FLORIDA DEPARTMENT OF Environmental Protection

Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406-3007
561-681-6600

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

April 26, 2019

Via Email: dpeters@ci.stuart.fl.us

Mr. David D. Peters, Public Works Director
City of Stuart
121 SW Flagler Ave.
Stuart, FL 34994

Re: City of Stuart Public Safety Complex Site Assessment Report for PFOA / PFOS
Located at or near 800 SE Martin Luther King, Jr. Boulevard
Stuart, Martin County, FL 34994
FDEP Site ID No. COM_363842, SIS ID No.: 761-1

Dear Mr. Peters:

The Florida Department of Environmental Protection (Department) and the University of Florida Center for Environment & Human Toxicology, have reviewed the submittal entitled "City of Stuart Public Safety Complex Site Assessment Report", dated March 4, 2019 (received March 6, 2019) prepared by JLA Geosciences, Inc. for the above-referenced site.

Copies of the April 24, 2019 review memorandum from the Department's District and Business Support Program and March 21, 2019 correspondence from the University of Florida are attached to this letter.

In order to complete the Site Assessment for this project and effectuate a timely source cleanup, meeting the requirements of Chapter 62-780, Florida Administrative Code, please address the comments made in the correspondence attached to this letter.

Your written response should be received at the Southeast District no later than July 1, 2019.

In an effort to make a more efficient submittal process for all incoming Waste Cleanup correspondence, the Department is streamlining our workflow process. But to accomplish this goal, your help is needed. We are requesting that all correspondence sent to the Southeast District related to the Waste Cleanup program be emailed to: SED_Permitting@floridadep.gov. Please ensure that all correspondence submitted contains a DEP Site/Project ID number in the cover letter/email. This number could be a Brownfields, COMET, ERIC, Tanks or other DEP program number.

If you have any questions, please contact me at telephone 561-681-6782, e-mail: diane.pupa@floridadep.gov or Paul Wierzbicki at 561-681-6677 or paul.wierzbicki@floridadep.gov.

Thank you for your cooperation in this matter.

Sincerely,



Diane Pupa
Program Administrator
Permitting and Waste Cleanup

Attachments: Memorandum dated March 4, 2019 with Letter dated March 21, 2019

cc: Timothy Voelker, City of Stuart, tvoelker@ci.stuart.fl.us
Michael Mortell, City of Stuart, mmortell@ci.stuart.fl.us
Rodney Miller, JLA Geosciences, rmiller@jlageosciences.com
Mark Miller, Kimley-Horn, mark.miller@kimley-horn.com
Alberto J. Naya, P.G., Section Leader, South FL Water Mgmt, anaya@sfwmd.gov
Lisa Ullman, SFWMD, lullman@sfwmd.gov
Todd Reinhold, REHP, Florida Health Martin County, Todd.reinhold@flhealth.gov
FDEP - Brian Dougherty, Leah J. Smith, Diane Pupa, Joni Synatschk, John C. Bryant, Paul Wierzbicki, Kelly Crain, David Phillips, Jamie Shakar

FLORIDA DEPARTMENT OF
Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

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Memorandum

TO: Paul Wierzbicki, Professional Geologist III
Permitting and Waste Cleanup Program, Southeast District

THROUGH: Brian Dougherty, Program Manager
District & Business Support Program, DWM

X BJD Digitally signed by Brian Dougherty Date: 2019.04.24 17:29:06 -04'00'

FROM: Leah J. Smith, Environmental Consultant
District & Business Support Program, DWM

X Digitally signed by Leah J. Smith Date: 2019.04.24 15:36:47 -04'00'

SUBJECT: City of Stuart Wellfield PFOS PFOA
Stuart, Martin County
City of Stuart Public Safety Complex Site Assessment Report, March 4, 2019
Site ID: COM_363842

DATE: April 24, 2019

The *City of Stuart Public Safety Complex Site Assessment Report* (SAR) dated March 4, 2019, has been reviewed by the University of Florida Center for Environment and Human Toxicology (UF), and the Florida Department of Environmental Protection (FDEP) District and Business Support Program (DBSP). The analysis from UF is attached. DBSP is in agreement with UF's review. Additionally, DBSP has the following comments:

- Results from the SPLP sampling conducted in April 2018 were available in OCULUS and indicate that concentrations of PFOS/PFOA in several soil samples were detected at concentrations that will leach into groundwater above the groundwater cleanup target level. DBSP recommends including the SPLP sampling results in the SAR.
- UF derived a provisional leachability-based soil cleanup target level (ASCTL) of 2,000 ng/kg for PFOA and 7,000 ng/kg for PFOS for sensitive lifestages. DBSP supports the use of these provisional SCTLs for leachability. That evaluation is attached.
- On page 3 of 8 Attachments 1 and 2 are misidentified as Attachments 2 and 3.
- DBSP is not aware of a particle tracking analyses referenced in the Remediation Plan section of the submittal.
- Plume maps, lithological/boring logs, and field notes were not included in the submittal. A groundwater flow map should also be provided.
- Any private water supply well, including potable, irrigation, and industrial wells, should be identified within a ¼-mile radius of the site.

1. **Soil:**

   Soil samples were collected at 0 to 0.5-feet, 0.5 to 2-feet, and 2 to 4-feet intervals in step out locations from Well DW and on the four quadrants surrounding the retention pond area. Soil sample results were below residential and commercial/industrial SCTLs. Based on the leachability ASCTLs described above, leachability PFOA and/or PFOS SCTLs were exceeded at sample locations Pond NE-SB, Pond NW-SB, DWSB-3, DWSB-4, and DWSB-5. Soil has not been horizontally delineated to the leachability SCTLs to the north of Pond NE-SB and Pond NW-SB; and, has not been vertically delineated at locations Pond NE-SB, Pond NW-SB, DWSB-4, or DWSB-5. Groundwater impacts in these areas indicate soil may be acting as a source of continued groundwater impacts.

2. **Groundwater:**

   Groundwater samples were collected from seven locations (DP#1 through DP#7) at three depth intervals considered shallow, intermediate, and deep. The sample depths include: between 11 and 18 feet below land surface (bls), between 31 and 35 feet bls, and between 63 and 72 feet bls. Note, the BW Well and DW Well depth intervals were not provided on Table 1. Combined PFOA/PFOS groundwater impacts were identified above the provisional GCTL of 70 ng/L in all samples with the exception of the shallow interval samples from DP#3 and DP#4, and the intermediate sample interval from DP#2.

   The FDEP Site Investigation Section installed and sampled additional wells on the southern portion and south of the site property in January/February 2019. Samples collected from shallow and intermediate wells (DEP-3S and DEP-3I) in the location of DP#3 indicate that although the shallow interval sample from DP#3 was below GCTLs, shallow impacts in this area may be present. PFOA/PFOS has not been delineated horizontally or vertically in groundwater.

3. **Surface Water:**

   The on-site retention pond did not have standing water present. No other surface water bodies were identified in the vicinity of the site property.

The additional information described above is needed to complete the site assessment of this property. If you have any questions, please contact me at 850-245-8717 or at Leah.J.Smith@FloridaDEP.gov

UF UNIVERSITY of FLORIDA

Center for Environment & Human Toxicology

PO Box 110885
Gainesville, FL 32611-0885
352-392-2243 Tel
352-392-4707 Fax

March 21, 2019

Leah J. Smith
District and Business Support Program
Division of Waste Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Review of the site assessment report for the City of Stuart Public Safety Complex

Dear Ms. Smith:

At your request, we have reviewed the *City of Stuart Public Safety Complex Site Assessment Report.* This document was prepared by JLA Geosciences, Inc. and is dated March 4, 2019. The report presents soil and groundwater sampling data for perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and hexafluoropropylene oxide (HFPO). The report concludes concentrations of PFOA and PFOS in all groundwater samples (except four) exceed the provisional groundwater cleanup target levels (GCTLs) calculated by the University of Florida of 100 ng/L and 70 ng/L sum PFOA and PFOS for adult residents and sensitive lifestages, respectively (letters to FDEP dated April 16, 2018 and August 16, 2018). All groundwater samples were below the irrigation water screening levels calculated by the University of Florida (letter to FDEP dated June 18, 2018). PFOA and PFOS soil concentrations were below the provisional soil cleanup target levels (SCTLs) calculated by the University of Florida for the protection of residents (letter to FDEP dated April 16, 2018). Provisional leachability SCTLs for adult residents for PFOS were exceeded at two of the nine soil sampling locations. The remediation plan includes a proposed pump and treat approach to address groundwater impacts from the complex. We have the following comments regarding the document.

1. Page 3 in the Soil Sampling section states synthetic precipitation leaching procedure (SPLP) data were collected for soil samples taken from the 0.5-2 ft depth interval. Additional clarification is needed regarding whether the site-specific SPLP data will be used in place of the provisional SCTLs for leachability. If the site-specific SPLP data will be used, they should be submitted to the FDEP for review.

2. In addition to the provisional leachability SCTLs for adult residents, we have derived provisional leachability SCTLs for sensitive lifestages (based on the groundwater concentration of 70 ng/L). These provisional leachability SCTLs include 2,000 ng/kg for PFOA and 7,000 ng/kg for PFOS (letter to the FDEP dated January 3, 2019). Using the provisional leachability SCTLs for sensitive lifestages, one additional sample exceeds

leachability SCTLs. The 0.5-2 ft depth interval in sample DWSB-3 lists a PFOS concentration of 8,900 ng/kg and exceeds the sensitive lifestage leachability SCTL of 7,000 ng/kg.

As requested, we have reviewed the tables and figures for accuracy. All of these elements were correctly represented in the document. Typographical, formatting, or other editorial errors (if any) were noted above. Conclusions and recommendations were inherent in the document and are addressed in the above comments. Please let us know if you have any questions regarding this review.

Sincerely,

Leah D. Stuchal, Ph.D.

Stephen M. Roberts, Ph.D.

UF UNIVERSITY of FLORIDA

Center for Environment & Human Toxicology

PO Box 110885
Gainesville, FL 32611-0885
352-392-2243 Tel
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January 3, 2019

Leah J. Smith
District and Business Support Program
Division of Waste Management
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Leachability SCTLs for PFOA and PFOS based on the alternative GCTL of 0.07 μg/L

Dear Ms. Smith:

At your request, we have calculated leachability soil cleanup target levels (SCTLs) for perfluorooctanoic acid (PFOA; CAS# 335-67-1) and perfluorooctane sulfonate (PFOS; CAS# 1763-23-1) based on the alternative groundwater cleanup target level (AGCTL) of 0.07 μg/L for the protection of sensitive lifestages. The leachability SCTLs were calculated using the equation in Figure 5 of Chapter 62-777, F.A.C. Chemical-specific properties used in the calculation were taken from our letter regarding the calculation of SCTLs for PFOA and PFOS (dated April 16, 2018. Based on these parameters, **the leachability SCTL for PFOA is 0.002 mg/kg and the leachability SCTL for PFOS is 0.007 mg/kg**. Please let us know if you have any questions regarding these calculations.

Sincerely,

Leah D. Stuchal, Ph.D.

Stephen M. Roberts, Ph.D.