RALF BROOKES, ATTORNEY

Board Certified in City, County and Local Government Law

August 8, 2023

Re: Notice of Appeal of Planning Commission Resolution 23-24

Dear City of Sanibel, City Manager

Pursuant to Section 82-98 of the Sanibel Land Development Code (LDC), an appeal of Planning Commission Resolution 23-24 filed with the Clerk on August 8, 2023, is hereby filed on behalf of those Appellant/Petitioners listed in Appeal Exhibit A.

All appellants reside upon or own property within Sanibel on Heron's Lake, which is owned jointly by the City of Sanibel and nine homeowners living on Osprey Court in Heron's Landing (the "Lake Homeowners").

All appellants participated by written comment or by appearance at the Planning Commission hearing and have legal standing under the LDC to file this appeal[1]. Enclosed is the Appeal and Appeal Index. This appeal is timely filed with the City Manager, City Clerk and City Attorney[2] within 15 days of the hearing on Resolution 23-24.

This appeal incorporates by reference the application file and record for Development Permit (Application No. DP-2021-001803) and Minor Subdivision (Application SPLT-2022-000074). I am also sending herewith a check in the amount of the required filing fee of $1.245.20 per the City Clerk.

We ask that a courtesy, a mutually convenient date, and time, be scheduled for the hearing before City Council.

Sincerely,

Ralf Brookes Attorney
1217 E Cape Coral Parkway #107
Cape Coral, Fl 33904
Phone (239) 910-5464
RalfBrookes@gmail.com

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[1] 82-98 (b) Any "person residing upon, or owning property within the city, or owning or operating a business within the city, *who participated by written comment before or at the planning commission hearing or who participated in person* or through an authorized agent at the planning commission hearing."

[2] 82-98 (b) "The appeal shall be filed within 15 days after the date that the planning commission decision *was filed*."

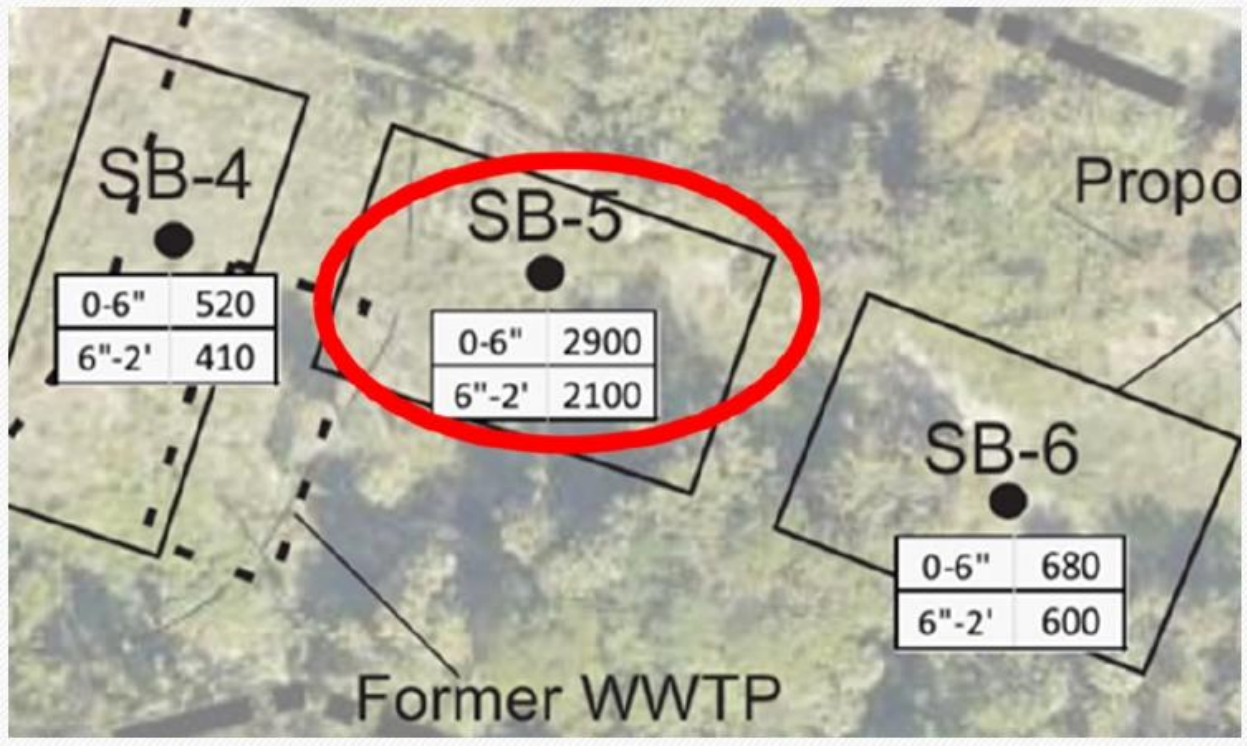
NOTICE AND GROUNDS OF APPEAL OF
PLANNING COMMISSION RESOLUTION 23-24

DEVELOPMENT PERMIT - COASTAL CREEK
(APPLICATION NO. DP-2021-001803)
&
MAJOR SUBDIVISION PLAT - COASTAL CREEK
(APPLICATION SPLT-2022-000074)

August 8, 2023

This is an appeal on behalf of all Appellant/Petitioners (Listed on Ex. A) appealing the July 25, 2023 hearing and decision of the Planning Commission, approving the development permit DP-2021-001803and major subdivision plat SPLT-2022-000074 for Coastal Creek (*Resolution 23-24*).

Recent Phosphorous testing has identified a "hot spot" for phosphorous in the location of the east of the former wastewater plant on proposed lots that were not previously excavated:



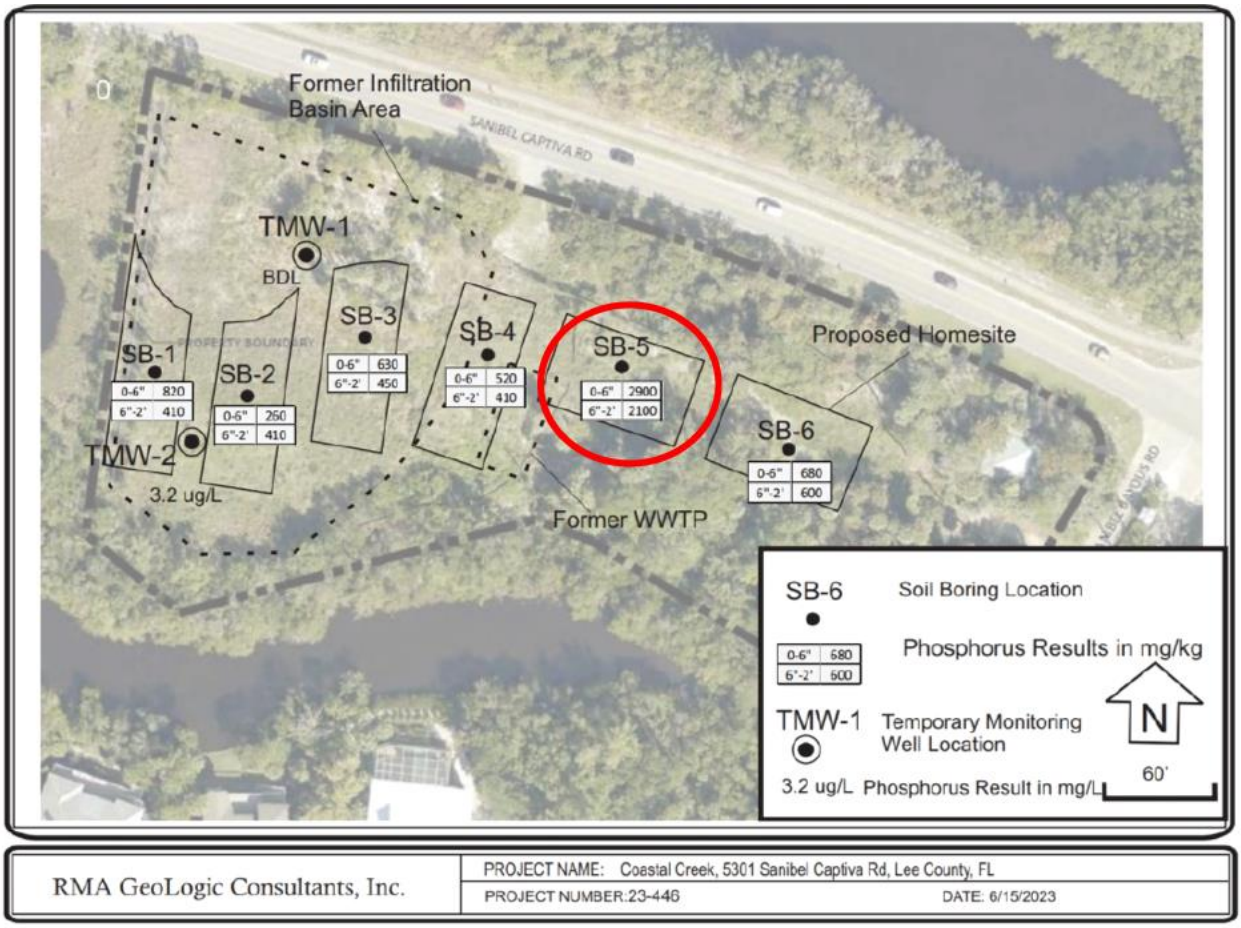


FIGURE 1 - Site Map Showing Former WWTP & Infiltration Basin, Soil and Groundwater Sample Locations, and Phosphorus Results

The Applicant should locate and excavate all soils with elevated Phosphorous levels (that exceed the soils capacity to assimilate Phosphorous) prior to issuance of building permits for housing on lots 1-6, roads, stormwater ponds, trenches or other improvements:

The Resolution approved a development permit and subdivision plat for six clustered homes with in-ground pools ("Coastal Creek").

The subject land is the site of a decommissioned former private wastewater treatment plant that continues to leach nutrients (i.e., phosphorous and nitrogen) through the groundwater from the subject site into Heron's Lake, which has been plagued by excess nutrients causing harmful cyanobacteria and algae blooms ("Harmful Algae Blooms" or "HAB"). The Harmful Algae Blooms cause nuisance odors and have real adverse human health impacts.

Heron's Lake is owned jointly by the City of Sanibel and nine homeowners living on Osprey Court in the Heron's Landing community (the "Lake Homeowners"). Heron's Lake is the subject of a "Lake Agreement" to which the City and the Lake Homeowners (including some of the Petitioners) are committed signatories.

The purpose of the Lake Agreement is to achieve on-going nutrient reduction in Heron's Lake through City aeration and homeowner conditions and restrictions requiring native littoral plantings and prohibitions on fertilizers to improve dissolved oxygen levels in Heron's Lake.

The State of Florida Department of Environmental Protection (DEP) sent a letter of concern regarding this proposed Coastal Creek development on this site.

DEP recommended additional soil and groundwater sampling because the site may still contain additional, unexcavated sources of nutrient pollution, including soils and waste contaminated with excess nutrients from prior private wastewater operations that can lead to nutrient pollution impacts in Heron's Lake.

Leaching of nutrients from contaminated soils can be a continuing source of groundwater nutrients leading to nutrient loading in surface waters of the adjacent Heron's Lake, that in turn can lead to HAB, hazardous human health impacts, and lowered Dissolved Oxygen (D.O.) levels.

The Planning Commission has failed to properly interpret and apply Land Development Code (LDC) Sections and Comprehensive Plan policies as set forth in the Sanibel Plan that prohibit pollution; protect Heron's Lake and Petitioners from hazardous conditions that are detrimental to the public health, welfare, and safety; and protect the peaceful use and enjoyment of adjoining lands.

Specifically, the Planning Commission has failed to properly interpret and apply the provisions of LDC and Comprehensive Plan that require the following:

Comprehensive Plan

Sanibel Plan, Conservation Goals, Objective 4, the Planning Commission must "*protect and conserve water resources and prevent impairment of the quality and quantity of surface and groundwater resources*." [1]

[1] See Section 3.2.2.

The Sanibel Plan states that it is "*imperative*" to protect "*lakes and wetlands from any sewage pollution*" and recommends studies and taking "*appropriate remedial action*." [2]

The Future Land Use Element requires the City to ensure that all new development will "*promote the protection of natural, [and] environmental resources*," and "*promote the maintenance of enhancement of water quality*." [3]

Policy B2.1 further requires the City to "*protect national resources by application of best management practices*."

Land Development Code

Land Development Code Section 86-40 requires the Planning Commission to consider how to minimize environmental damage caused by this development. Section 86-40(b) states, "*The design, location and construction and the maintenance of all development shall be in a manner that minimizes environmental damage.*"

Land Development Code Section 14-244 defines land as "*hazardous*" when conditions on the land are "*dangerous to the health, welfare or safety of the public, the occupants of surrounding properties, or the occupants of such land;*" or when "*noxious odors*" or "*harmful particulates*" emanate from the land.

Land Development Code Section 14-247 requires the landowner to assess, remediate the hazardous conditions, and restore the land "*by the means least expensive and least detrimental to the owner's property and to the public environment*."

Land Development Code Section 78-15 states, "*The provisions of this Land Development Code are deemed to be necessary for the protection of the public health, safety and welfare and for the protection of the peaceful use and enjoyment of any lands by the owners thereof, and any violation of this Land Development Code is hereby declared by the city council to constitute a public nuisance.*"

Statement of Facts & Historical Background

The Applicant proposes to build six homes with pools atop a decommissioned wastewater plant. The City of Sanibel decommissioned the plant in 2008 after sewage leaching from the plant forced the closure of Bowman's Beach in 2007. *See*, Testimony of Chandler, Staff Report. Four of the homes will be built on the former settlement pond. The site is adjacent to Heron's Lake, which is owned jointly by the City and nine homeowners living on Osprey Court in Heron's Landing (the "Lake Homeowners").

The Florida Department of Environmental Protection (DEP) sent a letter of concern regarding the need for extensive soil and groundwater testing at the proposed development site for reasons of

[2] See Sec. 3.2.2., p. 60.
[3] See Sec. 3.6.2, Statement B, p. 226.

public safety. The letter states in relevant part: "... DEP recommends that the developer collect and analyze soil and groundwater screening samples for nitrate, nitrite, and RCRA metals."

DEP recommended this testing because the site may still contain unexcavated sources of pollution, including soils and waste from prior private wastewater operations. These sources almost certainly contain excess nutrients (i.e., phosphorous and nitrogen) that are polluting Heron's Lake.

Sanibel Planning Staff and Petitioners presented evidence that the site is leaching high levels of harmful levels of nutrients into the groundwater that eventually leads to surface water of the adjacent Heron's Lake. *See,* Testimony of Dettmar; SCCF Report; Staff Report. As a result of legacy nutrients from the private wastewater plant and the on-going leaching of nutrients from contaminated soils into the groundwater, Heron's Lake remains one of the most polluted lakes on the island (according to the City's own testing and analysis).

Lake Homeowner Howard Simon testified and introduced evidence from scientific studies that nitrogen and phosphorous are nutrients than can produce harmful cyanobacteria and blue-green algae blooms ("Harmful Algae Blooms"). *See*, Testimony of Simon. These Harmful Algae Blooms release airborne toxins that can cause adverse human health impacts including liver damage, Alzheimer's, and other neurological diseases. Lake Homeowner John Cooper testified the Lake has become so polluted that its stench prevents him from enjoying the use of his deck and exterior space. *See*, Testimony of Cooper.

After 2008, the wastewater plant site was subdivided into two parcels. The City kept the western portion of the parcel. In 2015, the City determined the initial remediation performed when the plant was decommissioned was insufficient. The City therefore completed a $50,000 restoration effort on only the City-owned western parcel thereby creating the Sanibel Bayous Preserve. The City's restoration activities included exotic plant removal, creation of two seasonal wetland features, and extensive wetland and upland vegetation plantings.

The City returned the eastern parcel (the subject site) to the original developer/owner of the private wastewater plant, who later sold the subject site to the Applicant in March 2021. No soil or groundwater sampling has occurred on the subject site since 2009. However, testing conducted by SCCF on the adjoining City-owned western parcel in 2017 found "***legacy nutrients from the package plant persist in the soils and groundwater,*** contributing to water quality impairments of the adjacent stormwater [Heron's] lake." *See*, Testimony of Dettmar.

The DEP recommended testing would determine the horizontal and vertical extent of any nutrient contamination remaining on the subject site. Following testing, a remedial action plan should be developed to remove any remaining sources of nutrient contamination prior to development of the site with homes. Remediation must take place prior to construction because once homes and pools are built, it would be impossible to remove contaminated soils from beneath the houses and developed areas of the site.

It is important to understand how the water quality in Heron's Lake is impacted by nutrients. Algae feeds off the excess nutrients and the algae rapidly multiplies at an unnatural rate. The process causes what is commonly called a Harmful Algae Bloom. These Blooms release gases that cause

noticeable lake odors and rapidly use up the dissolved oxygen in the Lake. Aquatic organisms need dissolved oxygen to sustain the Lake's natural ecosystem. Without reducing the level of nutrients entering Heron's Lake, the Lake's ecosystem is unable to "heal" itself. It remains out of balance.

Petitioners/ Lake Homeowners are currently working with the City to remediate and restore the Heron's Lake to abate the Harmful Algae Blooms. In 2021, the City and the Lake Homeowners negotiated the "Lake Agreement" for this purpose. Pursuant to the Agreement, the Lake Homeowners have committed to plant native vegetation in the littoral zones rimming the Lake and to restrict the use of fertilization. If necessary, they have committed to fund further chemical treatment of Heron's Lake. To assist with the low Dissolved Oxygen level caused by Harmful Algae Blooms, the City has agreed and budgeted $50,000 for an aeration system.

The Lake Agreement requires these minimum mutual efforts to ensure the success of the Heron's Lake Restoration program. Restoring, monitoring, and managing the Lake's ecosystem will lead to enhanced water quality, wildlife habitat and aesthetic benefits. These efforts are also needed to preserve property values so that the homes on Heron's Lake are no longer be impacted by harmful algae blooms, lake odors and water quality on Sanibel home values and the return of birds to the bird rookery to Heron's Lake.

The success of the Heron's Lake Restoration program also requires the subject site -- the untested eastern parcel of the decommissioned wastewater plant owned by the Applicant -- to stop leaching legacy nutrients into the groundwater and the Lake. Any contamination that may still exist on the site must be excavated and removed prior to development. What happened in the past on the site, and what will happen as it is developed, will directly affect the health of Heron's Lake.

At the January 9 hearing before the Planning Commission, Heron's Landing HOA board members, several Homeowners, and other Heron's Landing residents testified that they were concerned the development will harm Heron's Lake and the health of residents living on or near the Lake. Their concerns well-founded: the DEP letter recommended testing to protect public safety. The City's expert testified the development *will have an adverse impact on water quality*. *See,* Testimony of Dettmar. As Planning Commissioner DeBruce noted of the situation, "we don't know how dangerous it is."

Notably, the Applicant did not rebut this evidence, but instead testified that he wants to be "part of the solution to a problem he did not create." *See,* Testimony of Applicant.

Planning Commission's Decision Failed to Implement Essential Requirements of Law contained in the Sanibel Plan and LDC

The Sanibel Plan's Vision Statement inscribed on the very walls of the room where the City Council meets, reminds our civic leaders of their stewardship role and to "resist pressures to accommodate increased development … that is inconsistent with the Sanibel Plan." The Planning Commission's decision to approve housing on a former wastewater plant that is polluted, and is polluting the groundwater and a nearby lake, is inconsistent with the letter and spirit of the Sanibel Plan and violates the Land Development Code and should be reversed.

First, the Planning Commission failed to apply the sections of the Land Development Code (LDC) that protect the environment, particularly section 86-40, which requires development to be done in a manner that minimizes environmental damage.

Second, the Planning Commission failed to apply the Goals, Objectives and Policies contained in the Sanibel Plan that protect the groundwater and the adjacent Heron's Lake and other surface waters (Conservation Goal. Section 3.2.2.), and that require the City to protect natural resources and maintain the enhancement of water quality through the application of best management practices (Future Land Use Element, Goal Statement B, Section 3.6.2) at the proposed development.

Third, the Planning Commission failed to apply provisions of the LDC and Florida law that protect the health and property rights of the adjoining Heron's Landing homeowners and future Coastal Creek residents, who will also be affected by the future of water quality in Heron's Lake. LDC sections 14-244 and 14-247 require hazardous conditions be abated to prevent further future harm. LDC Section 78-15 protects the right of the adjoining homeowners to peacefully use and enjoy their land. Florida law requires prospective buyers of residential property to be fully informed of material environmental hazards that cannot be seen. *Johnson v. Davis, 480 So.2d 625 (Fla. 1986)*.[4]

The well-reasoned opinions of Commissioner Laura DeBruce and then-Planning Commissioner Matt Kirchner, who voted against the application, are worthy of the Council's consideration. Commissioner DeBruce said, "the biggest problem, to use a lay person's term, is that the soil in this area is heavily polluted with nutrients." Commissioner Kirchner (a contractor), concurred, "As much as I like houses being built, I really have a problem making a recommendation to approve this development going forward knowing there is such a concern about the environment to people who may end up buying and moving in. … We know there's a problem."

Notably, two other Commissioners expressed concern. Commissioner Lyman Welsh, who had not yet been appointed, spoke against the development as a private citizen at the January 9 hearing, and recused himself at the January 24 hearing. Commissioner Ty Symroski, although absent from the January 9 hearing, expressed concern about the pollution at the site at the January 24 hearing and requested an amendment to the draft resolution to reflect those concerns.

[4] The Florida Supreme Court's held in *Johnson v. Davis, 480 So.2d 625 (Fla. 1986)*, that a seller of residential real property has a common law duty to disclose any latent defects if he or she has knowledge of conditions materially affecting the value of the property that are not readily observable or known to the buyer.

None of the Planning Commissioners who voted to approve the development referenced the provisions of the Sanibel Plan and the LDC that protect water, the environment, and public health.

I. Applying LDC Sections That Protect the Environment

a. LDC Section 86-40 requires environmental damage to be minimized

Land Development Code section 86-40 requires the Planning Commission to consider how to minimize environmental damage caused by this development. Section 86-40(b) states:

"*The design, location and construction and the maintenance of all development shall be in a manner that minimizes environmental damage.*"

The Planning Staff recommended 23 conditions, including a condition requiring 100% native vegetation on both common areas and home sites to minimize environmental damage. SCCF strongly supported this 100% native plant recommendation. However, the Planning Commission reduced this recommendation to 75% native and 25% non-native vegetation on the home sites (Condition 18).

b. The Planning Commission failed to impose adequate conditions

The subject site is not a typical building site on Sanibel. As Commissioner Storejohann quipped, the site contains "a lifetime supply of phosphorus." The unrebutted evidence shows that the soil, groundwater, and nearby Heron's Lake are impaired by legacy nutrients. Moreover, Heron's Lake and other nearby surface waters were severely impacted by the tidal surge caused by Hurricane Ian in September 2022. A recent SFFC blog describing the harmful impact of the storm on Sanibel lakes noted, "*Some lakes … may experience major deterioration due to extreme nutrient-laden inputs."*[5]

The conditions approved by the Planning Commission do not minimize harm to the environment, especially this impaired and stressed environment. To be consistent with LDC section 86-40, the Planning Commissioners should have:

1. Imposed additional conditions to minimize harm to the environment, including:

    - Require additional independent testing for contaminated soils and groundwater, including nitrogen and phosphorous, as recommended by the Florida Department of Environmental Protection to determine the levels of nutrients and heavy metals that remain at the site. Even Commissioner Storejohann, who voted to approve the development, said the need for testing was "self-evident." Yet no testing has been done on the subject site since 2009.

    - Require an assessment report detailing the testing results and a plan for any remediation that may be needed to remove any source of continuing nutrient

[5] https://www.sccf.org/news/blog/recovery-will-take-time-for-sanibels-freshwater-habitats

leaching, and to prevent further harm to the groundwater and Heron's Lake. The testing and recommendations for remediation should be performed by an independent body, at the expense of the Applicant.

- Require all soil excavated as part of the construction process to be removed from the island and disposed of properly offsite.

- Require 100% native vegetation for the entire development, as recommended by the staff and SCCF.

2. Imposed limitations on the scope of the development, such as reducing the number of home sites, prohibiting construction of homes on top of the former settlement pond (at least until all soils contaminated with nutrients can be removed), and prohibiting in-ground pools. As Commissioner DeBruce explained, "the City's 2008 settlement allowed six houses to be built *limited [or subject] to environmental constraints*. The City did not grant the right to the Applicant to build six units."

II. Applying the Sanibel Plan Provisions that Protect Water Resources

a. The Sanibel Plan Requires Protection of the Groundwater and Natural Resources

All development and developments orders issued by the City must be consistent with the duly adopted Comprehensive Plan as required by state law. *Pinecrest Lakes v. Shidel*, *795 So. 2d 191* (Fla. 4th DCA 2001).

Pursuant to Sanibel Plan Conservation Element Goals, Objective 4, development in the City of Sanibel must "*protect and conserve water resources and prevent impairment of the quality and quantity of surface and groundwater resources*." The background of the Goal provides guidance: it is "*imperative*" to protect "*lakes and wetlands from any sewage pollution.*" The background recommends studies and taking "appropriate remedial action." See Sec. 3.2.2., p. 60.

Specific to new development, the Future Land Use Element requires the City to "*promote the protection of natural, [and] environmental resources*," and "*promote the maintenance of enhancement of water quality*." See Sec. 3.6.2, Statement B, p. 226. Policy B2.1 requires the City to "*protect national resources by application of best management practices*."

The soil, groundwater, and nearby Heron's Lake are impaired by legacy nutrients. In response to a question posed by Commissioner Pfeifer, The City's expert Dana Dettmar testified the development will have an adverse impact on water quality. The Commissioners were also aware of the Best Management Practices applied by the City to protect the natural resources on its own parcel and the BMPs contained in the Lake Agreement with Appellants who are Lake Homeowners to restore Heron's Lake.

b. The Planning Commission Should Have Ordered Testing and Remediation

The Planning Commission's decision to approve the Coastal Creek development without ordering testing and remediation is inconsistent with these provisions of the Sanibel Plan. To be consistent with the Sanibel Plan, as well as the Lake Agreement, the Planning Commission should have included conditions requiring:

1. Pre-development Best Management Practices. These include soil and groundwater testing as recommended by DEP, future surface water quality testing in Heron's Lake, assessment and remediation of any legacy contamination that remains on site, and limiting development until contaminated soils that are removed. As the City's own actions demonstrate, independent testing and remediation are Best Management Practices. To allow this development to proceed without testing and remediation would *impair*, rather than *protect,* the groundwater and Heron's Lake. It would harm City-owned property (Heron's Lake) and undermine the effectiveness of the Lake Agreement, to which the City is a party. Because no testing has been done on the site, no one knows if the site is impairing nearby surface waters, including Buck's Key Lake, the Lee Anne Tauck Tract Lake (future home of Ding Darling's new rookery), and Clam Bayou.

2. Post-development Best Management Practices. These entail, at a minimum, 100% native vegetation for the entire development, as recommended by the staff and SCCF.

III. LDC Sections 14-244, 14-247 Hazardous Conditions, Human Health, Abatement

a. LDC Section 14-244 and 14-247 requires abatement of "hazardous" conditions

Section 14-244 of the Sanibel Land Development Code defines land as "*hazardous*" when conditions on the land are "*dangerous to the health, welfare or safety of the public, the occupants of surrounding properties, or the occupants of such land;*" or when "*noxious odors*" or "*harmful particulates*" emanate from the land. When land is declared hazardous, Section 14-247 requires the landowner to abate and remove the hazardous condition by assessing, remediating and restoring the land "*by the means least expensive and least detrimental to the owner's property and to the public environment*."

The Commissioners considered unrebutted evidence that this subject site is the primary source of legacy nutrients in Heron's Lake. Lake Homeowner Howard Simon testified these nutrients produce harmful blue-green algae blooms that release airborne toxins that can cause liver damage, Alzheimer's, and other neurological diseases. The harm caused by these Harmful Algae Blooms is well-documented, as acknowledged by Commissioner DeBruce. These conditions endanger the health of the Lake Homeowners and neighbors who live near the Lake, as well as the health of the future residents of Coastal Creek and other Sanibel residents.

Lake Homeowner John Cooper testified how noxious odors emanate from the Lake, which he called the "putrid pond" that can be detected by human sense of smell as airborne toxins released by the Harmful Algae Blooms enter human airways. These harmful and unhealthy conditions are the reason the City entered into the Lake Agreement.

To be consistent with sections 14-244 and -247 of the Land Development Code, the Planning Commission should have imposed a condition requiring the Applicant to conduct additional testing recommended by DEP and to abate any hazardous conditions revealed by the testing. The failure to include such a condition undermines the City's and Lake Homeowner's efforts to remediate the lake, and endangers the health of current and future residents on and adjacent to the site.

b. LDC Section 78-15 requires abatement of public nuisance.

Land Development Code Section 78-15 states "*The provisions of this Land Development Code are deemed to be necessary for the protection of the public health, safety and welfare and for the protection of the peaceful use and enjoyment of any lands by the owners thereof, and any violation of this Land Development Code is hereby declared by the city council to constitute a public nuisance.*"

John Cooper's testimony about how the "putrid" stench emanating from Heron's Lake makes it impossible for his family and neighbors to enjoy their exterior space is the very definition of a public nuisance.[6] To be consistent with LDC Section 78-15, the Planning Commission should have declared the existence of a public nuisance and ordered testing and abatement to protect the property rights of the Lake Homeowners, and to restore to them the peaceful use and enjoyment of their exterior space, including the otherwise beautiful Heron's Lake.

c. Florida law requires disclosure of material residential defects and conditions.

Applicable Florida law requires the full disclosure of the history and environmental problems of this site, as acknowledged by Commissioner Pfeifer. The Florida Supreme Court's held in *Johnson v. Davis, 480 So.2d 625 (Fla. 1986)*, that a seller of residential real property has a common law duty to disclose any latent defects if he or she has knowledge of conditions materially affecting the value of the property that are not readily observable or known to the buyer. The Planning Commissioners considered unrebutted evidence that at least three Lake Homeowners recently purchased their homes *without adequate disclosure* of the problems of Heron's Lake, or the proximity of a decommissioned wastewater plant. Four of the six proposed homesites are proposed to be located directly on top of the former wastewater pond.

The Applicant's Attorney acknowledged the disclosure requirement. He testified, "there's going to be nothing hidden. … We will come up with a way that is fair and honest." Yet the method he suggested, "if they are getting financing, they might find it in the title search," is neither timely nor adequate notice of the issues regarding the site. The Planning Commission should have recognized, based on these facts, that adequate disclosure may not be made. Therefore, a condition should be included that requires the Applicants to disclose to prospective purchasers that the site is a decommissioned wastewater plant, test results (or the lack thereof), and actions taken to remediate the site (or the lack thereof).

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[6] Florida common law also recognizes and prohibits the creation of a public nuisance. "Anything which annoys or disturbs one in the free use, possession or enjoyment of his property or which renders its ordinary use or occupation physically uncomfortable may become a nuisance and may be restrained." *Town of Surfside v. Cnty. Line Land Co.,* 340 So. 2d 1287, 1289 (Fla. 3d DCA 1977). Pollution falls within the definition of a public nuisance. *Surfside,* 340 So. 2d at 1289.

Petitioners' Request for Relief: Impose Additional Conditions of Approval

For the reasons set forth above, the Petitioners' respectfully request the City Council to impose the following conditions on the Applicant:

Additional Conditions:

1. Prior to issuance of building permits for housing on lots 1-6, roads, stormwater ponds or other improvements on the subject site, the Applicant shall locate and excavate all soils with elevated Phosphorous levels that exceed the soils capacity to assimilate Phosphorous.

2. Department of Natural Resources must confirm that the site has been fully remediated prior to development of any streets, driveways, utilities, houses, pools, trenches or other improvements on the subject site.

3. All soil excavated as part of the construction process shall be removed from the island and disposed of properly offsite.

4. Only 100% native vegetation shall be required for the entire development, as recommended by the staff and SCCF.

5. The Applicant shall disclose the history of the site and all testing and remediation reports in advance to prospective purchasers in a manner to be approved by the City Council.

/s/ Ralf Brookes Esq.
Attorney for Appellant/Petitioners
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ADDITIONAL NEW INFORMATION AUGUST 2023

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EXHIBIT A

EXHIBIT A:

LIST OF APPELLANT/PETITIONERS

August 8, 2023

1. **Heron's Landing HOA**
   Box 100
   Sanibel, FL 33957
   Board members Kooroush Saeian, and Sally Haynes spoke in their capacity as board members at hearings on 1/9/23 and 1/24/23

2. **Kooroush Saeian**
   5422 Shearwater Drive, Unit H
   Sanibel, FL 33957
   Individual resident and landowner, and as Board member who spoke on behalf of the Heron's Landing HOA at Planning Commission Hearing on 7/25/23

3. **Sally Haynes**
   5430 Osprey Court
   Sanibel, FL 33957
   Individual resident and landowner, and as Board member who spoke on behalf of the Heron's Landing HOA at Planning Commission Hearing on 7/25/23

4. **Melisa Laidlaw**
   1983 My Tern Court
   Sanibel, FL 33957
   Individual resident and landowner, Spoke at Planning Commission Hearing on 7/25/23

5. **Gayle Dendinger**
   5406 Osprey Court
   Sanibel, FL 33957
   Individual resident and landowner, Spoke at Planning Commission Hearing on 7/25/23

6. **Doug Stimmel**
   5418 Osprey Court
   Sanibel, FL 33957
   Individual resident and landowner, Participated by written comment before or at the planning commission, met with city staff on the HOA's behalf and submitted the Heron's Landing HOAs proposed conditions on 8/24/22. Spoke at Planning Commission Hearing on 7/25/23.

7. **Cathie Kozik**
   5419 Osprey Court
   Sanibel, FL 33957
   Individual resident and landowner, Spoke at Planning Commission Hearing on 7/25/23

EXHIBIT B

HERON'S LANDING HOA OPPOSITION TO COASTAL CREEK DEVELOPMENT - JULY 18, 2023

Heron's Landing Homeowners Association

July 18, 2023

Mr. Craig Chandler & City Clerk
Sanibel Planning Department

RE: Heron's Landing HOA Concerns on the Proposed Coastal Creek Development – Planning Commission July 25, 2023

Please provide this information in the staff report as "Public Comment".

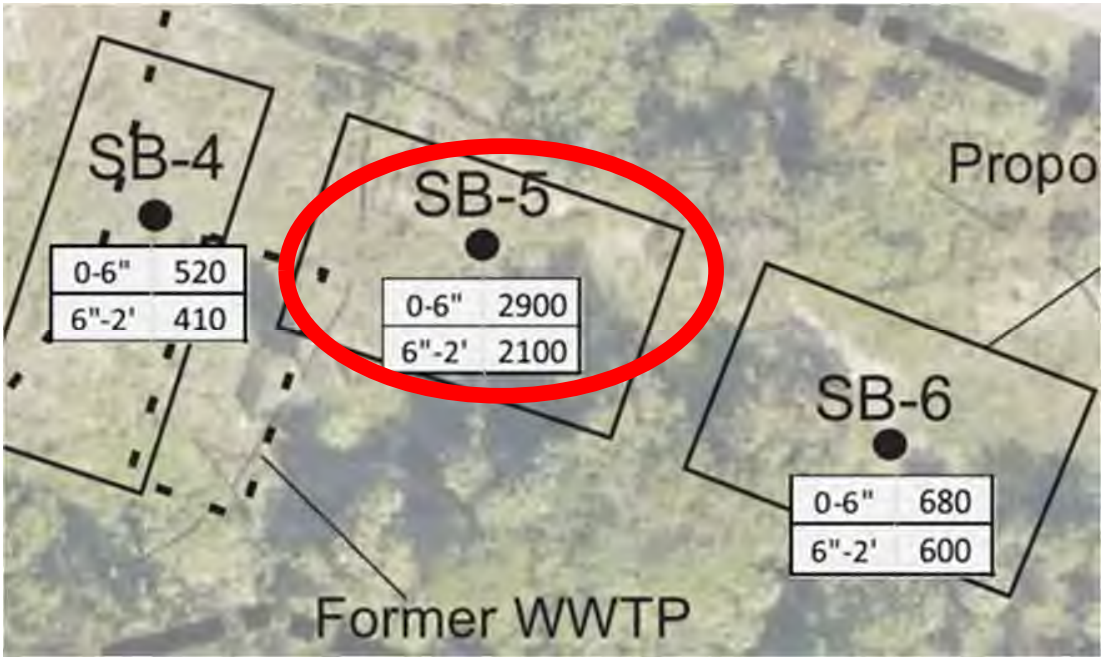
As you consider once again the proposed Coastal Creek Development in Sanibel, Florida, Heron's Landing HOA, reiterates our serious environmental concerns with this site. Our HOA opposes the development of this site in light of the recent limited scope testing provided by the developer.

The Homeowners Association represents the home ownership of 41 families that own and live on property that would abut this development. In addition, 7 of our homeowners are contributing financially, along with the City of Sanibel, on a mitigation plan for pollutants that all sides have acknowledged are in the Heron's Landing Lake. The HOA and many of our homeowners have raised serious concerns with the Sanibel Planning Commission for over a year now. The HOA sent an initial letter to the Sanibel Planning Department on July 27, 2022. This was followed up with documented concerns recorded in testimony before the planning commission on January 9th, 2023, and January 24th 2023. After the Planning Commission approved the development without incorporating any of our concerns, we officially appealed to the Sanibel City Council on May 2nd, 2023, with the decision for approval being remanded to the Planning Commission for reanalysis based on our concerns along with concerns of others who are committed to living up to all the standards set forth in the Sanibel Plan and the Land Development Code.

There are six (6) principal reasons why the Heron's Landing opposes Coastal Creek:

1. "Startling" Phosphorous found (2900 -2100 mg/kg) on this site by recent June 15, 2023 Report.
   After nearly a year of repeatedly requesting Comprehensive Testing by our HOA and others, the developer submitted a limited testing report. This testing was completed on June 15, 2023 **after** FDEP closed the file on April 4, 2023. John Sego with FDEP has requested this study be sent to them for review.

Looks like SB 5 lot is the area where the highest legacy Phosphorus has been identified.



2. <u>"The Situation has Changed"</u>
   SCCF & Matt DePaolis stated on July 12, 2023 that they do not support development on this site with recent testing unless more comprehensive site testing and remediation is done to address the severity of the problem on this site. SCCF plans to provide a letter addressing this issue.

3. <u>The Presence of Blue Green Algae in the Heron's Landing Lake</u>
   City of Sanibel DNR took a water sample of Heron's landing Lake on June 27th, which was then tested by the SCCF lab. The limited sample indicated Blue Green Algae. DNR may review the specifics.

Photographs taken 6/28/23 of Heron's lake near Sanibel Bayou road: A water sample was taken by Dana Dettmar with the Blue Green Algae.

4. Construction over Former Wastewater Plant
   Coastal Creek is planned to be constructed over a former Wastewater Plant with documented nutrient/groundwater pollution. SCCF & DNR staff are not aware of any sites on Sanibel where housing is built on top of a decommissioned Wastewater Treatment Plant. Of all the pristine building sites available on Sanibel, why does building on this impaired site make any sense?

5. Proven Nutrient Contamination of Lake
   Testing performed by SCCF in 2018 demonstrated the presence of nutrient contamination on this land, and these results have been reiterated by very limited (and insufficient) 2023 testing of the "Clean fill"from the prior remediation performed by the City in 2009.

6. Need for Compliance with The Sanibel Plan and the Sanibel Land Development Code
   The Sanibel Plan and the Sanibel Land Development Code give clear directions on the actions that must be taken when land is found to be impaired and a danger to water quality on the island. These items will be part of the record at the Planning Commission Meeting.

We look forward to working with all of you to come to the best solution for all of Sanibel. This is a difficult time for all who care about the environment of this special island. It is incumbent on all of us as stewards of this land to ensure that the right thing continues to be done for all current and future homeowners.

Heron's Landing HOA has designated Doug Stimmel as our representative with regard to the Coastal Creek development. Please direct any response and comments to him (dwstimme@gmail.com; 336 – 978 – 0192).

Regards,

Kooroush Saeian, MD
President, Heron's Landing Homeowners Association

EXHIBIT C

SCCF
SANIBEL-CAPTIVA
CONSERVATION FOUNDATION

July 18, 2023

Planning Commission

RE: Coastal Creek Development Plans

Dear Commissioners,

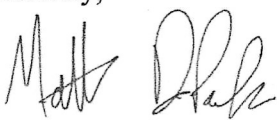
I am writing to express my concerns around the proposed Coastal Creek development. As a conservation organization that strives to protect and care for southwest Florida's coastal ecosystems, the Sanibel-Captiva Conservation Foundation prides itself on protecting water quality around Florida, and especially on our barrier islands. Florida is plagued by impaired waterways, with much of the pollution coming from nutrients. Nitrogen and Phosphorus are important elements for plant growth and are necessary for a functioning ecosystem. Unfortunately, as we have developed south Florida, we have introduced multiple other sources of these nutrients in massive quantities. When deposited into our waterways the nutrients cause a host of issues like chocking our waterways with invasive plants, causing massive toxic harmful algal blooms, and spurring the growth of macroalgae that will eventually die and rot causing hypoxic dead zones through eutrophication. There are many opportunities for these nutrients to enter our waters, from massive agriculture applications to leaking septic tanks and home fertilizer and irrigation practices. With so many sources of these dangerous pollutants it is important that the city of Sanibel does not introduce large amounts of nitrogen and phosphorous into the environment. The planned Coastal Creek development has the potential to become a major source of nutrient pollution into the nearby waterways.

The planned development is sited in the footprint of a decommissioned package plant. When the plant was decommissioned, the city worked to remove the contaminated soil and replace it with clean fill. The contaminated soil was treated as though it was hazardous waste and hauled offsite to be placed in a landfill. During initial presentations assurances were made that the site had been properly decommissioned and there was no additional risk of nutrient pollution from the development. Water samples taken from nearby water bodies showed the presence of dangerous toxic algae. After recommendations from the Florida DEP, and requests from homeowners in the area, the developer hired RMA consultants to conduct a phosphorous testing on the site. Their findings were alarming. One of the sites tested showed severely elevated phosphorous levels, with 2900 mg/kg in the first six inches of topsoil. The other sites tested were in the 250-850 mg/kg range. With such startling results, it is clear that the site in in need of further remediation.

We ask that any development plan for the site incorporate the Department of Natural Resources recommendations for native plantings, preventing sod from being used on site, and restrict the irrigation and application of fertilizers so as to not exacerbate the problem. We also request more extensive testing be done on the site so that we can understand the scale of the contaminated soil. Finally, we request that

any soil disturbed or excavated for this project be treated like the hazard that it is, and be removed from the site to be placed in a landfill. We hope that the developer will recognize the risk that this project could be to the surrounding water bodies and works with current property owners to develop a robust remediation plan for the area. The community has an opportunity to turn this potential pollution source into a demonstration of how remediation could work.

Sincerely,



Matt DePaolis
Environmental Policy Director

EXHIBIT D

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.

March 28, 2023

Mr. Ralf Brookes, Attorney
1217 East Cape Coral Parkway
Suite 107
Cape Coral, Florida 33904

Re: Proposal for Subsurface Investigation at the Coastal Creek Development Property (Former Sanibel Bayous Wastewater Treatment Plant Site). Integra Environmental Project 2303-97

Mr. Brookes:

Integra Environmental and Water Services, Inc. ("Integra Environmental') appreciates the opportunity to assist your client with the review of available information pertinent to the past environmental conditions and recommendations for further assessment at the referenced property.

Integra Environmental's has reviewed the Florida Department of Environmental Protection (FDEP) available information related to the above referenced site. The information indicated that the former Sanibel Bayous Wastewater Treatment Plant previously located at the site of the now planned Coastal Creek Development had unresolved environmental issues regarding its capacity and operation at least as flow control and submittal requirements regarding engineering evaluations of the treatment facility. These operating issues prompted FDEP to deny an operating permit in 2006. In a 2007 Consent Order between FDEP and Sanibel Bayous Utility Corporation, it was stated that as part of a judgement in favor of FDEP (plaintiff), it required the construction of a surge facility to receive and contain flow from the treatment plant. It is not known if the required structure/tank was ever built. In 2008, the wastewater treatment plant was decommissioned by the City of Sanibel. It included the removal of the civil structures and the backfilling of subsurface infiltration areas used by the plant. It is likely that the infiltration basins were not properly designed to support the poorly treated loads of nitrate-nitrogen and phosphates and therefore through percolation and the site's groundwater flow resulted in the eutrophication of the nearby Herons Landing stormwater pond.

An evaluation of eutrophication indicators of the Herons Landing stormwater pond was conducted by the Sanibel-Captiva Conservation Foundation (SCCF). The study was funded by the City of Sanibel Natural Resource Department in response to the citizens concerns about the conditions of the stormwater pond and results of a baseline water quality study. The sampling protocol of the study conducted in July 2017 included surface water sampling, groundwater sampling, groundwater flow at the former infiltration areas (perc ponds) and soil composited sampling. Analytical results indicated among other findings that the main source of nutrients in the stormwater pond is the groundwater. The loading rates of nitrogen and

phosphorus driven by the high nutrient concentrations and site-specific soil hydraulics are extremely great. The SCCF study reported that the groundwater concentrations of nutrients on the former infiltration basins were the highest on Sanibel. The collected soil samples were saturated with phosphorus and the ratio of saturation was greater than the capacity to hold phosphorus. Similarly, the concentrations of nutrients analyzed from samples collected at the stormwater pond were also the highest on Sanibel. Additional analysis for metals; lead, copper, cadmium, mercury and arsenic were conducted from soil and groundwater samples collected at the percolation pond areas. The results indicated detectable concentrations of all metals analyzed. Lead, cadmium and copper in the sediment samples were above background concentrations while arsenic and mercury were below background concentrations. The groundwater analytical results for arsenic, cadmium and lead also indicated detectable concentrations.

Based on the analytical results and plans for land development, Integra Environmental is of the opinion that the source of contaminants needs to be further assessed prior to any remediation alternative. Our recommendation is to assess and delineate the vertical and horizontal extent of nitrogen, phosphorus and metals in the soil and groundwater. The subsurface assessment should be comprehensive and not limited to the areas where new homes are planned to be built if the objective is to potentially remediate the source of nutrients adversely affecting the stormwater pond. If the protection to future residents from exposure to metals is also an objective, the undersaturated subsurface should also be assessed for eight (8) RCRA metals. Integra Environmental has prepared the following scope of work based on the described recommendations.

Scope of Work

Integra Environmental proposes to install eight (8) to ten (10) temporary monitoring wells and advance approximately the same number of soil borings using a truck-mounted Geoprobe direct push equipment. The soil borings will be advanced in depth intervals; surface to 6 inches, 6 inches to 2 feet and 2 feet to 4 feet or until the water table is reached. Soil samples will be collected from these intervals following FDEP soil sampling protocols and standard procedures. The monitoring wells will be constructed with schedule .40 PVC piping with ten feet of slotted screen and solid riser above the well screen. The total depth for the shallow wells will be approximately eleven (11) to fifteen (15) feet below land surface depending on the depth of the water table. The wells will be completed with a sand filter pack around and above the screen and a bentonite plug to seal annular space. The wells can be permanently installed with concrete pads, aluminum protective casings and water-tight locking caps. The wells will be installed by a licensed water well contractor and supervised by a Senior Geologist. Once installed, the wells will be properly developed and purged for sampling purposes. The location for soil and groundwater sampling points is primarily the area occupied by the percolation pond and outward for delineation purposes. Actual soil boring and monitoring well locations will depend on the site's access characteristics. Depending on analytical results, additional soil borings/monitoring wells may be necessary.

The newly installed monitoring wells will be sampled at least 48 hours after installation and in accordance with the FDEP's Standard Operating Procedure (SOP) 001/01. To ensure stabilization of the samples, continuous groundwater measurements of pH, conductivity, temperature, dissolved oxygen and turbidity will be collected and recorded during sampling. The samples will be properly iced and delivered to a local environmental NELAC accredited laboratory.

A letter-report summarizing the field activities and results of the soil and groundwater assessment will be prepared. The letter-report will summarize the analytical data, provide comparisons to the Florida Department of Environmental Protection FDEP's Cleanup Target Levels, and provide conclusions and recommendations. The report will also include well sampling logs and laboratory analytical data and will be signed and sealed by a State of Florida registered Professional Geologist.

Project Costs

The project costs by Integra Environmental and its subcontractors for the proposed scope of work are estimated as follows:

DESCRIPTION	COSTS
Advancement of eight (8) to ten (10) soil borings at the same locations as the eight (8) to ten (10) wells. One (1) deep monitoring well is included. Costs include drilling equipment, mobilization and demobilization, materials, and labor by drilling staff. Price includes permitting.	$4,950.00
Project Management by a Senior Geologist, coordination and supervision of field activities and preparation of letter-report.	$4,900.00
Groundwater sampling and soil and groundwater laboratory analysis for nitrogen, nitrate, nitrite, phosphorus and eight (8) RCRA metals. Costs include labor, equipment rental, preparation of sampling kits and delivery. A total of 30 soil (3 soil intervals per location) and 10 groundwater samples are quoted.	$14,250.00
Travel Expenses and miscellaneous.	$600.00
Total Estimated Costs	**$24,700.00**

Note: Cost for drilling is for temporary well installation and access with regular drilling equipment. If the project requires permanent wells, an additional installation fee of $275.00 per well will apply. Integra Environmental will not conduct consulting activities not authorized by Client. Client will be appraised of any contingency requiring additional costs.

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.

Attached are our terms and conditions and authorization sheet. Should you decide to secure our services, please sign, date, and return the authorization page. Upon receipt of your authorization, we will make the necessary arrangements to proceed with the work. Should you have any questions, please do not hesitate to call me at (305) 907-4621.

Sincerely,

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.

Sid Duque, P.G., LEP
Director Environmental Services

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.

PROJECT AUTHORIZATION
SUBSURFACE INVESTIGATION
COASTAL CREEK DEVELOPMENT
SANIBEL, FLORIDA

This authorization constitutes a legal contract governed by the laws of the State of Florida. The undersigned parties have reviewed this document, and the Terms and Conditions for Professional Services attached hereto and incorporated herein, and agree these Terms apply to the services described in the attached proposal letter dated March 28, 2023 and to be performed by Integra Environmental and Water Services, Inc. according to the terms of this contract, Proposal and above-described proposal letter.

Client will be billed on a monthly basis, for services not paid for in advance, or Client will be billed upon completion of the project, whichever comes first. Payment is to be made within 30 days of the invoice date, at which time overdue charges will accrue interest at a rate of 1-1/2% per month. In the event it becomes necessary for Integra Environmental and Water Services, Inc. to legally enforce this contract or to retain an attorney to collect any amounts owed under this contract, Client agrees to indemnify Integra Environmental and Water Services, Inc. for all attorneys' fees and costs incurred as a result of its right of enforcement.

The parties have read and agreed to the Terms stated herein and incorporated herein, and have negotiated this contract in good faith.

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.

Witness

By:_____
Sid Duque, P.G., LEP
Director Environmental Services

Witness

By:_____

Witness

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.

TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

The attached Terms and Conditions for Professional Services is incorporated in and made a part of this proposal and contract:

DEFINITIONS:

a) CLIENT: The Company for whom Consultant agrees to perform environmental services.
b) CONSULTANT: Integra Environmental and Water Services, Inc., an environmental consulting firm, who has agreed to perform services on behalf of Client for Environmental Services.
c) CONTRACT: Contract includes this document, Project Authorization/Proposal and proposal letter dated March 28, 2023 and attached hereto.

TERMS AND CONDITIONS:

INDEMNIFICATION FOR POLLUTION RELATED CLAIMS: In view of the uncertainties involved in solving environmental problems, and the risks of claims imposed upon the CONSULTANT in performing such services, for $ 10.00 and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the CLIENT agrees to indemnify the CONSULTANT as follows:

CLIENT agrees to release, indemnify and hold harmless CONSULTANT and its officers, directors, employees, agents, consultants and subcontractors from all liability, claims, demands, damages, losses, and expense, including, but not limited to, claims of CLIENT and other persons and organizations, for reasonable fees and expenses of attorneys and consultants, and court costs, arising out of the performance of this Agreement. Such indemnification includes, but is not limited to, claims which arise out of the actual, alleged, or threatened dispersal, escape, or release of chemicals, wastes, liquids, or gases which are irritants, contaminants or pollutants, or the failure to detect the presence of such, and any claim arising out of the performance of the terms of this Agreement, except as set forth below. All soils, sediments, water and other toxic or hazardous waste material remain the property of the CLIENT, and not Consultant, during their storage, transport and disposal.

This paragraph shall not apply if CONSULTANT'S grossly negligent acts or omissions or intentional misconduct or willful disregard of its obligations is the legal cause of the loss. In no event shall CONSULTANT'S aggregate liability exceed the greater of $50,000 (Fifty Thousand Dollars) or the compensation under this agreement whichever is greater.

BINDING ARBITRATION: The parties herein agree to submit to Binding Arbitration, to be governed according to Florida Statute Chapter 682. Arbitration shall be considered a condition precedent to the filing of any lawsuit arising out of this contract. The laws of the State of Florida govern this contract.

ATTORNEYS FEES: The prevailing party involving any dispute arising out of this contract, including Arbitration and Litigation, is entitled to recover a reasonable attorneys' fee, plus costs.

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.

HOURLY RATE SCHEDULE

JANUARY 1, 2031 - DECEMBER 31, 2023

Project Director	$ 160/hour
Senior Geologist (P.G.)	$ 140/hour
Senior Engineer (P.E.)	$ 140/hour
Senior Scientist	$ 120/hour
Project Hydrogeologist	$ 120/hour
Project Engineer	$ 100/hour
Project Scientist	$ 95/hour
Hydrogeologist	$ 95/hour
Engineer	$ 85/hour
Geologist	$ 85/hour
Scientist	$ 85/hour
Field Technician	$ 75/hour
Field Support	$ 65/hour
Draftsperson - CAD Services	$ 60/hour
Administrator	$ 40/hour
Support/Document Preparation	$ 40/hour

EXHIBIT E

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.

July 10, 2023

Mr. Ralf Brookes, Attorney
1217 East Cape Coral Parkway
Suite 107
Cape Coral, Florida 33904

RE: Review of the Sanibel-Captiva Conservation Foundation Eutrophication Evaluation and Soil Groundwater Investigation Reports Prepared by RMA GeoLogic Consultants for the Former Sanibel Bayous Wastewater Treatment Plant (currently the planned Coastal Creek Development site) - ("the site").

Dear Mr. Brookes:

Integra Environmental and Water Services, Inc. ("Integra Environmental"), has reviewed the Herons Landing Community Eutrophication Evaluation and the two most recent investigation reports dated March 16, 2023, and June 15, 2023 prepared by RMA GeoLogic Consultants, Inc. (RMA). We offer the following comments:

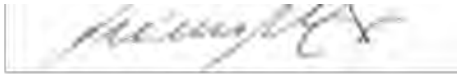
- An evaluation of eutrophication indicators of the Herons Landing stormwater pond located south of the Site was conducted by the Sanibel-Captiva Conservation Foundation (SCCF). The study conducted in July 2017 included surface water sampling, groundwater sampling, groundwater flow at the former infiltration areas (perc ponds) and soil sampling at the former wastewater treatment plant. Analytical results indicated among other findings that the main source of nutrients in the stormwater pond is the groundwater. The loading rates of nitrogen and phosphorus driven by the high nutrient concentrations and site-specific soil hydraulics are extremely great. The SCCF study reported that the groundwater concentrations of nutrients on the former infiltration basins were the highest on Sanibel.
- The collected soil samples were saturated with phosphorus and the ratio of saturation was greater than the capacity to hold phosphorus. Similarly, the concentrations of nutrients analyzed from samples collected at the stormwater pond were also the highest on Sanibel.
- Notwithstanding the evidence of the widespread presence of nitrogen and phosphorus reported in the SCCF's eutrophication evaluation, the Florida Department of Environmental Protection (FDEP) in a letter dated January 6, 2023, simply offered recommendations for subsurface assessment based on land use changes and not on the findings of the SCCF. The recommendations for subsurface assessment were limited to the assessment of eight (8) RCRA metals, nitrate and nitrite in the soil at the locations of the six (6) proposed new home sites and screening at two (2) undescribed groundwater sampling locations. No rationale for the number of soil and/or groundwater sampling locations were given. It is Integra Environmental's opinion that six (6) soil and two (2) groundwater sampling locations do not provide the spatial coverage for assessing existing pollutants for the area.
- The RMA's investigation dated February 22, 2023, and presented as a Soil and Groundwater Investigation letter-report is a soil and groundwater screening as recommended by FDEP. It is not a comprehensive site assessment and should not be construed as such.

- According to RMA's letter-report, two soil sample intervals from 0 to 6 inches and 6 inches to 2 feet below land surface were collected at each of the six proposed homesite locations. There is no mentioning if these samples were composited as they should have and what procedures were used for sampling compositing and collection. There is no lithology description or boring logs. Regarding the groundwater screening, there was no installation of wells using standard drilling techniques. The wells, according to the letter-report, were hand-augered. Usually, hand-augered wells are not accepted for monitoring purposes. Additionally, 5 to 10 feet of slotted screen are used in the construction of monitoring wells. The report and the sampling well logs indicate that the screens were 2.5 feet long and the total depth of the wells just 7 feet bls. That is a very limited column of water. The groundwater sampling integrity was questionable. Per the report, samples were collected at the same time as the PVC riser/screens were inserted into the subsurface. Well development must be completed 24 hours before sampling (2008 Monitoring Well Design and Construction Guidance Manual – incorporated by reference in Chapter 62-520, F.A.C.). Following this guidance is important since allowing at least 24 hours prior to sampling provides sufficient time for the newly monitoring well and backfill material to equilibrate and for the created environment to re-stabilize.
- A June 15, 2023 Phosphorus Investigation letter-report by RMA includes soil analysis information of six (6) locations coinciding with the number and locations of soil sampling locations previously screened. Although the letter-report reveals phosphorus levels in soil sample locations SS-5A and SS-5B as high as 2,900 and 2,100 mg/Kg, respectively, no investigation to determine the presence or absence of phosphorus in the groundwater was conducted.
- Integra Environmental's opinion is that a more comprehensive assessment of the current sub-surface conditions should be conducted. Analytical information presented in the Eutrophication Evaluation by the SCCF Marine Laboratory should have alerted the State of Florida environmental agency that the presence of phosphorus, nitrogen and metals warranted a comprehensive assessment meeting the State contamination assessment procedures.
- It is our opinion that a comprehensive assessment of the source of the pollutants is necessary to assess and remediate the water quality impairments of the stormwater pond.

We appreciate the opportunity to offer our professional services on this project. If you have any questions concerning this report or its attachments, please do not hesitate to contact me. I can be reached via email at sid@integraenviro.com or at (305) 907-4621.

Sincerely,

INTEGRA ENVIRONMENTAL AND WATER SERVICES, INC.



Sid Duque, P.G., LEP
Director Environmental Services

State of Florida
Registered Professional Geologist No.1666

EXHIBIT F

Annette Perez

From: Doug Stimmel <dwstimme@gmail.com>
Sent: Tuesday, July 18, 2023 3:12 PM
To: Annette Perez
Subject: FW: Heron Lake blue-green bloom
Attachments: clump_9040.tif; 480 million cells L_9045.tif; planktoor leptolyngbya Anaghostidinema 9037.tif

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From: Dana L. Dettmar <Dana.Dettmar@mysanibel.com>
Sent: Tuesday, June 27, 2023 3:49 PM
To: Doug Stimmel <dwstimme@gmail.com>
Cc: Holly Milbrandt <Holly.Milbrandt@mysanibel.com>
Subject: FW: Heron Lake blue-green bloom

Doug,

Please see findings below from the water sample I took today. The main types of algae present are cyanobacteria, dinoflagellates, cryptophytes, and diatoms that are all saltwater species given the salinity of the sample at 31.2 PSU (seawater is 35 PSU). The reading of 175 ug/L of chlorophyll is a very high count for algae; however, I took a sample off of the surface where the algae was concentrated, so this is not a reading representative of the entire water column. While there is cyanobacteria present, the presence of toxin producing species cannot be confirmed without further testing. However, most toxin producing cyanobacteria are freshwater species and not saltwater species. Let me know if you have any questions.

Sincerely,
Dana

From: Rick Bartleson <rbartleson@sccf.org>
Sent: Tuesday, June 27, 2023 3:24 PM
To: Dana L. Dettmar <Dana.Dettmar@mysanibel.com>
Cc: Mark Thompson <mthompson@sccf.org>
Subject: Heron Lake blue-green bloom

The salinity was 31.3 and chlorophyll and phycoerythrin were 175 ug/L. The main biomass were 2-5 um diameter spherical cells (480 million cells/L). There are also colonies of the same size cells. I can't identify either, but they aren't *Microcystis aeruginosa*, and because of the salinity, I would not expect another *Microcystis* species. The clumps resemble *Coelomoron*.
https://www.greenwaterlab.com/micrographs-of-cyanobacteria/

I would expect dissolved oxygen problems based on the biomass and respiration. I can estimate the nutrient uptake and oxygen demand with a model.
Removal of the muck might help reduce the nutrient load

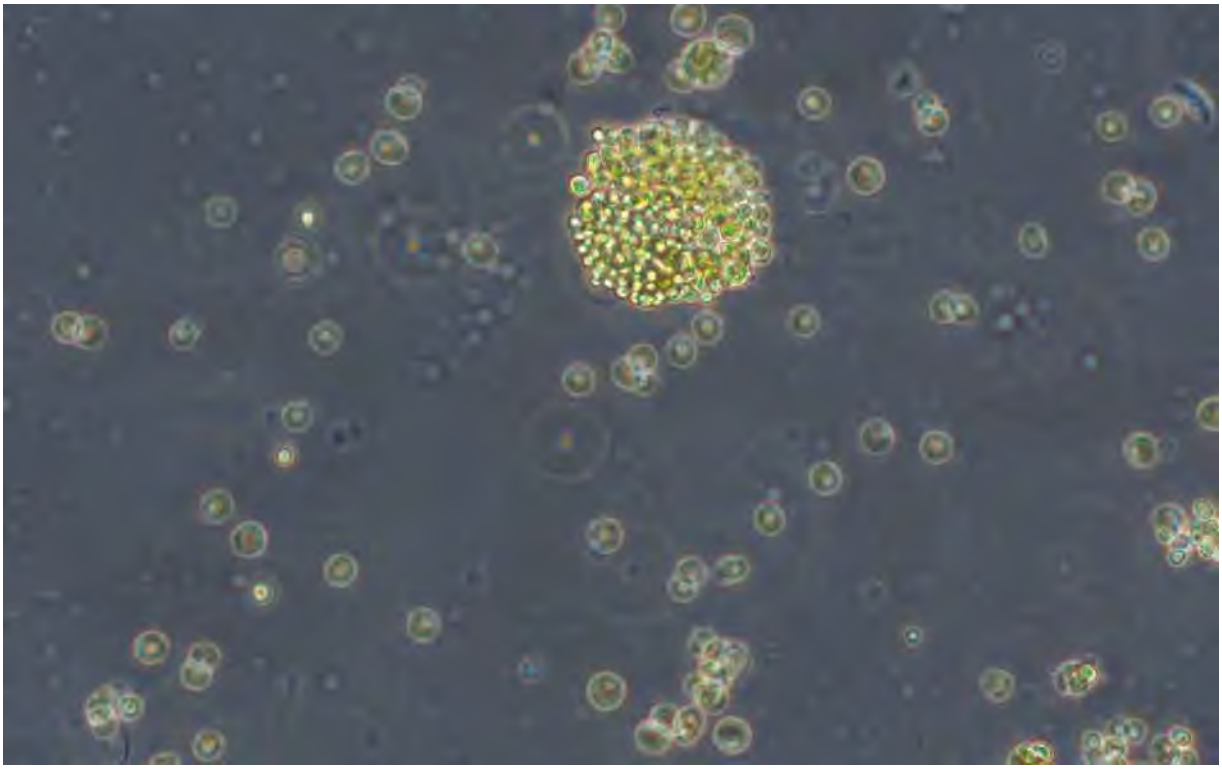
Someone may be interested in documenting the saline oligotrophic lake cyanobacteria bloom. They should probably do eDNA if they want to determine species. There doesn't seem to be many papers on saline eutrophic lakes. We could do counts and biomass on the flow-cam

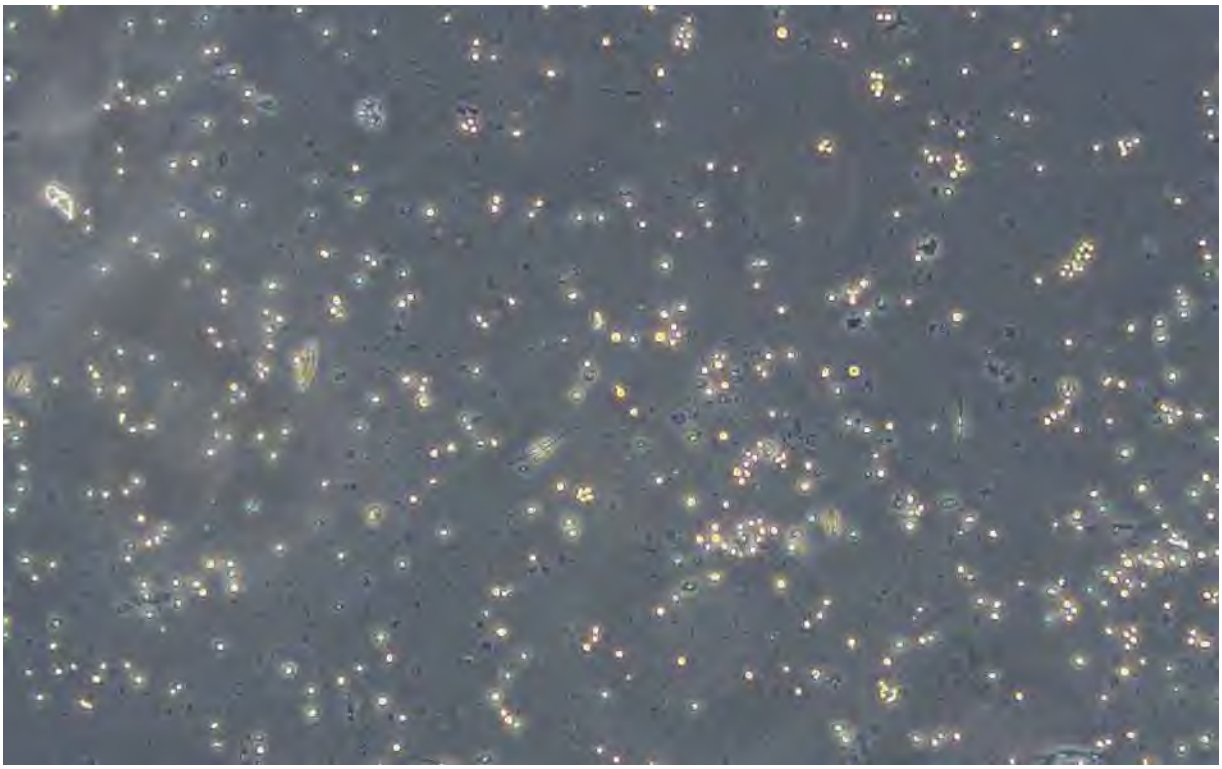
There were also other cyanobacteria: *Leptolyngbya* cf, *Oscillatoria*, *Spirulina*, dinoflagellates, cryptophytes and diatoms: *Cylindrotheca*, *Entomoneis*, *Navicula*, And some large rotifers. I took more pictures so let me know if you want any more.

--

Rick Bartleson, Ph.D.
Research Scientist Marine Laboratory

e: rbartleson@sccf.org
a: PO Box 839 Sanibel, FL 33957
o: 239-395-4617 x4302
Donate Here | Thank You





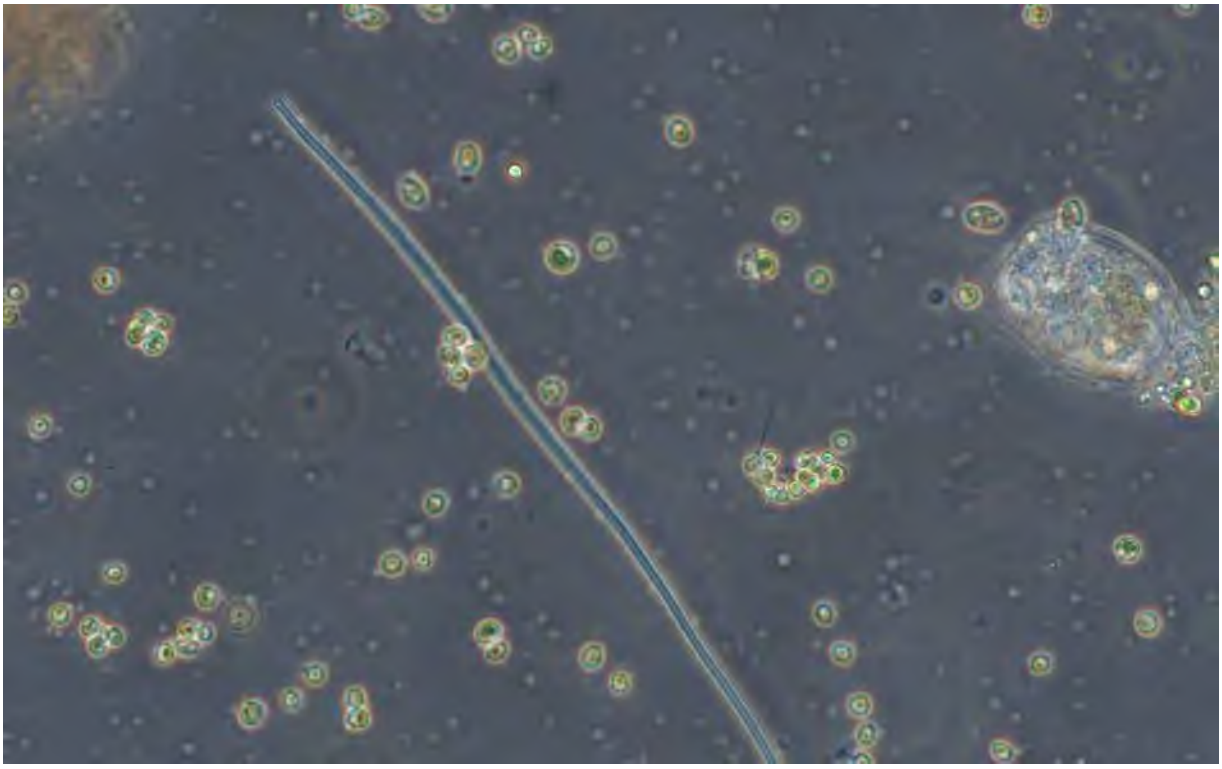


EXHIBIT G

RMA GeoLogic Consultants, Inc.

Cape Coral, FL 33904
3401 SE 15th Place, Suite A
Office: (239) 415-1818
www.rma-geologic.com info@rma-geologic.com

June 15, 2023

Mr. Brian Smith
EnSite, Inc.
2401 First Street, Suite 201
Fort Myers, FL 33901

Subject: Phosphorus Investigation at the Former Sanibel Bayous Wastewater Treatment Plant (future Coastal Creek Subdivision)
5301 Sanibel Captiva Road, Sanibel, Lee County, Florida
RMA Project #23-446

Mr. Smith:

RMA GeoLogic Consultants, Inc. (RMA) is pleased to present this phosphorus investigation at the above referenced property. The City of Sanibel decommissioned the former Sanibel Bayous Wastewater Treatment Plant (WWTP) in 2008. The two rapid infiltration basins west of the plant were filled in with soil at that time. Due to the site's land use change from industrial/commercial to residential, the Florida Department of Environmental Protection (FDEP) recommended soil and groundwater screening at the site to ensure the safety of future residents. RMA sampled the soil and groundwater for the 8 RCRA metals and nitrogen in March, 2023. No elevated heavy metals or nutrients were detected during that investigation. Due to recent concerns on phosphorus, it was requested phosphorus be sampled at the same depths and groundwater locations as the March, 2023 investigation.

METHODS OF INVESTIGATION

Soil samples collected for laboratory analysis were excavated using a decontaminated stainless-steel hand auger and immediately placed in new glass jars provided by the laboratory. The jars were subsequently labeled, placed on ice, secured in a cooler, and then personally delivered to Advanced Environmental Laboratory (AEL) in Fort Myers, Florida for analysis.

Temporary groundwater monitoring wells TMW-1 and TMW-2 were installed using a stainless-steel hand auger. After the final depth of the borehole was excavated, a new 1.25-inch diameter PVC riser attached to a 2.5-foot section of 0.01 slotted well screen was inserted in the borehole and bagged sand was poured in the annulus above the water table.

All soil and groundwater sample collection and handling procedures were performed in accordance with the Florida Department of Environmental Protection (FDEP) document entitled *Department of Environmental Protection Standard Operating Procedures for Field Activities, DEP-SOP-001/01* (January, 2017). A complete chain of custody was maintained throughout the sample procurement, transport, and analytical procedures.

Soil Investigation

On May 23, 2023, soil samples SS-1A through SS-6B were collected at the site. The future homesite locations and soil sample locations are illustrated on Figure 1. Soil samples with the A suffix were collected from the 0 to 6" below land surface (BLS) interval. Soil samples with the B suffix were collected from the 6" to 2' BLS interval. The water level in the water table aquifer was encountered at approximately 3 feet BLS during the investigation; however, wet season water table staining was observed in the lithology at approximately 2 feet BLS.

All soil samples were analyzed for phosphorus. Soil analytical results are summarized in Table 1 and illustrated in Figure 1. Concentrations of phosphorus detected in soil profile borings SB-1, SB-2, SB-3, SB-4, and SB-6 ranged from 260 mg/kg to 820 mg/kg. Higher phosphorus concentrations were detected in soil profile boring SB-5 at 2,900 (0 to 6 inches) and 2,100 (6 inches to 2 feet).

Groundwater Investigation

The location of the former rapid infiltration basin that the city filled in and the two temporary monitoring well locations are illustrated on Figure 1. The water level in the surficial aquifer was encountered at 3 feet BLS. A peristaltic pump was used to purge the wells until all visible turbidity and entrained sediments were removed from the produced groundwater from the well. Groundwater samples were collected once stabilization parameters were collected. The FDEP groundwater sampling logs are provided with the laboratory analytical report in Attachment A. Groundwater samples were collected from TMW-1 and TMW-2 for phosphorus analysis.

The groundwater analytical results are summarized in Table 2. No phosphorus was detected in TMW-1. Phosphorus was detected in TMW-2 at 3.2 ug/L. There are no FDEP Groundwater Cleanup Target Levels for phosphorus. This detection is possibly due to the former WWTP that was located at the site. TMW-2 was also noted as being a very low yielding well which is unusual for the coastal coarse-grained sands typical of the barrier islands.

Due to a perceived water table elevation irregularity from the low yielding TMW-2, the temporary wells were left in place to conduct an elevation survey of the water table aquifer. A round of water levels was collected on March 24, 2023 from the wells and adjacent lake.

Groundwater depths were measured in the monitoring wells from the top of casing. The top of casing elevations were leveled with a laser level using an arbitrary benchmark. Figure 2 illustrates the groundwater contour at the site on March 24, 2023. The groundwater flow direction in the water table aquifer appears to be towards the adjacent lake to the south. This is consistent with the preferential drainage direction.

CONCLUSIONS

Phosphorus detections at the SB-5 location were much higher than the rest of the site. This area was east of the former WWTP.

No phosphorus was detected in the northern temporary monitoring well installed within the former infiltration basin area. Phosphorus was detected in the southern portion of this basin area. This relatively elevated concentration may be resulting from the former use of this area as a WWTP percolation pond. Since there are no FDEP soil or groundwater standards for phosphorus, there are no soil or groundwater violations that would warrant additional assessment or remediation from FDEP's Waste Cleanup Section. Groundwater at the site appears to move into the adjacent lake to the south.

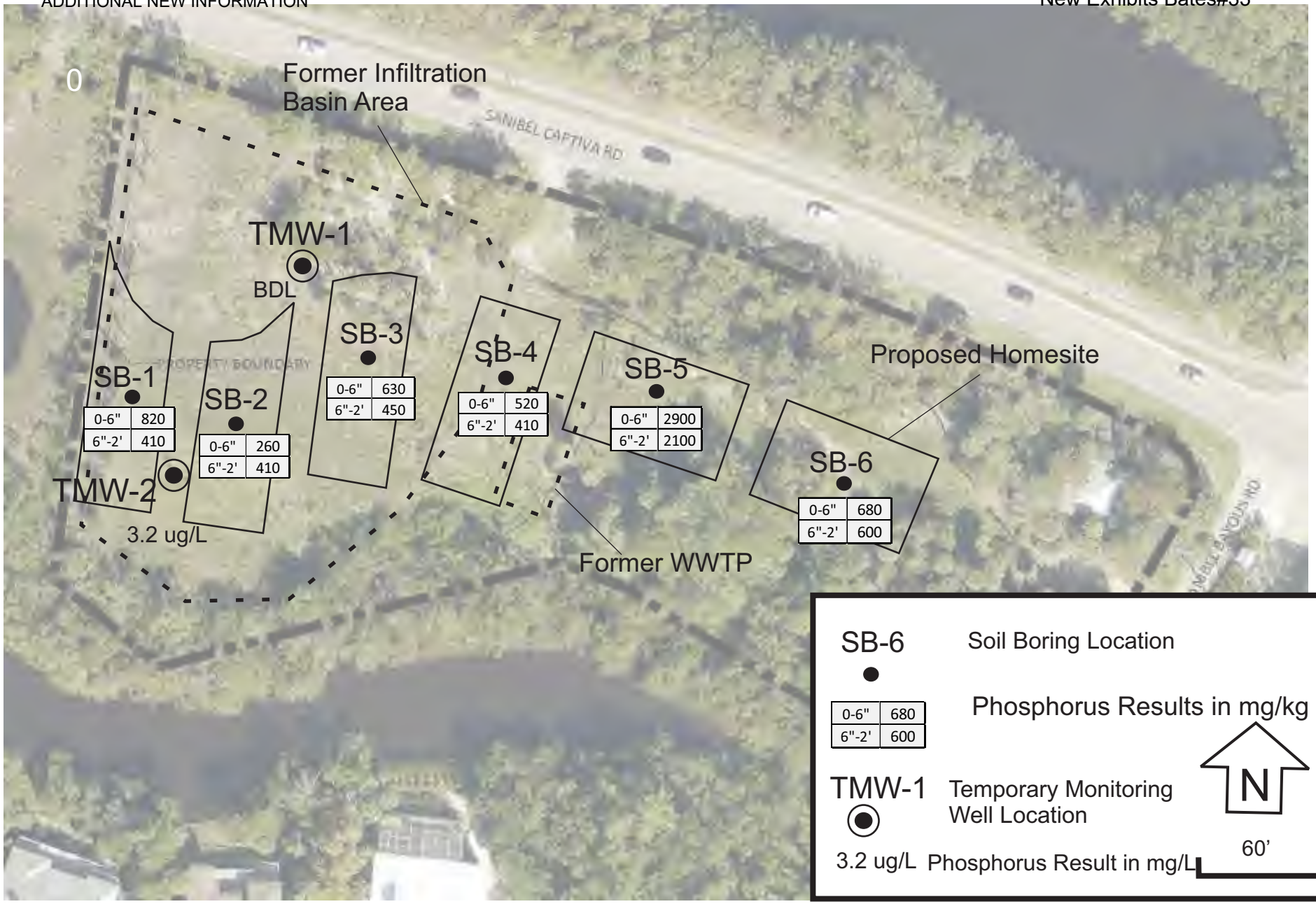
If you have any questions or comments regarding this report, please do not hesitate to contact us at (239) 415-1818.

Sincerely,

Donald W. Mayne
Vice President

OMAR RODRIGUEZ LICENSE No. 2273 STATE OF FLORIDA PROFESSIONAL GEOLOGIST

Omar Rodriquez, P.G., P.E.
FL Licensed Professional Geologist #2273
FL Licensed Professional Engineer #80330



RMA GeoLogic Consultants, Inc.	PROJECT NAME: Coastal Creek, 5301 Sanibel Captiva Rd, Lee County, FL
	PROJECT NUMBER:23-446 DATE: 6/15/2023

FIGURE 1 - Site Map Showing Former WWTP & Infiltration Basin, Soil and Groundwater Sample Locations, and Phosphorus Results

Summary of Soil Analytical Results

			PHOSPHORUS
Sample Number	Sample Interval (ft,bls)	Units	mg/kg
		RES SCTL	N/A
		COM SCTL	N/A
SS-1A	0-6"	5/23/2023	820
SS-1B	6"-2'	5/23/2023	410
SS-2A	0-6"	5/23/2023	260
SS-2B	6"-2'	5/23/2023	410
SS-3A	0-6"	5/23/2023	630
SS-3B	6"-2'	5/23/2023	450
SS-4A	0-6"	5/23/2023	520
SS-4B	6"-2'	5/23/2023	410
SS-5A	0-6"	5/23/2023	2900
SS-5B	6"-2'	5/23/2023	2100
SS-6A	0-6"	5/23/2023	680
SS-6B	6"-2'	5/23/2023	600

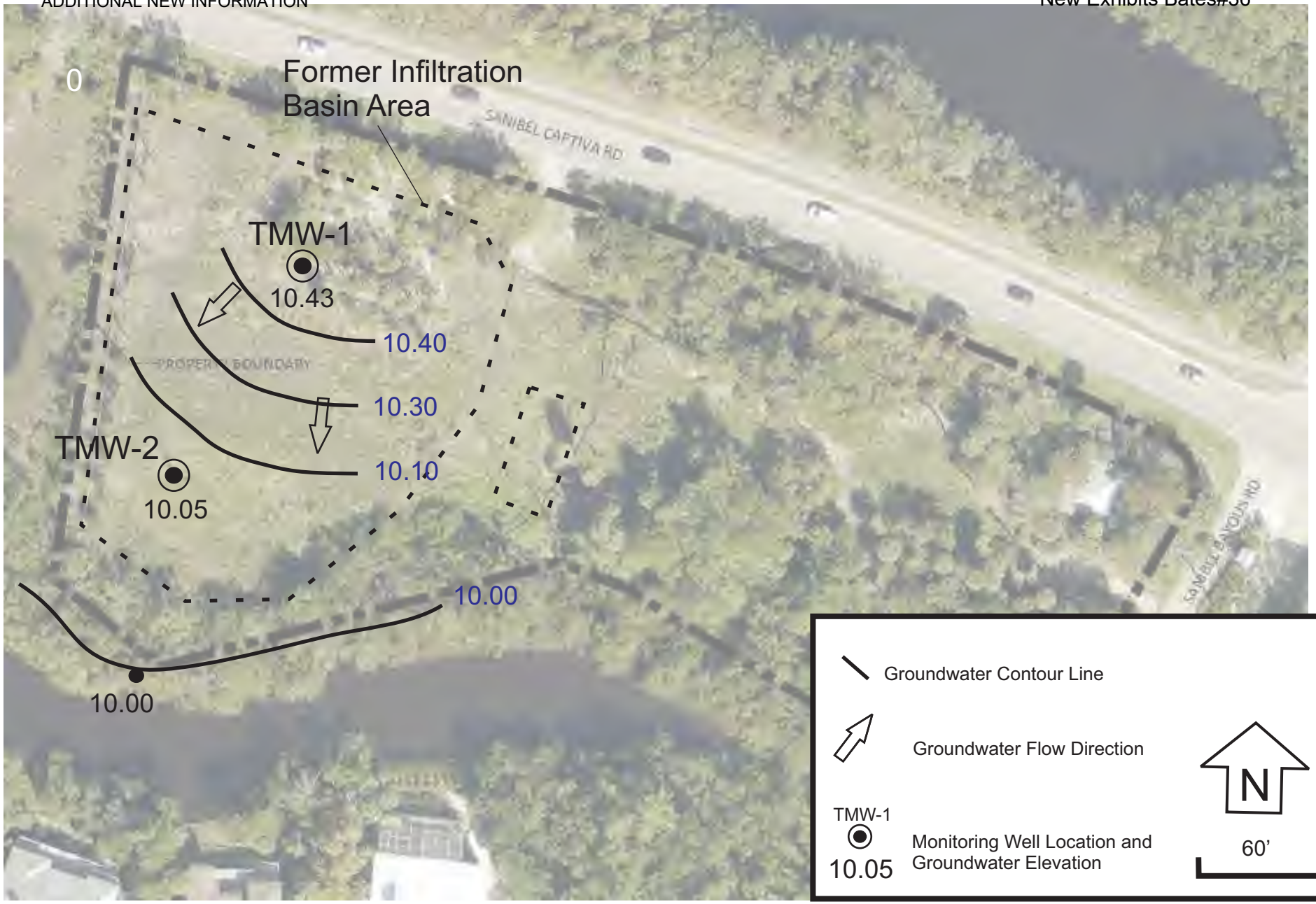
mg/kg = miligrams per killogram
bls = below land surface
RES SCTL - residential based soil cleanup target level
COM SCTL - commmerical based soil cleanup target level
NA - not analyzed

TABLE 2

Summary of Groundwater Analytical Results

	Sample Number				TMW-1		TMW-2	
Analyte	Units	GCTL	FWCTL	MWCTL	Result	Qual	Result	Qual
Phoasphorus	mg/L	N/A	N/A	N/A	0.15	u	3.2	

N/A - Not applicable
mg/L - miligrams per liter
GCTL - Groundwater Cleanup Target Level
FWCTL - Freshwater Cleanup Target Level
MWCTL - Marine Water Cleanup Target Level



RMA GeoLogic Consultants, Inc.	PROJECT NAME: Coastal Creek, 5301 Sanibel Captiva Rd, Lee County, FL
	PROJECT NUMBER:23-446 DATE: 5/31/2023

FIGURE 2 - Map Showing Location of Monitoring Wells and Groundwater Flow Direction

ATTACHMENT A

LABORATORY REPORT

ADDITIONAL NEW INFORMATION

New Exhibits Bates#38

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FINAL

Workorder: Coastal Creek (F2303094)

June 15, 2023

Don Mayne
RMA Geologic Consultants
3401 SE 15th Place
Cape Coral, FL 33904

RE: Workorder: F2303094 Coastal Creek

Dear Don Mayne:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday May 23, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Josh Snead

Josh Snead, Laboratory Manager
JSnead@aellab.com

Certificate of Analysis

NELAP Accredited E84492

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Workorder: Coastal Creek (F2303094)

Sample Summary

Lab ID	Sample ID	Matrix	Method	Date Collected	Date Received	Analytes Reported	Basis
F2303094001	TMW-1	WA	EPA 365.4	05/23/2023 08:48	05/23/2023 11:11	1	NA
F2303094002	TMW-2	WA	EPA 365.4	05/23/2023 09:45	05/23/2023 11:11	1	NA
F2303094003	SS-1A	SO	EPA 365.4	05/23/2023 08:05	05/23/2023 11:11	1	Dry
F2303094003	SS-1A	SO	SM 2540G	05/23/2023 08:05	05/23/2023 11:11	1	Dry
F2303094004	SS-1B	SO	EPA 365.4	05/23/2023 08:10	05/23/2023 11:11	1	Dry
F2303094004	SS-1B	SO	SM 2540G	05/23/2023 08:10	05/23/2023 11:11	1	Dry
F2303094005	SS-2A	SO	EPA 365.4	05/23/2023 08:15	05/23/2023 11:11	1	Dry
F2303094005	SS-2A	SO	SM 2540G	05/23/2023 08:15	05/23/2023 11:11	1	Dry
F2303094006	SS-2B	SO	EPA 365.4	05/23/2023 08:20	05/23/2023 11:11	1	Dry
F2303094006	SS-2B	SO	SM 2540G	05/23/2023 08:20	05/23/2023 11:11	1	Dry
F2303094007	SS-3A	SO	EPA 365.4	05/23/2023 08:25	05/23/2023 11:11	1	Dry
F2303094007	SS-3A	SO	SM 2540G	05/23/2023 08:25	05/23/2023 11:11	1	Dry
F2303094008	SS-3B	SO	EPA 365.4	05/23/2023 08:30	05/23/2023 11:11	1	Dry
F2303094008	SS-3B	SO	SM 2540G	05/23/2023 08:30	05/23/2023 11:11	1	Dry
F2303094009	SS-4A	SO	EPA 365.4	05/23/2023 08:55	05/23/2023 11:11	1	Dry
F2303094009	SS-4A	SO	SM 2540G	05/23/2023 08:55	05/23/2023 11:11	1	Dry
F2303094010	SS-4B	SO	EPA 365.4	05/23/2023 09:00	05/23/2023 11:11	1	Dry
F2303094010	SS-4B	SO	SM 2540G	05/23/2023 09:00	05/23/2023 11:11	1	Dry
F2303094011	SS-5A	SO	EPA 365.4	05/23/2023 09:05	05/23/2023 11:11	1	Dry
F2303094011	SS-5A	SO	SM 2540G	05/23/2023 09:05	05/23/2023 11:11	1	Dry
F2303094012	SS-5B	SO	EPA 365.4	05/23/2023 09:10	05/23/2023 11:11	1	Dry
F2303094012	SS-5B	SO	SM 2540G	05/23/2023 09:10	05/23/2023 11:11	1	Dry
F2303094013	SS-6A	SO	EPA 365.4	05/23/2023 09:15	05/23/2023 11:11	1	Dry
F2303094013	SS-6A	SO	SM 2540G	05/23/2023 09:15	05/23/2023 11:11	1	Dry
F2303094014	SS-6B	SO	EPA 365.4	05/23/2023 09:20	05/23/2023 11:11	1	Dry
F2303094014	SS-6B	SO	SM 2540G	05/23/2023 09:20	05/23/2023 11:11	1	Dry

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Workorder: Coastal Creek (F2303094)

Workorder Summary

Batch Comments

WCAt/21269 - Total Phosphorus,E365.4,Water

The control criteria for matrix spike recoveries of TP for F2303095001 are not applicable. The analyte concentration in the sample was greater than 4 times the added spike concentrations, preventing accurate evaluation of the spike recovery. No further corrective action was required.

WCAt/21401 - Total Phosphorus,E365.4,Soil

The matrix spike recoveries of TP for F2303094007 & J2307588003 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The affected sample is qualified to indicate matrix interference.

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Workorder: Coastal Creek (F2303094)

Analytical Results Qualifiers

Parameter Qualifiers

U	The compound was analyzed for but not detected.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Lab Qualifiers

T	DOH Certification #E84589 (FL NELAC) AEL-Tampa

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Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094001 **Date Collected:** 05/23/2023 08:48 **Matrix:** Water
Sample ID: TMW-1 **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	1	05/24/2023 14:10	05/31/2023 13:50	T

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Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094002 **Date Collected:** 05/23/2023 09:45 **Matrix:** Water
Sample ID: TMW-2 **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
WET CHEMISTRY (Copper Sulfate Digestion/EPA 365.4)								
Total Phosphorus (as P)	**3.2**	mg/L	0.20	0.15	1	05/24/2023 14:10	05/31/2023 13:50	T

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094003 **Date Collected:** 05/23/2023 08:05 **Matrix:** Soil
Sample ID: SS-1A **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**2.5**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**820**	mg/Kg	53	29	1	05/31/2023 09:50	06/14/2023 13:46	T

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094004 **Date Collected:** 05/23/2023 08:10 **Matrix:** Soil
Sample ID: SS-1B **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**9.7**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**410**	mg/Kg	82	46	1	05/31/2023 09:50	06/14/2023 13:46	T

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094005 **Date Collected:** 05/23/2023 08:15 **Matrix:** Soil
Sample ID: SS-2A **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**4.1**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**260**	mg/Kg	52	29	1	05/31/2023 09:50	06/14/2023 13:46	T

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Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094006 **Date Collected:** 05/23/2023 08:20 **Matrix:** Soil
Sample ID: SS-2B **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**7.0**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**410**	mg/Kg	55	31	1	05/31/2023 09:50	06/14/2023 13:46	T

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094007 **Date Collected:** 05/23/2023 08:25 **Matrix:** Soil
Sample ID: SS-3A **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**1.3**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**630**	mg/Kg	51	28	1	05/31/2023 09:50	06/14/2023 13:46	T

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094008 **Date Collected:** 05/23/2023 08:30 **Matrix:** Soil
Sample ID: SS-3B **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**8.5**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**450**	mg/Kg	56	31	1	05/31/2023 09:50	06/14/2023 13:46	T

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094009 **Date Collected:** 05/23/2023 08:55 **Matrix:** Soil
Sample ID: SS-4A **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**1.5**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**520**	mg/Kg	52	29	1	05/31/2023 09:50	06/14/2023 13:46	T

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Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094010 **Date Collected:** 05/23/2023 09:00 **Matrix:** Soil
Sample ID: SS-4B **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**12**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**410**	mg/Kg	58	32	1	05/31/2023 09:50	06/14/2023 13:46	T

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094011 **Date Collected:** 05/23/2023 09:05 **Matrix:** Soil
Sample ID: SS-5A **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**2.9**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**2900**	mg/Kg	52	29	1	05/31/2023 09:50	06/14/2023 13:46	T

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Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094012 **Date Collected:** 05/23/2023 09:10 **Matrix:** Soil
Sample ID: SS-5B **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**4.7**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**2100**	mg/Kg	53	30	1	05/31/2023 09:50	06/14/2023 13:46	T

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094013 **Date Collected:** 05/23/2023 09:15 **Matrix:** Soil
Sample ID: SS-6A **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**4.0**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**680**	mg/Kg	55	30	1	05/31/2023 09:50	06/14/2023 13:46	T

Certificate of Analysis

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FINAL

Workorder: Coastal Creek (F2303094)

Analytical Results

Lab ID: F2303094014 **Date Collected:** 05/23/2023 09:20 **Matrix:** Soil
Sample ID: SS-6B **Date Received:** 05/23/2023 11:11

Parameter	Results	Units	PQL	MDL	DF	Prepared	Analyzed	Lab
(SM 2540G)								
Percent Moisture	**5.5**	%	0.0010	0.0010	1	06/01/2023 10:00	06/01/2023 10:00	T
WET CHEMISTRY (Copper Sulfate Digestion Solid/EPA 365.4)								
Total Phosphorus (as P)	**600**	mg/Kg	53	29	1	05/31/2023 09:50	06/14/2023 13:46	T

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FINAL

Workorder: Coastal Creek (F2303094)

QC Results

QC Batch: WCAt/21268
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: F2303094001, F2303094002
Analysis Method: EPA 351.2

Method Blank(4805918)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	0.050 U	mg/L	0.20	0.050	T

Advanced Environmental Laboratories, Inc
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Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (239) 674-8130
Fax: (239) 674-8128

FINAL

Workorder: Coastal Creek (F2303094)

QC Results

QC Batch: WCAt/21269
Preparation Method: Copper Sulfate Digestion
Associated Lab IDs: F2303094001, F2303094002
Analysis Method: EPA 365.4

Method Blank(4805919)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	0.15 U	mg/L	0.20	0.15	T

New Exhibits Bates#58
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Phone: (239) 674-8130
Fax: (239) 674-8128

FINAL

Workorder: Coastal Creek (F2303094)

QC Results

QC Batch: WCAt/21400 **Analysis Method:** EPA 351.2
Preparation Method: Copper Sulfate Digestion Solid
Associated Lab IDs: F2303094003, F2303094004, F2303094005, F2303094006, F2303094007, F2303094008, F2303094009, F2303094010, F2303094011, F2303094012, F2303094013, F2303094014

Method Blank(4811857)

Parameter	Results	Units	PQL	MDL	Lab
Total Kjeldahl Nitrogen	18 U	mg/Kg	50	18	T

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FINAL

Workorder: Coastal Creek (F2303094)

QC Results

QC Batch: WCAt/21401 **Analysis Method:** EPA 365.4
Preparation Method: Copper Sulfate Digestion Solid
Associated Lab IDs: F2303094003, F2303094004, F2303094005, F2303094006, F2303094007, F2303094008, F2303094009, F2303094010, F2303094011, F2303094012, F2303094013, F2303094014

Method Blank(4811858)

Parameter	Results	Units	PQL	MDL	Lab
Total Phosphorus (as P)	28 U	mg/Kg	50	28	T

New Exhibits Bates#60
Advanced Environmental Laboratories, Inc
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Phone: (239) 674-8130
Fax: (239) 674-8128

FINAL

Workorder: Coastal Creek (F2303094)

QC Cross Reference

Lab ID	Sample ID	Prep Batch	Prep Method
WCAt/21086 - SM 2540G			
F2303094003	SS-1A		
F2303094004	SS-1B		
F2303094005	SS-2A		
F2303094006	SS-2B		
F2303094007	SS-3A		
F2303094008	SS-3B		
F2303094009	SS-4A		
F2303094010	SS-4B		
F2303094011	SS-5A		
F2303094012	SS-5B		
F2303094013	SS-6A		
F2303094014	SS-6B		
WCAt/21269 - EPA 365.4			
F2303094001	TMW-1	WCAt/20934	Copper Sulfate Digestion
F2303094002	TMW-2	WCAt/20934	Copper Sulfate Digestion
WCAt/21401 - EPA 365.4			
F2303094003	SS-1A	WCAt/21070	Copper Sulfate Digestion Solid
F2303094004	SS-1B	WCAt/21070	Copper Sulfate Digestion Solid
F2303094005	SS-2A	WCAt/21070	Copper Sulfate Digestion Solid
F2303094006	SS-2B	WCAt/21070	Copper Sulfate Digestion Solid
F2303094007	SS-3A	WCAt/21070	Copper Sulfate Digestion Solid
F2303094008	SS-3B	WCAt/21070	Copper Sulfate Digestion Solid
F2303094009	SS-4A	WCAt/21070	Copper Sulfate Digestion Solid
F2303094010	SS-4B	WCAt/21070	Copper Sulfate Digestion Solid
F2303094011	SS-5A	WCAt/21070	Copper Sulfate Digestion Solid
F2303094012	SS-5B	WCAt/21070	Copper Sulfate Digestion Solid
F2303094013	SS-6A	WCAt/21070	Copper Sulfate Digestion Solid
F2303094014	SS-6B	WCAt/21070	Copper Sulfate Digestion Solid

Certificate of Analysis

Advanced Environmental Laboratories, Inc
13100 Westlinks Terrace, Unit 10 Ft. Myers FL 33913
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (239) 674-8130
Fax: (239) 674-8128

FINAL

Workorder: Coastal Creek (F2303094)

Advanced Environmental Laboratories, Inc.

- Altamonte Springs: 380 Northlake Blvd., Ste. 1048 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597
- ■ Fort Myers: 13100 Westlinks Terrace, Ste. 10 • Fort Myers, FL 33913 • 239.674.8130 • Fax 239.674.8128
- Jacksonville: 6681 Southpoint Pkwy • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
- Tallahassee: 2639 North Monroe St., Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275

F2303094

Client Name: RMA Geologic Consultants	Project Name: Coastal Creek
Address: 3401 SE 15th Place, Cape Coral, FL 33991	Project Number: 22-446
Phone: 239-699-1303	PO Number:
FAX:	FDEP Facility No:
Contact: Don Mayne	FDEP Facility Address:
Sampled By: Don Mayne	Special Instructions:
Turn Around Time: ☐ STANDARD ☐ RUSH	☐ ADaPT ☐ EQuIS ☐ Other

Analysis Required: PHOSPHORUS

SAMPLE ID	SAMPLE DESCRIPTION	Grab/Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. COUNT	PHOSPHORUS	LABORATORY I.D. NUMBER
TMW-1			5/23/23	9:46	GW	1	X	001
TMW-2				9:45	GW	1	X	002
SS-1A				8:05	SO	1	X	003
SS-1B				8:10	SO	1	X	004
SS-2A				8:15	SO	1	X	005
SS-2B				8:20	SO	1	X	006
SS-3A				8:25	SO	1	X	007
SS-3B				8:30	SO	1	X	008
SS-4A				8:55	SO	1	X	009
SS-4B				9:00	SO	1	X	010

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = Ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on ice: ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from blank ☒ Where required, pH checked

Temp. when received (observed) 5.1 °C Temp. when received (corrected) 5.1

DCN: AD-051 Form last revised 08/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used): J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V (F: 1A)

	Relinquished by:	Date	Time	Received by:	Date	Time
1	[signature]	5/23/23	1111	[signature]	5/23/23	1111
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS information not otherwise supplied) PWS ID:
Contact Person: Phone:
Supplier of Water:
Site Address:

Certificate of Analysis

NELAP Accredited E84492

Advanced Environmental Laboratories, Inc
13100 Westlinks Terrace, Unit 10 Ft. Myers FL 33913
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (239) 674-8130
Fax: (239) 674-8128

FINAL

Workorder: Coastal Creek (F2303094)

Advanced Environmental Laboratories, Inc.

☐ **Altamonte Springs:** 380 Northlake Blvd. Ste. 1048 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597
■ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10 • Fort Myers, FL 33913 • 239.674.8130 • Fax 239.674.8128
☐ **Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☐ **Tallahassee:** 2639 North Monroe St. Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275
Gainesville: 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639
Miramar: 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327

~~F2303094~~ KV 5/25/23
F2303094 Page 2

Client Name: RMA Geologic Consultants	Project Name: Coastal Creek
Address: 3401 SE 15th Place, Cape Coral, FL 33991	Project Number: 22-446
	PO Number:
Phone: 239-699-1303	FDEP Facility No.
FAX:	FDEP Facility Address:
Contact: Don Mayne	
Sampled By: Don Mayne	Special Instructions:
Turn Around Time: ☒ STANDARD ☐ RUSH	
AEL Profile #:	☐ ADaPT ☐ EQuIS ☐ Other

Bottle Size & Type / Analysis Required: PHOSPHORUS

SAMPLE ID	SAMPLE DESCRIPTION	Grab Comp	SAMPLING DATE	SAMPLING TIME	MATRIX	NO COUNT	PHOSPHORUS	LABORATORY I.D. NUMBER
SS-5A			5/23/23	9:05	SO	1	X	011
SS-5B			|	9:10	SO	1	X	012
SS-6A			|	9:15	SO	1	X	013
SS-6B			|	9:20	SO	1	X	014

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge
Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate

Received on Ice ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from blank ☒ Where required, pH checked
Temp. when received (observed) 5.1 °C Temp. when received (corrected) 5.1
DCN: AD-051 Form last revised 06/19/2017
Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V (F: 1A)

	Relinquished by	Date	Time	Received by	Date	Time
1	[signature]	5/23/23	1111	[signature]	5/23/23	1111
2						
3						
4						

FOR DRINKING WATER USE:
(When PWS information not otherwise supplied) PWS ID
Contact Person Phone
Supplier of Water
Site Address

Certificate of Analysis

NELAP Accredited E84492

ADDITIONAL NEW INFORMATION

Form FD 9000-24

New Exhibits Bates#63

GROUNDWATER SAMPLING LOG

SITE NAME: Coastal Creek	SITE LOCATION: 5301 Sanibel Captiva Rd	
WELL NO: TMW-1	SAMPLE ID:	DATE: 5/23/23

PURGING DATA

WELL DIAMETER (inches): 1.25	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: feet to 4 feet 6	STATIC DEPTH TO WATER (feet): 4.65	PURGE PUMP TYPE OR BAILER: ~~ESP~~ PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = .08 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): 6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6	PURGING INITIATED AT: 8:28	PURGING ENDED AT: 8:46	TOTAL VOLUME PURGED (gallons): 1.8

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)
8:40	1.2	1.2	.1	5.55	6.59	25.6	6347	3.87	30	brown	N
8:42	.2	1.4	.1	5.55	6.59	25.6	6334	3.71	27	brown	N
8:44	.2	1.6	.1	5.55	6.59	25.6	6322	3.57	22	clear	N
8:46	.2	1.8	.1	5.55	6.60	25.7	6335	3.61	19	clear	N

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

SAMPLED BY (PRINT) / AFFILIATION: DON MAYNE, MAYNE ENVIRONMENTAL CONSULTANTS	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 8:46	SAMPLING ENDED AT: 8:48
PUMP OR TUBING DEPTH IN WELL (feet): 6	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	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 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			
	1	PE	250 ml	H2SO4	NONE		PHOS	RFPP	

REMARKS:

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; **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)

Revision Date: February 12, 2009

ADDITIONAL NEW INFORMATION **Form FD 9000-24** New Exhibits Bates#64

GROUNDWATER SAMPLING LOG

SITE NAME: Coastal Creek	SITE LOCATION: 5301 Sanibel Captiva Rd	
WELL NO: TMW-2	SAMPLE ID:	DATE: 5/23/23

PURGING DATA

WELL DIAMETER (inches): 1.25	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 5 feet to 7 feet	STATIC DEPTH TO WATER (feet): 6.22	PURGE PUMP TYPE OR BAILER: ~~ESP~~ PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (7 feet – 6 feet) X .06 gallons/foot = .06 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): 6.6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6.6	PURGING INITIATED AT: 9:15	PURGING ENDED AT: 9:44	TOTAL VOLUME PURGED (gallons): 1.45

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)
9:40	1.25	1.25	.05	6.7	7.34	26.3	23,489	1.19	15.6	clear	N
9:42	.1	1.35	.05	6.8	7.33	26.3	23,470	0.60	12.2	clear	N
9:44	.1	1.45	.05	6.8	7.33	26.3	23,455	0.55	12.0	clear	N

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

SAMPLED BY (PRINT) / AFFILIATION: DON MAYNE, MAYNE ENVIRONMENTAL CONSULTANTS	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 9:49	SAMPLING ENDED AT: 9:50
PUMP OR TUBING DEPTH IN WELL (feet): 6.8	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	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 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			
	1	PE	250 ml	H2SO4	NONE		PHOS	RFPP	

REMARKS: Purging began ≈ 45 mins after well installed. well only recovered 1' during that time frame

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; **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)

Revision Date: February 12, 2009

EXHIBIT H

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION - "LIMITED SCREENING" RMA - POND LINER - JUNE 8, 2023

From: Sego, John R. <John.R.Sego@FloridaDEP.gov>
Sent: Thursday, June 8, 2023 8:24 AM
To: Wilkerson, Philip <Philip.Wilkerson@FloridaDEP.gov>; Doug Stimmel <dwstimme@gmail.com>
Cc: Carpenter, Jennifer <Jennifer.Carpenter@FloridaDEP.gov>; sid@integraenviro.com; ralfbrookes@gmail.com; info@rma-geologic.com; Mark Thompson <mthompson@sccf.org>
Subject: RE: Former Sanibel Bayous Wastewater Treatment Plant Site (FLA014576)-

Dear Mr. Stimmel:

It was nice speaking to you on June 5, 2023. As discussed, the recent activities conducted at the former Sanibel Bayous Wastewater Treatment Plant (Site) were an initial screening to determine if the site should be subject to Chapter 62-780, Florida Administrative Code (F.A.C.). Under this rule, soil is assessed from land surface down to the groundwater table. Below the groundwater table, only groundwater is assessed. The findings of the limited screening conducted at the site did not report concentrations of contaminants exceeding soil or groundwater exposure criteria. A review of the limited screening report by Integra Environmental and Water Services, Inc. brought forth comments regarding well installation, groundwater sampling and sample preservation issues. Integra's review referenced a study performed by Sanibel-Captiva Conservation Foundation (SCCF) at the site in 2017. Integra also provided a separate proposal to conduct additional work to further assess conditions at the site. The additional work, if undertaken, would require coordination for site access with the current property owner.

Review of the well installation and construction methodology for the limited screening and the SCCF study indicates wells for both investigations were installed via hand augur. This method of installation, along with Direct Push Technology (DPT), are commonly used for initial screening of sites. Additional site assessment work can warrant the installation of permanent 2-inch diameter monitoring wells or smaller diameter micro-wells installed via DPT. The depths of the wells used for both studies are summarized below.

	Limited Screening		SCCF Study				
Well	TMW-1	TMW-2	SBW01	SBW02	SBW03	SBW04	SBW05
Depth to Aquifer (feet)	3.1	3	6.11	4.40	5.51	2.90	-
Total Depth (feet)	7	7	12.25	7.25	11.32	6.12	13

Wells SBW003 and SBW004 were installed in the former eastern infiltration basin in 2017. The wells were installed subsequent to the basin being infilled with soil. Wells TMW-1 and TMW-2 were installed in the eastern basin in 2023. Well TMW-2 approximates the location of SBW003. Well TMW-1 is located further upgradient (north) of SBW003/TMW-2 and SBW004. Wells SBW004 and TMW-1 and TMW-2 were sampled in 2017 and 2023, respectively. Well SBW003 was not sampled. Well SBW005 was installed in the western infiltration basin and sampled in 2017.

The 2023 limited screening groundwater sampling and sample preservation were called into question.

- Groundwater samples were collected at TMW-1 and TMW-2 after installation instead of waiting 24-hours or more before sampling. Groundwater parameters were monitored in each well until stable as were noted on Groundwater Sampling Log Form FD 9000-24. While sampling of permanent wells should wait until 24-hours following well installation and development, initial screening can include immediate sampling via temporary wells or DPT sample column. Wells for the SCCF study were sampled more than 24-hours after installation. However, no Groundwater Sample Logs were included in the SCCF report.

- The preservation of samples collected from wells TMW-1 and TMW-2 are noted on the Groundwater Sampling Logs to be HCL for metals analysis and no preservation for Nitrate/Nitrite analysis. The entries are typed in rather than hand written. Discussion with the receiving lab, Advanced Environmental Laboratories, Inc., indicates the bottle ware provided by the lab comes pre-preserved (no field preservation). Per the lab. the preservative for Metals and Nitrate/Nitrite analysis are HCL and HNO3, respectively. The entries on the Groundwater Sampling Logs appear to be in error.

Our discussion earlier this week also focused on the issue of development affecting the Western Lake at Herons Landing located immediately south of the site. The proposed residential development at the former Sanibel Bayous Wastewater Treatment Plant Will include a storm water management system (storm water pond) to be located immediately north of the western lake. Concern lies in mobilization of nutrient flushed from the vicinity of the storm water pond. As discussed, it could be that construction of the pond could include removal of nutrient laden material at depth or that the storm water pond be lined to limit influence on the western lake. Coordination with the current property owner or developer is recommended.

Thank you for taking the time to discuss the site with me earlier this week. Please let me know if you have any questions.

Sincerely,

John R. Sego, P.G.
Professional Geologist II

John R. Sego
Professional Geologist II
Florida Department of Environmental Protection
Permitting & Waste Cleanup Program
Southwest District
Email:john.r.sego@FloridaDEP.gov
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Phone: (813) 470-5756
Fax: (813) 744-6125

we continue to identify ongoing improvements to our permitting process by standardizing and simplifying our documents.

From: Wilkerson, Philip <Philip.Wilkerson@FloridaDEP.gov>
Sent: Wednesday, April 19, 2023 11:59 AM
To: Sego, John R. <John.R.Sego@FloridaDEP.gov>
Subject: FW: Former Sanibel Bayous Wastewater Treatment Plant Site (FLA014576)-

Hey John,

This for that Sanibel Bayous WWTP that you looked into a couple of weeks ago. You can take a look at the email chain below and see if we can draft a response or if we need to forward it to Division.

Let me know what you think.

Thank you,

Philip Wilkerson
Environmental Manager – Permitting and Waste Cleanup Program
Department of Environmental Protection
Florida - Southwest District
Office: 813-470-5753

From: Carpenter, Jennifer <Jennifer.Carpenter@FloridaDEP.gov>
Sent: Tuesday, April 18, 2023 5:11 PM
To: Wilkerson, Philip <Philip.Wilkerson@FloridaDEP.gov>
Cc: Sweigert, Elizabeth <Elizabeth.Sweigert@FloridaDEP.gov>; Reigelman, Landon <Landon.Reigelman@FloridaDEP.gov>
Subject: FW: Former Sanibel Bayous Wastewater Treatment Plant Site (FLA014576)-

Hi Phil,

Looks like this one isn't quite done yet. Would you be able to have your folks take a look at this assessment and provide some opinions? I'm happy to ask Division for input as well if needed. I suspect we'll need to explain the limits of our regulatory authority and point them toward potential partners for addressing legacy nutrient issues, but they also bring up some specific methodology concerns that we'll need to speak to.

Thanks so much!

Jennifer

From: Doug Stimmel <dwstimme@gmail.com>
Sent: Tuesday, April 18, 2023 9:46 AM
To: Carpenter, Jennifer <Jennifer.Carpenter@FloridaDEP.gov>
Subject: FW: Former Sanibel Bayous Wastewater Treatment Plant Site (FLA014576)-

Dear Jennifer Carpenter DEP:

I sent an email to you yesterday but was concerned that the attachment files may have been to large for your system. Please confirm that you received this email.

Thank you for speaking with me a few weeks ago regarding Herons Landing Lake and the decommissioned private wastewater plant on Sanibel Island proposed for residential development.

Please find attached:

1. Comments from a Professional Geologist who is helping the Heron's Landing community review the recent contamination assessment.
2. 2005 SCCF Wastewater Plant image with the proposed Coastal Creek Development overlayed on top of the former Wastewater Plant.
3. Recent Photographs of the lake, showing the poor water quality of the Heron's Landing Lake causing terrible odors throughout our community.

We would like to invite you and your staff to visit this site to further assist the community in our efforts to clean up this Lake and remove legacy nutrients.

We would ask that DEP and the City consider additional assessment of legacy soil and groundwater nutrient pollution and ways to further reduce or eliminate the impact of these legacy nutrients on water quality in Herons Landing Lake.

Sincerely,

Doug Stimmel
Retired Landscape Architect
dwstimme@gmail.com
Mobile: 336-978-0192

EXHIBIT I

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION - REQUEST FOR PHOSPHORUS STUDY - JULY 13, 2023

From: Sego, John R. <John.R.Sego@FloridaDEP.gov>
Sent: Thursday, July 13, 2023 7:00 AM
To: Doug Stimmel <dwstimme@gmail.com>; Carpenter, Jennifer <Jennifer.Carpenter@FloridaDEP.gov>
Cc: Wilkerson, Philip <Philip.Wilkerson@FloridaDEP.gov>
Subject: RE: Former Sanibel Bayous Wastewater Treatment Plant Site (FLA014576)- Coastal Creek Latest information

Dear Mr. Stimmel:

Could you forward the June 15, 2023 RMA phosphorus study to the Department?

Sincerely,

John R. Sego, P.G.
Professional Geologist II

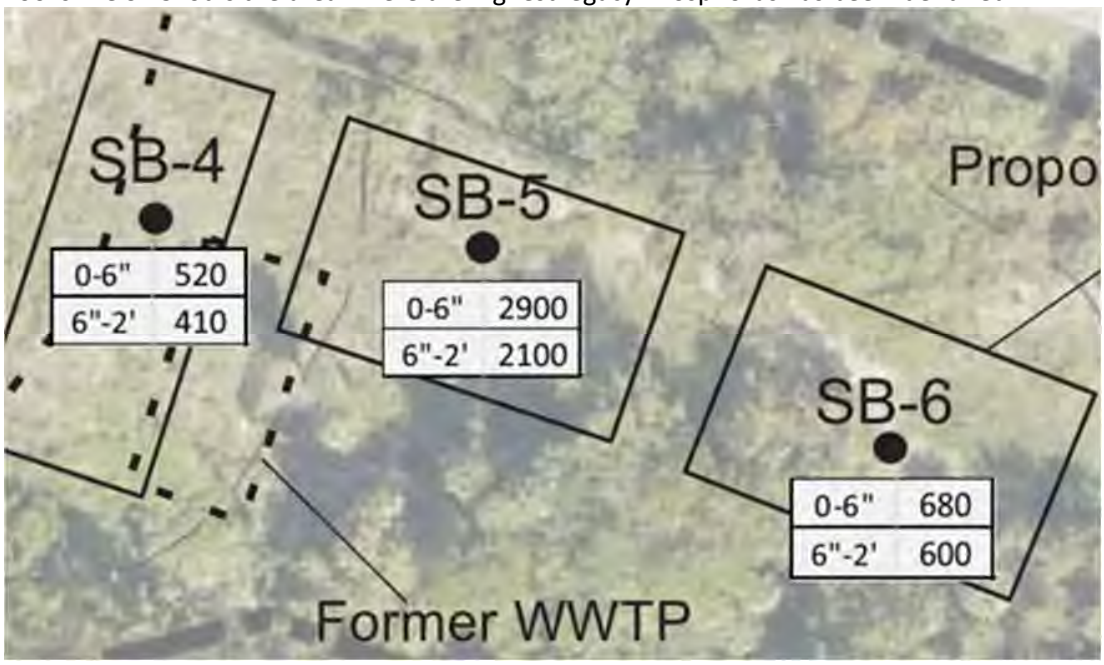
John R. Sego
Professional Geologist II
Florida Department of Environmental Protection
Permitting & Waste Cleanup Program
Southwest District
Email:john.r.sego@FloridaDEP.gov
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Phone: (813) 470-5756
Fax: (813) 744-6125

From: Doug Stimmel <dwstimme@gmail.com>
Sent: Wednesday, July 12, 2023 4:47 PM
To: Carpenter, Jennifer <Jennifer.Carpenter@FloridaDEP.gov>
Cc: Sego, John R. <John.R.Sego@FloridaDEP.gov>; Wilkerson, Philip <Philip.Wilkerson@FloridaDEP.gov>
Subject: RE: Former Sanibel Bayous Wastewater Treatment Plant Site (FLA014576)- Coastal Creek Latest information

Jennifer:

I am requesting that FDEP consider reviewing the latest findings with the nutrient pollution on this proposed development site. The developer of this tract has just recently completed 6 soil borings on the site after this case was heard under appeal by the City of Sanibel. This case has been remanded back to the Planning Commission. Below you can see the staggering phosphorous levels on boring SB5 where the former Wastewater Plant was located.

Looks like SB 5 lot is the area where the highest legacy Phosphorus has been identified.



Our HOA at Heron's Landing has hired Integra Environmental to review these reports and limited testing done by RMA. I have attached Integra Environmental's July 10,2023 & March 28, 2023 letter addressing the problem.

BLUE GREEN ALGAE:

Please contact Dana Dettmar with the City of Sanibel Department of Natural Resources regarding these recent photographs and a water sample taken by DNR . Her number is 239-240-5383

Photographs taken today 6/28/23 of Heron's lake near Sanibel Bayou road:

Thank you for your assistance with this matter. We respectfully request that FDEP re-open this case and require a comprehensive assessment of the source of the pollutants to assess and remediate the water quality impairments of the Coastal Creek site and the Heron's landing Lake. Integra Environmental outlines the needs for this testing in the attached letters.

Best regards,

Doug Stimmel
Retired Landscape Architect
dwstimme@gmail.com
Mobile: 336-978-0192

EXHIBIT J

Heron's Landing

Coastal Creek Subdivision Development Concerns

July 25, 2023

SCCF 2005 Wastewater Treatment Plant Overlay

“Alarming Phosphorus” – Limited Screening & Testing

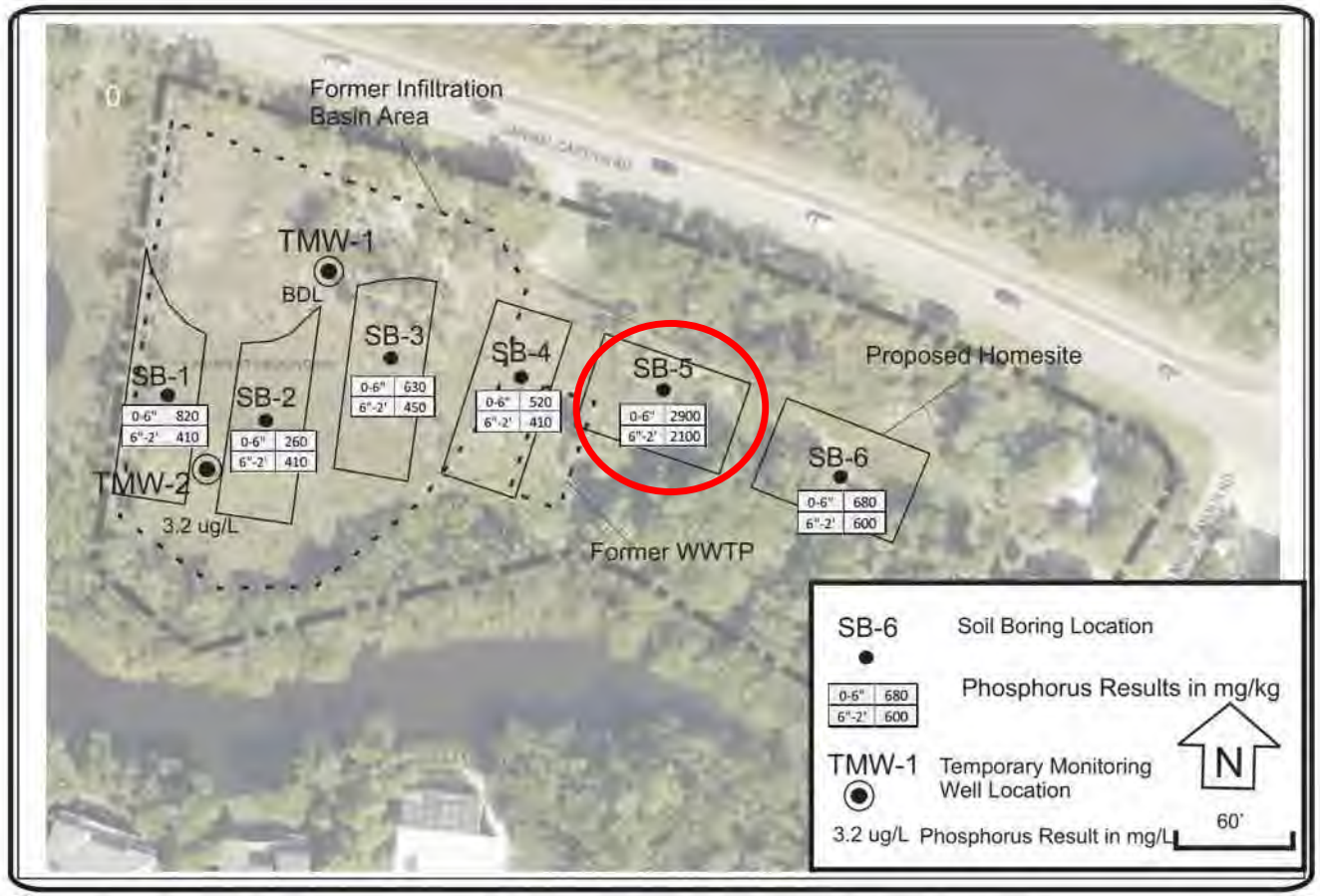
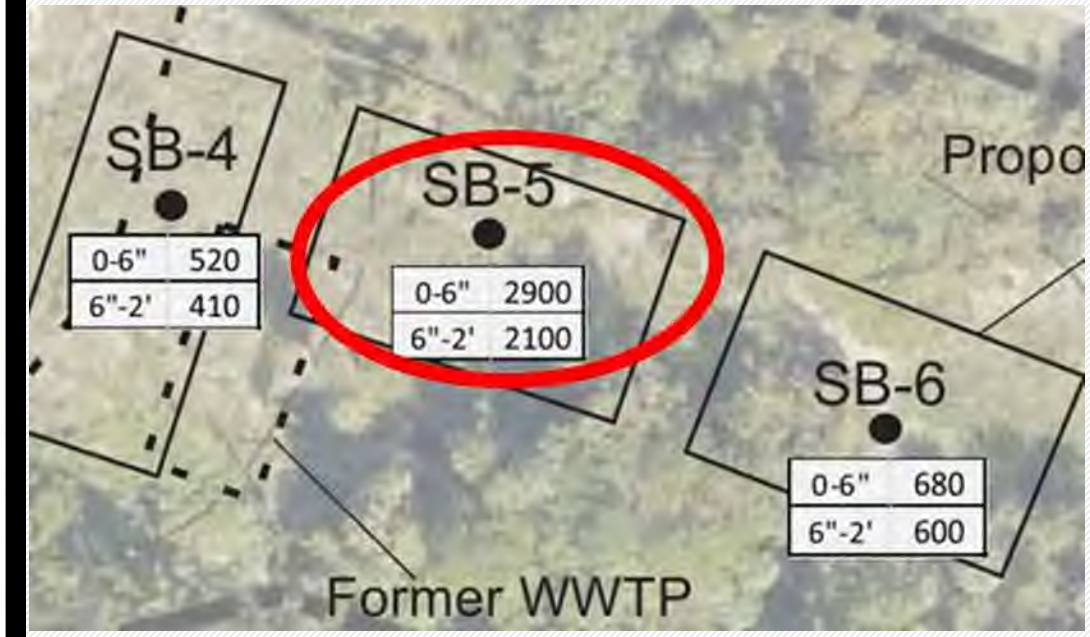


FIGURE 1 - Site Map Showing Former WWTP & Infiltration Basin, Soil and Groundwater Sample Locations, and Phosphorus Results



From RMA Testing Report - Exhibit (E)

More Comprehensive Testing Needed

- Exhibit (B) Integra Environmental recommended soil testing, March 28, 2023
- Exhibit (C) Integra Environmental assessment of developer's testing, July 10, 2023

"It is Integra Environmental's opinion that six soil and two groundwater sampling locations do not provide the spatial coverage for assessing existing pollutants for the area."

Key Facts taken from SCCF Lake Management Plan for Heron's Landing – May 2018

1. "The Heron's Landing stormwater pond just south of the study site has the **highest concentrations of nutrients found in any waterbody on or adjacent Sanibel."**

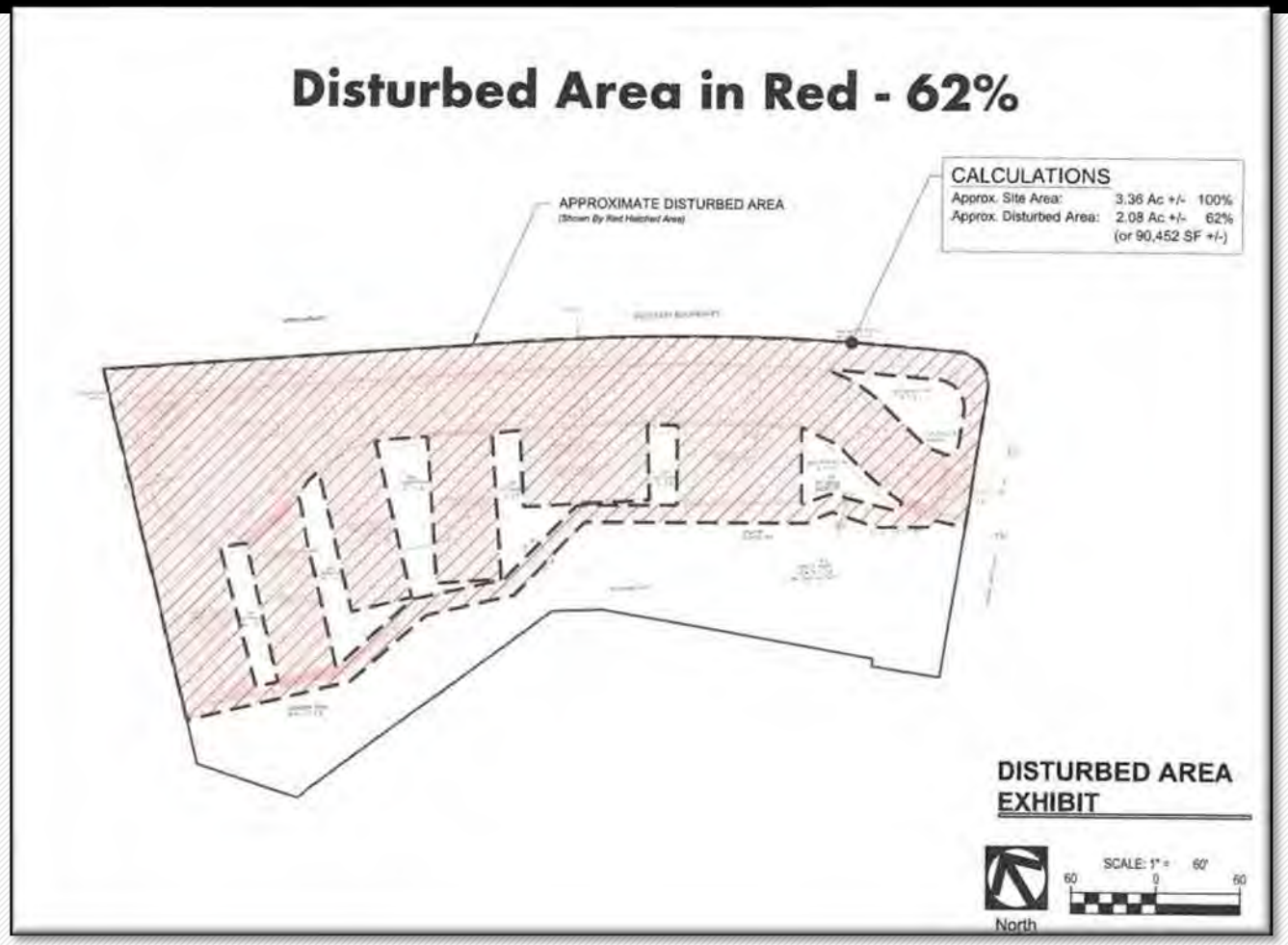
2. "The magnitude of nutrient loading from the perc pond site suggest legacy nutrients from the former percolation ponds are having **major effects on nearby waterbodies through groundwater connections.** The soil currently covering the former perc ponds are primarily sands with low organic content which has little capacity to hold phosphorus and is saturated to the point that it releases P whenever inundated with groundwater or stormwater percolation."

3. "All results **exceeded state water quality standards for phosphorus and nitrogen.** Phosphorus levels were 2 orders of magnitude greater than state criteria while nitrogen levels were about 7 times greater than criteria. Phosphorus values in the stormwater lake were similar to groundwater levels from the perc pond site."

4. "Groundwater flow towards Heron's Landing stormwater pond was greater from the eastern portion of the perc pond area than the western portion where the City has constructed vegetated wildlife ponds."

5. "The Heron's Landing western lake has two known discharge points..... The other discharge location is a heavily vegetated channel at the northwest end of the waterbody and can connect the lake to Clam Bayou at extremely high tides or lake levels."

62% of this site will be disturbed in construction



- Disturbing 62% of this soil will likely **lead to additional groundwater contamination.**
- RMA phosphorus testing samples were found by developer in the first 6” to 2’ – **this is a problem.**

The Sanibel Plan

Coastal Creek does not comply with the Land Development Code Sections and Comprehensive Plan policies prohibiting pollution, protecting Heron's Lake from hazardous health conditions that are detrimental to the public health, welfare, and safety, and the quiet and peaceful use and enjoyment of adjoining lands and uses.

The Sanibel Plan – Comprehensive Plan

- Sanibel Plan, Conservation Goals, Objective 4, the Planning Commission must *"protect and conserve water resources and prevent impairment of the quality and quantity of surface and ground water resources."*
- The Sanibel Plan states that it is *"imperative"* to protect *"lakes and wetlands from any sewage pollution"* and recommends studies and taking *"appropriate remedial action."*
- The Future Land Use Element requires the city ensure that all new development will *"promote the protection of natural, [and] environmental resources,"* and *"promote the maintenance of enhancement of water quality."*
- Policy B2.1 further requires the City to *"protect national resources by application of best management practices."*

The Sanibel Plan – Land Development Code

- Land Development Code Section 78-15 states, *"The provisions of this Land Development Code are deemed to be necessary for the protection of the public health, safety and welfare and for the protection of the peaceful use and enjoyment of any lands by the owners thereof, and any violation of this Land Development Code is hereby declared by the city council to constitute a public nuisance."*

- Land Development Code Section 86-40 requires the Planning Commission to consider how to minimize environmental damage caused by this development. Section 86-40(b) states, *"The design, location and construction and the maintenance of all development shall be in a manner that minimizes environmental damage."*

- Land Development Code Section 14-244 defines land as "hazardous" when conditions on the land are *"dangerous to the health, welfare or safety of the public, the occupants of surrounding properties, or the occupants of such land;"* or when *"noxious odors"* or *"harmful particulates"* emanate from the land.

- Land Development Code Section 14-247 requires the landowner to assess, remediate the hazardous conditions and restore the *land "by the means least expensive and least detrimental to the owner's property and to the public environment."*

Blue Green Algae is now pervasive in the Heron's Landing Lake

- On June 28, 2023, the City of Sanibel DNR tested the Heron's Landing lake and confirmed the presence of Blue/Green algae, see Exhibit (D).
- Presence of Blue/Green algae indicates continued high level of nutrients coming from Coastal Creek site.
- FDEP does not regulate small lakes, even though we are dealing with the same problems as Lake Okeechobee.
- Coastal Creek site is creating a public nuisance in our lake.

Mini Lake Okeechobee and Caloosahatchee River

- Nuisance odors
- Nutrient pollution
- Toxic algae blooms
- Nitrogen and Phosphorus from fertilizers
- Failed septic tanks
- Fish kills

Impact on Heron's Landing Rookery

Photo of the rookery area between Coastal Creek and Heron's Landing. Both construction and contaminates in the water will displace the birds from their rookery.

IN CONCLUSION:

- Due to the level of documented nutrient pollution from the Coastal Creek site as seen in:
  1. SCCF 2018 Study
  2. RMA Phosphorus Report, 2023
  3. SCCF Statement Letter, July 18, 2023
  4. Integra reports - Exhibits (B) and (C)

- And as acknowledged by the City of Sanibel in their agreement with Osprey Court homeowners for ongoing Heron's Landing Lake remediations, signed on April 6, 2022;

- And, since per the Sanibel Plan, this site constitutes a public nuisance- Exhibit (F);

- We strongly oppose the Coastal Creek Development and urge the Sanibel Planning Commission and Sanibel City Council to deny this application for environmental reasons.