July 2020

Supplemental Site Characterization Investigation Work Plan
Hudson Valley Regional Airport Site
18 Griffith Way
Town of Wappinger
Dutchess County, New York
NYSDEC Site # 314129

PREPARED FOR:

COUNTY OF DUTCHESS
1626 Dutchess Turnpike
Poughkeepsie, New York 12603

I, Jim McIver, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Draft Site Characterization Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

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REVISED SITE CHARACTERIZATION WORK PLAN
HUDSON VALLEY REGIONAL AIRPORT SITE
18 GRIFFITH WAY, TOWN OF WAPPINGER
DUTCHESS COUNTY, NEW YORK

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ACRONYMS AND ABBREVIATIONS

AAG	Associated Aircraft Group, Inc.
ASP	Analytical Services Protocol
°C	Degrees Celsius
CAMP	Community Air Monitoring Plan
DER	Division of Environmental Remediation
DER-10	NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (May 2010)
DO	Dissolved Oxygen
DQO	Data Quality Objective
DUSR	Data Usability Summary Report
EDS	Electronic Data Summary
FSP	Field Sampling Plan
GPS	Global Positioning Equipment
HASP	Health and Safety Plan
IDW	Investigation-Derived Waste
MCL	Maximum Contaminant Level
MS/MSD	Matrix Spike/Matrix Spike Duplicate
ng/g	Nanograms per gram (parts per billion)
ng/L	Nanograms per liter (parts per trillion)
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
NYSGS	New York State Geological Survey
ORP	Oxidation-Reduction Potential
OSHA	Occupational Safety and Health Administration
P-Site	Potential NYS Inactive Hazardous Waste Disposal Site
PARCC	Precision, Accuracy, Reproducibility, Completeness, and Comparability
PCBs	Polychlorinated biphenyls
PFAS	Poly- & Perfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PID	Photoionization Detector
PPE	Personal Protective Equipment
ppt	Parts per trillion
QA/QC	Quality Assurance / Quality Control
QAPP	Quality Assurance Project Plan
RI	Remedial Investigation
SC	Site Characterization
SCR	Site Characterization Report
SCWP	Site Characterization Work Plan
SVOCs	Semi-Volatile Organic Compounds

SCO	Soil Cleanup Objectives
TAL	Target Analyte List
TCL	Target Compound List
TOGS	Technical Operations Guidance Series
µg/kg	Micrograms per kilogram (parts per billion)
µg/L	Micrograms per liter (parts per billion)
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION, PURPOSE & SCOPE

This document constitutes a Supplemental Site Characterization Work Plan (Supplemental SCWP) for the Hudson Valley Regional Airport site (the Site) located at 18 Griffith Way in the Town of Wappinger, Dutchess County, New York. The Site is approximately 510.8 acres in size and is identified with tax number 135689-6259-03-225301-0000 on the Town of Wappinger tax maps. A Site Location Map, Site Map – Areas of Concern, and Site Location Map- AAG Hangars are included in Exhibit 1, Draft Site Characterization Report, December 2019 as Figures 1, 2 and 3.

A revised Site Characterization Work Plan (SCWP) was submitted to the New York State Department of Environmental Conservation (NYSDEC) and approved in July 2019. The SCWP was implemented over the summer and fall of 2019 and the Site Characterization Investigation Report was submitted to the NYSDEC in December 2019 for review. Upon review of the findings and before approving the Site Characterization Report, the NYSDEC has determined additional investigation is required. The NYSDEC outlined its concerns in letters to the County dated April 16, 2020 and July 8, 2020 (NYSDEC Comment Letters) which are included herein as Exhibit 2. This revised draft Supplemental SCWP addresses additional requirements for site characterization work at the Site as set forth in the NYSDEC Comment Letters. Where applicable, the NYSDEC comments are addressed directly in this work plan; however, if a comment pertains strictly to an editorial change or correction noted in the NYSDEC Comment Letter, it is not specifically addressed herein but will be incorporated into the final revised Site Characterization Investigation Report (Revised SCR) to be submitted at the conclusion of the work scope set forth in this Supplemental SCWP.

This Supplemental SCWP was developed in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (May 2010) (DER-10) and 6 NYCRR 375 Environmental Remediation Programs (December 14, 2006).

1.1 Background

By letter dated September 15, 2017, NYSDEC informed Dutchess County that NYSDEC had classified the Site as a "P-site" based on the detection of perfluorinated compounds in a water supply well located on the Site and in nearby supply wells. The water samples were collected by the New York State Department of Health (NYSDOH). The

letter also stated that an investigation was required to be conducted in accordance with NYSDEC's technical requirements for a site characterization. The NYSDEC letters and results of the NYSDOH sampling are included in Exhibit 1, Draft Site Characterization Report as Exhibits 2 and 3, respectively.

1.2 Purpose

The purpose of this Supplemental SCWP is to address data gaps identified in the NYSDEC Comment Letter (Exhibit 2). The purpose of the supplemental tasks is to refine the established environmental baseline and conceptual model for the Site with the intent of acquiring sufficient data for determining if further Site investigation is necessary.

1.3 Scope of Work

The following objectives are proposed for this Supplemental SCWP.

-Determine if the Wappingers Creek is a sensitive receptor for the impacts observed in groundwater monitoring wells sampled as part of the initial Site Characterization (SC) Investigation.

- Refine the conceptual model of subsurface conditions utilizing soil, sediment, stormwater, surface water, and drinking water samples obtained during the initial SC investigation, as supplemented by surface water samples and limited and controlled off-site sampling of potable water wells taken during this Supplemental SC investigation. Of particular interest is the interaction between the bedrock aquifer and unconsolidated aquifer to determine if there is a connection and whether the impacts observed on the Site have migrated off-site. The conceptual model will examine the interconnection between subsurface geologic conditions and groundwater flow.

-Revise the original Site Characterization Report (SCR) to incorporate the findings of the supplemental investigations that will be performed under this SSCWP. The components of the Revised SCR will generally include the findings of the records search; the physical setting of the Site and surrounding areas; a technical overview of data collected during the SC and Supplemental SC investigations; as well as findings and recommendations.

2.0 PROJECT ORGANIZATION

The following identifies pertinent personnel that will be involved in the Supplemental Site Characterization (SC) investigation of the Site.

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3.0 OBJECTIVES, SCOPE & RATIONALE

3.1 Objectives

The Supplemental SC investigation is being conducted to provide additional information to refine the physical setting and environmental quality of the Site and assess off-site impacts, if any. Such information along with information obtained in the Records Search Report will be used to construct a conceptual model of Site conditions.

The potential compounds of concern identified by the NYSDEC are perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS), which were reportedly detected in a water supply well located on the Site and in nearby residential water supply wells. There is a documented chlorinated spent solvent spill on Site in relation to the former Flagship Hangar Site (NYSDEC Site ID#314101).

PFOS and PFOA are members of the class of substances called poly & perfluoroalkyl substances (PFAS). PFOA, PFOS and other PFAS compounds have been produced and used in commercial products and industrial processes for over 60 years. Known commercial uses of PFAS include: water-, soil-, and stain-resistant coatings for clothing, leather, upholstery and carpets; oil-resistant coatings for food contact paper; aviation hydraulic fluids; fire-fighting foams; paints, adhesives, waxes, polishes, and other products. Known industrial uses of PFAS include surfactants, emulsifiers, wetting agents, additives, and coatings. Additionally, PFOA is used as a processing aid (emulsifier) in the production of PTFE and other fluoropolymers and fluoroelastomers, which are used as non-stick coatings on cookware, membranes for waterproof/breathable clothing, electrical wire casing, fire and chemical resistant tubing, plumbing thread seal tape, and AFFF firefighting foam.

3.2 Project Standards, Criteria and Guidance

The Supplemental SC investigation will include the collection of surface water and drinking water samples for laboratory analysis for 1,4-Dioxane and PFAS (21 compounds). Chemicals constituting the PFAS list are presented in Exhibit 3. The Proposed Sampling Schedule presented as Table 1 in the tables section at the rear of this work plan provides a list of the various samples that will be collected and analyzed as a function of this Supplemental SCWP.

NYSDEC has not established regulatory standard or guidance values for PFOA or PFOS, so soil sampling analytical results for PFOA and PFOS will be compared to the United States Environmental Protection Agency (USEPA) created site specific health-based action level of one (1) part per million (ppm) or 1,000 parts per billion (ppb) [1.] Regulatory standards and guidance values have not been developed for the other PFAS: therefore, analytical results for these PFAS are being collected at the request of the NYSDEC for information purposes only.

If soil sampling is required for PFAS in the future, while no NYS regulatory standards exist, the Department has issued "GUIDELINES FOR SAMPLING AND ANALYSIS OF PFAS Under NYSDEC's Part 375 Remedial Programs (January 2020)" on sampling and analysis of soil for PFAS which includes screening values for comparison to analytical results and concentrations which trigger Synthetic Precipitation Leaching Procedure (SPLP) analysis to identify potential source soil. We will follow the NYSDEC guidance for PFAS soil sampling and add SPLP if soil concentrations exceed 1 part per million (ppm) or 1,000 micrograms per kilogram (µg/kg) of soil.

NYSDEC has not established a regulatory standard or guidance value for groundwater for PFOA or PFOS, so the PFOA and PFOS chemical constituents of the PFAS list will be compared to the November 2016 USEPA PFOA and PFOS Drinking Water Health Advisory of 70 part per trillion (ppt)[(2)]. Regulatory standards and guidance values have not been developed for the other PFAS and, therefore, analytical results for these PFAS are being collected at the request of the NYSDEC for information purposes only. The New York State Department of Health has proposed a drinking water Maximum Contaminant Level (MCL) of 10 ppt for PFOA and 10 ppt for PFOS. If the proposed MCL is adopted, the Department will request the County begin offering bottled water to, and POET installation at, those affected properties above 10 ppt for PFOA or PFOS in the manner described in this work plan. If the MCL is adopted, the County will work with the Department to renegotiate the Consent Order.

[(1)] USEPA site specific action level of 1 ppm for the combined level of PFOA and PFOS in soil at the McCaffrey Street facility and surroundings in Hoosick Falls, New York.
[(2)] USEPA Fact Sheet; PFOA & PFOS Drinking Water Health Advisories; EPA 800-F-16-003: November 2016.

3.3 Scope & Rationale

The Supplemental SC investigation will include the collection of surface water and potable well water samples for laboratory analyses. The following sections detail the scope and rationale of the investigation. The sampling locations are depicted on Figures 1 and 2: Stream Sampling Locations and Proposed Potable Well Sampling Areas., respectively.

3.3.1 Source Materials Quality Control

PFAS (including PFOA) are found in several everyday items (see Section 3.1) that may be introduced inadvertently during the Supplemental SC investigation. As a check for cross-contamination, quality control samples will be collected from source materials and equipment that are anticipated to be used for the investigation. These include bottled water used as final decontamination rinse water if not laboratory grade supplied water. Other sampling equipment will be characterized by obtaining equipment blanks during sampling efforts.

3.3.2 Investigation

The subsurface conditions (i.e. soil, sediment, surface water and groundwater) have been investigated across the Site. The work proposed herein is intended to address data gaps and characterize likely sensitive receptors, all as identified in the NYSDEC Comment Letter. Listed below are the relevant comments from the NYSDEC Comment Letter with an appropriate response and, as applicable, the proposed scope of work including rationale. The NYSDEC comment is provided in italics and the proposed response in plain text

Comment 1: Please add "Associated Aircraft Group, Inc. (AAG)" under acronyms or abbreviations, and in the introduction at the first occurrence of AAG.

Response: Associated Aircraft Group, Inc. (AAG) will be added to the list of Acronyms.

Comment 2. Section 2.2 Site Buildings and Structures: Regarding runway names, please provide a reference to Figure 2.

Response: The runway names will be added to the Figure 2 and referred to being identified in Figure 2 in Section 2.2.

Comment 3. Page 11, Section 3.1, Item No. 6 AOC-6 Hangars (former IBM Hangar, Site No. 314078 and Flagship Hangar Site No. 314101): The 3rd paragraph of this section, the AAG potable well is characterized as having the highest PFAS levels recorded in the area, which appears to be contradicted by Figure 6. Please revise or remove this statement since other PFAS levels in monitoring wells are higher, e.g. MW-21G, MW-21S, and MW-21R.

Response: The text and figures in the SC report will be revised to reflect the results of the recent and historic sampling results.

Comment 4. Page 12, Section 3.1, Item No. 7 AOC-7, ARFF / Maintenance Building: As this is a potential source area of PFAS on-site, specify the name of the test boring/monitoring well completed in the vicinity of the building's septic system. It appears the only well proximate to the Maintenance Building is MW-100 on the eastern side of the building whereas the text indicates the septic system is off the western corner of the ARFF Maintenance Building. Please include location of any septic systems on the figures that show AOC-6 or AOC-7.

Response: The text of the SC report will be revised to identify the wells completed in or near the septic system for the ARFF/Maintenance Building. To the extent that it can be determined, the septic system for this building will be added to the figures that show AOC-6 and AOC-7.

Comment 5. Page 13, Section 3.1 Off-site Locations: To protect privacy, all off-site addresses should be relabeled and referred to using a generic system (i.e. Private Well/PW-1, PW-2, etc. or expand on the labeling system in the approved Site Characterization Work Plan, "Location 1", etc.) and a location key should be provided to the Department and NYSDOH. Please revise the text and Figure 12 before placing any versions of the Site Characterization Report in the public repository.

Response: The names of all private homeowner wells will be removed from the text of the SC report. Figure 12 will be revised to remove all reference to specific addresses and a location key will be provided to NYSDEC and NYSDOH.

Comment 6. Page 14, Section 3.2 Amendments to Field Sampling Plan (FSP) - Proposed outfall sampling at Outfall-006 and Outfall-007 near the end of Runway 24: The locations where these storm drains and/or catch basins and associated drainage swales exit the airport should be determined and documented. Also, rename Outfall-006 and Outfall-007 as catch basins or storm drains (if accurate) to show consistency with the labeling denoted on all figures for these locations.

Response: The sampling location names were chosen based on the naming of that feature on the Airport master plan map. The sampling points Outfall 006 and Outfall 007 appear to be swales; no physical structures or outlet points could be identified. This

was described in the text; however, we will re-inspect these features to see if an outfall point can be identified or if there are physical structures present. We will re-survey these points and rename them, if applicable; however, the original names were selected so that airport personnel could find these points easily based on their nomenclature.

Comment 7. Page 23, Section 4.6 Site Hydrogeology and Figure 3: The groundwater flow direction should include all existing wells. The survey of new wells should be tied into the existing wells and a comprehensive groundwater contour map prepared. Also, a separate bedrock contour map should be prepared.

Response: A survey tying all the existing wells to a common datum will be performed, assuming the wells are accessible. Using this survey data, a comprehensive groundwater contour map for the shallow, unconsolidated aquifer system will be prepared, but only after a detailed review of the available boring logs is performed. This will be done to ensure that the groundwater contour map includes well data that is relevant to the shallow unconsolidated aquifer system.

The SC Investigation focused on source regions and the hydrogeology was intentionally limited to the unconsolidated aquifer. There are some existing bedrock wells that were installed as part of previous investigations at the Site by others and Dutchess County has records of private homeowner well installation that sometimes includes depth to bedrock. Using bedrock elevations and depth to groundwater (if available on the well log records), C.T. Male will attempt to create a conceptual model of bedrock conditions. Groundwater flow direction in the bedrock aquifer will be inferred using the readily available information. A windshield survey of the surrounding areas will be conducted to see if there are nearby outcrops. Very little control is available, so the estimates of bedrock groundwater flow conditions should be viewed with skepticism.

Comment 8. Page 23, Section 4.6 Hydrogeology continued: A comprehensive table with all well construction data (e.g. bedrock or overburden, screen interval elevations or open hole interval), including wells and borings completed prior to the SC, should be prepared and included in the final report. Boring logs and well construction logs should also be included as an appendix.

Response: As part of the efforts to develop a conceptual model of subsurface conditions including groundwater flow for the unconsolidated and bedrock aquifer systems, C.T. Male will attempt to obtain readily available boring logs; well construction logs, etc. for the site and the regions surrounding the sites, to the extent that they are readily

available. This information will be used to develop the comprehensive model of site conditions and will be attached to the report as an Appendix for reference purposes.

Comment 9. Page 23, Section 4.6 Hydrogeology continued: This section should discuss how groundwater flow direction may fluctuate seasonally. As the indicated flow direction is based upon only one sample event, additional groundwater elevation data is needed during other times of the year to determine the consistency of the groundwater flow direction. Please note groundwater flow from Site No. 314078 Former IBM Hangar and Site No. 314101 Former Flagship Hangars indicates groundwater flow to the north or northwest toward the Fire Pond.

Response: Once the comprehensive survey is completed, we will install in-situ water level monitoring devices in three (3) wells strategically located to adequately account for soil conditions and potential fluctuations in groundwater elevation due to precipitation events. We will obtain groundwater elevations for three months using a portable water level recording device in all the readily available monitoring wells for future comparison the electronically obtained data and to develop comprehensive groundwater flow maps. To the extent possible, the water level measuring will be coordinated with precipitation events, periods of drought and seasonally to evaluate seasonal fluctuations in water levels.

Comment 10. Page 24, Section 5.0 Site Characterization Results: Remove "residential" and refer to these private wells as "drinking water wells" throughout this section and throughout the entire SC Report. Note, not all these off-site wells sampled were residential (see comment No. 5 regarding privacy) and revise accordingly.

Response: The SC report will be revised to remove reference to residential wells.

Comment 11. Page 43, Section 6.2 VOCs, SVOCs, PCBs, Pesticides, and Metals: Clarify how elevated concentrations of metals may be artifacts of the historic spill.

Response: The heavy metals were present in historic sampling that occurred at these well locations. They may be naturally occurring or may have been the result of industrial discharges of cleaning solutions or process water into the subsurface. The Final SC report will clarify possible origins of these contaminants.

Comment 12. Page 45, Section 6.3.3 Additional Discussion of PFAS Results: Based upon the results of on-site and off-site sampling, the Department is requesting additional sampling of off-site drinking water wells. A supplemental site characterization work plan to address further off-site sampling of drinking water wells should be prepared. The work plan should include identification of potential drinking water wells within a ¼ and ½ mile buffer from the boundary of the airport. At this time, the initial additional sampling should focus on the areas to the south

and east of the airport. Data indicate that one sampled property near the intersection of Route 376, New Hackensack Road, Lane Gate Road has total concentrations of PFOA and PFOS above the EPA's Health Advisory Level of 70 ppt. These detections require some form of mitigation consistent with the Order as noted above. The County should provide a separate work plan and schedule to provide and/or ensure a supply of potable water to the affected property. Bottled water must be provided to the affected property immediately and until a long-term solution is implemented. A POET system is the recommended and preferred option, as indicated in the consent order, absent a public water supply connection.

Response: The County agrees to sample some additional off-site drinking water wells. There are approximately sixty (60) potential sampling locations within the ¼ to ½ mile radius. The County proposes to sample the private water supply wells progressively, starting with the homes and businesses immediately adjacent to the airport boundaries in the first round of sampling and extending away from the airport in subsequent rounds until PFAS is not detected or the ½ mile radius is reached. The County will only extend further away from the initial ¼ mile boundary if the data indicates that these initially sampled wells are impacted by PFAS compounds.

If a property is affected by PFAS compounds above the USEPA's 70 ppt health advisory, that property will be provided with bottled water and a POET system. The process for addressing impacted drinking water wells above the USEPA health advisory levels is described in a separate work plan provided under separate cover. The New York State Department of Health has proposed a drinking water Maximum Contaminant Level (MCL) of 10 ppt for PFOA and 10 ppt for PFOS. If the proposed MCL is adopted, the Department will request the County begin offering bottled water to, and POET installation at, those affected properties above 10 ppt for PFOA or PFOS in the manner described in this work plan. If the proposed MCL is adopted, the County will work with the Department to renegotiate the Consent Order.

Comment 13. Page 45, PFAS in Water: Plume maps of PFOA and PFOS concentrations should be prepared considering all on-site and off-site wells and well construction (e.g. well depth, screen interval, aquifer, etc.). Figures should be created for both overburden and bedrock aquifers. Include a cross-section through plume(s) to show vertical distribution.

Response: Plume maps of the PFAS impacts in groundwater will be constructed based on sampling to date, including any relevant data collected during this Supplemental SC investigation. The plume maps will be generated for the unconsolidated and bedrock aquifer systems. This task will be difficult to address because the focus of the data collected to date has been on the unconsolidated aquifer and not much is known about the bedrock system. We anticipate that the successful creation of a conceptual model of

bedrock conditions will aid in the plume mapping exercise. Cross-sections of the plume shall be constructed estimating vertical distribution.

Comment 14. Page 46, Section 6.3.3 Additional Discussions of PFAS Results: Regarding PFAS detections in the five off-site drinking water wells, the text states that contamination may be emanating from another localized or regional source of PFAS. Please clarify what other localized or regional source of PFAS could be potentially impacting these wells. It is clear based on the data presented in this report that the airport is a significant source of PFAS contamination and has likely impacted these wells.

Response: C.T. Male will address this comment once the additional off-site well sampling is completed and the conceptual model of geologic and hydrogeologic conditions is refined.

Given that PFAS is found in so many different commercial products, we cannot rule out a secondary source impacted nearby wells until more information is obtained.

Comment 15. Figures: Provide an updated or zoomed-in topographical/survey map that clearly shows the significant elevation changes on the northern side (landfills) and western slope toward Jackson Road. All figures should include the Site No., 314129, with the name of the airport in parentheses, (Hudson Valley Regional Airport). Revise the other figures to include site boundary and the site boundaries for Sites 314022 Dutchess County Landfill, 314023 Balefill, 314078 Former IBM Hangar (AAG), and 314101 Flagship Hangar. Clearly label all runway names.

Response: The figures will be modified to include the comments above.

Comment 16. Figure 12: The 1,4-dioxane detection is not listed for 1581 Route 376. Please include this detection on the figure.

Response: The detection will be added to Figure 12. Figure 12 will be modified to remove any specific association with a physical address.

3.4 Surface Water Sampling

The surface water samples collected from the Wappingers Creek will be analyzed for PFAS and 1,4 Dioxane. We anticipate collecting six samples at the locations shown on Figure 1

3.5 Field Quality Control

Field Quality Control samples include Equipment Blanks, Duplicates, and Matrix Spike/Matrix Spike Duplicates (MS/MSD). Quality Control samples will be prepared for each media type at a ratio of one (1) set of Quality Control samples for the surface water sampling event and one for every ten (10) drinking water well sampled. Laboratory prepared Trip Blanks will be submitted with aqueous samples requiring analysis for PFAS and VOCs. Field Trip Blanks will be submitted with aqueous samples requiring analysis for PFAS.

3.6 Laboratory Reporting and Data Validation

The laboratory will generate NYSDEC ASP Category B data deliverable packages of the analytical data obtained during the investigation. A Data Usability Summary Report (DUSR) of the analytical data will be prepared to confirm that the data meets the project specific criteria for data quality and data use. The DUSR will be completed by an independent data validator and will be conducted in accordance with Appendix 2B of DER-10 entitled *Guidance for Data Deliverables and the Development of Data Usability Summary Reports.*

4.0 SUPPLEMENTAL PLANS

4.1 Field Sampling Plan

The field activities for this supplemental investigation will conform to the previously provided Field Sampling Plan (FSP) contained in Appendix A of the NYSDEC approved SCWP (Exhibit 3), which also conforms to the Quality Assurance Project Plan (QAPP) presented in Appendix B in Exhibit 3. The FSP and related Standard Operating Procedures (SOPs) describe the various methods and techniques to be followed during the completion of the soil and groundwater sampling activities, instrument operation and calibration, and chain of custody procedures.

4.2 Quality Assurance/ Quality Control Plan

The QAPP describes the quality assurance and quality control procedures to be followed from the time media samples are collected to the time they are analyzed by the environmental analytical laboratory and evaluated by a third party according to the NYSDEC DUSR guidelines. It has been revised to include the New York State Department of Environmental Conservation GUIDELINES FOR SAMPLING AND ANALYSIS OF PFAS Under NYSDEC's Part 375 Remedial Programs. The QAPP is presented in Appendix B of the SCWP (Exhibit 3)

The QAPP will be followed by field personnel during the SC investigation activities and media sampling events. It will also be used by the project management team and Quality Assurance Officer to assure the data collected and generated is representative and accurate. The laboratory results will be reported in NYSDEC ASP Category B data deliverable packages, which will be subjected to data validation in accordance with NYSDEC's DUSR guidelines to determine if the data is valid and usable.

4.3 Health and Safety Plan

A Site-specific Health and Safety Plan (HASP) was prepared for this project to address Site worker health and safety issues and can be found in Appendix C in Exhibit 3. The HASP is presented in Appendix C of Exhibit 3 and will be used by field personnel. During implementation of the SC investigation, C.T. Male's on-site employees and the subcontractor's on-site employees will have completed the OSHA 40-hour HAZWOPER

training with ensuing refresher courses. In addition, C.T. Male has developed its COVID-19 Safety Plan and our field staff and employees have received training in the action requirements and will adhere to the plan during this investigation. Appropriate actions include employing social distancing techniques during field activities, disinfecting surfaces before and after sampling, wearing face coverings and gloves during sampling activity, etc. Our safety procedures do not allow us to enter a private dwelling to sample well water. If the sample cannot be obtained from an outside spigot, C.T. Male will not sample that well, unless arrangements can be made to sample the well without the owners being present. We will disinfect any surfaces that we come in contact with as part of our sampling efforts before and after the sample is obtained.

5.0 REPORTING AND SCHEDULE

5.1 Reporting

Upon completion of field activities and receipt and independent validation of the analytical laboratory data, a Revised Draft SC Report (SCR) will be prepared. The Revised Draft SCR will summarize and discuss the investigations completed as well as the technical rationale for deviations from the approved Supplemental SCWP, if any. The report will present the investigations at the Site, analytical results of samples collected and analyzed, and interpretations of the analytical data. A groundwater contour map will be prepared, and together with the analytical data and evaluation of subsurface conditions via the test boring program, the Site's conceptual model will be constructed. Data obtained in the Records Search Report will also be incorporated into the Revised Draft SCR to further refine the Site's conceptual model. The report will incorporate the new tasks identified in Section 3 of this work plan

5.2 Schedule

The investigation will be initiated approximately four weeks following approval to proceed by the NYSDEC Project Manager. The Revised Draft SCR would be available in approximately 12 months following project initiation.

6.0 SUBMITTALS

Communications will be transmitted by email, or United States Postal Service to the following individuals. Final documents, as they become available, will also be submitted to the following individuals:

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FIGURES

FIGURE 1

PROPOSED SURFACE WATER SAMPLING LOCATIONS

CAD DWG. FILE NAME: FILENAME

NONE :XREFS

PROGRESS PRINT

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FIGURE 1: SURFACE WATER SAMPLE LOCATION MAP

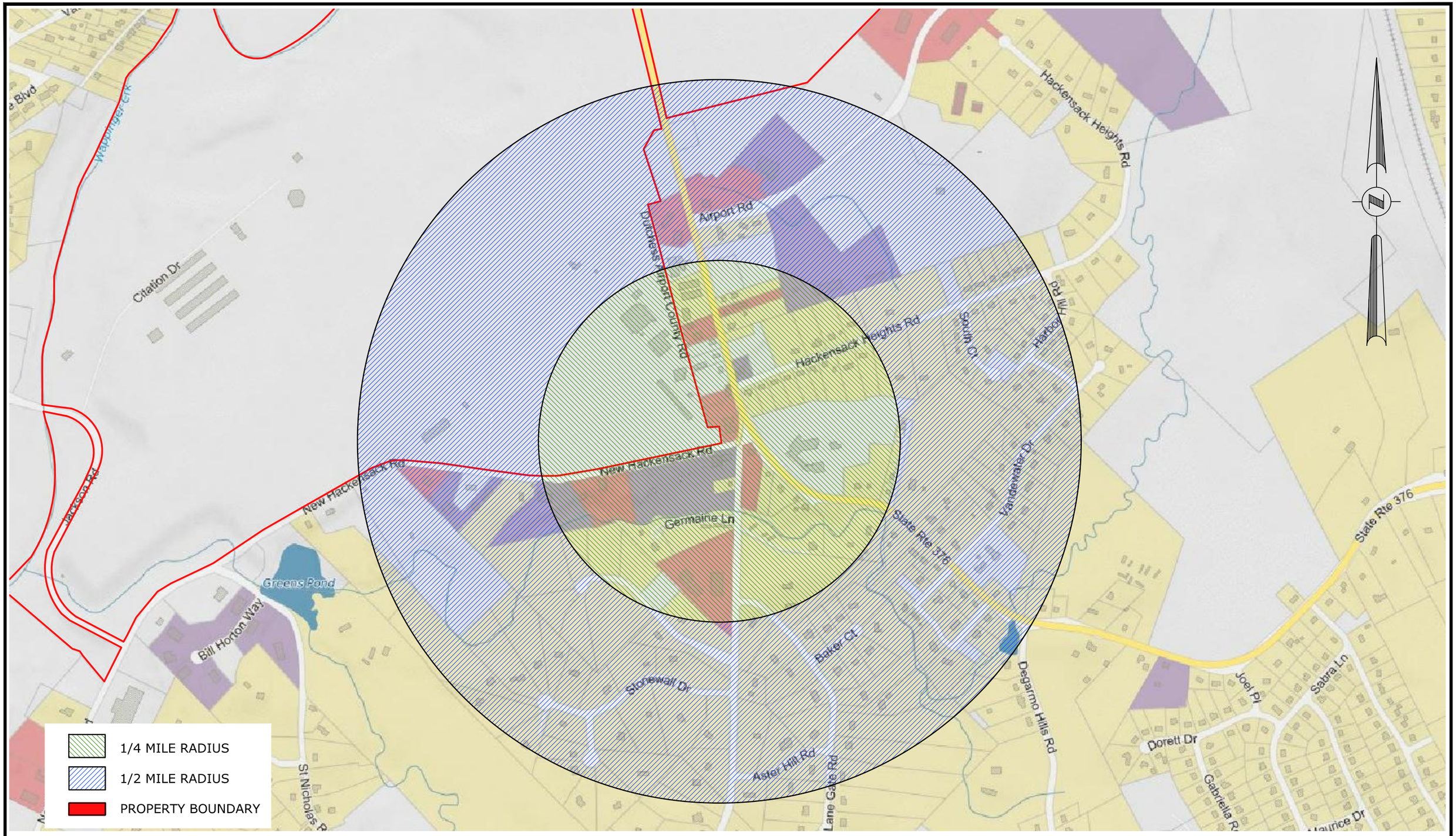
HUDSON VALLEY REGIONAL AIRPORT

PROJ. NO.: 18.8090	DRAFTED: BFJ	SCALE: 1" = 600'	DATE: 07/30/2020	TOWN OF WAPPINGER	DUTCHESS COUNTY, NEW YORK

FIGURE 2

PROPOSED OFF-SITE SAMPLING AREA

NONE :XREFS



BAR SCALE

700 0 350 700 1400

1 inch = 700 ft.

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FIGURE 2: PRIVATE WELLS LOCATION MAP

HUDSON VALLEY REGIONAL AIRPORT

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CAD DWG. FILE NAME: FILENAME

EXHIBIT 1

DRAFT SITE CHARACTERIZATION REPORT DATED DECEMBER 2019

EXHIBIT 2

NYSDEC LETTER PROVIDING COMMENTS ON THE DRAFT SITE CHARACTERIZATION REPORT DATED APRIL 16, 2020

EXHIBIT 3

NYSDEC APPROVED SITE CHARACTERIZATION WORK PLAN DATED JULY 2019