflicting values.
	DJ10	Why was the RSA EIA accepted by the RMIEPA?	The EIA met the RMIEPA's criteria for acceptance in accordance with the RMI NEPA and its implementing regulations.
	DJ11	Why were the recommendations of the EPA ignored by the PA and PII?	The RMIPA and its contractor are required to comply with the RMIEPA's requirements through the approval process and by implementation of the EMP. RMIEPA previously recommended importation of materials from outside the RMI. When the project was first bid the cost to import material from another country was more than double the estimated cost and anticipated grant of funds from the FAA. Consequently FAA disapproved the RMI Government's application for FAA funds. In an effort to lower the cost the RMI Government looked to sources of fill from Majuro.
	DJ12	Why was the coral wall at the "picnic site" not documented, nor the fish resources?	The 2007 EIA appendix B included a biological assessment of the site. However, following issues raised through the approval process, the dredging site has been relocated to a site adjacent to the reservoir.
	DJ13	Concern is expressed over the perceived political interference.	The RMIEPA has fulfilled its statutory obligations. A full and public process has been followed.
	DJ14	Why are the recommended SOPAC dredging sites ignored?	The potential dredging sites identified by SOPAC have been considered in the evaluation of options. In some cases the

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			SOPAC identified sites that do not contain suitable material. In other areas the available dredging equipment is not suitable to extract the fill material.
	DJ15	Why was the airport fire station road built at such a low elevation?	The elevation of this road is not a subject of consideration for this project.
	DJ16	Why is shoreline dredging allowed to continue in light of increasing storms and more frequent flooding?	The dredging methodology has been based on consideration of a range of factors including the availability of suitable equipment. The project includes construction of erosion protection works in the form of a revetment to protect or armor the shore at the dredging and RSA sites.
	DJ17	Why should public access to the sandy beaches at the shoreline near the airport terminal be restricted by the rock protection works?	The revetment design will include specific provision to allow the public easy and safe access to the shoreline.
	DJ18	Reef flat dredging generates fine sediment that impacts on the water quality and marine life.	The project will be subject to the provisions of an EMP, approved by the RMIEPA, which will include consideration of standard best management practices for the management of sediment discharges, including use of silt curtains.
	DJ19	The solution is to extract sand and aggregate from below 30 feet in areas lacking significant coral growth. Investment should be made in the appropriate equipment and sand deposit surveys to avoid future impacts on coral reefs and shoreline integrity.	A suite of options have been evaluated against criteria that consider environmental, social, economic and cultural values to determine an optimal site and dredging method. Available funding is a significant constraint to the possible options. The final decision takes account of a balanced consideration of often conflicting values.
Marie Maddison		There should be consideration of the effects of climate change which may impact on the project and dredging site.	The stretch of shoreline adjacent to the dredging site floods approx. 1-2 times a year and was identified by the Asian Development Bank Adaption Project as a stretch that needs protection in the near to long term. Shoreline protection in the form of a revetment will be included in this project.
Laddie Jack Maddison Family James McCaffrey (on behalf of		Concerns were raised over landowners rights to near shore areas An agreement exists between RMIPA and	The dredge site was revised to Lot A and B (Kiniloke and Nakan wetos) to address concerns from landowners of adjacent wetos

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certain landowners)		Landowners prohibiting further near shore dredging	RMIPA does not agree that an agreement with landowners exists
Murray Ford, University of Hawaii Sea Grant Extension Agent		Concern was raised over the traffic to and from dredge site to reclamation site.	The effects of traffic have been included in the assessment of options. The selected dredge site is reasonably close to the RSA site. The management of construction traffic and repair of damage to the road resulting from the works are matters required to be included in the EMP.
Jerry Kramer, Pacific International Inc. (PII)	JK1	The reservoir site was dredged in the 1970s to provide material to construct the reservoirs. There is currently a rich coral ecosystem that has regenerated and may have been enhanced by the earlier dredging where dead coral has been removed.	The comment is noted.
	JK2	Comment by Dean Jacobson is cited, noting the impacts of human habitation on coral in Majuro compared to the virtually uninhabited atoll of Rongelap where there is excellent coral growth.	The comment is noted. There are several research documents that provide conclusions consistent with that of the commenter about the status of corals in proximity to human habitation. Further the proposed project is a safety enhancement project. The location approved by RMI-EPA for nearshore dredging was selected because it was previously disturbed.
	JK3	The Government of the RMI has the rightful authority under the RMI constitution to consider the benefits vs. negative impacts of the RSA project and make its decision accordingly.	The comment is noted. The 2007 EIA was prepared under the requirements of the RMI National Environmental Protection Act of 1984, as amended (RMI-NEPA). Title 35 is the implementing regulations for the RMI NEPA. The US State Department and FAA advise that the US NEPA does not apply to this project.
	JK4	There is currently coastal erosion of the lagoon side coast adjacent to the water reservoirs. Dredging and the subsequent installation of a rock revetment at the site will protect the reservoirs from this erosion.	The proposed project includes installation of a rock-boulder revetment to armor the shoreline to reduce shoreline erosion due to wave action.
	JK5	PII sought advice from a suction dredge consultant who advised this method of dredging is not suitable for this location.	This project was advertised internationally on two separate occasions, however, in each bidding opportunity, there was only one bidder. RMI considered a variety of sources for the fill material for the proposed RSA project. This ranged from

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		Further communication was made with a dredging contractor from Manila who reviewed the SOPAC report and advised that the type material and the contour of the seabed are not suitable for suction dredging. They agreed that dragline dredging is the most appropriate for the RSA project. A further visiting dredging consultant reviewed the Majuro Lagoon sites and advised that clam shell and suction dredging would probably work. However, massive machines and tens of millions of dollars would be required, being beyond the ability of the Marshall Islands to fund.	importing material from another country to offshore and nearshore dredging. The RMI Government concluded that importation of material from another country would be too costly and has the possibility of introducing organisms into the already stressed oceanic and lagoon ecosystems that could be hazardous to the native organisms at Majuro. As the commenter stated the SOPAC reports indicated several locations around Majuro that could be used as sources for material, however, the RMI Government's experience has been it is unable to utilize materials from areas the RMI Government does not control. While the RMI Government does have the power of eminent domain, it exercises this authority very carefully in consideration of traditional cultural land ownership in the RMI. RMI has examined the use of clamshell dredging and agrees with the commenter that off-shore clamshell dredging would not be cost effective for this project since water circulating in the clamshell bucket as the bucket is raised through the water column would wash out the sand from the bucket as it nears the surface. Contractors that have their own suction dredging equipment did not submit a bid for the proposed project.
	JK6	The dredging site has been modified to leave the hard pan at the reservoir site in place. This material was to be used for shoreline protection revetment. Instead, imported rock will be used for the revetment.	The comment is noted. As stated in the mitigation section of the supporting documentation, the RMI government will require the contractor to document before and after conditions where the dredging is to occur. Further, mitigation measures including the installation of rock-boulder revetments along with coral reef balls will facilitate the repopulation of corals in the affected areas.
Landowners' representatives of Kiniloke and Nakan Weto		Concerns were raised over the proximity of the dredging to adjacent wetos.	Dredging is to be re-located to further off-shore from reef hardpan. The dredge site was revised to Lot A and B (Kiniloke and Nakan Weto) to address concerns from landowners of adjacent wetos.
Rose Maddison		There are no problems with the proposed project which should go ahead.	The comment is noted.
Landowners		The project should proceed	The comment is noted.

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Mark Stege, Asian Development Bank (ADB) National Consultant		ADB recently conducted a study to climate proof vulnerable sites in Majuro. This identified the water reservoirs as critical infrastructure which requires protection from potential erosion for the long term.	Conditions on specifications for rock revetment at dredge site for the near to long term will be incorporated into EMP.
Frederick de Brum		The project is important, however, it is equally important that the rightful landowners are consulted with.	While understanding the importance of consultation with landowners, matters of land ownership are beyond the jurisdiction of the RMIEPA.
Matt Holly		Concerns were raised over the loss coral reef habitat and fishing grounds with the mining of hardpan areas.	Dredging is to be re-located to further off-shore from reef hardpan. There is to be no mining of the hard pan area. Imported rock for the shoreline protection works will substitute rock previously proposed to be mined from the hard pan.
US EPA	USEPA1	The EIA for RSA project is unclear on extent of loss of coral habitat. Impacts are likely to be more than 11 acres of coral reef and therefore greater than stated in EIA. The EIA does not include dredge site impacts.	Further information has been finalized on the construction method and dredging site options since the EIA was first developed in 2007. Applicable RMIEPA rules and regulations have been applied through the assessment of the effects of the project. The RSA and Road Realignment Project will, as far as is practicable, include standard best management practices to be applied to minimize environmental impacts. These will be incorporated in the EMP that must be approved by RMIEPA.
	USEP2	It is unclear what the potential indirect impacts are to the coral adjacent to the fill and dredge sites. It is recommended that USFWS Standard Best Management Practices be implemented.	Environmental effects from the project will be managed through the implementation of the EMP. The EMP will, as far as is practicable, be consistent with the USFWS Standard Best Management Practices.
	USEPA3	The project may result in impacts to shoreline stability at dredge site.	Shoreline protection of reservoir area will be provided with the construction of a rock boulder revetment.
	USEPA4	Dredging sites were not evaluated in the original EIA.	For a more detailed discussion on the evaluation of the dredging site options for fill materials, see section 4 of this document. This evaluation was carried out using the RMI EIA

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			approval process.
	USEPA5	Revisit the cost assessment of Option 1 (off-shore dredging)	Cost estimates comparing fill importation, near shore dredging and off shore dredging have been prepared and are included in section 4 of this report.
	USEPA6	Prepare a cost estimate for an environmentally superior dredging alternative or alternatives.	Cost estimates comparing fill importation, near shore dredging and off shore dredging have been prepared and are included in section 4. These options have been evaluated against a suite of criteria that consider environmental, social, economic and cultural values to determine an optimal site and dredging method.
	USEPA7	Compensatory mitigation (consideration of a new or restored passage between lagoon and ocean to improve circulation) should be developed in co-ordination between USFWS, USEPA, Ports Auth., RMIEPA and NMFS	Comment noted. The connection of various islets that compose Majuro Atoll has occurred over the past 100-years as the atoll was being developed. These connections have resulted in filling in some of the passes between the Majuro Lagoon and the Pacific Ocean. For the RSA and Road Relocation Project, the RMI Government will require various mitigation measures, including coral restoration measures, be identified and implemented as part of the Environmental Management Plan. The suggestion to consider the creation or restoration of passages between the Majuro Lagoon and the Pacific Ocean are beyond the scope of the proposed RSA and Road Relocation project.
	USEPA8	A number of suggestions for inclusion in the EMP have been made.	The suggested matters have been noted and will, as far as is practicable, be implemented though the EMP as approved by the RMIEPA.
US FWS	FWS1	Insufficient information is provided to fully assess the project related impacts on fish and wildlife resources.	An assessment of the biological resources of the RSA project site was attached as Appendix A to the EIA. This satisfies the applicable by RMIEPA rules and regulations. While no biological survey of the proposed dredge site has yet been undertaken, standard best management practices will be applied to minimize environmental impacts. These will be incorporated in the required EMP.
	FWS2	Existing shoreline erosion may be exacerbated. Large oceanic waves coming	The RSA and Road Realignment Project will include shoreline protection with a rock revetment at the reservoir site as well as

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		through Calalin Pass across the lagoon may accelerate lagoon side shoreline erosion.	the reclaimed RSA area.
	FWS3	Coral reef habitat may be lost due to smothering from mobilized sediments from the dredging operation. It is recommended that standard best management practices be applied.	The RSA and Road Realignment Project will, as far as is practicable, include standard best management practices to be applied to minimize environmental impacts. These will include use of silt curtains to maintain water quality.
	FWS4	FWS offer assistance to the RMI government.	The offer is noted.
	FWS5	The EIA lacks a clear commitment to replace ecological functions lost as a result of the project construction.	The translocation and rehabilitation of coral areas affected by the dredging will be addressed, as far as is practicable through implementation of the EMP. The EMP must be approved by the RMIEPA.
	FWS6	Alternative dredge sites should be considered.	RMIEPA EIA regulations require consideration of options. A number of options have been considered for the supply of fill material for the RSA project and the methods of fill abstraction. These options have been evaluated against a suite of criteria that consider environmental, social, economic and cultural values to determine an optimal site and dredging method.
NOAA	NOAA1	NOAA's requirements for projects of this scope in US waters are that the project proponent characterizes the impacts, considers alternatives and provides mitigation.	The Project is within the territorial waters of the RMI and the Project will be undertaken in accordance with the laws and regulations of the RMI. The RMI has a similar regulatory regime to the US that requires the project proponent to characterize the impacts, considers alternatives and provides mitigation. A number of options have been considered for the supply of fill material for the RSA project and the methods of fill abstraction. The EMP must be approved by the RMIEPA.
	NOAA2	The EIA for the project provides insufficient information and should be updated to include a detailed description of all components of the actions and a list of best management practices that will be implemented; a quantitative description of the marine resources present and an evaluation of	These options have been evaluated against a suite of criteria that consider environmental, social, economic and cultural values to determine an optimal site and dredging method. The following was determined by the RMIEPA to have met the requirements of the RMI environmental legislation: I. The 2007 EIA II. Further information was sought and provided

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		alternatives.	III. Further requirements were imposed on the EMP.
	NOAA3	Other critical considerations of the social and cultural value of coastal resources need to be made.	Consideration of a range of alternatives has been undertaken through the approval process and adds to the information in the EIA. This has included an extensive process of liaison with interested parties and modification of the proposal in light of this feedback.