

**Review of North Boca Raton Beach
Nourishment Agreement 14PB3**

Division of Water Restoration Assistance

Report: A-1516DEP-025

Office of Inspector General

Internal Audit Section

Florida Department of Environmental Protection

December 20, 2016

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The Office of Inspector General (OIG) conducted a review of the North Boca Raton Beach Nourishment Agreement 14PB3 (Agreement 14PB3) between the Department of Environmental Protection (Department) Division of Water Restoration Assistance (Division), and the City of Boca Raton (City). This review was initiated as a result of the Fiscal Year (FY) 2015-2016 Annual Audit Plan.

Scope and Objectives

The scope included a review of Agreement activities between the Department and the City, during the period of September 2013 to May 2016. The objectives were to:

- determine whether reimbursed costs were eligible under the project Agreement
- determine whether reimbursed payments were made in compliance with the Agreement
- evaluate management oversight of the Agreement

Methodology

This review was conducted under the authority of Section 20.055, Florida Statutes (F.S.), and in conformance with the *International Standards for the Professional Practice of Internal Auditing*, published by the Institute of Internal Auditors. Our procedures included a review of the Agreement and expenditures, as well as an associated North Boca Raton Beach Nourishment Agreement 10PB4. We requested documentation as necessary and conducted interviews with Beach Management Funding Assistance Program (Program), City, and United States Army Corps of Engineer (USACE) personnel.

Background

In accordance with Section 161.091, F.S., appropriations from the Land Acquisition Trust Fund are used *for the implementation of those projects that contribute most significantly to*

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addressing the state's beach erosion problems. The Program entered into Agreement 14PB3 with the City to coordinate the non-federal funding share of the 2013/2014 federal North Boca Raton Storm Repair Project (Project), led by the USACE. Agreement 14PB3 was executed September 24, 2013. Amendment 1, executed December 19, 2014 extended the end date to March 20, 2016. Amendment 2, executed July 24, 2015, extended the end date to November 16, 2016 and increased funding by \$351,500 for a total Department funding amount of \$1,141,500.

The Agreement included Tasks 2.0 *Design and Permitting*, 3.0 *Construction*, and 4.0 *Monitoring* for the Project. Reimbursement requests had not been submitted for Tasks 2 and 4 at the time of this review. Our testing included review of activities and invoices submitted for Task 3 in Tasks 3.1 and 3.3. These included funding as follows.

Task	Description	Total Cost	City Funding	Department Funding
3.1	2013 FCCE Storm Damage Repair Project (USACE Nourishment Project)	\$6,100,000.00 ¹	\$790,000.00	\$790,000.00
3.3	Construction Observation	\$434,167.00	\$217,083.50	\$217,083.50

A separate agreement between the Department and City, Agreement 10PB4, provided funding for post construction monitoring for the second North Boca Raton Beach Nourishment Project conducted from January through March 2010. Monitoring activities under Agreement 10PB4 were in progress at the time of the Project.

¹ This amount includes the total project cost, as well as funding from the USACE, along with non-federal funding.

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Results and Conclusions

Task 3.0 *Construction* specified work performed and cost associated with the placement of fill material and the construction of erosion control structures within the project area. Eligible costs included mobilization, demobilization, construction observation or inspection services, beach-dune vegetation, and all permits issued by the Department. During our review, Task 3.0 included Tasks 3.1 *2013 Flood Control and Coastal Emergency (FCCE) Storm Damage Repair Project* and Task 3.3 *Construction Observation*.

Task 3.1 2013 FCCE Storm Damage Repair Project

Task 3.1 provided the Department funding contribution of \$790,000 (50%) for the non-federal share of funding for the USACE Project. According to the Agreement, the original cost estimate for the non-federal share was \$1,580,000. For construction, it was estimated that 234,000 cubic yards of sand would be placed to address storm losses, with an additional 380,400 cubic yards placed to return the project to full design template. Advance payment of \$1,684,759 for the non-federal cost share was requested in a letter from the USACE to the City on August 30, 2013. This amount was more than the original estimate, but the Department's contribution was \$790,000, as specified under Task 3.1.

The USACE demand letter required payment based on the estimated cost in advance of construction. Advance payment forms were submitted, as required by the Agreement. The USACE provided a Certificate of Completion for dredging and beach placement activities dated December 26, 2014. Final costs determined after construction completion had not been obtained by the City or Program at the time of this review. We obtained final cost detail from USACE for

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the Project, which showed actual costs were less than estimates. Based on these costs, the USACE was taking steps to process a reimbursement for non-federal funds provided in excess.

Task 3.3 Construction Observation

Agreement 14PB3 Task 3.3 provided funding for construction-phase biological and physical monitoring and observation associated with the USACE 2013/2014 Project. The deliverable for Task 3.3 included a *Certification of completion by a registered professional engineer for construction phase observation and monitoring for the 2013/2014 federal North Boca Raton storm repair project*. The total cost was \$434,167 with Department funding of \$217,083.50 (50%) for this task. For the work conducted under this task, the City developed Work Order 40 under a continuation agreement with a contracted engineer. The City's Work Order 40 listed ten tasks with allocated funding for each. Task activities and costs were as follows.

Task	City Work Order 40	Work Order Budget	Total Submitted for Reimbursement
1	Borrow Area/Beach Profile Survey -Pre-Construction	\$32,534.00	\$26,125.02
2	Biological Monitoring -Pre-Construction	\$70,108.00	\$48,160.03
3	Biological Monitoring -During Construction	\$115,691.00	\$85,220.21
4	Construction Observation/USACE Coordination	\$42,572.00	\$43,326.24
5	Sediment Sampling/Reporting	\$6,430.00	\$2,807.03
6	Borrow Area/Beach Profile Survey - Post-Construction	\$21,405.00	\$20,191.77
7	Biological Monitoring/Report - Immediate Post-Construction	\$45,904.00	\$57,894.10
8	Physical Monitoring Report - Immediate Post-Construction	\$28,291.00	\$31,100.79
9	Biological Monitoring Report – Immediate Post-Construction Report	\$41,984.00	\$61,887.19
10	Physical Monitoring Report – Third Year Post Construction (2010 Project)	\$29,248.00	\$29,248.00
	Total	\$434,167.00	\$405,960.38²

² The Department reimbursed the City \$182,673.16 of this total, which represented the cost share amount of \$202,970.18, less 10% retainage.

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The City submitted supported costs for activities as outlined above totaling \$405,960.38. The City was reimbursed \$182,673.16, which represented 50% of the submitted cost, less 10% retainage. All expenditures reviewed were supported by contractor invoices. The Project Completion Certification was signed by the City Project Manager, rather than a registered professional engineer as required. In addition, the City's Work Order 40 included Task 10, Physical Monitoring Report – Third Year Post Construction for the 2010 Project. The referenced 2010 Project was funded under Agreement 10PB4. This task was not part of the Construction Observation deliverable as described in Agreement 14PB3 Task 3.3.

The related Agreement 10PB4, executed December 21, 2010 and amended July 29, 2015 (Amendment 3) required third year post construction biological surveys and reporting in Task 4.3, but did not require physical monitoring for the third year post construction monitoring for the 2010 Project. The 2010 Project third year physical monitoring report was not included under Agreement 14PB3 Task 3.3 description or deliverable, but was reimbursed as part of the request. Similarly, Agreement 10PB4 had been amended September 2013 (Amendment 2) to include monitoring tasks related to the 2013/2014 federal North Boca Raton Storm Repair Project. Our Findings and Recommendations are included in the remainder of this report.

Findings and Recommendations:

Finding 1 – Advance Payment for Non-Federal Share of Project Cost

According to Agreement 14PB3, section 8, the Department's financial obligation for construction of the 2013/2014 federal North Boca Raton Storm Repair Project was not to exceed 50% or \$790,000 of the non-federal share estimated at \$1,580,000. The Agreement Grant Work Plan Task 3.1 *2013 FCCE Storm Damage Repair Project* provided for advance payment of the

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non-federal cost share for construction. Advance payment of \$1,684,759 for the non-federal cost share was requested in a letter from the USACE to the City on August 30, 2013. Advance payment of \$790,000 for the Department's share of this advance was provided to the City on November 19, 2013.

The required deliverable for Task 3.1 was a *certification of substantial completion of construction by a professional engineer for the 2013/2014 federal North Boca Raton Storm repair project*. The USACE provided a *Notice of Completion Permit No. 0261499-004-JM* for completion of Task 3.1, dated December 26, 2014.

Agreement 14PB3 Section 12.C. states, *unused funds, and interest accrued on any unused portion of advanced funds which have not been remitted to the Department, shall be returned to the Department within sixty (60) days of the completion of the construction portion of this Project. Unused funds advanced to the United States Army Corps of Engineers through Local Sponsors will be due sixty (60) days after the Federal final accounting has been completed.*

According to the Project Partnership Agreement between the USACE and the City dated August 27, 2013, Article VI - Method of Payment, Section C., upon the conclusion of each iteration of periodic nourishment and resolution of all relevant claims and appeals, USACE will conduct a final accounting and furnish the results to the non-federal sponsor. If the final accounting indicates that funds provided in advance exceeded the non-federal share, the USACE will refund the excess amount within 90 calendar days of the date accounting is completed to the local sponsor.

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Based on discussions with Program staff and the City Project Manager, the final construction cost accounting had not been received from the USACE at the time of this review. Historically, a construction final accounting had not been provided by the USACE, and previous request attempts had not been successful. As a result, non-federal participation in federal beach nourishment projects consisted of advance payment to the local sponsor based on cost estimates. The general understanding from both the Program and the City was that excess funds, if any, would be used for future projects.

We contacted USACE Project staff regarding the Project final accounting. We were provided with a detailed cost summary of the construction iteration of the Project from the USACE Corps of Engineers Financial Management System (CEFMS). Based on this cost detail, the final non-federal cost share was \$1,241,865.64, which was less than the original estimate.

USACE Cost Share Reconciliation for the Project	
Total non-federal funding provided	\$1,684,759.00
Total non-federal funding expended	\$1,241,865.64
Cash in excess	\$442,893.36

The USACE Project Manager advised that excess funds would be returned to the City. The City then provided a consistent cost share worksheet³.

³ According to the assumption noted on the City's cost share worksheet, the total estimated project cost included a deduction of \$5,000 as an estimate for future tasks. Based on this assumption, the estimated non-federal return would be \$437,893.36. Agreement 14PB3 Grant Work Plan section 3, Task 3.1 did not include a provisional estimate for future tasks. Therefore, the \$5,000 deducted from the non-federal share excess of \$442,893.36 was outside of obligations for funds provided by the Department.

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Of the \$1,684,759 non-federal funds provided in advance, the Department contribution of \$790,000 represented 47% of the total. Based on the total non-federal excess amount of \$442,893.36, the share of proportional return to the Department would be \$208,159.88 ($\$442,893.36 \times 47\%$). This amount was discussed with the City Project Manager and Program management with concurrence.

Recommendation:

We recommend the Program develop processes to communicate and follow up with the City, as well as local sponsors in general to obtain final accounting on cost share projects coordinated with the USACE. The final accounting should be requested once the project iteration completion certification is received from the USACE by the local sponsor.

We also recommend the Program take steps to work with the City to obtain reimbursement of \$208,159.88, which represents the Department's proportional share of non-federal construction cost excess.

Finding 2 - Reimbursement of Activities Outside of Task Description and Activities Associated with Separate Agreements

Construction Task Description

Agreement 14PB3 Task 3.3 *Construction Observation* included *construction-phase biological and physical monitoring and observations associated with the 2013/2014 federal North Boca Raton storm repair project under JCP 0261499*. The total cost listed for Task 3.3 was \$434,167, with the Department's cost share of \$217,083.50. According to Agreement

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14PB3 section 7, the City was to *develop a detailed Scope of Work which shall include a narrative description of each task, a corresponding detailed budget for each deliverable under that task and a schedule for completion of each task and deliverable. Each Scope of Work shall require approval by the Department as to content, deliverables, and schedule prior to initiating work.*

For work funded under Agreement 14PB3 Task 3.1., The City executed Work Order 40, which listed 10 tasks relating to survey, pre-construction monitoring, construction observation, sediment sampling, beach profile survey, physical monitoring, biological monitoring post construction, and physical monitoring for the third year post construction of the 2010 project. We were unable to verify whether the Program provided the City approval for Work Order 40.

Agreement 14PB3 Task 3.3 budget of \$434,167 was consistent with the total amount listed for the City's Work Order 40; however, activities described under Work Order 40 were not consistent with the Task 3.3 deliverable description and requirement. The City's Work Order 40 included Subtask 10, *Physical Monitoring Report – Third Year Post Construction for the 2010 Project*, at a cost of \$29,248. The referenced 2010 project was the North Boca Raton Beach Nourishment Project conducted from January through March 2010, as funded under Agreement 10PB4. Work Order 40 Task 10 was not part of the Agreement 14PB3 Task 3.3 *Construction Observation* deliverable description. The related Agreement 10PB4 as amended required third year post construction biological surveys and reporting for the 2010 project in Task 4.3, but it did not require physical monitoring for the third year post construction monitoring for the 2010 Project. The *Physical Monitoring Report – Third Year Post Construction for the 2010 Project*

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was included in the reimbursement request under Agreement 14PB3 Task 3.3 *Construction Observation*, for which the Department's share included reimbursement of \$13,161.60⁴.

Agreement Monitoring Tasks

During the course of this review, we compared monitoring activities tasked under Agreements 10PB4 and 14PB3. Agreement 10PB4 Grant Work Plan included the first, second, and third year post construction monitoring events associated with the second North Boca Raton Beach Nourishment Project conducted from January through March 2010. Agreement 14PB3 Grant Work Plan included funding for construction activities, as well as subsequent monitoring related to the 2013/2014 federal North Boca Raton Storm Repair Project.

Based on our review of the monitoring tasks, both agreements included tasked funding for first year post construction monitoring events associated with the 2013/2014 federal North Boca Raton Storm Repair Project.

- Agreement 14PB3 Task 4.1 *Year One Physical Monitoring* included the following description:

Submittal of topographic and bathymetric survey data for the 2013/2014 North Boca Raton beach project in Department approved format per remit requirements (JCP #0261499). Submittal of final report with the analysis of the survey data. Sand placement and construction activities were completed in December, 2014. Surveys for the first year post-construction monitoring will be required in the summer season of

⁴ The amount of Department reimbursement for Task 10 of \$13,161.60 is \$29,248 X 50%, less 10% retainage.

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2016. The task share amount given is a partial reimbursement due to a state appropriation shortfall. Additional funds can be amended to reimburse costs in full. Agreement 14PB3 Task 4.1 deliverable was, *submittal of the Year One Physical Monitoring (2016) survey data and final report per JCP 0261499 requirements.* The deliverable due date was November 16, 2016, with Department funding of \$9,760.50.

- Agreement 10PB4 Task 4.4 *Year One Storm Repair Monitoring* included the following description:

First year post construction monitoring (2015) for the federal storm repair construction event scheduled for winter 2013/2014. The work will include all permit-required tasks associated with Biological Monitoring Final Report; Beach Profile and Borrow Area Survey Letter Report; Physical Monitoring Final Report; XYZ data file; and Certified Drawings showing survey data, beach profiles, and borrow area bathymetric contours. Agreement 10PB4 Task 4.4 deliverable included, *Year One Storm Repair Monitoring (2015) to include biological monitoring; beach profile and borrow area surveys; and physical monitoring report.* The deliverable due date was November 30, 2016, with Department funding of \$72,500.

The above tasks, outlined in separate agreements, included overlapping descriptions, deliverables, and funding for the first year post construction monitoring activities as associated with the 2013/2014 federal North Boca Raton Storm Repair Project. By including overlapping activities under separate agreements, Program funds are at risk of duplication and authorized monitoring activities are not accomplished or tracked under the correct project agreement.

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Recommendation:

We recommend the Program take the following steps regarding agreement management and oversight:

- Seek reimbursement, in the amount of \$13,161.60, for payment made under Task 3.3 *Construction Observation* for the Department's funding of unrelated activity included in Work Order 40 Task 10 Physical Monitoring Report – Third Year Post Construction (2010 Project).
- Going forward, the Program should ensure payments are authorized solely for activities outlined within the task description and required in task deliverables. Tasks should clearly state the appropriate Scope of Work and activities required.
- In accordance with the Agreement, detailed scopes of work required to be developed by local sponsors should be reviewed for consistency with Agreement tasks and approved prior to initiating work as required by the agreement. Documentation of this approval should be maintained in the Agreement file.
- Both Agreements 10PB4 and 14PB3 should be amended to correct the task monitoring activities so that funding and oversight of monitoring activities corresponds to the Agreement with the associated beach nourishment event.

Finding 3 - Task 3.3 Deliverable

Agreement 14PB3 Task 3.3 Deliverable A required a *Certification of Completion by a registered professional engineer for construction-phase observation and monitoring for the 2013/2014 federal North Boca Raton Storm Repair project*. The billing submittal for Task 3.3

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included Certification of Completion on the Agreement's Attachment G form; however, it was not signed by a registered professional engineer, but was signed by the City's Project Manager, who is not a registered professional engineer.

Recommendation:

We recommend the Program obtain a Certification of Completion from a registered professional engineer, as required by the Agreement. Going forward, required certifications should be reviewed to ensure they are signed by registered professional engineers, prior to payment.

To promote accountability, integrity, and efficiency in state government, the OIG completes audits and reviews of agency programs, activities, and functions. Our review was conducted under the authority of section 20.055, F.S., and in conformance with the International Standards for the Professional Practice of Internal Auditing, published by the Institute of Internal Auditors, and Principles and Standards for Offices of Inspector General, published by the Association of Inspectors General. The review was conducted by Kim Vickery and supervised by Valerie J. Peacock.

Please address inquiries regarding this report to the OIG's Audit Director by telephone at (850) 245-3151. Copies of final reports may be viewed and downloaded via the internet at <http://www.dep.state.fl.us/ig/reports.htm>. Copies may also be obtained by telephone (850) 245-3151, by fax (850)245-2994, in person or by mail at Department of Environmental Protection, Office of Inspector General, 3900 Commonwealth Boulevard, Mail Station #41, Tallahassee, FL 32399.

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Division Response

Finding 1 – Advance Payment for Non-Federal Share of Project Cost

Division Response

The City of Boca Raton and the US Army Corp of Engineers completed the final reconciliation for the project, and funds were reimbursed to the State. Funds were received within 60 days of federal reconciliation in compliance with paragraph 12C of the agreement.

The Division has established processes to follow up with the US Army Corp of Engineers and local sponsors on final cost reconciliations when project funds are provided in advance and based on project estimates.

Finding 2 - Reimbursement of Activities Outside of Task Description and Activities

Associated with Separate Agreements

Division Response

The Division issued a change order to Agreement 14PB3 to move The City's Work Order 40 Task 10- "Physical Monitoring Report – Third Year Post Construction (2010 Project)" from Task 3.3 to the appropriate Task 4.0 for post-construction monitoring. The task was satisfactorily completed, according to the scope of work and the permit requirements, and is eligible for reimbursement.

The Division's procedure is to send approval for scopes of work to local sponsors prior to initiating work. For this review, the approval form was in the file, but documentation showing the approval sent to the City could not be located. The Division agrees that this procedure will be performed and documented going forward.

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Regarding the recommendation to amend the two agreements, the Division expressed interest in preserving flexibility regarding the number and duration of open agreements and subsequent amendments. Going forward, the Division will work to structure agreements in a manner that coordinates funding for monitoring activities with corresponding nourishment event projects.

OIG Comment Regarding Division Response to Finding 2:

It is understood that the Division accepts the risk associated with not amending Agreements 10PB4 and 14PB3 to coordinate funding for monitoring activities associated with the 2010 and the 2013/2014 nourishment projects.

Finding 3 - Task 3.3 Deliverable

Division Response

The project completion certification was signed by a professional engineer from the US Army Corps of Engineers. The Division issued a change order to Agreement 14PB3 to clarify the deliverable for Task 3.3.