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October 19, 2023

Mrs. Laura Ward, Executive Director
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Subject: **Review of 2023 Wetlands Monitoring Report**
Lockheed Martin Tallevast Site, Manatee County, FL
RES PRJ Number: 108482

Dear Mrs. Ward and Mrs. Washington:

RES Florida Consulting, LLC dba E Sciences (RES) is pleased to submit this review of the 2023 Wetlands Monitoring Report prepared for the Lockheed Martin Tallevast Site by AECOM, dated August 30, 2023.

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. While the scores assigned for ground cover, shrubs and trees are consistent with WAP scoring methodology, it is noted that the WAP score is not based on the presence of weedy or exotic vegetation. Many other wetland functional assessment techniques used in the State of Florida consider the percentage of weedy (eq. invasive) and/or exotic species as an indicator of the health of the system. In this respect, the increase in percent cover of dog-fennel (*Eupatorium capillifolium*), Brazilian pepper (*Schinus terebinthifolia*) and even Carolina willow (*Salix caroliniana*) in all three zones since the 2019 Wetlands Monitoring Report is indicative of the reduced water levels experienced during this time and a decline in the viability and health of the wetland. Additionally, the recent increase in groundwater levels (which was mainly driven by precipitation) and the increase in WAP scoring of the ground cover from 2 to 3, do not necessarily indicate long-term recovery of the wetland, as inferred.

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 Site. Quarterly monitoring was being conducted until the first monitoring report, when the frequency was reduced to semi-annually. Following the sixth operational monitoring report, the monitoring program was reduced from monitoring seven to two wetlands: a reference wetland, RW-3 and a target wetland, TW-6. In 2023, assessment was only conducted one time for TW-6 and RW-3 was not assessed. Lockheed Martin's 2023 Wetlands Monitoring Report states that SWFWMD approved an application for removal of reference wetland RW-3 wetland on January 31, 2023 and that they therefore removed the monitoring equipment on February 24, 2023.

Proper regulatory approval was not obtained for removal of the equipment or the reference wetland from the monitoring plan. Lockheed Martin indicated its intent to remove the monitoring infrastructure from RW-3, and the wetland to be removed from the wetlands monitoring program in a letter to FDEP dated January 25, 2022. The letter details that in preparation for development of the property containing reference wetland RW-3, the owner of that property requested that Lockheed Martin remove the stilling well, staff gauge and telemetry station for RW-3. The letter indicates that upon FDEP's acknowledgement, they will remove the equipment from the wetland.

FDEP indicated that it would provide a response. A formal response to Lockheed Martin approving removal of the equipment was not identified in OCULUS.

In their 2022 Wetlands Monitoring Report, Lockheed Martin reiterates their intent by stating "As discussed in Section 9.6, the monitoring infrastructure in RW-3 will be properly abandoned and removed and RW-3 will be removed from the

wetlands monitoring program." FDEP finally responded to this request in their October 17, 2022 review letter stating that "The monitoring of TW-6 and RW-3 should continue as the hydroperiod is still showing influence due to groundwater withdrawals/pumping activities."

In a SWFWMD memorandum dated January 20, 2023, they state the following: "A (RAI) Letter was sent in response to the 2022 Annual Environmental Monitoring Plan Update (linked here). The letter inquired about the permittee potentially losing access to RW-3, following the sale of the property. The permittee responded that they still do have access for monitoring, and if access is lost they will request an update to the permitted Environmental Monitoring Plan. It is important that this is done through an official permit modification request, as any requests included in an annual report will not be considered. It is recommended that if/when that occurs, alternative reference wetlands are looked into for further monitoring and comparison of TW-6." In a March 17, 2023 Memorandum FDEP indicated that they concur with the SWFMWD comments outlined in the January 20, 2023 Memo.

Regardless of clear direction from the agencies that an updated monitoring plan, WUP permit modification be approved and alternative reference wetland be evaluated prior to removal of RW-3 from the monitoring plan, RW-3 was removed from the monitoring, along with the removal of the telemetry monitoring station and staff gauge without obtaining proper authorization from either agency and without a scientific based evaluation of the inclusion of other reference wetlands. Monitoring well MW-RW-3 was abandoned on February 24, 2023, after SWFWMD had issued their decision and before FDEP had the opportunity to concur. Water levels in RW-3 were last measured in September and December 2022. According to a September 15, 2023 SWFMWD construction inspection checklist, construction was reportedly starting at that time. There was no reason that Lockheed Martin needed to abandon RW-3 until well after the wetland could have been assessed and the water level elevations could have been collected along with TW-6 in March and May. The 2023 Wetlands Monitoring Report could have been a complete report.

It is also of importance to highlight that Lockheed Martin states that the data collected at RW-3 during the four baseline years prior to the groundwater recovery system startup and nine years that it has been operational, is sufficient to determine if the system influences water levels observed in TW-6 without the need for a reference wetland. The issue here is that the monitoring of RW-3 along with TW-6 has never occurred since the groundwater pumping and infiltration system was substantially modified to address plume migration to the southeast. In fact, the latest large system change occurred on January 10, 2023 and monitoring of water levels last occurred in December 2022. Lockheed Martin indicated in their January 12, 2023 response to SWFWMD comments, that the effects of the January 10, 2023 operational adjustment would be evaluated during the annual wetlands assessment event planned for May/June 2023 and reported in the associated annual wetland monitoring report. But the evaluation presented in the wetlands monitoring report did not include assessing the reference wetland so this was not conducted.

Considering the changes in the region and in the groundwater recovery system, it is of utmost importance to monitor a reference wetland in conjunction with the target wetland. It is noted that the report only discusses TW-6, no field monitoring occurred at RW-3, and water level monitoring activities in RW-3 were terminated prior to significant system adjustments. The report also states that plans to abandon the monitoring wells at reference wetlands RW-1 and RW-2 were thwarted due to overgrown vegetation. We, therefore, recommend that one of these two wetlands be selected as a reference wetland and its assessment and the water level monitoring continue.

Sincerely,

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