US Army Corps of Engineers	REQUEST FOR INFORMATION REPORT (RFI)	RFI NO. RFI-0048	PAGE NO. Page 1 of 1
	CONTRACT NO. W912EP-10-C-0035 NA	CONTRACT TITLE 113454 Margarita Channel	PRIME CONTRACTOR DRAGADOS USA, Inc.

Contractor's Request for Information

REQUESTED BY:	DATE REQUESTED:		**Potential Cost Impact [No]**
Dragados USA	March 25, 2014		**Potential Schedule Impact [No]**

SUBCONTRACTOR:	Reforesta, Inc
RFI SUBJECT:	Additional Planting Areas
FEATURE OF WORK:	WETLAND MITIGATION
SPECIFICATION SECTIONS:	01 57 20.00 10
DRAWINGS:	C-109 and C-110

INFORMATION REQUESTED:

Reference is made to USACE serial letter MCI-C-0092 RFP for Deletion of Mangrove Planting. The USACE requested a proposal for the deletion of the mangrove berm planting from STA. M41+80 through STA. M50+20 on the south side of the Margarita Channel. This deletion request affects a total of 2.65 ACRES of mangrove mitigation.

Reference is made to RFI-0037 Mangrove Planting below PREPA Power Lines. Dragados USA advice that between STA M 6+60 to STA M 7+80 runs an existing overhead power line at approximately El. +48FT; which has a 100FT wide construction easement at the area were the new mangrove berm shall be planted. The USACE response was that no mangrove planting will be conducted under the power transmission line easement in order to comply with PREPA Easement Regulation (No. 7282), Article E (1). Based on this deletion, a total of 1.0 ACRES of mangrove mitigation are affected.

CONTRACTOR RECOMMENDATION:

Dragados USA and Reforesta have identified additional planting areas to compensate for the loss of planting areas due to a PREPA right of way and USACE MC008 change. The potential area is located north of the Margarita Channel between STA M30+00 to STA M42+00 (see attached drawing). The proposed additional planting was identified at site visit conducted on 12 Feb 2014 between USACE, Dragados USA, and Reforesta, Inc. and is located at the NNORTH side of the Margarita Channel. These two (2) areas fall inside the permanent ROW and increase the mitigation area by approximately 3.37 ACRES.

The additional mitigation area can be obtain if we reduced the area mentioned at MC008 Change from STA M50+20 to STA M42+40 instead on the requested area between STA M50+20 to STA M41+80. This will add 0.30 ACRES to balance the total project mitigation.

Reference is made to RFI-0046, Proposed Alternate Planting. Dragados USA and Reforesta proposed alternate planting areas, along the northern half of the Margarita Channel, were areas are higher in elevation than the mangrove mitigation terraces and present ideal conditions for the development of species such as: Pterocarpus officinalis, Annona glabra (OBL), Machaerium lunatum (OBL), Amphitecna latifolia (NL), and Manilkara bidentata (FAC).

The USACE accepted to plant the species recommended on RFI-0046 within the 0.80 acres area behind the existing mangroves between STA M9+50 to STA M13+00. These same species are recommended to plant at additional areas.

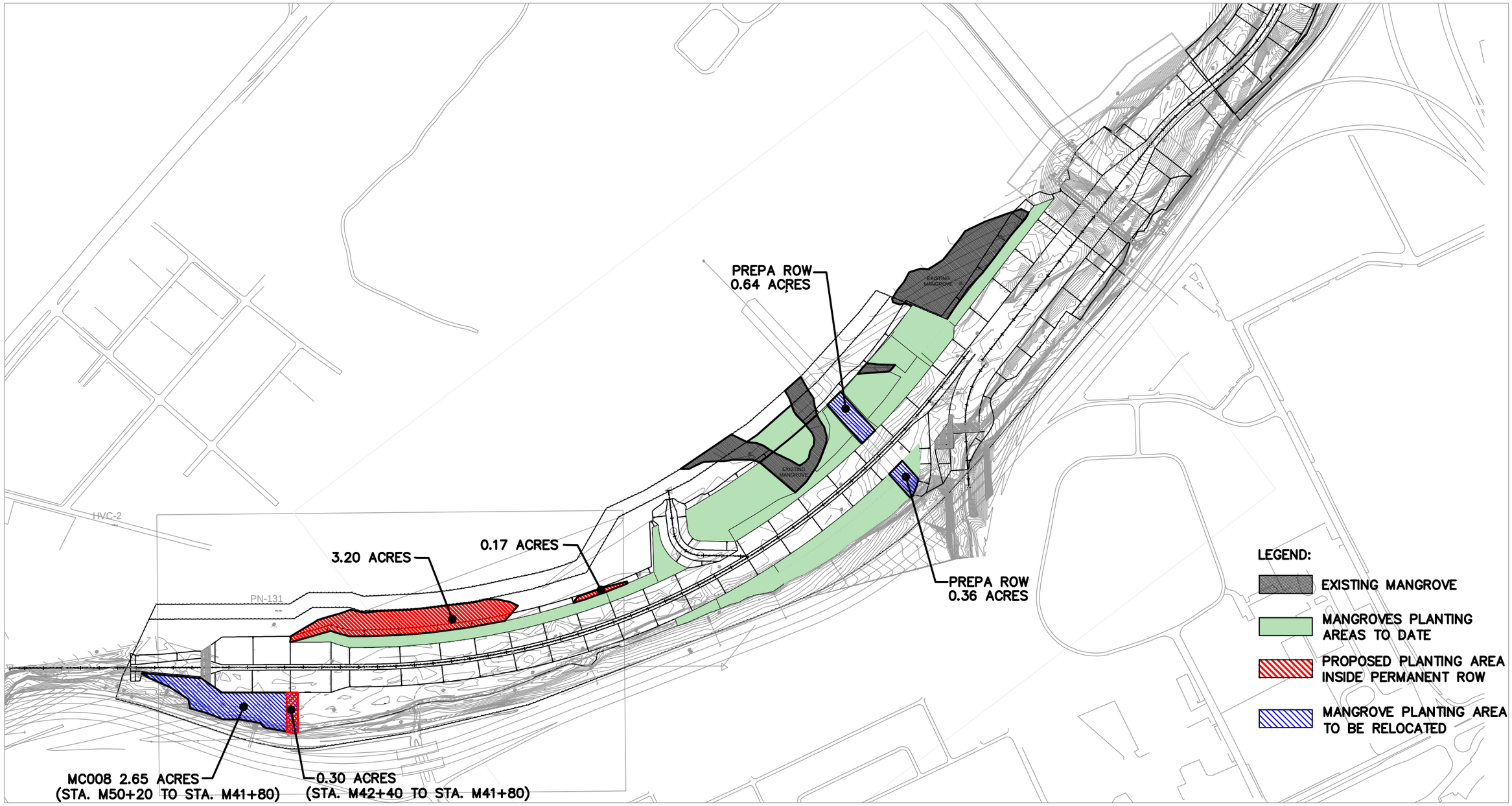
ATTACHMENTS FROM CONTRACTOR: (2 attachments)

RFI-0048 Backup Drawing

RFI-0048 Backup Topo

NOTE: THE RFI SYSTEM IS INTENDED TO PROVIDE AN EFFICIENT MECHANISM FOR RESPONDING TO CONTRACTOR'S REQUESTS FOR INFORMATION. IT DOES NOT PROVIDE AUTHORITY TO PROCEED WITH ADDITIONAL WORK. IF THE CONTRACTOR CONSIDERS THE RFI RESPONSE A CHANGED CONDITION, PROVIDE WRITTEN NOTICE TO THE CONTRACTING OFFICER'S REPRESENTATIVE IN ACCORDANCE WITH CONTRACT PROVISIONS.	QA REVIEWER'S SIGNATURE	DATE

RFI FORM



US Army Corps of Engineers
Jacksonville District

Sponsored by:

DRNA

Project:

RIO PUERTO NUEVO FLOOD CONTROL PROJECT, SAN JUAN, PUERTO RICO

MARGARITA CHANNEL IMPROVEMENTS AND MISCELLANEOUS FEATURES

Title:

RFI–0048 – ADDITIONAL PLANTING AREAS

DRAGADOS USA

Description	Date	Rev.
Inv. No.:		
Desig By:	Ckd By:	
Dwn By:	Date: 3/25/2014	
Scale:	Dwg. No.: .	Rev.

File name:

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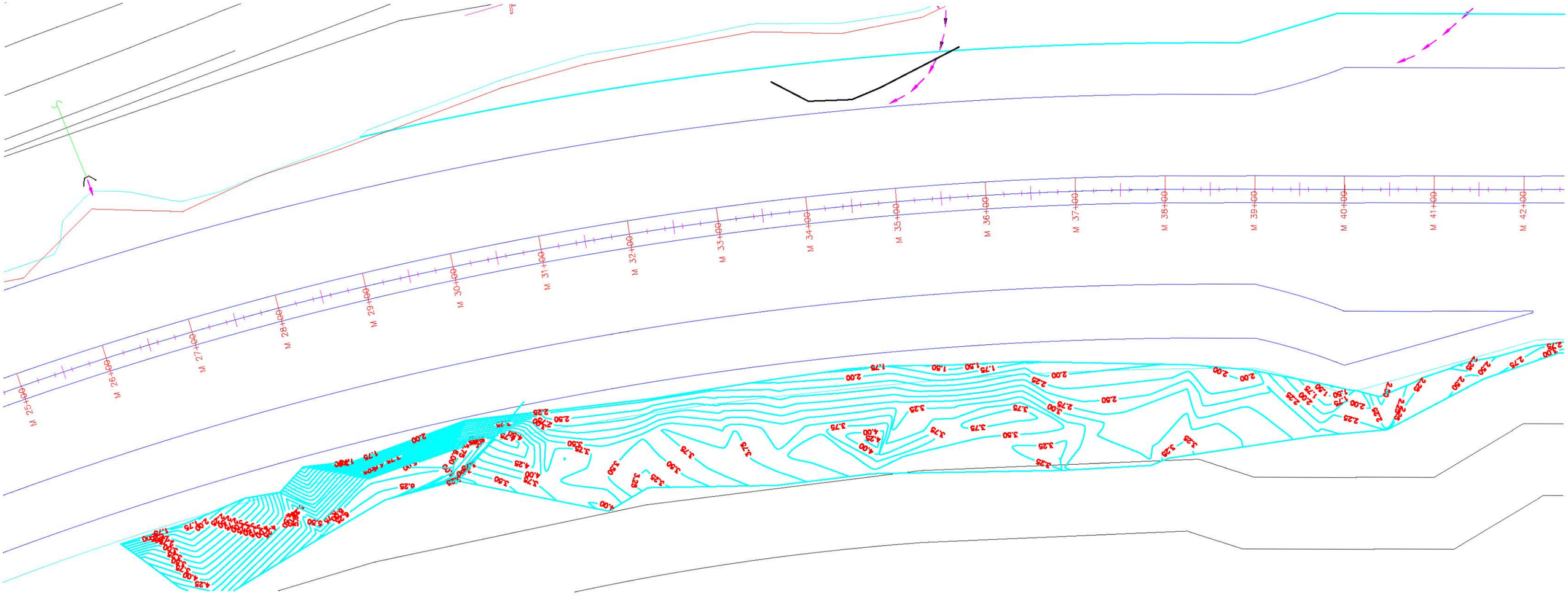
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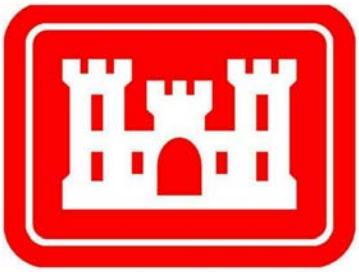
Wetland Mitigation Plan

Río Puerto Nuevo Flood Control Project, San Juan / Guaynabo, Puerto Rico



US Army Corps of Engineers
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March 2010

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TABLE OF CONTENTS

U.S. ARMY CORPS OF ENGINEERS
RIO PUERTO NUEVO FLOOD CONTROL PROJECT,
SAN JUAN / GUAYNABO, PUERTO RICO

WETLAND MITIGATION PLAN

1.0 BACKGROUND

The Río Puerto Nuevo (RPN) is a single river. It is the principal drainage of the western half of San Juan, covering about 25 square miles. It rises in the foothills south of Río Piedras and now ends near the western end of Martín Peña channel, though it originally flowed into San Juan Bay at the location of the Puerto Rico Port Authority (PRPA) docks. In the 1950's the river mouth and lowermost ¾ mile of channel were re-routed to the east, to empty into Martín Peña Channel. In the early 1960's, after the river had been diverted, the PRPA began to build the Puerto Nuevo Port complex, and the US Army Corps of Engineers (USACE) dredged the new Puerto Nuevo Navigation Channel in San Juan Harbor to serve these docks. Creation of the Puerto Nuevo port area and diversion of the River stimulated public, commercial and industrial development along John F. Kennedy Avenue, and the Avenue became a major arterial road for port traffic and commuters. The Bechara Industrial Park is part of this commercial/industrial development. The new port was built over fill deposited into the area north of Kennedy Avenue (formerly all mangrove swamp). This fill effectively "plugged" the lower end of the natural Puerto Nuevo River drainage and did not provide an alternate outlet for drainage north of Margarita Creek. Lands to the south of Kennedy Avenue within the Bechara Industrial Area (BIA) catchment area, the Puerto Rico Industrial Development Company (PRIDCO) parcels, and the road itself, flood regularly, blocking port traffic and commuter and commercial traffic between urban San Juan and outlying commercial and residential areas west of San Juan. For these reasons, the RPN is a high priority project for several Commonwealth agencies and the Municipality of San Juan. The Puerto Rico Department of Natural and Environmental Resources (DNER) is the sponsor, representing its own interests in flood control and the interests of other Commonwealth agencies.

The purpose of the authorized RPN Flood Control Project is to protect lives and property from damages attributable to a 1% exceedance probability flood along the River and its tributaries. This level of protection is commonly called "100-year" flood protection. The whole project will provide 11.2 miles of channel improvements to the river and five major tributaries, Quebradas Margarita, Josefina, Doña Ana, Buena Vista, and Guaracanal. After publication of a Survey Report and Final Environmental Impact Statement (EIS) in 1985, the RPN Project was authorized by the Water Resources Development Act of 1986. A General Design Memorandum (GDM) for overall project design was completed in 1991, accompanied by a new Environmental Assessment and Finding of No Significant Impact (EA/FONSI) signed in 1993. Construction of the main channel began in 1995. In January 2002, an EA/FONSI was circulated and signed. This EA/FONSI included the BIA improvements and Margarita Levee relocation.

2.0 WETLAND MITIGATION REQUIREMENTS

The revised EIS dated July 1985, stated that the authorized project will directly impact 33.3 acres of mangroves and mud flats near the Kennedy Avenue Bridge. The authorized project included replanting 14.8 acres of mangroves along the Lower Puerto Nuevo and Margarita channels for a total net loss of 18.5 acres of wetlands. The authorized project included the establishment of an 18 acres mangrove conservation easement that would limit the future PRPA wharf expansion at the Kennedy Avenue West Parcel mangroves to compensate for most of the net losses of wetlands and insure their future preservation. Changes in the authorized mitigation plan were made in response to changes in Federal mitigation policy and practice, recommendations of concerned agencies, and the unavailability of the 18 acres Kennedy Avenue West Parcel for acquisition. The PRPA, the owner of the 18 acres Kennedy Avenue West Parcel, already utilized this 18 acres parcel as mitigation for other projects impacts.

During the GDM, changes to the project's footprint reduced impacts to wetlands from 33.3 acres to a total of 20 acres. However, re-coordination of the wetland mitigation plan with resources agencies led to a recommendation of a 1.5 to 1 replacement ratio of impacted wetland acreage, because the restored wetlands will not be fully functional for several years. The acreage needed to reach a 1.5 to 1 replacement of the 20 acres to be lost will be achieved on project lands by planting 30 acres of mangroves in strips behind the Lower Puerto Nuevo concrete king pile and bulkhead channel, around the old river channel near the BIA, and along the Margarita Channel.

A Value Engineering Study recommended moving the Margarita Levee along an already impacted power line easement south of the BIA (EA/FONSI, 2002). Direct impacts to wetlands by the Margarita Levee were reduced by 4 acres, however, indirect impacts of the levee will be similar and the total mitigation required was not reduced. Also, it was estimated that the construction of the Margarita Levee will impact approximately 7.5 acres of disturbed freshwater wetlands and once all the Margarita Levee and BIA features were added to the project, the total wetland area to be mitigated for increased from 20 acres to 26 acres. The recommendation of 1.5 to 1 replacement ratio for the 26 acres to be lost would be achieved by planting 39 acres of mangroves. The 39 acres mitigation plan also addressed US Fish and Wildlife Services (FWS) concerns on possible isolation impacts to approximately 3 acres of wetlands north of the proposed Margarita Levee.

3.0 WETLAND MITIGATION PLAN

As part of the continued planning and coordination process for the RPN Project it has been determined that the Margarita Levee will not be constructed. The USACE has identified approximately 28 acres within the project right-of-way (ROW) to compensate the overall irretrievably impact to wetland areas. Due to the Margarita Levee will not be constructed it is the USACE's understanding that the proposed 28 acres will compensate for overall wetland impacts associated with the RPN Project. Also, due to the USACE was notified of the RPN Project inclusion in the American Recovery & Reinvestment Act of 2009 (ARRA), the USACE will move forward with the development/enhancement of the approximately 28 acres

mitigation project. For detailed information please refer to the Margarita Channel Improvements Construction and Miscellaneous Features Plans. The mitigation areas are identified in the project plans as "mangrove berm".

The proposed mitigation areas (or mangrove berm) will be planted with a mix of white (*Laguncularia racemosa*) and black (*Avicennia germinans*) mangroves and a 5-year monitoring plan will be established in order to ensure the success of the planting. The USACE will be responsible for the first 2 years while the project is in construction and completed to acceptance and then DNER will take it over and be responsible for the 3rd, 4th and 5th years of monitoring and maintenance. Detailed monitoring and maintenance requirements will be provided to DNER in the Operation and Maintenance Manual. This Mitigation Plan has been coordinated with the appropriate Federal and local resource agencies. Any changes or recommendations will be discussed as necessary, prior to initiate the mitigation project.

It should be noted that as part of the mitigation efforts for this project during the construction of Contract 1 it was requested to the contractor to provide the appropriate elevations and grading for natural recruitment of wetland vegetation at the area located to the northeast side of the improved channel (between stations 28+00 to 59+00). This area consists of approximately 4.9 acres and was identified in the project plans as existing mangrove. At this time, this area has been successfully populated by wetland vegetation. As part of this Mitigation Plan, the Contractor shall perform a site inspection to identify these species, evaluate its current conditions and present recommendations. Also, the Contractor shall remove (manually or using an herbicide approved by EPA) all the nuisance and/or unwanted species found within the site. If necessary and authorized by the USACE, additional planting will be conducted. This area shall be included in the 2-year mitigation monitoring and maintenance program described in Section 5.0.

4.0 SITE PREPARATION AND MANGROVE PLANTING

The work will consist of furnishing all necessary labor, equipment and materials and performing final site preparation work and mangrove planting in the areas identified as mangrove berm along the channel. The work also includes the removal and appropriate disposal of excavated material and debris encountered during construction, and any other work incidental to completion of the planting. Also, the Contractor shall perform a site inspection at the area located to the northeast side of the Río Puerto Nuevo Channel to identify the wetland vegetation, its current conditions and present recommendations.

4.1 Site Preparation

The site preparation shall include, but is not limited to, the following tasks:

a) The Contractor, in coordination with the USACE Contracting Officer and the Environmental Branch point of contact (POC), will establish the planting areas limits. Permanent limit marks and location coordinates shall be provided.

b) Complete removal and disposal of all material and debris to the lines and grades indicated on the project plans for the establishment of a mix of white and black mangroves. All materials will be disposed of off-site on an approved area or local sanitary landfill to be identified by the Contractor. Sites to be prepared are identified as mangrove berm in the project plans.

c) This work will occur concurrently with the Margarita Channel improvements, to avoid future disturbance to the mitigation areas.

d) Clear and grub area as necessary. Care will be taken not to damage any existing mangrove or other wetland vegetation adjacent to the planting sites, when present.

e) As indicated in the project plans, the elevation of the planting sites (or "mangrove berm") will be 0.0 ft mean sea level (MSL). It is important to highlight that, although the USACE is providing the project drawings and recommended elevations, the Contractor will be responsible for obtaining elevations of near mangrove stands in order to use it as reference level for the "floor" preparation of the planting sites. Both data will be used by the Contractor to recommend and determine the appropriate elevations for shaping and grading the planting areas. The recommended elevations must be agreed by the USACE prior to initiation. Success in mangrove planting depends on initially creating the proper elevation above datum, to assure frequent flooding and flushing. If necessary, gaps will be left in the channel sides at intervals to allow water to flow into and out of the mangroves with the tides.

f) If necessary, some areas will be filled to obtain the appropriate elevation for mangrove planting. The excavated material that exhibit hydric characteristics at the planting sites without debris could be used to fill these areas.

g) Salvage mangroves in the construction area. Both black and white mangroves can re-sprout vigorously after even sever pruning. Black and white mangroves seedlings are also very hardy and will likely survive transplanting.

h) The Contractor shall survey the planting sites (or "mangrove berm") to assure that the proper elevations, gradient and acreages have been obtained. The survey shall be provided for USACE revision prior to planting mangroves.

i) If during the site preparation any listed threatened or endangered specie is found within the planting areas limits, the Contractor will immediately notify the USACE Contracting Officer and Environmental Branch POC for the appropriate coordination with FWS and DNER. The site preparation will not continue until the Contracting Officer authorizes the Contractor.

4.2 Mangrove Planting

The Contractor will be responsible of providing the required amount of seedlings/saplings for this project. The seedlings/saplings could be collected from appropriate

nearby sites, to be coordinated with the USACE and DNER staff. If required, the Contractor will be responsible for obtaining all necessary permits or authorizations for harvesting mangrove seedling/saplings from the DNER. Peek season for harvesting propagules (seeds) of all mangrove species is late summer and early fall, i.e. August, September and October, but some propagules are available at any season. For that reason, as alternative the Contractor could collect propagules as soon as the project is approved for construction; propagate and maintain seedlings/saplings at appropriate facilities. Also, if the required amount of seedlings/saplings is not available, the Contractor will coordinate with local nurseries.

Care will be taken by the Contractor to protect propagules from damage. Propagules can be stored in plastic buckets or garbage pails covered with moist burlap, styrofoam containers, or in wet burlap or plastic sacks, keeping them moist but not saturated, for no more than 10 days prior planting at the Contractor's appropriate facilities. However, it is recommended to collect only the number of propagules that can be planted with 1-2 days, so as to avoid heat and/or sun damage during storage and transport.

The mitigation planting will consist of white and black mangroves. Spacing for white and black mangroves seedlings/saplings is 1.0 meter on center spacing (or approximately 4,000 per acre) in a staggered distribution, but after planting seeds can be broadcast-sown at 8,000 per acre. Mangrove seedlings/saplings size must be adequate to not be under water during high tides. Planting can begin as soon as site grading has been completed. Mangrove planting should start with black mangrove closest to the improved channel and white mangroves further back. The mitigation project shall be completed within 24 months from the Notice to Proceed.

5.0 MAINTENANCE AND MONITORING

5.1 Maintenance

The Contactor shall implement a two (2) years maintenance and control program, starting after planting completion, for unwanted/nuisance species to prevent colonization by these species until the planted mangrove can compete and survive without further control. Early implementation of the control program is essential for long-term success of the mitigation project. Site inspection and removal of unwanted species shall be performed, at least, monthly. In addition, the Contractor shall perform the following maintenance actions:

a) In the event that the site becomes dry after planting or is dry during site monitoring visits, water form the channel will be delivered to the site by pump, ditch, among others.

b) A minimum of 80 percent survival of planted species is required for two years after initial planting.

c) Unwanted/nuisance species shall be less than 5 percent cover of total area.

d) After flood events the planting sites should be inspected.

5.2 Monitoring:

Vegetation monitoring should be performed to document the establishment and cover of the planted species and the presence and cover of unwanted, nuisance species. The vegetation monitoring should occur in at least, six locations (plots) within the mitigation and including the site located to the northeast side of the improved channel. These locations shall represent site conditions and representative areas of the mitigation planting sites. The following actions shall be performed by the Contractor during monitoring:

a) Monitoring data such as; estimated cover by species, estimate of survival of planting, average height of planted species, casual observations, survival rates and identification of nuisance species, shall be recorded on a standardized form during monitoring events.

b) Monitoring will be performed to assess the mitigation project sites.

c) Permanent monitoring and photographic stations will be established at the mitigation site. The stations location coordinates shall be provided.

d) Monitoring and photographic stations identification markers should be maintained for location reference during successive monitoring.

e) Monitoring reports shall include photographic documentation of the site.

5.3 Monitoring Reports

The Contractor shall submit monitoring reports for USACE Contracting Officer and Environmental Branch POC review. The monitoring reports shall be prepared in accordance with the USACE Regulatory Guidance Letter 08-03 (attached) and shall be submitted as follow:

a) The Contractor shall submit a time-zero monitoring report within 30 days of planting completion.

b) Monitoring and reports should be performed every three months after planting completion, during two (2) years.

c) The monitoring reports shall be submitted no later than 30 days from completion of the monitoring event.

d) A closeout monitoring report shall be performed two years after planting completion.

As the site matures the success of the mitigation project will be evaluated in terms of the total percent cover and survival of mangrove (through planting and natural recruitment). The goal is to establish a mature mangrove forested area.

Regulatory Guidance Letter No. 08-03

US Army Corps of Engineers®

REGULATORY GUIDANCE LETTER

No. 08-03 **Date: 10 October 2008**

SUBJECT: Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving the Restoration, Establishment, and/or Enhancement of Aquatic Resources.

1. Purpose and Applicability

a. Purpose. This Regulatory Guidance Letter (RGL) provides the Districts and regulated public guidance on minimum monitoring requirements for compensatory mitigation projects, including the required minimum content for monitoring reports. This RGL replaces RGL 06-03.

b. Applicability. The final Mitigation Rule published on April 10, 2008, states that the submission of monitoring reports to assess the development and condition of compensatory mitigation projects is required, but the content and level of detail for those reports must be commensurate with the scale and scope of the compensatory mitigation projects as well as the compensatory mitigation project type (see 33 CFR 332.6(a)(1)).

This RGL applies to all Department of the Army (DA) permit authorizations under Section 404 of the Clean Water Act and Sections 9 and 10 of the Rivers and Harbors Act that contain special conditions requiring compensatory mitigation provided through aquatic resource restoration, establishment and/or enhancement. This guidance also applies to monitoring reports that are prepared for mitigation bank sites and in-lieu-fee project sites.

This RGL supports the Program Analysis and Review Tool (PART) program goals for the Regulatory Program. Specifically, this RGL supports the PART performance measures for mitigation site compliance and mitigation bank/ in-lieu-fee compliance. These measures apply to active mitigation sites, mitigation banks, and in-lieu-fee project sites that still require monitoring.

2. Background

Recent studies by the Government Accountability Office (GAO) and National Research Council (NRC) indicated that the U.S. Army Corps of Engineers (Corps) was not providing adequate oversight to ensure that compensatory mitigation projects were successfully replacing the aquatic resource functions lost as a result of permitted activities. For example, the GAO study determined that many project files requiring

mitigation lacked monitoring reports despite the fact that such reports were required as a condition of the permit. Similarly, the NRC study documented that a lack of clearly stated objectives and performance standards in the approved compensatory mitigation proposals made it difficult to ascertain whether the goal of no net loss of wetland resources was achieved.

On April 10, 2008, the Corps and Environmental Protection Agency published the "Compensatory Mitigation for Losses of Aquatic Resources: Final Rule" (Mitigation Rule) which governs compensatory mitigation for activities authorized by permits issued by the Department of the Army (33 CFR Parts 325 and 332). This RGL complements and is consistent with the final Mitigation Rule.

3. Discussion

Inconsistent approaches to monitoring compensatory mitigation projects are one of several factors that have affected the ability of Corps project managers (PMs) to adequately assess achievement of the performance standards of Corps-approved mitigation plans. Standardized monitoring requirements will aid PMs when reviewing compensatory mitigation sites, thereby allowing the Corps to effectively assess the status and success of compensatory mitigation projects.

This RGL addresses the minimum information needed for monitoring reports that are used to evaluate compensatory mitigation sites. Monitoring requirements are typically based on the performance standards for a particular compensatory mitigation project and may vary from one project to another.

Monitoring reports are documents intended to provide the Corps with information to determine if a compensatory mitigation project site is successfully meeting its performance standards. Remediation and/or adaptive management used to correct deficiencies in compensatory mitigation project outcomes should be based on information provided in the monitoring reports and site inspections.

4. Guidance

a. Monitoring guidelines for compensatory mitigation.

i. Performance Standards. Performance standards, as defined in 33 CFR 332.2, and discussed in more detail at 33 CFR 332.5, will be consistent with the objectives of the compensatory mitigation project. These standards ensure that the compensatory mitigation project is objectively evaluated to determine if it is developing into the desired resource type and providing the expected functions. The objectives, performance standards, and monitoring requirements for compensatory mitigation projects required to offset unavoidable impacts to waters of the United States must be provided as special conditions of the DA permit or specified in the approved final mitigation plan (see 33 CFR 332.3(k)(2)). Performance standards may be based on functional, conditional, or other suitable assessment methods and/or criteria and may be incorporated into the

special conditions to determine if the site is achieving the desired functional capacity. Compensatory mitigation projects offset the impacts to diverse types of aquatic resources, including riverine and estuarine habitats. Special conditions of the DA permits will clearly state performance standards specific to the type and function of the ecosystem in relation to the objectives of the compensatory mitigation project.

ii. Monitoring Timeframe. The special conditions of the DA permit (or the mitigation plan as referenced in the special conditions) must specify the length of the monitoring period (see 33 CFR 332.6(a)(1)). For mitigation banks, the length of the monitoring period will be specified in either the DA permit, mitigation banking instrument, or approved mitigation plan. For in-lieu fee projects, the length of the monitoring period will be specified in either the DA permit or the approved in-lieu fee project plan.

The monitoring period must be sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years (see 33 CFR 332.6(b)). The District determines how frequently monitoring reports are submitted, the monitoring period length, and report content. If a compensatory mitigation project has met its performance standards in less than five years, the monitoring period length can be reduced, if there are at least two consecutive monitoring reports that demonstrate that success. Permit conditions will support the specified monitoring requirement and include deadlines for monitoring report submittal. Longer monitoring timeframes are necessary for compensatory mitigation projects that take longer to develop (see 33 CFR 332.6(b)). For example, forested wetland restoration may take longer than five years to meet performance standards.

Annual monitoring and reporting to the Corps is appropriate for most types of compensatory mitigation projects, though the project sponsor may have to monitor progress more often during the project's early stages. Certain compensatory mitigation projects may require more frequent monitoring and reporting during the early stages of development to allow project managers to quickly address problems and/or concerns. Annual monitoring can resume once the project develops in accordance with the approved performance standards. In cases where monitoring is required for longer than five years, monitoring may be conducted on a less than annual timeframe (such as every other year), though yearly monitoring is recommended until the project becomes established as a successful mitigation project. In this case, off-year monitoring should include some form of screening assessment such as driving by the mitigation site, telephone conversations regarding condition of the mitigation site, etc. On-site conditions, the complexity of the approved mitigation plan, and unforeseen circumstances will ultimately determine whether the monitoring period should be extended beyond the specified monitoring time frame for a particular project. Complex and/or ecologically significant compensatory mitigation projects should have higher priority for site visits.

As discussed above, the remaining monitoring requirements may be waived upon a determination that the compensatory mitigation project has achieved its performance standards. The original monitoring period may be extended upon a determination that

performance standards have not been met or the compensatory mitigation project is not on track to meet them (e.g., high mortality rate of vegetation). Monitoring requirements may also be revised in cases where adaptive management or remediation is required.

iii. Monitoring Reports. Monitoring requirements, including the frequency for providing monitoring reports to the District Commander and the Interagency Review Team (IRT), will be determined on a case-by-case basis and specified in either the DA permit, mitigation banking instrument, or approved mitigation plan. The content of the monitoring reports will be specified in the special conditions of the DA permit so that the requirements are clearly identified for the permittee or third-party mitigation sponsor. In addition, the monitoring reports should comply with the timeframes specified in the special conditions of the DA permit. Monitoring reports will not be used as a substitute for on site compliance inspections. The monitoring report will provide the PM with sufficient information on the compensatory mitigation project to assess whether it is meeting performance standards, and to determine whether a compliance visit is warranted. The party responsible for monitoring can electronically submit the monitoring reports and photos for review.

Visits to mitigation sites will be documented in the administrative record and will count toward District performance goals. An enforcement action may be taken if the responsible party fails to submit complete and timely monitoring reports.

b. Contents of Monitoring Reports. Monitoring reports provide the PM with a convenient mechanism for assessing the status of required compensatory mitigation projects. The PM should schedule a site visit and determine potential remedial actions if problems with the compensatory mitigation project are identified in a monitoring report.

The submittal of large bulky reports that provide mostly general information should be discouraged. While often helpful as background, reiteration of the mitigation and monitoring plan content, lengthy discussions of site progress, and extensive paraphrasing of quantified data are unnecessary. Monitoring reports should be concise and effectively provide the information necessary to assess the status of the compensatory mitigation project. Reports should provide information necessary to describe the site conditions and whether the compensatory mitigation project is meeting its performance standards.

Monitoring reports will include a Monitoring Report Narrative that provides an overview of site conditions and functions. This Monitoring Report Narrative should be concise and generally less than 10 pages, but may be longer for compensatory mitigation projects with complex monitoring requirements. Monitoring Report Narratives may be posted on each District's Regulatory web site.

Monitoring reports will also include appropriate supporting data to assist District Commanders and other reviewers in determining how the compensatory mitigation project is progressing towards meeting its performance standards. Such supporting data may include plans (such as as-built plans), maps, and photographs to illustrate site

conditions, as well as the results of functional, condition, or other assessments used to provide quantitative or qualitative measures of the functions provided by the compensatory mitigation project site.

c. Monitoring Report Narrative:

i. Project Overview (1 page)

(1) Corps Permit Number or Name of the Mitigation Bank or In-Lieu Fee Project

(2) Name of party responsible for conducting the monitoring and the date(s) the inspection was conducted.

(3) A brief paragraph describing the purpose of the approved project, acreage and type of aquatic resources impacted, and mitigation acreage and type of aquatic resources authorized to compensate for the aquatic impacts.

(4) Written description of the location, any identifiable landmarks of the compensatory mitigation project including information to locate the site perimeter(s), and coordinates of the mitigation site (expressed as latitude, longitudes, UTMs, state plane coordinate system, etc.).

(5) Dates the compensatory mitigation project commenced and/or was completed.

(6) Short statement on whether the performance standards are being met.

(7) Dates of any recent corrective or maintenance activities conducted since the previous report submission.

(8) Specific recommendations for any additional corrective or remedial actions.

ii. Requirements (1 page)

List the monitoring requirements and performance standards, as specified in the approved mitigation plan, mitigation banking instrument, or special conditions of the DA permit, and evaluate whether the compensatory mitigation project site is successfully achieving the approved performance standards or trending towards success. A table is a recommended option for comparing the performance standards to the conditions and status of the developing mitigation site.

iii. Summary Data (maximum of 4 pages)

Summary data should be provided to substantiate the success and/or potential challenges associated with the compensatory mitigation project. Photo documentation may be provided to support the findings and recommendations referenced in the monitoring report and to assist the PM in assessing whether the compensatory mitigation project is meeting applicable performance standards for that monitoring period. Submitted photos should be formatted to print on a standard 8 ½” x 11” piece of paper, dated, and clearly labeled with the direction from which the photo was taken. The photo location points should also be identified on the appropriate maps.

iv. Maps and Plans (maximum of 3 pages)

Maps should be provided to show the location of the compensatory mitigation site relative to other landscape features, habitat types, locations of photographic reference points, transects, sampling data points, and/or other features pertinent to the mitigation plan. In addition, the submitted maps and plans should clearly delineate the mitigation site perimeter(s), which will assist PMs in locating the mitigation area(s) during subsequent site inspections. Each map or diagram should be formatted to print on a standard 8 ½" x 11" piece of paper and include a legend and the location of any photos submitted for review. As-built plans may be included.

v. Conclusions (1 page)

A general statement should be included that describes the conditions of the compensatory mitigation project. If performance standards are not being met, a brief explanation of the difficulties and potential remedial actions proposed by the permittee or sponsor, including a timetable, should be provided. The District Commander will ultimately determine if the mitigation site is successful for a given monitoring period.

d. Completion of Compensatory Mitigation Requirements. For permittee-responsible mitigation projects, compensatory mitigation requirements will not be considered fulfilled until the permittee has received written concurrence from the District Commander that the compensatory mitigation project has met its objectives and no additional monitoring reports are required. PMs will review the final monitoring reports to make this determination. A final field visit should be conducted to verify that on-site conditions are consistent with information documented in the monitoring reports.

e. Special Condition. The following condition should be added to all DA permits that require permittee-responsible mitigation. This condition does not apply to mitigation banks or in-lieu-fee programs:

Your responsibility to complete the required compensatory mitigation as set forth in Special Condition X will not be considered fulfilled until you have demonstrated compensatory mitigation project success and have received written verification of that success from the U.S. Army Corps of Engineers.

5. Duration

This guidance remains in effect unless revised or rescinded.

STEVEN L. STOCKTON, P.E.
Director of Civil Works