From: **Jeanne Zokovitch Paben** <jeanne.pabenlaw@gmail.com>

Date: Fri, Nov 8, 2024 at 4:38 PM

Subject: Lockheed Contamination in Tallevast: Comments from Consent Order Consultant Ramboll and FOCUS' Consultants on Lockheed's 2024 Wetlands Monitoring Report

To: Sellers, Robert <Robert.Sellers@floridadep.gov>, Haley.Holloway@swfwmd.state.fl.us <Haley.Holloway@swfwmd.state.fl.us>, Dalton.Weinstein@swfwmd.state.fl.us <Dalton.Weinstein@swfwmd.state.fl.us>

Ms. Holloway and Mr. Weinstein

On behalf of Laura Ward and Wanda Washington as Co-Executive Directors of Family Oriented Community United Strong, Inc. (FOCUS) and the Tallevast community attached are comments from Ramboll, the scientific consulting firm under Lockheed's consent order with the State, regarding Lockheed's 2024 Wetlands Monitoring Report, as well as comments from RES, the independent consultant working on behalf of FOCUS on the same report. SWFWMD plays a critical role in making sure that Lockheed's water use and wetlands responsibilities are not ignored as they fulfill their clean up obligations. As these letters indicate there are issues that we believe SWFWMD should require Lockheed to address. We would appreciate the opportunity to sit down with you to further discuss these concerns.

Sincerely,

Jeanne

RAMBOLL

ENVIRONMENT
& HEALTH

Ms. Wanda Washington

FOCUS
PO Box 28
Tallevast, FL 34270

Re: Review of the 2024 Annual Wetlands Monitoring Report,
Lockheed Martin Tallevast Site, Manatee County Florida

September 26. 2024

Dear Ms. Washington,

At your request, I have reviewed the 2024 Annual Wetlands Monitoring Report (the "2024 WMR"), recently prepared on behalf of Lockheed-Martin for the Tallevast Site (AECOM, August 29, 2024). This Report documents the results and interpretations of the recent monitoring of wetland conditions around the Tallevast Site and the potential impacts of the ground water pumping for remediation of the contamination historically released at the LMC facility on Tallevast Road. As a result of my review, I would offer the following observations and comments.

Ramboll
10150 Highland Manor Drive
Suite 440
Tampa, FL 33610
USA

T +1 813 628 4325
F +1 813 628 4983
https://ramboll.com

The monitoring documented by AECOM appears, in general, to be following the approved permits and plans for assessment of wetland impacts. This report covers the past year but also provides longer-term data on trends in wetland conditions and ground water levels in the surrounding Upper Shallow Aquifer System (USAS).

In this reporting period a new reference wetland (RW-6) was added to the monitoring program. It is located northeast of Target Wetland 6 (TW-6) on the north side of Tallevast Road. This same wetland was historically monitored as a Targeted Wetland (TW-2) in the earlier more extensive wetlands monitoring program. This new RW replaces RW-3, which was lost due to the development of a property south of TW-6. This seems like a reasonable choice for the new referenced wetland as it lies north of Tallevast Road, outside the area most affected by the pumping.

TW-6, which is located on the south side of Tallevast Road and east of the LMC facility, is the principal wetland now used to monitor impacts from pumping water from the Groundwater Recovery and Treatment System (the GRTS) in the Upper Shallow Aquifer System. TW-6's water supply is supported by direct rainfall, by surface water runoff draining from immediately adjoining properties along the Tallevast Road ROW, the local water table aquifer system, and artificial infiltration from the RC-7002 gallery which borders the south side of the wetland.

The water table around TW-6 is drained by pumping from two galleries (EW-2103 and EW-2104) in the USAS, which are located in a pasture

immediately to the south. This pumping lowers the water table and diminishes the water supply to the wetland by increasing the rate of seepage from the wetland to the water table. To offset this seepage and support the local water table around the wetland, treated water is discharged to the RC-7002 infiltration gallery. Also negatively affecting the wetland's water supply is the development of the property east of TW-6 by Amazon. Storm drainage systems on this property now intercept the surface runoff from the eastern extension of Tallevast Road that formerly flowed to the wetland. This has reduced the supply of water to the wetland by perhaps 300,000 to 750,000 gallons per year, a number which is small in comparison to the water drained by pumping and the resupply volumes provided through the RC-7002 infiltration gallery.

Pre-pumping (i.e. pre-2013) water level records shown in Appendix D of the 2024 WMR demonstrate that ground water and seasonal surface runoff in and around TW-6 normally maintained a wet/saturated (and in some deeper areas ponded) condition in the Summer and Fall months, followed by a period of drying later in the Winter and following Spring. Local groundwater levels would typically vary by three to five feet over this seasonal cycle. Once GRTS pumping began circa 2013 the wetland was partially, artificially maintained by returning treated water to the RC-7002 gallery at typical rate of 800,000 to more than 1,000,000 gallons per month. This range of supply was seemingly sufficient to maintain a wet condition in the wetland with normal amounts of seasonal rainfall, albeit causing a somewhat reduced range of water level cycling over a full annual period (i.e. the wetland did not dry out as much in the Winter and Spring when it was being artificially controlled). This allowed the quality and character of the vegetation in the wetland to be maintained in more-or-less the same condition as in the pre-pumping period.

After the use of RC-7002 was curtailed in 2019 while the pumping continued and increased[1], the wetland became dry most of the year, with ponded water present for only brief periods following heavy rainfall (i.e., with the passage of tropical storms). This continued until late 2023 during which time the ground water levels around the wetland remained well below the long-term norms. This multi-year period of drier conditions allowed upland vegetation to begin overgrowing the historic wetland boundaries.

Following the restarted use of the RC-7002 gallery in January 2023, ground water levels in the surrounding USAS began to partially recover. Throughout the subsequent (post January 2023) monitoring period, however, the wetland apparently did not exhibit any sustained ponded surface water, and groundwater levels continued below normal well into the second half of 2023. During this time, the infiltration gallery was receiving 300,000-600,000 gallons per month of return flow, or about half of the supply normally being provided pre-2019. This record clearly demonstrates that this amount of water is insufficient to maintain the wetland under the current rates of GRTS pumping.

Beginning in December 2023 the return flow to the RC-7002 gallery was increased to 1,200,000 gallons per month and later in the Spring 2024 to as much as 1,800,000 gallons per month, causing the local water table to rise back to more seasonal norms. This increased flow was in response to a regionally lower water table due to the pumping and also a prolonged period of

[1] In 2019 the rate of pumping was increased in the nearby GRTS galleries (EW-2103 and -2104) to extend the capture zone of the GRTS farther south. The combined pumping in these galleries was thereafter approximately 40 percent higher as compared to the prior years.

drought in 2023 and into the Spring of 2024.[2] With this much-higher rate of discharge to the RC-7002 gallery, the combined effects on the water supply to the wetland from the pumping, the extended drought, and to a lesser degree the loss of runoff from Tallevast Road to the east with the Amazon development, appears to have been finally counteracted and water levels are now returning to a more normal condition. At the same time there are initial indications that the encroachment of upland vegetation into the deeper parts of the wetland may be stabilizing and reversing past trends.

Reports by local residents bordering the wetland indicate that the area around TW-6 is now quite saturated with the heavier rainfall over this past (2024) summer being added to the increased gallery discharges. Based on recent communications with Paul Calligan I understand that no water has been supplied to the RC-7002 gallery since the passage of TS Debbie over the Mantee County area in August 2024. It is appropriate that LMC is currently exercising a degree of manual control over the gallery flows to avoid overloading the wetland area with too much water, which could lead to localized flooding and/or property damage. I understand the gallery will eventually be returned to more normal (automatic) operations as the water table begins to recede with the advent of the dry season this Fall (2024).

Going forward it would be ideal if the RC-7002 gallery could be operated in a manner to restore the natural seasonal hydroperiod of the wetland exhibited in the pre-GRTS record by adjusting seasonal inflows after considering rainfall amounts over the prior six months. Prior to the commencement of pumping, the wetland typically had water levels at or slightly above normal pool in the summer rainy season and portions of the trailing Fall months, but then was partially drained and drier outside the deeper excavated areas in the Winter and Spring months when rainfall is typically lower. Although the historic hydroperiod has not been the focus of the wetland monitoring program to date[3], continuation of the type of “manual” oversight LMC is currently exercising to the supply of water to the RC-7002 gallery could be helpful going forward, in order to ensure a more natural wetland seasonal hydroperiod is maintained in TW-6.

If you have any questions regarding these observations and comments, I would be happy to discuss them with you further.

Very truly yours,

Robert L Powell PhD, PE
Principal

[2] Assuming a full supply of water is provided by the plant operators, the flow of water into RC-7002 is automatically controlled by a float actuated valve set to maintain a target level of water in the drain (personal communication from Paul Calligan). A lowered water table in the surrounding aquifer would cause the rate of seepage from the drain to increase. As the water table rises with increased rainfall, as typically occurs with the summertime rainy season, the flow of water to, and hence from, the drain should decrease.

[3] Monitoring has focused instead on vegetation changes as the primary measure of wetland impacts.

312 SE 17th Street, Suite 200
Fort Lauderdale, FL 33316

Corporate Headquarters
6575 West Loop South, Suite 300
Bellaire, TX 77401
Main: 713.520.5400

November 5, 2024

Mrs. Laura Ward, Executive Director
Mrs. Wanda Washington, Executive Director
FOCUS
PO Box 28
Tallevast, FL 34270-0038
la1law@aol.com
washingtonwd@aol.com

Subject: **Review of 2024 Wetlands Monitoring Report**
Lockheed Martin Tallevast Site, Manatee County, FL
RES PRJ Number: 108482

Dear Mrs. Ward and Mrs. Washington:

RES Florida Consulting, LLC (RES) is pleased to submit the results of our review of the 2024 Wetlands Monitoring Report prepared for the Lockheed Martin Tallevast site (former American Beryllium Company) ("the Facility") by AECOM, dated August 29, 2024. This Wetlands Monitoring Report (WMR) documents the 15th wetland monitoring event and the eleventh that has occurred since the start of active groundwater remedial system operations at the Facility. This report includes the annual assessment of Target Wetland (TW)-6 that occurred in June 2024, wetland groundwater level data for the reporting period of June 2023 through June 2024 for TW-6, and a new Reference Wetland (RW-6) which was formerly known as TW-2.

The Wetlands Monitoring Report, data forms, and scoring generally conform with the Wetland Assessment Procedure (WAP) developed by the Southwest Florida Water Management District (SWFWMD) to monitor biological changes in isolated wetlands due to hydrologic changes in the groundwater, but we still have some concerns as outlined below

Background

Wetland monitoring was established pursuant to the July 2009 Wetlands Monitoring Plan (WMP). Baseline wetlands monitoring assessments were conducted, and reports submitted for four years (through June 2013) prior to groundwater extraction associated with startup of the remedial system operations. The groundwater recovery and treatment system (GRTS) operation began on November 18, 2013. The WMRs document wetland conditions after GRTS operations began. The purpose of the WMP is to assist in determining if remedial action associated with the Facility is adversely impacting the wetlands. The initial wetland study area was evaluated using the WAP to assess if remedial action has the potential to impact wetland hydrology in the vicinity of the project site (Site). Quarterly monitoring was being conducted until the first monitoring report, when the frequency was reduced to semi-annually. After the sixth operational monitoring report, a revised WMP recommending reduction of monitoring locations from seven wetlands to two wetlands (a reference wetland RW-3 and target wetland TW-6) was approved by the Florida Department of Environmental Protection (FDEP) in a letter dated September 27, 2019.

Then in July 2022, Lockheed Martin notified FDEP and SWFWMD that the owner of the property containing RW-3 had submitted a permit application to impact the wetland during impending development activities. The WMR submitted in August 2022 proposed that RW-3 be removed from the wetland monitoring program, however, the water elevation data collected at RW-3 prior to the startup of the Remedial Action Plan Addendum (RAPA) groundwater treatment system was used as a reference to assess target wetland TW-6 during upcoming wetland monitoring events.

In response, on December 9, 2022, SWFWMD issued a request for additional information (RAI) acknowledging the impending removal of RW-3 and requested a Water Use Permit (WUP) modification application be submitted to document the removal of RW-3 and associated monitoring infrastructure from the wetland monitoring program.

On January 31, 2023, the SWFWMD approved a third-party property owner's Application for Individual and Conceptual Approval Environmental Resource Permit to impact RW-3 in its entirety, providing compensatory mitigation, in preparation for a planned development. Monitoring well (MW)-RW-3 was reportedly abandoned on February 24, 2023.

In response to the December 9, 2022 RAI, Lockheed Martin submitted a Water Use Permit Letter Modification to the SWFWMD April 26, 2024 (permit number 20020198.002). This submittal included a recommended revised WMP. In response, SWFWMD issued an RAI letter dated January 25, 2024, the SWFWMD requested that Lockheed Martin attempt to identify a new RW to replace RW-3. Former target wetland TW-2 was designated as the wetland to be used as a reference wetland and TW-2 was re-designated as RW-6, as approved by SWFWMD in a letter dated May 23, 2024.

The WMP states the following:

- Lockheed Martin will submit water level information to SWFWMD and FDEP on a quarterly basis. The water level table will include data for TW-6 for December 2023 and February 2024, and then additional water level information for RW-6 starting in May 2024.
- A WMR will be submitted to the FDEP and SWFWMD by September 1st of each year. The WMR will present the water level and wetlands characteristic monitoring event data collected during the reporting period. The 2024 WMR will contain wetland characteristics monitoring for TW-6.
- Starting in 2025, the WMR will contain wetlands characteristics monitoring for TW-6 and RW-6. The next soil assessment for both wetlands will occur in May/June 2025.

2024 Wetland Monitoring

The 2024 Wetland Monitoring Report generally complies with the updated Wetland Monitoring Plan that was submitted as part of Lockheed Martin's Revised WMP submitted to the SWFWMD April 26, 2024 (permit number 20020198.002). The 2024 Wetlands Monitoring Report confirms that former Target Wetland 2 (TW-2) was re-designated as Reference Wetland 6 (RW-6). However, it is noted that the RW-6 wetlands assessment was not required by the 2024 WMP to be included in the 2024 Wetland Monitoring Report and Lockheed Martin indicated that it will be included in the 2025 Wetland Monitoring Report. The water level for RW-6 was assessed (staff gauge 8 and stilling well 3) and was recorded once in May of 2024. Since the newly designated RW-6 was not evaluated for wetlands assessment or soil conditions, and the previously existing RW-3 was abandoned in 2023, Lockheed Martin has not provided data on a reference wetland for over two years. Furthermore, the wetland assessment for TW-6 was conducted June 11, 2024, after SWFWMD had approved the new RW-6. **While not required by the 2024 WMP, it is acknowledged that this newly designated RW-6 could have been assessed to determine its functionality as a reference wetland, as it was approved as a reference wetland (May 2024) by the time Lockheed Martin conducted the wetland assessment of TW-6 (June 2024).**

The WAP Form was only used to assess TW-6. The 2024 WMP notes a WAP score for groundcover as 3 and comments that this is the same score from 2023. However, the groundcover WAP score had to be revised and was recharacterized to 2 based on input from SWFWMD staff in 2023 in the April 26, 2024 Request for Additional Information Response submitted to the SWFWMD. **The 2024 Wetland Monitoring Report needs to be revised to reflect the accurate WAP score from 2023.**

Based on the photographs provided in the report, RES agrees with the WAP score of vegetation coverage at wetland TW-6 which is an increase from the 2023 Wetland Monitoring Report. The area appears to have a higher percent of native species and lower percentage of invasive species compared to 2023. However, invasives are still present and this score had been slowly declining since the initial monitoring effort. The migration of invasive upland species into the deep zone shows higher degradation in the overall wetland quality. If the continued migration of these upland species into the deep zone of the wetland occurs, TW-6 will cease to be a functioning wetland. **RES previously recommended in a letter provided to SWFMD that Lockheed Martin be required to provide adequate hydrological measures to ensure TW-6 is a functioning wetland and that invasive species management become a part of the Wetlands Monitoring Plan to confirm TW-6 is meeting the required goals of SWFWMD permits (No. 200020198.001). The revised Wetlands Monitoring Plan and Report do not address this concern.**

Discharge flow rates from infiltration recharge gallery RC-7002 at TW-6 have been increased to 45 gallons per minute (gpm) up from 25 gpm in 2023. Surface water levels at TW-6 were below ground surface elevation for two consecutive monitoring periods and above ground surface for the remaining. This is an improvement from 2023 when there were over three

monitoring periods below surface ground elevation. The only monitoring period at RW-6 reported that water elevations were below surface ground elevation and the staff gauge was dry.

There are concerns regarding the newly identified RW-6. No field monitoring has occurred at RW-6 (TW-2) since 2019 and Lockheed Martin has yet to provide sufficient scientific justification as to why a previous target wetland will now be an acceptable reference wetland per the revised Wetlands Monitoring Plan. **It is noted that the report only discusses TW-6, no field monitoring occurred at RW-6, and water level monitoring activities in RW-6 were only collected once**. Considering the changes in the region and in the groundwater recovery system, it is of utmost importance to monitor an appropriate reference wetland in conjunction with the target wetland.

Lockheed Martin monitors selective staff gauges and stilling wells associated with wetlands and other surface waters as part of the remedial action groundwater elevation monitoring. However, a limited amount of this information is provided to the SWFWMD as part of its wetlands monitoring reports. An example is the spring fed pond located northwest of RW-6 which currently has a staff gauge that is being monitored and reported by Lockheed Martin as part of the remediation action plan reporting to FDEP, but not included in the Wetlands Monitoring Report. RES recommends including monitoring data from staff gauges and stilling wells and inclusion of this data in the future Wetlands Monitoring Reports to better understand impacts of pumping on wetlands and other surface waters within the project area and nearby properties.

Summary of Recommendations

Based on the information reviewed, RES recommends the following:

- Lockheed Martin should monitor water elevations on a quarterly basis and submit to SWFWMD.
- Lockheed Martin should provide a full wetland assessment, including soil condition analysis per the SWFWMD WAP procedures, for RW-6 and TW-6 in the 2025 Wetland Monitoring Report.
- Lockheed Martin should provide discharge flow rates to be analyzed in the 2025 Wetland Monitoring Report to evaluate possible impacts within the project area.
- Lockheed Martin should revise the submitted WMR to reflect the correct WAP scores.

RES appreciates the opportunity to continue to review regulatory documentation for the community. It is imperative that the shrinking natural resources within the community be monitored and maintained.

Sincerely,

RES Florida Consulting, LLC

Megan Reising, M.S.
Scientist IV
mreising@res.us

Nadia Locke, P.E.
Senior Engineer
nlocke@res.us