2019 El Dorado Reef Deployment Plan

Final Draft -March 6, 2019

Bay County proposes to deploy a 149 feet long ship, for a new reef off Panama City, Florida. The ship, previously named the *MV El Dorado* will be deployed for a new artificial reef in the existing Bay County Large Area Artificial Reef Site A (LAARS-A), about 10.3 N miles from St. Andrews Pass (see Figure 1 below). The objective of this new artificial reef is to provide new high-profile reef habitat in the Gulf of Mexico off Bay county on relatively non-productive sand bottom. This document, the Vessel Deployment Plan, is produced by the primary contractor Artificial Reef International (ARI) and is intended to document and describe all aspects of the process to safely deploy this ship as a new artificial reef.

This document is intended to be an evolving, changing and frequently updated plan to document the current status of the artificial reef project as of the date above. It will be changing due to new details of the project as they become clear and as the reefing project proceeds. By its design and nature of the project, this plan will not be finalized until the day before the deployment day.

Photo 1- Pictured at St Andrews Marina, February 22, 2019 Photo by Bill Horn

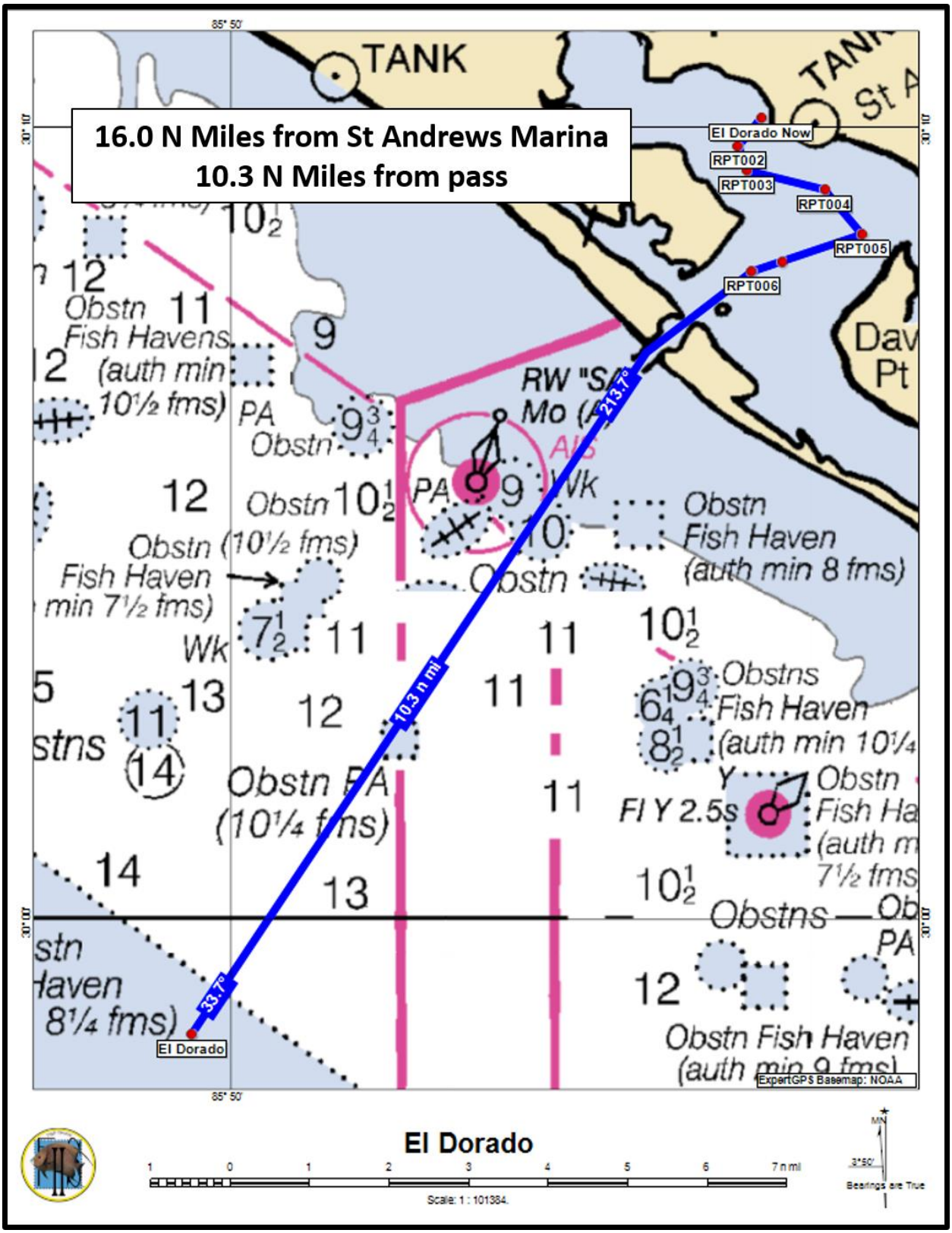

Figure 2- Chart of proposed tow route for El Dorado

Pursuant to Condition of the USACE artificial reef permit # SAJ-1993-00660 (SP-LSL), a project specific vessel deployment plan is to be submitted to the Corps and the FWC in conjunction with the completed and signed "Florida Artificial Reef Materials Cargo Manifest and Pre-Deployment Notification" form (Attachment C). This document is intended to meet this permit condition and includes the following elements:

A. Detailed Description of the Proposed Deployment. This section includes materials type, proposed deployment depths, intended orientation of the barge, navigational clearance with the materials in all orientations and the weight and dimensions of the vessel.
B. Stability analysis. This section includes data from the FWC's stability program and activities intended to increase the stability of the vessel on the bottom.
C. A Pre-Deployment Vessel Preparation Plan – this section details the descriptions of the barge, its dimensions and history. It describes the activities associated with the cleaning and preparation of the vessel for sinking. It also describes the current ownership of the vessel and the location.
D. Tow and Anchoring Plan –Describes the process by which the vessel is moved from its current location to the reef site. This section describes the tow vessel, equipment to be used and the crew needed to accomplish these tasks. It also describes contingencies for heavy weather during the tow and sink activities. It includes an anchoring plan that describes the number, location and types of anchors to be used to insure the vessel is firmly located and stays within the permitted site during deployment and after.
E. Sink Plan- describes the methods used to deploy the materials. It describes the number of holes to be cut in the hull of the vessel and the types of patches used to ensure water tightness during tow and the timing and methods of the removal of the hull patches. It also describes contingency plans for the sinking.
F. Monitoring Plan -describes post-deployment activities intended to document that the vessel is deployed where intended and the orientation of the vessel.
G. Project Budget – describe budget amount, source and use.

H. Site Safety Plan-describes safety equipment and procedures to be used to ensure that all personnel involved with the deployment activities will be safe.
I. Bottom survey summary and photos

Section A –Detailed Description of the Proposed Project

The proposed tugboat is 147 feet long (LOA), by 20 feet wide, and a total of 42 feet tall from the keel to the top of the wheel house. See Figure 3 for the dimensions of the vessel. The ship is listed as 400 gross tons. She had been certified for 320 passengers. Her dimensions are 147' x 28' x 40.

History
The El Dorado is a 1993 triple deck aluminum dining and gambling ship, previously called the Sun Dancer registered in Boston Mass. It was formerly a luxury cruise liner and service time a s a casino ship. It was transferred from the St. Andrews Marina to the Millville waterfront in 2011. She had been certified for 320 passengers. It served many years as a gambling vessel.

She became an artificial reef candidate after hurricane Michael broke her loose for moorings in St. Andrews Bay and pushed it ashore near the FSU campus near the Hathaway Bridge. The FWC derelict vessel program assisted in raising the ship and had it towed her to her current location at St. Andrews Marina, downtown Panama City, where Bay County took possession of it.

Proposed Site

The target site is DuPont Bridge Span #3. Latitude 29 58.55, Longitude -85 50.57. Deployment plans must include attaching a line about 200 feet from the El Dorado (Bow) to adjacent bridge span during deployment to prevent drifting. Attach a temporary anchor line to the El Dorado (Stern) during deployment to keep the vessel away from the bridge span while sinking. A permanent tether to the bridge span post-deployment is required for stability.

The specified artificial reef permit area is: LAARS A. The U.S. Army Corps of Engineers authorized permit no. SAJ-1993-00660 (SP-LSL) on January 12, 2017 and is valid until January 12, 2027. The proposed deployment location is adjacent to the DuPont Bridge Span 3 Latitude 29 58.55, Longitude -85 50.57 See map in Attachment 2.

This deployment about 424 feet to the Northwest of a large metal and concrete bridge span deployed on this site on 12/19/2008. Large Intact Bridge Span is 180 feet long, by 25 feet wide and 35 feet tall (profile) and weighs about 375 tons. Below is a photo of the bridge deployment.

It is planned for the El Dorado to be permanently anchored to the bridge structure with chain or steel cable for stability in a storm event. It will be deployed upright with the bow facing southeast into the prevailing currents and storm swell. See Figure 3 below.

Photo 2-DuPont Bridge Deployment Photo by FWC

Figure 2 -El Dorado deployment area

Section B – Stability analysis for proposed vessel Proposed Project

To estimate the stability of the *El Dorado* tugboat on the bottom at the proposed site the FWC's Artificial Reef Stability Analysis Software V.01 (April 2000) from Paul Lin Associates, Inc. was used. Using the variables of a 20-year storm (as required by the FWC grant program),400 tons weight, 102 feet of water with head on orientation, this ship was considered unstable at this depth. In order to compensate and add enough stability for a 50- year storm event, at least 50 additional tons of extra ballast will be added to the ship prior to deployment and it will be permanently anchored to the very large bridge structure with chain or steel cable for stability in a storm event. Additional hard points can be added to the ship for additional anchoring points requested by the county. This anchoring should compensate stability for the less than optimal weight of the ship due to the large bridge span structure blocking current and storm surge from directly impacting the *El Dorado*.

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Section C -Pre-deploy Vessel Preparation Plan

This vessel will be thoroughly cleaned at the St Andrew Marina Panama City, Florida, of all oil, greases and other pollutants as defined by the EPA and MARAD's "National Guidance: Best management Practices for Preparing Vessels Intended to Create Artificial reefs". This document is intended for large vessels under their own power that have multiple oil and gas machinery and other possible pollutants. There are 6 main categories of materials of concern that need remediation, and these are summarized below.

Oil and Fuel

The remediation goal is to remove all liquid fuels and oils and semi-solids (greases) so that: no visible sheen is remaining on the tank surfaces (this includes all interior fittings, piping, structural members); no film or visible accumulation is remaining on any vessel structure or component (e.g., on machinery or from spills on decking or carpet). The result of such clean-up should be that no sheen be visible upon sinking a vessel.

Diesel fuel and fuel oil may be contained in various tanks throughout a ship. For example, lubricating oil is found in engine sumps, drums of unused lubricating oil in ship storerooms or engineering spaces, and sludge in fuel and cargo tanks. Hydraulic systems and components also contain oils.

Remediation Efforts:

All fuel tanks have been emptied and all piping flushed of all oil and greases. The vessel's piping and tank containing some oil, fuel, sludge, and associated residues are being emptied. Fuel oil found in both integrated and freestanding tanks throughout the ship are being cleaned and any lubricating oils found in a variety of tanks will be removed. System oils are generally located in engine room sump tanks, while cylinder oils and lubrication oils will be stored in tanks dedicated for a specific purpose are also being removed. This task is on-going and will continue up to the sink date.

Asbestos

The remediation goal for asbestos is remove any loose asbestos and asbestos that may become loose during vessel sinking; remove or seal accessible friable asbestos. The environmental impacts caused by asbestos are dependent upon 1) whether asbestos is reduced to fibers or is in a non-friable form; and 2) whether the asbestos is air-borne or water-borne.

Asbestos refers to a group of minerals that occur naturally as masses of long silky fibers. There are three main types of asbestos fibers and individual asbestos fibers are often mixed with a material that binds them together, forming what is commonly called asbestos-containing material (ACM). There are two kinds of ACM: friable and non-friable. Asbestos is a naturally occurring mineral. Once a vessel has settled on the ocean floor, asbestos remaining on the vessel (e.g., intact and undisturbed asbestos insulation) will be covered with bacteria over time. This in turn will cause the asbestos fibers to sink and remain contained within the reef matrix, minimizing any potential direct impacts to the marine environment.

Remediation Efforts:
The entire ship was surveyed for asbestos. Significate asbestos was discovered behind the smoke stack on an interior wall as insulation and have been encapsulated. Interior piping around some water piping was identified as friable and was removed and disposed of properly. All additional asbestos that appeared to be loose on the ship was encapsulated. Asbestos remediation has been completed.

Polychlorinated Biphenyls (PCBs
The remediation goal Polychlorinated Biphenyls (PCBs) is to remove all manufactured products containing greater than or equal to (≥) 50 parts per million (ppm) of solid PCBs; remove all liquid PCBs regardless of concentration; remove all materials contaminated by PCB spills where the concentration of the original PCB source is ≥ 50 ppm.

Materials and items that could contain solid PCBs are Cable insulation, Rubber and felt gaskets, Thermal insulation material including fiberglass, felt, foam, and cork, Voltage regulators, switches, reclosers, bushings, and electromagnets, Electronic equipment, switchboards, and consoles, adhesives and tapes, oil-based paint, Caulking, Rubber isolation mounts and Foundation mount

Materials and items that could contain liquid PCBs are Oil used in electrical equipment and motors, anchor windlasses, hydraulic systems, and leaks and spills from such items. Materials and items that could contain either liquid or solid PCBs Transformers, capacitors, and electronic equipment with capacitors and transformers inside, Fluorescent light ballasts, surface contamination of machinery and other solid surfaces

Remediation Efforts:
All wiring, electrical components and fluids are begin removed from the vessel with the assumption they may contain PCB and disposed of as hazardous wastes. No testing was done on the wiring., but total removal instead. This task is on-going and will continue up to the sink date.

Six areas of concern of paint were tested for PCBs in March of 2018. These areas were the engine room bilge, outside house, hull winch, engine room wall, hull and inside house. Results indicate no samples contained PCB over the 50 PPM threshold.

Paint
The remediation goal for paint is to remove potentially harmful paints by removing exfoliating (peeling) and exfoliated paint.

Paint and preservative coatings can be found on both interior and exterior surfaces of a ship. Particularly on older ships, paint may be flammable or may contain toxic compounds, such as polychlorinated biphenyls (PCBs), heavy metals (e.g., lead, barium, cadmium, chromium, and zinc), and biocides. Lead compounds, such as red lead tetroxide (Pb3O4) and lead chromate, have been used extensively in marine paint. Other paints containing biocides, such as organotin (including compounds such as tributyl tin), have been used on the hulls of ships to prevent the buildup of marine organisms (e.g., bacteria, protozoa, barnacles, and algae).

Removal of intact paints generally is not necessary. Topside paint may contain other constituents, such as trace metals or biocides. Unlike underwater hull paint containing high concentrations of biocides designed to leach rapidly, topside paints are designed for long life. They also may contain significantly lower levels of these substances than hull coatings. However, exfoliating paint (paint that is blistering, peeling, and pitting) and exfoliated paint (paint chips and flakes) should be removed.

Remediation Efforts:
Ship's surfaces (e.g., decks, bulkheads, overheads, and surfaces of appurtenances) are being be thoroughly cleaned to remove all dirt, loose scale, trash, exfoliating paint, paint chips, hazardous materials, and other foreign matter (including netting material). All area where paint may be loose or chipped will be scraped to firm paint or metal. These materials will be collected and disposed of a hazardous waste so that no defoliated paint remains on the ship. This task is on-going and will continue up to the sink date.

Loose debris
The remediation goal for loose debris, including materials or equipment not permanently attached to the vessel, which could be transported into the water column during a sinking event is to removal all materials of concern.

Solids, debris, and floatables are loose materials that could break free from the vessel during transportation and placement as an artificial reef, thereby adversely affecting the ecological or aesthetic value of the marine environment or posing a risk to humans or animals. These materials can consist of vessel debris and clean-up debris. Vessel debris refers to material that was once part of the vessel or was generated during vessel clean-up operations and has been removed or disconnected from its original location on the vessel. Clean-up related debris is material that was not a part of the vessel, but rather was brought on the vessel during preparation operations.

Remediation Efforts:
All material or equipment that is not an integral part of a permanently attached appurtenance and that could become separated from the vessel during sinking are being be removed from the ship prior to sinking. Deck drains will be proven clear of debris. The removal of items that could become a floatable over time (e.g., floatable fiberglass insulation, floatable foam) are being removed and disposed of. This task is on-going and will continue up to the sink date.

Other Materials of Concern
The remediation goal for other materials that may negatively impact the biological, physical, or chemical characteristics of the marine environment is to remove materials of concern.

When placed in the marine environment, materials of environmental concern can have adverse effects on fish, wildlife, shellfish, recreation, or municipal water supplies. Adverse effects on the environment include any of the impacts mentioned in the preceding sections of the document. The magnitude of the impact of these materials on the marine environment will be related to the

nature of the material, the level of toxicity, and the ecological resources that could meet "other material of environmental concern."

Remediation Efforts:
Shipboard equipment or materials with constituents that can leach into the water column (e.g., petroleum products, batteries, and/or mercury-containing switches) are being removed from the vessel prior to sinking. Fluorescent light tubes and ballasts are being removed. Waste water resulting from clean-up processes, including but not limited to, decontamination, contaminated rain water, and water from rinsing of tanks and lines, are being properly collected and disposed. This task is on-going and will continue up to the sink date.

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Section D-Tow and Anchor Plan

The Panama City Dive Center will supply the primary tow vessel, the *MV Island Diver* and one other official assist/observer vessel participating in the offshore sinking project. Bay County and others may have observer vessels as well and those are "to be announced '(TBA) as we get closer to the deployment date' These vessels are listed below:

Primary Deployment Tow

Vessel Name: Island Diver
Hull Number: 5112293
Capt. Jason Barrow
Crew: Danny Grizzard, Pat Green
Tow Vessel Length: 68 Feet
Make: Halter
Engines: 2 Detroit 12V-71
Fuel Capacity 1,000 gals
GPS: 2
VHF Radios: 2
Cruising speed: 17
Crane: No
Deck space: 360 sq. feet

Panama City Dive Center Assist/ Observer Boat #1:

Vessel Name: Reef Runner or Capt. Scuba
Hull Number: 648033 or 612575
Capt.: TBA
Crew: TBA
Tow Vessel Length: 50 Feet
Make: CAMCRAFT
Engines: 2 Detroit V8-71
Fuel Capacity 250 gals
GPS: 2
VHF Radios: 2 Cruising speed: 17
Crane: No
Deck space: 240 sq. feet

BAY County Project Assist/ Observer Boat#1:
Vessel name: *TBA*
Crew/Contact: TBA
Project Vessel Length: TBA
Make: TBA

Bay County Project Assist/ Observer Boat#2:
Vessel name: TBA
Capt.: TBA
Crew/Contact: TBA
Project Vessel #2 Length: TBA
Make: TBA,

Tow Route:

The, tow vessel, the *Island Diver*. towing the El Dorado ship will leave St. Andrews Marina and follow the Intercoastal Waterway Channel to the St. Andrews pass for about 5.7 Nautical miles. From there it travels another 10.3 Nautical Miles out into the Gulf of Mexico on a bearing of 213.7 degrees to the deployment site. The total tow track will be 16 nautical miles.

The tow operations should begin at first light on the deployment day and should arrive on site about 1100. Figure #1 tracks this tow route. If the tow vessel and ship travel at 5 knots, it would take about 3 hours for the 16 nautical mile trip. If they left St. Andrews Marina, about 0800 they would be on site around 1100 to begin deployment activities.

It should take about 1 hour to set the anchors and about 2 more hours to sink the ship on the site. Deployment activities should be completed by 1400 under this scenario, however many variables can change timelines offshore, so these are broad time estimates for planning purposes only.

Deployment activities will only commence when the local NOAA marine forecast of less than 2 to 4 feet seas and less than 20 knot winds.

The tow tugboat's heading will depend on the current the morning of the deployment. The Project's Assist/Observer boat will pre-deploy a large orange buoy south of where the center of the ship should be located if necessary. The anchors for the El Dorado ship will then be set and deployed off, with bow tied off first then stern.

The El Dorado is planned to be placed near the northeast side of the Bay County LAARS A reef site adjacent to the DuPont Bridge Span #3 which is located at 29° 58.518' N and 85° 50.499' W (or 29.97529 and -80.004667).

The current planned location for the El Dorado is 29° 58.55‘N and -85° 50.57’W in about 102 feet of water allowing for about 60 feet of clearance over the top of the reef. This deployment location is subject to change based on exactly where the anchoring cable or chain is connected to the DuPont Bridge Span. It is planned for the ship to be deployed upright with the bow facing southeast into the prevailing currents and storm swells.

Anchor plan:

A large chain or cable will be pre-attached by divers to a large structural part of the DuPont bridge span prior to the arrival of the ship. This chain or cable will be attached to a large surface buoy.

When the El Dorado arrives of site, this buoy and line will be pulled onto the El Dorado and made fast to the bow. The ship will then be permanently anchored to the bridge structure with chain or steel cable for stability in a storm event. It will be deployed upright with the bow facing southeast into the prevailing currents and storm swell. A stern anchor will also be deployed for sinking stability.

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Section E-Sink Plan

RECOMMENDED: VESSEL SCUTTLING STANDARD OPERATING PROCEDURES FOR BAY COUNTY REEFS PLACED HERE

Detailed Contactor Sink Plan

Prior to the deployment divers will pre-position a chain or steel babel to a major metal structural member of the DuPont Bridge span. This line will then be attached to large buoy about 200 feet north of the bridge structure.

Prior to deployment, flooding holes will be cut in the in the hull slightly above the water line and patched using ½" plywood, 1/2" all thread bolts attached through 1/4" angle iron backings on the interior and exterior of the hull. Patches will be sealed with waterproof silicone chalking. The patches are designed to be retrievable by the sink crew at the time of deployment.

Flooding holes will be carefully measured and cut in the exact same size and location on the port and starboard portions of the hull. This will serve to protect the tugboat from accidental water intrusion from the flooding hole in the hull on the tow out to the sink site. The successive flooding and venting holes will be arranged in a manner to flood each compartment at an intended level of the overall flooding. This serves to prevent rolling and settle the ship on the bottom upright.

1. 24 hours prior to the deployment, the proper notifications of intent to deploy will be sent to the FWC, USCG and USACE by ARI (Joe Weatherby).
2. All vessels will monitor VHF Channel 12 to communicate with the Deployment Teams. VHF Channel 16 will be used to warn vessels to stay behind designated clear zone marker buoys.
3. 0900 – Project assist/ observer vessel, arrives on target site.
4. Tow vessel transports the ship to target location. Upon arrival at the site the line attached to the bridge structure will be brought up to the ship and attached securely to the bow of the ship. Once secure the stern anchor will be deployed over the deployment location. Anchors will stay with the reef to add stability after deployment.
5. 2 crew members will ride out on the tug during the tow and will have hand held VHS radios in addition to all safety gear.
6. **The ship reef crew will:**

a. Monitor the hull for water intrusion and dewatering devices will be onboard
b. Remove the external flooding patches from the stern.
c. Transfer the hull flooding patches to the towing vessel
d. Crew will transfer from the barge to the tow vessel with all equipment to be removed (ladders, pumps, tools, etc.)

7. Ship Reef crew will then be transferred to the towing vessel.

8. Patches will then be opened to flood the vessel low enough that water flows freely into the interior spaces though the pre-cut holes in the hull.

9. Flooding by water pumps should not be needed but will be available if a need arises.

10. All vessels will withdraw to a safe distance from the ship when it is obvious sinking is imminent.

11. The Project assist vessel will survey the bottom over the wreck with on board fathometer equipment, within 30 minutes after the sinking occurs to document the orientation of the vessel and the location of the mooring anchors in relation to the vessel. The purpose if this fathometer survey is to document to total vessel profile, orientation and bottom depth. The Project Assist vessel will also have nets and a swim ladder for easy debris cleanup.

12. A post deployment report will be provided to the FWC, Bay County and the USACE no later than 30 days post sinking.

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Section F- Monitoring Plan

The Project's assist /observer vessel, along with volunteers from Bay County will be present on site to assist during the deployment. Vessels and staff representing the local sponsors will also be on site to as spectators.

During sinking activities, the Project Assist Boat will remain on site to observe and remove any floating objects for at least 1 hour after sinking. Any debris observed will be documented, removed, and appropriately disposed.

After the vessel sinking the Project Assist Boat will get accurate depth and GPS coordinates using the vessel's on-board sonar equipment.

A post deployment report will be prepared by Bay County to document the sink day activities and will be made sent to all agencies within 30 days of the sink date.

A signed "Florida Artificial Reef Materials Placement Report Form (Attachment B), will also be completed and sent to the FWC within two weeks.

Future sonar assessments will be planned by Bay County to document the status of the ship as a new artificial reef as required. The FWC and the USACE will be copied on all monitoring reports.

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Section G- Project Budget

The total direct budget for the project will depend on the successful bidding of this project and the amount awarded for its completion by Bay County. This section will be updated prior to deployment with detailed budgeted amounts for each task.

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Section H- Safety Plan

All operations will take place during daylight hours during the week, as required by law. Towing will commence at daybreak and all sinking operations will be completed before sunset.

Capt. Joe Weatherby-ARI (305-797-7077), Capt. Jason Barrow-Panama City Dive Center (850) 625-2950) on the tow vessel *Island Diver* and Allen Golden -Bay County (772-288-5955), will make the decision to proceed to begin the deployment operation and retain the authority to abort the operation at any time, during the towing activity, if they deem the conditions to be unsafe for completing the reef deployment successfully.

All members of the deployment team will wear Personal Floatation Devices (PFD) during participation in deployment work activities. All crew members not on the towing vessel need to have handheld VHS radios for direct communication with other project vessels on channel 16 or the designated operating channel.

Because of the unpredictable nature of sea conditions, the reef deployment team leaders referenced above reserve the right to alter any part of the deployment plan, as necessary, to insure the safety of all vessels, their crews, and to insure a successful reef deployment outcome.

Emergency Contacts

Coast Guard 8th District
Eighth District Command Center Number:
(504) 589-6225 –

Florida Fish and Wildlife Conservation Commission (FWC)
If you suspect a fish, wildlife, boating, or environmental law violation, report it to the FWC's Wildlife Alert Reward Program: 888-404-FWCC (3922).

Cell phone users can reach us at *FWC or #FWC, depending on your service provider.

FWC Northwest Region
850-265-3676
Regional Office
3911 Highway 2321
Panama City, FL 32409

Nearest Hospitals

Bay Medical Sacred Heart
Address: 615 N Bonita Ave, Panama City, FL 32401
Phone: (850) 769-1511

Section I- Bottom Surveys

Previous Pre-Deployment Bottom Survey-TBA

To supplied by Bay County

New Pre-Deployment Bottom Survey-TBA

To supplied by Bay County

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PROJECT PERSONNEL AND CONTACT INFORMATION

All personnel involved with the sinking of El Dorado reef should be familiar with the contents of this deployment plan, its applicable safety precautions, procedures and intentions. All personnel directly involved in the sinking needs to understand and comply with the following written plan. Any questions need to be answered prior to deployment activities.

This artificial reef deployment project will involve several entities. Below is a list of those organizations involved and their responsibilities before, during and after the reef deployment process.

1. Bay County is the holder of the existing Army Corps of Engineers (USACE) artificial reef permit no. SAJ-1993-00660 (SP-LSL) authorized on January 12, 2017 and is valid until January 12, 2027. The permit area is: "LAARS A." It is an authorized artificial reef permit area with the U.S. Army Corps of Engineers. As such, they will take possession and ownership of the vessel once it is deployed-within the permitted site and in compliance with the terms of the artificial reef permits. They will review and approve all plans and activities for the reef deployment and has the authority to stop all deployment activities at any time.

Contact is Allen Golden, Bay County Artificial Reef Coordinator, Bay County Board of County Commissioners, 840 West 11th Street, Room 2350
Panama City, Florida 32401
950- 248-8250, agolden@baycountyfl.gov

2. Artificial Reefs International (ARI) is the primary contractor

Primary contractor responsible overseeing all remediation, towing and deployment operations for this reef project. ARI creates artificial reefs for economic development and enhancements, adhering to strict regulations. Artificial Reefs International (ARI) includes cross-functional teams of industry leaders and subject matter experts across the globe, bringing more than 25 years of experience in highly competitive, market-driven industries such as artificial reefing, scuba diving, water sports, fisheries, and sailing.

Contact is: Joe Weatherby, Project Manager,
Corporate Headquarters:
2627 Staples Avenue, Suite B
Key West, FL 33040
Phone: 305-797-7077, Email: joewdiver@gmail.com

3. BAY County or NGO Staff- TBA

4. TOW VESSEL- Capt. Jason Barrow-Panama City Dive Center (850) 625-2950): Email: pcdc1983@gmail.com-TBA

There are several regulatory agencies that also have responsibilities during these deployment activities:

The **United States Coast Guard (USCG)**, will complete a pre- deployment inspection of the vessel if necessary to determine if the vessel is seaworthy and the tow vessel is capable, appropriate and safe for the tow and sink activities. They will approve the deployment and tow plan and will oversee all marine safety and environmental concerns of the deployment operations. They may be onsite for deployment operations if they deem their presence is necessary.

Official contact information is:
Commander, U.S. Coast Guard (USCG), 8th District
Rear Adm. Paul F. Thomas
Commander Eighth Coast Guard District
500 Poydras Street
New Orleans, LA 70130

Response Division
Contact: phone_ (504)671-2230

The **Florida Fish and Wildlife Conservation Commission (FWC)** artificial reef program may review and approve the deployment plan and may oversee the deployment operations on behalf of the FWC. They may coordinate with the FWC Law Enforcement division to ensure they are notified the operational details of the project. This office will also receive and review the pre and post deployment notifications.

Official contact information is:
Keith Mille, Biological Administrator with the FWC Artificial Reef Program
620 S. Meridian Street St., Box MF-MFM
Tallahassee, Florida 32301
Phone -850-617-9633 or email artificialreefdeployments@myfwc.com.

The **US Army Corps of Engineers (USACE)** has issued the artificial reef permit for this reef to Martin County. They will need to review and approve of the deployment plan to confirm that all proposed activities are in compliance with the terms of the permit issued for this project. They may want to inspect the vessel as well.

Official contact information is:
Lisa S. Lovvorn
Project Manager
U.S. Army Corps of Engineers, Jacksonville District
Panama City Permits Section
1002 West 23rd Street

Panama City, Florida 32405
850-763-0717, extension 27U.S Army Corps of Engineers, Regulatory Commission,

The National Oceanic and Atmospheric Administration (NOAA)
Marine Charts Division
Office of Coast Survey, N/CS26, Sta. 7317
1315 East-West Highway
Silver springs, MD, 20910-3282
Email: ocs.ndb@noaa.gov

This reported drafted by
Fish Haven Services LLC Florida,
Bill Horn, Author

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ATTACHMENTS

ATTACHEMNT A- FWC MATERIALS MANIFEST FORM
ATTACHMENT B-FWC MATERIALS PLACEMENT REPORT FORM
ATTACHMENT C-PHOTOS OF EL DORADO AT DOCK

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ATTACHMENT A

FLORIDA ARTIFICIAL REEF MATERIALS
CARGO MANIFEST AND PRE-DEPLOYMENT NOTIFICATION
(Issued pursuant to Ch. 379.249(6)(b), Florida Statutes)

I, John McCulley _____ _____ _____
Name of individual managing reef deployment (print) Signature Date

whose address is 2309 N. Old Dixie Highway, Fort Pierce, Florida 34946 (772) 489 - 6069
Street City State Zip Code Phone

declare that I am staging and transporting the following artificial reef construction materials allowable pursuant to the U.S. Army Corps of Engineers Artificial Reef Permit referenced below and agree to comply with all permit conditions in the permit listed below and attached to this manifest. I understand this artificial reef site is open to public access and this authorization does not provide any rights or exclusive private use over those rights or uses to the general public.

The address of the land based reef materials staging area is: 100 Terminal Drive, Ft. Pierce

Transporting Vessel Registration Number: Tug Champion, Hull # 506025, IMO#: 007515183

Vessel Owner: McCulley Marine Services Vessel Operator: Captain Mike Hollingsworth

The following items are to be deployed as reef material (attach additional sheets when more than four locations):

MATERIAL TAG ID NUMBER(S), If applicable	Descriptions of material (number of pieces, type, dimension, weight)	GPS Coordinates degrees, minutes, decimal minutes (DD°MM.mmm')
	One steel hulled ocean going tugboat, 100 feet long, 27 feet wide, 63 feet total height, 199 tons	Lat: 27 ° 12.445 ' Lon: 80 ° 00.280 '
		Lat: ° ' Lon: ° '
		Lat: ° ' Lon: ° '
		Lat: ° ' Lon: ° '

A copy of the below referenced permit(s) and all associated conditions is attached to this manifest and shall be carried on board the vessel during loading, storing, or transporting artificial reef material.

-- OFFICIAL USE ONLY --
(TO BE COMPLETED BY PERMIT HOLDER, OR AUTHORIZED ARTIFICIAL REEF INSPECTOR)

Permit Holder: Martin County Board of County Commissioners
Name of U.S. Department of the Army, Corps of Engineers (ACOE) Permit Holder

ACOE permit number SAJ-1995-04128(SP-JKA), permitted site name East Sirotkin Site

issued on July 26, 2016 and has an expiration date of July 21, 2021.

Local tracking number (if applicable): _____

_____
(Name of FWC authorized Artificial Reef Inspector, printed)

_____ _____
(Signature) (Date)

Revised 4/23/07

ATTACHMENT B

FLORIDA ARTIFICIAL REEF MATERIALS PLACEMENT REPORT AND POST-DEPLOYMENT NOTIFICATION

US Army Corps of Engineers

To Be Completed For Each Deployment Location or Date of Deployment

County or Municipality:_____ Date of Placement:_____

Grant No. FWC - _____ (if applicable) U.S. Army Corps Permit No.: _____

Total project cost: $_____ (Funding Source(s) and Amount(s): FWC $_____ Local $ _____ Other $_____)

Name of Permitted Reef Site: _____ Location Name for This Deployment:_____

Latitude:_____° _____.___ ___ ___' North (Degrees minutes decimal minutes) Longitude:_____° _____.___ ___ ___' West (Degrees minutes decimal minutes)

GPS Brand:_____ GPS Model number:_____

Geographical Location: _____ (nautical miles) at _____ (bearing) degrees from _____ (reference inlet)

Water Depth:_____ feet (minus) Max. Material Height: _____feet (equals) Actual Vertical Clearance: _____feet

TYPE AND AMOUNT OF MATERIAL DEPLOYED AT THE LOCATION DESCRIBED ABOVE:
(ATTACH A PHOTOGRAPH OF THE MATERIAL ON THE BARGE IMMEDIATELY PRIOR TO DEPLOYMENT) ☐

Primary Type of Material:_____ Number of Pieces:_____

Dimensions:_____

Secondary Type of Material:_____ Number of Pieces:_____

Dimensions:_____

How was tonnage calculated?(Check all that apply, attach additional sheets if necessary):
☐ Before & after barge draft calculation
☐ Known weight of individual pieces
☐ Trucking receipts

TOTAL TONNAGE FOR THIS DEPLOYMENT: _____

I DO HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE

Observer's Name: _____ (PLEASE PRINT) Title: _____ (PLEASE PRINT)

Observer's Signature: _____ Date: _____

Observer's Remarks: _____

_____

I DO HEREBY CERTIFY THAT THE ABOVE INFORMATION COMPLIES WITH THE ABOVE REFERENCED PERMIT CONDITIONS

Permittee's Staff Name: _____ (PLEASE PRINT) Title: _____ (PLEASE PRINT)

Permittee's Staff Signature: _____ Date: _____

Local Tracking number _____ FWC Tracking number _____ Entered by _____ (FWC initials) on _____ (date)

Rev. 4/23/2007

ATTACHMENT C
PHOTOS OF EL DORADO AT
ST ANDREWS MARINA FEBRUARY 22, 2019