

THROUGH THESE DOORS WALK ONLY THE FINEST PEOPLE – THE CITIZENS OF ESCAMBIA COUNTY. DECISIONS ARE MADE IN THIS ROOM AFFECTING THE DAILY LIVES OF OUR PEOPLE. DIGNIFIED CONDUCT IS APPRECIATED.

CHAMBER RULES

1. IF YOU WISH TO SPEAK, YOU WILL BE HEARD.
2. YOU MUST SIGN UP TO SPEAK. SIGN-UP SHEETS ARE AVAILABLE AT THE BACK OF THE ROOM.
3. YOU ARE REQUESTED TO KEEP YOUR REMARKS BRIEF AND FACTUAL.
4. BOTH SIDES ON AN ISSUE WILL BE GRANTED UNIFORM/MAXIMUM TIME TO SPEAK.
5. DURING QUASI-JUDICIAL HEARINGS (I.E., REZONINGS), CONDUCT IS VERY FORMAL AND REGULATED BY SUPREME COURT DECISIONS.
6. SEE ORDERLY CONDUCT OF MEETINGS. POLICY.

**PLEASE NOTE THAT ALL BCC MEETINGS ARE RECORDED AND TELEVISED**

AGENDA

Board of County Commissioners

Special Meeting – June 21, 2016 – 4:00 p.m.

Ernie Lee Magaha Government Building – First Floor

1. Call to Order.

**(PLEASE TURN YOUR CELL PHONE TO THE VIBRATE, SILENCE, OR OFF SETTING)**

2. Was the Meeting Properly Advertised?

3. Recommendation Concerning Former Escambia County Mosquito Control Site - Tonya Gant, Neighborhood & Human Services Department Director

That the Board discuss the following items related to the Former Escambia County Mosquito Control Site:

A. Review the presentation concerning the history of the Former Escambia County Mosquito Control Site;

B. Consider the request from the City of Pensacola (City) for Project Participation in the Government Street/Corrine Jones Stormwater Park Dewatering Treatment; and

C. Authorize the County Administrator to execute Change Order on Contract PD 13-14.020, if the Board approves the request from the City.

**THE PRESENTATION NOTED IN “A” WILL BE DISTRIBUTED UNDER SEPARATE COVER.**

[Funding: Fund 129/Voluntary Cleanup Tax Credit (VCTC), Cost Center 370213, if approved]

4. Recommendation Concerning Supplemental Budget Amendment #164  
Recognizing Funds from the Sale of Voluntary Tax Credits and Appropriating  
these Funds for Use in the Brownfields Remediation Program - Amy Lovoy,  
Assistant County Administrator

That the Board adopt the Resolution approving Supplemental Budget Amendment #164, Community Redevelopment Block Grant (CDBG) Fund (129), in the amount of \$281,868, recognizing funds from the sale of voluntary tax credits and appropriating these Funds for use in the Brownfields Remediation program.

5. Are there any items to be added to the agenda?
6. Adjourn.



**BOARD OF COUNTY COMMISSIONERS**  
Escambia County, Florida

**Special BCC Meeting**

**3.**

**Meeting Date:** 06/21/2016

**Issue:** Discussion Concerning Former Escambia County Mosquito Control Site

**From:** Tonya Gant, Director

**Organization:** Neighborhood & Human Svcs

**CAO Approval:**

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**RECOMMENDATION:**

Recommendation Concerning Former Escambia County Mosquito Control Site - Tonya Gant, Neighborhood & Human Services Department Director

That the Board discuss the following items related to the Former Escambia County Mosquito Control Site:

A. Review the presentation concerning the history of the Former Escambia County Mosquito Control Site;

B. Consider the request from the City of Pensacola (City) for Project Participation in the Government Street/Corrine Jones Stormwater Park Dewatering Treatment; and

C. Authorize the County Administrator to execute Change Order on Contract PD 13-14.020, if the Board approves the request from the City.

**THE PRESENTATION NOTED IN "A" WILL BE DISTRIBUTED UNDER SEPARATE COVER.**

[Funding: Fund 129/Voluntary Cleanup Tax Credit (VCTC), Cost Center 370213, if approved]

**BACKGROUND:**

The former Escambia County Mosquito Control facility conducted operations at the 603 W. Romana Street site from 1985. Petroleum and pesticide groundwater contamination occurred due to operations at the site. In 2005, the site was designated a Brownfield and in 2007 the County entered into a Brownfield Site Rehabilitation Agreement (BSRA, Exhibit I) with the Florida Department of Environmental Protection (FDEP). A Remedial Action Plan (RAP) was prepared in 2010. An excerpt from the RAP is included as Exhibit II, which details the scope of soil contamination on site, the contaminated groundwater plume, and the plan for remediation. The County completed the contaminated soil removal at the former Mosquito Control Facility and is currently

implementing the required groundwater and soil remediation system as outlined in the RAP Site Remediation and Closure Scope of Work approved by the BCC on June 3, 2014 (Exhibit IV). As a result of the County's ongoing voluntary cleanup of the site, the County has been able to secure Voluntary Cleanup Tax Credit (VCTC) funds, as a rebate for the expended funds from the Community Development Block Grant (CDBG) Program.

A presentation displaying the timeline for activities and funding at the former Mosquito Control Site will be distributed under separate cover.

The City has begun construction of a stormwater pond on the Corrine Jones Park property, but work has been suspended due to the presence of the contaminated groundwater plume from the former Mosquito Control facility. Groundwater monitoring data shows that the contaminated groundwater plume has migrated approximately 500 feet south of the Former Mosquito Control property impacting the City Corrine Jones Park property located at 600 West Government Street (Site Map included as Exhibit III). Dewatering of the site (removal of groundwater) must be done to facilitate construction of the pond, and FDEP requires that the contaminated water be treated as it is removed. The City of Pensacola has requested funding assistance from the County (Exhibit VII) to assist with the remediation.

If the request from the City is approved by the Board, a Change Order to Contract PD 13-14.020, in the amount of \$316,646.78, will authorize the funding to design, construct, and operate the contaminated groundwater treatment system. The scope of work for the Change Order is attached as Exhibit V. The budget for services is as follows:

Dewatering Treatment System Design	\$9,988.00
Dewatering Treatment System Rental and Operations Oversight	\$198,634.48
Project Management and Reporting	\$19,014.00
Contingent Costs: Additional Monthly Treatment System Rental and Operations	\$59,135.30
Contingent Costs: Hazardous Disposal of Carbon Media and Filters	\$29,875.00
<b>TOTAL:</b>	<b>\$316,646.78</b>

A Gantt chart depicting the schedule for the dewatering activities at the Park has been included as Exhibit VI, with completion projected in January 2017.

**BUDGETARY IMPACT:**

If the request from the City of Pensacola is approved by the Board, funding is available in Fund 129, VCTC, Cost Center 370213.

**LEGAL CONSIDERATIONS/SIGN-OFF:**

Not applicable to this recommendation.

**PERSONNEL:**

Neighborhood and Human Services Department staff will continue to coordinate the former Mosquito Control facility project and the scope of work in the proposed change order, if approved by the Board.

**POLICY/REQUIREMENT FOR BOARD ACTION:**

Board approval is required for funding requests from outside agencies as well as for any expenditures/change orders over \$50,000.

**IMPLEMENTATION/COORDINATION:**

Community Redevelopment Agency (CRA) and Neighborhood Enterprise Division (NED) staff will implement the work associated with this project.

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**Attachments**

Ex I-Brownfield Site Remediation Agreement (BSRA)

Ex II-Remedial Action Plan (RAP) Excerpt

Ex III-Site Map

Ex IV-Site Remediation & Closure Scope of Work Budget & Schedule

Ex V-Change Order Scope of Work Budget & Schedule

Ex VI-Gantt Chart Dewatering Schedule

Ex VII - Ltr. (Signed) Request for Project Participation Government St.-Corrine Jones Stormwater Park

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*Final copy sent*  
*December 14,*  
*BSRA*

BEFORE THE STATE OF FLORIDA  
OF ENVIRONMENTAL PROTECTION

*This is Escambia County's original which is to be returned to the office of Clerk to the Board for filing with Board Minutes.*

la, Board of County Commissioners  
y  
sacola, Florida, 32502  
Brownfield Area  
ation Number: "BF170502001"  
ation Number: "BF170502001"

*Thank you*

ITATION AGREEMENT PURSUANT TO §376.80(5),  
Florida Statutes (F.S.)

ds Redevelopment Act was enacted to reduce public health and environmental hazards on existing commercial and industrial sites by offering incentives to encourage responsible persons to voluntarily develop and implement cleanup plans; and

WHEREAS, the Department of Environmental Protection ("Department") is the administrative agency of the State of Florida having the power and duty to protect Florida's environment and to administer and enforce the provisions of Chapters 403 and 376, F.S., and the rules promulgated thereunder, Chapters 62-777 and 62-785, Florida Administrative Code (F.A.C.), as amended; and

WHEREAS, the Department has jurisdiction over the matters addressed in this Brownfield Site Rehabilitation Agreement ("BSRA"); and

WHEREAS, the Department has the authority, pursuant to §376.81, F.S., to establish by rule, criteria for determining the rehabilitation program tasks that comprise a site rehabilitation program and the level at which a rehabilitation program task and a site rehabilitation program may be deemed complete; and

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter contained, it is agreed as follows:

This BSRA is entered into between the Department and Escambia County Florida, Board of County Commissioners, hereinafter the Person Responsible For Brownfield Site Rehabilitation ("PRFBSR") (collectively referred to as the "parties"), for the rehabilitation of a brownfield site within a designated brownfield area pursuant to §376.80(5), F.S. The Department and the PRFBSR agree to the following:

Verified By:

Date: 12-12-07

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN RE: **Escambia County, Florida, Board of County Commissioners**  
**Mosquito Control Facility**  
**603 W. Romana St., Pensacola, Florida, 32502**  
**603 West Romana Street Brownfield Area**  
**Brownfield Area Identification Number: "BF170502001"**  
**Brownfield Site Identification Number: "BF170502001"**

**BROWNFIELD SITE REHABILITATION AGREEMENT PURSUANT TO §376.80(5),  
Florida Statutes (F.S.)**

WHEREAS, the Brownfields Redevelopment Act was enacted to reduce public health and environmental hazards on existing commercial and industrial sites by offering incentives to encourage responsible persons to voluntarily develop and implement cleanup plans; and

WHEREAS, the Department of Environmental Protection ("Department") is the administrative agency of the State of Florida having the power and duty to protect Florida's environment and to administer and enforce the provisions of Chapters 403 and 376, F.S., and the rules promulgated thereunder, Chapters 62-777 and 62-785, Florida Administrative Code (F.A.C.), as amended; and

WHEREAS, the Department has jurisdiction over the matters addressed in this Brownfield Site Rehabilitation Agreement ("BSRA"); and

WHEREAS, the Department has the authority, pursuant to §376.81, F.S., to establish by rule, criteria for determining the rehabilitation program tasks that comprise a site rehabilitation program and the level at which a rehabilitation program task and a site rehabilitation program may be deemed complete; and

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter contained, it is agreed as follows:

This BSRA is entered into between the Department and Escambia County Florida, Board of County Commissioners, hereinafter the Person Responsible For Brownfield Site Rehabilitation ("PRFBSR") (collectively referred to as the "parties"), for the rehabilitation of a brownfield site within a designated brownfield area pursuant to §376.80(5), F.S. The Department and the PRFBSR agree to the following:

Verified By: P. Cotton

Date: 12-12-07

**Escambia County, Florida, Board of County Commissioners**  
**Mosquito Control Facility**  
Brownfield Site Rehabilitation Agreement  
Brownfield Site ID # BF **BF170502001**

1. DEPARTMENT OF ENVIRONMENTAL PROTECTION

The Department is the agency of the State of Florida with authority and power to enforce the provisions of Chapters 376 and 403, F.S.

2. PERSON RESPONSIBLE FOR BROWNFIELD SITE REHABILITATION

Escambia County Florida, Board of County Commissioners is the PRFBSR as defined in §376.79(13), F.S., for the real property described in the map and legal description in **Attachment A** (the "Brownfield Site"), incorporated herein, that has been designated by the **City of Pensacola, Florida** in Resolution Number **39-05, September 15, 2005** as a brownfield area as defined in §376.79(4), F.S. **Attachment A** is a composite exhibit that includes: (a) the legal description and location map of the Brownfield Site; and (b) the City resolution with the map of the designated brownfield area and its legal description. The legal boundaries of the brownfield area and the brownfield site are the same.

3. PRFBSR'S DUTIES

The PRFBSR agrees:

- (a) to conduct "site rehabilitation" as defined in §376.79(17), F.S., at the real property described in **Attachment A**;
- (b) to conduct site rehabilitation and submit technical reports and rehabilitation plans in a timely manner according to the attached brownfield site rehabilitation schedule agreed upon by the parties (see **Attachment B**), and incorporated herein;
- (c) to conduct site rehabilitation activities under the observation of professional engineers or professional geologists, as applicable, who are registered in accordance with the requirements of Chapters 471 or 492, F.S., respectively. Submittals provided by the PRFBSR must be signed and sealed by a professional engineer registered under Chapter 471, F.S., or by a professional geologist registered under Chapter 492, F.S., as applicable, certifying that the submittal and associated work comply with the laws and rules of the Department and those governing the profession. Upon completion of the approved remedial action, a professional engineer registered under Chapter 471, F.S., or a professional geologist registered under Chapter 492, F.S., as applicable, must certify that the corrective action was, to the best of his or her knowledge, completed in substantial



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- conformance with the plans and specifications approved by the Department;
- (d) to conduct site rehabilitation in accordance with Chapter 62-160, F.A.C., as the same may be amended from time to time;
  - (e) to obtain any local, state or federal approvals or permits required for the site rehabilitation work and to conduct the necessary site rehabilitation consistent with local, state, and federal laws, rules and ordinances. All site rehabilitation shall be consistent with the cleanup criteria in §376.81, F.S., the requirements of Chapters 62-785, F.A.C., Brownfields Cleanup Criteria, and 62-777, F.A.C., Contaminant Cleanup Target Levels, adopted pursuant thereto;
  - (f) to allow access by the Department during the entire site rehabilitation process as evidenced by the attached documentation (see **Attachment C**) incorporated herein, establishing that such site access has been secured by agreement with the PRFBSR. Upon the transfer of any real property interest in any portion of the Brownfield Site before site rehabilitation is complete, the PRFBSR shall submit to the Department within 15 days of the execution of the real property interest document (or if there is no written document, then 15 days from the date that such an interest is effective) a copy of an access agreement in substantially the same form as that in **Attachment C** with any successor in interest to the PRFBSR as owner of the Brownfield Site or with any party with an interest in the real property after the effective date of this agreement, granting such access to the Department; and
  - (g) The PRFBSR has certified that an agreement exists between the PRFBSR and the local government with the jurisdiction over the real property described in Attachment A. This agreement concerns the redevelopment of the real property. A copy of the PRFBSR's certification is attached as Attachment D.

4. CERTIFICATION

The PRFBSR has certified that an agreement exists between the PRFBSR and the local government with jurisdiction over the real property described in Attachment A. The agreement concerns the terms for the redevelopment of the real property. A copy of the PRFBSR's certification is attached as Attachment D.

5. PROPERTY COORDINATES AND ACREAGE

The latitude and longitude coordinates in minutes, degrees and seconds, datum used, collection method, and accuracy of collection method used to determine the coordinates for the real property described in **Attachment A** are:

Latitude (in degrees, minutes and seconds): 30°24'33.965"N

Longitude (in degrees, minutes and seconds): 87°13'29.731"W

Datum Used (NGVD of 1929 or NAVD of 1988): NAD1983

Collection Method: Cadastral or Land Survey

Map Source (if applicable): N/A

Map Source Scale (if applicable): N/A

Object of Interest: Center of the Site Boundaries

Relationship of Point to Object of Interest: CENTR

Coordinate Accuracy Level: 2.5+/-

The property consists of 1.0 acre.

6. SITE CONTRACTOR

The PRFBRSR must ensure that the contractor who is performing the majority of the site rehabilitation program tasks pursuant to this BSRA or supervising the performance of such tasks by licensed subcontractors in accordance with the provisions of § 489.113(9), F.S., has provided certification to the Department that the contractor meets the requirements listed below. If the identity of the contractor is known at the time of the execution of this BSRA, a Brownfields Redevelopment Program Contractor Certification Form (CCF) shall be completed and attached as part of **Attachment E** to this BSRA, along with a certificate of liability insurance and all other documentation required below. If the contractor has not yet been determined, the PRFBRSR shall ensure that the CCF and all other documentation required in this section are submitted to the District Brownfield

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Coordinator and approved by the Department before the contractor begins performing any site rehabilitation tasks at the site.

The PRFBSR must submit to the Department documentation as **Attachment F**, which shows a National Environmental Laboratory Accreditation Program ("NELAP")-recognized authority has accredited the laboratory(s) performing analyses.

Requirements for any contractor that performs site rehabilitation tasks at the site are as follows:

- (a) documentation in accordance with the provisions of the paragraph above and with **Attachments E and F**, if applicable, showing that any contractor that performs site rehabilitation tasks:
  - (i) meets all certification and license requirements imposed by law; and
  - (ii) performs, or has laboratory analysis performed, pursuant to National Environmental Laboratory Accreditation Program ("NELAP") certification requirements and performs, or has field sampling work performed, in accordance with the Standard Operating Procedures provided in Chapter 62-160, F.A.C., as amended, if applicable to performance of site rehabilitation tasks; and
  
- (b) certification to the Department that the contractor who is performing the majority of the site rehabilitation program tasks pursuant to this BSRA or supervising the performance of such tasks by licensed subcontractors in accordance with the provisions of § 489.113(9), F.S.:
  - i. complies with applicable OSHA regulations;
  - ii. meets all certification and license requirements imposed by law;
  - iii. maintains workers' compensation insurance for all employees as required by the Florida Workers' Compensation Law;
  - iv. maintains **Comprehensive General Liability** coverage with minimum limits of not less than \$1 million per occurrence and \$2 million general aggregate for bodily injury and property damage;
  - v. maintains **Comprehensive Automobile Liability** coverage with minimum limits of not less than \$1 million combined single limit;

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- vi. maintains **Pollution Liability** coverage with limits of not less than \$3 million aggregate for personal injury or death, \$1 million per occurrence for personal injury or death, and \$1 million per occurrence for property damage;
- vii. maintains and lists the State as an additional insured on the contractor's Certificate of Liability Insurance; and
- viii. maintains Professional Liability coverage of at least \$1 million per claim and \$1 million annual aggregate.

7. CONTINUOUS COMPLIANCE

During the entire site rehabilitation process, the PRFBRSR agrees to ensure that the contractor continues to comply with the requirements of **Paragraph 6** of this BSRA pursuant to the requirements of §376.80(6) and (7), F.S.

8. VOLUNTARY CLEANUP TAX CREDIT PROGRAM

Not all activities that are approved or performed in association with a BSRA are eligible for the state's Voluntary Cleanup Tax Credit (VCTC). Only costs incurred and paid that are integral, necessary and required for site rehabilitation and costs to remove, transport, and dispose of solid waste (as defined in 403.703, FS) in accordance with department rules may be eligible for the VCTC. "Site rehabilitation" means the assessment of site contamination and the remediation activities that reduce the levels of contaminants at a site through accepted treatment methods to meet the cleanup target levels established for that site. Nothing contained herein is intended to limit the VCTC otherwise available to the PRFBRSR under applicable law. General information about the VCTC Program is available at <http://www.dep.state.fl.us/waste/categories/vctc/default.htm>. For specific questions regarding the VCTC Program, please contact the FDEP's Bureau of Waste Cleanup at (850) 245-8927.

9. ADVISORY COMMITTEE

The PRFBRSR shall establish an advisory committee pursuant to the requirements of §376.80(4), F.S., for the purpose of improving public participation and receiving public comments on rehabilitation and redevelopment of the brownfield area, future land use, local employment opportunities, community safety, and environmental justice. However, if an appropriate local advisory committee already exists in the designated area, this committee may be used for requesting public participation and for the purposes of complying with this paragraph.

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The PRFBSR shall provide the advisory committee a copy of the final proposed draft BSRA and a copy of the executed BSRA. When the PRFBSR submits a site assessment report or the technical document containing the proposed course of action following site assessment to the Department or the local pollution control program for review, the PRFBSR shall hold a meeting or attend a regularly scheduled meeting to inform the advisory committee of the findings and recommendations in the site assessment report or the technical document containing the proposed course of action following site assessment.

The names, addresses, and contact numbers for all advisory committee members are included as **Attachment G**.

10. INDEMNIFICATION

The PRFBSR shall save and hold harmless and indemnify the Department against any and all liability, claims, judgments or costs of whatsoever kind and nature for injury to, or death of any person or persons and for the loss or damage to any property resulting from the use, service, operation or performance of work under the terms of this BSRA and from the negligent acts or omissions of the PRFBSR or its employees, agents, contractors, subcontractors, or other representatives, to the extent allowed by law.

11. PROFESSIONAL LIABILITY INSURANCE

Any professional engineer or professional geologist providing professional services relating to site rehabilitation program tasks must maintain professional liability insurance coverage of at least \$1 million per claim and \$1 million annual aggregate in accordance with §376.80(8), F.S.

12. LIABILITY PROTECTION

The liability protection provided under §376.82, F.S., shall become effective upon execution of this BSRA and shall remain effective, provided the PRFBSR complies with the terms of this BSRA.

13. FAILURE TO COMPLY

If the PRFBSR fails to comply with the provisions of this BSRA, the Department will notify the PRFBSR in writing of any breach of this BSRA. The PRFBSR will have 90 days from receipt of the letter from the Department to return to compliance or to negotiate a modification to this BSRA with the Department for good cause shown. The 90-day grace period does not apply if an imminent hazard exists at the site. If such imminent hazard exists, the PRFBSR shall act immediately to abate the hazard. If the project is not returned to compliance with

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this BSRA and a modification cannot be negotiated, then the immunity provisions of §376.82, F.S., are revoked.

14. DELAY

If any event occurs that does not result in a breach of this BSRA, but causes delay or the reasonable likelihood of delay in the achievement of the requirements of this BSRA, then the PRFBSR shall have the burden of proving that the delay was or will be caused by circumstances beyond the reasonable control of the PRFBSR that could not have been overcome by due diligence. Upon occurrence of the event, PRFBSR shall, within 7 days, notify the Department orally and in writing of the anticipated length and cause of the delay, the measures taken or to be taken to prevent or minimize the delay, and the timetable by which PRFBSR intends to implement these measures. However, if an imminent hazard exists, the PRFBSR shall act immediately to abate the hazard.

If the parties can agree that the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of the PRFBSR, the time for performance hereunder shall be extended for a period equal to the delay resulting from such circumstances, or 90 days if the delay results in a breach of this BSRA, unless circumstances warrant more time in the opinion of the Department. A letter from the Department to the PRFBSR accepting or, if necessary, modifying the extension request shall confirm such agreement.

- (a) The PRFBSR shall adopt all reasonable measures to avoid or minimize any delay. Failure of the PRFBSR to comply with the notice requirements of this paragraph shall constitute a waiver of the right to request an extension of time for complying with the requirements of this BSRA. Increased costs of performance of the terms of this BSRA shall not be considered circumstances beyond the control of the PRFBSR.
- (b) If the Department and PRFBSR cannot agree that any delay in the achievement of the requirements of this BSRA, including failure to submit any report or document, has been or will be caused by circumstances beyond the reasonable control of the PRFBSR, the PRFBSR may seek an administrative hearing or judicial determination of the issue pursuant to the provisions in **Paragraphs 22 and 23**.

15. IMMINENT HAZARD

Nothing herein shall be construed to limit the authority of the Department to undertake any action in response to, or to recover the costs of responding to, conditions at or from the real property described in **Attachment A** that require the

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Department to take action to abate an imminent hazard to the public health, welfare or the environment.

16. RELEASE OF LIABILITY

Upon successful completion of this BSRA, the PRFBSR and his or her successors and assigns, shall be relieved from further liability for remediation of the real property described in **Attachment A** to the Department and third parties and of liability in contribution to any other party who has or may incur cleanup liability for the real property described in **Attachment A**.

This release of liability is subject to the reopener provisions of §376.82(3), F.S.

17. GOVERNING LAW

This BSRA has been delivered in the State of Florida and shall be construed in accordance with the laws of Florida and any applicable local regulations. Wherever possible, each provision of this BSRA shall be interpreted in such manner as to be effective and valid under applicable law. If any provision of this BSRA 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 BSRA. Any action hereon or in connection herewith shall be brought in **Escambia County, Florida**.

18. SUBMITTALS

The PRFBSR shall submit two hard (paper) copies or one hard copy and one electronic (digital) copy of any certifications or documentation required in **Paragraph 6** ("Site Contractor") above, and all data, reports, responses, addenda, or modifications to reports and plans required by this BSRA to:

**Alex Webster, P.G.**  
**Brownfield Program Coordinator**  
**Waste Management Program**  
**160 Governmental Center**  
**Pensacola, FL 32502-8360**

The Department encourages the submittal of documents for review in an electronic format rather than the submittal of paper copies. All electronic copies of documents shall be in the format listed in Section 8 of the Instructions and attached as **Attachment H**. Time frames for the Department's review of technical

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reports and plans and submittal of documents by the PRFBSR shall be governed by the attached schedule (see **Attachment B**), incorporated herein. After final Department approval of each report or plan, an electronic copy shall be submitted to the Department within 30 days. The electronic copy of the report shall be submitted on Compact Disc (CD) for archiving purposes in the format listed in **Attachment H**.

19. DOCUMENT REVIEW

During the cleanup process, if the Department fails to complete the review of a technical document within the time frame specified in this BSRA, with the exceptions of requests for "no further action," "monitoring only proposals," and feasibility studies, which must be approved prior to implementation, the PRFBSR may proceed to the next site rehabilitation task. However, the PRFBSR does so at its own risk and may be required by the Department to complete additional work on a previous task.

20. ASSIGNMENT

The PRFBSR shall not assign any rights or responsibilities under this BSRA to any other party without the written consent of the Department and the local government with jurisdiction over the real property described in **Attachment A**. However, the Department shall not withhold its consent to such an assignment if: (a) the proposed assignee meets all of the eligibility criteria under §376.82, F.S.; (b) the proposed assignee has agreed, in writing, to assume all obligations of the PRFBSR under the terms of this Agreement; and (c) the assignment of PRFBSR obligations under any agreement with the local government with jurisdiction over the real property has been approved, in writing, by the local government.

21. WAIVER

By entering into this BSRA, the PRFBSR waives its right to challenge the contents of this BSRA in an administrative hearing afforded by §120.569 and §120.57, F.S., or an appeal afforded by the terms of §120.68, F.S. This BSRA does not deny the PRFBSR a right to challenge the Department's actions taken pursuant to this BSRA. No delay or failure to exercise any right, power or remedy accruing to either party upon breach or default by either party under this BSRA, shall impair any such right, power or remedy of either party; nor shall such delay or failure be construed as a waiver of any such breach or default, or any similar breach or default thereafter.

22. EFFECTIVE DATE AND ADMINISTRATIVE HEARING



**Escambia County, Florida, Board of County Commissioners**  
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This BSRA (Order) is final and effective on the date of execution unless a timely petition for an administrative hearing is filed under §§120.569 and 120.57, F.S., within **21** days after the date of execution. Upon the timely filing of such petition, this BSRA will not be effective until further order of the Department. The liability protection for the PRFBSR pursuant to §376.82(2), F.S., becomes effective upon execution of the brownfield site rehabilitation agreement. The procedures for petitioning a hearing are set forth below.

Persons other than the PRFBSR who are affected by this BSRA have the following options:

- (a) If you choose to accept the Department's decision regarding this BSRA, you do not have to do anything. This BSRA is final and effective 21 days after the date of execution.
- (b) If you choose to challenge the Department's decision, you may do the following:
  - (i) File a request for an extension of time to file a petition for hearing with the Agency Clerk of the Department in the Office of the General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000 within **21** days of receipt of this BSRA; such a request should be made if you wish to meet with the Department in an attempt to informally resolve any disputes without first filing a petition for hearing.

**Or**

- (ii) File a petition for administrative hearing with the Agency Clerk of the Department in the Office of the General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000 within **21** days of receipt of this BSRA.

Please be advised that mediation of this decision pursuant to §120.573, F.S., is not available.

**How to Request an Extension of Time to File a Petition for Hearing:**

For good cause shown, pursuant to Rule 62-110.106(4), F.A.C., the Department may grant a request for an extension of time to file a petition for hearing. Such a request shall be filed with (received by) the Agency Clerk of the Department in the Office of the General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within **21** days of receipt of this BSRA. Petitioner shall mail a copy of

**Escambia County, Florida, Board of County Commissioners**  
**Mosquito Control Facility**  
Brownfield Site Rehabilitation Agreement  
Brownfield Site ID # BF **BF170502001**

the request to the PRFBSR at the time of filing. Timely filing a request for an extension of time tolls the time period within which a petition for administrative hearing must be made.

How to File a Petition for Administrative Hearing:

A person whose substantial interests are affected by this BSRA may petition for an administrative proceeding (hearing) under §§120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Agency Clerk of the Department in the Office of the General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within **21** days of receipt of this BSRA. Petitioner shall mail a copy of the petition to the PRFBSR at the time of filing. Failure to file a petition within this time period shall waive the right of anyone who may request an administrative hearing under §§120.569 and 120.57, F.S

Pursuant to §120.569(2), F.S., and Rule 28-106.201, F.A.C., a petition for administrative hearing shall contain the following information:

1. The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; the PRFBSR's name and address; the Department's Brownfield Area and Brownfield Site Identification Numbers; and the name and address of the Brownfield Site;
2. A statement of when and how each petitioner received notice of the Department's action or proposed action;
3. An explanation of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;
4. A statement of the disputed issues of material facts, or a statement that there are no disputed facts;
5. A statement of the ultimate facts alleged, including a statement of the specific facts the petitioner contends warrant reversal or modification of the Department's action or proposed action;
6. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and

**Escambia County, Florida, Board of County Commissioners**  
**Mosquito Control Facility**  
**Brownfield Site Rehabilitation Agreement**  
**Brownfield Site ID # BF BF170502001**

7. A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Department's action or proposed action.

This BSRA is final and effective on the date of execution. Timely filing a petition for administrative hearing postpones the date this BSRA takes effect until the Department issues either a final order pursuant to an administrative hearing or an Order Responding to Supplemental Information provided to the Department pursuant to meetings with the Department.

**23. JUDICIAL REVIEW**

Any party has the right to seek judicial review of this BSRA under §120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the Agency Clerk of the Department in the Office of the General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice of appeal must be filed within **30** days after this BSRA is filed with the clerk of the Department (see below).

**24. CONTACTS FOR GENERAL AND LEGAL QUESTIONS**

Any questions about the content of this BSRA, the Department's review of the BSRA, or technical questions should be directed to the Department's District Brownfields Coordinator at:

**Alex Webster, P.G.**  
**Brownfield Program Coordinator**  
**Waste Management Program**  
**160 Governmental Center**  
**Pensacola, FL 32502-8360**  
**850-595-8300 x1214**

or to the PRFBSR's representative at:

**Escambia County, Florida, Board of County Commissioners**  
**D.M. "Mike" Whitehead, Chairman**

**Escambia County, Florida, Board of County Commissioners**  
**Mosquito Control Facility**  
Brownfield Site Rehabilitation Agreement  
Brownfield Site ID # BF BF170502001

**P.O.Box 1591**  
**Pensacola, Florida 32591-1591**  
**850-595-4950**

Questions regarding legal issues should be referred to the Department's Brownfields Program Attorney in the Office of General Counsel at (850) 245-2242. Contact with any of the above does not constitute a petition for administrative hearing or request for an extension of time to file a petition for administrative hearing.

25. ENTIRETY OF AGREEMENT

This BSRA represents the entire agreement of the parties. Any alterations, variations, changes, modifications or waivers of provisions of this BSRA 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 BSRA, unless otherwise provided herein.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

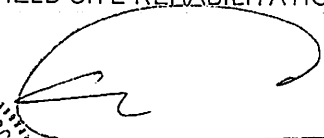
Escambia County, Florida, Board of County Commissioners  
 Mosquito Control Facility  
 Brownfield Site Rehabilitation Agreement  
 Brownfield Site ID # BF BF170502001

IN WITNESS WHEREOF, each of the parties has made and executed this Brownfield Site Rehabilitation Agreement on the date set forth for each signature of each representative below: W. Richard Fancher, Director of District Management, Florida Department of Environmental Protection, and Escambia County, Board of County Commissioners, the Person Responsible for Brownfield Site Rehabilitation, signing by and through, D.M. "Mike" Whitehead, Chairman, duly authorized to execute same.

PERSON RESPONSIBLE FOR  
 BROWNFIELD SITE REHABILITATION

STATE OF FLORIDA DEPARTMENT OF  
 ENVIRONMENTAL PROTECTION

BY: [Signature]  
 DEPUTY CLERK

  
 \_\_\_\_\_  
 D.M. "Mike" Whitehead, Chairman  
 Escambia County Board of County  
 Commissioners

By: [Signature]  
 \_\_\_\_\_  
 W. Richard Fancher  
 Director of District Management  
 District

Date: 12-6-2007  
 \_\_\_\_\_  
 P.O. Box 1591  
 Pensacola, Florida 32591-1591  
 \_\_\_\_\_  
 850-595-4950

Date: \_\_\_\_\_  
 Approved as to form and legality:  
[Signature]  
 \_\_\_\_\_  
 Holly Taylor Cauley, FDEP Attorney

This document approved as to form  
 and legal sufficiency.  
 By: [Signature]  
 \_\_\_\_\_  
 Title: Dist. County Attorney  
 \_\_\_\_\_  
 Date: Nov. 16, 2007  
 \_\_\_\_\_  
 BCC APPROVED 12-6-2007

FILING AND ACKNOWLEDGMENT FILED, on this date,  
 pursuant to §120.52 Florida Statutes, with the designated  
 Department Clerk, receipt of which is hereby acknowledged.  
[Signature]  
 \_\_\_\_\_  
 Clerk (or Deputy Clerk)  
 Date: 12/26/07

- cc: Holly Taylor Cauley, Brownfield Program Attorney
- Kim Walker, FDEP Brownfields Liaison
- Alex Webster, P.G Brownfields District Coordinator, FDEP

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

List of Attachments

- Attachment A      Map and Legal Description of the Brownfield Area and Local Government Resolution
- Attachment B      Brownfield Site Rehabilitation Schedule
- Attachment C      Site Access Agreement
- Attachment D      Certification of Redevelopment Agreement
- Attachment E      Contractor Certification Form and Insurance Certificates
- Attachment F      Quality Assurance Certificate
- Attachment G      Advisory Committee Members
- Attachment H      Format for Submittal of Technical Documents



THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

KEITH WILKINS  
Director

**Attachment "A"**

The Brownfield Site

Attachment contents:

- Resolution with Exhibit "A"
- Map
- Legal Description

The brownfield "site" is the same as the brownfield "area". The Escambia County Mosquito Control Property is a designated Brownfield Area as per City of Pensacola Resolution # 39-05, September 15, 2005.

H:\NESD\CRA\BROWNFIELDS\603 W. Romana\BSRA\BSRA Attachment A.doc



1190 WEST LEONARD STREET • PENSACOLA, FLORIDA 32501 • 850-595-3496 • FAX: 850-595-3495  
PUBLIC WORKS & LAND MANAGEMENT AGENCY

C: Glenn Buffeth  
Bob Batts  
Peter Shuba



# City of Pensacola

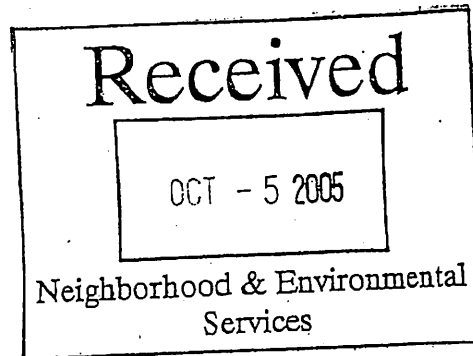
America's First Settlement  
Established 1559

CITY  
RESOLUTION

Office of the  
City Manager

September 28, 2005

Karen Shea  
Brownfield Coordinator, Northwest District  
Florida Department of Environmental Protection  
160 Governmental Center  
Pensacola, FL 32501



Re: Brownfield Designation, 603 W. Romana Street

Dear Ms. Shea:

The Pensacola City Council recently adopted a resolution designating the property located at 603 West Romana Street as a Brownfield in accordance with the Brownfield Redevelopment Act. This letter and the attached Resolution are to serve as official notification of this designation. The owner of this property, Escambia County, intends to evaluate options for the future use of this site after they conduct an investigation into the presence and or amounts of contamination on site. The mailing address for Escambia County Neighborhood and Environmental Services Department is 1190 West Leonard Street, Pensacola, FL 32501.

If you need any additional information or have any questions, contact the City's Environmental Coordinator, Matt Dimitroff, at 436-5655.

Sincerely,

Thomas J. Bonfield,  
City Manager

C: Kevin Cowper, Community Development Director  
✓ Keith Wilkins, Escambia County NESD Director

Enclosure:

Resolution No. 39-05



RESOLUTION  
NO. 39-05

A RESOLUTION  
TO BE ENTITLED

A RESOLUTION DESIGNATING THE PROPERTY WITH THE PARCEL IDENTIFICATION NUMBER 00-0S-00-9080-020-087, LOCATED AT 603 WEST ROMANA STREET, A BROWNFIELD SITE FOR THE PURPOSE OF ENVIRONMENTAL REMEDIATION, REHABILITATION AND ECONOMIC REDEVELOPMENT; DIRECTING THE CITY MANAGER TO NOTIFY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION OF SAID DESIGNATION; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Sections 376.77-376.84, Florida Statutes, (2002), hereinafter the "Brownfields Redevelopment Act," provides for the designation by resolution of certain commercial and industrial areas or sites as brownfield areas or sites for the purpose of encouraging environmental remediation, rehabilitation and economic redevelopment for such areas or sites; and

WHEREAS, Escambia County is the owner of property described in Exhibit "A" attached hereto, which property is located within the boundaries of the City's Urban Core Community Redevelopment Area; and

WHEREAS, the City of Pensacola wishes to notify the Florida Department of Environmental Protection of its decision to designate a brownfield site for rehabilitation for purposes of the Brownfields Redevelopment Act; and

WHEREAS, the notice and public hearing requirements set forth in Section 166.041(3)(c)2, have been followed; now, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PENSACOLA:

1. That the recitals and findings set forth above are true and are hereby incorporated by reference in this resolution.

2. The site described in Exhibit "A", attached hereto and incorporated herein by reference, is hereby designated as a brownfield site for environmental remediation, rehabilitation and economic development in accordance with the intent of the Brownfields Redevelopment Act. However, such designation shall not render the City of Pensacola liable for costs of site rehabilitation or source removal, as those terms are defined in Section 376.79, (17) and (18), Florida Statutes, or for any other costs, above and beyond those costs attributable to the City's role as administrator of a brownfield site rehabilitation program.

Section 3. That the City Manager is hereby directed to notify, and deliver a copy of this resolution to, the Florida Department of Environmental Protection of the City Council's decision to designate the property at 603 West Romana Street with the parcel identification number 00-0S-00-9080-020-087, as a brownfield site for the purposes set forth in the Brownfields Redevelopment Act.

Section 4. This resolution shall take effect immediately upon adoption by the City Council.

Adopted: September 15, 2005

Approved: s/J. R. Fogg  
Mayor

Attest:

s/Shirley F. White

City Clerk

Legal in form and valid  
if adopted:

s/Don J. Caton

City Attorney

CERTIFICATION  
I, DO HEREBY CERTIFY THAT THE ABOVE AND FOREGOING  
IS A TRUE AND CORRECT COPY OF THE ORIGINAL  
THEREOF ON FILE IN MY OFFICE. WITNESS MY HAND  
AND THE CORPORATE SEAL OF THE CITY OF PENSACOLA

FLORIDA THIS THE 16<sup>th</sup>  
September AD. 2005  
Shirley F. Burnett  
Assistant CITY CLERK OF THE  
CITY OF PENSACOLA, FLORIDA

EXHIBIT "A"

LEGAL DESCRIPTION

Y 208 FT OF E 288 FT OF N 127 FT BLK 87 MAXENT TRACT CA 97 SECTION 42,  
TOWNSHIP 2 SOUTH, RANGE 30 WEST



Chris Jones  
Escambia County Property Appraiser

General Information	
<b>Name:</b>	ESCAMBIA COUNTY 223 PALAFOX PL PENSACOLA FL 32502
<b>Account:</b>	153090100
<b>Reference:</b>	000S009080120087
<b>Section Map:</b>	C-097
<b>Use Code:</b>	86 - County Owned <a href="#">Legend Window</a>
<b>Tax Inquiry:</b>	<a href="#">Open Tax Inquiry Window</a>
<i>Tax Inquiry link courtesy of Janet Holley, Escambia County Tax Collector</i>	

Assessment	
<b>Improvements:</b>	\$0.00
<b>Land:</b>	\$2,460.00
<b>Total:</b>	\$2,460.00
<b>Save Our Homes:</b>	\$0.00

Legal Description
BEG 125 FT N OF N LI OF INTENDENCIA ST AND 160 FT E OF W LI OF CLUBBS ST 107 FT 8 IN TO N LI OF S1/2 OF BLK G ELY 45 FT S TO KINGS ALLEY 107 ...
<a href="#">Full Description</a>

Sales Data					
Mo/Yr	Book	Page	Value	Type	Deed Search (new window)
00/000	0	0	\$0.00		
00/000	0	0	\$0.00		
00/000	0	0	\$0.00		
00/000	0	0	\$0.00		
<i>Deed Search courtesy of Ernie Lee Magaha, Escambia County Clerk of the Court</i>					

The primary use of the assessment data is for the preparation of the current year tax roll.  
No responsibility or liability is assumed for inaccuracies or errors.

[Close Window](#)



# Chris Jones Escambia County Property Appraiser

We Have Relocated To 221 Palafox Place (3rd Floor)

[CHRIS JONES ECPA](#) [RECORD SEARCH](#) [MAPS](#) [GENERAL INFORMATION](#) [GOVERNMENT AGENCIES](#) [TANGIBLE PROPERTY](#) [CONTACT US](#)

## RECORD SEARCH

[Back to Parcel Details](#)

### General Information

*Name:* ESCAMBIA COUNTY  
223 PALAFOX PL  
PENSACOLA FL 32502

*Account:* 153090100

*Reference:* 000S009080120087

### Legal Description

BEG 125 FT N OF N LI OF INTENDENCIA ST AND 160 FT E OF W LI OF CLUBBS ST 107 FT 8 IN TO N LI OF S1/2 OF BLK G ELY 45 FT S TO KINGS ALLEY 107 FT 8 IN W 45 FT TO POB PART OF BLK G BLK 87 MAXENT TRACT OR 358 P 534 CA 97

[CHRIS JONES ECPA](#) ▪ [RECORD SEARCH](#) ▪ [GENERAL INFORMATION](#) ▪ [DIRECTORY OF GOVERNMENT AGENCIES](#)  
[MAPS](#) ▪ [CONTACT US](#) ▪ [HOME](#) ▪ [DISCLAIMER](#)

Powered by [ESCPA.ORG](#)

Comm.  
Dist. No.

358 PAGE 534  
QUIT CLAIM DEED

Proj. No.

THIS INDENTURE made this 12<sup>th</sup> day of SEPTEMBER, A.D. 19 67,  
between CARROLL C. HUGHES and JOY C. HUGHES, husband and wife,

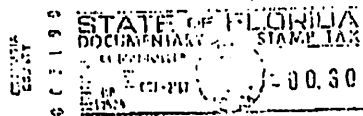
as Part ies of the First Part, and the Board of Commissioners of Escambia County, Florida, as Party  
of the Second Part.

WITNESSETH, that the said Part ies of the First Part, for and in consideration of the sum  
of One (\$1.00) Dollar and other valuable considerations paid, receipt of which is hereby acknowledged,  
do hereby remise, release, quit claim and convey unto the Party of the Second Part, its successors and  
assigns, all right, title, interest, claim, and demand which the Part ies of the First Part ha ve  
in and to the following described land, situate, lying and being in the County of Escambia, State of  
Florida, to-wit:

Commencing at the Southeast corner of  
Block 87, a part of Block "G" of Maxent  
Tract of the City of Pensacola, Escambia  
County, Florida; thence run Northerly  
along the East line of Block 87 for  
125 feet; thence run Westerly for 245  
feet to the Point of Beginning; thence  
continue Westerly along the direction  
of line last run for 45 feet; thence  
run Northerly for 107.67 feet; thence  
run Easterly for 45 feet; thence run  
Southerly for 107.67 feet to the Point  
of Beginning.

The above described property is intended  
to be the same tract of land described  
in Official Record Book 33 page 232 of  
the public records of Escambia County.

11/2/5/30



TO HAVE AND TO HOLD THE SAME, together with all and singular the appurtenances  
thereto belonging or in anywise appertaining or incident, and all the estate, right, title, interest, and  
claim whatsoever of the said Part ies of the First Part in law or in equity, to the only proper use,  
benefit, and behoof of the said Party of the Second Part, its successors and assigns, forever.

IN WITNESS WHEREOF, We have hereunto set our hand and seal  
the date first above written.

Signed, sealed and delivered  
in the presence of:

*R. Z. [Signature]*  
*H. C. [Signature]*

*Carroll C. Hughes* (SEAL)  
*Joy C. Hughes* (SEAL)  
(over)

358 PAGE 535

STATE OF FLORIDA  
COUNTY OF ESCAMBA

Before me personally appeared Carroll C. Hughes and Joy C. Hughes,

to me well known and known to me to be the individual s described in and who executed the foregoing  
Instrument, and acknowledged before me that the same was executed for the purpose therein expressed.

WITNESS my hand and official seal this 12 day of Sept, A.D. 19 67.

Henry Clay Sheffield  
Notary Public

My Commission expires: oct 12 - 1970



DEED TO THE ABOVE PROPERTY accepted for public use by Escambia County, Florida,  
at the meeting of the Board of Commissioners of Escambia County, Florida, this 22<sup>nd</sup> day of  
September, A.D. 1967.

BOARD OF COUNTY COMMISSIONERS  
ESCAMBIA COUNTY, FLORIDA

By Andrew  
Chairman

RETURN TO ESC. DEPT.

OCT 3 8 35 AM '67  
IN ROOM 2200 NOTED ABOVE  
JOE A. FLEMING, CLERK  
CIRCUIT COURT

330947

QUIT CLAIM DEED

891 PAGE 519

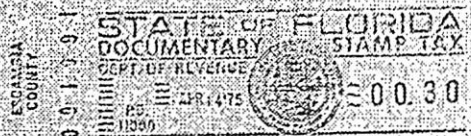
THIS INDENTURE made this ... day of March A. D., 19 75 between Leah R. Greenhut, a widow,

as Part Y of the First Part, and the Board of Commissioners of Escambia County, Florida, as Party of the Second Part.

WITNESSETH, that the said Part Y of the First Part, for and in consideration of the sum of One (\$1.00) Dollar and other valuable considerations, paid, receipt of which is hereby acknowledged, do hereby remise, release, quit claim and convey unto the Party of the Second Part, its successors and assigns, all right, title, interest, claim, and demand which the Party of the First Part has in and to the following described land, situate, lying and being in the County of Escambia, State of Florida, to-wit:

Commence at the intersection of the Easterly R/W of Clubbs Street (50' R/W) and the N Line of Intendencia Street (37.33' R/W), thence E along the N line of Intendencia Street for a distance of 240' to the SW corner of Lot 27, Blk. 87, Maxent Tract, which is the POB. Thence N along W line of said Lot 27 for a distance of 125' to the NW corner of said Lot 27. Thence W parallel to the N line of Intendencia Street for a distance of 70'. Thence N parallel to the E line of Clubbs Street for a distance of 108' to a point 127' S of the S line of Romana Street (45' R/W). Thence E parallel to the S line of Romana Street 160.75', more or less, to the E line of Maxent Tract, Lot "G". Thence S along the E line of said Lot "G" to the N line of Lot 28, said Blk. 87; thence W parallel to N line of Intendencia Street to a point 10' W of the NE corner of Lot 27, Blk. 87. Thence S parallel to E line of said Lot 27 to the N line of Intendencia Street; thence W along N line of Intendencia Street for a distance of 30' to POB. All being in Blk. 87, Maxent Tract, in Section 42, Township 2 South, Range 30 West, Pensacola, Escambia County, Florida.

The Grantee by acceptance of this deed agrees to assume and to pay all outstanding taxes, tax sale certificates and liens that encumber said property and to hold grantor harmless from the payment thereof.



TO HAVE AND TO HOLD THE SAME, together with all and singular the appurtenances thereto belonging or in anywise appertaining or incident, and all the estate, right, title, interest, and claim whatsoever of the said Part Y of the First Part in law or in equity, to the only proper use, benefit, and behoof of the said Party of the Second Part, its successors and assigns, forever.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the date first above written.

Signed, sealed and delivered in the presence of:

[Signature: B. J. Greenhut]

[Signature: Leah R. Greenhut] (SEAL) Leah R. Greenhut, a widow.

[Signature: Jack H. Greenhut] (SEAL)

(over)



18/12

This Document Was Prepared by:  
Stephen G. West, Assistant County Attorney  
Office of the County Attorney  
14 West Government Street, Room 411  
Pensacola, Florida 32502  
(850) 595-4970

**STATE OF FLORIDA  
COUNTY OF ESCAMBIA**

**DEED**

THIS DEED is made this 22<sup>nd</sup> day of November, 2004, by Escambia County, Florida, a political subdivision of the State of Florida, acting by and through its duly authorized Board of County Commissioners, whose address is 223 Palafox Place, Pensacola, Florida 32502, (Grantor), and the City of Pensacola, a municipal corporation, whose address is 180 Governmental Center, Pensacola, Florida 32502 (Grantee).

**WITNESSETH:**

THAT GRANTOR, for and in consideration of the sum of Two Thousand Six Hundred Seventy Dollars (\$2,670), and other good and valuable consideration in hand paid by Grantee, the receipt of which is acknowledged, does grant, bargain and sell to Grantee, Grantee's successors and assigns, forever the following described land in Escambia County, Florida:

The West 30 feet of Lot 27, Block 87, Maxent Tract, being a portion of Maxent Lot "G" as shown on City Atlas Sheet No. 97 of the City of Pensacola, Florida, containing 3750 square feet, (0.86 acres) more or less.

A portion of Tax ID Number: 00-0S-00-9080-270-087 (Property).

THIS CONVEYANCE IS SUBJECT TO taxes for the year 2004 and subsequent years; conditions, easements, and restrictions of record, if any, but this reference does not operate to reimpose them; zoning ordinances and other restrictions and prohibitions imposed by applicable governmental authorities.

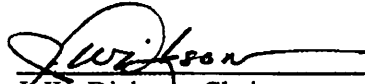
GRANTOR RESERVES an undivided  $\frac{3}{4}$  interest in, and title in and to an undivided  $\frac{3}{4}$  interest in, all the phosphate, minerals and metals that are or may be in, on, or under the Property and an undivided  $\frac{1}{2}$  interest in all the petroleum that is or may be in, on, or under the Property with the privilege to mine and develop the same.

Not Agenda Backup

Attorney

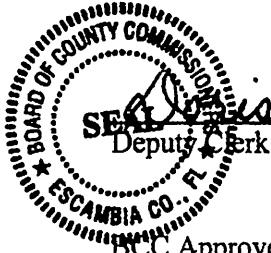
IN WITNESS WHEREOF, Grantor has caused these presents to be executed in its name by its Board of County Commissioners acting by the Chairman of the Board, the day and year first above written.

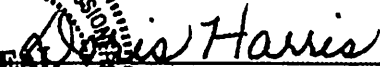
ESCAMBIA COUNTY, FLORIDA by and through its duly authorized BOARD OF COUNTY COMMISSIONERS

  
\_\_\_\_\_  
J. W. Dickson, Chairman

ATTEST: Ernie Lee Magaha  
Clerk of the Circuit Court

RCD Nov 22, 2004 10:37 am  
Escambia County, Florida



  
\_\_\_\_\_  
Deputy Clerk

ERNIE LEE MAGAHA  
Clerk of the Circuit Court  
INSTRUMENT 2004-304192

BCC Approved: 8/19/2004

Date Executed

11-17-2004



Chris Jones  
Escambia County Property Appraiser

General Information	
<b>Name:</b>	ESCAMBIA COUNTY 223 PALAFOX PL PENSACOLA FL 32502
<b>Account:</b>	153097100
<b>Reference:</b>	000S009080270087
<b>Section Map:</b>	C-097
<b>Use Code:</b>	86 - County Owned <a href="#">Legend Window</a>
<b>Tax Inquiry:</b>	<a href="#">Open Tax Inquiry Window</a>
<i>Tax Inquiry link courtesy of Janet Holley, Escambia County Tax Collector</i>	

Assessment	
<b>Improvements:</b>	\$0.00
<b>Land:</b>	\$9,010.00
<b>Total:</b>	\$9,010.00
<b>Save Our Homes:</b>	\$0.00

Legal Description
BEG AT A PT 125 FT N OF S LI OF INTENDENCIA ST AND 220 FT E OF W LI OF CLUBBS ST N ON A LINE PARL WITH W LI OF CLUBBS ST 107 FT 8 I...
<a href="#">Full Description</a>

Sales Data					
Mo/Yr	Book	Page	Value	Type	Deed Search (new window)
01/1975	891	519	\$100.00	QC	<a href="#">Click Here</a>
00/000	0	0	\$0.00		
00/000	0	0	\$0.00		
00/000	0	0	\$0.00		
<i>Deed Search courtesy of Ernie Lee Magaha, Escambia County Clerk of the Court</i>					

The primary use of the assessment data is for the preparation of the current year tax roll.  
No responsibility or liability is assumed for inaccuracies or errors.

[Close Window](#)



# Chris Jones Escambia County Property Appraiser

We Have Relocated To 221 Palafox Place (3rd Floor)

[CHRIS JONES ECPA](#) [RECORD SEARCH](#) [MAPS](#) [GENERAL INFORMATION](#) [GOVERNMENT AGENCIES](#) [TANGIBLE PROPERTY](#) [CONTACT US](#)

## RECORD SEARCH

[Back to Parcel Details](#)

General Information	
<b>Name:</b>	ESCAMBIA COUNTY 223 PALAFOX PL PENSACOLA FL 32502
<b>Account:</b>	153097100
<b>Reference:</b>	000S009080270087

Legal Description
BEG AT A PT 125 FT N OF S LI OF INTENDENCIA ST AND 220 FT E OF W LI OF CLUBBS ST N ON A LINE PARL WITH W LI OF CLUBBS ST 107 FT 8 IN TO N LI OF S1/2 OF BLK G SAID PT BEING 127 FT S OF S LI OF ROMANA ST ELY ON A LI PARL WITH S LI OF ROMANA ST 160 FT 9 IN TO E LI OF SAID BLK G SWLY ALG E LI OF BLK G TO A PT 125 FT N OF N LI OF INTENDENCIA ST AT RIGHT ANGLES TO SAME THENCE WLY ON A LI PARL WITH N LI OF INTENDENCIA ST AND 125 FT N THEREOF TO POB OR 891 P 519 CA 97

[CHRIS JONES ECPA](#) [RECORD SEARCH](#) [GENERAL INFORMATION](#) [DIRECTORY OF GOVERNMENT AGENCIES](#)  
[MAPS](#) [CONTACT US](#) [HOME](#) [DISCLAIMER](#)

Powered by [ESCPA.ORG](#)



# Chris Jones Escambia County Property Appraiser

We Have Relocated To 221 Palafox Place (3rd Floor)

CHRIS JONES ECPA   RECORD SEARCH   MAPS   GENERAL INFORMATION   GOVERNMENT AGENCIES   TANGIBLE PROPERTY   CONTACT US

## RECORD DETAIL

[Previous](#)   [Next](#)

General Information
<p><b>Name:</b> ESCAMBIA COUNTY 223 PALAFOX PL PENSACOLA FL 32502</p> <p><b>Account:</b> 153086100</p> <p><b>Reference:</b> 000S009080020087</p> <p><b>Section Map:</b> C-097</p> <p><b>Use Code:</b> 86 - County Owned <a href="#">Legend Window</a></p> <p><b>Tax Inquiry:</b> <a href="#">Open Tax Inquiry Window</a></p> <p><small>Tax Inquiry link courtesy of Janet Holley, Escambia County Tax Collector</small></p>

Assessment	
<i>Improvements:</i>	\$88,090.00
<i>Land:</i>	\$53,790.00
<b>Total:</b>	<b>\$141,880.00</b>
<i>Save Our Homes:</i>	\$0.00

Legal Description
W 208 FT OF E 288 FT OF N 127 FT BLK 87 MAXENT TRACT CA 97

Sales Data					
Mo/Yr	Book	Page	Value	Type	Deed Search (new window)
00/000	0	0	\$0.00		
00/000	0	0	\$0.00		
00/000	0	0	\$0.00		
00/000	0	0	\$0.00		

Deed Search courtesy of Ernie Lee Magaha, Escambia County Clerk of the Court

Print This Section  
 Show Parcel Map  
 Parcel Dimensions

### Card 1 Data

Location Address
603 W Romana St

Exemptions
Totally Exempted
<b>Taxable:</b> <a href="#">Open Tax Inquiry Window</a>

Structural Elements
Slab On Grade Concrete Block Rigid Frame/Bar Blt Up On Wood Exposed Blk/Brk Vinyl Asbestos Central H/AC Plumbing Fixtures: 004 Actual Year Built: 1956

STATE OF FLORIDA

COUNTY OF ESCAMBIA

This indenture made the 30 day of October, 1951 between the Board of County Commissioners of Escambia County, Florida, hereinafter called the LESSOR, and the Escambia County Health Department, hereinafter called the LESSEE, WITNESSETH:

WHEREAS, the Board of County Commissioners of Escambia County, Florida by resolution duly passed and adopted have determined that the County of Escambia has certain property that is not being used for a County purpose and that the said property is not productive of taxes or other income, and

WHEREAS, the Escambia County Health Department is presently in need of additional property upon which to store and house equipment necessary for its work, and

WHEREAS, the Escambia County Health Department is an organization that is part of the proper function of county's governments function:

NOW, it is hereby agreed as follows:

1. That the Board of County Commissioners of Escambia County,

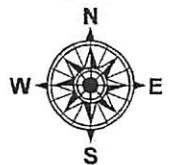
42-15-30

603 W. Romana St.  
Escambia County Mosquito Control Facility



Brownfield Area

0 20 40 80 120 160 Feet





THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

KEITH WILKINS  
Director

## Attachment B

# Brownfield Site Rehabilitation Schedule

H:\NESD\CRA\BROWNFIELDS\603 W. Romana\BSRA\BSRA Attachment B.doc



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PUBLIC WORKS & LAND MANAGEMENT AGENCY



**Attachment B**  
**Table I**  
**Submittals and Time Frames**

Type of Report or Activity	PRFBSR Action or Submittal Time Frames	Department Review or Comment Time frames
Notice of Interim Source Removal Action or Emergency Response Action situations.	Within 24 hours of initiation of the action.	No comment required.
Interim Source Removal Proposal	When seeking approval before implementation of an alternative product recovery method, groundwater recovery, soil treatment or disposal technique (see Rule 62-785.500).	Within 30 days of receipt.
Interim Source Removal Plan	When seeking approval before implementation of an alternative product recovery method, groundwater recovery, soil treatment or disposal technique (62-785.500, F.A.C.)	Within 30 days of receipt.
Interim Source Removal Status Report	Within 60 days of completion of source removal activities and every 60 days thereafter or when the field activity is terminated, whichever occurs first..	No comment required.
Interim Source Removal Report	Within 60 days of completion of interim source removal activities.	Within 60 days of receipt.
Site Rehabilitation Plan (SRP) or Combined Document; (Optional submittal) (See Rule 62-785.450, F.A.C.)	Optional: SRP submitted within 270 days of executing BSRA. May include multiple tasks.	Within 60 days of receipt.
Site Assessment Report (SAR)	SAR submitted within 270 days of executing BSRA.	Within 60 days of receipt.
Risk Assessment Report (RAR)	Optional: (within 60 days of SAR approval.)	Within 90 days of receipt.
No Further Action (NFA) Proposal	When the site meets the criteria for NFA (See Rule 62-785.680, F.A.C.).	Within 60 days of receipt.
Well Survey and Sampling Results pursuant to paragraph 62-785.600(3)(h), F.A.C.	Within 60 days of discovery of contamination beyond the property boundaries	Within 60 days of receipt.
Natural Attenuation with Monitoring (NAM) Plan	When the site meets the criteria for Natural Attenuation with Monitoring (See Rule 62-785.690, F.A.C.).	Within 60 days of receipt.
Natural Attenuation with Monitoring (NAM) Report	Within 60 days of sample collection.	No comment required.
Remedial Action Plan (RAP)	Within 90 days of approval of a SRP, SAR or RAR.	Within 60 days of receipt.
As-Built Drawings	Within 120 days of initiating operation of the active remediation system.	No comment required.
Initiate Operation of Active Remedial Action	Within 120 days of RAP approval.	No comment required.
Proposals submitted pursuant to subsection 62-785.700(15), F.A.C.	Optional during active remediation	Within 60 days of receipt
Remedial Action Status Report (Monthly or quarterly status reports may be required for submittal - - depending on site conditions and Advisory Committee.)	Within 60 days of the anniversary date of initiating operation of active remediation system.	No comment required.

<b>Post Active Remediation Monitoring (PARM) Plan</b>	<b>When the site meets the criteria for NFA (see Rule 62-785.680) or Leveling-Off (see Rule 62-785.700(17))</b>	<b>Within 60 days of receipt.</b>
<b>Post Active Remediation Monitoring (PARM) Report</b>	<b>Within 60 days of sample collection.</b>	<b>No comment required.</b>
<b>Leveling Off Determination</b>	<b>Within 60 days of sample collection.</b>	<b>Within 60 days of receipt.</b>
<b>Post Active Remediation Monitoring (PARM) Plan resampling proposal (Rule 62-785.750(4)(e), F.A.C.</b>	<b>Within 60 days of sample collection.</b>	<b>Within 60 days of receipt.</b>
<b>Site Rehabilitation Completion Report (SRCR)</b>	<b>Within 60 days of the final sampling event. If SRCR not approved then submit modifications, etc. within 60 days of Department's response.</b>	<b>Within 60 days of receipt. If the brownfield site meets the requirements of Chapter 62-785, F.A.C. for the issuance of a SRCO, a SRCO will be issued.</b>
<b>Pilot Study Work Plan</b>	<b>When seeking approval before implementation of a Pilot Study pursuant to Rule 62-785.700(2), F.A.C.</b>	<b>Within 60 days of receipt.</b>
<b>Notices for Field Activities except for Start of Interim Source Removal or Emergency Response Action situations.</b>	<b>Within seven (7) days but not less than 24 hours prior notice to the Department to perform field activity.</b>	<b>No comment required.</b>
<b>Submittal to the Department of addenda, responses, or modification to plans or reports, pursuant to Chapter 62-785, F.A.C.</b>	<b>Within 60 days of receipt of the Department's response.</b>	<b>Within the same time frame for review of the original submittal.</b>
<b>Submittal of Form and Actual Notice required in subsection 62-785.220(2), F.A.C.</b>	<b>See text of rule for "Initial Notice of Contamination Beyond Property Boundaries" in subsection 62-780.220(2), F.A.C.</b>	<b>No comment required.</b>
<b>Submittal of Actual and Constructive Notice required in subsection 62-785.220(3), F.A.C.</b>	<b>See text of rule for "Subsequent Notice of Contamination Beyond Source Property Boundaries for Establishment of a Temporary Point of Compliance (TPOC)" in subsection 62-780.220(3), F.A.C.</b>	<b>No comment required.</b>



THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

**NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT**

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

**KEITH WILKINS**  
Director

**Attachment C**

Site Access Agreement Form

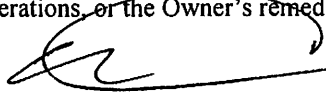
H:\NESD\CRA\BROWNFIELDS\603 W. Romana\BSRA Attachment C.doc



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PUBLIC WORKS & LAND MANAGEMENT AGENCY

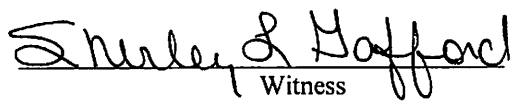
**SITE ACCESS AGREEMENT  
 PERMISSION TO ENTER PROPERTY  
 BROWNFIELDS REDEVELOPMENT PROGRAM**

1. Escambia County Board of County Commissioners("undersigned"), owner, hereby gives permission to the State of Florida, Department of Environmental Protection ("Department") and its agents and subcontractors to enter the undersigned's property ("the property") located at 603 W. Romana St., Pensacola, Florida 32502, as described in **Attachment A** attached to the BSRA for the brownfield site assigned the Brownfield Site Identification Number 170502001, beginning on the date of execution of the BSRA and ending on such date as deemed appropriate by the Department or the successful completion of the BSRA, which ever occurs first.
2. This permission is contemplated to be used for the following activities that may be performed by the Department, its agents, representatives or subcontractors:
  - a. Having access to areas where contamination may exist.
  - b. Investigation of soil and groundwater including, but not limited to, the installation of groundwater monitoring wells, the use of geophysical equipment, the use of an auger for collection of soil and sediment samples, the logging of existing wells, video taping, preparation of site sketches, taking photographs, any testing or sampling of groundwater, soil, surface water, sediments, air, and other materials deemed appropriate by the Department and the like.
  - c. Removal, treatment and/or disposal of contaminated soil and water, which may include the installation of recovery wells or other treatment systems.
3. Upon completion of the investigation, the Department will restore the property as near as practicable to its condition immediately prior to the commencement of such activities.
4. The granting of this permission by the undersigned is not intended, nor should it be construed, as an admission of liability on the part of the undersigned or the undersigned's successors and assigns for any contamination discovered on the property.
5. The Department, its agents, representatives or subcontractors may enter the property during normal business hours and may also make special arrangements to enter the property at other times after agreement from the undersigned.
6. The Department acknowledges and accepts its responsibility for damages caused by the acts of its employees acting within the scope of their employment while on the property.
7. The Department acknowledges and accepts any responsibility it may have under applicable law (Section 768.28, Florida Statutes) for damages caused by the acts of its employees acting within the scope of their employment while on the property.
8. In exercising its access privileges, the Department will take reasonable steps not to interfere with the Owner's operations, or the Owner's remediation and redevelopment activities pursuant to the BSRA.

  
 \_\_\_\_\_

D.M. "Mike" Whitehead, Chairman  
 Escambia County Board of County Commissioners

12-06-2007  
 Date

  
 \_\_\_\_\_  
 Witness

12-6-2007  
 Date

**BCC APPROVED** 12-6-2007

Accepted by the Department by the following authorized agent:

\_\_\_\_\_  
 Signature of Department representative

\_\_\_\_\_  
 Witness

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Date

DEPUTY CLERK  
 ERNEST LEE MAGAWA  
 CLERK OF THE CIRCUIT COURT  
 ESCAMBIA COUNTY, FL  
 07/01/06



This document approved as to form and legal sufficiency.

By J. G. [Signature]  
 Title Escambia County Attorney  
 Date Nov. 15, 2007



THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

**NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT**

**KEITH WILKINS**  
Director

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

**Attachment D**

**Certification of Agreement**

H:\NESD\CRA\BROWNFIELDS\603 W. Romana\BSRA\Attachment D.doc



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PUBLIC WORKS & LAND MANAGEMENT AGENCY



THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT

KEITH WILKINS  
Director

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

October 30, 2007

Thomas J. Bonfield, City Manager  
City of Pensacola  
180 Governmental Center  
P.O. Box 12910  
Pensacola, Florida 32521

**Re: Certification of 603 W. Romana Street as a Brownfield Site**

Dear Mr. Bonfield:

In October 2005, the Pensacola City Council adopted a resolution designating the former Escambia County Mosquito Control Facility, 603 W. Romana Street as a Brownfield Site. The County is currently conducting environmental site assessment activities with the intention of offering the property for sale once the environmental cleanup is complete. It is anticipated this property will be redeveloped according to its present zoning designation, Light Manufacturing/M-1. Additionally, the Florida Department of Environmental Protection may require institutional and/or engineering controls be placed on the property to run with all future conveyance.

If you have any questions regarding the assessment activities, please contact Glenn Griffith, Escambia County Brownfields Coordinator, at 595-3538.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith Wilkins", is written over a horizontal line.

Keith Wilkins

KW/MW:gg

H:\WESD\CRA\BROWNFIELDS\603 W. Romana\BSRA\BSRA Attachment D Certification of Agreement Letter.doc

c: Robert R. McLaughlin, Interim County Administrator  
John Hartman, Interim Assistant County Administrator



(6 Ten) C: Glenn Griffith  
Kirk Batts  
Peter Shuba



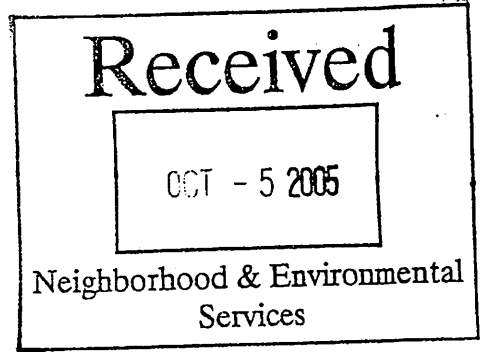
# City of Pensacola

America's First Settlement  
Established, 1559

Office of the  
City Manager

September 28, 2005

Karen Shea  
Brownfield Coordinator, Northwest District  
Florida Department of Environmental Protection  
160 Governmental Center  
Pensacola, FL 32501



Re: Brownfield Designation, 603 W. Romana Street

Dear Ms. Shea:

The Pensacola City Council recently adopted a resolution designating the property located at 603 West Romana Street as a Brownfield in accordance with the Brownfield Redevelopment Act. This letter and the attached Resolution are to serve as official notification of this designation. The owner of this property, Escambia County, intends to evaluate options for the future use of this site after they conduct an investigation into the presence and or amounts of contamination on site. The mailing address for Escambia County Neighborhood and Environmental Services Department is 1190 West Leonard Street, Pensacola, FL 32501.

If you need any additional information or have any questions, contact the City's Environmental Coordinator, Matt Dimitroff, at 436-5655.

Sincerely,

Thomas J. Bonfield,  
City Manager

- C: Kevin Cowper, Community Development Director
- ✓ Keith Wilkins, Escambia County NESD Director

Enclosure:  
Resolution No. 39-05



THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

**NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT**

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

**KEITH WILKINS**  
Director

**Attachment E**

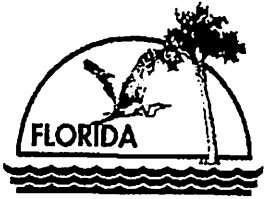
**Brownfield Redevelopment Program Contractor Certification Form**

H:\WESD\CRA\BROWNFIELDS\603 W. Romana\BSRA Attachment E doc.doc



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PUBLIC WORKS & LAND MANAGEMENT AGENCY





# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

## CONTRACTOR CERTIFICATION FORM Brownfields Redevelopment Program

Contractor Name Cameron-Cole, LLC Date: 08/08/07

Contractor Address: 200 E. Government Street, Suite 100, Pensacola, FL 32502

Contact Name: John H. Bondurant

Phone No.: (850) 434-1011 Fax No.: (850) 434-2168

Brownfield Site ID #: 170502000

- Contractor Certifies by Checking All Appropriate Boxes:
- |   | Yes                                 | No                       |
|---|-------------------------------------|--------------------------|
| 1. It meets all certification and license requirements imposed by law.  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. It performs or contracts laboratory analysis pursuant to National Environmental Laboratory Accreditation Program certification requirements and performs or contracts field-sampling work in accordance with the Standard Operating Procedures for Field Activities pursuant to Chapter 62-160, Florida Administrative Code. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. It complies with all applicable OSHA regulations.  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. It maintains Workers' Compensation Insurance for all employees. [Provide insurance certificate]  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. It maintains:  |                                     |                          |
| a. <b>Comprehensive General Liability</b> coverage with minimum limits of not less than \$1 million per occurrence and \$2 million general aggregate for bodily injury and property damage, and   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. <b>Comprehensive Automobile Liability</b> coverage with minimum limits of not less than <del>\$2</del> <sup>\$1 DAH</sup> million combined single limit, and   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. <b>Pollution Liability</b> coverage with limits of not less than \$3 million aggregate for personal injury or death, \$1 million per occurrence for personal injury or death, and \$1 million per occurrence for property damage, and  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. the State as an additional insured on the contractor's Certificate of Insurance certificates by naming the State as an <b>Additional Insured</b> party. [Provide insurance certificates]   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. It maintains <b>Professional Liability</b> coverage with minimum limits of at least \$1 million per claim and \$1 million annual aggregate. [Provide insurance certificate]  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Has the capacity to perform the majority of the site rehabilitation program tasks pursuant to a brownfield site rehabilitation   |                                     |                          |

"Protect, Conserve and Manage Florida's Environment and Natural Resources"  
Printed on recycled paper.

agreement or supervise the performance of such tasks by  
licensed subcontractors in accordance with Section 489.113(9),  
F.S.



The person named below by signing as an "Officer of the Company" hereby certifies to the Florida Department of Environmental Protection (FDEP) that the Contractor named above meets the requirements for contractors participating in the Brownfields Redevelopment Program [Sections 376.80(6) and (7), Florida Statutes (F.S.)]:

John H. Bondurant 08-08-07  
Signature of Officer of the Company and Date Signed

John H. Bondurant  
Print Name of Officer of the Company

Vice President  
Title of Officer of the Company

This form will be kept on file by the FDEP District office. Contractors must immediately notify the FDEP (Brownfields District Coordinator) of any change in the above criteria. The FDEP may order a suspension or cessation of work for failure of a contractor to maintain their required certification. For additional guidance regarding completion of this form, please see the attached "Tip Sheet for Contractor Certification Form". Please return this form (without the Tip Sheet) to the appropriate District Brownfields Coordinator. **This form is not for use with a joint Brownfields / RCRA program site.**

# ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
10/24/07

PRODUCER USI Southwest P.O. Box 218060 Houston, TX 77218 713 490-4600	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
	INSURERS AFFORDING COVERAGE	NAIC #
INSURED Cameron-Cole, LLC 200 E. Government, Suite 100 Pensacola, FL 32501	INSURER A: Zurich American Insurance Company	9999
	INSURER B: Steadfast Insurance Company	26387
	INSURER C:	
	INSURER D:	
	INSURER E:	

**COVERAGES**

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS MADE <input type="checkbox"/> OCCUR <input checked="" type="checkbox"/>	GLO383774304	06/29/07	06/29/08	EACH OCCURRENCE	\$2,000,000
		GEN'L AGGREGATE LIMIT APPLIES PER:				DAMAGE TO RENTED PREMISES (Ea occurrence)	\$500,000
		<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				MED EXP (Any one person)	\$5,000
						PERSONAL & ADV INJURY	\$2,000,000
						GENERAL AGGREGATE	\$2,000,000
						PRODUCTS - COMP/OP AGG	\$2,000,000
A		AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	BAP383774704	06/29/07	06/29/08	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
		GARAGE LIABILITY				BODILY INJURY (Per person)	\$
		<input type="checkbox"/> ANY AUTO				BODILY INJURY (Per accident)	\$
						PROPERTY DAMAGE (Per accident)	\$
						AUTO ONLY - EA ACCIDENT	\$
						OTHER THAN AUTO ONLY: EA ACC	\$
						AGG	\$
B		EXCESS/UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ 10000	SEO383774803	06/29/07	06/29/08	EACH OCCURRENCE	\$8,000,000
						AGGREGATE	\$8,000,000
							\$
							\$
							\$
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	WC598280603	06/29/07	06/29/08	WC STATU-TORY LIMITS	OTH-ER
						E.L. EACH ACCIDENT	\$1,000,000
						E.L. DISEASE - EA EMPLOYEE	\$1,000,000
						E.L. DISEASE - POLICY LIMIT	\$1,000,000
B		OTHER Professional Liability	PEC597779301	06/29/07	06/29/08	1,000,000 Each Claim 1,000,000 Aggregate	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Additional Coverages: See attached  
 Certificate Holder is listed as an Additional Insured with respects llability arising out of the operations of the Named Insured under Automobile Liability, General Liability and Contractors Pollution (See Attached Descriptions)

**CERTIFICATE HOLDER**

Florida Department of Environmental Protection  
 Twin Towers Office Bldg-MS4595  
 2600 Blair Stone Road  
 Tallahassee, FL 32399

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 60 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE



## IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

## DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

## DESCRIPTIONS (Continued from Page 1)

Liability coverages.

Steadfast Insurance Company

Contractors Pollution Liability - Occurrence trigger

PEC597779301; Policy Period 6/29/07 to 6/29/08

\$1 million/\$3 million aggregate limits of liability

Escambia County Mosquito Control, 603 West Romana Street, Pensacola, FL 32501;

Brownfield Site ID # 170502000.



THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

**NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT**

**KEITH WILKINS**  
Director

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

**Attachment F**

**National Environmental Laboratory Accreditation Program  
(NELAP) Certification**



1190 WEST LEONARD STREET • PENSACOLA, FLORIDA 32501 • 850-595-3496 • FAX: 850-595-3495  
PUBLIC WORKS & LAND MANAGEMENT AGENCY



State of Florida  
Department of Health, Bureau of Laboratories

This is to certify that

E81010  
TESTAMERICA PENSACOLA  
3355 MCLEMORE DRIVE  
PENSACOLA, FL 32514

has complied with Florida Administrative Code 64E-1,  
for the examination of Environmental samples in the following categories

DRINKING WATER - MICROBIOLOGY, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, DRINKING WATER - SYNTHETIC ORGANIC CONTAMINANTS, NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS, AIR AND EMISSIONS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

**EFFECTIVE August 09, 2007 THROUGH June 30, 2008**



Max Salfinger, M.D.  
Chief, Bureau of Laboratories  
Florida Department of Health  
DH Form 1697, 7/04

NON-TRANSFERABLE E81010-12-8/9/2007  
Supersedes all previously issued certificates



THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

KEITH WILKINS  
Director

**Attachment G**

Brownfield Advisory Committee  
Mosquito Control Property  
603 W. Romana St.  
Pensacola, Florida 32502

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Escambia County  
Neighborhood and Environmental  
Services Department  
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Pensacola, Florida 32501

Kyler Cole, Economic Coordinator  
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H:\NESD\CRA\BROWNFIELDS\603 W. Romana\BSRA\Attachment G Advisory Committee.doc







THE COUNTY OF ESCAMBIA  
PENSACOLA, FLORIDA

NEIGHBORHOOD AND ENVIRONMENTAL  
SERVICES DEPARTMENT

KEITH WILKINS  
Director

Marine Resources Division  
Mosquito Control Division  
Environmental Quality Division  
Community Redevelopment Agency  
Soil and Water Conservation Division  
Neighborhood Enterprise Foundation, Inc.

## Attachment H

### Technical Documents

#### ATTACHMENT H - - FORMAT FOR SUBMITTAL OF TECHNICAL DOCUMENTS

1. Two hard copies or one hard copy and an electronic copy of each report or proposal and final reports shall be submitted to the Department or to the delegated local program.
2. In an effort to increase efficiency, responsiveness, and to enhance environmental protection, electronic records are an acceptable media substitute for hard copy and shall be pursued as the first option of choice to arrive at compliance. Where an electronic format exists of the records it shall be used to transmit the data, file, report, document, map, plans, picture, record, or any other object that may be available in an electronic format. Electronic records shall be kept in industry standard non-proprietary formats: TIFF, GIF, JPEG, PDF, or in Microsoft Word, Microsoft Excel, and Microsoft Access not older than one (1) release behind the current.
3. Data requested shall be transmitted using available media such as E-mail, Compact Disc (CD), Floppy Diskette, DLT tape cartridge, or File Transfer via an FTP site or dial-in connection. Additional format may be considered at the time of the request.
4. After final approval of each report, an electronic copy and one hard copy shall be submitted within 30 days. The electronic copy shall be submitted on Compact Disc (CD) for archiving purposes.
5. The media shall include a file directory and specify the "naming convention".



- (a) Final reports (any text files) must be in one of the approved formats.
- (b) Site maps shall be in ".dxf", TIFF, JPEG or ".pdf" format.
- (c) Site surveys shall be in ".dxf" format.
- (d) Site-specific GIS data tables shall be in Excel or text (tab delimited) format.
- (e) The cover of the media shall include the Site Name, Designated Brownfield Area, Date and Type of Report(s).
- (f) The left inside cover of the media should list all the files located on the media.



November 30, 2010

Mr. Alex Webster, P.G.  
Brownfields Coordinator  
Florida Department of Environmental Protection  
160 Governmental Center  
Pensacola, Florida 32502

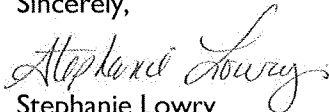
**RE: Remedial Action Plan  
Former Escambia County Mosquito Control  
603 West Romana Street  
Pensacola, Florida  
Brownfield Site ID No. 170502001**

Dear Mr. Webster:

Cameron-Cole, LLC (Cameron-Cole) is pleased to present the following Remedial Action Plan prepared for the above referenced facility.

If you have any questions or require additional information regarding this submittal, please feel free to contact our office at (850) 434-1011.

Sincerely,

  
Stephanie Lowry  
Environmental Scientist II

  
David L. Cochran, P.E.  
Senior Engineer

Attachment

cc: Glenn Griffith

creating sustainable success

200 E. Government Street, Suite 100, Pensacola, FL 32502 P. 850.434.1011 F. 850.434.2168  
[www.cameron-cole.com](http://www.cameron-cole.com)  
S:\Completed Projects\176-200\191\RAP CVR LTR 40191



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NORTHWEST FLORIDA  
DEP

**Remedial Action Plan  
Former Escambia County Mosquito Control  
603 West Romana Street  
Pensacola, Florida  
Brownfield Site Id No. 170502001**

Prepared for:

**Mr. Alex Webster, P.G.  
Brownfields Coordinator  
Florida Department of Environmental Protection**

Date: 11.30.10



**Cameron-Cole**

creating sustainable success

**Cameron-Cole, LLC**

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F. 850.434.2168

[www.cameron-cole.com](http://www.cameron-cole.com)

**REMEDIAL ACTION PLAN  
FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
603 WEST ROMANA STREET  
PENSACOLA, FLORIDA  
BROWNFIELD SITE ID NO. 170502001**

**Mr. Alex Webster, P.G.  
Brownfields Coordinator  
Florida Department of Environmental Protection  
160 Governmental Center  
Pensacola, Florida 32502**

**November 30, 2010**

**David L. Cochran, P.E.**

Date: 12/01/10

Florida Registered Professional Engineer No. 0050439  
Cameron Cole, Inc.  
200 E. Government Street, Suite 100  
Pensacola, FL 32502  
Certificate of Authorization No. 8964

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## I.0 INTRODUCTION

Cameron-Cole, LLC (Cameron-Cole) was contracted by the Escambia County Redevelopment Agency, Community & Neighborhood Service Bureau to develop a Remedial Action Plan (RAP) for the former Escambia County Mosquito Control property located at 603 West Romana Street located in Pensacola, Florida. The property was designated a brownfield area in September 2005 and a Brownfield Site Rehabilitation Agreement (BSRA) was executed for the site on December 6, 2007. The property is also listed with the Florida Department of Environmental Protection (FDEP) as a leaking underground storage tank site (FDEP Facility ID No. 178732790). In May 2008, the FDEP approved a Brownfield Site Assessment Report prepared for the site in accordance with Chapter 62-785, Florida Administrative Code (F.A.C.), the Brownfields Cleanup Rule. The site assessment identified the presence of organochlorine pesticides and petroleum products in the soil and groundwater beneath the property at concentrations that exceeded the default Cleanup Target Levels (CTLs) established in Chapter 62-777, F.A.C. The assessment defined the distribution of these constituents of concern and delineated the extent of a dissolved phase contaminant plume that extended off-site to the south and east of the property.

Cameron-Cole subsequently developed a Pilot Study Work Plan in accordance with Chapter 62-785.700 (2). The approved Pilot Study Work Plan specified evaluation of a proprietary in situ bioremediation system that utilizes bacteria to metabolize the identified chemicals of concern in the soil and groundwater beneath the site. The system features a 4" well containing an immobilized biomass inoculated with specific varieties of bacteria known to metabolize the chemicals of concern at the site. Placed beneath the immobilized biomass is an air stone connected to an air supply line passing up through the biomass and connected to a source of clean air. A nutrient supply line also passes down through the immobilized biomass and distributes supplemental nutrients to the bacteria. Three in situ bioreactors (ISBRs) were installed as part of this Pilot Study. The Pilot Study was conducted for 12 months and included recording monthly system operational data and collecting soil and groundwater samples for laboratory analysis.

Based upon the findings of the Pilot Study and subsequent communications with representatives of the FDEP, it was determined development of a comprehensive RAP was appropriate. A phased remedial approach which includes sequential implementation of three primary remedial measures has been proposed. The proposed remedial measures include soil source removal, installation of a biosparging system to mitigate off-site migration of impacted groundwater, and deployment of additional ISBRs on-site within the defined areas of soil and groundwater contamination. Additional details regarding the specific design elements of the proposed remedial activities are presented in the following sections. A completed copy of the FDEP's Remedial Action Plan Summary Form 62-785.900(4) is presented in Appendix A.



## 2.0 SITE HISTORY AND ASSESSMENT SUMMARY

### 2.1 Site Description and History

The subject property is currently unoccupied and consists of three contiguous parcels encompassing approximately 1.14 acres of land, with a physical address of 603 West Romana Street. The property was previously occupied by the Escambia County Mosquito Control, which used the property for vehicle maintenance, tool and equipment storage, storage of petroleum and pesticide products used in their operations, and personnel offices. Land uses in the vicinity of the site are a mixture of residential and commercial. The site is bordered by West Romana Street to the north, a construction company maintenance yard to the west, and a combination of vacant, residential, and commercial parcels to the east, south, and southwest. All above ground structures and storage tanks have been removed from the site. Figure 1 is a Site Map detailing the locations of the remaining building foundations and approximate locations of former above and below ground storage tanks, property boundaries, and other site features. Across much of the site, the elevation is approximately 8' to 10' above mean sea level (AMSL). Pensacola Bay is located approximately 0.50 mile to the south of the property.

### 2.2 Site Assessment Summary

The Site Assessment prepared for the property was approved by the FDEP in May 2008. Assessment activities included the installation and sampling of a network of 23 shallow groundwater monitoring wells, one double-cased deep well, and numerous soil borings. The monitoring well network defined a plume of organochlorine pesticides and dissolved hydrocarbons that extends off-site to the south and east of the property. The primary constituents of concern include the organochlorine pesticides DDT and its associated degradation products, dieldrin, and various isomers of benzene hexachloride (BHC) also known as hexachlorocyclohexane.

Hydrocarbon constituents, associated with the underground storage tanks (USTs) formerly maintained on the property, including volatile organic aromatic (VOA) compounds, polycyclic aromatic hydrocarbons, (PAHs), and total recoverable petroleum hydrocarbons (TRPH), were also identified in the soil and groundwater at concentrations that exceeded the CTLs established in Chapter 62-777, F.A.C. Phase separated hydrocarbons have been documented in several wells located immediately downgradient from one of the former UST areas. The depth to groundwater beneath the site has ranged from less than 1' to 4' below land surface (bls) with the direction of groundwater flow generally to the south and southeast under an average hydraulic gradient of  $4.0 \times 10^{-3}$  ft/ft. The constituents of concern are vertically defined by the deep well which is screened between 27' and 32' bls.

Lithology beneath the site consists primarily of poorly sorted, fine to medium grained sands with high to very high organic content. Soil analyses revealed two distinct areas of soil impacts; one centrally located on the property between the former pesticide storage building and the former storage tank area(s), and

one near the northwest portion of the property south of the former vehicle maintenance building. The soil contamination has been defined on-site and includes areas where concentrations of both organochlorine pesticides and hydrocarbons exceed the direct exposure CTLs for commercial property. Figure 2 shows the approximate distribution of organochlorine pesticides at the site that exceed the commercial direct exposure criteria for the organochlorine pesticides identified at the site.

To obtain current data regarding plume configuration, Cameron-Cole personnel mobilized to the site on August 9 and 10, 2010 to collect groundwater samples from the existing monitoring well network. Groundwater samples were not collected from monitoring well MW-3, due to the presence of phase separated hydrocarbons (free product). Groundwater samples were submitted to a state-certified laboratory for analysis of organochlorine pesticides by EPA Method 8081A, VOAs by EPA Method 8021B, and TRPH by the FL PRO Method. The laboratory analytical results revealed benzene concentrations in excess of CTLs in groundwater samples collected from monitoring wells MW-12 and MW-13. Total xylenes concentrations above CTLs were also detected in groundwater samples collected from monitoring well MW-12. VOA and TRPH concentrations were either below CTLs or below detection levels (BDL) for all other groundwater samples collected.

The laboratory analytical results indicate that contaminant concentrations exceed Natural Attenuation Default Concentrations (NADCs) and CTLs for  $\alpha$ -BHC in the samples collected from monitoring wells MW-13 and MW-20. In addition,  $\Delta$ -BHC concentrations exceeded NADCs for groundwater samples collected from monitoring well MW-12. Groundwater analytical results are summarized in Tables 1 and 2. Figures 3 and 4 depict the approximate distribution of hydrocarbons and pesticides currently exceeding groundwater CTLs. Figure 5 shows the distribution of pesticides exceeding NADC. The groundwater sampling logs and laboratory analytical reports are presented in Appendix B and C, respectively. Additional details regarding the assessment activities can be found in the approved Site Assessment Report and addenda.

Based upon the most recent groundwater quality data, a dissolved phase plume encompassing approximately 34,760 ft<sup>2</sup> and which exceeds groundwater CTLs, extends off-site to the south and southeast. Comprehensive soil sampling results have defined a soil plume on site of approximately 17,681 ft<sup>2</sup> exceeding the CTL for residential direct exposure limit. However, an area of approximately 7,554 ft<sup>2</sup> exceeds the CTL for direct commercial exposure. Based upon discussions with the representatives of Escambia County, it is currently anticipated the ultimate cleanup goal will be to meet cleanup criteria for commercial property and that final site closure will include issuance of a conditional Site Rehabilitation Completion Order (SRCO). Approximately 2,090 pounds of contaminants are estimated to be bound in the soil. Less than one pound is estimated to be present in the groundwater. Contaminant mass calculations are included in Appendix D with the design calculations.

### 2.3 Pilot Study Summary

Following completion of the site assessment activities, a Pilot Study Work Plan was developed and proposed the use of an ISBR system that would utilize bacteria screened to degrade the constituents of concern identified on-site. Following the installation and startup of the Pilot Study system, Cameron-Cole conducted 12 months of operation, maintenance, and monitoring. These activities included monthly system checks and groundwater monitoring, collection and analysis of quarterly soil and groundwater samples, and the preparation of quarterly status reports for submittal to the FDEP. Concurrent with the development of this RAP, the Pilot Study system has continued to be operated and additional data regarding nutrient injection rates and Underground Injection Control (UIC) compliance has been collected. Copies of the additional Pilot Study data collected over the past five months are included Appendix E.

### 2.4 Recommended Remedial Technology

Four technologies and variations of these technologies were evaluated for applicability at this site. Other technologies were evaluated but eliminated due to their inability to treat both the unsaturated and saturated zones and/or to adequately remediate the chemicals of concern identified at this site. The final four remedial technologies are detailed as follows:

**Air Sparging/Soil Vapor Extraction:** Air sparging (AS) involves injecting air into the groundwater to strip the contaminants out of the groundwater and increase the dissolved oxygen levels to promote aerobic microbial degradation. Soil vapor extraction (SVE) utilizes low to moderate vacuum to move air through the formation, volatilizing organic compounds, capturing the contaminants mobilized by AS, and enhancing natural microbial degradation. Due to relatively shallow water table at this site, the absence of impervious surfaces to prevent short circuiting of the SVE system, and the low volatility of the contaminants of concern, AS/SVE is not believed to be a suitable technology for this site.

**Dual Phase Vacuum Extraction:** Dual phase vacuum extraction utilizes high vacuum blowers connected to drop tubes in recovery wells screened through the unsaturated zone into the saturated zone to remove any groundwater present, then draw air through the formation to volatilize organic compounds and enhance natural microbial degradation. A dual phase extraction system will easily remove any groundwater and free product accumulating at the site. However, due to the nature and variety of organic and inorganic contaminants at this site, the costs associated with treating and disposing of the recovered groundwater will be prohibitive.

**In Situ Bioremediation Enhancement:** Multiple methods are available for in situ bioremediation enhancement that cover both aerobic and anaerobic processes. The contaminants present at this site lend themselves to both aerobic and anaerobic degradation. Typically, the presence of free product can inhibit in situ microbial degradation. However, one component of this site's overall treatment strategy

will be to conduct source removal activities in the area where free product has been identified. Therefore, use of in situ bioremediation is an acceptable technology for use at this site.

**Source Removal:** This process will remove the contaminated soils and transport them off-site for proper disposal. Clean fill will be utilized to back-fill the excavation. This method is capital intensive, but it removes the contaminated material from the site and directly addresses the source of continued groundwater contamination. System operation and maintenance (O&M) costs are not necessary, as no system will be installed. Due to the shallow nature of groundwater at the site, substantial dewatering would be required to remove the bulk of the contaminated soil. Treating the recovered groundwater for pesticides prior to discharge would be very costly. This makes this approach very costly for global application; however, it is an appropriate alternative to address limited areas where significant source mass is present.

Due to the diverse nature of the contaminants present at this site and their distribution, an in situ biological enhancement was selected for use at this site. The range of contaminants present on-site include VOAs, PAHs, and organochlorine pesticides. Organisms have been identified that can utilize these compounds as a carbon source. These organisms have differing requirements for oxygen and supplemental nutrients. The method of in situ biological enhancement is through an ISBR system. This technology allows for the location-specific tailoring of nutrients and oxygen delivery based upon field and laboratory measurements and observations.

The primary constituents of concern include the recalcitrant organochlorine pesticides dieldrin,  $\alpha$ ,  $\beta$ , and  $\Delta$ -BHC, and 4,4-DDT, 4,4,-DDD and 4,4-DDE. All of these constituents can be successfully remediated using biological techniques. Documentation regarding the efficacy of biological treatment systems, including ISBR technology was previously provided in the Pilot Study Work Plan. A review of the biological breakdown products for the chemicals of concern at this site did not indicate the potential for generation of harmful or regulated daughter products.

## 3.0 SITE REMEDIATION

### 3.1 Source Removal

Free product has been recorded in monitoring wells MW-3, MP-8, and MP-9 during periods of high water table elevations. The occurrence of free product is an impediment to the use of most biological treatment technologies because the concentrations of contaminants can reach levels that are toxic to the bacteria that are introduced. Historical observations made for this site show that when the water table elevation drops to more than 3' bls, mobilized free product is no longer detectable in the monitoring wells. This is presumably due to adsorption of the source material to the soil/sediment within the "smear" zone. Therefore, soil source removal in the areas of greatest source mass, including those areas where free product has been observed is proposed. Figure 6 shows the proposed area of excavation, which encompasses an area of approximately 3,000 ft<sup>2</sup>. Based upon an estimated excavation depth of 4' bls and a soil conversions of 1.4 tons/cubic yard, it is anticipated a total of 622 tons of contaminated soil will be removed and disposed. A significant consideration in determining the proposed area of excavation is the assumption that the soil will be determined suitable for off-site disposal as a non-hazardous waste. Should subsequent soil testing indicate this is not the case, the area encompassed by the source removal activities may be reduced. Completion of the soil source removal activities should effectively mitigate the recurrence of phase separated hydrocarbons, allowing installation of ISBRs in this area to treat remaining groundwater contamination, if necessary. Every effort will be made to schedule the source removal activities during a period when water table elevations at the site are low. The excavated soil will be transported to a licensed facility for proper disposal. Excavation calculations are presented with the design calculations in Appendix D.

To aid in post-excavation in situ remediation, Oxygen Release Compound Advanced (ORC Advanced<sup>®</sup>) will be placed in the bottom of the open excavation. This should address any residual petroleum compounds remaining within the saturated zone in this area. Based upon the proposed area of excavation, approximately 475 pounds of ORC Advanced<sup>®</sup> are needed. The ORC calculations are presented in Appendix E with the design calculations. The material data safety sheet (MSDS) for ORC Advanced<sup>®</sup> is presented in Appendix F.

### 3.2 ISBR System Design

Based upon the operational data collected during the pilot study and discussions with the faculty at Louisiana State University (LSU) and the developers of the ISBR technology, the design radius of influence for each ISBR is approximately 10' with a maximum design air flow rate per ISBR of 2 standard cubic feet per minute (scfm or 120 standard cubic feet per hour [scfh]). Actual air injection rates will be adjusted, based upon changing site conditions and are anticipated to operate within a range of 4 scfh to 2 scfm per well. To allow for unobstructed access to the proposed excavation area and minimize potential damage to installed components, the ISBRs will be installed in three phases. The first phase

will consist of the installation of seven new ISBRs and Phase II and Phase III will each consist of the installation of five new ISBRs. Each phase area will include one of the existing Pilot Test ISBRs. The ISBR treatment wells will extend to a total of 15' bls with 10' of screen. The treatment media within each ISBR will be inserted from 15' to 5' bls. Utilizing the recommended 10-to-1 nitrogen to carbon ratio and a 10' radius of influence, a maximum concentration of 140 parts per million (ppm) of nitrogen will be used for supplemental nutrients. The requisite nutrient concentration will be injected in 5-gallon increments in each ISBR daily. This injection rate will be adjusted based on the estimated biological demand and the concentrations measured in the groundwater so as to not exceed the UIC Permit allowable levels. Figure 7 shows the proposed ISBR layout and Figure 8 provides construction details for a typical ISBR well. Air injection will be configured to allow for controlled, continuous injection rates ranging from 4 scfh to 120 scfh in each ISBR. Dissolved oxygen (DO) levels will be monitored in the ISBRs and in the surrounding aquifer monitoring locations to aid in determining the optimal air flow rates. A 7.5-hp rotary claw air compressor will supply the clean, oil-free air for the ISBRs. The only maintenance required for this type of compressor is changing the gear box oil every six months. The existing pilot system compressor is not capable of supplying the total air requirements of the full ISBR and biosparging system but will be maintained on-site as a backup. Process and Instrumentation Diagrams for the proposed system are provided as Figures 9 and 10. Nutrient and air flow calculations are presented in Appendix D. The existing nutrient delivery components are more than capable of meeting the requirement of the expanded system. Only the flow control manifold will be expanded to meet the needs of the new system. The ISBR equipment specification sheets and service requirements are presented in Appendix G. Figure 11 shows the layout of the expanded system with the existing container. Figure 12 shows the conveyance piping layout for both air and nutrients. The MSDS for the nutrient solution is presented in Appendix F.

### **3.3 Biosparging System Design**

The objective of the biosparging (BS) component of the treatment system is to create a zone of high DO along the southern and eastern boundaries and extending off-site. This will serve to mitigate continued off-site migration of the dissolved plumes. To achieve this goal, a total of 10 BS wells are proposed along these boundaries which transect the estimated extent of dissolved phase constituents identified on-site. A well spacing of less than 10' on center was utilized along with an air flow rate of 2 scfm (120 scfh) per BS well. This will allow for the establishment of the DO zone while minimizing the potential for contaminate mobilization into the vapor phase. Figure 13 shows the proposed BS well layout. No BS well will be placed within 10' of the property boundary. This will keep the expected radius of influence within the property boundary greatly reducing the probability of fugitive emissions to off-site properties. The design sparging rate of 2 scfm is half the documented upper limit for typical BS activities. The goal is to increase the groundwater DO levels without stripping any contaminants from groundwater. The BS wells will be installed to a total depth of 17' bls with 2' of pre-pack screen. Figure 14 shows a BS well schematic. BS air flow calculations are presented in Appendix D. The BS equipment specification sheets and service requirements are presented in Appendix G.

### **3.4 Location Specific Surface Treatments**

Due to the spacial variations in shallow soil contaminant distributions, localized treatments of identified hot spots may be performed. This will be accomplished on an as-needed basis, based upon soil and groundwater analytical data collected during active remediation. Areas that are not responding as expected to the other treatment processes on-site will be targeted. The targeted treatment will include the use of a grow gun placing a solution of organisms and nutrients directly on the surface of the soil along with supplemental irrigation, when necessary, to help keep moisture in the upper 2' of soil. The grow gun is a hand-held pump sprayer with a nozzle designed to directly deliver liquid on to the soil surface. The need for grow gun supplemental treatments will be evaluated during the semi-annual sampling events.

## **4.0 CONSTRUCTION PLAN OF ACTION**

### **4.1 Construction Plan of Action**

The FDEP requires all RAPs to have a Construction Plan of Action, which includes time frames for obtaining necessary permits. For this project, the RAP approval order will fulfill most of the permit requirements. Installation of the remediation wells will be subcontracted to a licensed water well contractor who will also obtain permits from the Northwest Florida Water Management District, approximately three to five days prior to commencement of the well installation activities. Estimated total system installations costs are \$299,950. Conceptual costs for complete system installation are summarized in Appendix H.

Upon approval of this RAP, Cameron-Cole will check the groundwater elevation on-site and develop a preliminary schedule for excavation activities. Once initiated, source removal is expected to take approximately five days. Concurrently, Cameron-Cole will develop detailed Construction Drawings and Bid Specifications and solicit cost estimates from qualified subcontractors and equipment vendors to complete the system installation. It is anticipated excavation activities and installation of the remediation system within 60 days of RAP approval. The desired sequence will begin with excavation of the contaminated soil and installation of the BS component of the in situ treatment system. Depending upon the anticipated beginning and completion of the excavation activities, Phase I of the ISBR component may begin. Following completion of excavation activities and Phase I ISBR installation, Phase II of the ISBR component will begin. Installation of the Phase III ISBR component will be contingent upon the results of groundwater quality data collected from replacement monitoring wells installed within the area of excavation. A completed UIC checklist is presented in Appendix I.

### **4.2 System Startup Plan**

A construction startup and testing phase will be conducted prior to activation and balancing of the system for continuous operation. Qualified, experienced personnel will conduct the construction startup in conjunction with representatives of the equipment vendor. Following confirmation that an adequate, stable power supply for the system is present, all motors will be checked for proper rotation and clearance. All system components will be evaluated for proper functionality and integration. This will include adjusting air and nutrient injection rates to operate within the design range(s). Each treatment point well head will also be inspected for any leaks. System samples are not to be collected and analyzed as part of the construction startup and evaluation process. Any issues with startup will be corrected at this time. Upon satisfactory completion of the construction startup and addressing all outstanding issues, the system will be ready for activation and continuous operation.



Upon completion of the system installation and shakedown testing, Cameron-Cole personnel will mobilize to the site to re-activate the remediation system. System operating parameters will be recorded daily for the first three days, after the first week (Day 7), and then monthly thereafter. Operating parameters will include ISBR and BS pressure and flow readings along with nutrient pressure and flow readings.

DO measurements will be recorded in representative monitoring wells/points both prior to and after activation of the system to establish the radius of influence for the BS system. Four ground level air samples will be collected utilizing summa canisters equipped with flow regulators along the property boundary within the predicted influence of the BS wells. Two samples will be collected after the first four hours of continuous BS operation and two additional samples will be collected after 24 hours of continuous operation. These samples will be analyzed for VOA hydrocarbons by EPA Method TO-15. These samples will be collected to monitor the potential for volatilization of contaminants by the BS system.

## 5.0 SYSTEM MONITORING AND MAINTAINANCE

Regularly scheduled monitoring will be conducted in an effort to maintain proper system operation and to conduct routine system maintenance. A summary of the proposed monitoring schedule for the first year of operation is provided as Table 3. One year's O&M costs are estimated at \$84,225. Conceptual costs for one year's O&M are presented with the construction costs in Appendix H.

The monitoring program will serve several goals:

- to document the effectiveness of the ISBR system;
- to comply with applicable regulatory reporting requirements;
- to provide a basis for determining achievement of the desired remediation end points;
- to maintain the remediation system in good operating condition.

The remediation system will be protected from the elements in an enclosed building. Routine maintenance such as oil changes and replacement of particulate filters will be performed in accordance with the manufacturer's recommendations. Copies of the service manual for the proposed compressor are attached. System operation will be monitored weekly. Routine system maintenance will include checking the air and nutrient pressure drops across the system components and adjustment of flow rates for the individual wells. Additional maintenance such as cleaning and inspecting flow meters, level switches, etc. will be conducted as needed to ensure proper system operation.

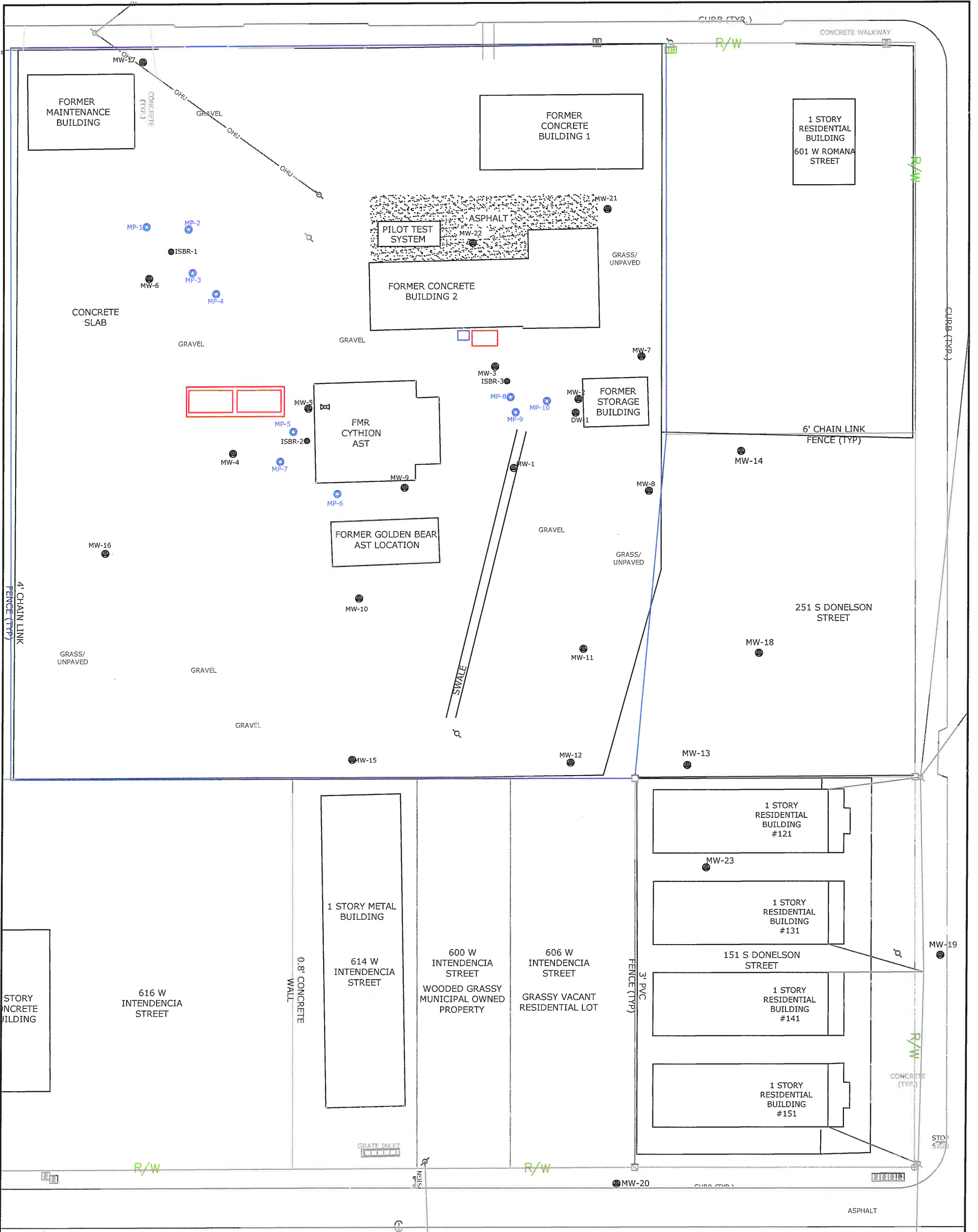
Water quality samples will be taken for analysis of select constituents of concern content as appropriate on a quarterly basis. Samples for constituents of concern and colony forming units (CFU) analysis will be sent to a third party laboratory for certification of results. Groundwater samples will be collected from all monitoring wells to establish groundwater "baseline" conditions on the site. Soil samples will be collected semi-annually from approximately 2' bls using stainless steel hand auger equipment. All samples will be collected in accordance with the attached monitoring schedule and submitted to a state-certified laboratory for analysis.

The ISBR is designed to facilitate waste constituent mineralization by placing specific populations of degrading microorganisms in close contact with the impacted media. ISBRs are in situ bioremediation units that serve to support the proliferation of biomass, as well as provide a vehicle to distribute oxygen and nutrients. The success of bioremediation will be evaluated against several criteria, including the apparent rate, extent, and metabolite selectivity of bioremediation. The rate of reduction of the constituents of concern to nontoxic compounds will affect the timetable for site remediation. The lateral and vertical extent of microbial colonization will affect the overall volume of soil remediation.

## 6.0 UNDERGROUND INJECTION CONTROL PERMIT COMPLIANCE

Introduction of the nutrient supply within the surficial aquifer must comply with the Chapter 62-500.300, F.A.C. Specifically, projects that utilize Class V, Group 4, UIC wells as described in paragraph 62-528.600(2)(d), F.A.C., must establish a zone of discharge for primary standards for the prime constituents of the reagents used to remediate site contaminants, and for the secondary standards for groundwater. It is anticipated the maximum radius of influence from each ISBR will be 10'. Monitoring wells MW-8 and MW-12 are recommended as point of compliance wells. The primary zone of treatment will be within the upper 10' of the saturated zone. Four parameters could potentially be affected by the injection of the proposed nutrient solution – pH, total dissolved solids (TDS), ammonia, and nitrates. Typically, the additives are in a liquid state which would preclude any effects on TDS in an aquifer. Also, the commercial fertilizers used typically exists in a pH range of 6-7.5, thus there should be little affect on pH. The remaining parameters which may be impacted include ammonia and nitrates. In order to establish a nitrate concentration of 1 mg/l within the zone of influence, the injected fluid needs to contain a nitrate component of 0.014%. As indicated previously, this nutrient mixture will be injected at a rate of 5 gallons per day/ISBR. The base mixture for the nitrogen component of the nutrient mix will be a 32% nitrogen liquid. This specific liquid formulation is commercially available and exhibits a pH in the range of 6.3 – 7.2. Calculations used in determining the proposed nutrient application rates are presented in Appendix D with the design calculations.

## FIGURES



**LEGEND**

- WATER METER
- OVERHEAD UTILITIES
- FORMER TANK LOCATIONS
- FORMER SEPTIC TANK LOCATIONS
- MW-12 ● MONITORING WELL LOCATION & NUMBER
- ISBR-2 ● PILOT TEST IN SITU BIOREACTOR WELL LOCATION & NUMBER
- MP-8 ● MONITORING POINT LOCATION

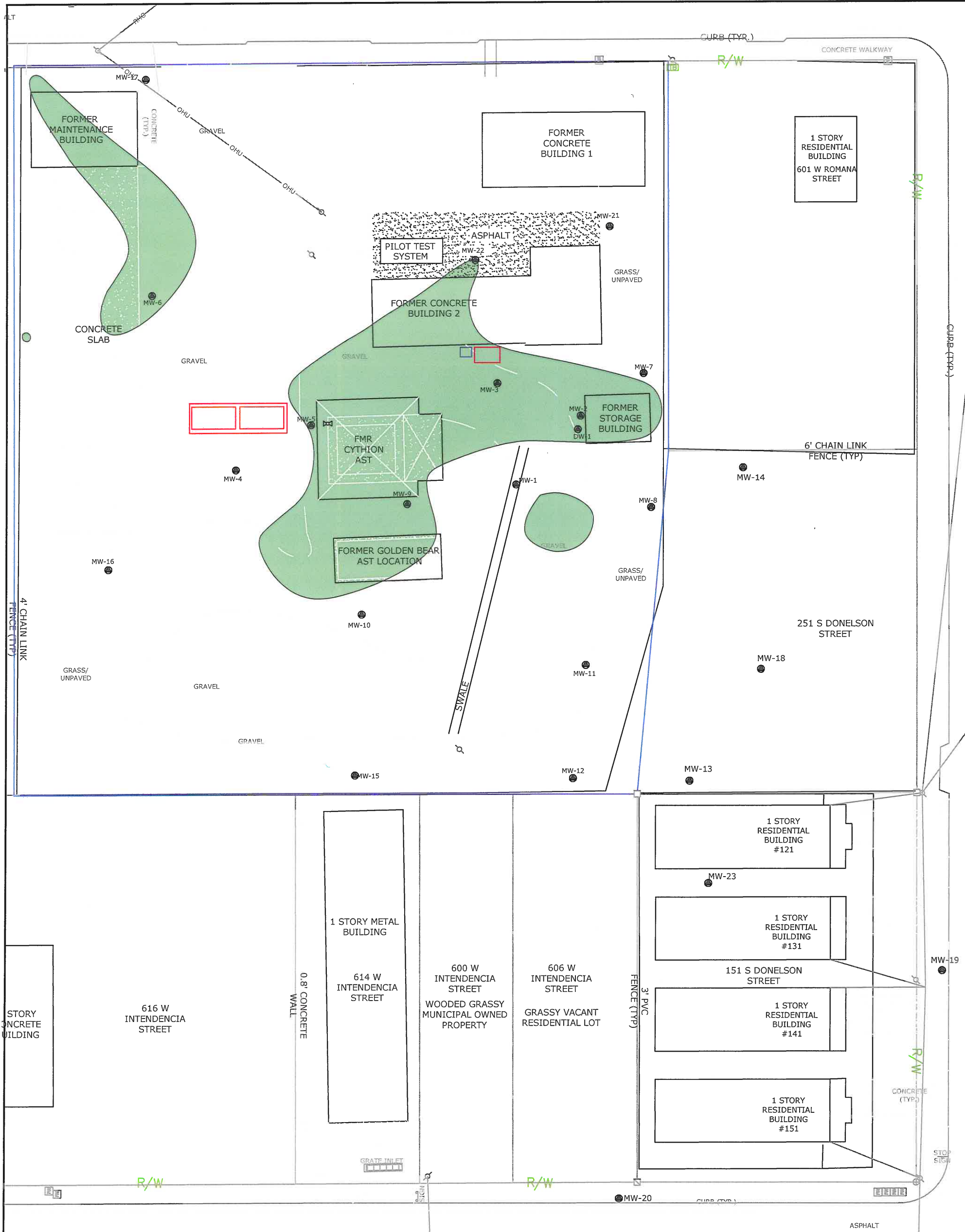
BY	DATE
DRAWN CSW	10/26/10
CHECKED	
APPROVED	
APPROVED	
APPROVED	



**Cameron-Cole**  
 200 E. GOVERNMENT STREET, SUITE 100  
 PENSACOLA, FLORIDA 32502  
 PHONE: 850-434-1011  
 FAX: 850-434-2168  
<http://www.cameron-cole.com>

**FIGURE 1**  
**SITE MAP**  
 FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
 PENSACOLA, FLORIDA

SCALE: 1" = 30'	DWG. NO.: 40191 RAP GW SITE MAP.dwg	PROJECT NO. 40191
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**LEGEND**

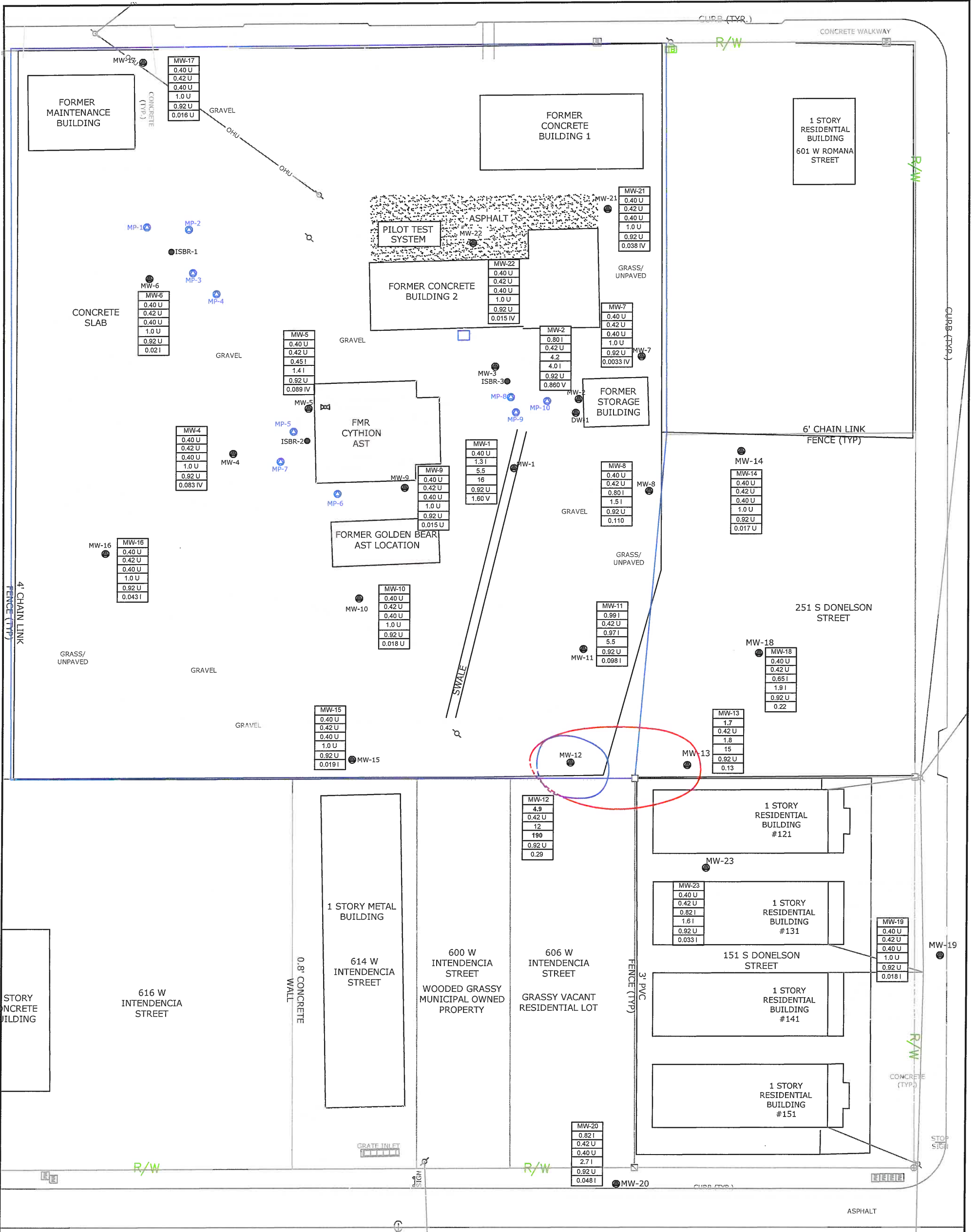
- WATER METER
- MW-12 MONITORING WELL LOCATION & NUMBER
- SCTL - COMMERCIAL DIRECT EXPOSURE
- OHU - OVERHEAD UTILITIES
- FORMER TANK LOCATIONS
- FORMER SEPTIC TANK LOCATIONS

BY	DATE
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APPROVED	
APPROVED	

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**FIGURE 2**  
 DISTRIBUTION OF PESTICIDES IN SOIL  
 FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
 PENSACOLA, FLORIDA

SCALE: 1" = 30'	DWG. NO.: 40191 RAP EXCAVATION.dwg	PROJECT NO. 40191
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**LEGEND**

- WATER METER
- OVERHEAD UTILITIES
- MW-#** MONITORING WELL
  - 1.0 BENZENE (ug/L)
  - 40 TOLUENE (ug/L)
  - 30 ETHYLBENZENE (ug/L)
  - 20 TOTAL XYLENES (ug/L)
  - 20 MTBE (ug/L)
  - 5.0 TRPH (mg/L)
- BENZENE CONTOUR

- MW-12** MONITORING WELL LOCATION & NUMBER
- ISBR-2** PILOT TEST IN SITU BIOREACTOR WELL LOCATION & NUMBER
- MP-8** MONITORING POINT LOCATION

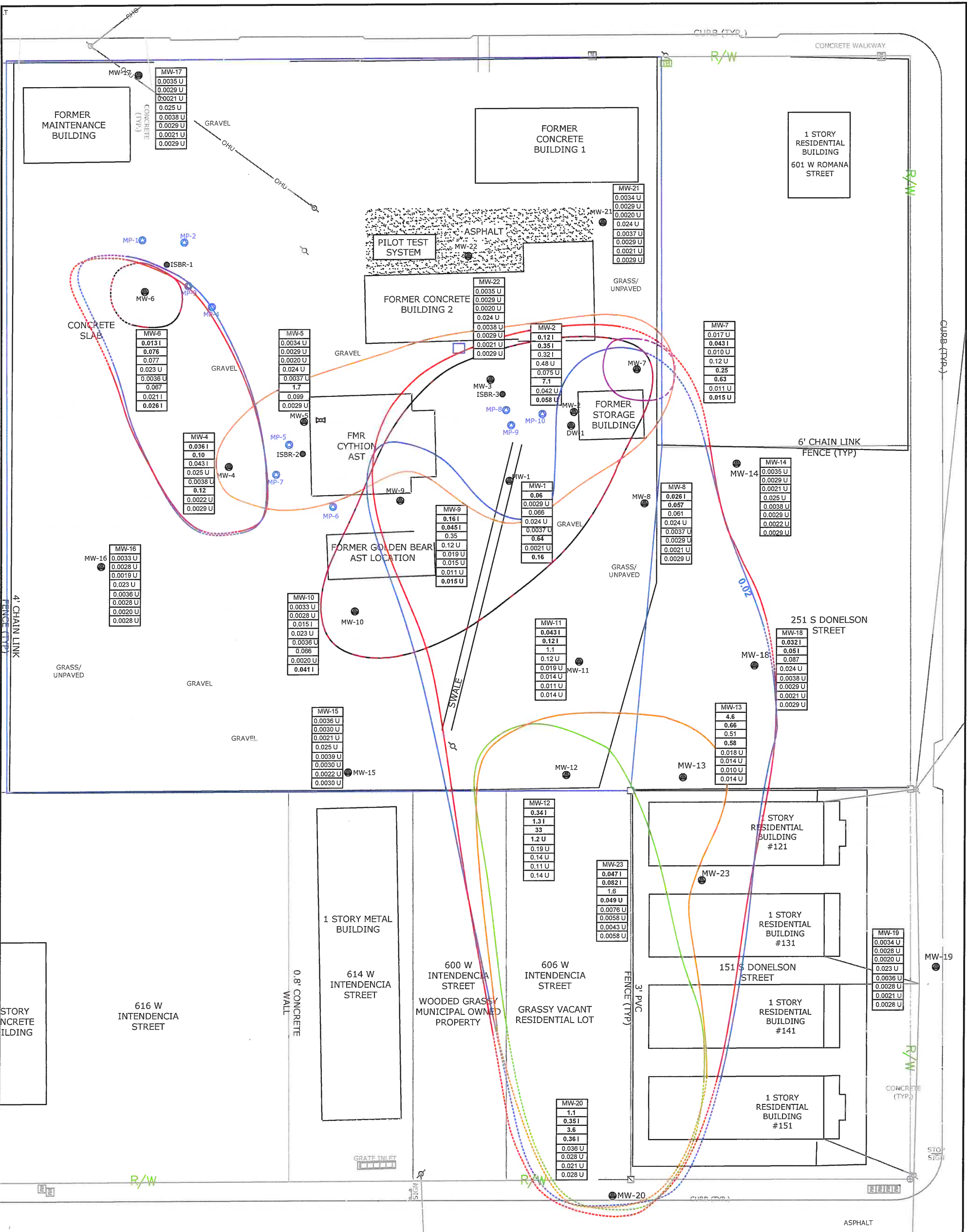
- U = INDICATES THE COMPOUND WAS ANALYZED BUT NOT DETECTED.
- I = THE REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND THE LABORATORY PRACTICAL QUANTITATION LIMIT.
- BOLD** = THE VALUE EXCEEDS THE CLEANUP TARGET LEVEL.
- GROUNDWATER SAMPLES COLLECTED ON 8/9/2010 AND 8/10/2010

BY	DATE
DRAWN CSW	9/14/10
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APPROVED	
APPROVED	

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**FIGURE 3**  
**DISTRIBUTION OF HYDROCARBONS IN GROUNDWATER**  
**FORMER ESCAMBIA COUNTY MOSQUITO CONTROL**  
**PENSACOLA, FLORIDA**

SCALE: 1" = 30'	DWG. NO.: 40191 RAP GW BASELINE.dwg	PROJECT NO. 40191
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**LEGEND**

	WATER METER
	OVERHEAD UTILITIES
MW-#	MONITORING WELL
0.006	alpha-BHC (ug/L)
0.02	beta-BHC (ug/L)
2.1	delta-BHC (ug/L)
0.2	LINDANE (ug/L)
0.1	4,4'-DDD (ug/L)
0.1	4,4'-DDD (ug/L)
0.1	4,4'-DDE (ug/L)
0.002	DIELDRIN (ug/L)

- MW-12 ● MONITORING WELL LOCATION & NUMBER
- ISBR-2 ● PILOT TEST IN SITU BIOREACTOR WELL LOCATION & NUMBER
- MP-8 ● MONITORING POINT LOCATION
- alpha-BHC CONTOUR
- beta-BHC CONTOUR
- delta-BHC CONTOUR
- LINDANE CONTOUR
- 4,4'-DDD CONTOUR
- 4,4'-DDD CONTOUR
- DIELDRIN CONTOUR

U = INDICATES THE COMPOUND WAS ANALYZED BUT NOT DETECTED.  
 I = THE REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND THE LABORATORY PRACTICAL QUANTITATION LIMIT.  
**BOLD** = THE VALUE EXCEEDS THE CLEANUP TARGET LEVEL.  
 GROUNDWATER SAMPLES COLLECTED ON 8/9/2010 AND 8/10/2010

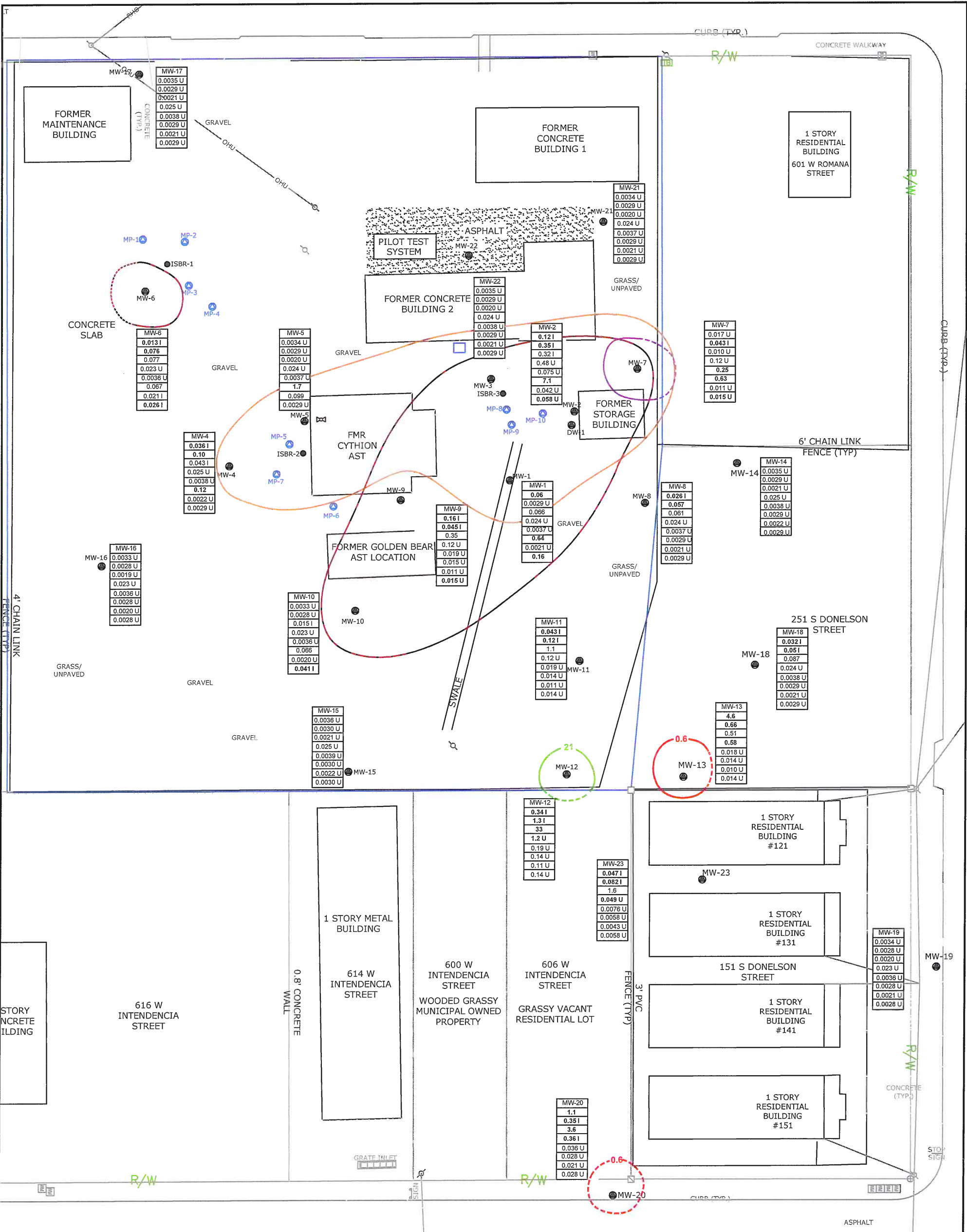
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APPROVED	
APPROVED	

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 FAX: 850-434-2168  
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**FIGURE 4**  
 DISTRIBUTION OF PESTICIDES IN GROUNDWATER—CTL  
 FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
 PENSACOLA, FLORIDA

SCALE: 1" = 30'	DWG. NO.: 40191 RAP GW BASELINE.dwg	PROJECT NO. 40191
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**LEGEND**

WATER METER  
 OVERHEAD UTILITIES

MW-12 MONITORING WELL LOCATION & NUMBER  
 ISBR-2 PILOT TEST IN SITU BIOREACTOR WELL LOCATION & NUMBER  
 MP-8 MONITORING POINT LOCATION

MW-#	MONITORING WELL
0.6	alpha-BHC (ug/L)
2	beta-BHC (ug/L)
21	delta-BHC (ug/L)
20	LINDANE (ug/L)

alpha-BHC CONTOUR (greater than NADC)  
 delta-BHC CONTOUR (greater than NADC)

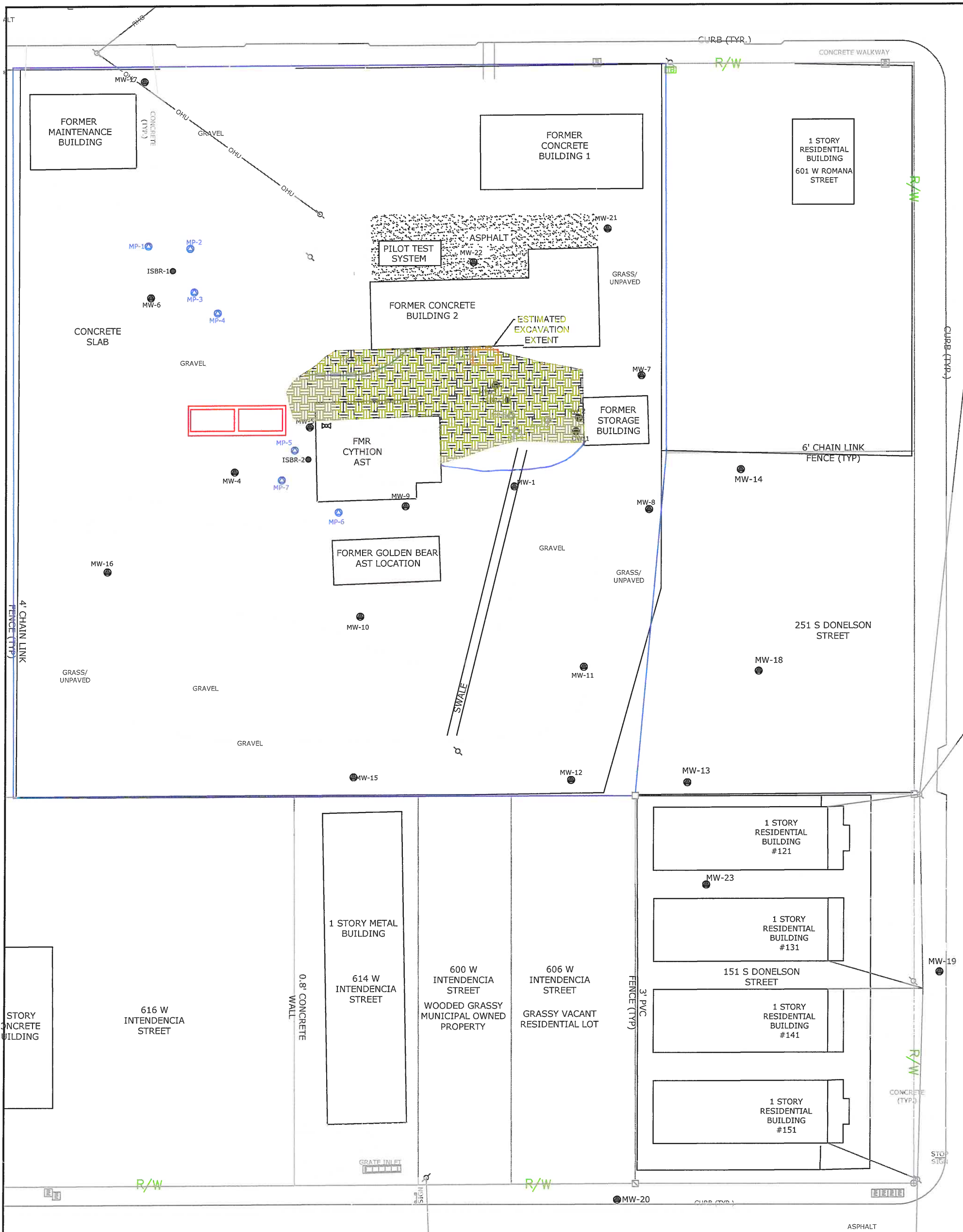
U = INDICATES THE COMPOUND WAS ANALYZED BUT NOT DETECTED.  
 I = THE REPORTED VALUE IS BETWEEN THE LABORATORY METHOD DETECTION LIMIT AND THE LABORATORY PRACTICAL QUANTITATION LIMIT.  
**BOLD** = THE VALUE EXCEEDS THE CLEANUP TARGET LEVEL.  
 GROUNDWATER SAMPLES COLLECTED ON 8/9/2010 AND 8/10/2010

BY	DATE
DRAWN	CSW 10/20/10
CHECKED	
APPROVED	
APPROVED	
APPROVED	

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 FAX: 850-434-2168  
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**FIGURE 5**  
 DISTRIBUTION OF PESTICIDES IN GROUNDWATER—NAM  
 FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
 PENSACOLA, FLORIDA

SCALE: 1" = 30'	DWG. NO.: 40191 RAP GW BASELINE.dwg	PROJECT NO. 40191
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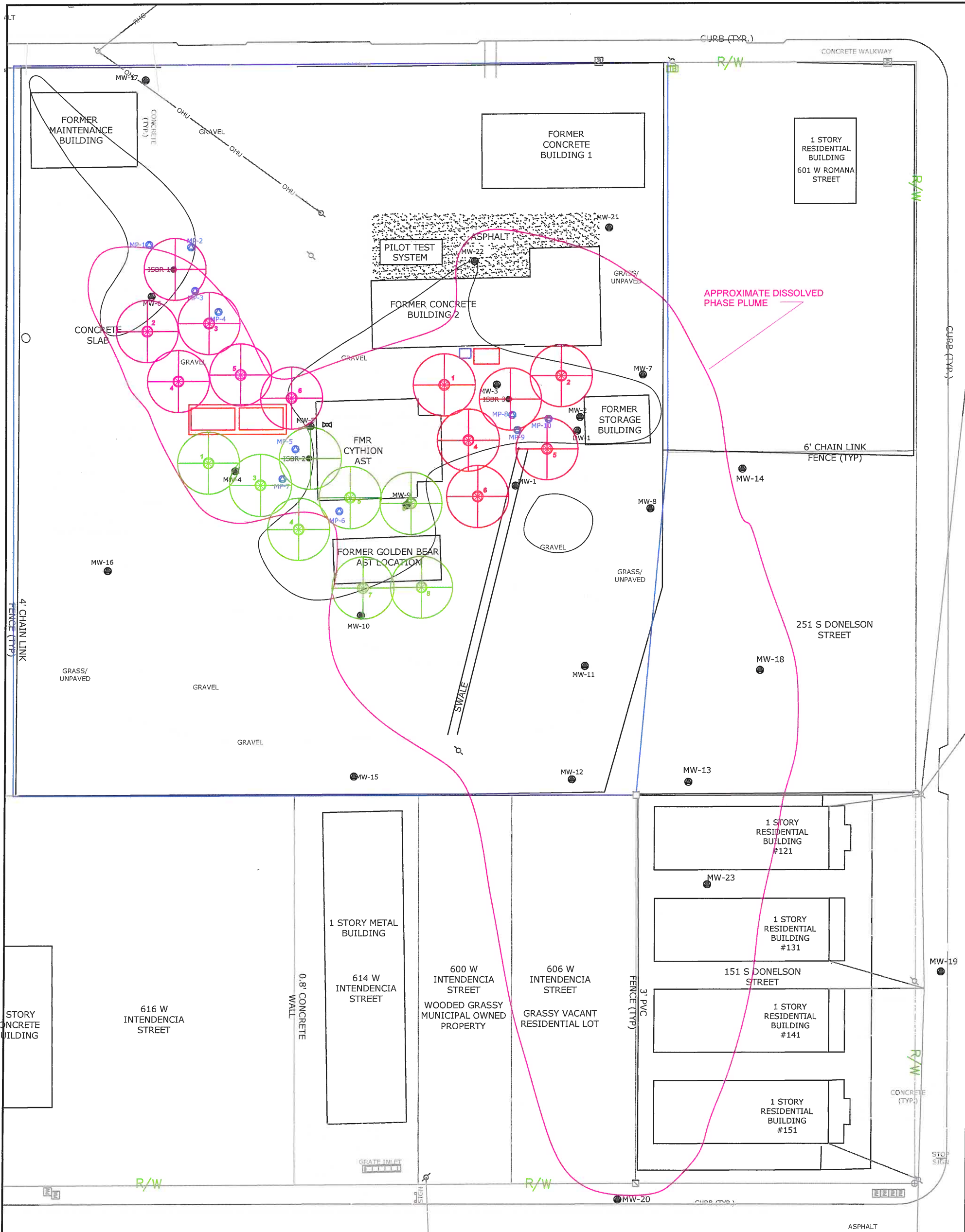
**LEGEND**

- WATER METER
- OVERHEAD UTILITIES
- FORMER TANK LOCATIONS
- FORMER SEPTIC TANK LOCATIONS
- MW-12 MONITORING WELL LOCATION & NUMBER
- ISBR-2 PILOT TEST IN SITU BIOREACTOR WELL LOCATION & NUMBER
- MP-8 MONITORING POINT LOCATION
- PROPOSED AREA OF EXCAVATION

BY	DATE
DRAWN CSW	9/14/10
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<b>FIGURE 6</b>		
<b>PROPOSED EXCAVATION AREA</b>		
<b>FORMER ESCAMBIA COUNTY MOSQUITO CONTROL</b>		
<b>PENSACOLA, FLORIDA</b>		
SCALE: 1" = 30'	DWG. NO.: 40191 RAP EXCAVATION.dwg	PROJECT NO. 40191



**LEGEND**

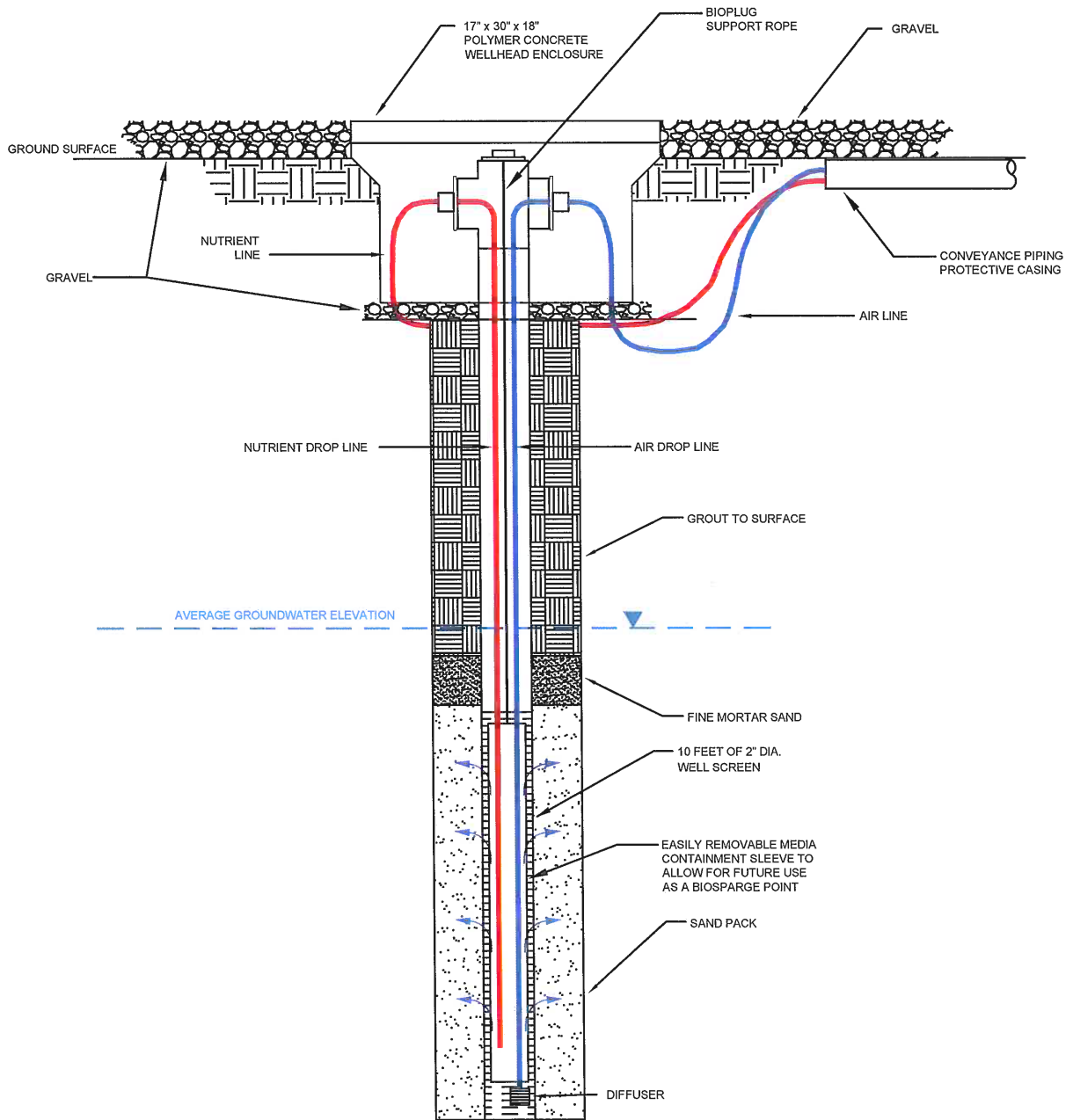
- WATER METER
- OVERHEAD UTILITIES
- FORMER TANK LOCATIONS
- FORMER SEPTIC TANK LOCATIONS
- MW-12 MONITORING WELL LOCATION & NUMBER
- ISBR-2 PILOT TEST IN SITU BIOREACTOR WELL LOCATION & NUMBER
- Phase I Bioplug point with r=10ft
- Phase II Bioplug point with r=10ft
- Phase III Bioplug point with r=10ft

BY	DATE
DRAWN CSW	10/20/10
CHECKED	
APPROVED	
APPROVED	
APPROVED	

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 FAX: 850-434-2168  
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**FIGURE 7**  
**PROPOSED ISBR WELL LAYOUT**  
**FORMER ESCAMBIA COUNTY MOSQUITO CONTROL**  
**PENSACOLA, FLORIDA**

SCALE: 1" = 30'	DWG. NO.: 40191 RAP TREATMENT WELLS.dwg	PROJECT NO. 40191
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ADAPTED FROM ADVANCED BIOSYSTEMS, LLC

BY	DATE
DRAWN DLC	10/5/2010
CHECKED	
APPROVED	
APPROVED	
APPROVED	



**Cameron-Cole**

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 PENSACOLA, FLORIDA 32502  
 PHONE: 850-434-1011  
 FAX: 850-434-2168  
<http://www.cameron-cole.com>

FIGURE 8

ISBR WELL SCHEMATIC  
 FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
 PENSACOLA, FLORIDA

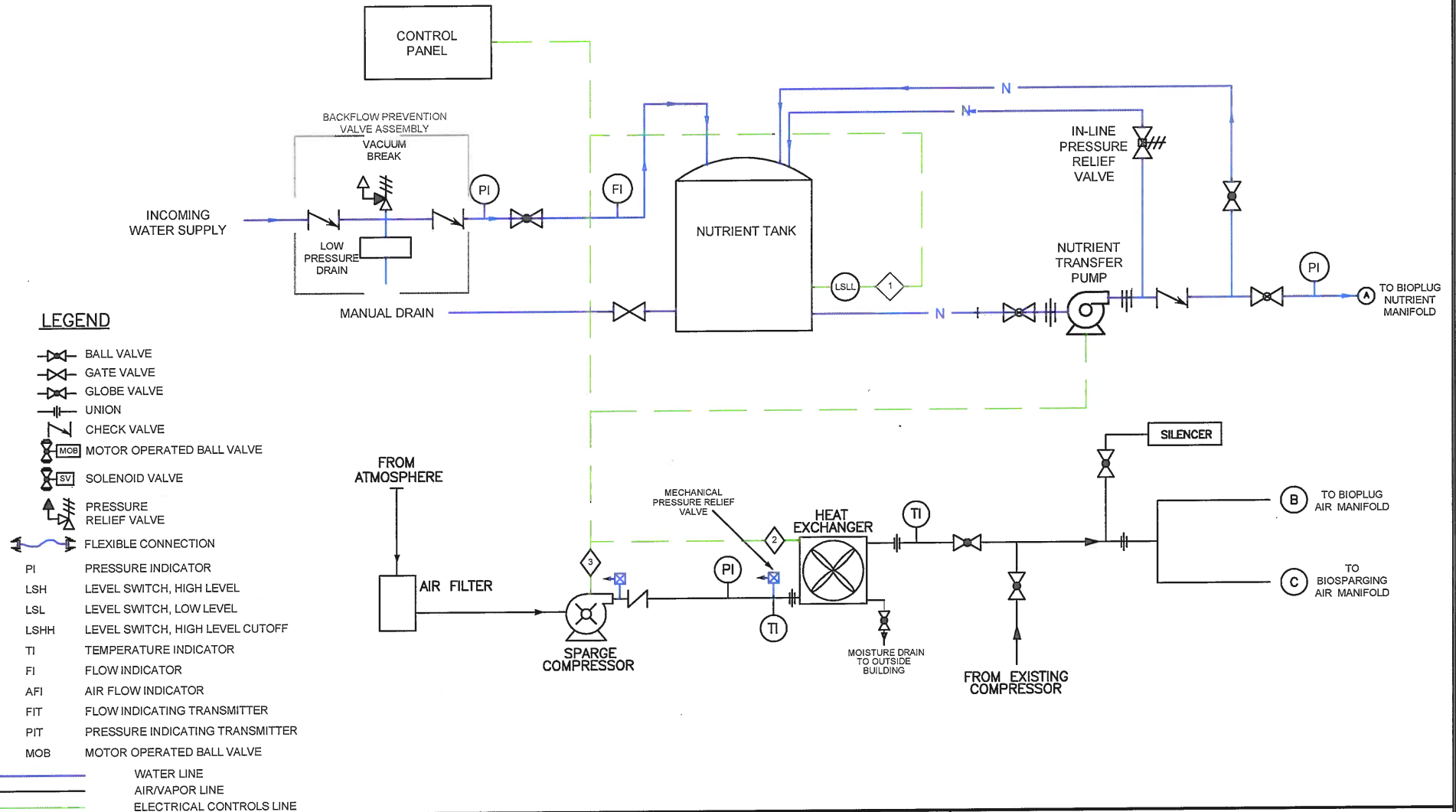
SCALE:  
 NTS

DWG. NO.:  
 40191 ISBR WELL.dwg

PROJECT NO.  
 40191

**CONTROL PANEL INTERLOCKS**

- ◇ SIGNAL LOW LOW ALARM AND SHUT DOWN NUTRIENT TRANSFER PUMP
- ◇ AIR COMPRESSOR ON ONLY IF HEAT EXCHANGER ON
- ◇ SIGNAL ALARM IF AIR COMPRESSOR SHUTS DOWN



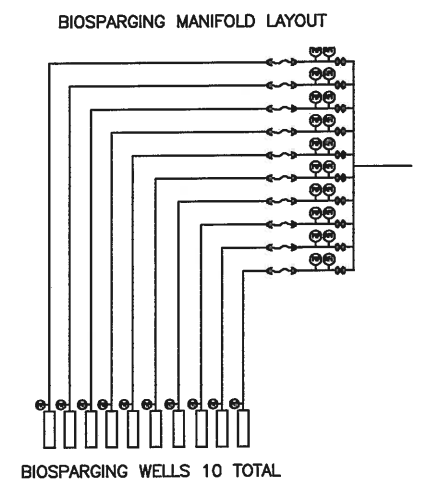
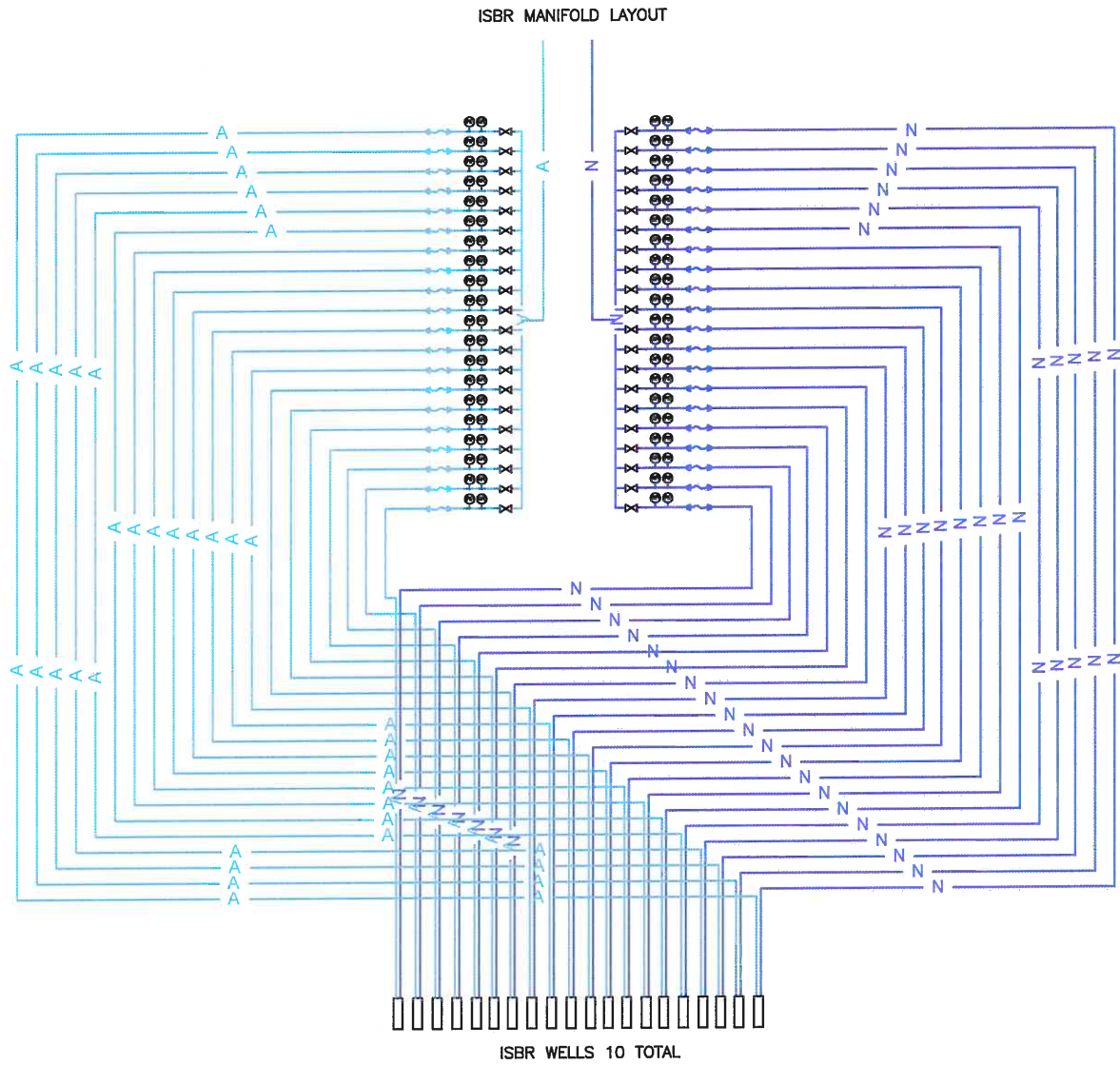
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APPROVED		
APPROVED		
APPROVED		

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 PENSACOLA, FLORIDA 32502  
 PHONE: 850-434-1011  
 FAX: 850-434-2168  
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**FIGURE 9**

**PROCESS&INSTRUMENTATION DIAGRAM— SYSTEM COMPONENTS  
 FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
 PENSACOLA, FLORIDA**

SCALE: NTS	DWG. NO.: 40191 P&I.dwg	PROJECT NO.: 40191
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BY	DATE
DRAWN CSW	10/12/10
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APPROVED	
APPROVED	
APPROVED	



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 FAX: 850-434-2168  
<http://www.cameron-cole.com>

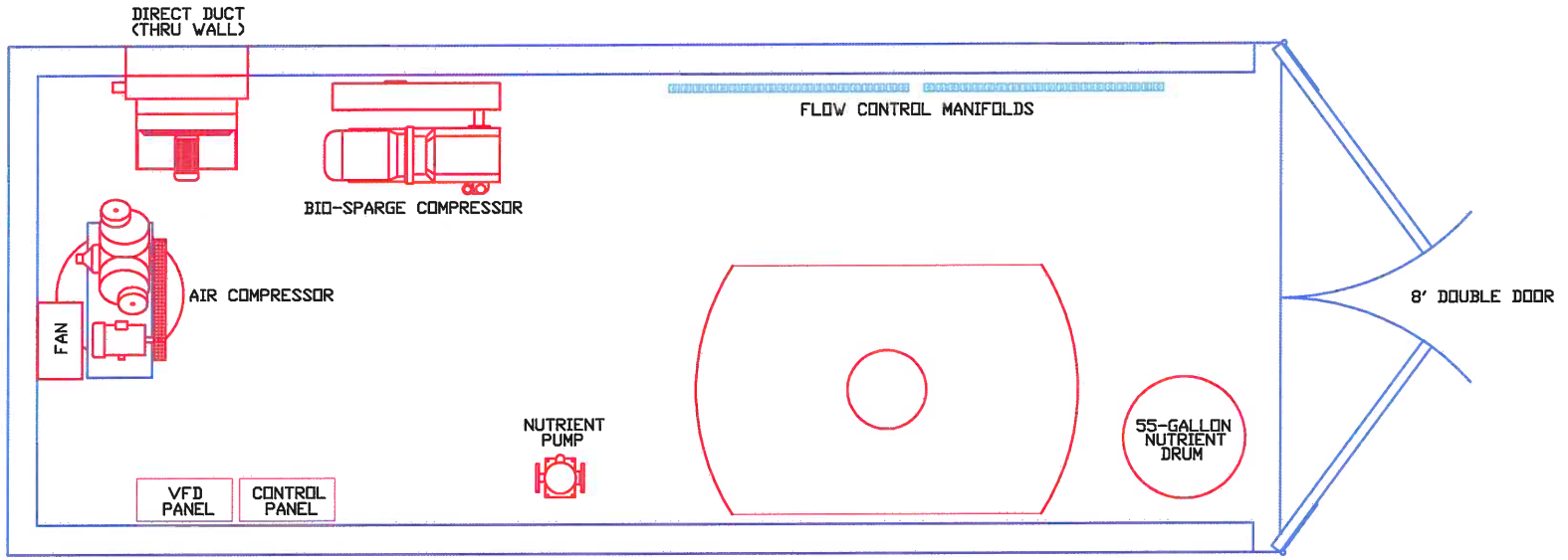
FIGURE 10

PROCESS & INSTRUMENTATION DIAGRAM— SYSTEM MANIFOLDS  
 FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
 PENSACOLA, FLORIDA

SCALE:  
 NTS

DWG. NO.:  
 40191 P&ID.dwg

PROJECT NO.  
 40191



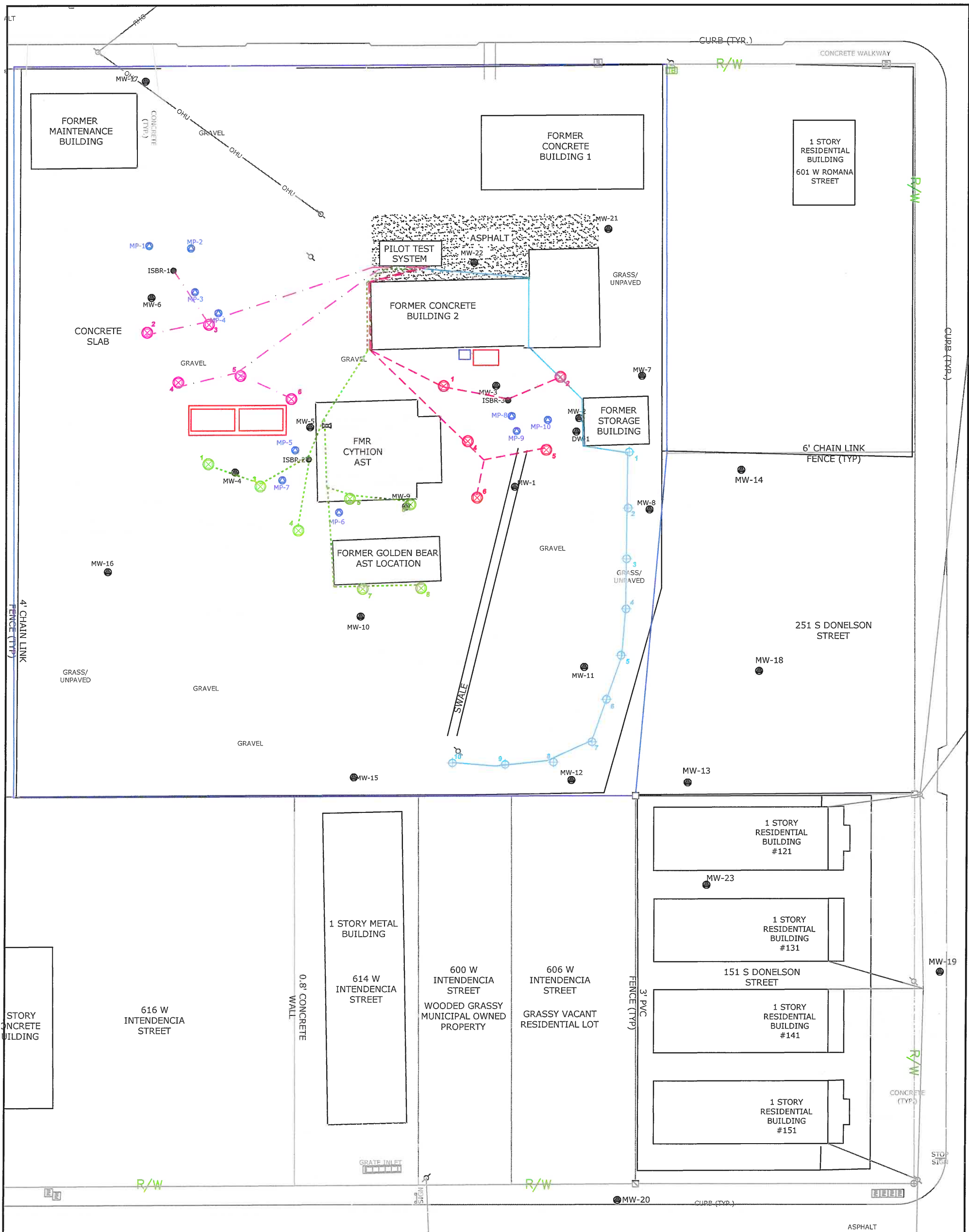
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APPROVED		



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<http://www.cameron-cole.com>

FIGURE 11 TREATMENT SYSTEM LAYOUT FORMER ESCAMBIA COUNTY MOSQUITO CONTROL PENSACOLA, FLORIDA		
SCALE: 1"=3'	DWG. NO.: 40191 EQUIPMENT.dwg	PROJECT NO. 40191



**LEGEND**

- WATER METER
- OVERHEAD UTILITIES
- FORMER TANK LOCATIONS
- FORMER SEPTIC TANK LOCATIONS
- MW-12 MONITORING WELL LOCATION & NUMBER
- ISBR-2 PILOT TEST IN SITU BIOREACTOR WELL LOCATION & NUMBER
- BIOPBUG TRENCHING-PHASE 1
- BIOPBUG TRENCHING-PHASE 2
- BIOPBUG TRENCHING-PHASE 3
- BIOSPARGE TRENCHING-PHASE 1
- Phase I Bioplug point
- Phase II Bioplug point
- Phase III Bioplug point
- Biosparge point

BY	DATE
DRAWN CSW	10/20/2010
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APPROVED	
APPROVED	



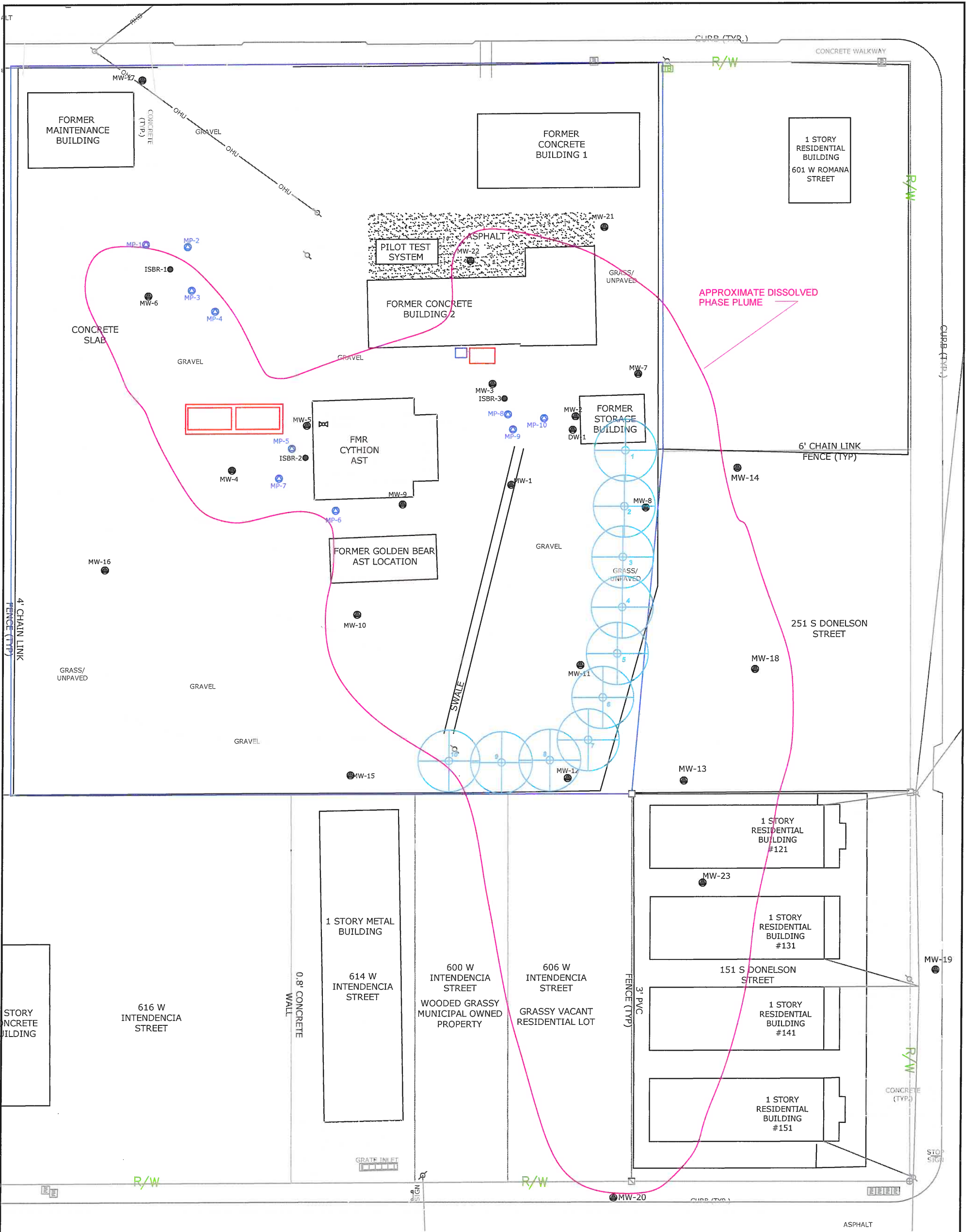
**FIGURE 12**  
**PIPING LAYOUT**  
**FORMER ESCAMBIA COUNTY MOSQUITO CONTROL**  
**PENSACOLA, FLORIDA**

SCALE: 1" = 30'





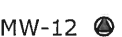

DWG. NO.: 40191 RAP TREATMENT WELLS.dwg

PROJECT NO. 40191





**LEGEND**

-  WATER METER
-  OVERHEAD UTILITIES
-  FORMER TANK LOCATIONS
-  FORMER SEPTIC TANK LOCATIONS
-  MW-12 ● MONITORING WELL LOCATION & NUMBER
-  ISBR-2 ● PILOT TEST IN SITU BIOREACTOR WELL LOCATION & NUMBER

 Biosparge point with r=10ft

BY	DATE
DRAWN CSW	10/20/10
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APPROVED	
APPROVED	



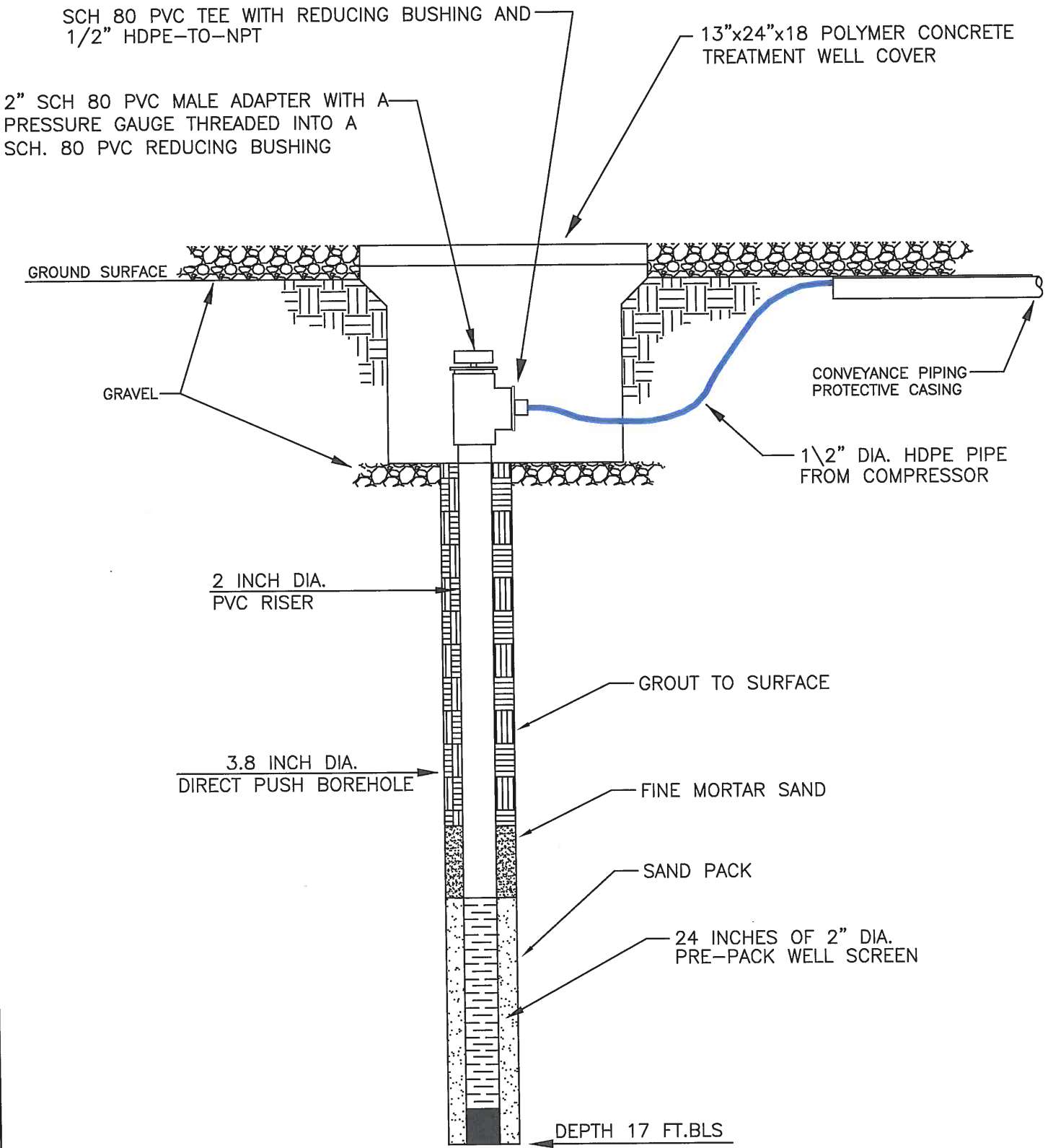
**Cameron-Cole**  
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 PENSACOLA, FLORIDA 32502  
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 FAX: 850-434-2168  
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**FIGURE 13**  
 PROPOSED BIO-SPARGING LAYOUT  
 FORMER ESCAMBIA COUNTY MOSQUITO CONTROL  
 PENSACOLA, FLORIDA

SCALE: 1" = 30'

DWG. NO.: 40191 RAP TREATMENT WELLS.dwg

PROJECT NO. 40191



NOT TO SCALE

	BY	DATE
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APPROVED		



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 FAX: 850-434-2168  
<http://www.cameron-cole.com>

FIGURE 14		
BIOSPARGING WELL SCHEMATIC FORMER ESCAMBIA COUNTY MOSQUITO CONTROL PENSACOLA, FLORIDA		
SCALE: NA	DWG. NO.: 40191 BIOSPARGE-WELL.DWG	PROJECT NO. 40191

## **TABLES**



**TABLE I: VOA & TRPH CONCENTRATIONS IN GROUNDWATER**

Facility Name: Former Escambia County Mosquito Control  
603 West Romana Street  
Pensacola, FL

Brownfield Site ID No.: 170502001  
FDEP Facility ID No.: 178732790

Sample		Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TRPH mg/L	
Location	Date							
MW-1	04/27/06	0.28 I	1.4 I	5.3	18	0.20 U	0.780	
	05/30/07	0.80 U	2.0 U	6.6	18	2.0 U	--	
	06/16/09	0.67 I	2.7 I	13	33	1.4 I	0.590	
	07/31/09	1.0 I	2.6 I	17	53	2.0 U	--	
	08/31/09	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	--	
	09/29/09	0.80 U	2.0 U	6.4	16	2.0 U	0.180	
	10/28/09	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	--	
	11/30/09	0.85 I	1.7 I	12	28	1.0 U	--	
	01/05/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U	
	01/28/10	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	--	
	02/25/10	0.40 U	1.0 U	5.7	6.6	1.0 U	--	
	03/25/10	0.40 U	1.0 U	2.9	4.1	1.0 U	0.540	
08/10/10	0.40 U	1.3 I	5.5	16	0.92 U	1.600 V		
MW-2	04/27/06	0.64 I	0.97 I	7.9	20	0.20 U	1.20	
	05/30/07	0.40 U	1.0 U	2.0	2.1	1.0 U	--	
	08/10/10	0.80 I	0.42 U	4.2	4.0 I	0.92 U	0.860 V	
MW-3	04/27/06	0.20 U	0.20 U	0.21 I	0.35 I	0.20 U	1.1	
	05/31/07	0.40 U	1.0 U	1.0 U	1.4 I	1.0 U	--	
	06/16/09	0.40 U	1.0 U	1.0 U	1.0 I	1.0 U	0.017 U	
	07/31/09	0.80 U	3.9 I	7.2	38	2.0 U	--	
	08/31/09	0.80 U	2.0 U	4.2	13	2.0 U	--	
	09/29/09	0.40 U	1.0 U	3.2	2.7	1.0 U	0.320	
	10/28/09	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	--	
	11/30/09	0.40 U	1.0 U	1.0 U	1.0 I	1.0 U	--	
	01/05/10	0.80 U	2.0 U	3.8 I	3.8 I	2.0 U	0.760	
	01/28/10	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	--	
	02/25/10	0.40 U	1.0 U	1.0 I	1.0 U	1.0 U	--	
	03/25/10	FP	FP	FP	FP	FP	FP	
	MW-4	04/27/06	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.021 U
Duplicate		04/27/06	0.20 U	0.20 U	0.20 U	0.20 U	0.017 U	
Duplicate		06/16/09	0.93 I	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U
		06/16/09	0.99 I	1.0 U	1.0 U	1.0 U	1.9 I	0.018 U
		09/28/09	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
		01/04/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.066 I
		03/24/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
		08/09/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.083 I V
		MW-5	04/27/06	0.20 U	0.22 I	0.20 U	0.20 U	0.20 U
06/16/09	0.40 U		1.0 U	1.0 U	1.0 U	1.0 U	0.014 U	
07/31/09	0.40 U		1.0 U	1.0 U	1.0 U	1.0 U	--	
08/31/09	0.80 U		2.0 U	2.0 U	2.0 U	2.0 U	--	
09/28/09	0.80 U		2.0 U	2.0 U	2.0 U	2.0 U	0.022 U	
10/28/09	0.80 U		2.0 U	2.0 U	2.0 U	2.0 U	--	
11/30/09	0.40 U		1.0 U	1.0 U	1.0 I	1.0 U	--	
01/04/10	0.80 U		2.0 U	2.0 U	2.0 U	2.0 U	0.019 I	
01/28/10	0.80 U		2.0 U	2.0 U	2.0 U	2.0 U	--	
02/25/10	0.40 U		1.0 U	1.0 U	1.0 U	1.0 U	--	
03/25/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U		
08/09/10	0.40 U	0.42 U	0.45 I	1.4 I	0.92 U	0.089 I V		
MW-6	07/13/06	0.80 U	0.84 U	0.72 U	1.6 U	1.8 U	0.043 U	
	06/15/09	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	0.058 I	
	07/31/09	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	--	
	08/31/09	0.40 U	1.0 U	1.0 U	1.0 U	1.1 I	--	
	09/28/09	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U	
	10/28/09	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	--	
	11/30/09	0.40 U	1.0 U	1.0 U	1.0 I	1.0 U	--	
	01/04/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.130	
	01/28/10	0.40 U	1.0 U	1.0 U	1.0 U	1.7 I	--	
	02/25/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--	
	03/24/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U	
	Duplicate	03/24/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U
		08/09/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.020 I
	<b>GCTL</b>		<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>5</b>
	<b>NADC</b>		<b>100</b>	<b>400</b>	<b>300</b>	<b>200</b>	<b>200</b>	<b>50</b>

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Facility Name: Former Escambia County Mosquito Control  
 603 West Romana Street  
 Pensacola, FL

Brownfield Site ID No.: 170502001  
 FDEP Facility ID No.: 178732790

Sample Location	Date	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TRPH mg/L
MW-7	07/13/06	0.80 U	0.84 U	0.72 U	1.6 U	1.8 U	0.043 U
	08/10/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.033 I V
MW-8 Duplicate	07/13/06	0.80 U	0.84 U	0.72 U	1.6 U	1.8 U	0.044 U
	07/13/06	0.80 U	0.84 U	0.72 U	1.6 U	1.8 U	0.044 U
	05/31/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	06/15/09	0.80 U	2.0 U	2.2 I	7.1	2.0 U	0.085 I
	09/28/09	0.80 U	2.0 U	35	52	2.0 U	0.057 I
	01/04/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.019 U
	03/24/10	0.40 U	1.0 U	1.4 I	3.3	1.0 U	0.015 U
	08/09/10	0.40 U	0.42 U	0.80 I	1.5 I	0.92 U	0.110
MW-9	07/13/06	0.80 U	0.84 U	0.72 U	1.6 U	1.8 U	0.046 U
	06/16/09	0.96 I	1.0 U	1.0 U	1.1 I	1.2 I	0.021 I
	09/29/09	7.0	1.0 U	4.9	28	1.0 U	0.022 U
	01/05/10	0.40 U	1.0 U	1.0 U	1.0 U	1.9 I	0.017 U
	03/25/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U
	08/10/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.018 I V
MW-10 Duplicate	07/13/06	0.80 U	0.84 U	0.72 U	1.6 U	1.8 U	0.037 U
	06/16/09	0.40 U	1.0 U	1.0 U	1.0 U	1.4 I	0.024 U
	09/29/09	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.019 U
	09/29/09	0.40 U	1.0 U	1.0 U	1.0 U	1.6 I	0.046 I
	01/05/10	0.40 U	1.0 U	1.0 U	1.0 U	2.1	0.015 U
	01/05/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.130
	03/25/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
	08/09/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.018 U
MW-11	07/13/06	43	2.1 U	46	310	4.6 U	1.600
	05/30/07	8.9	1.0 U	5.0	7.9	1.0 U	--
	06/15/09	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.71 I
	09/28/09	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.014 U
	01/04/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.021 I
	03/24/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.017 U
	08/09/10	0.99 I	0.42 U	0.97 I	5.5	0.92 U	0.098 I
MW-12 Duplicate	01/11/07	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	0.047 U
	05/30/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	06/16/09	0.40 U	1.0 U	1.0 U	1.0 U	1.9 I	0.016 U
	09/28/09	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U
	09/28/09	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U
	01/04/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.018 I
	03/24/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U
	08/09/10	4.9	0.42 U	12	190	0.92 U	0.290
MW-13 Duplicate	01/11/07	21	2.0 U	13	100	2.0 U	0.310
	05/31/07	7.0	1.0 U	2.5	15	1.0 U	--
	05/31/07	5.7	1.0 U	2.0	13	1.0 U	--
	08/09/10	1.7	0.42 U	1.8	15	0.92 U	0.130
<b>GCTL</b>		<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>5</b>
<b>NADC</b>		<b>100</b>	<b>400</b>	<b>300</b>	<b>200</b>	<b>200</b>	<b>50</b>

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Facility Name: Former Escambia County Mosquito Control  
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 Pensacola, FL

Brownfield Site ID No.: 170502001  
 FDEP Facility ID No.: 178732790

Sample		Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TRPH mg/L
Location	Date						
MW-14	01/11/07	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	0.059 U
	08/09/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.017 U
MW-15	07/02/07	--	--	--	--	--	--
	03/24/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
	08/09/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.019 I
MW-16	07/02/07	--	--	--	--	--	--
	08/09/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.043 I
MW-17	07/02/07	--	--	--	--	--	--
	08/09/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.016 U
MW-18	07/02/07	0.40 U	1.0 U	1.0 U	1.3 I	1.0 U	--
	08/09/10	0.40 U	0.42 U	0.65 I	1.9 I	0.92 U	0.220
MW-19 Duplicate	07/02/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	07/02/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	08/09/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.018 I
MW-20	07/02/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	08/09/10	0.82 I	0.42 U	0.40 U	2.7 I	0.92 U	0.048 I
MW-21	07/27/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	08/10/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.038 I V
MW-22	07/27/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	08/10/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.015 I V
MW-23	11/27/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	08/09/10	0.40 U	0.42 U	0.82 I	1.6 I	0.92 U	0.033 I
DW-1	07/13/06	1.1	0.42 U	0.36 U	0.80 U	0.92 U	0.056 U
	05/30/07	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	08/10/10	0.40 U	0.42 U	0.40 U	1.0 U	0.92 U	0.020 U
<b>GCTL</b>		<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>5</b>
<b>NADC</b>		<b>100</b>	<b>400</b>	<b>300</b>	<b>200</b>	<b>200</b>	<b>50</b>

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Facility Name: Former Escambia County Mosquito Control  
 603 West Romana Street  
 Pensacola, FL

Brownfield Site ID No.: 170502001  
 FDEP Facility ID No.: 178732790

Location	Sample		Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TRPH mg/L
	Date							
Equipment Blank	04/27/06		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.019 U
	07/13/06		0.40 U	0.42 U	0.36 U	0.80 U	0.92 U	0.034 U
	01/11/07		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.047 U
	05/30/07		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	05/31/07		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	07/02/07		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	06/15/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.019 U
	06/16/09		0.40 U	1.0 U	1.0 U	1.0 U	1.8 I	0.016 U
	09/28/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.017 U
	09/29/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.026 U
	01/04/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.060 I
	01/05/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.160
	03/24/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
	03/25/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.017 U
Trip Blank 1	05/30/07		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	05/31/07		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	07/02/07		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
	07/27/07		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	--
MP-1	06/15/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.017 U
	09/28/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U
	01/04/10		0.40 U	1.0 U	1.0 U	1.0 U	1.3 I	0.015 U
	03/24/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.017 U
MP-2	06/15/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
	09/28/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.019 U
	01/04/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
	03/24/10		0.40 U	1.0 U	1.0 U	1.0 U	1.2 I	0.016 U
MP-3	06/15/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 I	0.018 U
	09/28/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.080 I
	01/04/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
	03/24/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
MP-4	06/15/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.020 U
	09/28/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.017 U
	01/04/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.080 I
	01/04/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.018 U
	03/24/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.015 U
MP-5	06/15/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.018 U
	09/28/09		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.019 U
	01/04/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 I	0.100 I
	03/25/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
	03/25/10		0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
<b>GCTL</b>			<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>5</b>
<b>NADC</b>			<b>100</b>	<b>400</b>	<b>300</b>	<b>200</b>	<b>200</b>	<b>50</b>

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Brownfield Site ID No.: 170502001  
 FDEP Facility ID No.: 178732790

Sample		Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	TRPH mg/L
Location	Date						
MP-6	06/15/09	<b>2.5</b>	1.0 U	1.9 I	4.9	1.0 U	0.018 U
	09/29/09	<b>5.2</b>	2.0 U	3.5 I	6.1	2.0 U	0.067 I
	01/05/10	<b>2.3</b>	1.0 U	2.1	3.2	1.0 U	0.270
	03/25/10	0.49 I	1.0 U	1.0 U	1.1 I	1.0 U	0.017 U
MP-7	06/15/09	<b>3.4</b>	1.0 U	2.3	1.0 I	1.0 U	0.026 U
	09/28/09	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
	01/04/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.020 U
	03/24/10	0.40 U	1.0 U	1.0 U	1.0 U	1.0 U	0.016 U
MP-8	06/15/09	0.40 U	1.0 U	1.3 I	2.7	1.0 U	0.046 I
	09/29/09	0.42 I	1.0 U	1.0 U	3.4	1.0 U	0.021 U
	01/05/10	0.80 U	2.0 U	2.0 U	2.0 U	2.0 U	0.150
	03/25/10	0.40 U	1.0 U	1.3	4.9	1.0 U	0.900
MP-9 Duplicate	06/15/09	0.57 I	5.9	<b>31</b>	<b>120</b>	1.0 U	<b>29</b>
	06/15/09	<b>1.4 I</b>	13	<b>37</b>	<b>160</b>	2.0 U	<b>7.8</b>
	09/29/09	0.82 I	2.3 I	6.4	<b>27</b>	1.0 U	<b>72</b>
	01/05/10	0.80 U	2.0 U	4.9	<b>24</b>	2.0 U	<b>110</b>
	03/25/10	FP	FP	FP	FP	FP	FP
MP-10	06/15/09	<b>2.6</b>	19	18	<b>77</b>	1.0 U	2.7
	09/29/09	0.99 I	2.0 U	4.9	5.5	2.0 U	0.270 U
	01/05/10	0.80 U	2.0 U	2.0 U	2.9 I	2.0 U	0.018 U
	03/25/10	0.40 U	1.0 U	3.0	3.0	1.0 U	0.016 U
<b>GCTL</b>		<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>20</b>	<b>5</b>
<b>NADC</b>		<b>100</b>	<b>400</b>	<b>300</b>	<b>200</b>	<b>200</b>	<b>50</b>

GCTL = Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.

NADC = Natural Attenuation Default Concentrations from Chapter 62-777, F.A.C.

Analytical results presented in parts per billion (ug/L) unless otherwise indicated.

I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U = Indicates the compound was analyzed for but not detected.

VOA = Volatile Organic Aromatics

TRPH = Total Recoverable Petroleum Hydrocarbons

MTBE = Methyl tert-butyl ether

**Bold** = The value exceeds the Cleanup Target Level.







TABLE 2: SELECT PESTICIDE CONCENTRATIONS IN GROUNDWATER

Facility Name: Former Escambia County Mosquito Control
603 West Romana Street
Pensacola, FL

Brownfield Site ID No.: 170502001
FDEP Facility ID No.: 178732790

Table with columns: Location, Sample Location, Date, 4,4'-DDT, 4,4'-DDD, 4,4'-DDE, alpha-BHC, beta-BHC, delta-BHC, Lindane, Dieldrin, Dicofol, Kepone, Azinphos-Methyl, Dimethoate, Malathion, Mevinphos, Turbidity (NTUs), DO (mg/L). Rows include MW-10 through MW-20 and summary rows for GCTL and NADC.

GCTL = Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
NADC = Natural Attenuation Default Concentrations from Chapter 62-777, F.A.C.
Analytical results presented in parts per billion (ug/L) unless otherwise indicated.
I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U = Indicates the compound was analyzed for but not detected.
V = Indicates the analyte was detected in both the sample and associated method blank.
Bold = The value exceeds the Cleanup Target Level.





**TABLE 2: SELECT PESTICIDE CONCENTRATIONS IN GROUNDWATER**

Facility Name:

Former Escambia County Mosquito Control  
603 West Romana Street  
Pensacola, FL

Brownfield Site ID No.: 170502001

FDEP Facility ID No.: 178732790

Location	Sample Location	Date	4,4'-DDT	4,4'-DDD	4,4'-DDE	alpha-BHC	beta-BHC	delta-BHC	Lindane	Dieldrin	Dicofol	Kepone	Azinphos-Methyl	Dimethoate	Malathion	Mevinphos	Turbidity (NTUs)	DO (mg/L)	
MP-6 Duplicate	ISBR-2, 20' Downgradient	06/15/09	0.071	<b>0.94</b>	0.095	1.2	<b>0.20</b>	<b>2.8</b>	0.049 U	<b>0.037 I</b>	--	--	--	--	--	--	4	0.14	
		09/29/09	0.090 U	0.090 U	0.090 U	1.1	0.047 U	1.4	0.47 U	0.024 U	--	--	--	--	--	--	8	0.25	
		01/05/10	0.084	<b>0.33</b>	0.0090 U	1.1	<b>0.11</b>	1.3	0.047 U	<b>0.76</b>	--	--	--	--	--	--	22	0.35	
		03/25/10	0.090	<b>0.27</b>	<b>0.12</b>	1.8	<b>0.15</b>	<b>2.4</b>	0.048 U	<b>0.27</b>	--	--	--	--	--	--	11	0.39	
		06/30/10	0.046 U	<b>0.46</b>	0.046 U	1.1	<b>0.17 I</b>	<b>2.8</b>	0.24 U	<b>0.45</b>	--	--	--	--	--	--	13	0.24	
		06/30/10	0.046 U	<b>0.41</b>	0.046 U	1.2	<b>0.20 I</b>	<b>2.9</b>	0.24 U	<b>0.43</b>	--	--	--	--	--	--	13	0.24	
MP-7	ISBR-2, 10' Crossgradient	06/15/09	0.0091 U	<b>0.25</b>	0.0091 U	<b>0.014 I</b>	<b>0.040 I</b>	0.079	0.048 U	<b>0.013 I</b>	--	--	--	--	--	--	4	0.15	
		09/28/09	0.0088 U	<b>0.23</b>	0.0088 U	0.0046 U	0.0046 U	0.046 U	0.046 U	0.0023 U	--	--	--	--	--	--	2	0.14	
		01/04/10	0.081	0.069	0.021 I	0.0047 U	0.010 I	0.086	0.047 U	<b>0.052</b>	--	--	--	--	--	--	30	0.20	
		03/24/10	0.036 I	<b>0.11</b>	0.091	0.0058 I	0.015 I	0.11	0.051 U	<b>0.035 I</b>	--	--	--	--	--	--	10	0.17	
MP-8	ISBR-3, 5' Downgradient	06/15/09	0.0091 U	1.6	0.0091 U	<b>0.044 I</b>	<b>0.066</b>	0.091	0.048 U	<b>0.13</b>	--	--	--	--	--	--	7	0.13	
		09/29/09	0.18 U	15	0.18 U	0.093 U	0.093 U	0.93 U	0.93 U	0.047 U	--	--	--	--	--	--	8	0.78	
		01/05/10	0.0090 U	<b>8.7</b>	<b>0.17</b>	<b>0.060</b>	<b>0.040 I</b>	0.11	0.047 U	<b>0.13</b>	--	--	--	--	--	--	6	0.37	
		03/25/10	0.0089 U	<b>33</b>	<b>0.84</b>	<b>0.030 I</b>	<b>0.054</b>	0.10	0.047 U	<b>0.22</b>	--	--	--	--	--	--	12	0.6	
		06/30/10	FP	FP	FP	FP	FP	FP	FP	FP	--	--	--	--	--	--	--	--	--
MP-9 Duplicate	ISBR-3, 10' Downgradient	06/15/09	0.0094 U	13	<b>0.32</b>	<b>0.056</b>	<b>0.056</b>	0.085	0.049 U	0.0025 U	--	--	--	--	--	--	5	0.35	
		06/15/09	0.0093 U	<b>8.5</b>	<b>0.14</b>	<b>0.071</b>	<b>0.058</b>	0.11	0.049 U	0.0025 U	--	--	--	--	--	--	5	0.35	
		09/29/09	9.0 U	<b>1200</b>	9.0 U	4.7 U	4.7 U	4.7 U	4.7 U	2.4 U	--	--	--	--	--	--	10	0.14	
		01/05/10	0.090 U	<b>310</b>	<b>8.6</b>	<b>0.086 I</b>	0.047 U	<b>0.83</b>	0.47 U	0.024 U	--	--	--	--	--	--	10	0.17	
		03/25/10	FP	FP	FP	FP	FP	FP	FP	FP	--	--	--	--	--	--	--	--	--
		06/29/10	FP	FP	FP	FP	FP	FP	FP	FP	--	--	--	--	--	--	--	--	--
MP-10	ISBR-3, 15' Downgradient	06/15/09	0.0093 U	2.1	0.0093 U	<b>0.075</b>	0.0049 U	0.21	<b>0.23</b>	0.0025 U	--	--	--	--	--	--	8	0.14	
		09/29/09	0.089 U	1.7	0.089 U	0.047 U	0.047 U	0.47 U	0.47 U	0.023 U	--	--	--	--	--	--	8	0.68	
		01/05/10	0.0090 U	1.0	0.0090 U	<b>0.035 I</b>	<b>0.052</b>	0.047 U	0.047 U	0.0024 U	--	--	--	--	--	--	6	0.19	
		03/25/10	0.0092 U	<b>0.87</b>	0.0092 U	<b>0.032 I</b>	<b>0.053</b>	0.049 U	0.049 U	0.0024 U	--	--	--	--	--	--	9	0.34	
		06/30/10	0.046 U	1.2	0.046 U	<b>0.13 I</b>	<b>0.13 I</b>	0.24 U	0.24 U	0.012 U	--	--	--	--	--	--	2	0.09	
<b>GCTL</b>			<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.006</b>	<b>0.02</b>	<b>2.1</b>	<b>0.2</b>	<b>0.002</b>	<b>0.08</b>	<b>0.004</b>	<b>11</b>	<b>1.4</b>	<b>140</b>	<b>1.8</b>	--	--	
<b>NADC</b>			<b>10</b>	<b>10</b>	<b>10</b>	<b>0.6</b>	<b>2</b>	<b>21</b>	<b>20</b>	<b>0.2</b>	<b>8</b>	<b>0.4</b>	<b>110</b>	<b>14.0</b>	<b>1400</b>	<b>18</b>	--	--	

GCTL = Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.

NADC = Natural Attenuation Default Concentrations from Chapter 62-777, F.A.C.

Analytical results presented in parts per billion (ug/L) unless otherwise indicated.

I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U = Indicates the compound was analyzed for but not detected.

V = Indicates the analyte was detected in both the sample and associated method blank.

FP = Indicates Phase Separated Hydrocarbons (Free Product) present in well.

**Bold** = The value exceeds the Cleanup Target Level.

**TABLE 3**

**Proposed RAP Implementation Monitoring Schedule  
Former Escambia County Mosquito Control  
Pensacola, Florida**



Work Activities	Baseline Sampling	Day 1	Day 2	Week 1	Week 2	Month 1	Month 2	Qtr 1	Month 4	Month 5	Qtr 2	Month 7	Month 8	Qtr 3	Month 10	Month 11	Qtr 4
System																	
MW-1, MW-3								a,b,c,d			a,b,c,d			a,b,c,d			a,b,c,d
MW-4								a,b,c,d			a,b,c,d			a,b,c,d			a,b,c,d
MW-5				a	a	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d
MW-6				a	a	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d
MW-9								a,b,c,d			a,b,c,d			a,b,c,d			a,b,c,d
MW-10								a,b,c,d			a,b,c,d			a,b,c,d			a,b,c,d
P.O.C. Wells (MW-8 & MW-12)				a	a	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d	a,d	a,d	a,b,c,d
Monitoring Points								a,d			a,d			a,d			a,d
Soil Borings											x,y,z						x,y,z

Groundwater Data

- a Groundwater Elevation and Dissolved Oxygen Levels
- b VOA (8021) Sampling for COCs
- c Pesticides (8081) and TRPH Sampling for COCs
- d Nitrates, Nitrites, Ammonia, pH Sampling for UIC Permit and Nutrient Assessment

Soil Data

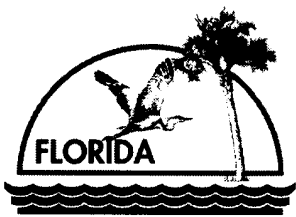
- x Colony Forming Units, Chemical Oxygen Demand, Moisture Content
- y Pesticides (8081) and VOA (8021) Sampling for COCs
- z Nitrates, Nitrites, Ammonia, pH Sampling for Nutrient Assessment

O&M

- I System Operational Adjustments and Maintenance (weekly)

## **APPENDIX A**

### **Remedial Action Plan Summary**



# Remedial Action Plan Summary

Site Name \_\_\_\_\_

FDEP BF Site ID No. \_\_\_\_\_

Location \_\_\_\_\_

Current Date \_\_\_\_\_

**CHECK ALL THAT APPLY:**

Date of Last GW Analysis \_\_\_\_\_

Media Contaminated:  Groundwater  Sediment  Soil  Air

**Type(s) of Product(s) Discharged:**

**Method of Groundwater Disposal:**

- Gasoline / Kerosene Analytical Group
- Listed Hazardous Waste
- Other types of contaminants (solvents, etc.)

- Infiltration Gallery
- Sanitary Sewer
- Surface Discharge/NPDES
- Injection Well
- Other \_\_\_\_\_

List: \_\_\_\_\_

**Plume Characteristics:**

- Estimated Mass (lbs):  
 Groundwater \_\_\_\_\_ Soil \_\_\_\_\_
- Area of Plume \_\_\_\_\_ (ft<sup>2</sup>)
- Depth of Plume \_\_\_\_\_ (ft)

**Method of Soil Remediation:**

- Excavation:  
 Volume to be excavated \_\_\_\_\_ (yds<sup>3</sup>)
- Thermal Treatment  Land Farming On Site
- Landfill  Bioremediation
- Other \_\_\_\_\_
- Vapor Extraction System (VES):  
 • No. of Venting Wells \_\_\_\_\_  
 Vertical  Horizontal

**Groundwater Recovery and Specifications:**

- No. of Recovery Wells \_\_\_\_\_  
 Vertical  Horizontal
- Design Flow Rate/Well \_\_\_\_\_ (gpm)
- Total Flow Rate \_\_\_\_\_ (gpm)
- Hydraulic Conductivity \_\_\_\_\_ (ft/day)
- Recovery Well Screen Interval \_\_\_\_\_ (ft)
- Depth to Water \_\_\_\_\_ (ft)

- VES - Applied Vacuum \_\_\_\_\_ (wg)
- Design Air Flow Rate \_\_\_\_\_ (cfm)
- Design Radius of Influence \_\_\_\_\_ (ft)
- Air Emissions Treatment  
 Thermal Oxidizer  Catalytic Converter  
 Carbon  Other \_\_\_\_\_

**Method of Groundwater Remediation:**

- Pump-and-Treat:  
 Air Stripper  
 Low Profile  Packed Tower  
 Diffused Aerator  
 Activated Carbon  
 Primary Treatment  Polishing
- In Situ Air Sparging - Pressure: \_\_\_\_\_ (psi)  
 • No. of Sparge Points \_\_\_\_\_  
 Vertical  Horizontal  
 • Design Air Flow Rate/Well \_\_\_\_\_ (cfm)  
 • Total Air Flow Rate \_\_\_\_\_ (cfm)
- Biosparging:  
 • No. of Sparge Points \_\_\_\_\_  
 Vertical  Horizontal  
 • Design Air Flow Rate/Well \_\_\_\_\_ (cfm)
- Bioremediation:  
 In Situ  Ex Situ
- Other \_\_\_\_\_

- Soil Bioventing:  
 • No. of Venting Wells \_\_\_\_\_  
 Vertical  Horizontal  
 • Design Air Flow Rate \_\_\_\_\_ (cfm)
- In Situ Bioremediation
- Other \_\_\_\_\_

**Natural Attenuation:**

- Groundwater  Soil
- Method of Evaluation:  
 Historical Trends  
 Site-Specific Parameters

**Estimated Time of Cleanup:** \_\_\_\_\_ (days)

**Free Product Present:**  Yes  No

- Estimated Volume \_\_\_\_\_ (gal)
- Maximum Thickness \_\_\_\_\_ (in)
- Method of Recovery (check all that apply):

- Method of Estimation:  
 Pore Volumes (no. of pore vols. =\_)  
 Exponential Decay (Decay Rate) \_\_\_\_\_ (day<sup>-1</sup>)  
 Groundwater Transport Model \_\_\_\_\_  
 Other \_\_\_\_\_

Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: Mosquito Control	SITE LOCATION: 603 West Romana Street
WELL NO: MW-1	DATE: 8/10/10 8/9/10

**PURGING DATA**

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 2.72	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)				
= ( 12 feet - 2.72 feet ) X 0.16 gallons/foot = 1.48 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)				
= gallons + ( gallons/foot X feet ) + gallons = gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 3.7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 3.7	PURGING INITIATED AT: 1000	PURGING ENDED AT: 1020	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1005	1.50	1.50	0.30	2.81	5.9	26.9	182	0.21	3	None	ORGANIC
1010	1.50	3.00	0.30	2.81	5.9	26.5	183	0.11	2	"	"
1015	1.50	4.50	0.30	2.81	5.9	26.4	184	0.09	2	"	"
1020	1.50	6.00	0.30	2.81	5.9	26.4	188	0.11	2	"	"
Well stabilized then sampled											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88  
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

**SAMPLING DATA**

SAMPLED BY (PRINT) AFFILIATION: S. Lowry / Carleton Cole	SAMPLER(S) SIGNATURE(S): [Signature]	SAMPLING INITIATED AT: 1021	SAMPLING ENDED AT: 1023
PUMP OR TUBING DEPTH IN WELL (feet): 3.7	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N)	Filtration Equipment Type: (N)
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	2	AG	40 ml	HCL	--	--	VOA	APP SC	~100
MW-1	2	AG	1 L	Ice	--	--	Pesticides	APP	~100
MW-1	1	AG	1 L	H2SO4	--	--	TRPH	APP	~100

REMARKS: INSTRUMENTS ARE DECONTAMINATED IAW DEP-SOP-FC 1000@ 1025

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravily Drain); O = Other (Specify)

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)



**Form FD 9000-24  
GROUNDWATER SAMPLING LOG**

SITE NAME: Mosquito Control	SITE LOCATION: 603 West Romana Street
WELL NO: MW-2	DATE: 8/10/10

**PURGING DATA**

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 3.31	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)				
= ( 12 feet - 3.31 feet ) X 0.16 gallons/foot = 1.44 gallons				

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)				
= gallons + ( gallons/foot X feet ) + gallons = gallons				

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4.0	PURGING INITIATED AT: 0910	PURGING ENDED AT: 0935	TOTAL VOLUME PURGED (gallons): 7.50
--	--	----------------------------	------------------------	-------------------------------------

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) (mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0915	1.50	1.50	0.30	3.63	6.0	27.8	242	0.14	4	None	None
0920	1.50	3.00	0.30	3.63	6.0	27.4	222	0.07	4	"	"
0925	1.50	4.50	0.30	3.63	6.0	27.2	198	0.06	4	"	"
0930	1.50	6.00	0.30	3.63	6.0	27.1	191	0.06	5	"	"
0935	1.50	7.50	0.30	3.63	6.0	27.1	188	0.06	5	"	"
Well stabilized then sampled											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88  
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

**SAMPLING DATA**

SAMPLED BY (PRINT) AFFILIATION: S. Lowry / Corcoran-Gok	SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>	SAMPLING INITIATED AT: 0936	SAMPLING ENDED AT: 0938
--	--	-----------------------------	-------------------------

PUMP OR TUBING DEPTH IN WELL (feet): 4.0	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y	FILTRATION Equipment Type: N	FILTER SIZE: ___ µm
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FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)
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SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-2	2	AG	40 ml	HCL	--	--	VOA	APP SL	~100
MW-2	2	AG	1L	ice	--	--	Pesticides	APP	~100
MW-2	1	AG	1L	H2SO4	--	--	TRPH	APP	~100

REMARKS: INSTRUMENTS ARE DECONTAMINATED IAW DEP-SOP-FC 1000@ 0940

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

- NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

SITE NAME: Mosquito Control	SITE LOCATION: 603 West Romana Street	DATE: 8/9/10
WELL NO: MW-4	SAMPLE ID: MW-4	

**PURGING DATA**

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 3.15	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = ( 12 feet - 3.15 feet ) X 0.16 gallons/foot = 1.42 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + ( gallons/foot X feet ) + gallons = gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4.2	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4.2	PURGING INITIATED AT: 1415	PURGING ENDED AT: 1435	TOTAL VOLUME PURGED (gallons): 6.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1420						28.7					
1425	1.50	1.50	0.30	3.24	6.1	27.8	160.2	0.25	8	Brownish	None
1430	1.50	3.00	0.30	3.24	6.2	27.4	230.0	0.11	5	"	"
1435	1.50	4.50	0.30	3.24	6.3	27.3	249	0.09	5	"	"
1435	1.50	6.00	0.30	3.24	6.3	27.3	250	0.09	4	"	"
Well stabilized then sampled											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88  
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016  
 PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

**SAMPLING DATA**

SAMPLED BY (PRINT) / AFFILIATION: S. Lowm / S. Daniel / Carney etc				SAMPLER(S) SIGNATURE(S): [Signature]				SAMPLING INITIATED AT: 1434	SAMPLING ENDED AT: 1438
PUMP OR TUBING DEPTH IN WELL (feet): 4.2				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y (N)	FILTER SIZE: ___ μm
FIELD DECONTAMINATION: PUMP Y (N)				TUBING Y (N (replaced))				DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-4	2	AG	40 ml	HCL	--	--	VOA	RFP APP	~100
MW-4	2	AG	1 L	ice	--	--	Pesticides	APP	~100
MW-4	1	AG	1 L	H2SO4	--	--	TRPH	APP	~100

REMARKS: INSTRUMENTS ARE DECONTAMINATED IAW DEP-SOP-FC 1000@ 1440

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)  
 SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
 pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

**Form FD 9000-24  
GROUNDWATER SAMPLING LOG**

SITE NAME: Mosquito Control	SITE LOCATION: 603 West Romana Street
WELL NO: MW-5	SAMPLE ID: MW-5
DATE: 8/9/10	

**PURGING DATA**

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 3.09	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)				
= ( 12 feet - 3.09 feet ) X 0.16 gallons/foot = 1.43 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)				
= gallons + ( gallons/foot X feet ) + gallons = gallons				

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 4.0	PURGING INITIATED AT: 1447	PURGING ENDED AT: 1502	TOTAL VOLUME PURGED (gallons): 4.50
---	---	-------------------------------	---------------------------	--

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or (µS/cm)	DISSOLVED OXYGEN (circle units) (mg/l) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1452	1.50	1.50	0.30	3.17	6.0	27.8	290	0.20	2	None	None
1457	1.50	3.00	0.30	3.17	6.0	27.7	287	0.08	2	"	"
1502	1.50	4.50	0.30	3.17	6.0	27.7	279	0.07	2	"	"
Well stabilized then sampled											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88  
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

**SAMPLING DATA**

SAMPLER BY: PRINT NAME / AFFILIATION S. Lowry / Mosquito Control	SAMPLER(S) SIGNATURE(S) <i>[Signature]</i>	SAMPLING INITIATED AT: 1503	SAMPLING ENDED AT: 1505
PUMP OR TUBING DEPTH IN WELL (feet): 4.0	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/>	FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N <input type="radio"/>	TUBING Y <input checked="" type="radio"/> N (replaced) <input type="radio"/>	DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT TYPE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-5	2	AG	40 ml	HCL	--	--	VOA	RFPF APP 32	~100
MW-5	2	AG	1 L	Ice	--	--	Pesticides	APP	~100
MW-5	1	AG	1 L	H2SO4	--	--	TRPH	APP	~100

REMARKS:  
INSTRUMENTS ARE DECONTAMINATED IAW DEP-SOP-FC 1000@ 1507

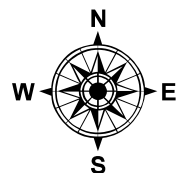
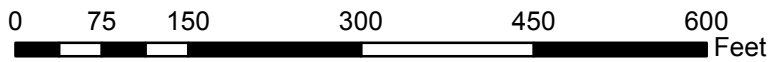
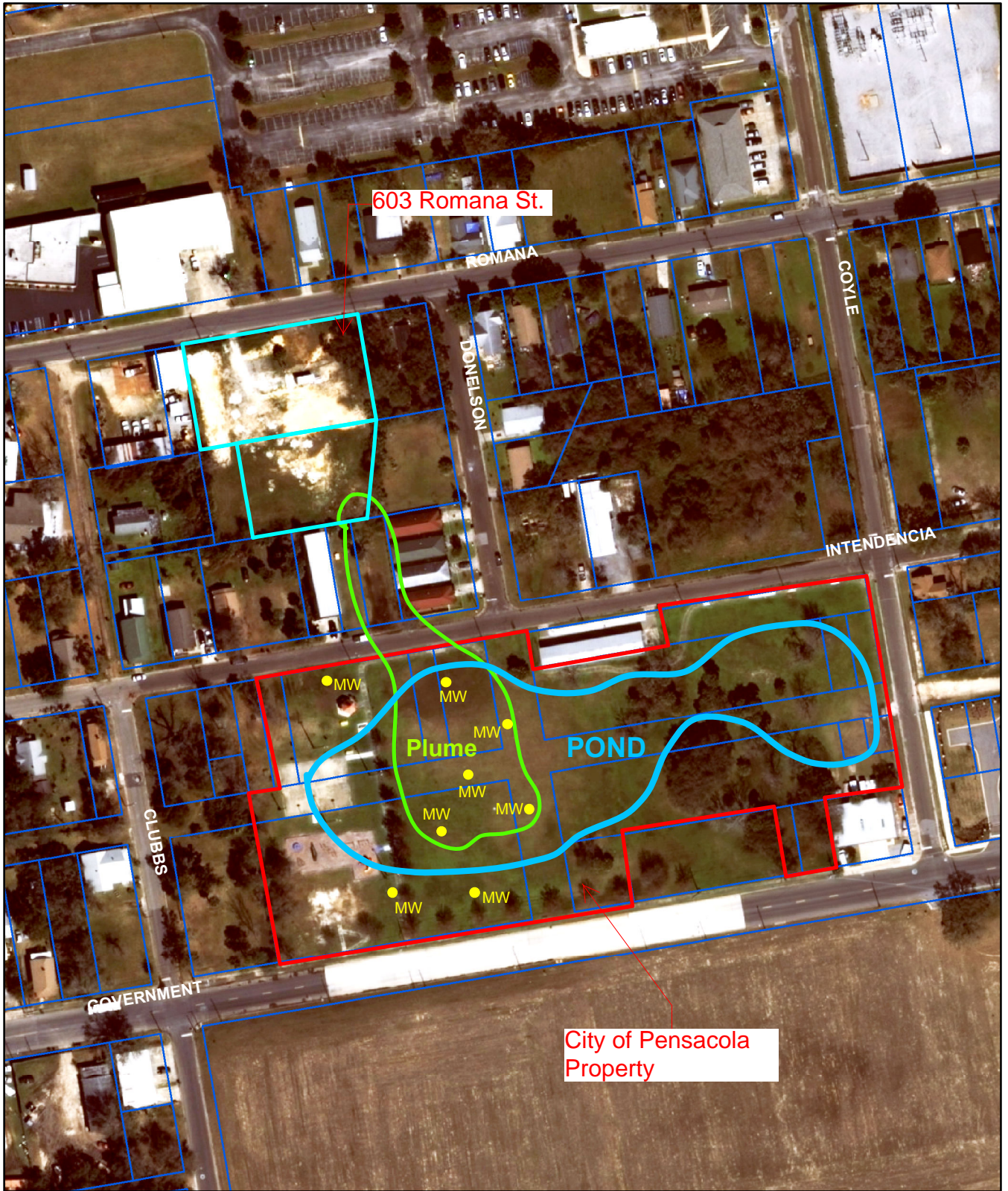
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

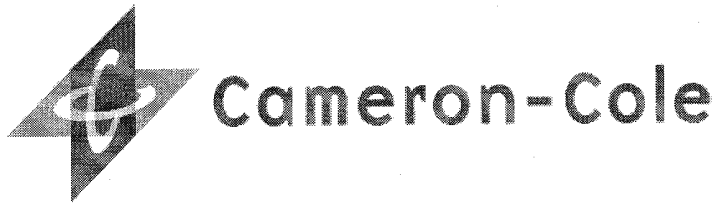
# Government St. Pond & Plume

EXHIBIT III



Exhibits "A", "B" & "C"

EXHIBIT IV



April 8, 2014

Mr. Glenn Griffith  
Brownfields Coordinator  
Escambia County Community & Environmental Department  
Community Redevelopment Agency  
221 Palafox Place, Suite 305  
Pensacola, Florida 32502

**RE: Site Remediation and Closure  
Former Escambia County Mosquito Control  
603 West Romana Street  
Pensacola, Florida  
Brownfield Site ID No. 170502001**

Dear Mr. Griffith:

Cameron-Cole, LLC (Cameron-Cole) is pleased to provide the following proposed scope of services and budgetary cost estimate to conduct continued operation, monitoring, & maintenance (OM&M) and associated regulatory reporting for the soil and groundwater remediation system installed at the above referenced facility. Based on the approved Remedial Action Plan (RAP) and data collected during the first year of system operation, active remediation is anticipated to be required for a period of four years, followed by one year of post active remediation monitoring (PRM). Upon conclusion of the one year monitoring period, the on-site and off-site remediation and groundwater monitoring wells will be abandoned and the remediation system will be demobilized. The anticipated cleanup endpoint is a conditional closure that will limit future uses of the property to commercial activities and may also restrict use of groundwater beneath the site. These future activity and use limitations would be specified in an Institutional Control and may also include the placement of Engineering Controls to mitigate potential exposure to any residual contaminants that may remain on-site following active remediation.

This proposal includes budgetary costs to conduct four years of continued system OM&M activities, one year of PRM, and the required site restoration and closure activities specified above. These activities include performance of monthly system checks for the anticipated duration of the active remediation effort, quarterly groundwater sampling and reporting, as well as estimated utility charges (electricity and water). Optional services including installation and sampling of additional off-site monitoring wells and development of Remedial Action Plan Modifications (RAPMODs) as may be directed by the Florida

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Exhibits "A", "B" & "C"

April 8, 2014  
Page 2 of 2

Department of Environmental Protection (FDEP) have also been included. Additional details regarding the proposed scope of services and estimated costs are presented below.

### **Monthly System Operation, Maintenance & Monitoring**

Cameron-Cole personnel will conduct, at a minimum, monthly site visits to collect the required system monitoring data. All gauges, meters, and probes will be checked and the necessary data recorded. The biosparging (BS) system air injection rates and pressures will be recorded and adjusted as necessary to optimize performance in accordance with design criteria. Additional activities will include recording system hour meter readings; vacuum and flow rates; and adjusting the system vacuums, pressures, and flow rates based upon changing site conditions. The nutrient tank will be replenished and nutrient injection rates will be confirmed and/or adjusted. Quarterly groundwater samples will be collected from designated monitoring wells specified by the FDEP to monitor system effectiveness and cleanup. Estimated utility costs (electricity and water) of \$700.00/month have also been included.

### **Quarterly Groundwater Sampling and Analysis**

Twelve quarterly and four annual groundwater monitoring events will be conducted. Quarterly groundwater samples will be collected and analyzed as specified on the current Monitoring Schedule, approved by the FDEP. Annual collection of system performance samples for analysis of heterotrophic plate counts, including pesticide and petroleum degraders will also be performed. All field activities will be conducted in accordance with the FDEP's Standard Operating Procedures DEP-SOP-001/01. All groundwater samples will be analyzed at a state-certified laboratory.

### **Fate and Transport Evaluation for Identified Off-Site Impact & Off-Site Well Abandonment and Replacement**

The City of Pensacola was recently awarded a grant to construct a stormwater treatment pond on portions of the Corrine Jones Park, located south of the former Mosquito Control site. The new stormwater pond will be located within the off-site portion of the groundwater plume associated with the former Mosquito Control site. Based upon meetings with the City and the FDEP, an evaluation of the potential effect of the pond on the fate and transport of the off-site plume is required. In addition, eight existing groundwater monitoring wells located within the park must be properly abandoned. Installation of three replacement wells to be located north of the new pond is also anticipated.

### **Project Management and Reporting**

Cameron-Cole will prepare quarterly and annual status reports that will summarize the remediation system performance including tabulated field and analytical data. The reports will include figures depicting groundwater flow and quality based upon the data collected each quarter. A thorough evaluation of the system's performance relative to design criteria, including appropriate recommendations, will also be presented. The reports will be certified by a registered professional engineer and will be submitted to the FDEP for review and approval. Copies of the laboratory analytical reports, groundwater sampling logs, and associated chain-of-custody records will be appended.

Exhibits "A", "B" & "C"

April 8, 2014  
Page 3 of 2

### **One Year Post Active Remediation Monitoring**

Upon conclusion of the active remediation phase of work, Cameron-Cole personnel will conduct four quarterly groundwater monitoring events. Groundwater samples will be collected from eight monitoring wells to be specified by the FDEP and will be analyzed at a state-certified laboratory for benzene, toluene, ethyl benzene, total xylenes and methyl tert-butyl ether (BTEX+MTBE) and organochlorine pesticides, and total recoverable petroleum hydrocarbons (TRPH). Water level elevation data will also be collected from select wells to establish the site-specific direction of groundwater flow. The results of the quarterly groundwater sampling events will be compiled into quarterly status reports and submitted to the FDEP for review. The reports will be certified by a registered professional geologist in the state of Florida and will include appropriate conclusions and recommendations.

### **Development of Institutional and /or Engineering Controls**

The anticipated cleanup endpoint is a conditional closure that will limit future uses of the property to commercial activities and may also restrict use of groundwater beneath the site. Upon conclusion of the requisite one year of PRM, Cameron-Cole will assist Escambia County and their legal counsel in developing the required Institutional Controls in form and content acceptable to the FDEP. Budgeted costs for this task do not include any title work and easement searches, recording fees, etc. that are normally coordinated by legal counsel.

### **Well Abandonment and Site Restoration**

Upon receipt of regulatory approval for Site Closure, Cameron-Cole will coordinate and oversee the proper abandonment of the existing shallow monitoring well network. For the purposes of this estimate, it is assumed the existing wells plus five additional wells that the FDEP will require to monitor the remedial progress will be abandoned. The wells will be abandoned in accordance with Northwest Florida Water Management District (NFWFMD) requirements by a state of Florida licensed water well contractor, who will obtain the required permits. Upon completion of the well abandonment activities, Cameron-Cole will prepare a Well Abandonment Report suitable for submittal to the FDEP.

### **Optional Services**

Based on site history, the FDEP has periodically requested installation of additional monitoring wells based on changing plume configuration. It is likely this will continue as the cleanup progresses. In addition, development of a RAPMOD to amend or adjust the approved RAP, add treatment points, etc. have also been required and are likely to be required over the next five years. Professional services and subcontractor costs associated with the installation and development of additional monitoring wells, and development of minor RAPMODs have been specified in this task.


The above scope of services and cost estimate is based upon Cameron-Cole's best understanding of the remaining work that will be required to complete site rehabilitation. Additional or alternate site activities may be indicated based upon the analytical data, changing site conditions, or regulatory mandate. Optional services beyond those outlined in this cost estimate and authorized by the client will be invoiced on a time and materials basis in accordance with the current Cameron-Cole hourly rate schedule.


Exhibits "A", "B" & "C"

April 8, 2014  
Page 4 of 2

Cameron-Cole appreciates the opportunity to provide this cost proposal for your consideration. Cameron-Cole will perform the work on a lump sum basis in accordance with the terms and conditions specified in Master Services Agreement (MSA) PD 06-07.038 between Escambia County, Florida and Cameron-Cole for Professional Consulting Services, executed April 9, 2008. The hourly professional fee rates were developed using loaded labor rates calculated using a 1.66 overhead multiplier and 12% profit margin. We are prepared to initiate the work immediately upon receipt of a Purchase Order, Task Order, and Notice to Proceed. Cameron-Cole appreciates the opportunity to provide our services. Should you have any questions, please feel free to contact our office at (850) 434-1011

Sincerely,

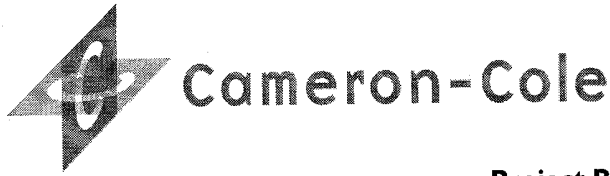
  
Laura Barnhart, P.G.  
Geologist III

  
John H. Bondurant  
Managing Partner

Attachment



Exhibits "A", "B" & "C"



**Project Budget  
 Former Escambia County Mosquito Control  
 Site Remediation & Closure**

**Year Two System O&M**

Professional Services (Field, Reporting, Project Management) .....	\$ 56,887.50
Laboratory & Subcontractors .....	\$ 28,910.00
<i>Subtotal</i> .....	\$ 85,797.50

**Fate and Transport Evaluation of Identified Off Site Impacts**

Professional Services .....	\$ 13,695.00
Drilling Subcontractor – Off Site Well Abandonment & Replacement.....	\$ 3,118.00
<i>Subtotal</i> .....	\$ 16,813.00

**Year Three System O&M**

Professional Services (Field, Reporting, Project Management) .....	\$ 56,887.50
Laboratory & Subcontractors .....	\$ 28,910.00
<i>Subtotal</i> .....	\$ 85,797.50

**Year Four System O&M**

Professional Services (Field, Reporting, Project Management) .....	\$ 56,887.50
Laboratory & Subcontractors .....	\$ 28,910.00
<i>Subtotal</i> .....	\$ 85,797.50

**Year Five System O&M**

Professional Services (Field, Reporting, Project Management) .....	\$ 56,887.50
Laboratory & Subcontractors .....	\$ 28,910.00
<i>Subtotal</i> .....	\$ 85,797.50

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Exhibits "A", "B" & "C"

**One Year Post Active Remediation Monitoring**

Professional Services (Field, Reporting, Project Management) .....	\$ 22,850.00
Laboratory Subcontractors .....	\$ 9,800.00
Subtotal .....	\$ 32,650.00

**Development of Institutional and Engineering Controls**

Professional Services .....	\$ 12,320.00
Subtotal .....	\$ 12,320.00

**Well Abandonment and Site Restoration**

Professional Services (Field, Reporting, Project Management) .....	\$ 12,150.00
Drilling and Construction Subcontractors .....	\$ 18,470.00
Subtotal .....	\$ 30,620.00

**Optional Services**

Installation and Development of Additional Wells - Estimate Five at \$1,500/each .....	\$ 7,500.00
Development of RAPMs – Estimate Two @ \$7,500/each .....	\$ 15,000.00
Subtotal .....	\$ 22,500.00

**Total Estimated Costs to Complete Site Rehabilitation .....** **\$458,093.00**



May 9, 2016

Mr. Glenn Griffith  
Brownfields Coordinator  
Escambia County Neighborhood & Human Services Division  
221 Palafox Place, Suite 305  
Pensacola, Florida 32502

**RE: Cost Estimate and Proposal  
Dewatering Treatment System Design, Rental, and Operation  
Corrine Jones Park Stormwater Project  
Intendencia and Government Street  
Pensacola, Florida 32502**

Dear Mr. Griffith:

As requested, Cameron-Cole, LLC (Cameron-Cole) has prepared the following proposed scope of services and cost estimate for your consideration. The proposed scope of services has been prepared based upon input received from representatives of the City of Pensacola (City), the Florida Department of Environmental Protection (FDEP), and Escambia County (County). The scope of services includes engineering design, installation, and operation of a temporary groundwater treatment system that is to be used to treat contaminated groundwater recovered by a dewatering system. The dewatering system has already been installed by contractor(s) working for the City to construct the new stormwater pond at the site. Treatment of the groundwater recovered by the dewatering system is required due to the presence of organochlorine pesticides that are attributed to a contaminant plume associated with the Former Escambia County Mosquito Control Brownfields site located at 603 West Romana Street. Cameron-Cole understands use of the treatment system will be required for approximately 60 to 90 days. Based on this information, short-term rental of the treatment equipment has been proposed. Additional details regarding the proposed scope of services and cost estimate are provided in the following sections.

### **Dewatering Treatment System Design**

Cameron-Cole will design a dewatering treatment system for the project in accordance with Chapter 62-780.500(4) Florida Administrative Code (F.A.C.). Based on discussions with representatives of the FDEP, Cameron-Cole understands the dewatering effluent must meet the marine surface water standards for the identified chemicals of concern as specified in Chapter 62-777, F.A.C. The specific chemicals of concern are gamma-hexachlorocyclohexane (a.k.a. Lindane) and its associated isomers. Prior to development of the treatment system design, Cameron-Cole will conduct a meeting with the City and the City's selected contractor for the project to confirm key design input parameters including

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anticipated maximum and minimum flow rates, influent water quality and turbidity, discharge piping requirements, anticipated point of discharge, and potential locations for staging of the temporary treatment system. For the purposes of this cost estimate Cameron-Cole has assumed a maximum flow rate of 650 gallons per minute (gpm) and a nominal flow rate of 300 gpm. Influent concentrations and make-up water turbidity have been assumed based upon data collected last month during the initial startup of the dewatering system. Following the meeting with the City and construction contractor, Cameron-Cole will collect another sample of the actual dewatering system influent for performance of a bench test by the selected treatment system vendor. The bench test will be used to properly size the treatment system and determine if supplementary carbon polishing will be required to meet applicable discharge criteria. Please note, a pilot study is typically required to confirm discharge criteria can be met and to more accurately estimate bag filter usage rates. However, due to the accelerated timeframe required for completion of the design and associated expense, performance of a field pilot study has not been proposed. The proposed dewatering treatment system design will be submitted to the FDEP for review and approval prior implementation.

### **Dewatering Treatment Mobilization and Setup**

Upon approval of the proposed treatment system design, Cameron-Cole will coordinate and oversee mobilization and setup of the treatment system. It is assumed the treatment and associated monitoring frequency will be approved by the FDEP without comment. For the purposes of estimating the rental cost of the treatment system, a preliminary design was developed based on an assumed maximum flow rate of 650 gpm and make-up water quality as shown on the attached table. The primary elements of the preliminary design include one 21,000-gallon settling tank, one 21,000-gallon fractionating tank, and two parallel series of four, 1,500-pound, liquid-phase granular carbon canisters. Costs for delivery, setup, and two month rental of a final coconut-carbon cartridge polishing system have also been included as a separate line item. The need for the polishing system in order to meet discharge criteria will be determined based upon the results of the bench test.

The primary treatment system will be configured with a series of particulate filters (10-micron and 1-micron) to mitigate pre-mature fouling of the carbon canisters. These particulate filters must be replaced as they become loaded with sediment. The required frequency of filter replacement is highly dependent upon make-up water quality and can vary significantly. Therefore, a conservative best estimate of 584/each of the 10-micron and 1-micron filters have been specified in this budgetary cost estimate, based upon currently available data. Costs associated with characterization and proper disposal of the spent particulate filters and carbon media have also been included in this budgetary cost estimate. These costs assume the spent particulate filters and carbon media can be appropriately disposed of as non-hazardous waste and that a representative of Escambia County will be available to review and sign all require disposal paperwork and manifests

Following delivery and setup of the dewatering treatment system, Cameron-Cole personnel will operate the system for a base period of 60 days. The operation will include monitoring and as needed replacement of particulate filters, fueling of the system pumps, and collection and laboratory analysis of system influent and effluent samples to monitor and track discharge water quality. Collection of system samples will be conducted daily for the first three days, weekly for the first month, and bi-weekly during the second month. The samples will be analyzed with a rush 48-hour turnaround time.

## Dewatering Treatment System De-mobilization and Waste Disposal

Cameron-Cole's current understanding is that the base period of construction requiring dewatering that will occur in proximity to the contaminant plume associated with the Former Mosquito Control Brownfields site is estimated to be 60 days. A unit cost to rent and operate the treatment system for an additional 30 days has been provided. Upon notification from the City and County that use of the treatment system is no longer required, the treatment system will be demobilized from the site. Prior to demobilization, the system must be cleaned of accumulated sediment and associated waste materials characterized for proper disposal. It is assumed these materials will be determined non-hazardous; however, contingent costs for disposal of the spent carbon media and/or recovered sediment as a hazardous waste have been included as a separate line item.

## Project Management and Reporting

Cameron-Cole will coordinate and provide the above described services on a turnkey basis. This includes obtaining required regulatory approvals, data collection and regulatory reporting, and coordination with all our selected subcontractors, the County, and the City. All design documents and regulatory submittals will be prepared and certified by a Florida-registered professional engineer or geologist, as applicable.

The estimated costs to complete the described scope of services are provided on the attached Project Budget. Please note, this estimate has been developed based upon currently available data and the assumptions specified herein and consequently reflect our best estimate of the activities that that will be required to complete the described scope of services. In the absence of a pilot test, it is possible additional treatment, such as polymer injection, may be required to meet the very low discharge requirements driving this project (5 parts per trillion alpha-hexachlorocyclohexane or alpha-HCH). Actual quantities of expendable items (filters, cartridges, granular activated carbon, etc.) and waste materials will likely differ from those estimated. The County will only be billed for actual quantities required to complete the project. Additional charges beyond those outlined in this scope of work and requested by Escambia County such as responses to regulatory comments, meetings with attorneys, or other outside parties will be invoiced in accordance with the firm's current fee schedule and any applicable subcontractor fees. Cameron-Cole will perform the work in accordance with the terms and conditions specified in Master Services Agreement PD 06-07.038 between Escambia County, Florida and Cameron-Cole for Professional Consulting Services, executed April 9, 2008.

We are prepared to initiate the work upon receipt of a Purchase Order, Task Order, and Notice to Proceed. Cameron-Cole appreciates the opportunity to provide our services. Should you have any questions, please feel free to contact us at (850) 434-1011.

Sincerely,



Ben Fortson, P.G.  
Geologist III



John H. Bondurant  
Executive Vice President

Attachment



**Project Budget**  
**Dewatering Treatment System Design, Rental, and Operation**  
**Corrine Jones Park Stormwater Project**  
**Intendencia and Government Street**  
**Pensacola, Florida**

**Dewatering Treatment System Design**

Professional Services.....	\$ 8,688.00
Treatment System Design Bench Test.....	\$ 700.00
Laboratory Analytical - Pesticides (3 @ \$200.00/each) .....	\$ 600.00
<i>Subtotal Dewatering Treatment System Design.....</i>	<i>\$ 9,988.00</i>

**Dewatering Treatment System Rental and Operation Oversight (Two Months)**

Professional Services.....	\$ 37,940.00
Treatment System Rental (Includes Delivery, Setup, and Removal).....	\$ 92,380.00
Cartridge Filter System Rental (Includes Delivery, Setup, and Removal) .....	\$ 15,800.00
Bag Filters – 10-micron (Estimate 584 @ \$5.38/each).....	\$ 3,141.92
Bag Filters – 1-micron (Estimate 584 @ \$26.34/each).....	\$ 15,382.56
Cartridge Filters (Estimate 14 @ \$247.50/each).....	\$ 3,465.00
Diesel Fuel – (Estimate 4,500 gallons @ \$2.50/gallon).....	\$ 11,250.00
Laboratory Analytical - Pesticides (Estimate 54 @ \$200.00/each) .....	\$ 10,800.00
Laboratory Analytical – TCLP Pesticides (Estimate 4 @ \$200.00/each) .....	\$ 800.00
Laboratory Analytical – Flashpoint (Estimate 4 @ \$35.00/each).....	\$ 140.00
Carbon Media Disposal (Non-Hazardous).....	\$ 4,515.00
Bag Filter Disposal (Non-Hazardous).....	\$ 1,500.00
Filter Cartridge Disposal (Non-Hazardous).....	\$ 1,520.00
<i>Subtotal Dewatering Treatment System Rental and Operation Oversight.....</i>	<i>\$198,634.48</i>

**Project Management and Reporting**

Professional Services.....	\$ 19,014.00
<i>Subtotal Project Management and Reporting.....</i>	<i>\$ 19,014.00</i>

**Total Estimated Cost Dewatering Treatment System Design,  
Rental, and Operation Oversight for Two Months..... \$227,636.48**

creating sustainable success

200 E. Government Street, Suite 100, Pensacola, FL 32502 P. 850.434.1011 F. 850.434.2168

[www.cameron-cole.com](http://www.cameron-cole.com)

S:\Completed Proposal\Prop\2016\482-2732



**Contingent Costs**

**Additional Monthly Treatment System Rental and Operation**

Professional Services.....	\$ 12,180.00
Treatment System Rental (Per Month).....	\$ 22,575.00
Cartridge Filter System Rental (Per Month).....	\$ 6,000.00
Bag Filters – 10-micron (Estimate 240 @ \$5.38/each).....	\$ 1,291.20
Bag Filters – 1-micron (Estimate 240 @ \$26.34/each).....	\$ 6,321.60
Cartridge Filters (Estimate 7 @ \$247.50/each).....	\$ 1,732.50
Diesel Fuel – (Estimate 2,250 gallons @ \$2.50/gallon).....	\$ 5,625.00
Laboratory Analytical - Pesticides (Estimate 12 @ \$200.00/each).....	\$ 2,400.00
Bag Filter Disposal (assumes non-hazardous).....	\$ 250.00
Filter Cartridge Disposal (assumes non-hazardous).....	\$ 760.00

*Additional Monthly Treatment System Rental and Operation.....* \$ 59,135.30

**Hazardous Disposal of Carbon Media and Filters**

Professional Services.....	\$ 3,955.00
Hazardous Disposal of Carbon Media (Estimate 12,000 pounds @ \$1.50/pound).....	\$ 18,000.00
Hazardous Disposal of Bag Filters (Estimate 12 drums @ \$395/drum).....	\$ 4,740.00
Hazardous Disposal of Cartridge Filters (Estimate 1,000 pounds).....	\$ 1,500.00
Hazardous Disposal Transportation.....	\$ 1,680.00

*Hazardous Disposal of Carbon Media and Filters.....* \$ 29,875.00



## TABLE I: SELECT PESTICIDE CONCENTRATIONS IN DEWATERING EFFLUENT

**Facility Name: Corrine Jones Park Stormwater Project**  
**Intendencia and Government Street**  
**Pensacola, FL**

Sample ID	Date	Turbidity (NTU)	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC	Dieldrin
Discharge #1	04/11/16	99	0.79	<b>0.13</b>	0.71 J3	<b>0.31</b>	0.0012 U
Discharge #2	04/12/16	46	0.80	<b>0.12</b>	1.2	<b>0.28</b>	0.0012 U
Discharge #3	04/13/16	29	0.85	<b>0.17</b>	1.4	<b>0.27</b>	0.0012 U
Discharge #4	04/15/16	20	0.93	<b>0.15</b>	1.3	<b>0.43</b>	0.0012 U
Discharge #5*	04/21/16	18	0.85	<b>0.13</b>	1.1	<b>0.44</b>	0.0012 U
Discharge #6*	04/21/16	17	0.64	<b>0.090</b>	0.97	<b>0.33</b>	0.0012 U
<b>Surface Water Quality Criteria - Annual Average</b>		--	--	<b>0.046</b>	--	<b>0.063</b>	<b>0.00014</b>
<b>Surface Water Quality Criteria - Maximum</b>		--	--	--	--	<b>0.16</b>	<b>0.0019</b>

Surface Water Quality Criteria from Chapter 62-302.530, F.A.C.

Analytical results presented in parts per billion (ug/L) unless otherwise indicated.

NTU = Nephelometric Turbidity Units

U = Indicates the compound was analyzed for but not detected.

J3 = Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

\* = Denotes samples were collected with all 5 dewatering trench arrays for the western area online (previous samples collected with 3 trench arrays online).

**Bold** = The value exceeds the Surface Water Quality Criteria



**Former Mosquito Control Facility - Corrine Jones Stormwater Park Dewatering Treatment Schedule**

DESCRIPTION	Target Start	Target Finish	June-16			July-16				August-16					September-16				October-16				November-16				December-16					January-17						
			13	20	27	4	11	18	25	1	8	15	22	29	5	12	19	26	5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26			
Issuance of Purchase Order and NTP	06/20/2016	6/24/2016	■																																			
Meeting w/City and Construction Contractor Re: Key Design Inputs	06/27/2016	07/01/2016	■																																			
Collect Dewatering Influent Sample for BenchTest by Carbon Vendor	06/27/2016	07/01/2016	■																																			
Bench Test Performed by Carbon Vendor	07/05/2016	07/08/2016				■																																
Engineering Design of Dewatering Treatment System	7/05/2016	07/22/2016				■																																
Regulatory Review/Approval of Design (Assumes 62-780 Submittal)	07/25/2016	09/19/2016				■																																
PO Issued & Equipment Vendor Prepares Equipment	09/19/2016	09/30/2016																■																				
Mobilization/Setup of Treatment System	10/03/2016	10/14/2016																■																				
First Month Dewatering Treatment	10/14/2016	11/14/2016																				■																
Second Month Dewatering Treatment	11/14/2016	12/14/2016																								■												
Third Month Dewatering Treatment (Contingent)	12/03/2016	01/04/2017																												■								
Demobilization of Treatment Equipment/Disposal of Spent Carbon	01/05/2017	01/27/2017																																■				

Assumes full 60-day review will be required by FDEP w/no comments.

Blue = Cameron-Cole activity

Green = Carbon vendor/subcontractor activity

Red = Regulatory review

Pink = Contingent item



OFFICE OF THE MAYOR

May 4, 2016

Board of County Commissioners  
Escambia County  
221 Palafox Place  
Pensacola, FL 32502

**Re: Request for Project Participation Government Street/Corrine Jones Storm  
Water Park Dewatering Contaminated Groundwater Treatment**

Dear Chairman Robinson and County Commissioners:

Background

Escambia County is the Responsible Party and is engaged in remediating contamination from the Former Mosquito Control Facility under a Brownfield Site Remediation Agreement (BSRA) with the Florida Department of Environmental Protection (FDEP). The site itself, is nearing clean up levels and is being monitored, however the downgradient extent of the contaminated groundwater plume migrated onto City property and contains high levels of various isomers of Lindane (hexachlorocyclohexane). Lindane is a neurotoxin and possibly a carcinogen. It has been used in the past as an agricultural insecticide and for pharmaceutical purposes.

The City property impacted by the groundwater plume is Corrine Jones Park. Corrine Jones Park is undergoing conversion into a storm water park through a grant from the National Fish and Wildlife Foundation (NFWF) and the Deepwater Horizon Settlement. Construction of the storm water pond requires dewatering of the site to facilitate excavation. Groundwater sample analysis of the area to be dewatered demonstrates the presence of Lindane from the Mosquito Facility plume. Efforts to avoid and minimize encountering the plume have been exhausted. The pond was enlarged and reshaped in an effort to dilute and avoid the plume but with only very limited success. The City has expended upwards of \$500,000 from our storm water utility fund and our targeted storm water improvement fund on pond redesign and expansion.

To progress the project, the City needs to dewater for a duration of 60-90 days. Dewatering discharge is required to meet surface water standards for FAC 62-777 for all contaminants. Specifically, Lindane alpha, beta and gamma isomers have to be removed from the discharge to regulatory standards.

Scope of Work Requested

1. Contract design of treatment system to meet FAC 62-777 standards for water quality discharge and gain FDEP regulatory approval.
2. **Contractor seek three cost proposals for treatment services.**
3. Treat and monitor discharge stream to meet the above standard and required monitoring requirements.

Note: Duration of discharge is estimated at 60-90 days.

Estimated Costs

Task 1 & 2	\$ 10,000
Task 3	\$215,000

Request for Project Participation

The City thereby requests the County participate in this project by providing funds and contracting for Tasks 1, 2 and 3 in the amounts estimated above.

The City also requests the most expeditious method be employed to assure the City contractor remain on site without demobilization. This method is the County issue a Change Order to their existing contractor to provide for Tasks 1, 2 and 3.

Sincerely,



Keith T. Wilkins  
Assistant City Administrator



**BOARD OF COUNTY COMMISSIONERS**  
Escambia County, Florida

**Special BCC Meeting**

4.

**Meeting Date:** 06/21/2016

**Issue:** Supplemental Budget Amendment #164 - Voluntary Tax Credit Funding

**From:** Amy Lovoy, Assistant County Administrator

**Organization:** Asst County Administrator - Lovoy

**CAO Approval:**

---

**RECOMMENDATION:**

Recommendation Concerning Supplemental Budget Amendment #164 Recognizing Funds from the Sale of Voluntary Tax Credits and Appropriating these Funds for Use in the Brownfields Remediation Program - Amy Lovoy, Assistant County Administrator

That the Board adopt the Resolution approving Supplemental Budget Amendment #164, Community Redevelopment Block Grant (CDBG) Fund (129), in the amount of \$281,868, recognizing funds from the sale of voluntary tax credits and appropriating these Funds for use in the Brownfields Remediation program.

**BACKGROUND:**

The County has previously voluntarily performed environmental remediation projects that earned the County voluntary tax credits. These tax credits may then be sold recouping a portion of the funds expended on these projects. These funds were earned by performing remediation at Mahogany Mill and the Old Mosquito Control facility.

**BUDGETARY IMPACT:**

This supplemental budget amendment recognizes the portion of the remaining voluntary tax credit funding not already in the budget. The \$281,868 will be added to the funding already in the budget bringing the total to \$482,385. There is a current purchase order encumbering \$1,782.65 leaving \$480,602.54 available. Because the original expenditure of funds that earned the tax credits came from CDBG, the funds earned from the sale of the voluntary tax credits would be considered CDBG program income, and therefore these funds must only be expended on CDBG eligible activities.

The County originally earned a total of \$528,054.39 from work done at Mahogany Mill and the Old Mosquito Control facility. \$44,551.91 was then spent at Mahogany Mill and \$1,117.29 was spent at the Mosquito Control facility. Another \$1,782.65 has been encumbered to be spent at the Mosquito Control site. This leaves a balance of \$480,602.54 available.

**LEGAL CONSIDERATIONS/SIGN-OFF:**

N/A

**PERSONNEL:**

N/A

**POLICY/REQUIREMENT FOR BOARD ACTION:**

N/A

**IMPLEMENTATION/COORDINATION:**

N/A

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**Attachments**

016sa164

Request from City

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Board of County Commissioners  
Escambia County  
Supplemental Budget Amendment Resolution

Resolution Number  
R2016-

WHEREAS, the following revenues were unanticipated in the adopted budget for Escambia County and the Board of County Commissioners now desires to appropriate said funds within the budget.

WHEREAS, Escambia County has received voluntary tax credits for environmental cleanup projects that have been sold, and these funds will be recognized and appropriated for a future environmental cleanup project located to the south of the old Mosquito Control building.

NOW, THEREFORE, be it resolved by the Board of County Commissioners of Escambia County, Florida, that in accordance with Florida Statutes, Section 129.06 (2d), it does hereby appropriate in the following funds and accounts in the budget of the fiscal year ending September 30, 2016:

Community Development Block Grant <u>Fund Name</u>	<u>129</u> Fund Number		
Revenue Title	Fund Number	Account Code	Amount
Miscellaneous Revenues	129	369001	\$281,868
<b>Total</b>			<b>\$281,868</b>

Appropriations Title	Fund Number/Cost Center	Account Code/ Project Number	Amount
Professional Services	129/220418	53101	(\$99,700)
Professional Services	129/370213	53101	\$381,568
<b>Total</b>			<b>\$281,868</b>

NOW THEREFORE, be it resolved by the Board of County Commissioners of Escambia County, Florida, that the foregoing Supplemental Budget Amendment be made effective upon adoption of this Resolution.

ATTEST:  
PAM CHILDERS  
CLERK OF THE CIRCUIT COURT

BOARD OF COUNTY COMMISSIONERS  
OF ESCAMBIA COUNTY, FLORIDA

\_\_\_\_\_  
Deputy Clerk

\_\_\_\_\_  
Grover C. Robinson, IV, Chairman

\_\_\_\_\_  
Adopted  
*Amy Lovoy*  
\_\_\_\_\_  
OMB Approved



OFFICE OF THE MAYOR

May 4, 2016

Board of County Commissioners  
Escambia County  
221 Palafox Place  
Pensacola, FL 32502

**Re: Request for Project Participation Government Street/Corrine Jones Storm  
Water Park Dewatering Contaminated Groundwater Treatment**

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Background

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Sincerely,



Keith T. Wilkins  
Assistant City Administrator