

Meeting Date
September 16, 2014



AGENDA	
Section	New Business
Item No.	V.A.2

AGENDA REPORT
BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

SUBJECT:	Indian River Lagoon Oyster Restoration Project Fiscal Impact: Acceptance of \$410,000 in State Legislature Appropriated Funds
DEPT/OFFICE:	Natural Resources Management Department (NRM)

Requested Action:

It is requested that the Board: 1) authorize the Chairman to execute a grant agreement scope substantially in the form of Attachment A, and any subsequent amendments, as necessary, between Brevard County and the State of Florida, with County Attorney and Risk Management approval, to accept State funds for this project; 2) waive legal venue in Brevard County, as the current agreement indicates legal venue in Leon County; 3) authorize the County Manager or designee to execute task orders, contracts, agreements and change orders, as required to implement the work approved under this State Contract, including commitments in excess of \$100,000; and 4) authorize any necessary budget change requests.

Summary Explanation & Background:

In Brevard County's portion of the Indian River Lagoon (IRL), record setting algal blooms have caused the loss of over 40,000 acres of seagrass, and the unusual mortality of 100's of manatees, dolphins, and pelicans. Brevard County has embarked on an aggressive restoration strategy for the Lagoon to **Reduce** excess nutrient inputs, **Remove** the legacy load of muck, **Restore** the filtration system (oysters, clams and wetlands) and ensure the sound **Research** is the basis of the effort. As part of this comprehensive strategy, oyster reef restoration contributes to restoring natural filtration of major pollutants from the waters of the Lagoon.

This project focuses upon restoration and evaluation of oyster reefs in the Indian River Lagoon. Oysters are effective filter feeders that clarify the water column at rates of up to 50 gallons of water filtered per day per oyster. Oyster reefs provide wave breaks that slow erosion, provide habitat for many commercially and recreationally important species, and create an environment that removes polluting nitrates from the water column and releases inert nitrogen gas to the atmosphere. Via filtration and denitrification, oyster ecosystems can significantly improve IRL water quality and water clarity. Thus, this project seeks to reduce pollutants, algal blooms and turbidity; pilot at least three scientifically-based oyster restoration techniques; quantify the nitrogen sequestration and removal rates of restored oyster reefs in Mosquito Lagoon; continue to implement a community-based program to propagate oysters at 1,000 sites throughout the County by engaging citizens in proven Oyster Gardening practices; and provide a proof of concept for developing a long-term, self-sustaining oyster restoration program to engage non-profit partners, fishermen and the general public in hands-on, community-based restoration.

This project will be implemented through an existing consortium of experts which includes Brevard County, the Brevard Zoo, the Marine Resources Council, the University of Central Florida and the University of Nevada. If this item is approved, the County Manager will execute a partnership contract with these entities.

Funds for this project were provided in the FY 14-15 General Appropriations Act under Line Item 1668A and are in addition to \$10M provided separately by the Legislature for County-wide muck dredging.

Fiscal Impact: FY 14-15 Addition of \$410,000 in State grant funds to the NRM budget
FY 15-16 Continuation of project funding

Name: Ernest Brown or Virginia Barker, NRM, 633-2016

Clerk to the Board Instructions: Originals will be provided for execution upon final County Attorney review

Exhibits Attached: **Attachment A:** Draft of State of Florida Grant Agreement and Scope of Work

Contract /Agreement (If attached):		Reviewed by County	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	PR	<input type="checkbox"/>
County Manager	Assistant County Manager	Department Director / Extension						
Stockton Whitten	Mel Scott	Ernest N. Brown/52439						



Tammy Etheridge, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001
Fax: (321) 264-6972

September 17, 2014

M E M O R A N D U M

TO: Ernest Brown, Natural Resources Management Director

RE: Item V.A.2., Indian River Lagoon Oyster Restoration Project

The Board of County Commissioners, in regular session on September 16, 2014, authorized the Chairman to execute a grant agreement scope substantially in the form of the Draft of State of Florida Grant Agreement, and any subsequent amendments, as necessary, between Brevard County and the State of Florida, with County Attorney and Risk Management approval, to accept State funds for this Project; waived legal venue in Brevard County, as the current agreement indicates legal venue in Leon County; authorized the County Manager, or his designee, to execute task orders, contracts, agreements, and change orders, as required to implement the work approved under this State Contract, including commitments in excess of \$100,000; and authorized any budget change requests.

Your continued cooperation is greatly appreciated.

Sincerely yours,

BOARD OF COUNTY COMMISSIONERS
SCOTT ELLIS, CLERK

Tammy Etheridge, Deputy Clerk

cc: Finance
Budget

INDIAN RIVER LAGOON OYSTER RESTORATION PROJECT

MEMORANDUM OF AGREEMENT

BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

BREVARD ZOO

UNIVERSITY OF CENTRAL FLORIDA

AND

**BOARD OF REGENTS OF THE NEVADA SYSTEM OF HIGHER EDUCATION ON
BEHALF OF THE DESERT RESEARCH INSTITUTE**

This Memorandum of Agreement (the "Agreement") is entered into as of the last date of signature below (the "Effective Date") by and between Brevard County Board of County Commissioners, whose address is 2725 Judge Fran Jamieson Way, A-219, Viera, Florida 32940 (hereinafter referred to as "BREVARD COUNTY"), East Coast Zoological Society of Florida whose address is 8225 North Wickham Road, Viera, Florida 32940 (doing business as and hereafter referred to as "BREVARD ZOO"), the University of Central Florida, by and on behalf of its Board of Trustees, with an address of 12201 Research Pkwy, Suite 501, Orlando, FL 32826 (hereinafter referred to as "UCF"), and the Board of Regents of the Nevada System of Higher Education on behalf of the Desert Research Institute, whose address is 2215 Raggio Parkway, Reno, Nevada 89512 (hereinafter referred to as "DRI").

WITNESSETH

WHEREAS, BREVARD ZOO, in furtherance of its local conservation mission, has knowledge, experience and expertise in public engagement in oyster restoration projects of interest to BREVARD COUNTY; and

WHEREAS, UCF, in furtherance of its education and research mission, has knowledge, experience and expertise in research, reef restoration and recruitment of oysters in the Indian River Lagoon of interest to BREVARD COUNTY; and

WHEREAS, DRI, in furtherance of its education and research mission, has knowledge, experience, specialized equipment, and expertise in measuring denitrification processes in substrates within BREVARD COUNTY; and

WHEREAS, BREVARD COUNTY is desirous of engaging BREVARD ZOO, UCF, and DRI as a team to provide services as described in specific, separate Task Orders.

NOW THEREFORE, in consideration of the above recitals and of the mutual promises and other good and valuable consideration set forth below, these parties intending to be bound, agree in advance as follows to the general terms and conditions that will be a part of each Task Order, which outlines each specific task, the included parties, cost per task, and expected timeline, issued under this Agreement.

1. STATEMENT OF WORK

Task 1: Oyster Gardening – Brevard Zoo will engage the Brevard County community in a citizen-based oyster propagation program to raise juvenile oysters to populate pilot oyster reef sites in the Indian River and the Banana River. In total, approximately 1000 community participants will grow 1000 seed oysters each in hanging oyster gardens under their private docks. This program will stock the hanging gardens of approximately 1000 citizen scientists with 1,000,000 spat in order to raise young adult oysters to populate portions of the pilot reefs.

Deliverables:

- Brevard Zoo will conduct a kickoff workshop with participants representing at least 20 shoreline locations in the Indian River Lagoon.
- Brevard Zoo will conduct workshops to train and maintain a total of approximately 1000 oyster gardeners, with those incorporated from previous year into total.
- Brevard Zoo will purchase spat on shell and distribute about 1000 spat each to approximately 1000 total trained oyster gardeners.
- Brevard Zoo will coordinate oyster gardener engagement in the care and propagation of oysters through September 2015. This will include multiple spat distribution cycles with several months of oyster monitoring and habitat maintenance per distribution, as needed to produce 1.5” or larger oysters.
- Brevard Zoo will provide quarterly draft and final reports summarizing oyster propagation success (survival and growth) and provide evidence of volunteer gardener participation (copies of FWC permits for participants, workshop registrations and sign-in sheets, presentations, and handouts) per the reporting schedule and requirements of DEP Grant Agreement NO S0763.
- Brevard Zoo will submit quarterly invoices for a lump sum reimbursement for costs associated with the oyster gardening project.
- Brevard Zoo will circulate the draft report to the project partners herein and to DEP for review and comment prior to preparation of the final report.

Timeline for completion: July 2014 – September 2015

Contractual: \$150,000 for oyster gardening program and volunteer coordination services, including spat aquaculture and all gardening supplies.

Task 2: Denitrification Measurement – The Desert Research Institute (DRI) will measure the denitrification rate of restored oyster reefs in Mosquito Lagoon, Florida. This project will establish experimental plots and control areas at multiple restored reefs of different maturity in the Volusia County section of Mosquito Lagoon, where community-based oyster reef restoration has been underway since 2007. Within each experimental plot, seasonal measurements of nitrogen and phosphorus will be measured for one year to estimate annual nutrient removal. Nutrient removal will be compared between the control and each differently aged restoration reef. The cost of oyster reef restoration per pound of nitrogen or phosphorus removed will be compared to the typical cost per pound of nitrogen or phosphorus removed by a suite of common stormwater treatment best management practices.

Deliverables:

- DRI will coordinate with UCF and Brevard Zoo to select restored oyster reef sites of sufficient size and orientation to accommodate a scientific analysis of phosphorus sequestration and denitrification rates.
- DRI will plot a map of the selected denitrification monitoring sites.
- DRI will collect seasonal measurements with field assistance from UCF.
- Denitrification rates will be quantified by DRI within UCF facilities.
- DRI will report seasonal measurement data for denitrification rates at the selected reef and control sites.
- DRI will provide draft and final sediment and water quality reports documenting phosphorus sequestration and denitrification rates at restored reefs compared to control sites. The final report will include calculation of nutrient removal efficiencies and compare cost effectiveness to common stormwater best management practices for nutrient removal.
- DRI will circulate the draft report to the project partners herein and to DEP for review and comment prior to preparation of the final report.

Timeline for completion: July 2014 – Sept 2016

Contractual: Up to \$87,235 for denitrification and sequestration measurements, water quality monitoring, testing, analysis and reporting.

Task 3: Site Suitability Analysis – Successful oyster restoration requires a consideration of biological, environmental, hydrological, and physical parameters. Brevard County will conduct a site suitability analysis for identifying the best areas of the IRL for successful re-introduction of oyster reef ecosystems. A seventeen-year (1996-2013) water quality database will be reviewed to select sites with suitable conditions and to avoid factors that could negatively impact oyster populations. The site suitability analysis will be used to select three best sites for pilot projects.

Deliverables:

- Brevard County will conduct a site suitability analysis, review preliminary results with the project partners, conduct site visits and coordinate final site selection.
- Brevard County will plot a map of the pilot reef sites selected by the partners.

Timeline for completion: July 2014 – Oct 2014

Task 4: Permitting – Brevard County will prepare and submit permit applications to the DEP and ACOE for constructing pilot oyster reefs at the three sites selected in Task 3. Brevard County will provide draft and final design plans and specifications; as well as final DEP and ACOE permits for the team.

Deliverables:

- Brevard County will provide draft design documents.
- Brevard County will circulate draft design documents with the project partners herein for review and comment prior to final design.
- Brevard County will prepare complete permit applications and submit to the appropriate permitting agencies.
- Brevard County will secure necessary permits to construct pilot reefs at the selected sites.

- Brevard County will prepare as-built drawings of the completed pilot reefs, as required for permit compliance.

Timeline for completion: Sept 2014 – March 2015

Task 5: Oyster Reef Construction – Brevard Zoo shall coordinate and oversee the construction of pilot reefs at the three selected sites. Construction shall be timed to coincide with peak oyster larva recruitment cycles (spring/summer months). At least two methods of direct stocking will be conducted at each pilot reef and compared to natural recruitment. Brevard County shall prepare final as-built surveys.

Deliverables:

- Brevard Zoo will purchase or provide all oyster reef construction materials.
- Brevard Zoo will coordinate volunteers to complete construction of the pilot reefs in accordance with the permitted designs and specifications.
- Brevard Zoo will coordinate at least two methods of direct stocking at each pilot reef in accordance with the permitted designs and specifications.
- Brevard Zoo will ensure that each treatment is constructed and replicated as required to accommodate UCF's plan for evaluating treatment success.
- Brevard Zoo will photo-document completed construction for DEP.

Timeline for completion: Feb 2015 – June 2015

Contractual: \$67,000 for construction materials and volunteer coordination.

Task 6: Restored Reef Monitoring and Reporting –UCF shall monitor the three restored sites in Brevard County for at least a full year to track the survival and ecological function of each newly created oyster reef. Costs versus benefits, growth rates, and percent survival for each stocking method will be measured to determine the best method for long-term oyster restoration in Brevard County. UCF will provide quarterly reports, draft and final reports summarizing oyster survival and ecological function; resulting costs versus benefits, growth rates, and percent survival for each stocking method; and determination of the best method for long-term oyster restoration in Brevard County.

Deliverables:

- UCF will coordinate with Brevard County and Brevard Zoo on reef siting – taking into consideration pertinent biological, environmental, hydrological, and physical parameters.
- UCF will review and modify Brevard County proposals for reef design and specifications to ensure that the pilot reefs will accommodate UCF's scientific analysis of differing oyster recruitment and survival rates per treatment and site.
- UCF will develop a plan for evaluating the relative success of multiple oyster treatments (including seeding and natural recruitment) at each pilot reef site.
- UCF will conduct seasonal monitoring for a full year post-construction to evaluate each treatment type at each pilot reef site, incorporated within the timeline for completion of Task 6.
- UCF will provide field assistance to DRI for collecting seasonal measurements.
- UCF will provide an accessible facility for DRI to set up and operate equipment for quantifying denitrification rates.

- UCF will prepare quarterly, draft and final biological monitoring reports on the success of respective reef stocking treatments.
- UCF will circulate the draft report to the project partners herein and to DEP for review and comment prior to preparation of the final report.

Timeline for completion: July 2015 – Nov 2016

Contractual: \$100,929 for biological monitoring, testing, analysis and reporting.

2. PERIOD OF PERFORMANCE

This Agreement shall begin upon the Effective Date and shall remain in effect for a period of two (2) years, unless otherwise amended.

3. CONSIDERATION AND PAYMENT

- BREVARD COUNTY hereby agrees to pay to Brevard Zoo \$150,000.00 on a fixed price basis of \$37,500 at the end of each quarter to perform the services associated with Task 1, contained herein, the “Brevard County Oyster Gardening Project” as specifically appropriated by the Florida State Legislature and contracted in DEP Grant Agreement NO S0763.
- BREVARD COUNTY hereby agrees to pay to Brevard Zoo \$67,000.00 on a fixed price basis of \$16,750 at the end of each quarter to perform the services associated with Task 5, contained herein, the “Brevard County Pilot Oyster Reef Construction Project” as specifically appropriated by the Florida State Legislature and contracted in DEP Grant Agreement NO S0763.
- BREVARD COUNTY hereby agrees to pay to UCF \$100,929.00 for Task 6, contained herein, on a fixed price basis of \$8410.75 at the end of each month to perform the services associated with the “Brevard County Pilot Oyster Reef Monitoring Project” as specifically appropriated by the Florida State Legislature and contracted in DEP Grant Agreement NO S0763.
- BREVARD COUNTY hereby agrees to pay to DRI \$87,235.00 on a fixed price basis of \$7270 at the end of each month to perform the services associated with Task 2, contained herein, the “Brevard County Pilot Oyster Reef Denitrification Project” as specifically appropriated by the Florida State Legislature and contracted in DEP Grant Agreement NO S0763.
- Brevard Zoo, UCF, and DRI shall submit invoices in accordance with the compensation guidelines / payment schedule as set forth below to the following address:

BREVARD COUNTY
 Natural Resources Management Department
 2725 Judge Jamieson Way, Bldg A, Suite 219
 Viera, FL 32940
 Attn: Virginia Barker

- BREVARD COUNTY shall send payment of the invoice amounts to the appropriate service provider within 30 days of receipt of a complete invoice.

4. PERFORMANCE

Brevard Zoo, UCF and DRI will provide diligent efforts in performing the services under this Agreement and services will be rendered at a level commensurate with professional standards acceptable in the discipline and within the scope of the project to the satisfaction of BREVARD COUNTY and the DEP.

5. REPORTS

Brevard Zoo, UCF and DRI shall prepare and submit to BREVARD COUNTY all necessary technical information as reasonably required by BREVARD COUNTY in the performance of their respective portions of the Agreement, consistent with DEP Grant Agreement NO. S0763.

7. SUBAGREEMENTS

Brevard Zoo, UCF, and DRI shall not sublet, assign or transfer any work under this Agreement without the written consent of BREVARD COUNTY. If applicable, and upon receipt of such consent in writing, the names of the firms responsible for such sublet, assigned, or transferred portions of the work shall appear on the Invoices for Services performed.

8. EQUIPMENT

Brevard Zoo, UCF, and DRI shall each request prior approval from BREVARD COUNTY before the purchase of any non-expendable equipment costing \$1,000 or more for use under this Agreement. Upon satisfactory completion of its respective portion of this Agreement, Brevard Zoo, UCF or DRI shall retain ownership of its respective non-expendable equipment purchased under this agreement, consistent with the DEP Grant Agreement No. S0763.

9. SUBORDINATION

This Memorandum of Agreement is subordinate to the Grant Agreement between BREVARD COUNTY and the Florida Department of the Environment (DEP) Agreement No. S0763, attached hereto, and nothing in this Agreement shall conflict with or otherwise contravene the intent of the provisions of the DEP Grant Agreement.

10. TERMINATION

This Agreement and the performance of all work under this Agreement may be terminated by any party with three (3) months written notice to all other parties. BREVARD COUNTY will pay all reasonable allowable costs associated with this Agreement up to the date of termination, including any non-cancellable obligations.

11. FORCE MAJEURE

(a) No party shall be liable for any delays in or failure of performance due to strike, riot, fire, storm, and explosion, War, act of God, governmental action,

embargo, epidemic or any other cause beyond the reasonable control of such party. The Party affected shall promptly notify the other in writing of the nature, cause, date of commencement thereof, the anticipated extent of such delay and whether it is anticipated that any completion dates will be affected thereby.

- (b) In the event of any delay resulting from such causes and provided the affected party has promptly notified the other and exercised due diligence as provided in Section 10 (a), the time of performance of each of the Parties hereunder (including payment of monies) shall be extended for a time period equal the period of such delay.

12. AUDIT

Each respective party agrees to keep full, clear and accurate books and records. Within 30 days following written request by BREVARD COUNTY, all affected parties shall make available for inspection and/or audit any and all records related to its performance under this Agreement. Said records are subject to inspection and audit, at the sole expense of BREVARD COUNTY, by representatives of BREVARD COUNTY and the Comptroller General of the United States during reasonable business hours throughout the term of this Agreement and for the five (5) years immediately following BREVARD COUNTY'S final payment to each respective party under this Agreement. In the event an audit is initiated by BREVARD COUNTY during the five (5) years following the BREVARD COUNTY'S final payment, Brevard Zoo, UCF and DRI agree to retain any and all records associated with this Agreement until such time as any disputes arising therefrom are resolved. If any provision of this section is inconsistent with BREVARD COUNTY or DEP audit requirements, the more stringent shall prevail.

13. INDEMNITY

- (a) To the extent permitted by Florida law, BREVARD COUNTY agrees to indemnify, hold harmless and defend Brevard Zoo, UCF and DRI and its respective directors, officers, employees and agents against any and all claims for death, illness, personal injury, property damage, and improper business practices arising from the negligence or misconduct of BREVARD COUNTY or its employees or agents in connection with the performance of this Agreement. To the extent permitted by Florida law, Brevard Zoo agrees to indemnify, hold harmless and defend BREVARD COUNTY and its respective trustees, officers, employees and agents against any and all claims for death, illness, personal injury, property damage, and improper business practices arising from the negligence or misconduct of their respective staff, students or agents in connection with the performance of this Agreement. UCF assumes any and all risks of personal injury and property damage attributable to the negligent acts or omissions of UCF and its officers, employees, servants, and agents thereof while acting within the scope of their employment by UCF. The Parties further agree that nothing contained herein shall be construed or interpreted as (1) denying to any party any remedy or defense available to such party under the laws of the State of Florida, (2) the consent of the State of Florida or its agents or agencies to be sued, or (3) a waiver of sovereign

immunity of the State of Florida beyond the waiver provided in Section 768.28, Florida Statutes. To the extent permitted by Nevada law, DRI agrees to indemnify, hold harmless and defend BREVARD COUNTY and its respective trustees, officers, employees and agents against any and all claims for death, illness, personal injury, property damage, and improper business practices arising from the negligence or misconduct of their respective staff, students or agents in connection with the performance of this Agreement.

- (b) No Party shall be liable to any other Party for any special, indirect, incidental or, consequential damages, however caused and whether grounded in tort (including negligence), or any other theory of liability, even if such other Party has been advised of the possibility of such damages.
- (b) All Parties shall at all times comply, through insurance or self-insurance, with all statutory workers' compensation and employers' liability requirements covering any and all employees with respect to activities performed under this Agreement.
- (d) BREVARD COUNTY agrees to assume any and all liabilities and claims that may be incurred by BREVARD COUNTY in commercial ventures conducted by BREVARD COUNTY in connection with this Agreement; provided such liabilities and claims are not the result of the negligence or willful misconduct of Brevard Zoo, UCF or DRI or their respective employees, students or agents.

14. WARRANTY

Other than to complete the Agreement in accordance with any statements of work, Brevard Zoo, UCF and DRI make no warranty, express, implied or otherwise, with respect to use, operation, effectiveness or fitness for any particular purpose of its services performed under this Agreement or their results or that any research deliverables or intellectual property developed by a party will not infringe any third party patent, copyright, trademark, or other third party rights. The parties make no representation as to the usefulness of research deliverables or intellectual property. If any party chooses to exploit research deliverables or intellectual property in any manner whatsoever, it does so at its own risk.

15. INDEPENDENT CONTRACTOR

BREVARD COUNTY contracts for the services of Brevard Zoo, UCF and DRI as independent contractors and not as an employees. Nothing herein shall be construed to create a partnership, joint venture or agency relationship between the parties. No party shall have the authority to enter into any agreements of any kind on behalf of another, or to bind or obligate one another to any third party.

16. PUBLICATIONS

BREVARD COUNTY recognizes that research results should be publishable and agrees that the researchers engaged in activities under this Agreement shall be permitted to present at symposia, national or regional professional meetings, and

to publish in journals, theses or dissertations, or otherwise of their own choosing, methods and results of such services, provided that such publication or dissemination will not compromise patent rights of other parties, or inadvertently divulge proprietary information of other parties. BREVARD COUNTY reserves the right to review any publications or presentations for patent rights or proprietary information.

17. PUBLICITY

No party shall make reference to another party in any advertising or publicity matter without prior written approval of the other party.

18. CONTRACTOR REPRESENTATIVES

The following serve as the representatives of each party in the areas indicated:

Brevard Zoo:

TECHNICAL MATTERS:

Sammy Anderson
Lagoon Restoration
Brevard Zoo
8225 North Wickham Road
Melbourne, FL 32940
Office: 321.254.9453 Ext. 284
Cell: 321.506.2546
Email SAnderson@brevardzoo.org

ADMINISTRATIVE MATTERS:

Nancy T. Grzesik
Chief Operating/Financial Officer
Brevard Zoo
8225 North Wickham Road
Melbourne, FL 32940
321-254-9453 ext. 216
ngrzesik@brevardzoo.org

University of Central Florida:

TECHNICAL MATTERS:

Dr. Linda Walters
Dept. of Biology
4110 Libra Drive
Orlando, FL 32816-2368
Phone (407) 823-2148
Email Linda.Walters@ucf.edu

ADMINISTRATIVE MATTERS:

Mrs. Jennifer Parker
Research & Commercialization
12201 Research Pkwy, Ste 501
Orlando, FL 32826-3246
(407) 823-4371
Jennifer.Parker@ucf.edu

Desert Research Institute:

TECHNICAL MATTERS:

Casey Schmidt
Desert Research Institute
2215 Raggio Parkway,
Reno, NV 89512
Phone (775) 673-7464
[Email Casey.Schmidt@dri.edu](mailto:Casey.Schmidt@dri.edu)

ADMINISTRATIVE MATTERS:

Yvonne Rumbaugh
Desert Research Institute
2215 Raggio Parkway,
Reno, NV 89512
(775) 673-7366
Yvonne.Rumbaugh@dri.edu

Brevard County:

TECHNICAL MATTERS:

Virginia Barker
Natural Resources Management
2725 Judge Jamieson Way,
Bldg A, Suite 219
Viera, FL 32940
(321) 633-2016
virginia.barker@brevardcounty.us

ADMINISTRATIVE MATTERS:

Paul Bessler
Natural Resources Management
2725 Judge Jamieson Way,
Bldg A, Suite 219
Viera, FL 32940
(321) 633-2016
Paul.Bessler@brevardcounty.us

19. REGULATORY COMPLIANCE AND GOVERNING LAW

This Agreement, and any disputes arising under it, shall be governed by and construed in accordance with the laws of the State of Florida. Where a dispute arises from a conflict between any party's execution of this agreement and the provisions set forth in DEP Grant Agreement NO. S0763, each party shall be responsible for addressing the resolution of the conflict to the satisfaction of BREVARD COUNTY and in accordance with the resolutions provisions of DEP Contract NO S0763.

20. SEVERABILITY AND SURVIVABILITY

The illegality or unenforceability of the whole or any part of the provisions of this Agreement will not affect the continued operation of the remaining provisions. The provisions of Sections 8, 9, 10, 13, 14, 16, 17, and 19 shall survive the termination of this Agreement for a period of five (5) years.

21. ENTIRE AGREEMENT

This Agreement represents the entire understanding of BREVARD COUNTY, Brevard Zoo, UCF and DRI, and may only be modified in writing and duly executed by all parties.

THE UNDERSIGNED BY THEIR AUTHORIZED AGENTS HAVE EXECUTED THIS AGREEMENT AS OF THE DATE FIRST WRITTEN BELOW.

-Signature Page Follows-

BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

By: 

Name: Stockton Whitten

Title: County Manager

Date: As approved by the Board on September 16, 2014

EAST COAST ZOOLOGICAL SOCIETY (DBA BREVARD ZOO)

By: 

Name: Keith Winsten

Title: Executive Director

Date: 12/3/14

UNIVERSITY OF CENTRAL FLORIDA, by and on behalf of its Board of Trustees

By: 

Name: Tamara E. Gabrus

Title: Sr. Proposal mgr.

Date: 11/5/15

**BOARD OF REGENTS OF THE NEVADA SYSTEM OF HIGHER EDUCATION
on behalf of the Desert Research Institute**

By: 

Name: Jenny Frayer

Title: Director of Sponsored Projects and Compliance

Date: 12/12/14

410STATE FINANCIAL ASSISTANCE

AGREEMENT DEP AGREEMENT NO. TBD

**STATE OF FLORIDA
GRANT ASSISTANCE
PURSUANT TO LINE ITEM 1668A OF THE 2014-2015
GENERAL APPROPRIATIONS ACT
INDIAN RIVER LAGOON OYSTER RESTORATION PROJECT**

THIS AGREEMENT is entered into between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, whose address is 2600 Blair Stone Road, MS 3554, Tallahassee, Florida, 32399-2400 (hereinafter referred to as the "Department") and BREVARD COUNTY, whose address is 2725 Judge Fran Jamieson Way, Viera, Florida (hereinafter referred to as "Grantee"), a local government under the laws of the State of Florida, to provide funds for the Indian River Lagoon Oyster Restoration Project. Collectively, the Department and the Grantee shall be referred to as "Parties" or individually as a "Party."

In consideration of the mutual benefits to be derived from this Agreement, the Department and the Grantee do hereby agree as follows:

1. The Grantee does hereby agree to perform in accordance with the terms and conditions set forth in this Agreement, **Attachment A** (Project Work Plan), and all attachments and exhibits named and attached hereto, which are incorporated by reference.

2. This Agreement shall be effective on July 1, 2014, and shall end no later than March 30, 2017, inclusive. The Grantee shall be eligible for reimbursement for work performed on or after the effective date through the expiration date of this Agreement. This Agreement may be amended to provide for additional services if additional funding is made available by the Legislature.

3. A. As consideration for the services satisfactorily rendered by the Grantee under the terms of this Agreement, the Department shall pay the Grantee on a cost reimbursement basis an amount not to exceed \$410,000 toward the total estimated project cost of \$410,000. The parties hereto understand and agree that this Agreement does not require a match on the part of the Grantee. If the Grantee finds, after receipt of competitive bids, that the work described in **Attachment A** cannot be accomplished for the current estimated project cost, the parties hereto agree to modify the Project Work Plan described in **Attachment A**, by amendment of this Agreement, to provide for the work that can be accomplished for the funding identified above.

B. The Grantee shall request reimbursement for all eligible project costs upon receipt and acceptance of the deliverable(s) identified in **Attachment A**, utilizing a properly completed Disbursement Request Package (provided as **Attachment B**). All bills for amounts due under this Agreement shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof. A final Disbursement Request Package must be submitted to the Department no later than April 30, 2017, to assure the availability of funds for payment. The Disbursement Request Package must include:

- (1) A completed Disbursement Request Form submitted by the Grantee's Grant Manager. Such requests must be accompanied by sufficiently itemized summaries of the

materials, labor, or services to identify the nature of the work performed; the amount expended for such work; and the person providing the service or performing the work and proof of payment of the invoices; and,

(2) A certification signed by the Grantee's Grant Manager as to the current cost of the Project; that the materials, labor, or services represented by the invoice have been satisfactorily purchased or performed and applied to the project; that all funds expended to date have been applied toward completing the Project; and,

(3) If construction is included in **Attachment A**, a certification by the Engineer responsible for overseeing construction is necessary. The certification must state that equipment, materials, labor and services represented by the construction invoices have been satisfactorily invoiced, purchased, received, approved and applied to the Project, as described in the Project Work Plan (**Attachment A**), in accordance with construction contract documents; state that payment is in accordance with construction contract provisions; state that construction, up to the point of the request, is in compliance with the contract documents; and identify all additions or deletions to the Project which have altered the Project's performance standards, scope, or purpose since the issue of the Department construction permit; and,

(4) Such other certificates or documents by engineers, attorneys, accountants, contractors, or suppliers as may reasonably be required by the Department.

C. The State Chief Financial Officer requires detailed supporting documentation of all costs under a cost reimbursement agreement. In accordance with the **Attachment C, Contract Payment Requirements**, the Grantee shall comply with the minimum requirements set forth therein. The Disbursement Request Package Form in **Attachment B** shall be accompanied by supporting documentation and other requirements as follows:

(1) Salaries/Wages - The Grantee shall not be reimbursed for direct salaries or multipliers (i.e., fringe benefits, overhead, and/or general and administrative rates) for Grantee's employees.

(2) Contractual (Subcontractors) - Reimbursement requests for payments to subcontractors must be substantiated by copies of invoices with backup documentation identical to that required from the Grantee. Subcontracts which involve payments for direct salaries of the subcontractor's employees shall clearly identify the personnel involved, salary rate per hour, and hours/time spent on the project. All multipliers used (i.e. fringe benefits, overhead, and/or general and administrative rates) shall be supported by audit. If the Department determines that multipliers charged by any subcontractor exceeded the rates supported by audit, the Grantee shall be required to reimburse overpayments resulting from use of these excessive multipliers to the Department within thirty (30) days of written notification. Interest on the excessive charges shall be calculated based on the prevailing rate used by the State Board of Administration. For fixed price (vendor) subcontracts, the following provisions shall apply:

a. The Grantee may award, on a competitive basis, fixed price subcontracts to consultants/contractors in performing the work described in **Attachment A**. Invoices submitted to the Department for fixed price subcontracted activities shall be supported with a copy of the subcontractor's invoice and a copy of the

tabulation form for the competitive procurement process (Invitation to Bid or Request for Proposals) resulting in the fixed price subcontract.

b. The Grantee may request approval from the Department to award a fixed price subcontract resulting from procurement methods other than those identified in the paragraph above. In this instance, the Grantee shall request the advance written approval from the Department's Grant Manager of the fixed price negotiated by the Grantee. The letter of request shall be supported by a detailed budget and Scope of Services to be performed by the subcontractor. Upon receipt of the Department Grant Manager's approval of the fixed price amount, the Grantee may proceed in finalizing the fixed price subcontract.

c. All subcontracts are subject to the provisions of paragraph 12 and any other appropriate provisions of this Agreement which affect subcontracting activities.

(4) Travel –The Grantee will not be reimbursed for travel expenses under the terms and conditions of this Agreement.

(5) Equipment –The Grantee will not be reimbursed for the purchase of non-expendable equipment costing \$1,000 or more under the terms and conditions of this Agreement.

(6) Rental/Lease of Equipment – Include copies of invoices or receipts to document charges.

(7) Other Expenses – e.g., Materials, supplies, non-excluded phone expenses, reproduction, mailing, and other expenses must be documented by itemizing and including copies of receipts or invoices. Additionally, independent of the Grantee's contract obligations to the Subcontractor, the Department shall not reimburse any of the following types of charges: cell phone usage, attorney's fees, civil or administrative penalties, handling fees, such as set percent overages associated with purchasing supplies or equipment.

D. In addition to the invoicing requirements contained in paragraph 3.B. and 3.C. above, the Department will periodically request proof of a transaction (invoice, payroll register, etc.) to evaluate the appropriateness of costs to the Agreement pursuant to State and Federal guidelines (including cost allocation guidelines), as appropriate. This information when requested must be provided within thirty (30) calendar days of such request. The Grantee may also be required to submit a cost allocation plan to the Department in support of its multipliers (overhead, indirect, general administrative costs, and fringe benefits).

E. State guidelines for allowable costs can be found in the Department of Financial Services' Reference Guide for State Expenditures at <http://www.fldfs.com/aadir/reference%5Fguide>.

4. The State of Florida's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature. The Parties understand that this Agreement is not a commitment of future appropriations.

5. Progress Reports (**Attachment D**) shall be submitted quarterly describing the work performed, problems encountered, problem resolution, schedule updates and proposed work for the next reporting period. Reports shall be submitted to the Department's Grant Manager no later than twenty (20) days following the completion of the reporting period. It is hereby understood and agreed by the parties that the term "quarterly" shall reflect the calendar quarters ending March 31, June 30, September 30 and December 31. The Final Project Report shall be submitted no later than the completion date of the Agreement. The Department's Grant Manager shall have ten (10) calendar days to review the required reports and deliverables submitted by the Grantee.

- A. In accordance with Section **216.181(16)(b), Florida Statutes** the Department, upon written request from the Grantee and written approval from the Chief Financial Officer, may provide an advance to the Grantee. The Grantee must temporarily invest the advanced funds, and return any interest income to the Department, within thirty (30) days of each calendar quarter or apply said interest income against the Department's obligation to pay, if applicable, under this Agreement. Interest earned must be returned to the Department within the timeframe identified above or invoices must be received within the same timeframe that shows the offset of the interest earned.
 - B. Unused funds, and interest accrued on any unused portion of advanced funds which has not been remitted to the Department, shall be returned to the Department within sixty (60) days of Agreement completion.
 - C. The parties hereto acknowledge that the Chief Financial Officer may identify additional requirements which must be met in order for advance payment to be authorized. If additional requirements are imposed by the Chief Financial Officer, the Grantee shall be notified, in writing, by the Department's Grant Manager regarding the additional requirements. Prior to releasing any advanced funds, the Grantee shall be required to provide a written acknowledgement to the Department's Grant Manager of the Grantee's acceptance of the terms imposed by the Chief Financial Officer for release of the funds.
 - D. In accordance with Section 216.181(16)(b), Florida Statutes, the Department may, upon written request from the Grantee utilizing the **Advance Payment Justification Form** (attached hereto and made a part hereof as **Attachment F**) and written approval from the State's Chief Financial Officer, provide an advance payment to the Grantee. If advance payment is authorized, the Grantee shall report and document as required on the Advance Payment – Interest Earned Memorandum (attached hereto and made a part hereof as **Attachment E**) the amount of funds expended during the reporting period, the Agreement expenditures to date, interest earned during the quarter and clearly indicate the method for repayment of the interest to the Department.
6. Each Party agrees that it shall be solely responsible for the negligent or wrongful acts of its employees and agents. However, nothing contained herein shall constitute a waiver by either Party of its sovereign immunity or the provisions of representatives of the Grantee or subcontractor to the extent allowed by law.
7. A. The Department may terminate this Agreement at any time in the event of the failure of the Grantee to fulfill any of its obligations under this Agreement. Prior to termination, the Department shall provide thirty (30) calendar days written notice of its intent to terminate and

shall provide the Grantee an opportunity to consult with the Department regarding the reason(s) for termination.

B. The Department may terminate this Agreement for convenience by providing the Grantee with thirty (30) calendar days written notice.

8. No payment will be made for deliverables deemed unsatisfactory by the Department. If a deliverable is deemed unsatisfactory, the Grantee shall re-perform the services needed for submittal of a satisfactory deliverable, at no additional cost to the Department, within ten (10) days after notification that the deliverable was unsatisfactory. If a satisfactory deliverable is not submitted within the specified timeframe, the Department may, in its sole discretion, either: 1) terminate the Agreement for failure to perform, or 2) the Department Grant Manager may, by letter specifying the failure of performance under the Agreement, request that a proposed Corrective Action Plan (CAP) be submitted by the Grantee to the Department. All CAPs must be able to be implemented and performed in no more than sixty (60) days after approval by the Department.

A. A CAP shall be submitted within ten (10) business days of the date of the letter request from the Department. The CAP shall be sent to the Department Grant Manager for review and approval. Within ten (10) business days of receipt of a CAP, the Department shall notify the Grantee in writing whether the CAP proposed has been accepted. If the CAP is not accepted, the Grantee shall have ten (10) business days from receipt of the Department's letter rejecting the proposal to submit a revised proposed CAP. Failure to obtain the Department's approval of a CAP as specified above shall result in the Department's termination of this Agreement for cause as authorized in this Agreement.

B. Upon the Department's notice of acceptance of a proposed CAP, the Grantee shall have ten (10) calendar days to commence implementation of the accepted plan. Acceptance of the proposed CAP by the Department does not alter or amend the Grantee's obligations under this Agreement. If the CAP fails to correct or eliminate performance deficiencies by the Grantee, the Department shall retain the right to require additional or further remedial steps, or to terminate this Agreement for failure to perform. No actions approved by the Department or steps taken by the Grantee shall serve to condone, forgive or estop the Department from asserting subsequent deficiencies in performance. The Grantee shall continue to implement the CAP until all deficiencies are corrected. Reports on the progress of the CAP will be made to the Department as requested by the Department Grant Manager.

C. Failure to respond to the Department's request for a CAP or failure to correct a deficiency in the performance of the Grantee as specified by the Department may result in termination of this Agreement.

The remedies set forth above are not exclusive and the Department reserves the right to exercise other remedies in addition to or in lieu of those set forth above.

9. This Agreement may be unilaterally canceled by the Department for refusal by the Grantee to allow public access to all documents, papers, letters, or other material made or received by the Grantee in conjunction with this Agreement, unless the records are exempt pursuant to Section 24(a) of Article I of the State Constitution, Section 119.07(1), Florida Statutes, or other statute.

10. The Grantee shall maintain books, records and documents directly pertinent to performance under this Agreement in accordance with generally accepted accounting principles consistently applied. The Department, the State, or their authorized representatives shall have access to such records for audit purposes during the term of this Agreement and for five (5) years following Agreement completion. If any work is subcontracted, the Grantee shall similarly require each subcontractor to maintain and allow access to such records for audit purposes.

11. A. In addition to the requirements of the preceding paragraph, the Grantee shall comply with the applicable provisions contained in **Attachment G, Special Audit Requirements**, attached hereto and incorporated herein by reference. **Exhibit 1 to Attachment G** summarizes the funding sources supporting the Agreement for purposes of assisting the Grantee in complying with the requirements of **Attachment G**. A revised copy of **Exhibit 1** must be provided to the Grantee for each amendment which authorizes a funding increase or decrease. If the Grantee fails to receive a revised copy of **Exhibit 1**, the Grantee shall notify the Department's Grants Manager identified in paragraph 17 of this Agreement.

B. The Grantee is hereby advised that the Federal and/or Florida Single Audit Act Requirements may further apply to lower tier transactions that may be a result of this Agreement. The Grantee shall consider the type of financial assistance (federal and/or state) identified in **Attachment G, Exhibit 1** when making its determination. For federal financial assistance, the Grantee shall utilize the guidance provided under OMB Circular A-133, Subpart B, Section __.210 for determining whether the relationship represents that of a subrecipient or vendor. For state financial assistance, the Grantee shall utilize the form entitled "Checklist for Nonstate Organizations Recipient/Subrecipient vs. Vendor Determination" (form number DFS-A2-NS) that can be found under the "Links/Forms" section appearing at the following website:

<https://apps.fldfs.com/fsaa>

The Grantee should confer with its chief financial officer, audit director or contact the Department for assistance with questions pertaining to the applicability of these requirements.

12. The Grantee may subcontract, assign, or transfer any work under this Agreement without the written consent of the Department's Grant Manager, except as provided in paragraph 3.C.(3)b. Regardless of any subcontract, the Grantee is ultimately responsible for all work to be performed under this Agreement. The Grantee shall submit a copy of the executed subcontract to the Department within ten (10) business days after execution. The Grantee agrees to be responsible for the fulfillment of all work elements included in any subcontract and agrees to be responsible for the payment of all monies due under any subcontract. It is understood and agreed by the Grantee that the Department shall not be responsible to any subcontractor for any expenses or costs incurred under the subcontract and that the Grantee shall be solely responsible to the subcontractor for all expenses and costs incurred under the subcontract.

13. The Department of Environmental Protection supports diversity in its procurement program and requests that all subcontracting opportunities afforded by this Agreement embrace diversity enthusiastically. The award of subcontracts should reflect the full diversity of the citizens of the State of Florida. A list of minority owned firms that could be offered subcontracting opportunities may be obtained by contacting the Florida Department of Management Services, Office of Supplier Diversity, at (850) 487-0915.

14. In accordance with Section 216.347, Florida Statutes, the Grantee is hereby prohibited from using funds provided by this Agreement for the purpose of lobbying the Legislature, the judicial branch or a state agency.

15. The Grantee shall comply with all applicable federal, state and local rules and regulations in providing services to the Department under this Agreement. The Grantee acknowledges that this requirement includes, but is not limited to, compliance with all applicable federal, state and local health and safety rules and regulations. The Grantee further agrees to include this provision in all subcontracts issued as a result of this Agreement.

16. Any notices between the Parties shall be considered delivered when posted by Certified Mail, return receipt requested, overnight courier service, electronic mail (e-mail) or delivered in person to the Grant Managers at the addresses below.

17. The Department's Grant Manager for this Agreement is identified below.

TBD

Any changes to the contact information shown above must be reduced to writing in the form of a Change Order to this Agreement.

18. The Grantee's Grant Manager for this Agreement is identified below.

Virginia Barker, Watershed Program Manager
Brevard County
2725 Judge Fran Jamieson Way
Viera, Florida 32940
Phone: (321) 633-2016
Fax: (321)0633-2029
Email: Virginia.Barker@brevardcounty.us

Any changes to the contact information shown above must be reduced to writing in the form of a Change Order to this Agreement.

19. To the extent required by law, the Grantee will be self-insured for worker's compensation, or will secure and maintain during the life of this Agreement, Workers' Compensation Insurance for all of Grantee's employees connected with the work of this project and, in case any work is subcontracted, the Grantee shall require the subcontractor similarly to provide Workers' Compensation Insurance for all of its employees unless such employees are covered by the protection afforded by the Grantee. Any self-insurance program or insurance coverage shall comply fully with the Florida Workers' Compensation law. In case any class of employees engaged in hazardous work under this Agreement is not protected under Workers' Compensation statutes, the Grantee shall provide, and cause each subcontractor to

provide, adequate insurance satisfactory to the Department, for the protection of those employees not otherwise protected.

20. The Grantee shall secure and maintain Commercial General Liability insurance including bodily injury and property damage. The minimum limits of liability shall be \$100,000 each occurrence and \$300,000 aggregate. This insurance will provide coverage for all claims that may arise from the services and/or operations completed under this Agreement, whether such services and/or operations are by the Grantee or anyone directly or indirectly employed by him.

A. The Grantee shall secure and maintain Commercial Automobile Liability insurance for all claims which may arise from the services and/or operations under this Agreement, whether such services and/or operations are by the Grantee or by anyone directly or indirectly employed by him. The minimum limits of liability shall be as follows:

\$300,000 Automobile Liability Combined Single Limit for Company Owned Vehicles, if applicable

\$300,000 Hired and Non-owned Liability Coverage

B. All insurance policies shall be with insurers licensed or eligible to do business in the State of Florida. The Grantee's current certificate of insurance shall contain a provision that the insurance will not be canceled for any reason except after thirty (30) days written notice (with the exception of non-payment of premium which requires a 10 day notice) to the Department's Procurement Administrator.

21. The Grantee covenants that it presently has no interest and shall not acquire any interest that would conflict in any manner or degree with the performance of services required.

22. The Department may at any time, by written order designated to be a change order, make any change in the Grant Manager information or task timelines within the current authorized Agreement period. All change orders are subject to the mutual agreement of both parties as evidenced in writing. Any change, which causes an increase or decrease in the Grantee's cost or time, shall require formal amendment to this Agreement.

23. The employment of unauthorized aliens by any Grantee/vendor is considered a violation of Section 274A(e) of the Immigration and Nationality Act. If the Grantee/vendor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of this Agreement. The Grantee shall be responsible for including this provision in all subcontracts with private organizations issued as a result of this Agreement.

24. A. No person, on the grounds of race, creed, color, national origin, age, sex, or disability, shall be excluded from participation in; be denied the proceeds or benefits of; or be otherwise subjected to discrimination in performance of this Agreement.

B. An entity or affiliate, as defined in section 287.134, Florida Statutes, who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not award or perform work as a contractor, supplier, subcontractor, or consultant under contract with any

public entity, and may not transact business with any public entity. The Florida Department of Management Services is responsible for maintaining the discriminatory vendor list and intends to post the list on its website. Questions regarding the discriminatory vendor list may be directed to the Florida Department of Management Services, Office of Supplier Diversity, at (850) 487-0915.

25. A. The accounting systems for all Grantees must ensure that funds awarded by this grant are not commingled with funds from other agencies. Funds from each agency must be accounted for separately. Grantees are prohibited from commingling funds on either a program-by-program or a project-by-project basis. Funds specifically budgeted and/or received for one project may not be used to support another project. Where a Grantee's, or subrecipient's, accounting system cannot comply with this requirement, the Grantee, or subrecipient, shall establish a system to provide adequate fund accountability for each project it has been awarded.

B. If the Department finds that these grant funds have been commingled, the Department shall have the right to demand a refund, either in whole or in part, of the funds provided to the Grantee under this Agreement for non-compliance with the material terms of this Agreement. The Grantee, upon such written notification from the Department shall refund, and shall forthwith pay to the Department, the amount of money demanded by the Department. Interest on any refund shall be calculated based on the prevailing rate used by the State Board of Administration. Interest shall be calculated from the date(s) the original payment(s) are received from the Department by the Grantee to the date repayment is made by the Grantee to the Department.

C. If the Grantee recovers costs, incurred under this Agreement and reimbursed by the Department, from another source(s), the Grantee shall reimburse the Department for all recovered funds originally provided under this Agreement. Interest on any refund shall be calculated based on the prevailing rate used by the State Board of Administration. Interest shall be calculated from the date(s) the payment(s) are recovered by the Grantee to the date repayment is made to the Department by the Grantee.

26. This Agreement has been delivered in the State of Florida and shall be construed in accordance with the laws of Florida. Wherever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement. Any action hereon or in connection herewith shall be brought in Leon County, Florida.

27. This Agreement represents the entire agreement of the parties. Any alterations, variations, changes, modifications or waivers of provisions of this Agreement shall only be valid when they have been reduced to writing, duly signed by each of the parties hereto, and attached to the original of this Agreement, unless otherwise provided herein.

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IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed, the day and year last written below.

BREVARD COUNTY

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: _____
Mary Bolin Lewis, Chairman
Brevard County Commission

By: _____
Department of Environmental Protection
TBD
Program Administrator

Date: _____

Date: _____

FEID No.: _____

TBD
Grant Administrator

Approved as to form and legality:

DEP Attorney

*For Agreements with governmental boards/commissions: If someone other than the County Commission Chairman signs this Agreement, a resolution, statement or other document authorizing that person to sign the Agreement on behalf of the governmental board/commission must accompany the Agreement.

List of attachments/exhibits included as part of this Agreement:

Specify Type	Letter/ Number	Description (include number of pages)
Attachment	A	Project Work Plan (10 Pages)
Attachment	B	Disbursement Request Package (3 Pages)
Attachment	C	Contract Payment Requirements (1 Page)
Attachment	D	Progress Report Form (1 Page)
Attachment	E	Advance Payment Justification Form (3 Pages)
Attachment	F	Advance Payment – Interest Earned Memorandum (1 Page)
Attachment	G	Special Audit Requirements (5 Pages)

ATTACHMENT A PROJECT WORK PLAN

Project Title: Indian River Lagoon Oyster Restoration Project

Project Location: Indian River Lagoon, Cape Canaveral Watershed (HUC 03080202) and Vero Beach Watershed (HUC 03080203); Brevard County and Volusia County, FL

Project Background: The Indian River Lagoon (IRL) is a diverse, shallow-water estuary stretching 156 miles along 40 percent of Florida's east coast. It is classified by the USEPA as an Estuary of National Significance. The lagoon is an important economic resource to the state, providing a total estimated annual economic value of \$3.7 billion, supporting 15,000 full and part-time jobs and providing recreational opportunities for 11 million people annually. In spring 2011, an algal "super bloom" occurred throughout most of the Brevard County portion of the lagoon. Approximately 47,000 acres of seagrasses were lost, a reduction of about 60 percent, valued at \$235 to \$470 million in annual commercial and recreational fisheries losses. In August 2012, a brown tide bloom began that recurred in the summer of 2013. Local, state, national and international headlines describe the IRL's ecological "crisis." Approximately 50% of the lagoon's length and approximately 71% of its open water area lies within Brevard County.

Turbidity, generated primarily from a mix of eroded sediments and dead plants, is deterring seagrass growth and consuming oxygen in this imperiled estuarine ecosystem. Oysters are effective filter feeders that clarify the water column at rates of up to 50 gallons of water filtered per day per oyster. Oyster reefs provide wave breaks that slow erosion, provide habitat for many commercially and recreationally important species, and create an environment that removes nitrates from the water column and releases nitrogen gas to the atmosphere. Via filtration and denitrification, oyster ecosystems can significantly improve IRL water quality and water clarity.

Oysters and clams are known as 'ecosystem engineers' because they physically, biologically and chemically modify the environment around them in ways that influence water quality, nutrient cycling and the health of other organisms. They suppress harmful algal blooms, stimulate the growth of beneficial seagrasses, and filter suspended particles from the water column thereby reducing turbidity and nutrient pollution. The Eastern Oyster (*Crassostrea virginica*) is a culturally and economically important component of the Florida lifestyle, providing habitat for more than 140 species including blue crabs, stone crabs, shrimp, red and black drum, and spotted sea trout; providing feeding grounds for the bottlenose dolphin, American oystercatcher, American bald eagle, osprey, brown pelican and many wading bird species; and improving water quality and clarity.

In addition to the well documented filtration, water clarity, habitat, and fishery production benefits of oyster reefs, they sequester nutrient pollution and provide an extra nitrogen pollution reduction benefit. Oysters filter nitrogen rich material from the surrounding water and excrete it into a denitrifying environment under the reef that ultimately releases nitrogen gas to the atmosphere. Such denitrification rates measured at restored oyster reefs in Maryland were

among the highest ever recorded for an aquatic system. In Florida's warmer climate, oyster reef restoration has the potential of being more cost-effective at nitrogen sequestration and removal than almost all of the most common and highly regarded stormwater treatment best management practices currently in use.

Historically, abundant oysters and clams filtered the waters of the IRL, removing suspended sediments, sequestering nutrients, and providing biodiverse habitat for recreationally and commercially significant fisheries. Today, these filter feeders are almost absent, due primarily to past overfishing and harmful freshwater discharges. Return of these critical ecological and economic keystone species is instrumental to restoration of the lagoon. Thus, Brevard County seeks funding from the FDEP to achieve the following oyster restoration objectives:

- Objective 1: Reduce pollutants, algal blooms and turbidity in the Indian River Lagoon.
- Objective 2: Pilot three scientifically-based oyster restoration techniques to determine what method will be most successful in the Brevard section of the Indian River Lagoon.
- Objective 3: Quantify the nitrogen sequestration and removal rates of restored oyster reefs in Mosquito Lagoon to determine the potential cost effectiveness of oyster restoration for improving water quality in the Indian River Lagoon and throughout Florida's impaired estuaries.
- Objective 4: Create and implement a community-based program to propagate oysters at a 1000 sites throughout the county by engaging citizens in proven Oyster Gardening practices.
- Objective 5: Provide a proof of concept for developing a long-term, self-sustaining oyster restoration program in Brevard County that will engage non-profit partners, fishermen and the general public in hands-on, community-based lagoon restoration.

To decide where to begin restoring oyster beds, multiple factors will be considered including: the historical presence of oysters, salinity regimes, proximity to fresh water discharges, dissolved oxygen, food availability, presence of suitable substrate, substrate composition, larval supply, abundance of predators (crabs, snails, crown conch), presence of submerged aquatic vegetation, and continuing sources of potentially harmful contaminants.

In the Volusia County section of Mosquito Lagoon, community-based oyster reef restoration has been underway since 2007. Brevard Zoo volunteers, working under the direction of dedicated Zoo staff and Dr. Linda Walters of the University of Central Florida, have proven highly successful at restoring oyster reefs. This project seeks to build on the success of that ongoing program by expanding its restoration efforts into the Indian River Lagoon in Brevard County. At the same time, this project seeks to document the value of oyster restoration in terms of critical ecosystem services such as reducing nutrient pollution, algal blooms and turbidity. Recent research in Chesapeake Bay indicates that oyster restoration might be an extraordinarily cost effective way to do all that. This project will test this innovative approach in Florida.

Brevard County's ultimate goal is to increase the number of oysters in Brevard County to a self-sustaining population level and restore their associated ecosystem benefits to the Indian River Lagoon. The results of this project will provide a proof of concept for developing a long-term, self-sustaining oyster restoration program for the Brevard section of the IRL that will engage non-profit partners, fishermen and the general public in hands-on lagoon restoration and build personal stewardship for this local, state, and national estuarine treasure. Successful oyster restoration will reduce pollutants, algal blooms and turbidity in the lagoon – this study will determine how to maximize success.

This project is part of an annual multi-million dollar effort to reduce pollution, remove muck and restore the natural filtration systems of the lagoon. Specifically, Brevard County dedicates approximately \$3.4 Million annually for Stormwater efforts and this grant provides an additional \$410,000.00 towards oyster restoration. Additionally, Brevard County dedicated \$150,000 of General Tax Funds in FY 13-14 to initiate oyster gardening. This project will determine whether redirecting some stormwater treatment funds, including state grant funds, to oyster restoration projects could result in healthier Florida estuaries, sooner, and at significantly less total cost.

Project Description:

1.Task: Oyster Gardening – While reef site selection, permitting and design proceeds, a citizen-based oyster propagation program led by Brevard Zoo will engage the community in raising juvenile oysters to populate the pilot reef sites. In totalitally, approximately 1000 community participants will be provided with grow 1000 seed oysters each in hanging oyster gardens for propagation under their private docks. In less than a year, this program will stock the hanging gardens of approximately 1000 citizen scientists with 1,000,000 spat in order to raise young adult oysters to populate portions of the pilot reefs. One million adult oysters, each filtering 50 gallons of water per day could filter over 18 billion gallons of lagoon per year.

1a.Deliverable: Draft and final reports summarizing juvenile oyster success and evidence of volunteer gardener participation (copies of workshop registrations and sign-in sheets, presentations, and handouts).

Timeline for completion: ~~January 2014- July 2014~~ – September 2015

Budget Information: (provide the following information for the budget for each task):

Salaries: N/A

Fringe Benefits: N/A

Travel: N/A

Contractual: \$150,000 for oyster gardening program and volunteer coordination services, including spat aquaculture and all gardening supplies.

Equipment: N/A

Supplies/Other Expenses: N/A

Land: N/A

Indirect: N/A

Performance Standard: The Department Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster gardening program success. Executed subcontracts will be submitted to the Department Grant Managers for review and acceptance prior to invoicing.

2.Task: Denitrification Measurement – To measure the denitrification rate of restored oyster reefs in Florida, this project will establish experimental plots in control areas and at multiple restored reefs of different maturity in the Volusia County section of Mosquito Lagoon, where community-based oyster reef restoration has been underway since 2007. Within each experimental plot, seasonal measurements of nitrogen and phosphorus will be measured for one year to estimate annual nutrient removal. Nutrient removal will be compared between the control and each differently aged restoration reef. The cost of oyster reef restoration per pound of nitrogen or phosphorus removed will be compared to the typical cost per pound of nitrogen or phosphorus removed by a suite of common stormwater treatment best management practices.

2a.Deliverable: Draft and final reports summarizing denitrification data and nutrient removal efficiencies.

Timeline for completion: July 2014 – Sept 2016

Budget Information: (provide the following information for the budget for each task):

Salaries: N/A

Fringe Benefits: N/A

Travel: N/A

Contractual: Up to \$87,235 for denitrification and sequestration measurements, water quality monitoring, testing, analysis and reporting.

Equipment: N/A

Supplies/Other Expenses: N/A

Land: N/A

Indirect: N/A

Performance Standard: The Department Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster denitrification.

3.Task: Site Suitability Analysis – Successful oyster restoration requires a consideration of biological, environmental, hydrological, and physical parameters. Prior to the project, Brevard County will conduct a site suitability analysis for identifying the best areas of the IRL for successful re-introduction of oyster reef ecosystems. A seventeen-year (1996-2013) water quality database will be reviewed to select sites with suitable conditions and to avoid factors that could negatively impact oyster populations. The site suitability analysis will be used to select three best sites for pilot projects.

3a.Deliverable: Selection of the three best sites for pilot projects.

Timeline for completion: July 2014 – Oct 2014

Budget Information: (provide the following information for the budget for each task):

Salaries: N/A

Fringe Benefits: N/A

Travel: N/A

Contractual: N/A

Equipment: N/A

Supplies/Other Expenses: N/A

Land: N/A

Indirect: N/A

Performance Standard: The Department Grant Manager will review the deliverables to verify that the selected sites are in accordance with approved selection criteria.

4.Task: Design and Permitting – Reef foundation, material and vertical structure will be designed and permitted for three sites.

4a.Deliverable: Draft and final design plans and specifications; final FDEP and ACOE permits.

Timeline for completion: Sept 2014 – March 2015

Budget Information: (provide the following information for the budget for each task):

Salaries: N/A

Fringe Benefits: N/A

Travel: N/A

Contractual: \$4,836

Equipment: N/A

Supplies/Other Expenses: N/A

Land: N/A

Indirect: N/A

Performance Standard: The Department Grant Manager will review the deliverables to verify that the project is fully permitted to commence the approved construction.

5.Task: Oyster Reef Construction – Reef foundation, material and vertical structure will be constructed at three sites in time to coincide with peak oyster larva recruitment cycles (spring/summer months). Two methods of direct stocking will be conducted at each pilot reef and compared to natural recruitment.

5a.Deliverable: Final as-built surveys.

Timeline for completion: Feb 2015 – June 2015

Budget Information: (provide the following information for the budget for each task):

Salaries: N/A

Fringe Benefits: N/A

Travel: N/A

Contractual: \$11,000 for construction materials; \$56,000 for Zoo volunteer coordination.

Equipment: N/A

Supplies/Other Expenses: N/A

Land: N/A

Indirect: N/A

Performance Standard: The Department Grant Manager will review the deliverables to verify that the completion of project construction is in accordance with approved design documents and specifications.

6.Task: Restored Reef Monitoring and Reporting – The three restored sites in Brevard County will be monitored for at least a full year to track the survival and ecological function of each newly created oyster reef. Costs versus benefits, growth rates, and percent survival for each stocking method will be measured to determine the best method for long-term oyster restoration in Brevard County.

6a.Deliverable: Draft and final reports summarizing oyster survival and ecological function; resulting costs versus benefits, growth rates, and percent survival for each stocking method; and determination of the best method for long-term oyster restoration in Brevard County.
Timeline for completion: July 2015 – Nov 2016
Budget Information: (provide the following information for the budget for each task):
Salaries: N/A
Fringe Benefits: N/A
Travel: N/A
Contractual: \$100,929 for biological monitoring, testing, analysis and reporting.
Equipment: N/A
Supplies/Other Expenses: N/A
Land: N/A
Indirect: N/A
Performance Standard: The Department Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster reef restoration success and cost:benefit analysis.

Total Budget by Task and Deliverables: *The tasks and deliverables identified here should agree with the tasks and deliverables identified and described above. Identify the deliverables for the tasks as follows: 1a, 1b, etc. Do not list required progress reports and final reports as deliverables as they are required under all agreements and are not project specific.*

Task 1	DEP Funding	Local Funds and Source	
		Local Funds	Source of Funds
Total:	\$150,000		
Deliverable	Due Date/ Frequency/ Period of Performance	Performance Measurement	Deliverable Cost
Kickoff Workshop/ Public outreach <u>registrations and sign-in sheet, presentations, and handouts</u>	Oct 2014/one-time/ Oct-2013 <u>July 2014</u> -Sept 2014	<u>Sufficient participation</u> <u>Kickoff workshop is conducted by the Zoo with participants representing at least 20 shoreline locations</u>	
Contract oyster gardening program coordination services	Sept 2015/at least one-time/ July <u>Sept 2014</u> -Sept 2015	Contract <u>with Brevard Zoo</u> for services; Sufficient quantities of spat on shell purchased	

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Bi-Monthly Workshops <u>registrations and sign-in sheets, presentations, and handouts</u>	May 2015/monthly/ July 2014-Sept 2015	<u>Brevard Zoo schedules an average of 2 workshops per month and meets total target of approximately 1000 participating citizen scientists. Sufficient participation</u>	
Oyster deployment to gardeners	November 2014/ at least one-time/ Nov 2014-Sept 2015	<u>At least 1,000,000 oyster spat will be distributed to trained oyster gardeners. Sufficient participation</u>	
Oyster gardening	Nov 2015/one-time/ July 2014-Sept 2015	<u>Gardeners will grow oysters from spat to 1.5" to 3" oysters and clusters</u>	
Final oyster roundup and summary report	Oct 2015/one-time/ Feb-Sept 2015	<u>Brevard Zoo will summarize public engagement to date, oyster survival and growth data. Documents oyster gardening success appropriately</u>	
TOTAL TASK COST			\$150,000
Local Funds and Source			
Task 2	DEP Funding	Local Funds	Source of Funds
Total:	\$87,235		
Deliverable	Due Date/ Frequency/ Period of Performance	Performance Measurement	Deliverable Cost
Plot selection map of denitrification monitoring sites	Nov 2014/one-time/July-Oct 2014	<u>Appropriate sDRI will coordinate with UCF and Brevard Zoo to select restored oyster reef sites of sufficient size and orientation to accommodate a scientific analysis of phosphorus sequestration and to monitor oyster reef denitrification rates</u>	

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Seasonal denitrification measurements	Nov 2015/quarterly/ Nov 2014-Nov 2015	<u>DRI will provide seasonal measurement data for denitrification rates at the selected Approved reef and control sites and methodology</u>	
Draft sediment and water quality report/ cost comparison	Jan 2016/one-time/ Nov 2015-Jan 2016	<u>Successfully-DRI's draft report will documents phosphorus sequestration and denitrification rates at in restored reef and control sites</u>	
Final sediment and water quality report/ cost comparison	Sept 2016/one-time/ Jan 2016-Sept 2016	<u>Successfully DRI's final report will documents phosphorus sequestration and denitrification rates at in restored reef and control study sites</u>	
		TOTAL TASK COST	\$87,235
		Local Funds and Source	
Task 3	DEP Funding	Local Funds	Source of Funds
Total:	\$0		
Deliverable	Due Date/ Frequency/ Period of Performance	Performance Measurement	Deliverable Cost
Restoration project site selection (map)	Oct 2014/one-time/ July – Sept 2014	Selection of three (3) <u>pilot reef</u> sites in accordance with <u>approved-typical physical and biological</u> criteria	
		TOTAL TASK COST	\$0
		Local Funds and Source	
Task 4	DEP Funding	Local Funds	Source of Funds
Total:	\$4,836		
Deliverable	Due Date/ Frequency/ Period of Performance	Performance Measurement	Deliverable Cost
Draft design plans and specifications	Oct 2014/one-time/ Sept-Oct 2014	<u>Appropriate-Draft</u> design and specifications for the <u>approved-scope</u> pilot reefs	

Final design plans and specifications	Nov 2014/one-time/ Oct-Nov 2014	Appropriate Complete permit applications with design and specifications for the approved see pilot reefs	
Final FDEP and ACOE permits	March 2015/one-time/ Oct 2014-Feb 2015	Project fully permitted to commence the approved construction	
		TOTAL TASK COST	\$4,836
Local Funds and Source			
Task 5	DEP Funding	Local Funds	Source of Funds
Total:	\$67,000		
Deliverable	Due Date/ Frequency/ Period of Performance	Performance Measurement	Deliverable Cost
Zoo will Purchase of oyster reef construction materials	May 2015/one-time/ Feb-May 2015	Invoices for approved construction materials	\$11,000
Zoo will Enhanced substrate and living shoreline (post-construction drawings and photographs)	June 2015/one-time/ March-May 2015	Completed construction in accordance with approved permitted design and specifications	\$56,000
		TOTAL TASK COST	\$67,000
Local Funds and Source			
Task 6	DEP Funding	Local Funds	Source of Funds
Total:	\$100,929		
Deliverable	Due Date/ Frequency/ Period of Performance	Performance Measurement	Deliverable Cost
Restoration site monitoring	Aug 2016/TBD/ July 2015-July 2016	UCF will coordinate with Brevard Zoo and Brevard County on pilot reef siting, design and specifications to accommodate a scientific analysis of oyster recruitment and survival rates. Approved sites and methodology	

Draft biological monitoring report	Sept 2016/one-time/July-Aug 2016	<u>UCF will monitor each site seasonally, analyze each treatment at each site and draft a report on the biological success of respective reef designs and treatments</u> <u>Appropriate information to restoration success</u>	
Final biological monitoring report	Nov 2016/one-time/Sept-Oct 2016	<u>UCF will provide a final report on the biological success of respective reef designs and treatments</u> <u>Appropriate information to restoration success</u>	
TOTAL TASK COST			\$100,929

The FY2014-15 GAA did not require a match for these projects.

**Grant Manager's Certification
Of Disbursement Request**

I, _____,
(name of Grantee's Grant Manager designated in the Agreement)

on behalf of _____, do hereby certify that:
(name of Grantee/Recipient)

1. The disbursement amount requested on Page 1 of this form is for allowable costs for the project described in Attachment A of the Agreement;
2. All costs included in the amount requested have been satisfactorily purchased, performed, received, and applied toward completing the project; such costs are documented by invoices or other appropriate documentation as required in paragraph 3D;
3. The Grantee has paid such costs under the terms and provisions of contracts relating directly to the project; and the Grantee is not in default of any terms or provisions of the contracts;
4. If funds were advanced, all funds received to date have been applied toward completing the project; and
5. All permits and approvals required for the construction which is underway have been obtained.

(Signature of Grant Manager)

(Date)

ATTACHMENT C

Contract Payment Requirements Florida Department of Financial Services, Reference Guide for State Expenditures *Cost Reimbursement Contracts*

Invoices for cost reimbursement contracts must be supported by an itemized listing of expenditures by category (salary, travel, expenses, etc.). Supporting documentation must be provided for each amount for which reimbursement is being claimed indicating that the item has been paid. Check numbers may be provided in lieu of copies of actual checks. Each piece of documentation should clearly reflect the dates of service. Only expenditures for categories in the approved contract budget should be reimbursed.

Listed below are examples of the types of documentation representing the minimum requirements:

- (1) Salaries: A payroll register or similar documentation should be submitted. The payroll register should show gross salary charges, fringe benefits, other deductions and net pay. If an individual for whom reimbursement is being claimed is paid by the hour, a document reflecting the hours worked times the rate of pay will be acceptable.
- (2) Fringe Benefits: Fringe Benefits should be supported by invoices showing the amount paid on behalf of the employee (e.g., insurance premiums paid). If the contract specifically states that fringe benefits will be based on a specified percentage rather than the actual cost of fringe benefits, then the calculation for the fringe benefits amount must be shown.

Exception: Governmental entities are not required to provide check numbers or copies of checks for fringe benefits.
- (3) Travel: Reimbursement for travel must be in accordance with Section 112.061, Florida Statutes, which includes submission of the claim on the approved State travel voucher or electronic means.
- (4) Other direct costs: Reimbursement will be made based on paid invoices/receipts. If nonexpendable property is purchased using State funds, the contract should include a provision for the transfer of the property to the State when services are terminated. Documentation must be provided to show compliance with Department of Management Services Rule 60A-1.017, Florida Administrative Code, regarding the requirements for contracts which include services and that provide for the contractor to purchase tangible personal property as defined in Section 273.02, Florida Statutes, for subsequent transfer to the State.
- (5) In-house charges: Charges which may be of an internal nature (e.g., postage, copies, etc.) may be reimbursed on a usage log which shows the units times the rate being charged. The rates must be reasonable.
- (6) Indirect costs: If the contract specifies that indirect costs will be paid based on a specified rate, then the calculation should be shown.

Contracts between state agencies, and or contracts between universities may submit alternative documentation to substantiate the reimbursement request that may be in the form of FLAIR reports or other detailed reports.

The Florida Department of Financial Services, online Reference Guide for State Expenditures can be found at this web address: http://www.fldfs.com/aadir/reference_guide.htm.

ATTACHMENT D

PROGRESS REPORT FORM

DEP Agreement No.:	TBD		
Grantee Name:	Brevard County		
Grantee Address:			
Grantee's Grant Manager:		Telephone No.:	
Reporting Period:			
Project Number and Title:			

Provide the following information for all tasks and deliverables identified in the Project Work Plan: a summary of project accomplishments for the reporting period; a comparison of actual accomplishments to goals for the period; if goals were not met, provide reasons why; provide an update on the estimated time for completion of the task and an explanation for any anticipated delays and identify by task.

NOTE: Use as many pages as necessary to cover all tasks in the Project Work Plan.

The following format should be followed:

Task 1:

Progress for this reporting period:

Identify any delays or problems encountered:

This report is submitted in accordance with the reporting requirements of DEP Agreement No. 15DA1 and accurately reflects the activities associated with the project.

Signature of Grantee's Grant Manager

Date

ATTACHMENT E ADVANCE PAYMENT JUSTIFICATION FORM

Use of this form is not required unless the advance requested requires the prior approval of the State Chief Financial Officer. For advance requests that are equal to or less than the purchasing threshold of category two as defined in Section 287.017, Florida Statutes, and meet one of the advance payment requirements identified in Section 215.422(14), Florida Statutes, use of this form is waived. However, the purchase requisition or contract review form must clearly identify the criteria being met under 215.422(14), Florida Statutes that allows the advance to be made without prior Chief Financial Officer's approval.

Name/Address of the Vendor/Recipient:			
Contact Person/Phone No.:			
Agreement No./Purchase Order No. (if known):	LP(*2)		
Commodities/Services/Project Description:			
Organizational Structure (i.e. local gov't, non-profit corporation, etc.)			
Value of Purchase or Grant:			
Advance Payment Amount Requested:			
Period Advance Payment to Cover:	<input type="checkbox"/> 90 days startup	<input type="checkbox"/> Full Contract Period	
	<input type="checkbox"/> Quarterly	<input type="checkbox"/> Other (specify):	
Indicate Statutory Authority:	<input type="checkbox"/> 215.422, F.S	<input type="checkbox"/> 216.181, F.S.	
GAA Year and Line Item Info:	SFY:	Line Item:	
1. Reason advance payment is required:			
2. The following information required for advances requested pursuant to 215.422, Florida Statutes (and the Reference Guide for State Expenditures) which exceed the purchasing threshold of category two as defined in 287.017, Florida Statutes.			
<p>A. Document, if applicable, the cost savings to be incurred as a result of an advance payment that are equal or greater than the amount the State would earn by investing the funds and paying in arrears. Include the percent (%) savings to be realized. In calculating the percent savings as compared to the percent that can be earned by the State, information may be obtained from the Department of Financial Services, Division of Treasury at 850/413-3165 regarding the current Treasury earnings rate.</p>			
<p>B. Document, if applicable, how the goods or services are essential to the operation of the Department and why they are available only if advance payment is made:</p>			

C. Identify the procurement method used to select the vendor.

3. The following information required for advances to Governmental Entities and Non-Profits pursuant to 216.181, Florida Statutes. (Limited to GAA Authorized, Statutorily Authorized, and Grant & Aid Appropriation Categories 05XXXX or 14XXXX)

A. The entity acknowledges the requirement to invest advance funds in an interest bearing account and to remit interest earned to the Department on a quarterly basis.

Provide a description of how the entity intends to invest the advanced funds and track the interest earned on the advanced funds:

Remittances must: 1) be identified as interest earnings on advances, 2) must identify the applicable DEP Agreement (or Contract) No., and 3) be forwarded to the following address:

Florida Department of Environmental Protection
Bureau of Finance and Accounting Receipts
Section
P.O. Box 3070
Tallahassee, Florida 32315-3070

B. A letter requesting advance payment from the recipient, on its letterhead, must be attached.

3. The recipient must provide an estimated budget for each quarter covered by the agreement. The summary information should include salaries, fringe benefits, overhead, contracts (specify services to be contracted out), equipment, if authorized (specify items to be purchased), supplies, travel, and other costs.

A sample summary format is provided below. The summary should include the breakdown for each quarter of the agreement period.

Description	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Salaries (identify personnel/titles)				
Fringe Benefits				
Contractual Services (list services and estimated costs)				
Equipment (identify each item and cost)				
Supplies				
Travel				
Other (specify)				
Overhead/Indirect				
Total:				

Certification Statement

The forgoing information is presented to the Florida Department of Environmental Protection in support of our request for advance payment. I certify that the information provided accurately reflects the financial issues facing the entity at this time.

By: _____ Date: _____
 Type Name of Signatory: _____
 Title: Chief Financial Officer or designee

DEP Program Area Review/Approval

Recommendation: **Approve Request** **Deny Request**

By: _____ Date: _____
 Type Name of Signatory: _____
 Title: _____ Bureau: _____ Division: _____

The DEP Program Area should forward this information to the Contracts Disbursements Section at MS78. The Contracts Disbursements Section will forward requests for advance payment to the State Comptroller for review and legislature consultation, as appropriate.

Bureau of Finance & Accounting Use Only

ATTACHMENT F
ADVANCE PAYMENT - INTEREST EARNED MEMORANDUM
WHEN REPORTING OR REMITTING, PLEASE RETURN A COPY OF THIS REQUEST

TO:

FROM: Darinda McLaughlin, Bureau Chief
 Bureau of Finance and Accounting, MS 78

DATE:

SUBJECT: Advance Payment - **Contract No.**
 Interest Due to DEP:

Pursuant to Section 216.181(16), Florida Statutes, advance payments may be required to be deposited into an interest bearing account until all funds have been depleted. In order to update the status on the **unused portion of the advanced funds and/or interest due**, advance approval of the Chief Financial Officer, and the terms of the above referenced contract, the following information is needed for our records **no later than** _____.

- | | | |
|--|--|----------|
| Initial advance funding disbursed _____ | | \$ _____ |
| 1. Advanced funds principle expended or returned by contractor covering period of _____ to _____ | | \$ _____ |
| 2. Balance advance funding principle available | | \$ _____ |
| 3. Interest earned on advanced funds covering period of _____ to _____ | | \$ _____ |
| 4. Amount of interest paid to DEP as of _____ | | \$ _____ |
| 5. Interest balance due to DEP as of _____ | | \$ _____ |

 (Project Manager's Signature) (Date)

Special Instructions: If the grant/contract specifies that any accrued interest, which is based upon a grant/contract advance payment(s), will not be paid to DEP until after termination of the grant/contract, the advance fund recipient shall complete report items 1 and 2 only for the first three quarters of the state's fiscal year. The report for the state's fourth fiscal year quarter shall include items 1, 2, 3, 4, and 5. Items 3, 4, and 5 will be the life to date interest

If the contract states that no interest is due, quarterly reports of unexpended advances are required, lines 1 and 2.

In all cases the line 1 and 2 reported amounts are on a cash basis for the advance payment principle. Do not include receivables, payables, or interest previously paid to DEP.

If the grant/contract requires quarterly accrued interest payments to DEP, the fund recipient must complete items 1 through 5 for each quarterly report.

Payments of interest due to DEP shall be paid within the specifications of the contract/grant.

Thank you for your cooperation in providing the above information. If you have questions, please contact Lydia Louis (850) 245-2452 in the Contracts Disbursement Section.

ATTACHMENT G

SPECIAL AUDIT REQUIREMENTS

The administration of resources awarded by the Department of Environmental Protection (*which may be referred to as the "Department", "DEP", "FDEP" or "Grantor", or other name in the contract/agreement*) to the recipient (*which may be referred to as the "Contractor", Grantee" or other name in the contract/agreement*) may be subject to audits and/or monitoring by the Department of Environmental Protection, as described in this attachment.

MONITORING

In addition to reviews of audits conducted in accordance with OMB Circular A-133 and Section 215.97, F.S., as revised (see "AUDITS" below), monitoring procedures may include, but not be limited to, on-site visits by Department staff, limited scope audits as defined by OMB Circular A-133, as revised, and/or other procedures. By entering into this Agreement, the recipient agrees to comply and cooperate with any monitoring procedures/processes deemed appropriate by the Department of Environmental Protection. In the event the Department of Environmental Protection determines that a limited scope audit of the recipient is appropriate, the recipient agrees to comply with any additional instructions provided by the Department to the recipient regarding such audit. The recipient further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Chief Financial Officer or Auditor General.

AUDITS

PART I: FEDERALLY FUNDED

This part is applicable if the recipient is a State or local government or a non-profit organization as defined in OMB Circular A-133, as revised.

1. In the event that the recipient expends \$500,000 or more in Federal awards in its fiscal year, the recipient must have a single or program-specific audit conducted in accordance with the provisions of OMB Circular A-133, as revised. EXHIBIT 1 to this Agreement indicates Federal funds awarded through the Department of Environmental Protection by this Agreement. In determining the Federal awards expended in its fiscal year, the recipient shall consider all sources of Federal awards, including Federal resources received from the Department of Environmental Protection. The determination of amounts of Federal awards expended should be in accordance with the guidelines established by OMB Circular A-133, as revised. An audit of the recipient conducted by the Auditor General in accordance with the provisions of OMB Circular A-133, as revised, will meet the requirements of this part.
2. In connection with the audit requirements addressed in Part I, paragraph 1, the recipient shall fulfill the requirements relative to auditee responsibilities as provided in Subpart C of OMB Circular A-133, as revised.
3. If the recipient expends less than \$500,000 in Federal awards in its fiscal year, an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, is not required. In the event that the recipient expends less than \$500,000 in Federal awards in its fiscal year and elects to have an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, the cost of the audit must be paid from non-Federal resources (i.e., the cost of such an audit must be paid from recipient resources obtained from other than Federal entities).
4. The recipient may access information regarding the Catalog of Federal Domestic Assistance (CFDA) via the internet at <http://12.46.245.173/cfda/cfda.html>.

PART II: STATE FUNDED

This part is applicable if the recipient is a nonstate entity as defined by Section 215.97(2)(m), Florida Statutes.

1. In the event that the recipient expends a total amount of state financial assistance equal to or in excess of \$500,000 in any fiscal year of such recipient, the recipient must have a State single or project-specific audit for such fiscal year in accordance with Section 215.97, Florida Statutes; applicable rules of the Department of Financial Services; and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General. EXHIBIT 1 to this Agreement indicates state financial assistance awarded through the Department of Environmental Protection by this Agreement. In determining the state financial assistance expended in its fiscal year, the recipient shall consider all sources of state financial assistance, including state financial assistance received from the Department of Environmental Protection, other state agencies, and other nonstate entities. State financial assistance does not include Federal direct or pass-through awards and resources received by a nonstate entity for Federal program matching requirements.
2. In connection with the audit requirements addressed in Part II, paragraph 1; the recipient shall ensure that the audit complies with the requirements of Section 215.97(7), Florida Statutes. This includes submission of a financial reporting package as defined by Section 215.97(2), Florida Statutes, and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General.
3. If the recipient expends less than \$500,000 in state financial assistance in its fiscal year, an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, is not required. In the event that the recipient expends less than \$500,000 in state financial assistance in its fiscal year, and elects to have an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, the cost of the audit must be paid from the non-state entity's resources (i.e., the cost of such an audit must be paid from the recipient's resources obtained from other than State entities).
4. For information regarding the Florida Catalog of State Financial Assistance (CSFA), a recipient should access the Florida Single Audit Act website located at <https://apps.fldfs.com/fsaa> for assistance. In addition to the above websites, the following websites may be accessed for information: Legislature's Website at <http://www.leg.state.fl.us/Welcome/index.cfm>, State of Florida's website at <http://www.myflorida.com/>, Department of Financial Services' Website at <http://www.fldfs.com/> and the Auditor General's Website at <http://www.state.fl.us/audgen>.

PART III: OTHER AUDIT REQUIREMENTS

(NOTE: This part would be used to specify any additional audit requirements imposed by the State awarding entity that are solely a matter of that State awarding entity's policy (i.e., the audit is not required by Federal or State laws and is not in conflict with other Federal or State audit requirements). Pursuant to Section 215.97(8), Florida Statutes, State agencies may conduct or arrange for audits of State financial assistance that are in addition to audits conducted in accordance with Section 215.97, Florida Statutes. In such an event, the State awarding agency must arrange for funding the full cost of such additional audits.)

PART IV: REPORT SUBMISSION

1. Copies of reporting packages for audits conducted in accordance with OMB Circular A-133, as revised, and required by PART I of this Attachment shall be submitted, when required by Section .320 (d), OMB Circular A-133, as revised, by or on behalf of the recipient directly to each of the following:

- A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

- B. The Federal Audit Clearinghouse designated in OMB Circular A-133, as revised (the number of copies required by Sections .320 (d)(1) and (2), OMB Circular A-133, as revised, should be submitted to the Federal Audit Clearinghouse), at the following address:

Federal Audit Clearinghouse
Bureau of the Census
1201 East 10th Street
Jeffersonville, IN 47132

Submissions of the Single Audit reporting package for fiscal periods ending on or after January 1, 2008, must be submitted using the Federal Clearinghouse's Internet Data Entry System which can be found at <http://harvester.census.gov/fac/>

- C. Other Federal agencies and pass-through entities in accordance with Sections .320 (e) and (f), OMB Circular A-133, as revised.
2. Pursuant to Section .320(f), OMB Circular A-133, as revised, the recipient shall submit a copy of the reporting package described in Section .320(c), OMB Circular A-133, as revised, and any management letters issued by the auditor, to the Department of Environmental Protection at the following address:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

3. Copies of financial reporting packages required by PART II of this Attachment shall be submitted by or on behalf of the recipient directly to each of the following:

- A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

B. The Auditor General's Office at the following address:

State of Florida Auditor General
Room 401, Claude Pepper Building
111 West Madison Street
Tallahassee, Florida 32399-1450

4. Copies of reports or management letters required by PART III of this Attachment shall be submitted by or on behalf of the recipient directly to the Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

5. Any reports, management letters, or other information required to be submitted to the Department of Environmental Protection pursuant to this Agreement shall be submitted timely in accordance with OMB Circular A-133, Florida Statutes, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, as applicable.
6. Recipients, when submitting financial reporting packages to the Department of Environmental Protection for audits done in accordance with OMB Circular A-133, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, should indicate the date that the reporting package was delivered to the recipient in correspondence accompanying the reporting package.

PART V: RECORD RETENTION

The recipient shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of **5** years from the date the audit report is issued, and shall allow the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General access to such records upon request. The recipient shall ensure that audit working papers are made available to the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General upon request for a period of **3** years from the date the audit report is issued, unless extended in writing by the Department of Environmental Protection.

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EXHIBIT - 1

FUNDS AWARDED TO THE RECIPIENT PURSUANT TO THIS AGREEMENT CONSIST OF THE FOLLOWING:

Federal Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following:					
Federal Program Number	Federal Agency	CFDA Number	CFDA Title	Funding Amount	State Appropriation Category

State Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following Matching Resources for Federal Programs:					
Federal Program Number	Federal Agency	CFDA	CFDA Title	Funding Amount	State Appropriation Category

State Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following Resources Subject to Section 215.97, F.S.:						
State Program Number	Funding Source	State Fiscal Year	CSFA Number	CSFA Title or Funding Source Description	Funding Amount	State Appropriation Category
Original Agreement	General Revenue, Line Item 1668A	2014-2015	37.039	Statewide Surface Water Restoration and Wastewater Projects	410,000	140047

Total Award					\$	410,000
-------------	--	--	--	--	----	---------

For each program identified above, the recipient shall comply with the program requirements described in the Catalog of Federal Domestic Assistance (CFDA) [<http://12.46.245.173/cfda/cfda.html>] and/or the Florida Catalog of State Financial Assistance (CSFA) [<https://apps.fldfs.com/fsaa/searchCatalog.aspx>]. The services/purposes for which the funds are to be used are included in the Contract scope of services/work. Any match required by the recipient is clearly indicated in the Contract.

RECEIVED
OCT 24 2016
BREVARD COUNTY
NATURAL RESOURCES MGT.
RECEIVED
SEP 28 2016
BREVARD COUNTY
NATURAL RESOURCES MGT.

THIS AGREEMENT as entered into on the 13th day of January, 2015, between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (hereinafter referred to as the "Department") and the BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS (hereinafter referred to as the "Grantee") is hereby amended.

WHEREAS, the Grantee has requested and the Department has agreed that funding be reallocated between tasks and deliverables to accurately reflect actual Project costs; and,

WHEREAS, other changes to the Agreement are necessary.

NOW, THEREFORE, the parties hereto agree as follows:

1. Paragraph 9 is hereby deleted in its entirety and replaced with the following:

9. PUBLIC RECORDS ACCESS:

A. Grantee shall comply with Florida Public Records law under Chapter 119, F.S. Records made or received in conjunction with this Agreement are public records under Florida law, as defined in Section 119.011(12), F.S. Grantee shall keep and maintain public records required by the Department to perform the services under this Agreement.

Agreement may be unilaterally canceled by the Department for refusal by the Grantee to either provide to the Department upon request, or to allow inspection and copying of all public records made or received by the Grantee in conjunction with this Agreement and subject to disclosure under Chapter 119, F.S., and Section 24(a), Article IV, Florida Constitution.

Grantee meets the definition of "Contractor" found in Section 119.0701(1)(a), F.S.; [Contractor means an individual, partnership, corporation, or business entity that enters into a contract with a public agency and is acting on behalf of the public agency], then the requirements apply:

Pursuant to Section 119.0701, F.S., a request to inspect or copy public records made in conjunction with this Agreement for services must be made directly to the Department. If the Department does not possess the requested records, the Department shall immediately notify the Grantee of the request, and the Grantee must provide the records to the Department or allow the records to be inspected or copied within a reasonable time. If Grantee fails to provide the public records to the Department within a reasonable time, the Grantee may be subject to penalties under s. 119.10, F.S.

ii. Upon request from the Department's custodian of public records, Grantee shall provide the Department with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

iii. Grantee shall identify and ensure that all public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term

Original
executed
Amendment 1
DEP S0763
(for Clerks records)

RECEIVED

SEP 2 2 2016

NATURAL RESOURCES MGT

RECEIVED

SEP 2 2 2016

NATURAL RESOURCES MGT

BREWARD COUNTY

and following completion of the Agreement if the Grantee does not transfer the records to the Department.

- iv. Upon completion of the Agreement, Grantee shall transfer, at no cost to Department, all public records in possession of Grantee or keep and maintain public records required by the Department to perform the services under this Agreement. If the Grantee transfers all public records to the Department upon completion of the Agreement, the Grantee shall destroy any duplicate public records that are exempt or confidential and exempt from public disclosure requirements. If the Grantee keeps and maintains public records upon completion of the Agreement, the Grantee shall meet all applicable requirements for retaining public records. All records that are stored electronically must be provided to Department, upon request from the Department's custodian of public records, in a format that is accessible by and compatible with the information technology systems of Department.

- D. **IF THE GRANTEE HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE GRANTEE'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE DEPARTMENT'S CUSTODIAN OF PUBLIC RECORDS by telephone at (850) 245-2118, by email at ombudsman@dep.state.fl.us or at the mailing address below.**

**Department of Environment Protection
ATTN: Office of Ombudsman and Public Services
Public Records Request
3900 Commonwealth Boulevard, MS 49
Tallahassee, Florida 32399**

- 2. Paragraph 22 is hereby deleted in its entirety and replaced with the following:

- 22. Prior written approval from the Department's Grant Manager shall be required for changes to this Agreement.
 - i. A Change Order to this Agreement is required when task timelines within the current authorized Agreement period change, and/or when the cumulative transfer of funds between approved budget categories, as defined in **Attachment A**, are less than ten percent (10%) of the total budget as last approved by the Department. All Change Orders are subject to the mutual agreement of both parties as evidenced in writing.
 - ii. A formal Amendment to this Agreement is required for changes which cause any of the following: an increase or decrease in the Agreement funding amount; a change in the Grantee's match requirements; a change in the expiration date of the Agreement; and/or changes to the cumulative amount of funding transfers between approved budget categories, as defined in **Attachment A**, exceeds or is expected to exceed ten percent (10%) of the total budget as last approved by the Department. All Amendments are subject to the mutual agreement of both parties as evidenced in writing.

3. Paragraph 27 is hereby deleted in its entirety and replaced with the following:

27. **PROHIBITED LOCAL GOVERNMENT CONSTRUCTION PREFERENCES:**

- A. Pursuant to Section 255.0991, F.S., for a competitive solicitation for construction services in which 50 percent or more of the cost will be paid from state-appropriated funds which have been appropriated at the time of the competitive solicitation, a state college, county, municipality, school district, or other political subdivision of the state may not use a local ordinance or regulation that provides a preference based upon:
- i. The contractor's maintaining an office or place of business within a particular local jurisdiction;
 - ii. The contractor's hiring employees or subcontractors from within a particular local jurisdiction; or
 - iii. The contractor's prior payment of local taxes, assessments, or duties within a particular local jurisdiction.
- B. For any competitive solicitation that meets the criteria in Paragraph A., a state college, county, municipality, school district, or other political subdivision of the state *shall disclose in the solicitation document* that any applicable local ordinance or regulation does not include any preference that is prohibited by Paragraph A.

4. The following paragraph is hereby added to the Agreement as Paragraph 28:

28. **TERMINATION FALSE CERTIFICATION, SCRUTINIZED COMPANIES, BOYCOTTING:**

Grantee certifies that it and any of its affiliates are not scrutinized companies as identified in Section 287.135, Florida Statute (F.S.). In addition, Grantee agrees to observe the requirements of Section 287.135, F.S., for applicable sub-agreements entered into for the performance of work under this Agreement. Pursuant to Section 287.135, F.S., the Department may immediately terminate this Agreement for cause if the Grantee, its affiliates, or its subcontractors are found to have submitted a false certification; or if the Grantee, its affiliates, or its subcontractors are placed on any applicable scrutinized companies list or engaged in prohibited contracting activity during the term of the Agreement. As provided in Subsection 287.135(8), F.S., if federal law ceases to authorize these contracting prohibitions then they shall become inoperative.

5. The following paragraph is hereby added to the Agreement as Paragraph 29:

29. **EXECUTION IN COUNTERPARTS:**

This Agreement, and any Amendments or Change Orders thereto, may be executed in two or more counterparts, each of which together shall be deemed an original, but all of which together shall constitute one and the same instrument. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof

6. The following paragraph is hereby added to the Agreement as Paragraph 30:

30. **ENTIRE AGREEMENT:**

This Agreement represents the entire agreement of the parties. Any alterations, variations, changes, modifications or waivers of provisions of this Agreement shall only be valid when they

have been reduced to writing, duly signed by each of the parties hereto, and attached to the original of this Agreement, unless otherwise provided herein.

- 7. Attachment A, Project Work Plan, Task 2, Budget Information is hereby deleted in its entirety and replaced with the following:

Budget Information: Contractual: \$88,336.36 (DEP Funding) for denitrification and sequestration measurements, water quality monitoring, testing, analysis and reporting.

- 8. Attachment A, Project Work Plan, Task 4, Budget Information is hereby deleted in its entirety and replaced with the following:

Budget Information: Contractual: \$3,734.64 (DEP Funding)

In all other respects, the Agreement of which this is an Amendment, and attachments relative thereto, shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed the day and year last written below.

BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: [Signature] Jim Barfield, Chairman

By: [Signature] Secretary or Designee

As approved by the Board on October 10, 2016

Deputy Secretary Print Name and Title

ATTEST: [Signature] Scott Ellis, Clerk

Date: 10/20/16

[Signature] Sue Leitholf, DEP Grant Manager

[Signature] DEP Grants Administrator

Reviewed for legal form and content: [Signature] Christine Lepore, Assistant County Attorney

Approved as to form and legality: [Signature] DEP Attorney

For Agreements with governmental boards/commissions: If someone other than the Chairman signs this Amendment, a resolution, statement or other document authorizing that person to sign the Amendment on behalf of the Grantee must accompany the Amendment.

RECEIVED
SEP 23 2014
BREVARD COUNTY
FLORIDA'S GRACE COAST



Tammy Etheridge, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001
Fax: (321) 264-6972

September 17, 2014

MEMORANDUM

TO: Ernest Brown, Natural Resources Management Director

RE: Item V.A.2., Indian River Lagoon Oyster Restoration Project

The Board of County Commissioners, in regular session on September 16, 2014, authorized the Chairman to execute a grant agreement scope substantially in the form of the Draft of State of Florida Grant Agreement, and any subsequent amendments, as necessary, between Brevard County and the State of Florida, with County Attorney and Risk Management approval, to accept State funds for this Project; waived legal venue in Brevard County, as the current agreement indicates legal venue in Leon County; authorized the County Manager, or his designee, to execute task orders, contracts, agreements, and change orders, as required to implement the work approved under this State Contract, including commitments in excess of \$100,000; and authorized any budget change requests.

Your continued cooperation is greatly appreciated.

Sincerely yours,

BOARD OF COUNTY COMMISSIONERS
SCOTT ELLIS, CLERK

Tammy Etheridge

Tammy Etheridge, Deputy Clerk

cc: Finance
Budget



Natural Resources Management Department

2725 Judge Fran Jamieson Way
Building A, Room 219
Viera, Florida 32940

BOARD OF COUNTY COMMISSIONERS

Inter-Office Memo

TO: The Honorable Jim Barfield, Chairman
Board of County Commissioners

THROUGH: Stockton Whitten, County Manager
Virginia Barker, Director, Natural Resources Management Department (NRM)

FROM: John Royal, Stormwater Program Manager, NRM
Jane Hart, Environmental Specialist, NRM

DATE: September 29, 2016

SUBJECT: Amendment to the Department of Environmental Protection (DEP) Agreement #S0763 -
Indian River Lagoon Oyster Restoration Project

As set forth in the attached Clerk's Memo, in regular session on September 16, 2014, The Board of County Commissioners authorized the Chairman to execute an Agreement with DEP for the Indian River Lagoon Oyster Restoration Project, and any subsequent amendments, as necessary; waived legal venue in Brevard County, as the current agreement indicates legal venue in Leon County; and authorized the County Manager or designee to execute task orders, contracts, agreements, and change orders, as required to implement the work approved under this State Contract.

Enclosed is Amendment No. 1 for the above reference contract agreement. The amendment was issued to transfer an unused balance of funds, \$1,101.36, budgeted for Task 4 of the project to Task 2.

This amendment does not change the scope of the work, total budget, or expiration date.

We respectfully request your signature on the enclosed Amendment No. 1 (two copies).

Once signed, please call Marie Winkler at X52414 for pick up.

Should you have any questions or concerns, please contact Jane Hart (X56721) or Virginia Barker (X52435).

Thank you.

2 Enclosures:

- 1. Clerk's Memo
2. DEP Agreement S0763 Amendment No. 1 (two original copies)



DEP AGREEMENT NO. S0763

STATE OF FLORIDA
GRANT AGREEMENT
PURSUANT TO LINE ITEM 1668A OF THE 2014-2015 GENERAL APPROPRIATIONS ACT

THIS AGREEMENT is entered into between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, whose address is 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 (hereinafter referred to as the "Department") and the BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS, whose address is 2725 Judge Fran Jamieson Way A219, Viera, Florida 32940 (hereinafter referred to as "Grantee"), local government, to provide financial assistance for the Indian River Lagoon Oyster Restoration Project.

In consideration of the mutual benefits to be derived herefrom, the Department and the Grantee do hereby agree as follows:

1. The Grantee does hereby agree to perform in accordance with the terms and conditions set forth in this Agreement, **Attachment A, Grant Work Plan**, and all attachments and exhibits named herein which are attached hereto and incorporated by reference. For purposes of this Agreement, the terms "Grantee", and "Recipient" are used interchangeably.
2. This Agreement shall begin upon execution by both parties and remain in effect for a period of twenty-four (24) months, inclusive. The Grantee shall be eligible for reimbursement for work performed on October 1, 2014 through the expiration date of this Agreement. This Agreement may be amended to provide for additional services if additional funding is made available by the Legislature.
3.
 - A. As consideration for the satisfactory completion of services rendered by the Grantee under the terms of this Agreement, the Department shall pay the Grantee on a cost reimbursement basis up to a maximum of \$410,000. The parties hereto understand and agree that this Agreement does not require a match on the part of the Grantee.
 - B. The Grantee shall be reimbursed on a cost reimbursement basis for all eligible project costs upon the completion, submittal and approval of deliverables identified in **Attachment A**, in accordance with the schedule therein. Reimbursement shall be requested utilizing **Attachment B, Payment Request Summary Form**. To be eligible for reimbursement, costs must be in compliance with laws, rules and regulations applicable to expenditures of State funds, including, but not limited to, the Reference Guide for State Expenditures. All bills for amounts due under this Agreement shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof. A final payment request should be submitted to the Department no later than sixty (60) days following the completion date of the Agreement, to assure the availability of funds for payment.
 - C. The State Chief Financial Officer requires detailed supporting documentation of all costs under a cost reimbursement agreement. In accordance with the **Attachment C, Contract Payment Requirements**, the Grantee shall comply with the minimum requirements set forth therein. The Payment Request Summary Form shall be accompanied by supporting documentation and other requirements as follows for each deliverable:
 - i. Contractual (Subcontractors) - Reimbursement requests for payments to subcontractors must be substantiated by copies of invoices with backup documentation identical to that required from the Grantee. Subcontracts which involve payments for direct salaries shall clearly identify the personnel involved, salary rate per hour, and hours/time spent on the project. All multipliers used (i.e. fringe benefits, overhead, and/or general and administrative rates) shall be supported by audit. If the Department determines that multipliers charged by any subcontractor exceeded the rates supported by audit, the

Grantee shall be required to reimburse such funds to the Department within thirty (30) days of written notification. Interest on the excessive charges shall be calculated based on the prevailing rate used by the State Board of Administration. For fixed price (vendor) subcontracts, the following provisions shall apply:

- a. The Grantee may award, on a competitive basis, fixed price subcontracts to consultants/contractors in performing the work described in Attachment A. Invoices submitted to the Department for fixed price subcontracted activities shall be supported with a copy of the subcontractor's invoice and a copy of the tabulation form for the competitive procurement process (Invitation to Bid or Request for Proposals) resulting in the fixed price subcontract.
 - b. The Grantee may request approval from the Department to award a fixed price subcontract resulting from procurement methods other than those identified in the paragraph above. In this instance, the Grantee shall request the advance written approval from the Department's Grant Manager of the fixed price negotiated by the Grantee. The letter of request shall be supported by a detailed budget and Scope of Services to be performed by the subcontractor. Upon receipt of the Department Grant Manager's approval of the fixed price amount, the Grantee may proceed in finalizing the fixed price subcontract.
 - c. All subcontracts are subject to the provisions of paragraph 12 and any other appropriate provisions of this Agreement which affect subcontracting activities.
- D. In addition to the invoicing requirements contained in paragraphs 3.B. and C. above, the Department will periodically request proof of a transaction (invoice, payroll register, etc.) to evaluate the appropriateness of costs to the Agreement pursuant to State and Federal guidelines (including cost allocation guidelines), as appropriate. This information, when requested, must be provided within thirty (30) calendar days of such request. The Grantee may also be required to submit a cost allocation plan to the Department in support of its multipliers (overhead, indirect, general administrative costs, and fringe benefits). State guidelines for allowable costs can be found in the Department of Financial Services' Reference Guide for State Expenditures at <http://www.fldfs.com/aadir/reference%5Fguide>.
- E.
 - i. The accounting systems for all Grantees must ensure that these funds are not commingled with funds from other agencies. Funds from each agency must be accounted for separately. Grantees are prohibited from commingling funds on either a program-by-program or a project-by-project basis. Funds specifically budgeted and/or received for one project may not be used to support another project. Where a Grantee's, or subrecipient's, accounting system cannot comply with this requirement, the Grantee, or subrecipient, shall establish a system to provide adequate fund accountability for each project it has been awarded.
 - ii. If the Department finds that these funds have been commingled, the Department shall have the right to demand a refund, either in whole or in part, of the funds provided to the Grantee under this Agreement for non-compliance with the material terms of this Agreement. The Grantee, upon such written notification from the Department shall refund, and shall forthwith pay to the Department, the amount of money demanded by the Department. Interest on any refund shall be calculated based on the prevailing rate used by the State Board of Administration. Interest shall be calculated from the date(s) the original payment(s) are received from the Department by the Grantee to the date repayment is made by the Grantee to the Department.

- iii. In the event that the Grantee recovers costs, incurred under this Agreement and reimbursed by the Department, from another source(s), the Grantee shall reimburse the Department for all recovered funds originally provided under this Agreement. Interest on any refund shall be calculated based on the prevailing rate used by the State Board of Administration. Interest shall be calculated from the date(s) the payment(s) are recovered by the Grantee to the date repayment is made to the Department by the Grantee.
4. The State of Florida's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature. The parties hereto understand that this Agreement is not a commitment of future appropriations.
5. The Grantee shall utilize **Attachment D, Progress Report Form**, to describe the work performed during the reporting period, problems encountered, problem resolution, schedule updates and proposed work for the next reporting period. Quarterly reports shall be submitted to the Department's Grant Manager no later than twenty (20) days following the completion of the quarterly reporting period. It is hereby understood and agreed by the parties that the term "quarterly" shall reflect the calendar quarters ending March 31, June 30, September 30 and December 31. The Department's Grant Manager shall have thirty (30) calendar days to review the required reports and deliverables submitted by the Grantee. Final payment, of up to ten (10) percent of the total Agreement amount identified in paragraph 3.A., may be withheld until all work is completed, all deliverables have been submitted, match requirements have been met and the Final Project Report has been received and approved.
6. Each party hereto agrees that it shall be solely responsible for the negligent or wrongful acts of its employees and agents. However, nothing contained herein shall constitute a waiver by either party of its sovereign immunity or the provisions of Section 768.28, Florida Statutes.
7.
 - A. The Department may terminate this Agreement at any time in the event of the failure of the Grantee to fulfill any of its obligations under this Agreement. Prior to termination, the Department shall provide thirty (30) calendar days written notice of its intent to terminate and shall provide the Grantee an opportunity to consult with the Department regarding the reason(s) for termination.
 - B. The Department may terminate this Agreement for convenience by providing the Grantee with thirty (30) calendar days written notice.
8. No payment will be made for deliverables deemed unsatisfactory by the Department. In the event that a deliverable is deemed unsatisfactory by the Department, the Grantee shall re-perform the services needed for submittal of a satisfactory deliverable, at no additional cost to the Department, within ten (10) days of being notified of the unsatisfactory deliverable. If a satisfactory deliverable is not submitted within the specified timeframe, the Department may, in its sole discretion, either: 1) terminate this Agreement for failure to perform, or 2) the Department Grant Manager may, by letter specifying the failure of performance under this Agreement, request that a proposed Corrective Action Plan (CAP) be submitted by the Grantee to the Department. All CAPs must be able to be implemented and performed in no more than sixty (60) days.
 - A. A CAP shall be submitted within ten (10) calendar days of the date of the letter request from the Department. The CAP shall be sent to the Department Grant Manager for review and approval. Within ten (10) calendar days of receipt of a CAP, the Department shall notify the Grantee in writing whether the CAP proposed has been accepted. If the CAP is not accepted, the Grantee shall have ten (10) calendar days from receipt of the Department letter rejecting the proposal to submit a revised proposed CAP. Failure to obtain the Department approval of a CAP as specified above shall result in the Department's termination of this Agreement for cause as authorized in this Agreement.
 - B. Upon the Department's notice of acceptance of a proposed CAP, the Grantee shall have ten (10) calendar days to commence implementation of the accepted plan. Acceptance of the proposed CAP by the Department does not relieve the Grantee of any of its obligations under the Agreement.

In the event the CAP fails to correct or eliminate performance deficiencies by Grantee, the Department shall retain the right to require additional or further remedial steps, or to terminate this Agreement for failure to perform. No actions approved by the Department or steps taken by the Grantee shall preclude the Department from subsequently asserting any deficiencies in performance. The Grantee shall continue to implement the CAP until all deficiencies are corrected. Reports on the progress of the CAP will be made to the Department as requested by the Department Grant Manager.

- C. Failure to respond to a Department request for a CAP or failure to correct a deficiency in the performance of the Agreement as specified by the Department may result in termination of the Agreement

The remedies set forth above are not exclusive and the Department reserves the right to exercise other remedies in addition to or in lieu of those set forth above, as permitted by the Agreement.

- 9. This Agreement may be unilaterally canceled by the Department for refusal by the Grantee to allow public access to all documents, papers, letters, or other material made or received by the Grantee in conjunction with this Agreement, unless the records are exempt from Section 24(a) of Article I of the State Constitution and Section 119.07(1)(a), Florida Statutes.
- 10. The Grantee shall maintain books, records and documents directly pertinent to performance under this Agreement in accordance with generally accepted accounting principles consistently applied. The Department, the State, or their authorized representatives shall have access to such records for audit purposes during the term of this Agreement and for five (5) years following Agreement completion. In the event any work is subcontracted, the Grantee shall similarly require each subcontractor to maintain and allow access to such records for audit purposes.
- 11.
 - A. In addition to the requirements of the preceding paragraph, the Grantee shall comply with the applicable provisions contained in **Attachment E, Special Audit Requirements**, attached hereto and made a part hereof. **Exhibit 1 to Attachment E** summarizes the funding sources supporting the Agreement for purposes of assisting the Grantee in complying with the requirements of **Attachment E**. A revised copy of **Exhibit 1** must be provided to the Grantee for each amendment which authorizes a funding increase or decrease. If the Grantee fails to receive a revised copy of **Exhibit 1**, the Grantee shall notify the Department's Grants Development and Review Manager at 850/245-2361 to request a copy of the updated information.
 - B. The Grantee is hereby advised that the Federal and/or Florida Single Audit Act Requirements may further apply to lower tier transactions that may be a result of this Agreement. The Grantee shall consider the type of financial assistance (federal and/or state) identified in **Attachment E, Exhibit 1** when making its determination. For federal financial assistance, the Grantee shall utilize the guidance provided under OMB Circular A-133, Subpart B, Section __.210 for determining whether the relationship represents that of a subrecipient or vendor. For state financial assistance, the Grantee shall utilize the form entitled "Checklist for Nonstate Organizations Recipient/Subrecipient vs. Vendor Determination" (form number DFS-A2-NS) that can be found under the "Links/Forms" section appearing at the following website:

<https://apps.fldfs.com/fsaa>

The Grantee should confer with its chief financial officer, audit director or contact the Department for assistance with questions pertaining to the applicability of these requirements.

- 12.
 - A. The Grantee may subcontract work under this Agreement without the prior written consent of the Department's Grant Manager. The Grantee shall submit a copy of the executed subcontract to the Department within ten (10) days after execution. Regardless of any subcontract, the Grantee is ultimately responsible for all work to be performed under this Agreement. The Grantee agrees to

be responsible for the fulfillment of all work elements included in any subcontract and agrees to be responsible for the payment of all monies due under any subcontract. It is understood and agreed by the Grantee that the Department shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract and that the Grantee shall be solely liable to the subcontractor for all expenses and liabilities incurred under the subcontract.

- B. The Department of Environmental Protection supports diversity in its procurement program and requests that all subcontracting opportunities afforded by this Agreement embrace diversity enthusiastically. The award of subcontracts should reflect the full diversity of the citizens of the State of Florida. A list of minority owned firms that could be offered subcontracting opportunities may be obtained by contacting the Office of Supplier Diversity at (850) 487-0915.
13. In accordance with Section 216.347, Florida Statutes, the Grantee is hereby prohibited from using funds provided by this Agreement for the purpose of lobbying the Legislature, the judicial branch or a state agency.
14. The Grantee shall comply with all applicable federal, state and local rules and regulations in providing services to the Department under this Agreement. The Grantee acknowledges that this requirement includes, but is not limited to, compliance with all applicable federal, state and local health and safety rules and regulations. The Grantee further agrees to include this provision in all subcontracts issued as a result of this Agreement.
15. Any notices between the parties shall be considered delivered when posted by Certified Mail, return receipt requested, or overnight courier service, or delivered in person to the Grant Managers at the addresses below.
16. The Department's Grant Manager (which may also be referred to as the Department's Project Manager) for this Agreement is identified below.

Technical	
Sue Leitholf	
Florida Department of Environmental Protection	
Florida Coastal Office	
3900 Commonwealth Blvd MS# 235	
Tallahassee, Florida 32399	
Telephone No.:	(850) 245-2953
E-mail Address:	Susan.Leitholf@dep.state.fl.us

17. The Grantee's Grant Manager for this Agreement is identified below.

Virginia Barker	
Brevard County Board of County Commissioners	
Watershed Program Manager	
2725 Judge Fran Jamieson, A219	
Viera, Florida 34940	
Telephone No.:	(321) 633-2016
Fax No.:	(321) 633-2029
E-mail Address:	Virgina.Barker@brevardcounty.us

18. To the extent required by law, the Grantee will be self-insured against, or will secure and maintain during the life of this Agreement, Workers' Compensation Insurance for all of its employees connected with the work of this project and, in case any work is subcontracted, the Grantee shall require the subcontractor similarly to provide Workers' Compensation Insurance for all of the its employees unless such employees

are covered by the protection afforded by the Grantee. Such self-insurance program or insurance coverage shall comply fully with the Florida Workers' Compensation law. In case any class of employees engaged in hazardous work under this Agreement is not protected under Workers' Compensation statutes, the Grantee shall provide, and cause each subcontractor to provide, adequate insurance satisfactory to the Department, for the protection of his employees not otherwise protected.

19. The Grantee shall secure and maintain Commercial General Liability insurance including bodily injury and property damage. The minimum limits of liability shall be \$200,000 each individual's claim and \$300,000 occurrence. This insurance will provide coverage for all claims that may arise from the services and/or operations completed under this Agreement, whether such services and/or operations are by the Grantee or anyone directly or indirectly employed by him.
 - A. The Grantee shall secure and maintain Commercial Automobile Liability insurance for all claims which may arise from the services and/or operations under this Agreement, whether such services and/or operations are by the Grantee or by anyone directly, or indirectly employed by him. The minimum limits of liability shall be as follows:

\$300,000 Automobile Liability Combined Single Limit for Company Owned Vehicles, if applicable

\$300,000 Hired and Non-owned Liability Coverage
 - B. All insurance policies shall be with insurers licensed or eligible to do business in the State of Florida. The Grantee's current certificate of insurance shall contain a provision that the insurance will not be canceled for any reason except after thirty (30) days written notice (with the exception of non-payment of premium which requires a 10 day notice) to the Department's Procurement Administrator.
20. The Grantee covenants that it presently has no interest and shall not acquire any interest which would conflict in any manner or degree with the performance of services required.
21. Reimbursement for equipment purchases costing \$1,000 or more is not authorized under the terms and conditions of this Agreement.
22. The Department may at any time, by written order designated to be a change order, make any change in the Grant Manager information or task timelines within the current authorized Agreement period. All change orders are subject to the mutual agreement of both parties as evidenced in writing. Any change, which causes an increase or decrease in the Grantee's cost or time, shall require formal amendment to this Agreement.
23. If the Grantee's project involves environmentally related measurements or data generation, the Grantee shall develop and implement quality assurance practices consisting of policies, procedures, specifications, standards, and documentation sufficient to produce data of quality adequate to meet project objectives and to minimize loss of data due to out-of-control conditions or malfunctions. All sampling and analyses performed under this Agreement must conform with the requirements set forth in Chapter 62-160, Florida Administrative Code, and the Quality Assurance Requirements for Department Agreements, attached hereto and made part hereof as **Attachment F, Quality Assurance Requirements**.
24.
 - A. No person, on the grounds of race, creed, color, national origin, age, sex, or disability, shall be excluded from participation in; be denied the proceeds or benefits of; or be otherwise subjected to discrimination in performance of this Agreement.
 - B. An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not

submit bids on leases of real property to a public entity, may not award or perform work as a contractor, supplier, subcontractor, or consultant under contract with any public entity, and may not transact business with any public entity. The Florida Department of Management Services is responsible for maintaining the discriminatory vendor list and posts the list on its website. Questions regarding the discriminatory vendor list may be directed to the Florida Department of Management Services, Office of Supplier Diversity, at (850) 487-0915.


25. Land acquisition is not authorized under the terms of this Agreement.
26. This Agreement has been delivered in the State of Florida and shall be construed in accordance with the laws of Florida. Wherever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement. Any action hereon or in connection herewith shall be brought in Leon County, Florida.
27. This Agreement represents the entire agreement of the parties. Any alterations, variations, changes, modifications or waivers of provisions of this Agreement shall only be valid when they have been reduced to writing, duly signed by each of the parties hereto, and attached to the original of this Agreement, unless otherwise provided herein.


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IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed, the day and year last written below.

BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: 
Title: * Robin Fisher, Chairman
As approved by the Board on SEP 16 2014
Date: JAN 5 2015

By: 
Secretary or designee
Date: 1/13/14

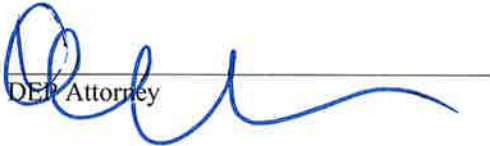
ATTEST

By: 
Scott Ellis, Clerk


Sue Leitholf, DEP Grant Manager

DEP Contracts Administrator

Approved as to form and legality:


DEP Attorney

FEID No.: 59-6000523

*For Agreements with governmental boards/commissions: If someone other than the Chairman signs this Agreement, a resolution, statement or other document authorizing that person to sign the Agreement on behalf of the Grantee must accompany the Agreement.

List of attachments/exhibits included as part of this Agreement:

Specify Type	Letter/ Number	Description (include number of pages)
<u>Attachment</u>	<u>A</u>	<u>Grant Work Plan (4 Pages)</u>
<u>Attachment</u>	<u>B</u>	<u>Payment Request Summary Form (2 Pages)</u>
<u>Attachment</u>	<u>C</u>	<u>Contract Payment Requirements (1 Page)</u>
<u>Attachment</u>	<u>D</u>	<u>Progress Report Form (1 Page)</u>
<u>Attachment</u>	<u>E</u>	<u>Special Audit Requirements (5 Pages)</u>
<u>Attachment</u>	<u>F</u>	<u>Quality Assurance Requirements (14 Pages)</u>

ATTACHMENT A PROJECT WORK PLAN

Project Title: Indian River Lagoon Oyster Restoration Project
Project Location: Indian River Lagoon, Cape Canaveral Watershed (HUC 03080202) and Vero Beach Watershed (HUC 03080203); Brevard County and Volusia County, FL
Project Description: The Indian River Lagoon (IRL) is a diverse, shallow-water estuary stretching 156 miles along 40 percent of Florida's east coast. It is classified by the U.S. Environmental Protection Agency as an Estuary of National Significance. The lagoon is an important economic resource to the state, providing a total estimated annual economic value of \$3.7 billion, supporting 15,000 full and part-time jobs and providing recreational opportunities for 11 million people annually. In spring 2011, an algal "super bloom" occurred throughout most of the Brevard County portion of the lagoon. Approximately 47,000 acres of seagrasses were lost, a reduction of about 60 percent, valued at \$235 to \$470 million in annual commercial and recreational fisheries losses. In August 2012, a brown tide bloom began that recurred in the summer of 2013. Local, state, national and international headlines describe the IRL's ecological "crisis." Approximately 50% of the lagoon's length and approximately 71% of its open water area lies within Brevard County. Turbidity, generated primarily from a mix of eroded sediments and dead plants, is deterring seagrass growth and consuming oxygen in this imperiled estuarine ecosystem. Oysters are effective filter feeders that clarify the water column at rates of up to 50 gallons of water filtered per day per oyster. Oyster reefs provide wave breaks that slow erosion, provide habitat for many commercially and recreationally important species, and create an environment that removes nitrates from the water column and releases nitrogen gas to the atmosphere. Via filtration and denitrification, oyster ecosystems can significantly improve IRL water quality and water clarity. Oysters and clams are known as 'ecosystem engineers' because they physically, biologically and chemically modify the environment around them in ways that influence water quality, nutrient cycling and the health of other organisms. They suppress harmful algal blooms, stimulate the growth of beneficial seagrasses, and filter suspended particles from the water column thereby reducing turbidity and nutrient pollution. The Eastern Oyster (<i>Crassostrea virginica</i>) is a culturally and economically important component of the Florida lifestyle, providing habitat for more than 140 species including blue crabs, stone crabs, shrimp, red and black drum, and spotted sea trout; providing feeding grounds for the bottlenose dolphin, American oystercatcher, American bald eagle, osprey, brown pelican and many wading bird species; and improving water quality and clarity. In addition to the well documented filtration, water clarity, habitat, and fishery production benefits of oyster reefs, they sequester nutrient pollution and provide an extra nitrogen pollution reduction benefit. Oysters filter nitrogen rich material from the surrounding water and excrete it into a denitrifying environment under the reef that ultimately releases nitrogen gas to the atmosphere. Such denitrification rates measured at restored oyster reefs in Maryland were among the highest ever recorded for an aquatic system. In Florida's warmer climate, oyster reef restoration has the potential of being more cost-effective at nitrogen sequestration and removal than almost all of the most common and highly regarded stormwater treatment best management practices currently in use. Historically, abundant oysters and clams filtered the waters of the IRL, removing suspended sediments, sequestering nutrients, and providing biodiverse habitat for recreationally and commercially significant fisheries. Today, these filter feeders are almost absent, due primarily to past overfishing and harmful freshwater discharges. Return of these critical ecological and economic keystone species is instrumental to restoration of the lagoon. Thus, Brevard County seeks funding from the Department to achieve the following oyster restoration objectives: <ul style="list-style-type: none">• Objective 1: Reduce pollutants, algal blooms and turbidity in the Indian River Lagoon.• Objective 2: Pilot three scientifically-based oyster restoration techniques to determine what method will be most successful in the Brevard section of the Indian River Lagoon.

- Objective 3: Quantify the nitrogen sequestration and removal rates of restored oyster reefs in Mosquito Lagoon to determine the potential cost effectiveness of oyster restoration for improving water quality in the Indian River Lagoon and throughout Florida's impaired estuaries.
- Objective 4: Create and implement a community-based program to propagate oysters at a 1000 sites throughout the county by engaging citizens in proven Oyster Gardening practices.
- Objective 5: Provide a proof of concept for developing a long-term, self-sustaining oyster restoration program in Brevard County that will engage non-profit partners, fishermen and the general public in hands-on, community-based lagoon restoration.

To decide where to begin restoring oyster beds, multiple factors will be considered including: the historical presence of oysters, salinity regimes, proximity to fresh water discharges, dissolved oxygen, food availability, presence of suitable substrate, substrate composition, larval supply, abundance of predators (crabs, snails, crown conch), presence of submerged aquatic vegetation, and continuing sources of potentially harmful contaminants.

In the Volusia County section of Mosquito Lagoon, community-based oyster reef restoration has been underway since 2007. Brevard Zoo volunteers, working under the direction of dedicated Zoo staff and Dr. Linda Walters of the University of Central Florida, have proven highly successful at restoring oyster reefs. This project seeks to build on the success of that ongoing program by expanding its restoration efforts into the Indian River Lagoon in Brevard County. At the same time, this project seeks to document the value of oyster restoration in terms of critical ecosystem services such as reducing nutrient pollution, algal blooms and turbidity. Recent research in Chesapeake Bay indicates that oyster restoration might be an extraordinarily cost effective way to do all that. This project will test this innovative approach in Florida.

The Grantee's ultimate goal is to increase the number of oysters in Brevard County to a self-sustaining population level and restore their associated ecosystem benefits to the Indian River Lagoon. The results of this project will provide a proof of concept for developing a long-term, self-sustaining oyster restoration program for the Brevard section of the IRL that will engage non-profit partners, fishermen and the general public in hands-on lagoon restoration and build personal stewardship for this local, state, and national estuarine treasure. Successful oyster restoration will reduce pollutants, algal blooms and turbidity in the lagoon – this study will determine how to maximize success.

This project is part of an annual multi-million dollar effort to reduce pollution, remove muck and restore the natural filtration systems of the lagoon. Specifically, the Grantee dedicates approximately \$3.4 million annually for Stormwater efforts and this grant provides an additional \$410,000.00 towards oyster restoration. Additionally, the Grantee dedicated \$150,000 of General Tax Funds in FY 13-14 to initiate oyster gardening. This project will determine whether redirecting some stormwater treatment funds, including state grant funds, to oyster restoration projects could result in healthier Florida estuaries, sooner, and at significantly less total cost.

Task 1: Oyster Gardening

Task Description: While reef site selection, permitting and design proceeds, a citizen-based oyster propagation program led by Brevard Zoo will engage the community in raising juvenile oysters to populate the pilot reef sites. In total, approximately 1000 community participants will grow 1000 seed oysters each in hanging oyster gardens for propagation under their private docks. This program will stock the hanging gardens of approximately 1000 citizen scientists with 1,000,000 spat in order to raise young adult oysters to populate portions of the pilot reefs. One million adult oysters, each filtering 50 gallons of water per day could filter over 18 billion gallons of lagoon per year.

Deliverable: Draft and final reports summarizing juvenile oyster success and evidence of volunteer gardener participation (copies of workshop registrations and sign-in sheets, presentations, and handouts).

Timeline for completion: July 2014 – September 2015

Budget Information: Contractual Services-\$150,000 for oyster gardening program and volunteer coordination services, including spat aquaculture and all gardening supplies.

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster gardening program success.

Task 2: Denitrification Measurement

Task Description: To measure the denitrification rate of restored oyster reefs in Florida, this project will establish experimental plots in control areas and at multiple restored reefs of different maturity in the Volusia County section of Mosquito Lagoon, where community-based oyster reef restoration has been underway since 2007. Within each experimental plot, seasonal measurements of nitrogen and phosphorus will be measured for one year to estimate annual nutrient removal. Nutrient removal will be compared between the control and each differently aged restoration reef. The cost of oyster reef restoration per pound of nitrogen or phosphorus removed will be compared to the typical cost per pound of nitrogen or phosphorus removed by a suite of common stormwater treatment best management practices.

Deliverable: Draft and final reports summarizing denitrification data and nutrient removal efficiencies.

Timeline for completion: July 2014 – September 2016

Budget Information: Contractual: \$87,235 (DEP funding) for denitrification and sequestration measurements, water quality monitoring, testing, analysis and reporting.

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster denitrification.

Task 3: Site Selection

Task Description: Prior to the project, Brevard County will conduct a site suitability analysis for identifying the best areas of the IRL for successful re-introduction of oyster reef ecosystems. The site suitability analysis will be used to select three best sites for pilot projects. A seventeen-year (1996-2013) water quality database will be reviewed to select sites with suitable conditions and to avoid factors that could negatively impact oyster populations. Successful oyster restoration requires a consideration of biological, environmental, hydrological, and physical parameters.

Deliverable: A list of the selected sites for pilot projects and the selection criteria used to select the sites...

Timeline for completion: July 2014 – October 2014

Budget Information: \$0

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the selected sites are in accordance with selection criteria

Task 4: Design and Permitting

Task Description: Reef foundation, material and vertical structure will be designed and permitted for three sites.

Deliverable: Draft and final design plans and specifications; final FDEP and ACOE permits.

Timeline for completion: September 2014 – March 2015

Budget Information: Contractual: \$4,836 (DEP funding)

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the project is fully permitted to commence the approved construction.

Task 5: Oyster Reef Construction

Task Description: Reef foundation, material and vertical structure will be constructed at three sites in time to coincide with peak oyster larva recruitment cycles (spring/summer months). Two methods of direct stocking will be conducted at each pilot reef and compared to natural recruitment.

Deliverable: Final as-built surveys.

Timeline for completion: February 2015 – June 2015

Budget Information: Contractual: \$11,000 for construction materials; \$56,000 for Zoo volunteer coordination.

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the completion of project construction is in accordance with approved design documents and specifications.

Task 6: Restored Reef Monitoring and Reporting

Task Description: The three restored sites in Brevard County will be monitored for at least a full year to track the survival and ecological function of each newly created oyster reef. Costs versus benefits, growth rates, and percent survival for each stocking method will be measured to determine the best method for long-term oyster restoration in Brevard County.

Deliverable: Draft and final reports summarizing oyster survival and ecological function; resulting costs versus benefits, growth rates, and percent survival for each stocking method; and determination of the best method for long-term oyster restoration in Brevard County.

Timeline for completion: July 2015 – November 2016

Budget Information: Contractual: \$100,929 for biological monitoring, testing, analysis and reporting.

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster reef restoration success and cost benefit analysis.

**ATTACHMENT B
PAYMENT REQUEST SUMMARY FORM**

Grantee: _____
Mailing Address: _____

Grantee's Grant Manager: _____

Payment Request No.: _____

DEP Agreement No.: S0763

Date Of Request: _____

Performance Period: _____

Task/Deliverable Amount Requested:\$ _____

Task/Deliverable No.: _____

GRANT EXPENDITURES SUMMARY SECTION

[Effective Date of Grant through End-of-Grant Period]

CATEGORY OF EXPENDITURE	AMOUNT OF THIS REQUEST	TOTAL CUMULATIVE PAYMENT REQUESTS	MATCHING FUNDS	TOTAL CUMULATIVE MATCHING FUNDS
Salaries	\$N/A	\$N/A	\$N/A	\$N/A
Fringe Benefits	\$N/A	\$N/A	\$N/A	\$N/A
Travel (if authorized)	\$N/A	\$N/A	\$N/A	\$N/A
Subcontracting:				
Contractual	\$	\$	\$	\$
Equipment Purchases	\$N/A	\$N/A	\$N/A	\$N/A
Supplies/Other Expenses	\$N/A	\$N/A	\$N/A	\$N/A
Land	\$N/A	\$N/A	\$N/A	\$N/A
Indirect	\$N/A	\$N/A	\$N/A	\$N/A
TOTAL AMOUNT	\$	\$	\$	\$
TOTAL TASK/DELIVERABLE BUDGET AMOUNT	\$		\$	
Less Total Cumulative Payment Requests of:	\$		\$	
TOTAL REMAINING IN TASK	\$		\$	

GRANTEE CERTIFICATION

The undersigned certifies that the amount being requested for reimbursement above was for items that were charged to and utilized only for the above cited grant activities.

_____	_____
Grantee's Grant Manager's Signature	Grantee's Fiscal Agent
_____	_____
Print Name	Print Name
_____	_____
Telephone Number	Telephone Number

**INSTRUCTIONS FOR COMPLETING
PAYMENT REQUEST SUMMARY FORM**

GRANTEE: Enter the name of the grantee's agency.

MAILING ADDRESS: Enter the address that you want the state warrant sent.

DEP AGREEMENT NO.: This is the number on your grant agreement.

DATE OF REQUEST: This is the date you are submitting the request.

TASK/DELIVERABLE AMOUNT REQUESTED: This should match the amount on the "TOTAL TASK/DELIVERABLE BUDGET AMOUNT" line for the "AMOUNT OF THIS REQUEST" column.

GRANTEE'S GRANT MANAGER: This should be the person identified as grant manager in the grant Agreement.

PAYMENT REQUEST NO.: This is the number of your payment request, not the quarter number.

PERFORMANCE PERIOD: This is the beginning and ending date of the performance period for the task/deliverable that the request is for (this must be within the timeline shown for the task/deliverable in the Agreement).

TASK/DELIVERABLE NO.: This is the number of the task/deliverable that you are requesting payment for and/or claiming match for (must agree with the current Grant Work Plan).

GRANT EXPENDITURES SUMMARY SECTION:

"AMOUNT OF THIS REQUEST" COLUMN: Enter the amount that was expended for this task during the period for which you are requesting reimbursement for this task. This must agree with the currently approved budget in the current Grant Work Plan of your grant Agreement. Do not claim expenses in a budget category that does not have an approved budget. Do not claim items that are not specifically identified in the current Grant Work Plan. Enter the column total on the "TOTAL AMOUNT" line. Enter the amount of the task on the "TOTAL TASK BUDGET AMOUNT" line. Enter the total cumulative amount of this request and all previous payments on the "LESS TOTAL CUMULATIVE PAYMENT REQUESTS OF" line. Deduct the "LESS TOTAL CUMULATIVE PAYMENT REQUESTS OF" from the "TOTAL TASK BUDGET AMOUNT" for the amount to enter on the "TOTAL REMAINING IN TASK" line.

"TOTAL CUMULATIVE PAYMENT REQUESTS" COLUMN: Enter the cumulative amounts that have been requested to date for reimbursement by budget category. The final request should show the total of all requests; first through the final request (this amount cannot exceed the approved budget amount for that budget category for the task you are reporting on). Enter the column total on the "TOTALS" line. **Do not enter anything in the shaded areas.**

"MATCHING FUNDS" COLUMN: Enter the amount to be claimed as match for the performance period for the task you are reporting on. This needs to be shown under specific budget categories according to the currently approved Grant Work Plan. Enter the total on the "TOTAL AMOUNT" line for this column. Enter the match budget amount on the "TOTAL TASK BUDGET AMOUNT" line for this column. Enter the total cumulative amount of this and any previous match claimed on the "LESS TOTAL CUMULATIVE PAYMENTS OF" line for this column. Deduct the "LESS TOTAL CUMULATIVE PAYMENTS OF" from the "TOTAL TASK BUDGET AMOUNT" for the amount to enter on the "TOTAL REMAINING IN TASK" line.

"TOTAL CUMULATIVE MATCHING FUNDS" COLUMN: Enter the cumulative amount you have claimed to date for match by budget category for the task. Put the total of all on the line titled "TOTALS." The final report should show the total of all claims, first claim through the final claim, etc. **Do not enter anything in the shaded areas.**

GRANTEE CERTIFICATION: Must be signed by both the Grantee's Grant Manager as identified in the grant agreement and the Grantee's Fiscal Agent.

NOTES:

If claiming reimbursement for travel, you must include copies of receipts and a copy of the travel reimbursement form approved by the Department of Financial Services, Chief Financial Officer.

Documentation for match claims must meet the same requirements as those expenditures for reimbursement.

ATTACHMENT C

Contract Payment Requirements Florida Department of Financial Services, Reference Guide for State Expenditures *Cost Reimbursement Contracts*

Invoices for cost reimbursement contracts must be supported by an itemized listing of expenditures by category (salary, travel, expenses, etc.). Supporting documentation must be provided for each amount for which reimbursement is being claimed indicating that the item has been paid. Check numbers may be provided in lieu of copies of actual checks. Each piece of documentation should clearly reflect the dates of service. Only expenditures for categories in the approved contract budget should be reimbursed.

Listed below are examples of the types of documentation representing the minimum requirements:

- (1) Salaries: A payroll register or similar documentation should be submitted. The payroll register should show gross salary charges, fringe benefits, other deductions and net pay. If an individual for whom reimbursement is being claimed is paid by the hour, a document reflecting the hours worked times the rate of pay will be acceptable.
- (2) Fringe Benefits: Fringe Benefits should be supported by invoices showing the amount paid on behalf of the employee (e.g., insurance premiums paid). If the contract specifically states that fringe benefits will be based on a specified percentage rather than the actual cost of fringe benefits, then the calculation for the fringe benefits amount must be shown.

Exception: Governmental entities are not required to provide check numbers or copies of checks for fringe benefits.
- (3) Travel: Reimbursement for travel must be in accordance with Section 112.061, Florida Statutes, which includes submission of the claim on the approved State travel voucher or electronic means.
- (4) Other direct costs: Reimbursement will be made based on paid invoices/receipts. If nonexpendable property is purchased using State funds, the contract should include a provision for the transfer of the property to the State when services are terminated. Documentation must be provided to show compliance with Department of Management Services Rule 60A-1.017, Florida Administrative Code, regarding the requirements for contracts which include services and that provide for the contractor to purchase tangible personal property as defined in Section 273.02, Florida Statutes, for subsequent transfer to the State.
- (5) In-house charges: Charges which may be of an internal nature (e.g., postage, copies, etc.) may be reimbursed on a usage log which shows the units times the rate being charged. The rates must be reasonable.
- (6) Indirect costs: If the contract specifies that indirect costs will be paid based on a specified rate, then the calculation should be shown.

Contracts between state agencies, and or contracts between universities may submit alternative documentation to substantiate the reimbursement request that may be in the form of FLAIR reports or other detailed reports.

The Florida Department of Financial Services, online Reference Guide for State Expenditures can be found at this web address: http://www.fldfs.com/aadir/reference_guide.htm

ATTACHMENT E

SPECIAL AUDIT REQUIREMENTS

The administration of resources awarded by the Department of Environmental Protection (*which may be referred to as the "Department", "DEP", "FDEP" or "Grantor", or other name in the contract/agreement*) to the recipient (*which may be referred to as the "Contractor", Grantee" or other name in the contract/agreement*) may be subject to audits and/or monitoring by the Department of Environmental Protection, as described in this attachment.

MONITORING

In addition to reviews of audits conducted in accordance with OMB Circular A-133 and Section 215.97, F.S., as revised (see "AUDITS" below), monitoring procedures may include, but not be limited to, on-site visits by Department staff, limited scope audits as defined by OMB Circular A-133, as revised, and/or other procedures. By entering into this Agreement, the recipient agrees to comply and cooperate with any monitoring procedures/processes deemed appropriate by the Department of Environmental Protection. In the event the Department of Environmental Protection determines that a limited scope audit of the recipient is appropriate, the recipient agrees to comply with any additional instructions provided by the Department to the recipient regarding such audit. The recipient further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Chief Financial Officer or Auditor General.

AUDITS

PART I: FEDERALLY FUNDED

This part is applicable if the recipient is a State or local government or a non-profit organization as defined in OMB Circular A-133, as revised.

1. In the event that the recipient expends \$500,000 or more in Federal awards in its fiscal year, the recipient must have a single or program-specific audit conducted in accordance with the provisions of OMB Circular A-133, as revised. EXHIBIT 1 to this Attachment indicates Federal funds awarded through the Department of Environmental Protection by this Agreement. In determining the Federal awards expended in its fiscal year, the recipient shall consider all sources of Federal awards, including Federal resources received from the Department of Environmental Protection. The determination of amounts of Federal awards expended should be in accordance with the guidelines established by OMB Circular A-133, as revised. An audit of the recipient conducted by the Auditor General in accordance with the provisions of OMB Circular A-133, as revised, will meet the requirements of this part.
2. In connection with the audit requirements addressed in Part I, paragraph 1, the recipient shall fulfill the requirements relative to auditee responsibilities as provided in Subpart C of OMB Circular A-133, as revised.
3. If the recipient expends less than \$500,000 in Federal awards in its fiscal year, an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, is not required. In the event that the recipient expends less than \$500,000 in Federal awards in its fiscal year and elects to have an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, the cost of the audit must be paid from non-Federal resources (i.e., the cost of such an audit must be paid from recipient resources obtained from other than Federal entities).
4. The recipient may access information regarding the Catalog of Federal Domestic Assistance (CFDA) via the internet at <http://12.46.245.173/cfda/cfda.html>.

PART II: STATE FUNDED

This part is applicable if the recipient is a nonstate entity as defined by Section 215.97(2)(m), Florida Statutes.

1. In the event that the recipient expends a total amount of state financial assistance equal to or in excess of \$500,000 in any fiscal year of such recipient, the recipient must have a State single or project-specific audit for such fiscal year in accordance with Section 215.97, Florida Statutes; applicable rules of the Department of Financial Services; and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General. EXHIBIT 1 to this Attachment indicates state financial assistance awarded through the Department of Environmental Protection by this Agreement. In determining the state financial assistance expended in its fiscal year, the recipient shall consider all sources of state financial assistance, including state financial assistance received from the Department of Environmental Protection, other state agencies, and other nonstate entities. State financial assistance does not include Federal direct or pass-through awards and resources received by a nonstate entity for Federal program matching requirements.
2. In connection with the audit requirements addressed in Part II, paragraph 1; the recipient shall ensure that the audit complies with the requirements of Section 215.97(7), Florida Statutes. This includes submission of a financial reporting package as defined by Section 215.97(2), Florida Statutes, and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General.
3. If the recipient expends less than \$500,000 in state financial assistance in its fiscal year, an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, is not required. In the event that the recipient expends less than \$500,000 in state financial assistance in its fiscal year, and elects to have an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, the cost of the audit must be paid from the non-state entity's resources (i.e., the cost of such an audit must be paid from the recipient's resources obtained from other than State entities).
4. For information regarding the Florida Catalog of State Financial Assistance (CSFA), a recipient should access the Florida Single Audit Act website located at <https://apps.fldfs.com/fsaa> for assistance. In addition to the above websites, the following websites may be accessed for information: Legislature's Website at <http://www.leg.state.fl.us/Welcome/index.cfm>, State of Florida's website at <http://www.myflorida.com/>, Department of Financial Services' Website at <http://www.fldfs.com/> and the Auditor General's Website at <http://www.state.fl.us/audgen>.

PART III: OTHER AUDIT REQUIREMENTS

(NOTE: This part would be used to specify any additional audit requirements imposed by the State awarding entity that are solely a matter of that State awarding entity's policy (i.e., the audit is not required by Federal or State laws and is not in conflict with other Federal or State audit requirements). Pursuant to Section 215.97(8), Florida Statutes, State agencies may conduct or arrange for audits of State financial assistance that are in addition to audits conducted in accordance with Section 215.97, Florida Statutes. In such an event, the State awarding agency must arrange for funding the full cost of such additional audits.)

PART IV: REPORT SUBMISSION

1. Copies of reporting packages for audits conducted in accordance with OMB Circular A-133, as revised, and required by PART I of this Attachment shall be submitted, when required by Section .320 (d), OMB Circular A-133, as revised, by or on behalf of the recipient directly to each of the following:

A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

B. The Federal Audit Clearinghouse designated in OMB Circular A-133, as revised (the number of copies required by Sections .320 (d)(1) and (2), OMB Circular A-133, as revised, should be submitted to the Federal Audit Clearinghouse), at the following address:

Federal Audit Clearinghouse
Bureau of the Census
1201 East 10th Street
Jeffersonville, IN 47132

Submissions of the Single Audit reporting package for fiscal periods ending on or after January 1, 2008, must be submitted using the Federal Clearinghouse's Internet Data Entry System which can be found at <http://harvester.census.gov/fac/>

C. Other Federal agencies and pass-through entities in accordance with Sections .320 (e) and (f), OMB Circular A-133, as revised.

2. Pursuant to Section .320(f), OMB Circular A-133, as revised, the recipient shall submit a copy of the reporting package described in Section .320(c), OMB Circular A-133, as revised, and any management letters issued by the auditor, to the Department of Environmental Protection at one the following addresses:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

3. Copies of financial reporting packages required by PART II of this Attachment shall be submitted by or on behalf of the recipient directly to each of the following:

A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

B. The Auditor General's Office at the following address:

State of Florida Auditor General
Room 401, Claude Pepper Building
111 West Madison Street
Tallahassee, Florida 32399-1450

4. Copies of reports or management letters required by PART III of this Attachment shall be submitted by or on behalf of the recipient directly to the Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

5. Any reports, management letters, or other information required to be submitted to the Department of Environmental Protection pursuant to this Agreement shall be submitted timely in accordance with OMB Circular A-133, Florida Statutes, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, as applicable.
6. Recipients, when submitting financial reporting packages to the Department of Environmental Protection for audits done in accordance with OMB Circular A-133, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, should indicate the date that the reporting package was delivered to the recipient in correspondence accompanying the reporting package.

PART V: RECORD RETENTION

The recipient shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of **5** years from the date the audit report is issued, and shall allow the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General access to such records upon request. The recipient shall ensure that audit working papers are made available to the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General upon request for a period of **3** years from the date the audit report is issued, unless extended in writing by the Department of Environmental Protection.

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EXHIBIT - 1

FUNDS AWARDED TO THE RECIPIENT PURSUANT TO THIS AGREEMENT CONSIST OF THE FOLLOWING:

Federal Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following:					
Federal Program Number	Federal Agency	CFDA Number	CFDA Title	Funding Amount	State Appropriation Category

State Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following Matching Resources for Federal Programs:					
Federal Program Number	Federal Agency	CFDA	CFDA Title	Funding Amount	State Appropriation Category

State Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following Resources Subject to Section 215.97, F.S.:						
State Program Number	Funding Source	State Fiscal Year	CSFA Number	CSFA Title or Funding Source Description	Funding Amount	State Appropriation Category
Original Agreement	General Revenue Trust Fund, Line Item 1668A	2014-2015	37.039	Statewide Surface Water Restoration and Wastewater Projects	\$410,000.00	140047

Total Award					\$410,000.00
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For each program identified above, the recipient shall comply with the program requirements described in the Catalog of Federal Domestic Assistance (CFDA) [<http://12.46.245.173/cfda/cfda.html>] and/or the Florida Catalog of State Financial Assistance (CSFA) [<https://apps.fldfs.com/fsaa/searchCatalog.aspx>]. The services/purposes for which the funds are to be used are included in the Contract scope of services/work. Any match required by the recipient is clearly indicated in the Contract.

Attachment F
Quality Assurance Requirements
For State Funded NPS BMP Monitoring Agreements

1. All sampling and analyses performed under this Agreement must conform to the requirements set forth in Chapter 62-160, Florida Administrative Code (F.A.C.) and "Requirements for Field and Analytical Work performed for the Department of Environmental Protection under Contract" (DEP-QA-002/02), February 2002.
2. **LABORATORIES**
 - a. The GRANTEE shall ensure that all laboratory testing activities are performed by laboratories certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP) for all applicable matrix/method/analyte combinations to be measured. For non-potable water matrix, the certification requirement is considered satisfied if the laboratory is certified for the contracted analyte in at least one method that uses the same analytical technology as the contract-proposed method.
 - b. If the laboratory is not certified for some or all of the proposed test measurements, the laboratory shall apply for certification within one month of Contract execution. Within six months of Contract execution, the laboratory shall be fully certified for all applicable matrix/method/analyte combinations to be performed. Regardless of when the laboratory receives certification, the laboratory must implement all applicable standards of the National Environmental Laboratory Accreditation Conference (NELAC) upon Contract execution.
 - c. Laboratories shall maintain certification as specified in item 2.a above during the life of the Contract. Should certification for an analyte or test method be lost, all affected tests shall be immediately sub-contracted to a laboratory with current DoH ELCP certification in the appropriate matrix/method/analyte combination(s). The GRANTEE shall notify the DEP Grant Manager in writing before any change to a sub-contracted laboratory is made.
 - d. A copy of the DoH ELCP Certificate and the associated list of specific fields of accreditation for each contracted or sub-contracted laboratory shall be provided to the DEP contract manager upon Contract execution or upon receiving DoH certification (see items 2.a and 2.b above).
 - e. The GRANTEE shall ensure that an acceptable initial demonstration of capability (IDOC), as described in Appendix C of Chapter 5 of the NELAC Standards is performed. Each laboratory that performs any of the proposed matrix/method/analyte combination(s) must have the requisite IDOC documentation and supporting laboratory records. IDOCs shall be performed before the test procedure is used to generate data for this Contract. If requested by the Department, documentation that supports the IDOC shall be made available for review.
 - f. When performance test samples are not required by DoH ELCP for certification, the laboratory shall obtain, analyze and evaluate performance test samples, standard reference materials (SRM) or other externally assayed quality control (QC) samples, hereinafter known collectively as quality control check (QCC) samples.
 - (i) The laboratory shall ensure that the selected QCC samples(s) represent all matrix/method/analyte combinations that are not subject to certification requirements.
 - (ii) These samples shall be analyzed at six-month intervals and the results shall be within the acceptable range established by the QCC sample provider.
 - (iii) Before providing analytical services for this Agreement, the laboratory must provide to the DEP contract manager the results of the QCC sample(s) and the associated acceptable range(s) as established by the QCC sample provider. The submitted results must be from QCC samples that have been completed within the previous six months prior to the submission date.
 - g. Any non-standard laboratory procedures or methods that are proposed for use (i.e., those not approved by DEP for standard environmental analyses) shall be submitted for review and approval in accordance with DEP-QA-001/01, "New and Alternative Analytical Laboratory Methods," February 1, 2004. These procedures or methods shall be approved by the DEP Grant Manager before use under this Agreement and must be cited or described in the required planning document (see Section 6).
 - h. The GRANTEE shall ensure that Practical Quantitation Limits (PQLs) and Method Detection Limits (MDLs) required by the Contract are listed in the planning document (see Section 6).
 - i. The GRANTEE shall ensure that the selected laboratory test methods listed in the planning document can provide results that meet the Contract data quality objectives.
 - j. The GRANTEE shall ensure that all laboratory testing procedures follow the analytical methods as approved in the planning document (see Section 6).

- k. The GRANTEE shall ensure that the all laboratory quality control measures are consistent with Chapter 5 of the NELAC standards.
- l. In addition, the GRANTEE shall ensure that the quality control requirements specified in the attached addenda are followed.
- m. The GRANTEE shall ensure that all sample results are calculated according to the procedures specified in the analytical methods approved in the planning document.

3. **FIELD ACTIVITIES**

- a. "Sample" refers to samples that have been either collected or analyzed under the terms of this Agreement.
- b. The GRANTEE shall ensure that all sample collection and field testing activities are performed in accordance with the Department's "Standard Operating Procedures for Field Activities" (DEP-SOP-001/01, March 31, 2008). The specific standard operating procedures (SOPs) to be used for this Agreement shall be cited in the planning document (see Section 6).
- c. Any non-standard field procedure shall be submitted for review and approval to the DEP Grant Manager in accordance with section FA 2000 of DEP-SOP-001/01. All non-standard procedures and methods must be approved by the DEP Grant Manager before use under this Agreement and must be cited or described in the planning document.
- d. Per the quality control measures outlined in the DEP SOPs (FQ 1000 and the calibration requirements of the FT-series for field testing), the GRANTEE shall ensure that the following field quality controls (and any additional quality control measures specified in the addenda) are incorporated into the project design:
 - (i) Matrix-Related Quality Controls - The GRANTEE shall ensure that the laboratory is provided with sufficient sample volume to analyze at least one set of matrix spikes and either matrix spike duplicates or laboratory duplicates as follows:
 - (1) The first time a sample from a sample collection matrix (see Table FA 1000-1) is collected;
 - (2) One in each additional 20 samples of the sample collection matrix, after the first 20 samples; and
 - (3) The last time samples are collected for the sample collection matrix.
 - (ii) Field-generated Quality Control duplicates or replicates (not to be confused with laboratory duplicates) shall be collected and analyzed at a frequency of 5% of the total number of samples collected for each matrix/analyte combination (see FQ 1220).
 - (1) All field duplicate results greater than the contracted PQL should agree within 20% RPD for each measured analyte. In the event that the field duplicate agreement is not observed, the GRANTEE shall investigate and attempt to determine the cause of poor precision. The outcome of these investigations shall be reported, including the corrective measures taken to minimize future problems.
 - (iii) Field-Generated Quality Control (QC) Blanks – Blanks associated with field activities as defined in FQ 1210 of the DEP SOPs shall be collected according to the requirements of FQ 1230.
 - (1) If an analyte detected in the sample is also found in any field-generated QC blank that is associated with the sample, the GRANTEE shall investigate and attempt to determine the cause of the QC blank contamination. The outcome of this investigation shall be reported and shall include a discussion of the corrective measures taken to minimize future occurrences of QC blank contamination.
 - (2) If an analyte detected in the sample is also found in any field-generated QC blank that is associated with the sample, the GRANTEE shall ensure that the analyte in the affected sample is reported as estimated ("J" with a narrative explanation) unless the analyte concentration in the affected sample is at least 10 times the reported QC blank value concentration.
 - (iv) The GRANTEE shall identify a second laboratory that meets the requirements in Section 1 and shall arrange to have split samples collected using the sampling procedures specified in the Contract and analyzed by the primary and secondary laboratories. Split samples shall be collected at least once during the project and at least annually thereafter. The GRANTEE shall specify the procedure for splitting the samples in the planning document.
 - (1) The results from the two laboratories shall be assessed using a precision criterion of no greater than 20% RPD as an initial guide to assessment of the split sample results.
 - (2) All differences between split sample results from the two laboratories shall be investigated and resolved.

4. **REPORTING, DOCUMENTATION AND RECORDS RETENTION**

- a. The GRANTEE shall ensure that all laboratory and field records as outlined in Rules 62-160.240 and .340, F.A.C. are retained for a minimum of five years after the project completion.
- b. All field and laboratory records that are associated with work performed under this Agreement shall be organized so that any information can be quickly and easily retrieved for inspection, copying or distribution.
- c. The GRANTEE shall ensure that all laboratory reports are issued in accordance with NELAC requirements. These reports shall be submitted to the DEP Grant Manager and shall include the following information:
 - ▶ Laboratory sample identification (ID) and associated Field ID
 - ▶ Analytical/test method
 - ▶ Parameter/analyte name
 - ▶ Analytical result (including dilution factor)
 - ▶ Result unit
 - ▶ Applicable DEP Qualifiers per Table 1 of Chapter 62-160, F.A.C.
 - ▶ Result comment(s) to include corrective/preventive actions taken for any failed QC measure (e.g., QC sample, calibration failure, etc.) or other problem related to the analysis of the samples
 - ▶ Date and time of sample preparation (if applicable)
 - ▶ Date and time of sample analysis
 - ▶ Results of laboratory verification of field preservation
 - ▶ Sample matrix
 - ▶ DoH ELCP certification number for each laboratory (must be associated with the test result(s) generated by the laboratory)
 - ▶ MDL
 - ▶ PQL
 - ▶ Sample type (such as blank type, duplicate type, etc.)
 - ▶ Field and laboratory QC blank results:
 - Laboratory QC blank analysis results as required by the method, NELAC Chapter 5 and the planning document (see Section 6 below);
 - Field quality control results including trip blanks, field blanks, equipment blanks, and field duplicates (or replicates) as specified in the planning document (see Section 6)
 - ▶ Results of sample matrix spikes, laboratory duplicates or matrix spike duplicates, as applicable
 - ▶ Results of surrogate spike analyses (if performed)
 - ▶ Results of laboratory control samples (LCS)
 - ▶ Link between each reported quality control measure (e.g., QC blanks, matrix spikes, LCS, duplicates, calibration failure, etc.) and the associated sample result(s)
 - ▶ Acceptance criteria used to evaluate each reported quality control measure
- d. The GRANTEE shall ensure that the following field-related information is reported to the DEP Grant Manager:
 - ▶ Site and/or facility name, address and phone number
 - ▶ Field ID for each sample container and the associated analytes (test methods) for which the container was collected
 - ▶ Date and time of sample collection
 - ▶ Sample collection depth
 - ▶ Sample collection method identified by the DEP SOP number, where applicable
 - ▶ If performed, indicate samples that were filtered
 - ▶ Field test measurement results:
 - DEP SOP number (FT-series), where applicable
 - Parameter name
 - Result
 - Result unit
 - Applicable Data Qualifiers per Table 1 of Chapter 62-160, F.A.C.

- ▶ Narrative comments discussing corrective/preventive actions taken for any failed QC measure (e.g., blank contamination, meter calibration failure, split sample results, etc.), unacceptable field measurement or other problems related to the sampling event.
 - e. The GRANTEE shall submit the lab and field data above electronically in either Excel or Access format.
5. **AUDITS**
- a. AUDITS BY THE DEPARTMENT – Pursuant to Rule 62-160.650, F.A.C., the Department may conduct audits of field and/or laboratory activities. In addition to allowing Department representatives to conduct onsite audits, the GRANTEE, upon request by the Department, must provide all field and laboratory records pertinent to the contracted field and laboratory activities. If an audit by the Department results in a determination that the reported data are not usable for the purpose(s) or do not meet the data quality objectives specified by the Contract, the DEP Grant Manager shall pursue remedies available to the Department, including those outlined in Section 8 below.
 - b. PLANNING REVIEW AUDITS –
 - (i) Initial: Within 15 days of completing the first sampling and analysis event, the GRANTEE and all associated subcontractors shall review the planning document (see Section 6 below) relative to the completed field and laboratory activities to determine if the data quality objectives are being met, identify any improvements to be made to the process, and refine the sampling and/or analytical design or schedule. Within one month of the review, a summary of the review, including any corrective action plans or amendments to the planning document, shall be sent to the DEP Grant Manager and a copy shall be maintained with the permanent project records.
 - (ii) Ongoing: Planning reviews as described in item (i) above shall occur annually.
 - c. QUALITY SYSTEMS AUDITS – The GRANTEE and all subcontractors shall ensure that any required laboratory and field quality system and management systems audits are performed according to the respective Quality Manuals for each contracted and sub-contracted entity. These audits shall be documented in the GRANTEE's and subcontractors' records.
 - d. STATEMENTS OF USABILITY – As a part of the audit process and the final report, the GRANTEE shall provide statements about data usability relative to the Contract Data Quality Objectives and Data Quality Indicators specified in the planning document, this attachment and the addenda.
 - (i) The GRANTEE shall ensure that all acceptance and usability criteria required by this Agreement not specified above are listed in the planning document.
 - (ii) The GRANTEE shall ensure that the results of all quality control measures described above are evaluated according to the acceptance criteria listed in this attachment, the addenda and the planning document.
 - (iii) The GRANTEE shall ensure that all sample results are evaluated according to the additional usability criteria specified in the planning document.
6. **PLANNING DOCUMENT**
- a. The GRANTEE shall submit the planning document identified below to the DEP Grant Manager no later than 120 days prior to the commencement of field and laboratory activities. Failure to submit the planning document in this required timeframe shall result in a delay of approval to begin work until the document has been submitted to the Department and approved by the DEP Grant Manager. The document shall be submitted as a Sampling and Analysis Plan or, if desired, as the final monitoring plan submitted to the DEP Grant Manager. In either case, the plan shall include/discuss the information contained in the document "Requirements for Field and Analytical Work Performed for the Department of Environmental Protection Under Contract", DEP-QA-002/02.
 - b. The GRANTEE and subcontractors may submit a version of the planning document to the Department for approval no more than three times. If the GRANTEE fails to obtain approval for the planning document after the third (final) submission to the Department, the DEP Grant Manager may suspend or terminate the Contract.
 - c. The DEP Agreement number shall appear on the title page of the submitted planning document. Within forty-five (45) days of receipt of the properly identified planning document by the Department, the Department shall review and either approve the planning document or provide comments to the GRANTEE and affected subcontractors as to why the planning document is not approved. If further revisions are needed, the GRANTEE shall then have fifteen (15) days from the receipt of review comments to respond. The Department shall respond to all revisions to the planning document within thirty (30) days of receipt of any revisions.

- d. If the review of the planning document by the Department is delayed, through no fault of the GRANTEE, beyond sixty (60) days after the planning document is received by the Department, the GRANTEE shall have the option, after the planning document is approved, of requesting and receiving an extension in the term of the Agreement for a time period not to exceed the period of delayed review and approval. This option must be exercised at least sixty (60) days prior to the current termination date of the Agreement.
 - e. Work may not begin for specific Contract tasks until approval has been received by the GRANTEE from the DEP Grant Manager. Sampling and analysis for the Agreement may not begin until the planning document has been approved.
 - f. Once approved, the GRANTEE shall follow the protocols specified in the approved planning document including, but not limited to:
 - ▶ Ensuring that all stated quality control measures are collected, analyzed and evaluated for acceptability;
 - ▶ Using only the protocols approved in the planning document; and
 - ▶ Using only the equipment approved in the planning document.
 - g. If any significant changes in procedures or test methods, changes in equipment, changes in subcontractor organizations or changes in key personnel occur, the GRANTEE shall submit appropriate revisions of the planning document to the DEP Grant Manager for review. The proposed revisions may not be implemented until they have been approved by the DEP Grant Manager. If the GRANTEE fails to submit the required revisions, the DEP Grant Manager may suspend or terminate the Agreement.
 - h. When the approved planning document requires modification, the amendments shall be
 - (i) Provided in a new planning document, or
 - (ii) Provided as amended sections of the current planning document, or
 - (iii) Documented through written or electronic correspondence with the DEP Grant Manager and incorporated into the approved planning document.
7. **DELIVERABLES**
- a. The following lists the expected schedule for the deliverables that are associated with the Quality Assurance requirements of this Agreement:
 - (i) Copy of DoH ELCP Certificate(s) and the associated list(s) of specific fields of accreditation, per item 2.d above.
 - (ii) Copies of the QCC sample results per item 2.f. above.
 - (iii) Non-standard laboratory or field procedures – The GRANTEE shall submit to the DEP Grant Manager all required information necessary for review of non-standard procedures per items 2.h. and 3.b. above.
 - (iv) Reports of planning review audits as specified in item 5.b. above.
 - (v) Statements of Usability as specified in item 5.d. above.
 - (vi) Planning document per Section 6, above.
8. **CONSEQUENCES**
- a. Failure to comply with any requirement of this attachment may result in:
 - (i) Immediate termination of the Agreement.
 - (ii) Withheld payment for the affected activities.
 - (iii) Contract suspension until the requirement(s) has been met.
 - (iv) A request to refund already disbursed payments.
 - (v) A request to redo work affected by the non-compliant activity.
 - (vi) Other remedies available to the Department.

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Addendum 1
Quality Control Requirements for Laboratories Performing Chemical Analysis

In addition to the quality control requirements outlined in Chapter 5 of the NELAC Standards, the following quality control measures shall be implemented for this Agreement. Note: "Sample" refers to samples that have been either collected or analyzed under the terms of this Agreement.

1. Matrix-Related Quality Control Samples - The GRANTEE shall ensure that samples associated with this Agreement are used for matrix spikes, and either laboratory duplicates or matrix spike duplicates. The laboratory shall analyze these samples:
 - a. The first time samples from a sample collection matrix (see Table FA 1000-1) are submitted to the laboratory under this Agreement for analysis. The laboratory shall select one or more of the received samples for use in composition of the matrix spike and duplicates.
 - b. After the first 20 samples from the sample collection matrix have been analyzed, at least one matrix spike and either laboratory duplicates or matrix spike duplicates shall be composed using a sample or samples selected from each additional 20 samples of the sample collection matrix submitted to the laboratory.
 - c. The last time samples from the sample collection matrix are received and analyzed. The laboratory shall select one or more of the received samples for use in composition of the matrix spike and duplicates.
 - d. Spike levels must be at the concentrations specified in item 3 below.
 - e. If the selected sample concentration is expected to be below the Contract-specified practical quantitation limit (PQL) listed in the planning document, then matrix spike duplicates must be used.
2. Per NELAC Chapter 5 requirements, as least one Laboratory Control Sample (LCS; also known as Laboratory Fortified Blank) shall be prepared, analyzed and evaluated with each batch of 20 samples or less.
 - a. The acceptance criteria for the LCS shall be specified in the planning document.
 - b. If the LCS is unacceptable, the samples associated with the LCS shall be reprocessed with a new LCS. If the samples cannot be reprocessed, the data must be appropriately qualified.
3. For applicable analytes denoted in the planning document, a QC check sample, standard reference material (SRM) or other quality control sample, hereinafter identified collectively as quality control check samples (QCCS), shall be processed with each sample preparation batch and analyzed for evaluation according to the acceptance limits established for the QCCS.
 - a. Analysis of a QCCS is required for but not limited to the following analyses:
 - (i) Chlorophyll – the assay for the QCCS or its original formulation shall have been determined by an organization external to the laboratory ;
 - (ii) Biochemical oxygen demand (BOD) or carbonaceous BOD (CBOD) – the method-specified glucose/glutamic acid check solution shall be used; and,
 - (iii) Copper in seawater – the QCCS shall be any seawater-matrix SRM assayed by an organization external to the laboratory.
 - b. If the QCCS is unacceptable, the samples associated with the QCCS shall be reprocessed with a new QCCS. If the samples cannot be reprocessed, the data must be appropriately qualified for all contracted samples in the preparation batch.
4. Spiking/Fortification Requirements - All spike fortifications must take place prior to any required sample preparation steps (e.g., sample extraction, sample digestion, pH adjustment, etc.). The final concentration of any spike fortification shall be at the applicable level identified below.
 - a. If any of the samples in the preparation batch are non-detect (i.e., below the MDL specified in the planning document), the spiking level must not be greater than 2 times the Contract-specified PQL.
 - b. The concentration of a spiked sample cannot exceed 5 times the highest concentration of any contracted sample in the preparation batch.
5. Evaluation of Matrix Spikes - The results of matrix spikes must meet the acceptance criteria specified by the Contract and listed in the planning document or the data must be appropriately qualified.
 - a. If the failure is reported to be due to *sample* matrix interference, the laboratory shall document the process by which this conclusion is determined.
6. Evaluation of Laboratory Duplicate/Replicate Samples – All replicate samples (sample duplicates, matrix spike duplicates, LCS duplicates or other replicates) must be evaluated for a precision criterion not to exceed 20 % RPD. This criterion shall be listed in the planning document.
 - a. In the event that laboratory replicate agreement is not observed, the laboratory must investigate the poor precision and report the results with appropriate qualifiers and/or comments.

7. Instrument Calibration – In addition to calibration procedures specified in the analytical methods listed in the planning document, the GRANTEE shall ensure that the following requirements are met:
 - a. All sample results shall be chronologically bracketed between acceptable calibration verifications.
 - b. Initial Calibration Requirements
 - (i) The minimum number of calibration standards required to calibrate each instrument used for the contracted analyses shall conform to the analytical method approved in the planning document. If the minimum number of calibration standards is not specified in the method, the number must be specified in the planning document and shall be consistent with the NELAC Chapter 5 standards.
 - (ii) Unless otherwise specified by the method, all sample results shall be based on the initial calibration curve responses.
 - (iii) If linear regressions are used, the correlation coefficient shall be equal to or greater than 0.995 for all regressions.
 - (iv) Immediately after performing an initial calibration, the accuracy of the calibration shall be verified using a second source. A second source may be a standard, a Standard Reference Material (SRM), or other sample type with a verified concentration such as a QC Check Sample. Standards must have been prepared from a different lot or vendor.
 - (v) The acceptance criteria for second-source verifications shall be specified in the planning document.
 - (vi) Sample analysis cannot proceed if an initial calibration is unacceptable.
 - c. Continuing Calibration Requirements:
 - (i) When an initial calibration is not performed on the day of analysis, a continuing calibration standard shall be analyzed, evaluated and determined to be acceptable prior to analyzing samples.
 - (ii) A continuing calibration standard shall be analyzed and evaluated at the end of the analytical run.
 - (iii) The acceptance criteria for continuing calibration verifications shall be specified in the planning document.
 - (iv) For each analytical run, the analytical sensitivity must be evaluated using a continuing calibration standard prepared at the Contract-specified PQL. The analyzed value of this standard must be within 70% – 130% of the expected value. If this PQL check fails, the blank and associated sample results must be reported as “estimated” per Chapter 62-160, F.A.C. unless the affected results are at least 10 times the absolute value of the observed bias of the PQL check.
 - (v) If a continuing calibration verification fails, samples not chronologically bracketed by acceptable calibration verifications must be reanalyzed or appropriately qualified.
 - d. Sample results below the Contract-specified PQL and above the highest calibration standard shall be appropriately qualified.
8. Quality Control Blanks
 - a. If a Contracted analyte is detected in any analytical QC blank, the sample results that are associated with the blank must be reported with the appropriate qualifier from Chapter 62-160, F.A.C., unless the affected sample concentrations are at least 10 times higher than the calculated QC blank concentration.
 - b. Sample results must be chronologically bracketed with acceptable beginning and ending analytical QC blanks.
 - c. If a Contracted analyte is detected in the field blank, equipment blank or trip blank, the result must be confirmed by reanalyzing a new aliquot of the blank unless the sample concentration results associated with the blank are at least 10 times the calculated blank concentration. The laboratory must investigate the blank contamination to determine that positive blank results are not due to a laboratory error and report the affected samples and field-generated blank results with appropriate qualifiers and/or comments.
9. If any quality control measure or calibration verification fails (including those specified above), samples that are associated with the failure must be reanalyzed, if possible. Sample data that are associated with a failed quality control measure or calibration must be appropriately qualified as specified in Chapter 62-160, F.A.C. An explanatory comment must be attached to the final report for each result that has a qualifier code other than U, I, or A. Any additional qualifier codes used but not explicitly listed in Chapter 62-160, F.A.C. must be identified and defined in the report.
10. The reported MDL and PQL for each sample must be adjusted for dilution factors and any relevant preparation weights and volumes.
11. Field QC duplicates or replicates - The GRANTEE shall ensure that field duplicates (not to be confused with laboratory duplicates) are analyzed. All field duplicate results greater than the contracted PQL should agree within 20% RPD for each measured analyte. In the event that field duplicate agreement is not observed, the

laboratory must investigate sufficiently to determine that poor precision is not due to a laboratory error and report the results with appropriate qualifiers and/or comments.

12. For all organic analyses using either gas chromatography or HPLC, analytes with concentrations above the method detection limit shall be confirmed by at least one of the qualitative identification measures listed below. Confirmation must occur the first time an analyte is detected at a sampling point.

- ▶ Second column/same detector
- ▶ Second column/alternate detector
- ▶ Same column/alternate detector
- ▶ Mass spectrometry
- ▶ Alternate wavelength

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Addendum 2

Quality Control Requirements for Laboratories Performing Microbiological Testing

In addition to the quality control requirements outlined in Chapter 5 of the NELAC Standards, the following quality control measures shall be implemented for this Agreement. Note: "Sample" refers to samples that have been either collected or analyzed under the terms of this Agreement.

1. All microbiological analyses must conform to the requirements for facilities, personnel qualifications, equipment specifications and quality control measures discussed in *AWWA Standard Methods, section 9020* (all acceptable editions)
2. **Holding Times** – Any sample that exceeds the holding time specified in 40 CFR Part 136 (for non-potable water) or 40 CFR Part 141 (for drinking water compliance) must be appropriately qualified with a "Q". The holding begins with the sample collection date and time and ends with the date and time of the placement of the processed sample into or on the applicable growth medium.
 - a. For non-potable water, the maximum transport time to the laboratory is 6 hours and samples should be processed within 2 hours of receipt at the laboratory. **For purposes of contractual services and to determine compliance with this requirement, the Department will allow no greater than 6 hours from time of collection to the time of receipt by the laboratory AND no greater than 8 hours from time of collection to the placement of the processed sample into or on the applicable growth medium**
 - b. All samples that are either received after 6 hours **OR** placed into or on growth medium after 8 hours will be considered outside of holding time and must be qualified with a "Q" qualifier.
 - (i.) All samples that exceed the method-specified incubation period (range of minimum to maximum) shall be qualified with a "J" qualifier.
 - c. For drinking water compliance, the time from sample collection to placement of the processed sample into or on the applicable growth medium may not exceed 30 hours.
 - (i.) All samples that are processed after 30 hours will be considered outside of holding time and must be qualified with a "Q" qualifier.
 - (ii.) All samples that exceed the method-specified incubation period (range of minimum to maximum hours) shall be qualified with a "J" qualifier.
 - d. In order to evaluate the holding time for each sample, the following information shall be documented.
 - (1) Date and time of sample collection
 - (2) Date and time of laboratory receipt of the sample
 - (3) Date and time the analysis begins – (The time at which the sample is placed in or on the appropriate media for incubation).
 - (4) Date and time incubation begins
 - (5) Date and time analysis ends - The date and time incubation ends and plates/tubes are read.
3. **Dilutions for membrane filter analysis** - In order to achieve the recommended range of target organisms (20 – 60 colony forming units (CFU) for fecal coliform, enterococci and fecal streptococcus or 20 – 80 for total coliforms and E.coli), multiple dilutions of a sample must be run. While the general history of a sample site may be well known, the water will be influenced by many environmental factors at any one time.
 - a. **A minimum of 3 dilutions will be run for each sample analysis (except blanks).** The three dilution volumes may vary according to the range of expected values or an understanding of the environmental conditions at the time of sampling. Waters of a higher quality (low microbial density) may benefit from a dilution series of 100 mL, 50 mL, and 25 mL of sample volume, whereas, lower quality waters (high microbial density) might require only 10 mL, 1.0 mL, and 0.1 mL. Use a 100 mL dilution for all blanks (including field and equipment blanks). Table 1 provides suggested volumes for varying water sources and has been adapted from Table 9222:III, *Standard Methods*, 20th Edition, and can be used for microbiological samples:

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Water source	Dilutions (Sample Volume, mL)
Equipment, field blanks	100
Lakes, reservoirs, rivers	100, 50, 10 or 50, 10, 25
Wells, springs	100, 50, 10 or 100, 50, 25
Water supply intake	50, 10, 1
Natural bathing waters	50, 10, 1
Sewage treatment plant	10, 1, 0.1
Farm ponds, rivers	1, 0.1, 0.01
Stormwater runoff	1, 0.1, 0.01
Raw municipal sewage	0.1, 0.01, 0.001
Feedlot runoff	0.1, 0.01, 0.001
Sewage sludge	0.01, 0.001, 0.0001

4. **QUALITY CONTROL BLANKS**

- a. The number and types of blanks to be run shall follow method requirements with these modifications:
 - (i.) If the membrane filter technique is used, the sample set(s) shall be associated with a beginning and ending filtration blank processed within a time period not to exceed 30 minutes. The environmental field samples shall be filtered after the beginning blank and before the ending blank.
 - (ii.) If filtration funnels are not sanitized by U light between samples, additional sterility blanks shall be filtered after every 10 samples processed within the 30-minute set
- b. The results of any blank must be < 1 CFU/100 mL or the associated sample results must be reported with the appropriate qualifier from Chapter 62-160, F.A.C. (“V” for filtration blanks and “J” for field-generated blanks).

5. **Laboratory Quality Control Duplicates**

- a. At least 10% of the samples (or one per test run) shall be duplicated.
- b. All duplicate results shall be evaluated per method specifications using the precision criterion. The range of the transformed duplicates shall not exceed the precision criterion established by the laboratory. In the event that laboratory duplicate agreement is not observed, the laboratory must investigate the poor precision and report the results with appropriate qualifiers and/or comments.
- c. Field Quality Control Duplicates or Replicates - In the event that agreement (less than or equal the laboratory established precision criterion) is not observed between results from field-generated replicate samples, the laboratory must investigate the replicate analyses to determine that poor precision is not due to a laboratory error and report the results with appropriate qualifiers and/or comments. The laboratory shall use the analytical method specifications for precision control as a guide to evaluation of the field-generated replicate results.

6. **Colony Counts**

- a. In addition to the requirements listed below, all analytical results shall be calculated by the procedures established in the microbiological method(s) approved for the Contract and listed in the planning document.
- b. The laboratory shall make every attempt to ensure that colony counts are in the method-specified ideal range (20 – 60 colony forming units (CFU) for fecal coliform, enterococci and fecal streptococcus or 20 – 80 for total coliforms and E.coli). Reported values from colony plate counts outside this range shall be qualified with a “B” (unless the reported value is from a 100 mL sample and the count is less than 20).
- c. If all counts are above 60, the result shall be calculated and reported from the highest dilution. This result must be reported as “estimated”.

7. **Calculating Raw Data for Final Reporting** - Standard Methods (SM) 9222D and EPA Method 1600 offer slightly differing guidance on the calculation and reporting of microbiological data. Although this guidance is not intended to capture every scenario possible in the calculation and reporting of the test data, the most common scenarios are discussed with the emphasis on reporting the data result, the dilution factor, and the data qualifier. For detailed discussions on additional scenarios, see the applicable method.

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- a. Interpretation of **Standard Methods SM 9222, B.6, 20th Ed.** and EPA 1600, Appendix B. calculations:

$$\text{CFU}/100 \text{ mL} = \frac{C \times 100}{V}$$

Where,

CFU/100 mL = Number of enterococci or fecal coliform colony forming units per 100 mL of sample.

C = Total number of positive colonies counted on all acceptable dilutions.

V = Total volume, equal to the sum of all acceptable dilutions (sample volumes used), in mL

- (i.) When one dilution in a series has a count within the ideal CFU range (see above):
 - (a) Use the count from the dilution that is within range to calculate the final result in the equation above.
 - (ii.) When more than one dilution in a series has an acceptable count within the ideal range use the applicable method below. Since this calculation is not a laboratory sample replicate, do not use an "A" qualifier.
 - (1) SM 9222D - Use the sum of all dilutions within the ideal range and the sum of the counts from all dilutions in the ideal range in the equation above.
 - (2) EPA 1600 - Independently calculate a final value for each dilution within the ideal range in the equation above and report the average of these values.
 - (iii.) When no dilutions fall within the ideal range:
 - (1) For both methods: A "B" qualifier is not required if all dilutions were less than the lower acceptable limit (20 CFUs), and one of the dilutions was 100 mL. For this situation, report the calculated value from the 100 mL dilution without a "B".
 - (2) SM 9222D - Use the sum of all dilutions in the equation to calculate the final result. Include dilutions that have a zero count. Report the final result with a "B" qualifier.
 - (3) EPA 1600:
 - (a) If all counts are under the lower acceptable limit (20 CFUs) or are both above and below the limit, choose the dilution with the count that is closest to the ideal range to calculate final result and report with a "B" qualifier.
 - (b) If all counts are above the upper acceptable limit (60 or 80 CFUs), use the dilution with the smallest volume filtered to calculate final result and report with a "B" qualifier.
 - (iv.) If counts from all dilutions are zero:
 - (1) For SM 9222D- Use "1" as the total number of colonies counted and include all dilutions in the equation to calculate final result. Report with a "U" qualifier.
 - (2) For EPA 1600 - Use "1" as the total number of colonies counted and use only the highest filtration volume as total volume in the equation above to calculate final result. Report with a "U" qualifier.
 - (v.) If there are >200 target colonies in all dilutions:
 - (vi.) For both methods - Use the upper limit of the ideal range (60 or 80) and the smallest filtration volume in mL to calculate an estimated final result. Report with a "Z" qualifier.
 - (vii.) If there are >200 non-target colonies, or if the colonies are not distinct enough to count (confluent growth) in all dilutions:
 - (1) For both methods - Report as "No Result" with a "Z" qualifier.
8. Use of Dilution Factor (DF) field
- a. Use the following equation to determine dilution factor for all samples:

$$\text{DF} = \frac{100}{V}$$

Where,

DF = Dilution Factor

V = Total volume (sum of dilutions in mL used in final calculation)

9. Verification

a. Frequency

- (i.) Independently verify at least 10 isolated colonies from a positive sample per month.
- (ii.) Verify atypical colonies of different morphological types to check for false negatives.
- (iii.) Also, verify any ambiguous colonies as needed.

b. Procedure

- (i.) Use aseptic techniques to transfer growth from each colony into individual tubes. For 10 colonies, there should be 10 tubes total, for each verification test media.
- (ii.) See Table 2 for the method requirements for fecal coliform and Enterococci. Follow the method requirements for all others.

Table 2: Verification Tests						
Method	Verify with the following:					
Enterococci EPA 1600	<u>BHI Agar Slant</u>	<u>BHI</u>	<u>Gram stain</u>	<u>BHI</u>	<u>BEA</u>	<u>BHI w/6.5% NaCl</u>
	35 ± 0.5°C 48 ± 3 h (use growth for gram staining)	35 ± 0.5°C 24 ± 2 h (turbidity)	(gram positive cocci)	45 ± 0.5°C 48 ± 3 h (turbidity)	35 ± 0.5°C 48 ± 3 h (growth w/ black/brown precipitate)	35 ± 0.5°C 48 ± 3 h (turbidity)
Fecal Coliforms SM9222D	<u>LTB</u>	<u>EC</u>				
	35 ± 0.5°C 48 ± 3 h (turbidity and gas)	44.5 ± 0.2°C 24 ± 2 h (turbidity and gas)				
The response bolded in parentheses indicate the positive result for each test.						

c. Reporting

- (i.) Adjust colony counts for the original positive sample based on percent of colonies verified positive.
 - (1) For example: A sample dilution has a colony count of 30 fecal coliforms. Ten of these positive blue colonies were used in the verification tests, but only 8 verified positive for both EC and LTB. This means only 80% were verified positive and therefore the final count of 30 is adjusted by 80% to 24 colonies.
 - (ii.) For verified samples, report as “Verified” in the comment field.
10. Data Qualifier Codes - The use of Data Qualifier Codes is not discussed in the methods, but the Department’s QA-Rule 62-160 F.A.C. requires that data qualifiers be used when the data is being submitted to the State. The purpose of the Data Qualifier Codes is to communicate the reliability of the reported data to the consumer. Table 3 identifies those Data Qualifier codes that are generally associated with microbiological data reporting. Others may apply. The laboratory must apply any applicable data qualifiers as listed in Table 1 of the Quality Assurance Rule (62-160, F.A.C.)
- a. Any data point which is derived from any analysis other than the direct calculation of the number of colonies on a membrane filter that were within the recommended range of the method must be qualified with one or more of the Data Qualifier Codes listed below.
 - b. Any result associated with a failed QC test must be reported with applicable data qualifiers.
 - c. Any result that is associated with a failure to meet test requirements (e.g., holding time, incubation time, etc.) shall also be qualified with applicable data qualifiers.
 - d. Failure to report data with appropriate data qualifier codes will be returned to the laboratory without payment for services until corrections are made.

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Table 3

Typical Data Qualifier Codes to be used when Reporting Microbiological Data to the FDEP under the Overflow Purchase Order or Contract (others may apply)

62-160 Regulatory Meaning (rule) or Contract Requirement/Interpretation (contract)

A	Rule	Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
	Contract Requirement	<i>Two or more replicates of the same volume of sample are run and the data averaged.</i>
B	Rule	Results based upon colony counts outside the acceptable range. This code applies to microbiological tests and specifically to membrane filter colony counts. The code is to be used if the colony count is generated from a plate in which the total number of coliform colonies is outside the method indicated ideal range. This code is not to be used if a 100 mL sample has been filtered and the colony count is less than the lower value of the ideal range.
	Contract Requirement	<i>Based on colony counts outside the method specified range of 20 – 60 colonies per membrane filter. This code is not required if a 100 mL sample has been run, the density reported is below 20 and only this sample value was reported.</i>
J	Rule	Estimated value. A “J” value shall be accompanied by a detailed explanation to justify the reason(s) for designating the value as estimated. Where possible, the organization shall report whether the actual value is estimated to be less than or greater than the reported value. A “J” value shall not be used as a substitute for K, L, M, T, V, or Y, however, if additional reasons exist for identifying the value as an estimate (e.g., matrix spiked failed to meet acceptance criteria), the “J” code may be added to a K, L, M, T, V, or Y. Examples of situations in which a “J” code must be reported include: instances where a quality control item associated with the reported value failed to meet the established quality control criteria (the specific failure must be identified); instances when the sample matrix interfered with the ability to make any accurate determination; instances when data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample); instances when the analyte was detected at or above the method detection limit in a blank other than the method blank (such as calibration blank or field-generated blanks and the value of 10 times the blank value was equal to or greater than the associated sample value); or instances when the field or laboratory calibrations or calibration verifications did not meet calibration acceptance criteria.
	Contract Requirement	<i>In addition to the above examples, other “J” code situations are: quality control duplicate failures, ongoing precision recovery (OPR) spike failures, matrix spike failures, incubation period or temperature failures, other QC check failures.</i>
O	Rule	Sampled, but analysis lost or not performed.
	Contract Requirement	<i>Sample taken but analysis lost, invalidated, or not performed.</i>
Q	Rule	Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.

Table 3

Typical Data Qualifier Codes to be used when Reporting Microbiological Data to the FDEP under the Overflow Purchase Order or Contract (others may apply)

62-160 Regulatory Meaning (rule) or Contract Requirement/Interpretation (contract)

Qualifier	Contract Requirement
U	<p><i>Sample received after 6 hours OR analyzed beyond 8 hours.</i></p> <p>Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).</p> <p><i>Organism was analyzed for but not detected.</i></p>
V	<p>Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value. Note: unless specified by the method, the value in the blank shall not be subtracted from associated samples.</p> <p><i>Analyte was detected in both samples and method blank. Use this code when the sample result is less than or equal to 10 times the value of the blank. Do not subtract the value of the blank from the sample result.</i></p>
Y	<p>The laboratory analysis was from an improperly preserved sample. The data may not be accurate.</p> <p>Too many colonies were present for accurate counting. Historically, this condition has been reported as "too numerous to count" (TNTC). The "Z" qualifier code shall be reported when the total number of colonies of all types is more than 200 in all dilutions of the sample. When applicable to the observed test results, a numeric value for the colony count for the microorganism tested shall be estimated from the highest dilution factor (smallest sample volume) used for the test and reported with the qualifier code.‡</p>
Z	<p><i>Colonies on plate too numerous to count (TNTC). Results shall be reported as the maximum recommended count of typical target colonies (60 CFU/lowest volume used x 100 mL). If atypical, non-target, spreading colonies or other interferences occur where typical target organisms cannot be determined, report "No Result" in the results column and "Z" in the Data Qualifier column.</i></p>

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DEP AGREEMENT NO. S0763

STATE OF FLORIDA
GRANT AGREEMENT
PURSUANT TO LINE ITEM 1668A OF THE 2014-2015 GENERAL APPROPRIATIONS ACT

THIS AGREEMENT is entered into between the STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, whose address is 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000 (hereinafter referred to as the "Department") and the BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS, whose address is 2725 Judge Fran Jamieson Way A219, Viera, Florida 32940 (hereinafter referred to as "Grantee"), local government, to provide financial assistance for the Indian River Lagoon Oyster Restoration Project.

In consideration of the mutual benefits to be derived herefrom, the Department and the Grantee do hereby agree as follows:

1. The Grantee does hereby agree to perform in accordance with the terms and conditions set forth in this Agreement, **Attachment A, Grant Work Plan**, and all attachments and exhibits named herein which are attached hereto and incorporated by reference. For purposes of this Agreement, the terms "Grantee", and "Recipient" are used interchangeably.
2. This Agreement shall begin upon execution by both parties and remain in effect for a period of twenty-four (24) months, inclusive. The Grantee shall be eligible for reimbursement for work performed on October 1, 2014 through the expiration date of this Agreement. This Agreement may be amended to provide for additional services if additional funding is made available by the Legislature.
3.
 - A. As consideration for the satisfactory completion of services rendered by the Grantee under the terms of this Agreement, the Department shall pay the Grantee on a cost reimbursement basis up to a maximum of \$410,000. The parties hereto understand and agree that this Agreement does not require a match on the part of the Grantee.
 - B. The Grantee shall be reimbursed on a cost reimbursement basis for all eligible project costs upon the completion, submittal and approval of deliverables identified in **Attachment A**, in accordance with the schedule therein. Reimbursement shall be requested utilizing **Attachment B, Payment Request Summary Form**. To be eligible for reimbursement, costs must be in compliance with laws, rules and regulations applicable to expenditures of State funds, including, but not limited to, the Reference Guide for State Expenditures. All bills for amounts due under this Agreement shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof. A final payment request should be submitted to the Department no later than sixty (60) days following the completion date of the Agreement, to assure the availability of funds for payment.
 - C. The State Chief Financial Officer requires detailed supporting documentation of all costs under a cost reimbursement agreement. In accordance with the **Attachment C, Contract Payment Requirements**, the Grantee shall comply with the minimum requirements set forth therein. The Payment Request Summary Form shall be accompanied by supporting documentation and other requirements as follows for each deliverable:
 - i. Contractual (Subcontractors) - Reimbursement requests for payments to subcontractors must be substantiated by copies of invoices with backup documentation identical to that required from the Grantee. Subcontracts which involve payments for direct salaries shall clearly identify the personnel involved, salary rate per hour, and hours/time spent on the project. All multipliers used (i.e. fringe benefits, overhead, and/or general and administrative rates) shall be supported by audit. If the Department determines that multipliers charged by any subcontractor exceeded the rates supported by audit, the

Grantee shall be required to reimburse such funds to the Department within thirty (30) days of written notification. Interest on the excessive charges shall be calculated based on the prevailing rate used by the State Board of Administration. For fixed price (vendor) subcontracts, the following provisions shall apply:

- a. The Grantee may award, on a competitive basis, fixed price subcontracts to consultants/contractors in performing the work described in Attachment A. Invoices submitted to the Department for fixed price subcontracted activities shall be supported with a copy of the subcontractor's invoice and a copy of the tabulation form for the competitive procurement process (Invitation to Bid or Request for Proposals) resulting in the fixed price subcontract.
 - b. The Grantee may request approval from the Department to award a fixed price subcontract resulting from procurement methods other than those identified in the paragraph above. In this instance, the Grantee shall request the advance written approval from the Department's Grant Manager of the fixed price negotiated by the Grantee. The letter of request shall be supported by a detailed budget and Scope of Services to be performed by the subcontractor. Upon receipt of the Department Grant Manager's approval of the fixed price amount, the Grantee may proceed in finalizing the fixed price subcontract.
 - c. All subcontracts are subject to the provisions of paragraph 12 and any other appropriate provisions of this Agreement which affect subcontracting activities.
- D. In addition to the invoicing requirements contained in paragraphs 3.B. and C. above, the Department will periodically request proof of a transaction (invoice, payroll register, etc.) to evaluate the appropriateness of costs to the Agreement pursuant to State and Federal guidelines (including cost allocation guidelines), as appropriate. This information, when requested, must be provided within thirty (30) calendar days of such request. The Grantee may also be required to submit a cost allocation plan to the Department in support of its multipliers (overhead, indirect, general administrative costs, and fringe benefits). State guidelines for allowable costs can be found in the Department of Financial Services' Reference Guide for State Expenditures at <http://www.fldfs.com/aadir/reference%5Fguide>.
- E.
- i. The accounting systems for all Grantees must ensure that these funds are not commingled with funds from other agencies. Funds from each agency must be accounted for separately. Grantees are prohibited from commingling funds on either a program-by-program or a project-by-project basis. Funds specifically budgeted and/or received for one project may not be used to support another project. Where a Grantee's, or subrecipient's, accounting system cannot comply with this requirement, the Grantee, or subrecipient, shall establish a system to provide adequate fund accountability for each project it has been awarded.
 - ii. If the Department finds that these funds have been commingled, the Department shall have the right to demand a refund, either in whole or in part, of the funds provided to the Grantee under this Agreement for non-compliance with the material terms of this Agreement. The Grantee, upon such written notification from the Department shall refund, and shall forthwith pay to the Department, the amount of money demanded by the Department. Interest on any refund shall be calculated based on the prevailing rate used by the State Board of Administration. Interest shall be calculated from the date(s) the original payment(s) are received from the Department by the Grantee to the date repayment is made by the Grantee to the Department.

- iii. In the event that the Grantee recovers costs, incurred under this Agreement and reimbursed by the Department, from another source(s), the Grantee shall reimburse the Department for all recovered funds originally provided under this Agreement. Interest on any refund shall be calculated based on the prevailing rate used by the State Board of Administration. Interest shall be calculated from the date(s) the payment(s) are recovered by the Grantee to the date repayment is made to the Department by the Grantee.
4. The State of Florida's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature. The parties hereto understand that this Agreement is not a commitment of future appropriations.
5. The Grantee shall utilize **Attachment D, Progress Report Form**, to describe the work performed during the reporting period, problems encountered, problem resolution, schedule updates and proposed work for the next reporting period. Quarterly reports shall be submitted to the Department's Grant Manager no later than twenty (20) days following the completion of the quarterly reporting period. It is hereby understood and agreed by the parties that the term "quarterly" shall reflect the calendar quarters ending March 31, June 30, September 30 and December 31. The Department's Grant Manager shall have thirty (30) calendar days to review the required reports and deliverables submitted by the Grantee. Final payment, of up to ten (10) percent of the total Agreement amount identified in paragraph 3.A., may be withheld until all work is completed, all deliverables have been submitted, match requirements have been met and the Final Project Report has been received and approved.
6. Each party hereto agrees that it shall be solely responsible for the negligent or wrongful acts of its employees and agents. However, nothing contained herein shall constitute a waiver by either party of its sovereign immunity or the provisions of Section 768.28, Florida Statutes.
7.
 - A. The Department may terminate this Agreement at any time in the event of the failure of the Grantee to fulfill any of its obligations under this Agreement. Prior to termination, the Department shall provide thirty (30) calendar days written notice of its intent to terminate and shall provide the Grantee an opportunity to consult with the Department regarding the reason(s) for termination.
 - B. The Department may terminate this Agreement for convenience by providing the Grantee with thirty (30) calendar days written notice.
8. No payment will be made for deliverables deemed unsatisfactory by the Department. In the event that a deliverable is deemed unsatisfactory by the Department, the Grantee shall re-perform the services needed for submittal of a satisfactory deliverable, at no additional cost to the Department, within ten (10) days of being notified of the unsatisfactory deliverable. If a satisfactory deliverable is not submitted within the specified timeframe, the Department may, in its sole discretion, either: 1) terminate this Agreement for failure to perform, or 2) the Department Grant Manager may, by letter specifying the failure of performance under this Agreement, request that a proposed Corrective Action Plan (CAP) be submitted by the Grantee to the Department. All CAPs must be able to be implemented and performed in no more than sixty (60) days.
 - A. A CAP shall be submitted within ten (10) calendar days of the date of the letter request from the Department. The CAP shall be sent to the Department Grant Manager for review and approval. Within ten (10) calendar days of receipt of a CAP, the Department shall notify the Grantee in writing whether the CAP proposed has been accepted. If the CAP is not accepted, the Grantee shall have ten (10) calendar days from receipt of the Department letter rejecting the proposal to submit a revised proposed CAP. Failure to obtain the Department approval of a CAP as specified above shall result in the Department's termination of this Agreement for cause as authorized in this Agreement.
 - B. Upon the Department's notice of acceptance of a proposed CAP, the Grantee shall have ten (10) calendar days to commence implementation of the accepted plan. Acceptance of the proposed CAP by the Department does not relieve the Grantee of any of its obligations under the Agreement.

In the event the CAP fails to correct or eliminate performance deficiencies by Grantee, the Department shall retain the right to require additional or further remedial steps, or to terminate this Agreement for failure to perform. No actions approved by the Department or steps taken by the Grantee shall preclude the Department from subsequently asserting any deficiencies in performance. The Grantee shall continue to implement the CAP until all deficiencies are corrected. Reports on the progress of the CAP will be made to the Department as requested by the Department Grant Manager.

- C. Failure to respond to a Department request for a CAP or failure to correct a deficiency in the performance of the Agreement as specified by the Department may result in termination of the Agreement

The remedies set forth above are not exclusive and the Department reserves the right to exercise other remedies in addition to or in lieu of those set forth above, as permitted by the Agreement.

- 9. This Agreement may be unilaterally canceled by the Department for refusal by the Grantee to allow public access to all documents, papers, letters, or other material made or received by the Grantee in conjunction with this Agreement, unless the records are exempt from Section 24(a) of Article I of the State Constitution and Section 119.07(1)(a), Florida Statutes.
- 10. The Grantee shall maintain books, records and documents directly pertinent to performance under this Agreement in accordance with generally accepted accounting principles consistently applied. The Department, the State, or their authorized representatives shall have access to such records for audit purposes during the term of this Agreement and for five (5) years following Agreement completion. In the event any work is subcontracted, the Grantee shall similarly require each subcontractor to maintain and allow access to such records for audit purposes.
- 11.
 - A. In addition to the requirements of the preceding paragraph, the Grantee shall comply with the applicable provisions contained in **Attachment E, Special Audit Requirements**, attached hereto and made a part hereof. **Exhibit 1 to Attachment E** summarizes the funding sources supporting the Agreement for purposes of assisting the Grantee in complying with the requirements of **Attachment E**. A revised copy of **Exhibit 1** must be provided to the Grantee for each amendment which authorizes a funding increase or decrease. If the Grantee fails to receive a revised copy of **Exhibit 1**, the Grantee shall notify the Department's Grants Development and Review Manager at 850/245-2361 to request a copy of the updated information.
 - B. The Grantee is hereby advised that the Federal and/or Florida Single Audit Act Requirements may further apply to lower tier transactions that may be a result of this Agreement. The Grantee shall consider the type of financial assistance (federal and/or state) identified in **Attachment E, Exhibit 1** when making its determination. For federal financial assistance, the Grantee shall utilize the guidance provided under OMB Circular A-133, Subpart B, Section __.210 for determining whether the relationship represents that of a subrecipient or vendor. For state financial assistance, the Grantee shall utilize the form entitled "Checklist for Nonstate Organizations Recipient/Subrecipient vs. Vendor Determination" (form number DFS-A2-NS) that can be found under the "Links/Forms" section appearing at the following website:

<https://apps.fldfs.com/fsaa>

The Grantee should confer with its chief financial officer, audit director or contact the Department for assistance with questions pertaining to the applicability of these requirements.

- 12.
 - A. The Grantee may subcontract work under this Agreement without the prior written consent of the Department's Grant Manager. The Grantee shall submit a copy of the executed subcontract to the Department within ten (10) days after execution. Regardless of any subcontract, the Grantee is ultimately responsible for all work to be performed under this Agreement. The Grantee agrees to

be responsible for the fulfillment of all work elements included in any subcontract and agrees to be responsible for the payment of all monies due under any subcontract. It is understood and agreed by the Grantee that the Department shall not be liable to any subcontractor for any expenses or liabilities incurred under the subcontract and that the Grantee shall be solely liable to the subcontractor for all expenses and liabilities incurred under the subcontract.

B. The Department of Environmental Protection supports diversity in its procurement program and requests that all subcontracting opportunities afforded by this Agreement embrace diversity enthusiastically. The award of subcontracts should reflect the full diversity of the citizens of the State of Florida. A list of minority owned firms that could be offered subcontracting opportunities may be obtained by contacting the Office of Supplier Diversity at (850) 487-0915.

13. In accordance with Section 216.347, Florida Statutes, the Grantee is hereby prohibited from using funds provided by this Agreement for the purpose of lobbying the Legislature, the judicial branch or a state agency.
14. The Grantee shall comply with all applicable federal, state and local rules and regulations in providing services to the Department under this Agreement. The Grantee acknowledges that this requirement includes, but is not limited to, compliance with all applicable federal, state and local health and safety rules and regulations. The Grantee further agrees to include this provision in all subcontracts issued as a result of this Agreement.
15. Any notices between the parties shall be considered delivered when posted by Certified Mail, return receipt requested, or overnight courier service, or delivered in person to the Grant Managers at the addresses below.
16. The Department's Grant Manager (which may also be referred to as the Department's Project Manager) for this Agreement is identified below.

<u>Technical</u>	
Sue Leitholf	
Florida Department of Environmental Protection	
Florida Coastal Office	
3900 Commonwealth Blvd MS# 235	
Tallahassee, Florida 32399	
Telephone No.:	(850) 245-2953
E-mail Address:	Susan.Leitholf@dep.state.fl.us

17. The Grantee's Grant Manager for this Agreement is identified below.

Virginia Barker	
Brevard County Board of County Commissioners	
Watershed Program Manager	
2725 Judge Fran Jamieson, A219	
Viera, Florida 34940	
Telephone No.:	(321) 633-2016
Fax No.:	(321) 633-2029
E-mail Address:	Virgina.Barker@brevardcounty.us

18. To the extent required by law, the Grantee will be self-insured against, or will secure and maintain during the life of this Agreement, Workers' Compensation Insurance for all of its employees connected with the work of this project and, in case any work is subcontracted, the Grantee shall require the subcontractor similarly to provide Workers' Compensation Insurance for all of the its employees unless such employees

are covered by the protection afforded by the Grantee. Such self-insurance program or insurance coverage shall comply fully with the Florida Workers' Compensation law. In case any class of employees engaged in hazardous work under this Agreement is not protected under Workers' Compensation statutes, the Grantee shall provide, and cause each subcontractor to provide, adequate insurance satisfactory to the Department, for the protection of his employees not otherwise protected.

19. The Grantee shall secure and maintain Commercial General Liability insurance including bodily injury and property damage. The minimum limits of liability shall be \$200,000 each individual's claim and \$300,000 occurrence. This insurance will provide coverage for all claims that may arise from the services and/or operations completed under this Agreement, whether such services and/or operations are by the Grantee or anyone directly or indirectly employed by him.
 - A. The Grantee shall secure and maintain Commercial Automobile Liability insurance for all claims which may arise from the services and/or operations under this Agreement, whether such services and/or operations are by the Grantee or by anyone directly, or indirectly employed by him. The minimum limits of liability shall be as follows:
 - \$300,000 Automobile Liability Combined Single Limit for Company Owned Vehicles, if applicable
 - \$300,000 Hired and Non-owned Liability Coverage
 - B. All insurance policies shall be with insurers licensed or eligible to do business in the State of Florida. The Grantee's current certificate of insurance shall contain a provision that the insurance will not be canceled for any reason except after thirty (30) days written notice (with the exception of non-payment of premium which requires a 10 day notice) to the Department's Procurement Administrator.
20. The Grantee covenants that it presently has no interest and shall not acquire any interest which would conflict in any manner or degree with the performance of services required.
21. Reimbursement for equipment purchases costing \$1,000 or more is not authorized under the terms and conditions of this Agreement.
22. The Department may at any time, by written order designated to be a change order, make any change in the Grant Manager information or task timelines within the current authorized Agreement period. All change orders are subject to the mutual agreement of both parties as evidenced in writing. Any change, which causes an increase or decrease in the Grantee's cost or time, shall require formal amendment to this Agreement.
23. If the Grantee's project involves environmentally related measurements or data generation, the Grantee shall develop and implement quality assurance practices consisting of policies, procedures, specifications, standards, and documentation sufficient to produce data of quality adequate to meet project objectives and to minimize loss of data due to out-of-control conditions or malfunctions. All sampling and analyses performed under this Agreement must conform with the requirements set forth in Chapter 62-160, Florida Administrative Code, and the Quality Assurance Requirements for Department Agreements, attached hereto and made part hereof as **Attachment F, Quality Assurance Requirements**.
24.
 - A. No person, on the grounds of race, creed, color, national origin, age, sex, or disability, shall be excluded from participation in; be denied the proceeds or benefits of; or be otherwise subjected to discrimination in performance of this Agreement.
 - B. An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not

submit bids on leases of real property to a public entity, may not award or perform work as a contractor, supplier, subcontractor, or consultant under contract with any public entity, and may not transact business with any public entity. The Florida Department of Management Services is responsible for maintaining the discriminatory vendor list and posts the list on its website. Questions regarding the discriminatory vendor list may be directed to the Florida Department of Management Services, Office of Supplier Diversity, at (850) 487-0915.

25. Land acquisition is not authorized under the terms of this Agreement.
26. This Agreement has been delivered in the State of Florida and shall be construed in accordance with the laws of Florida. Wherever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement. Any action hereon or in connection herewith shall be brought in Leon County, Florida.
27. This Agreement represents the entire agreement of the parties. Any alterations, variations, changes, modifications or waivers of provisions of this Agreement shall only be valid when they have been reduced to writing, duly signed by each of the parties hereto, and attached to the original of this Agreement, unless otherwise provided herein.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed, the day and year last written below.

BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: [Signature]
Title: * Robin Fisher, Chairman
As approved by the Board on SEP 16 2014

By: [Signature]
Secretary or designee

Date: JAN 5 2015

Date: 1/13/14 2015 B

ATTEST

By: [Signature]
Scott Ellis, Clerk

[Signature]
Sue Leitholf, DEP Grant Manager

[Signature]
DEP Contracts Administrator

Approved as to form and legality:

[Signature]
DEP Attorney

FEID No.: 59-6000523

*For Agreements with governmental boards/commissions: If someone other than the Chairman signs this Agreement, a resolution, statement or other document authorizing that person to sign the Agreement on behalf of the Grantee must accompany the Agreement.

List of attachments/exhibits included as part of this Agreement:

Specify Type	Letter/ Number	Description (include number of pages)
<u>Attachment</u>	<u>A</u>	<u>Grant Work Plan (4 Pages)</u>
<u>Attachment</u>	<u>B</u>	<u>Payment Request Summary Form (2 Pages)</u>
<u>Attachment</u>	<u>C</u>	<u>Contract Payment Requirements (1 Page)</u>
<u>Attachment</u>	<u>D</u>	<u>Progress Report Form (1 Page)</u>
<u>Attachment</u>	<u>E</u>	<u>Special Audit Requirements (5 Pages)</u>
<u>Attachment</u>	<u>F</u>	<u>Quality Assurance Requirements (14 Pages)</u>

ATTACHMENT A PROJECT WORK PLAN

Project Title: Indian River Lagoon Oyster Restoration Project
Project Location: Indian River Lagoon, Cape Canaveral Watershed (HUC 03080202) and Vero Beach Watershed (HUC 03080203); Brevard County and Volusia County, FL
Project Description: The Indian River Lagoon (IRL) is a diverse, shallow-water estuary stretching 156 miles along 40 percent of Florida's east coast. It is classified by the U.S. Environmental Protection Agency as an Estuary of National Significance. The lagoon is an important economic resource to the state, providing a total estimated annual economic value of \$3.7 billion, supporting 15,000 full and part-time jobs and providing recreational opportunities for 11 million people annually. In spring 2011, an algal "super bloom" occurred throughout most of the Brevard County portion of the lagoon. Approximately 47,000 acres of seagrasses were lost, a reduction of about 60 percent, valued at \$235 to \$470 million in annual commercial and recreational fisheries losses. In August 2012, a brown tide bloom began that recurred in the summer of 2013. Local, state, national and international headlines describe the IRL's ecological "crisis." Approximately 50% of the lagoon's length and approximately 71% of its open water area lies within Brevard County. Turbidity, generated primarily from a mix of eroded sediments and dead plants, is deterring seagrass growth and consuming oxygen in this imperiled estuarine ecosystem. Oysters are effective filter feeders that clarify the water column at rates of up to 50 gallons of water filtered per day per oyster. Oyster reefs provide wave breaks that slow erosion, provide habitat for many commercially and recreationally important species, and create an environment that removes nitrates from the water column and releases nitrogen gas to the atmosphere. Via filtration and denitrification, oyster ecosystems can significantly improve IRL water quality and water clarity. Oysters and clams are known as 'ecosystem engineers' because they physically, biologically and chemically modify the environment around them in ways that influence water quality, nutrient cycling and the health of other organisms. They suppress harmful algal blooms, stimulate the growth of beneficial seagrasses, and filter suspended particles from the water column thereby reducing turbidity and nutrient pollution. The Eastern Oyster (<i>Crassostrea virginica</i>) is a culturally and economically important component of the Florida lifestyle, providing habitat for more than 140 species including blue crabs, stone crabs, shrimp, red and black drum, and spotted sea trout; providing feeding grounds for the bottlenose dolphin, American oystercatcher, American bald eagle, osprey, brown pelican and many wading bird species; and improving water quality and clarity. In addition to the well documented filtration, water clarity, habitat, and fishery production benefits of oyster reefs, they sequester nutrient pollution and provide an extra nitrogen pollution reduction benefit. Oysters filter nitrogen rich material from the surrounding water and excrete it into a denitrifying environment under the reef that ultimately releases nitrogen gas to the atmosphere. Such denitrification rates measured at restored oyster reefs in Maryland were among the highest ever recorded for an aquatic system. In Florida's warmer climate, oyster reef restoration has the potential of being more cost-effective at nitrogen sequestration and removal than almost all of the most common and highly regarded stormwater treatment best management practices currently in use. Historically, abundant oysters and clams filtered the waters of the IRL, removing suspended sediments, sequestering nutrients, and providing biodiverse habitat for recreationally and commercially significant fisheries. Today, these filter feeders are almost absent, due primarily to past overfishing and harmful freshwater discharges. Return of these critical ecological and economic keystone species is instrumental to restoration of the lagoon. Thus, Brevard County seeks funding from the Department to achieve the following oyster restoration objectives: <ul style="list-style-type: none">• Objective 1: Reduce pollutants, algal blooms and turbidity in the Indian River Lagoon.• Objective 2: Pilot three scientifically-based oyster restoration techniques to determine what method will be most successful in the Brevard section of the Indian River Lagoon.

Task 2: Denitrification Measurement

Task Description: To measure the denitrification rate of restored oyster reefs in Florida, this project will establish experimental plots in control areas and at multiple restored reefs of different maturity in the Volusia County section of Mosquito Lagoon, where community-based oyster reef restoration has been underway since 2007. Within each experimental plot, seasonal measurements of nitrogen and phosphorus will be measured for one year to estimate annual nutrient removal. Nutrient removal will be compared between the control and each differently aged restoration reef. The cost of oyster reef restoration per pound of nitrogen or phosphorus removed will be compared to the typical cost per pound of nitrogen or phosphorus removed by a suite of common stormwater treatment best management practices.

Deliverable: Draft and final reports summarizing denitrification data and nutrient removal efficiencies.

Timeline for completion: July 2014 – September 2016

Budget Information: Contractual: \$87,235 (DEP funding) for denitrification and sequestration measurements, water quality monitoring, testing, analysis and reporting.

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster denitrification.

Task 3: Site Selection

Task Description: Prior to the project, Brevard County will conduct a site suitability analysis for identifying the best areas of the IRL for successful re-introduction of oyster reef ecosystems. The site suitability analysis will be used to select three best sites for pilot projects. A seventeen-year (1996-2013) water quality database will be reviewed to select sites with suitable conditions and to avoid factors that could negatively impact oyster populations. Successful oyster restoration requires a consideration of biological, environmental, hydrological, and physical parameters.

Deliverable: A list of the selected sites for pilot projects and the selection criteria used to select the sites...

Timeline for completion: July 2014 – October 2014

Budget Information: \$0

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the selected sites are in accordance with selection criteria

Task 4: Design and Permitting

Task Description: Reef foundation, material and vertical structure will be designed and permitted for three sites.

Deliverable: Draft and final design plans and specifications; final FDEP and ACOE permits.

Timeline for completion: September 2014 – March 2015

Budget Information: Contractual: \$4,836 (DEP funding)

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the project is fully permitted to commence the approved construction.

Task 5: Oyster Reef Construction

Task Description: Reef foundation, material and vertical structure will be constructed at three sites in time to coincide with peak oyster larva recruitment cycles (spring/summer months). Two methods of direct stocking will be conducted at each pilot reef and compared to natural recruitment.

Deliverable: Final as-built surveys.

Timeline for completion: February 2015 – June 2015

Budget Information: Contractual: \$11,000 for construction materials; \$56,000 for Zoo volunteer coordination.

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the completion of project construction is in accordance with approved design documents and specifications.

Task 6: Restored Reef Monitoring and Reporting

Task Description: The three restored sites in Brevard County will be monitored for at least a full year to track the survival and ecological function of each newly created oyster reef. Costs versus benefits, growth rates, and percent survival for each stocking method will be measured to determine the best method for long-term oyster restoration in Brevard County.

Deliverable: Draft and final reports summarizing oyster survival and ecological function; resulting costs versus benefits, growth rates, and percent survival for each stocking method; and determination of the best method for long-term oyster restoration in Brevard County.

Timeline for completion: July 2015 – November 2016

- Objective 3: Quantify the nitrogen sequestration and removal rates of restored oyster reefs in Mosquito Lagoon to determine the potential cost effectiveness of oyster restoration for improving water quality in the Indian River Lagoon and throughout Florida's impaired estuaries.
- Objective 4: Create and implement a community-based program to propagate oysters at a 1000 sites throughout the county by engaging citizens in proven Oyster Gardening practices.
- Objective 5: Provide a proof of concept for developing a long-term, self-sustaining oyster restoration program in Brevard County that will engage non-profit partners, fishermen and the general public in hands-on, community-based lagoon restoration.

To decide where to begin restoring oyster beds, multiple factors will be considered including: the historical presence of oysters, salinity regimes, proximity to fresh water discharges, dissolved oxygen, food availability, presence of suitable substrate, substrate composition, larval supply, abundance of predators (crabs, snails, crown conch), presence of submerged aquatic vegetation, and continuing sources of potentially harmful contaminants.

In the Volusia County section of Mosquito Lagoon, community-based oyster reef restoration has been underway since 2007. Brevard Zoo volunteers, working under the direction of dedicated Zoo staff and Dr. Linda Walters of the University of Central Florida, have proven highly successful at restoring oyster reefs. This project seeks to build on the success of that ongoing program by expanding its restoration efforts into the Indian River Lagoon in Brevard County. At the same time, this project seeks to document the value of oyster restoration in terms of critical ecosystem services such as reducing nutrient pollution, algal blooms and turbidity. Recent research in Chesapeake Bay indicates that oyster restoration might be an extraordinarily cost effective way to do all that. This project will test this innovative approach in Florida.

The Grantee's ultimate goal is to increase the number of oysters in Brevard County to a self-sustaining population level and restore their associated ecosystem benefits to the Indian River Lagoon. The results of this project will provide a proof of concept for developing a long-term, self-sustaining oyster restoration program for the Brevard section of the IRL that will engage non-profit partners, fishermen and the general public in hands-on lagoon restoration and build personal stewardship for this local, state, and national estuarine treasure. Successful oyster restoration will reduce pollutants, algal blooms and turbidity in the lagoon – this study will determine how to maximize success.

This project is part of an annual multi-million dollar effort to reduce pollution, remove muck and restore the natural filtration systems of the lagoon. Specifically, the Grantee dedicates approximately \$3.4 million annually for Stormwater efforts and this grant provides an additional \$410,000.00 towards oyster restoration. Additionally, the Grantee dedicated \$150,000 of General Tax Funds in FY 13-14 to initiate oyster gardening. This project will determine whether redirecting some stormwater treatment funds, including state grant funds, to oyster restoration projects could result in healthier Florida estuaries, sooner, and at significantly less total cost.

Task 1: Oyster Gardening

Task Description: While reef site selection, permitting and design proceeds, a citizen-based oyster propagation program led by Brevard Zoo will engage the community in raising juvenile oysters to populate the pilot reef sites. In total, approximately 1000 community participants will grow 1000 seed oysters each in hanging oyster gardens for propagation under their private docks. This program will stock the hanging gardens of approximately 1000 citizen scientists with 1,000,000 spat in order to raise young adult oysters to populate portions of the pilot reefs. One million adult oysters, each filtering 50 gallons of water per day could filter over 18 billion gallons of lagoon per year.

Deliverable: Draft and final reports summarizing juvenile oyster success and evidence of volunteer gardener participation (copies of workshop registrations and sign-in sheets, presentations, and handouts).

Timeline for completion: July 2014 – September 2015

Budget Information: Contractual Services-\$150,000 for oyster gardening program and volunteer coordination services, including spat aquaculture and all gardening supplies.

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster gardening program success.

Budget Information: Contractual: \$100,929 for biological monitoring, testing, analysis and reporting.

Performance Standard: The Department's Grant Manager will review the deliverables to verify that the Final Report contains appropriate information to document oyster reef restoration success and cost benefit analysis.

**ATTACHMENT B
PAYMENT REQUEST SUMMARY FORM**

Grantee: _____
Mailing Address: _____

Grantee's Grant Manager: _____
Payment Request No.: _____

DEP Agreement No.: S0763
Date Of Request: _____

Performance Period: _____

Task/Deliverable Amount Requested: \$ _____

Task/Deliverable No.: _____

GRANT EXPENDITURES SUMMARY SECTION

[Effective Date of Grant through End-of-Grant Period]

CATEGORY OF EXPENDITURE	AMOUNT OF THIS REQUEST	TOTAL CUMULATIVE PAYMENT REQUESTS	MATCHING FUNDS	TOTAL CUMULATIVE MATCHING FUNDS
Salaries	\$N/A	\$N/A	\$N/A	\$N/A
Fringe Benefits	\$N/A	\$N/A	\$N/A	\$N/A
Travel (if authorized)	\$N/A	\$N/A	\$N/A	\$N/A
Subcontracting:				
Contractual	\$	\$	\$	\$
Equipment Purchases	\$N/A	\$N/A	\$N/A	\$N/A
Supplies/Other Expenses	\$N/A	\$N/A	\$N/A	\$N/A
Land	\$N/A	\$N/A	\$N/A	\$N/A
Indirect	\$N/A	\$N/A	\$N/A	\$N/A
TOTAL AMOUNT	\$	\$	\$	\$
TOTAL TASK/DELIVERABLE BUDGET AMOUNT	\$		\$	
Less Total Cumulative Payment Requests of:	\$		\$	
TOTAL REMAINING IN TASK	\$		\$	

GRANTEE CERTIFICATION

The undersigned certifies that the amount being requested for reimbursement above was for items that were charged to and utilized only for the above cited grant activities.

_____	_____
Grantee's Grant Manager's Signature	Grantee's Fiscal Agent
_____	_____
Print Name	Print Name
_____	_____
Telephone Number	Telephone Number

**INSTRUCTIONS FOR COMPLETING
PAYMENT REQUEST SUMMARY FORM**

GRANTEE: Enter the name of the grantee's agency.

MAILING ADDRESS: Enter the address that you want the state warrant sent.

DEP AGREEMENT NO.: This is the number on your grant agreement.

DATE OF REQUEST: This is the date you are submitting the request.

TASK/DELIVERABLE AMOUNT REQUESTED: This should match the amount on the "*TOTAL TASK/DELIVERABLE BUDGET AMOUNT*" line for the "*AMOUNT OF THIS REQUEST*" column.

GRANTEE'S GRANT MANAGER: This should be the person identified as grant manager in the grant Agreement.

PAYMENT REQUEST NO.: This is the number of your payment request, not the quarter number.

PERFORMANCE PERIOD: This is the beginning and ending date of the performance period for the task/deliverable that the request is for (this must be within the timeline shown for the task/deliverable in the Agreement).

TASK/DELIVERABLE NO.: This is the number of the task/deliverable that you are requesting payment for and/or claiming match for (must agree with the current Grant Work Plan).

GRANT EXPENDITURES SUMMARY SECTION:

"AMOUNT OF THIS REQUEST" COLUMN: Enter the amount that was expended for this task during the period for which you are requesting reimbursement for this task. This must agree with the currently approved budget in the current Grant Work Plan of your grant Agreement. Do not claim expenses in a budget category that does not have an approved budget. Do not claim items that are not specifically identified in the current Grant Work Plan. Enter the column total on the "*TOTAL AMOUNT*" line. Enter the amount of the task on the "*TOTAL TASK BUDGET AMOUNT*" line. Enter the total cumulative amount of this request and all previous payments on the "*LESS TOTAL CUMULATIVE PAYMENT REQUESTS OF*" line. Deduct the "*LESS TOTAL CUMULATIVE PAYMENT REQUESTS OF*" from the "*TOTAL TASK BUDGET AMOUNT*" for the amount to enter on the "*TOTAL REMAINING IN TASK*" line.

"TOTAL CUMULATIVE PAYMENT REQUESTS" COLUMN: Enter the cumulative amounts that have been requested to date for reimbursement by budget category. The final request should show the total of all requests; first through the final request (this amount cannot exceed the approved budget amount for that budget category for the task you are reporting on). Enter the column total on the "*TOTALS*" line. **Do not enter anything in the shaded areas.**

"MATCHING FUNDS" COLUMN: Enter the amount to be claimed as match for the performance period for the task you are reporting on. This needs to be shown under specific budget categories according to the currently approved Grant Work Plan. Enter the total on the "*TOTAL AMOUNT*" line for this column. Enter the match budget amount on the "*TOTAL TASK BUDGET AMOUNT*" line for this column. Enter the total cumulative amount of this and any previous match claimed on the "*LESS TOTAL CUMULATIVE PAYMENTS OF*" line for this column. Deduct the "*LESS TOTAL CUMULATIVE PAYMENTS OF*" from the "*TOTAL TASK BUDGET AMOUNT*" for the amount to enter on the "*TOTAL REMAINING IN TASK*" line.

"TOTAL CUMULATIVE MATCHING FUNDS" COLUMN: Enter the cumulative amount you have claimed to date for match by budget category for the task. Put the total of all on the line titled "*TOTALS*." The final report should show the total of all claims, first claim through the final claim, etc. **Do not enter anything in the shaded areas.**

GRANTEE CERTIFICATION: Must be signed by both the Grantee's Grant Manager as identified in the grant agreement and the Grantee's Fiscal Agent.

NOTES:

If claiming reimbursement for travel, you must include copies of receipts and a copy of the travel reimbursement form approved by the Department of Financial Services, Chief Financial Officer.

Documentation for match claims must meet the same requirements as those expenditures for reimbursement.

ATTACHMENT C

Contract Payment Requirements Florida Department of Financial Services, Reference Guide for State Expenditures *Cost Reimbursement Contracts*

Invoices for cost reimbursement contracts must be supported by an itemized listing of expenditures by category (salary, travel, expenses, etc.). Supporting documentation must be provided for each amount for which reimbursement is being claimed indicating that the item has been paid. Check numbers may be provided in lieu of copies of actual checks. Each piece of documentation should clearly reflect the dates of service. Only expenditures for categories in the approved contract budget should be reimbursed.

Listed below are examples of the types of documentation representing the minimum requirements:

- (1) Salaries: A payroll register or similar documentation should be submitted. The payroll register should show gross salary charges, fringe benefits, other deductions and net pay. If an individual for whom reimbursement is being claimed is paid by the hour, a document reflecting the hours worked times the rate of pay will be acceptable.
- (2) Fringe Benefits: Fringe Benefits should be supported by invoices showing the amount paid on behalf of the employee (e.g., insurance premiums paid). If the contract specifically states that fringe benefits will be based on a specified percentage rather than the actual cost of fringe benefits, then the calculation for the fringe benefits amount must be shown.

Exception: Governmental entities are not required to provide check numbers or copies of checks for fringe benefits.
- (3) Travel: Reimbursement for travel must be in accordance with Section 112.061, Florida Statutes, which includes submission of the claim on the approved State travel voucher or electronic means.
- (4) Other direct costs: Reimbursement will be made based on paid invoices/receipts. If nonexpendable property is purchased using State funds, the contract should include a provision for the transfer of the property to the State when services are terminated. Documentation must be provided to show compliance with Department of Management Services Rule 60A-1.017, Florida Administrative Code, regarding the requirements for contracts which include services and that provide for the contractor to purchase tangible personal property as defined in Section 273.02, Florida Statutes, for subsequent transfer to the State.
- (5) In-house charges: Charges which may be of an internal nature (e.g., postage, copies, etc.) may be reimbursed on a usage log which shows the units times the rate being charged. The rates must be reasonable.
- (6) Indirect costs: If the contract specifies that indirect costs will be paid based on a specified rate, then the calculation should be shown.

Contracts between state agencies, and or contracts between universities may submit alternative documentation to substantiate the reimbursement request that may be in the form of FLAIR reports or other detailed reports.

The Florida Department of Financial Services, online Reference Guide for State Expenditures can be found at this web address: http://www.fldfs.com/aadir/reference_guide.htm

ATTACHMENT E

SPECIAL AUDIT REQUIREMENTS

The administration of resources awarded by the Department of Environmental Protection (*which may be referred to as the "Department", "DEP", "FDEP" or "Grantor", or other name in the contract/agreement*) to the recipient (*which may be referred to as the "Contractor", Grantee" or other name in the contract/agreement*) may be subject to audits and/or monitoring by the Department of Environmental Protection, as described in this attachment.

MONITORING

In addition to reviews of audits conducted in accordance with OMB Circular A-133 and Section 215.97, F.S., as revised (see "AUDITS" below), monitoring procedures may include, but not be limited to, on-site visits by Department staff, limited scope audits as defined by OMB Circular A-133, as revised, and/or other procedures. By entering into this Agreement, the recipient agrees to comply and cooperate with any monitoring procedures/processes deemed appropriate by the Department of Environmental Protection. In the event the Department of Environmental Protection determines that a limited scope audit of the recipient is appropriate, the recipient agrees to comply with any additional instructions provided by the Department to the recipient regarding such audit. The recipient further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Chief Financial Officer or Auditor General.

AUDITS

PART I: FEDERALLY FUNDED

This part is applicable if the recipient is a State or local government or a non-profit organization as defined in OMB Circular A-133, as revised.

1. In the event that the recipient expends \$500,000 or more in Federal awards in its fiscal year, the recipient must have a single or program-specific audit conducted in accordance with the provisions of OMB Circular A-133, as revised. EXHIBIT 1 to this Attachment indicates Federal funds awarded through the Department of Environmental Protection by this Agreement. In determining the Federal awards expended in its fiscal year, the recipient shall consider all sources of Federal awards, including Federal resources received from the Department of Environmental Protection. The determination of amounts of Federal awards expended should be in accordance with the guidelines established by OMB Circular A-133, as revised. An audit of the recipient conducted by the Auditor General in accordance with the provisions of OMB Circular A-133, as revised, will meet the requirements of this part.
2. In connection with the audit requirements addressed in Part I, paragraph 1, the recipient shall fulfill the requirements relative to auditee responsibilities as provided in Subpart C of OMB Circular A-133, as revised.
3. If the recipient expends less than \$500,000 in Federal awards in its fiscal year, an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, is not required. In the event that the recipient expends less than \$500,000 in Federal awards in its fiscal year and elects to have an audit conducted in accordance with the provisions of OMB Circular A-133, as revised, the cost of the audit must be paid from non-Federal resources (i.e., the cost of such an audit must be paid from recipient resources obtained from other than Federal entities).
4. The recipient may access information regarding the Catalog of Federal Domestic Assistance (CFDA) via the internet at <http://12.46.245.173/cfda/cfda.html>.

PART II: STATE FUNDED

This part is applicable if the recipient is a nonstate entity as defined by Section 215.97(2)(m), Florida Statutes.

1. In the event that the recipient expends a total amount of state financial assistance equal to or in excess of \$500,000 in any fiscal year of such recipient, the recipient must have a State single or project-specific audit for such fiscal year in accordance with Section 215.97, Florida Statutes; applicable rules of the Department of Financial Services; and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General. EXHIBIT 1 to this Attachment indicates state financial assistance awarded through the Department of Environmental Protection by this Agreement. In determining the state financial assistance expended in its fiscal year, the recipient shall consider all sources of state financial assistance, including state financial assistance received from the Department of Environmental Protection, other state agencies, and other nonstate entities. State financial assistance does not include Federal direct or pass-through awards and resources received by a nonstate entity for Federal program matching requirements.
2. In connection with the audit requirements addressed in Part II, paragraph 1; the recipient shall ensure that the audit complies with the requirements of Section 215.97(7), Florida Statutes. This includes submission of a financial reporting package as defined by Section 215.97(2), Florida Statutes, and Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General.
3. If the recipient expends less than \$500,000 in state financial assistance in its fiscal year, an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, is not required. In the event that the recipient expends less than \$500,000 in state financial assistance in its fiscal year, and elects to have an audit conducted in accordance with the provisions of Section 215.97, Florida Statutes, the cost of the audit must be paid from the non-state entity's resources (i.e., the cost of such an audit must be paid from the recipient's resources obtained from other than State entities).
4. For information regarding the Florida Catalog of State Financial Assistance (CSFA), a recipient should access the Florida Single Audit Act website located at <https://apps.fldfs.com/fsaa> for assistance. In addition to the above websites, the following websites may be accessed for information: Legislature's Website at <http://www.leg.state.fl.us/Welcome/index.cfm>, State of Florida's website at <http://www.myflorida.com/>, Department of Financial Services' Website at <http://www.fldfs.com/> and the Auditor General's Website at <http://www.state.fl.us/audgen>.

PART III: OTHER AUDIT REQUIREMENTS

(NOTE: This part would be used to specify any additional audit requirements imposed by the State awarding entity that are solely a matter of that State awarding entity's policy (i.e., the audit is not required by Federal or State laws and is not in conflict with other Federal or State audit requirements). Pursuant to Section 215.97(8), Florida Statutes, State agencies may conduct or arrange for audits of State financial assistance that are in addition to audits conducted in accordance with Section 215.97, Florida Statutes. In such an event, the State awarding agency must arrange for funding the full cost of such additional audits.)

PART IV: REPORT SUBMISSION

1. Copies of reporting packages for audits conducted in accordance with OMB Circular A-133, as revised, and required by PART I of this Attachment shall be submitted, when required by Section .320 (d), OMB Circular A-133, as revised, by or on behalf of the recipient directly to each of the following:

- A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

- B. The Federal Audit Clearinghouse designated in OMB Circular A-133, as revised (the number of copies required by Sections .320 (d)(1) and (2), OMB Circular A-133, as revised, should be submitted to the Federal Audit Clearinghouse), at the following address:

Federal Audit Clearinghouse
Bureau of the Census
1201 East 10th Street
Jeffersonville, IN 47132

Submissions of the Single Audit reporting package for fiscal periods ending on or after January 1, 2008, must be submitted using the Federal Clearinghouse's Internet Data Entry System which can be found at <http://harvester.census.gov/fac/>

- C. Other Federal agencies and pass-through entities in accordance with Sections .320 (e) and (f), OMB Circular A-133, as revised.

2. Pursuant to Section .320(f), OMB Circular A-133, as revised, the recipient shall submit a copy of the reporting package described in Section .320(c), OMB Circular A-133, as revised, and any management letters issued by the auditor, to the Department of Environmental Protection at one the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

3. Copies of financial reporting packages required by PART II of this Attachment shall be submitted by or on behalf of the recipient directly to each of the following:

- A. The Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director
Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

B. The Auditor General's Office at the following address:

State of Florida Auditor General
Room 401, Claude Pepper Building
111 West Madison Street
Tallahassee, Florida 32399-1450

4. Copies of reports or management letters required by PART III of this Attachment shall be submitted by or on behalf of the recipient directly to the Department of Environmental Protection at one of the following addresses:

By Mail:

Audit Director

Florida Department of Environmental Protection
Office of the Inspector General, MS 40
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Electronically:

FDEPSingleAudit@dep.state.fl.us

5. Any reports, management letters, or other information required to be submitted to the Department of Environmental Protection pursuant to this Agreement shall be submitted timely in accordance with OMB Circular A-133, Florida Statutes, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, as applicable.
6. Recipients, when submitting financial reporting packages to the Department of Environmental Protection for audits done in accordance with OMB Circular A-133, or Chapters 10.550 (local governmental entities) or 10.650 (nonprofit and for-profit organizations), Rules of the Auditor General, should indicate the date that the reporting package was delivered to the recipient in correspondence accompanying the reporting package.

PART V: RECORD RETENTION

The recipient shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of 5 years from the date the audit report is issued, and shall allow the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General access to such records upon request. The recipient shall ensure that audit working papers are made available to the Department of Environmental Protection, or its designee, Chief Financial Officer, or Auditor General upon request for a period of 3 years from the date the audit report is issued, unless extended in writing by the Department of Environmental Protection.

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EXHIBIT - 1

FUNDS AWARDED TO THE RECIPIENT PURSUANT TO THIS AGREEMENT CONSIST OF THE FOLLOWING:

Federal Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following:

Federal Program Number	Federal Agency	CFDA Number	CFDA Title	Funding Amount	State Appropriation Category

State Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following Matching Resources for Federal Programs:

Federal Program Number	Federal Agency	CFDA	CFDA Title	Funding Amount	State Appropriation Category

State Resources Awarded to the Recipient Pursuant to this Agreement Consist of the Following Resources Subject to Section 215.97, F.S.:

State Program Number	Funding Source	State Fiscal Year	CSFA Number	CSFA Title or Funding Source Description	Funding Amount	State Appropriation Category
Original Agreement	General Revenue Trust Fund, Line Item 1668A	2014-2015	37.039	Statewide Surface Water Restoration and Wastewater Projects	\$410,000.00	140047

Total Award					\$410,000.00
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For each program identified above, the recipient shall comply with the program requirements described in the Catalog of Federal Domestic Assistance (CFDA) [<http://12.46.245.173/cfda/cfda.html>] and/or the Florida Catalog of State Financial Assistance (CSFA) [<https://apps.fldfs.com/fsaa/searchCatalog.aspx>]. The services/purposes for which the funds are to be used are included in the Contract scope of services/work. Any match required by the recipient is clearly indicated in the Contract.

Attachment F
Quality Assurance Requirements
For State Funded NPS BMP Monitoring Agreements

1. All sampling and analyses performed under this Agreement must conform to the requirements set forth in Chapter 62-160, Florida Administrative Code (F.A.C.) and "Requirements for Field and Analytical Work performed for the Department of Environmental Protection under Contract" (DEP-QA-002/02), February 2002.
2. **LABORATORIES**
 - a. The GRANTEE shall ensure that all laboratory testing activities are performed by laboratories certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP) for all applicable matrix/method/analyte combinations to be measured. For non-potable water matrix, the certification requirement is considered satisfied if the laboratory is certified for the contracted analyte in at least one method that uses the same analytical technology as the contract-proposed method.
 - b. If the laboratory is not certified for some or all of the proposed test measurements, the laboratory shall apply for certification within one month of Contract execution. Within six months of Contract execution, the laboratory shall be fully certified for all applicable matrix/method/analyte combinations to be performed. Regardless of when the laboratory receives certification, the laboratory must implement all applicable standards of the National Environmental Laboratory Accreditation Conference (NELAC) upon Contract execution.
 - c. Laboratories shall maintain certification as specified in item 2.a above during the life of the Contract. Should certification for an analyte or test method be lost, all affected tests shall be immediately sub-contracted to a laboratory with current DoH ELCP certification in the appropriate matrix/method/analyte combination(s). The GRANTEE shall notify the DEP Grant Manager in writing before any change to a sub-contracted laboratory is made.
 - d. A copy of the DoH ELCP Certificate and the associated list of specific fields of accreditation for each contracted or sub-contracted laboratory shall be provided to the DEP contract manager upon Contract execution or upon receiving DoH certification (see items 2.a and 2.b above).
 - e. The GRANTEE shall ensure that an acceptable initial demonstration of capability (IDOC), as described in Appendix C of Chapter 5 of the NELAC Standards is performed. Each laboratory that performs any of the proposed matrix/method/analyte combination(s) must have the requisite IDOC documentation and supporting laboratory records. IDOCs shall be performed before the test procedure is used to generate data for this Contract. If requested by the Department, documentation that supports the IDOC shall be made available for review.
 - f. When performance test samples are not required by DoH ELCP for certification, the laboratory shall obtain, analyze and evaluate performance test samples, standard reference materials (SRM) or other externally assayed quality control (QC) samples, hereinafter known collectively as quality control check (QCC) samples.
 - (i) The laboratory shall ensure that the selected QCC samples(s) represent all matrix/method/analyte combinations that are not subject to certification requirements.
 - (ii) These samples shall be analyzed at six-month intervals and the results shall be within the acceptable range established by the QCC sample provider.
 - (iii) Before providing analytical services for this Agreement, the laboratory must provide to the DEP contract manager the results of the QCC sample(s) and the associated acceptable range(s) as established by the QCC sample provider. The submitted results must be from QCC samples that have been completed within the previous six months prior to the submission date.
 - g. Any non-standard laboratory procedures or methods that are proposed for use (i.e., those not approved by DEP for standard environmental analyses) shall be submitted for review and approval in accordance with DEP-QA-001/01, "New and Alternative Analytical Laboratory Methods," February 1, 2004. These procedures or methods shall be approved by the DEP Grant Manager before use under this Agreement and must be cited or described in the required planning document (see Section 6).
 - h. The GRANTEE shall ensure that Practical Quantitation Limits (PQLs) and Method Detection Limits (MDLs) required by the Contract are listed in the planning document (see Section 6).
 - i. The GRANTEE shall ensure that the selected laboratory test methods listed in the planning document can provide results that meet the Contract data quality objectives.
 - j. The GRANTEE shall ensure that all laboratory testing procedures follow the analytical methods as approved in the planning document (see Section 6).

- k. The GRANTEE shall ensure that the all laboratory quality control measures are consistent with Chapter 5 of the NELAC standards.
- l. In addition, the GRANTEE shall ensure that the quality control requirements specified in the attached addenda are followed.
- m. The GRANTEE shall ensure that all sample results are calculated according to the procedures specified in the analytical methods approved in the planning document.

3. **FIELD ACTIVITIES**

- a. "Sample" refers to samples that have been either collected or analyzed under the terms of this Agreement.
- b. The GRANTEE shall ensure that all sample collection and field testing activities are performed in accordance with the Department's "Standard Operating Procedures for Field Activities" (DEP-SOP-001/01, March 31, 2008). The specific standard operating procedures (SOPs) to be used for this Agreement shall be cited in the planning document (see Section 6).
- c. Any non-standard field procedure shall be submitted for review and approval to the DEP Grant Manager in accordance with section FA 2000 of DEP-SOP-001/01. All non-standard procedures and methods must be approved by the DEP Grant Manager before use under this Agreement and must be cited or described in the planning document.
- d. Per the quality control measures outlined in the DEP SOPs (FQ 1000 and the calibration requirements of the FT-series for field testing), the GRANTEE shall ensure that the following field quality controls (and any additional quality control measures specified in the addenda) are incorporated into the project design:
 - (i) Matrix-Related Quality Controls - The GRANTEE shall ensure that the laboratory is provided with sufficient sample volume to analyze at least one set of matrix spikes and either matrix spike duplicates or laboratory duplicates as follows:
 - (1) The first time a sample from a sample collection matrix (see Table FA 1000-1) is collected;
 - (2) One in each additional 20 samples of the sample collection matrix, after the first 20 samples; and
 - (3) The last time samples are collected for the sample collection matrix.
 - (ii) Field-generated Quality Control duplicates or replicates (not to be confused with laboratory duplicates) shall be collected and analyzed at a frequency of 5% of the total number of samples collected for each matrix/analyte combination (see FQ 1220).
 - (1) All field duplicate results greater than the contracted PQL should agree within 20% RPD for each measured analyte. In the event that the field duplicate agreement is not observed, the GRANTEE shall investigate and attempt to determine the cause of poor precision. The outcome of these investigations shall be reported, including the corrective measures taken to minimize future problems.
 - (iii) Field-Generated Quality Control (QC) Blanks – Blanks associated with field activities as defined in FQ 1210 of the DEP SOPs shall be collected according to the requirements of FQ 1230.
 - (1) If an analyte detected in the sample is also found in any field-generated QC blank that is associated with the sample, the GRANTEE shall investigate and attempt to determine the cause of the QC blank contamination. The outcome of this investigation shall be reported and shall include a discussion of the corrective measures taken to minimize future occurrences of QC blank contamination.
 - (2) If an analyte detected in the sample is also found in any field-generated QC blank that is associated with the sample, the GRANTEE shall ensure that the analyte in the affected sample is reported as estimated ("J" with a narrative explanation) unless the analyte concentration in the affected sample is at least 10 times the reported QC blank value concentration.
 - (iv) The GRANTEE shall identify a second laboratory that meets the requirements in Section 1 and shall arrange to have split samples collected using the sampling procedures specified in the Contract and analyzed by the primary and secondary laboratories. Split samples shall be collected at least once during the project and at least annually thereafter. The GRANTEE shall specify the procedure for splitting the samples in the planning document.
 - (1) The results from the two laboratories shall be assessed using a precision criterion of no greater than 20% RPD as an initial guide to assessment of the split sample results.
 - (2) All differences between split sample results from the two laboratories shall be investigated and resolved.

4. **REPORTING, DOCUMENTATION AND RECORDS RETENTION**

- a. The GRANTEE shall ensure that all laboratory and field records as outlined in Rules 62-160.240 and .340, F.A.C. are retained for a minimum of five years after the project completion.
- b. All field and laboratory records that are associated with work performed under this Agreement shall be organized so that any information can be quickly and easily retrieved for inspection, copying or distribution.
- c. The GRANTEE shall ensure that all laboratory reports are issued in accordance with NELAC requirements. These reports shall be submitted to the DEP Grant Manager and shall include the following information:
 - ▶ Laboratory sample identification (ID) and associated Field ID
 - ▶ Analytical/test method
 - ▶ Parameter/analyte name
 - ▶ Analytical result (including dilution factor)
 - ▶ Result unit
 - ▶ Applicable DEP Qualifiers per Table 1 of Chapter 62-160, F.A.C.
 - ▶ Result comment(s) to include corrective/preventive actions taken for any failed QC measure (e.g., QC sample, calibration failure, etc.) or other problem related to the analysis of the samples
 - ▶ Date and time of sample preparation (if applicable)
 - ▶ Date and time of sample analysis
 - ▶ Results of laboratory verification of field preservation
 - ▶ Sample matrix
 - ▶ DoH ELCP certification number for each laboratory (must be associated with the test result(s) generated by the laboratory)
 - ▶ MDL
 - ▶ PQL
 - ▶ Sample type (such as blank type, duplicate type, etc.)
 - ▶ Field and laboratory QC blank results:
 - Laboratory QC blank analysis results as required by the method, NELAC Chapter 5 and the planning document (see Section 6 below);
 - Field quality control results including trip blanks, field blanks, equipment blanks, and field duplicates (or replicates) as specified in the planning document (see Section 6)
 - ▶ Results of sample matrix spikes, laboratory duplicates or matrix spike duplicates, as applicable
 - ▶ Results of surrogate spike analyses (if performed)
 - ▶ Results of laboratory control samples (LCS)
 - ▶ Link between each reported quality control measure (e.g., QC blanks, matrix spikes, LCS, duplicates, calibration failure, etc.) and the associated sample result(s)
 - ▶ Acceptance criteria used to evaluate each reported quality control measure
- d. The GRANTEE shall ensure that the following field-related information is reported to the DEP Grant Manager:
 - ▶ Site and/or facility name, address and phone number
 - ▶ Field ID for each sample container and the associated analytes (test methods) for which the container was collected
 - ▶ Date and time of sample collection
 - ▶ Sample collection depth
 - ▶ Sample collection method identified by the DEP SOP number, where applicable
 - ▶ If performed, indicate samples that were filtered
 - ▶ Field test measurement results:
 - DEP SOP number (FT-series), where applicable
 - Parameter name
 - Result
 - Result unit
 - Applicable Data Qualifiers per Table 1 of Chapter 62-160, F.A.C.

- ▶ Narrative comments discussing corrective/preventive actions taken for any failed QC measure (e.g., blank contamination, meter calibration failure, split sample results, etc.), unacceptable field measurement or other problems related to the sampling event.
 - e. The GRANTEE shall submit the lab and field data above electronically in either Excel or Access format.
5. **AUDITS**
- a. AUDITS BY THE DEPARTMENT – Pursuant to Rule 62-160.650, F.A.C., the Department may conduct audits of field and/or laboratory activities. In addition to allowing Department representatives to conduct onsite audits, the GRANTEE, upon request by the Department, must provide all field and laboratory records pertinent to the contracted field and laboratory activities. If an audit by the Department results in a determination that the reported data are not usable for the purpose(s) or do not meet the data quality objectives specified by the Contract, the DEP Grant Manager shall pursue remedies available to the Department, including those outlined in Section 8 below.
 - b. PLANNING REVIEW AUDITS –
 - (i) Initial: Within 15 days of completing the first sampling and analysis event, the GRANTEE and all associated subcontractors shall review the planning document (see Section 6 below) relative to the completed field and laboratory activities to determine if the data quality objectives are being met, identify any improvements to be made to the process, and refine the sampling and/or analytical design or schedule. Within one month of the review, a summary of the review, including any corrective action plans or amendments to the planning document, shall be sent to the DEP Grant Manager and a copy shall be maintained with the permanent project records.
 - (ii) Ongoing: Planning reviews as described in item (i) above shall occur annually.
 - c. QUALITY SYSTEMS AUDITS – The GRANTEE and all subcontractors shall ensure that any required laboratory and field quality system and management systems audits are performed according to the respective Quality Manuals for each contracted and sub-contracted entity. These audits shall be documented in the GRANTEE's and subcontractors' records.
 - d. STATEMENTS OF USABILITY – As a part of the audit process and the final report, the GRANTEE shall provide statements about data usability relative to the Contract Data Quality Objectives and Data Quality Indicators specified in the planning document, this attachment and the addenda.
 - (i) The GRANTEE shall ensure that all acceptance and usability criteria required by this Agreement not specified above are listed in the planning document.
 - (ii) The GRANTEE shall ensure that the results of all quality control measures described above are evaluated according to the acceptance criteria listed in this attachment, the addenda and the planning document.
 - (iii) The GRANTEE shall ensure that all sample results are evaluated according to the additional usability criteria specified in the planning document.
6. **PLANNING DOCUMENT**
- a. The GRANTEE shall submit the planning document identified below to the DEP Grant Manager no later than 120 days prior to the commencement of field and laboratory activities. Failure to submit the planning document in this required timeframe shall result in a delay of approval to begin work until the document has been submitted to the Department and approved by the DEP Grant Manager. The document shall be submitted as a Sampling and Analysis Plan or, if desired, as the final monitoring plan submitted to the DEP Grant Manager. In either case, the plan shall include/discuss the information contained in the document "Requirements for Field and Analytical Work Performed for the Department of Environmental Protection Under Contract", DEP-QA-002/02.
 - b. The GRANTEE and subcontractors may submit a version of the planning document to the Department for approval no more than three times. If the GRANTEE fails to obtain approval for the planning document after the third (final) submission to the Department, the DEP Grant Manager may suspend or terminate the Contract.
 - c. The DEP Agreement number shall appear on the title page of the submitted planning document. Within forty-five (45) days of receipt of the properly identified planning document by the Department, the Department shall review and either approve the planning document or provide comments to the GRANTEE and affected subcontractors as to why the planning document is not approved. If further revisions are needed, the GRANTEE shall then have fifteen (15) days from the receipt of review comments to respond. The Department shall respond to all revisions to the planning document within thirty (30) days of receipt of any revisions.

- d. If the review of the planning document by the Department is delayed, through no fault of the GRANTEE, beyond sixty (60) days after the planning document is received by the Department, the GRANTEE shall have the option, after the planning document is approved, of requesting and receiving an extension in the term of the Agreement for a time period not to exceed the period of delayed review and approval. This option must be exercised at least sixty (60) days prior to the current termination date of the Agreement.
 - e. Work may not begin for specific Contract tasks until approval has been received by the GRANTEE from the DEP Grant Manager. Sampling and analysis for the Agreement may not begin until the planning document has been approved.
 - f. Once approved, the GRANTEE shall follow the protocols specified in the approved planning document including, but not limited to:
 - ▶ Ensuring that all stated quality control measures are collected, analyzed and evaluated for acceptability;
 - ▶ Using only the protocols approved in the planning document; and
 - ▶ Using only the equipment approved in the planning document.
 - g. If any significant changes in procedures or test methods, changes in equipment, changes in subcontractor organizations or changes in key personnel occur, the GRANTEE shall submit appropriate revisions of the planning document to the DEP Grant Manager for review. The proposed revisions may not be implemented until they have been approved by the DEP Grant Manager. If the GRANTEE fails to submit the required revisions, the DEP Grant Manager may suspend or terminate the Agreement.
 - h. When the approved planning document requires modification, the amendments shall be
 - (i) Provided in a new planning document, or
 - (ii) Provided as amended sections of the current planning document, or
 - (iii) Documented through written or electronic correspondence with the DEP Grant Manager and incorporated into the approved planning document.
7. **DELIVERABLES**
- a. The following lists the expected schedule for the deliverables that are associated with the Quality Assurance requirements of this Agreement:
 - (i) Copy of DoH ELCP Certificate(s) and the associated list(s) of specific fields of accreditation, per item 2.d above.
 - (ii) Copies of the QCC sample results per item 2.f. above.
 - (iii) Non-standard laboratory or field procedures – The GRANTEE shall submit to the DEP Grant Manager all required information necessary for review of non-standard procedures per items 2.h. and 3.b. above.
 - (iv) Reports of planning review audits as specified in item 5.b. above.
 - (v) Statements of Usability as specified in item 5.d. above.
 - (vi) Planning document per Section 6, above.
8. **CONSEQUENCES**
- a. Failure to comply with any requirement of this attachment may result in:
 - (i) Immediate termination of the Agreement.
 - (ii) Withheld payment for the affected activities.
 - (iii) Contract suspension until the requirement(s) has been met.
 - (iv) A request to refund already disbursed payments.
 - (v) A request to redo work affected by the non-compliant activity.
 - (vi) Other remedies available to the Department.

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Addendum 1
Quality Control Requirements for Laboratories Performing Chemical Analysis

In addition to the quality control requirements outlined in Chapter 5 of the NELAC Standards, the following quality control measures shall be implemented for this Agreement. Note: "Sample" refers to samples that have been either collected or analyzed under the terms of this Agreement.

1. Matrix-Related Quality Control Samples - The GRANTEE shall ensure that samples associated with this Agreement are used for matrix spikes, and either laboratory duplicates or matrix spike duplicates. The laboratory shall analyze these samples:
 - a. The first time samples from a sample collection matrix (see Table FA 1000-1) are submitted to the laboratory under this Agreement for analysis. The laboratory shall select one or more of the received samples for use in composition of the matrix spike and duplicates.
 - b. After the first 20 samples from the sample collection matrix have been analyzed, at least one matrix spike and either laboratory duplicates or matrix spike duplicates shall be composed using a sample or samples selected from each additional 20 samples of the sample collection matrix submitted to the laboratory.
 - c. The last time samples from the sample collection matrix are received and analyzed. The laboratory shall select one or more of the received samples for use in composition of the matrix spike and duplicates.
 - d. Spike levels must be at the concentrations specified in item 3 below.
 - e. If the selected sample concentration is expected to be below the Contract-specified practical quantitation limit (PQL) listed in the planning document, then matrix spike duplicates must be used.
2. Per NELAC Chapter 5 requirements, as least one Laboratory Control Sample (LCS; also known as Laboratory Fortified Blank) shall be prepared, analyzed and evaluated with each batch of 20 samples or less.
 - a. The acceptance criteria for the LCS shall be specified in the planning document.
 - b. If the LCS is unacceptable, the samples associated with the LCS shall be reprocessed with a new LCS. If the samples cannot be reprocessed, the data must be appropriately qualified.
3. For applicable analytes denoted in the planning document, a QC check sample, standard reference material (SRM) or other quality control sample, hereinafter identified collectively as quality control check samples (QCCS), shall be processed with each sample preparation batch and analyzed for evaluation according to the acceptance limits established for the QCCS.
 - a. Analysis of a QCCS is required for but not limited to the following analyses:
 - (i) Chlorophyll – the assay for the QCCS or its original formulation shall have been determined by an organization external to the laboratory ;
 - (ii) Biochemical oxygen demand (BOD) or carbonaceous BOD (CBOD) – the method-specified glucose/glutamic acid check solution shall be used; and,
 - (iii) Copper in seawater – the QCCS shall be any seawater-matrix SRM assayed by an organization external to the laboratory.
 - b. If the QCCS is unacceptable, the samples associated with the QCCS shall be reprocessed with a new QCCS. If the samples cannot be reprocessed, the data must be appropriately qualified for all contracted samples in the preparation batch.
4. Spiking/Fortification Requirements - All spike fortifications must take place prior to any required sample preparation steps (e.g., sample extraction, sample digestion, pH adjustment, etc.). The final concentration of any spike fortification shall be at the applicable level identified below.
 - a. If any of the samples in the preparation batch are non-detect (i.e., below the MDL specified in the planning document), the spiking level must not be greater than 2 times the Contract-specified PQL.
 - b. The concentration of a spiked sample cannot exceed 5 times the highest concentration of any contracted sample in the preparation batch.
5. Evaluation of Matrix Spikes - The results of matrix spikes must meet the acceptance criteria specified by the Contract and listed in the planning document or the data must be appropriately qualified.
 - a. If the failure is reported to be due to *sample* matrix interference, the laboratory shall document the process by which this conclusion is determined.
6. Evaluation of Laboratory Duplicate/Replicate Samples – All replicate samples (sample duplicates, matrix spike duplicates, LCS duplicates or other replicates) must be evaluated for a precision criterion not to exceed 20 % RPD. This criterion shall be listed in the planning document.
 - a. In the event that laboratory replicate agreement is not observed, the laboratory must investigate the poor precision and report the results with appropriate qualifiers and/or comments.

7. Instrument Calibration – In addition to calibration procedures specified in the analytical methods listed in the planning document, the GRANTEE shall ensure that the following requirements are met:
 - a. All sample results shall be chronologically bracketed between acceptable calibration verifications.
 - b. Initial Calibration Requirements
 - (i) The minimum number of calibration standards required to calibrate each instrument used for the contracted analyses shall conform to the analytical method approved in the planning document. If the minimum number of calibration standards is not specified in the method, the number must be specified in the planning document and shall be consistent with the NELAC Chapter 5 standards.
 - (ii) Unless otherwise specified by the method, all sample results shall be based on the initial calibration curve responses.
 - (iii) If linear regressions are used, the correlation coefficient shall be equal to or greater than 0.995 for all regressions.
 - (iv) Immediately after performing an initial calibration, the accuracy of the calibration shall be verified using a second source. A second source may be a standard, a Standard Reference Material (SRM), or other sample type with a verified concentration such as a QC Check Sample. Standards must have been prepared from a different lot or vendor.
 - (v) The acceptance criteria for second-source verifications shall be specified in the planning document.
 - (vi) Sample analysis cannot proceed if an initial calibration is unacceptable.
 - c. Continuing Calibration Requirements:
 - (i) When an initial calibration is not performed on the day of analysis, a continuing calibration standard shall be analyzed, evaluated and determined to be acceptable prior to analyzing samples.
 - (ii) A continuing calibration standard shall be analyzed and evaluated at the end of the analytical run.
 - (iii) The acceptance criteria for continuing calibration verifications shall be specified in the planning document.
 - (iv) For each analytical run, the analytical sensitivity must be evaluated using a continuing calibration standard prepared at the Contract-specified PQL. The analyzed value of this standard must be within 70% – 130% of the expected value. If this PQL check fails, the blank and associated sample results must be reported as “estimated” per Chapter 62-160, F.A.C. unless the affected results are at least 10 times the absolute value of the observed bias of the PQL check.
 - (v) If a continuing calibration verification fails, samples not chronologically bracketed by acceptable calibration verifications must be reanalyzed or appropriately qualified.
 - d. Sample results below the Contract-specified PQL and above the highest calibration standard shall be appropriately qualified.
8. Quality Control Blanks
 - a. If a Contracted analyte is detected in any analytical QC blank, the sample results that are associated with the blank must be reported with the appropriate qualifier from Chapter 62-160, F.A.C., unless the affected sample concentrations are at least 10 times higher than the calculated QC blank concentration.
 - b. Sample results must be chronologically bracketed with acceptable beginning and ending analytical QC blanks.
 - c. If a Contracted analyte is detected in the field blank, equipment blank or trip blank, the result must be confirmed by reanalyzing a new aliquot of the blank unless the sample concentration results associated with the blank are at least 10 times the calculated blank concentration. The laboratory must investigate the blank contamination to determine that positive blank results are not due to a laboratory error and report the affected samples and field-generated blank results with appropriate qualifiers and/or comments.
9. If any quality control measure or calibration verification fails (including those specified above), samples that are associated with the failure must be reanalyzed, if possible. Sample data that are associated with a failed quality control measure or calibration must be appropriately qualified as specified in Chapter 62-160, F.A.C. An explanatory comment must be attached to the final report for each result that has a qualifier code other than U, I, or A. Any additional qualifier codes used but not explicitly listed in Chapter 62-160, F.A.C. must be identified and defined in the report.
10. The reported MDL and PQL for each sample must be adjusted for dilution factors and any relevant preparation weights and volumes.
11. Field QC duplicates or replicates - The GRANTEE shall ensure that field duplicates (not to be confused with laboratory duplicates) are analyzed. All field duplicate results greater than the contracted PQL should agree within 20% RPD for each measured analyte. In the event that field duplicate agreement is not observed, the

laboratory must investigate sufficiently to determine that poor precision is not due to a laboratory error and report the results with appropriate qualifiers and/or comments.

12. For all organic analyses using either gas chromatography or HPLC, analytes with concentrations above the method detection limit shall be confirmed by at least one of the qualitative identification measures listed below. Confirmation must occur the first time an analyte is detected at a sampling point.

- ▶ Second column/same detector
- ▶ Second column/alternate detector
- ▶ Same column/alternate detector
- ▶ Mass spectrometry
- ▶ Alternate wavelength

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Addendum 2

Quality Control Requirements for Laboratories Performing Microbiological Testing

In addition to the quality control requirements outlined in Chapter 5 of the NELAC Standards, the following quality control measures shall be implemented for this Agreement. Note: "Sample" refers to samples that have been either collected or analyzed under the terms of this Agreement.

1. All microbiological analyses must conform to the requirements for facilities, personnel qualifications, equipment specifications and quality control measures discussed in *AWWA Standard Methods, section 9020* (all acceptable editions)
2. **Holding Times** – Any sample that exceeds the holding time specified in 40 CFR Part 136 (for non-potable water) or 40 CFR Part 141 (for drinking water compliance) must be appropriately qualified with a "Q". The holding begins with the sample collection date and time and ends with the date and time of the placement of the processed sample into or on the applicable growth medium.
 - a. For non-potable water, the maximum transport time to the laboratory is 6 hours and samples should be processed within 2 hours of receipt at the laboratory. **For purposes of contractual services and to determine compliance with this requirement, the Department will allow no greater than 6 hours from time of collection to the time of receipt by the laboratory AND no greater than 8 hours from time of collection to the placement of the processed sample into or on the applicable growth medium**
 - b. All samples that are either received after 6 hours **OR** placed into or on growth medium after 8 hours will be considered outside of holding time and must be qualified with a "Q" qualifier.
 - (i.) All samples that exceed the method-specified incubation period (range of minimum to maximum) shall be qualified with a "J" qualifier.
 - c. For drinking water compliance, the time from sample collection to placement of the processed sample into or on the applicable growth medium may not exceed 30 hours.
 - (i.) All samples that are processed after 30 hours will be considered outside of holding time and must be qualified with a "Q" qualifier.
 - (ii.) All samples that exceed the method-specified incubation period (range of minimum to maximum hours) shall be qualified with a "J" qualifier.
 - d. In order to evaluate the holding time for each sample, the following information shall be documented.
 - (1) Date and time of sample collection
 - (2) Date and time of laboratory receipt of the sample
 - (3) Date and time the analysis begins – (The time at which the sample is placed in or on the appropriate media for incubation).
 - (4) Date and time incubation begins
 - (5) Date and time analysis ends - The date and time incubation ends and plates/tubes are read.
3. **Dilutions for membrane filter analysis** - In order to achieve the recommended range of target organisms (20 – 60 colony forming units (CFU) for fecal coliform, enterococci and fecal streptococcus or 20 – 80 for total coliforms and E.coli), multiple dilutions of a sample must be run. While the general history of a sample site may be well known, the water will be influenced by many environmental factors at any one time.
 - a. **A minimum of 3 dilutions will be run for each sample analysis (except blanks).** The three dilution volumes may vary according to the range of expected values or an understanding of the environmental conditions at the time of sampling. Waters of a higher quality (low microbial density) may benefit from a dilution series of 100 mL, 50 mL, and 25 mL of sample volume, whereas, lower quality waters (high microbial density) might require only 10 mL, 1.0 mL, and 0.1 mL. Use a 100 mL dilution for all blanks (including field and equipment blanks). Table 1 provides suggested volumes for varying water sources and has been adapted from Table 9222:III, *Standard Methods*, 20th Edition, and can be used for microbiological samples:

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Water source	Dilutions (Sample Volume, mL)
Equipment, field blanks	100
Lakes, reservoirs, rivers	100, 50, 10 or 50, 10, 25
Wells, springs	100, 50, 10 or 100, 50, 25
Water supply intake	50, 10, 1
Natural bathing waters	50, 10, 1
Sewage treatment plant	10, 1, 0.1
Farm ponds, rivers	1, 0.1, 0.01
Stormwater runoff	1, 0.1, 0.01
Raw municipal sewage	0.1, 0.01, 0.001
Feedlot runoff	0.1, 0.01, 0.001
Sewage sludge	0.01, 0.001, 0.0001

4. **QUALITY CONTROL BLANKS**

- a. The number and types of blanks to be run shall follow method requirements with these modifications:
 - (i.) If the membrane filter technique is used, the sample set(s) shall be associated with a beginning and ending filtration blank processed within a time period not to exceed 30 minutes. The environmental field samples shall be filtered after the beginning blank and before the ending blank.
 - (ii.) If filtration funnels are not sanitized by U light between samples, additional sterility blanks shall be filtered after every 10 samples processed within the 30-minute set
- b. The results of any blank must be < 1 CFU/100 mL or the associated sample results must be reported with the appropriate qualifier from Chapter 62-160, F.A.C. (“V” for filtration blanks and “J” for field-generated blanks).

5. **Laboratory Quality Control Duplicates**

- a. At least 10% of the samples (or one per test run) shall be duplicated.
- b. All duplicate results shall be evaluated per method specifications using the precision criterion. The range of the transformed duplicates shall not exceed the precision criterion established by the laboratory. In the event that laboratory duplicate agreement is not observed, the laboratory must investigate the poor precision and report the results with appropriate qualifiers and/or comments.
- c. Field Quality Control Duplicates or Replicates - In the event that agreement (less than or equal the laboratory established precision criterion) is not observed between results from field-generated replicate samples, the laboratory must investigate the replicate analyses to determine that poor precision is not due to a laboratory error and report the results with appropriate qualifiers and/or comments. The laboratory shall use the analytical method specifications for precision control as a guide to evaluation of the field-generated replicate results.

6. **Colony Counts**

- a. In addition to the requirements listed below, all analytical results shall be calculated by the procedures established in the microbiological method(s) approved for the Contract and listed in the planning document.
- b. The laboratory shall make every attempt to ensure that colony counts are in the method-specified ideal range (20 – 60 colony forming units (CFU) for fecal coliform, enterococci and fecal streptococcus or 20 – 80 for total coliforms and E.coli). Reported values from colony plate counts outside this range shall be qualified with a “B” (unless the reported value is from a 100 mL sample and the count is less than 20).
- c. If all counts are above 60, the result shall be calculated and reported from the highest dilution. This result must be reported as “estimated”.

7. **Calculating Raw Data for Final Reporting** - Standard Methods (SM) 9222D and EPA Method 1600 offer slightly differing guidance on the calculation and reporting of microbiological data. Although this guidance is not intended to capture every scenario possible in the calculation and reporting of the test data, the most common scenarios are discussed with the emphasis on reporting the data result, the dilution factor, and the data qualifier. For detailed discussions on additional scenarios, see the applicable method.

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- a. Interpretation of **Standard Methods SM 9222, B.6, 20th Ed.** and EPA 1600, Appendix B. calculations:

$$\text{CFU}/100 \text{ mL} = \frac{C \times 100}{V}$$

Where,

CFU/100 mL = Number of enterococci or fecal coliform colony forming units per 100 mL of sample.

C = Total number of positive colonies counted on all acceptable dilutions.

V = Total volume, equal to the sum of all acceptable dilutions (sample volumes used), in mL

- (i.) When one dilution in a series has a count within the ideal CFU range (see above):
 - (a) Use the count from the dilution that is within range to calculate the final result in the equation above.
 - (ii.) When more than one dilution in a series has an acceptable count within the ideal range use the applicable method below. Since this calculation is not a laboratory sample replicate, do not use an "A" qualifier.
 - (1) SM 9222D - Use the sum of all dilutions within the ideal range and the sum of the counts from all dilutions in the ideal range in the equation above.
 - (2) EPA 1600 - Independently calculate a final value for each dilution within the ideal range in the equation above and report the average of these values.
 - (iii.) When no dilutions fall within the ideal range:
 - (1) For both methods: A "B" qualifier is not required if all dilutions were less than the lower acceptable limit (20 CFUs), and one of the dilutions was 100 mL. For this situation, report the calculated value from the 100 mL dilution without a "B".
 - (2) SM 9222D - Use the sum of all dilutions in the equation to calculate the final result. Include dilutions that have a zero count. Report the final result with a "B" qualifier.
 - (3) EPA 1600:
 - (a) If all counts are under the lower acceptable limit (20 CFUs) or are both above and below the limit, choose the dilution with the count that is closest to the ideal range to calculate final result and report with a "B" qualifier.
 - (b) If all counts are above the upper acceptable limit (60 or 80 CFUs), use the dilution with the smallest volume filtered to calculate final result and report with a "B" qualifier.
 - (iv.) If counts from all dilutions are zero:
 - (1) For SM 9222D- Use "1" as the total number of colonies counted and include all dilutions in the equation to calculate final result. Report with a "U" qualifier.
 - (2) For EPA 1600 - Use "1" as the total number of colonies counted and use only the highest filtration volume as total volume in the equation above to calculate final result. Report with a "U" qualifier.
 - (v.) If there are >200 target colonies in all dilutions:
 - (vi.) For both methods - Use the upper limit of the ideal range (60 or 80) and the smallest filtration volume in mL to calculate an estimated final result. Report with a "Z" qualifier.
 - (vii.) If there are >200 non-target colonies, or if the colonies are not distinct enough to count (confluent growth) in all dilutions:
 - (1) For both methods - Report as "No Result" with a "Z" qualifier.
8. Use of Dilution Factor (DF) field
- a. Use the following equation to determine dilution factor for all samples:

$$\text{DF} = \frac{100}{V}$$

Where,

DF = Dilution Factor

V = Total volume (sum of dilutions in mL used in final calculation)

9. Verification

a. Frequency

- (i.) Independently verify at least 10 isolated colonies from a positive sample per month.
- (ii.) Verify atypical colonies of different morphological types to check for false negatives.
- (iii.) Also, verify any ambiguous colonies as needed.

b. Procedure

- (i.) Use aseptic techniques to transfer growth from each colony into individual tubes. For 10 colonies, there should be 10 tubes total, for each verification test media.
- (ii.) See Table 2 for the method requirements for fecal coliform and Enterococci. Follow the method requirements for all others.

Method	Verify with the following:					
Enterococci EPA 1600	<u>BHI Agar Slant</u>	<u>BHI</u>	<u>Gram stain</u>	<u>BHI</u>	<u>BEA</u>	<u>BHI w/6.5% NaCl</u>
	35 ± 0.5°C 48 ± 3 h (use growth for gram staining)	35 ± 0.5°C 24 ± 2 h (turbidity)	(gram positive cocci)	45 ± 0.5°C 48 ± 3 h (turbidity)	35 ± 0.5°C 48 ± 3 h (growth w/ black/brown precipitate)	35 ± 0.5°C 48 ± 3 h (turbidity)
Fecal Coliforms SM9222D	<u>LTB</u>	<u>EC</u>				
	35 ± 0.5°C 48 ± 3 h (turbidity and gas)	44.5 ± 0.2°C 24 ± 2 h (turbidity and gas)				

The response bolded in parentheses indicate the positive result for each test.

c. Reporting

- (i.) Adjust colony counts for the original positive sample based on percent of colonies verified positive.
 - (1) For example: A sample dilution has a colony count of 30 fecal coliforms. Ten of these positive blue colonies were used in the verification tests, but only 8 verified positive for both EC and LTB. This means only 80% were verified positive and therefore the final count of 30 is adjusted by 80% to 24 colonies.
 - (ii.) For verified samples, report as "Verified" in the comment field.
10. Data Qualifier Codes - The use of Data Qualifier Codes is not discussed in the methods, but the Department's QA-Rule 62-160 F.A.C. requires that data qualifiers be used when the data is being submitted to the State. The purpose of the Data Qualifier Codes is to communicate the reliability of the reported data to the consumer. Table 3 identifies those Data Qualifier codes that are generally associated with microbiological data reporting. Others may apply. The laboratory must apply any applicable data qualifiers as listed in Table 1 of the Quality Assurance Rule (62-160, F.A.C.)
- a. Any data point which is derived from any analysis other than the direct calculation of the number of colonies on a membrane filter that were within the recommended range of the method must be qualified with one or more of the Data Qualifier Codes listed below.
 - b. Any result associated with a failed QC test must be reported with applicable data qualifiers.
 - c. Any result that is associated with a failure to meet test requirements (e.g., holding time, incubation time, etc.) shall also be qualified with applicable data qualifiers.
 - d. Failure to report data with appropriate data qualifier codes will be returned to the laboratory without payment for services until corrections are made.

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Table 3

Typical Data Qualifier Codes to be used when Reporting Microbiological Data to the FDEP under the Overflow Purchase Order or Contract (others may apply)

62-160 Regulatory Meaning (rule) or Contract Requirement/Interpretation (contract)	
Qualifier	
A	<p>Rule: Value reported is the arithmetic mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.</p> <p>Contract Requirement: <i>Two or more replicates of the same volume of sample are run and the data averaged.</i></p>
B	<p>Rule: Results based upon colony counts outside the acceptable range. This code applies to microbiological tests and specifically to membrane filter colony counts. The code is to be used if the colony count is generated from a plate in which the total number of coliform colonies is outside the method indicated ideal range. This code is not to be used if a 100 mL sample has been filtered and the colony count is less than the lower value of the ideal range.</p> <p>Contract Requirement: <i>Based on colony counts outside the method specified range of 20 – 60 colonies per membrane filter. This code is not required if a 100 mL sample has been run, the density reported is below 20 and only this sample value was reported.</i></p>
J	<p>Rule: Estimated value. A “J” value shall be accompanied by a detailed explanation to justify the reason(s) for designating the value as estimated. Where possible, the organization shall report whether the actual value is estimated to be less than or greater than the reported value. A “J” value shall not be used as a substitute for K, L, M, T, V, or Y, however, if additional reasons exist for identifying the value as an estimate (e.g., matrix spiked failed to meet acceptance criteria), the “J” code may be added to a K, L, M, T, V, or Y. Examples of situations in which a “J” code must be reported include: instances where a quality control item associated with the reported value failed to meet the established quality control criteria (the specific failure must be identified); instances when the sample matrix interfered with the ability to make any accurate determination; instances when data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample); instances when the analyte was detected at or above the method detection limit in a blank other than the method blank (such as calibration blank or field-generated blanks and the value of 10 times the blank value was equal to or greater than the associated sample value); or instances when the field or laboratory calibrations or calibration verifications did not meet calibration acceptance criteria.</p> <p>Contract Requirement: <i>In addition to the above examples, other “J” code situations are: quality control duplicate failures, ongoing precision recovery (OPR) spike failures, matrix spike failures, incubation period or temperature failures, other QC check failures.</i></p>
O	<p>Rule: Sampled, but analysis lost or not performed.</p> <p>Contract Requirement: <i>Sample taken but analysis lost, invalidated, or not performed.</i></p>
Q	<p>Rule: Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.</p>

Table 3

Typical Data Qualifier Codes to be used when Reporting Microbiological Data to the FDEP under the Overflow Purchase Order or Contract (others may apply)

62-160 Regulatory Meaning (rule) or Contract Requirement/Interpretation (contract)

Qualifier	Contract Requirement	Sample received after 6 hours OR analyzed beyond 8 hours.
U	Contract Requirement	Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
V	Contract Requirement	Organism was analyzed for but not detected.
Y	Contract Requirement	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value. Note: unless specified by the method, the value in the blank shall not be subtracted from associated samples.
Z	Contract Requirement	Analyte was detected in both samples and method blank. Use this code when the sample result is less than or equal to 10 times the value of the blank. Do not subtract the value of the blank from the sample result.
	Contract Requirement	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
	Contract Requirement	Too many colonies were present for accurate counting. Historically, this condition has been reported as "too numerous to count" (TNTC). The "Z" qualifier code shall be reported when the total number of colonies of all types is more than 200 in all dilutions of the sample. When applicable to the observed test results, a numeric value for the colony count for the microorganism tested shall be estimated from the highest dilution factor (smallest sample volume) used for the test and reported with the qualifier code. ⁵
	Contract Requirement	Colonies on plate too numerous to count (TNTC). Results shall be reported as the maximum recommended count of typical target colonies (60 CFU/lowest volume used x 100 mL). If atypical, non-target, spreading colonies or other interferences occur where typical target organisms cannot be determined, report "No Result" in the results column and "Z" in the Data Qualifier column.

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