National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
White Sands Test Facility
P.O. Box 20
Las Cruces, NM 88004-0020

April 12, 2024

Reply to Attn of: RE-24-047

Mr. Ricardo Maestas, Acting Bureau Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Subject: NASA White Sands Test Facility (WSTF) Quarterly Environmental Activity Report for First Quarter 2024

Enclosed is the NASA White Sands Test Facility (WSTF) Quarterly Environmental Activity Report for First Quarter 2024. This reporting format includes an Executive Summary that provides important events/observations as Enclosure 1, a paper copy of the report as Enclosure 2, and a CD-ROM with the report in PDF as Enclosure 3.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments concerning this submittal, please contact Amanda Skarsgard of my staff at 575-571-9668.

Timothy Davis

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Timothy J. Davis
Chief, Environmental Office

3 Enclosures

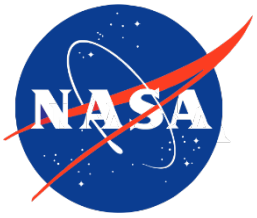
cc:
Mr. Gabriel Acevedo
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Executive Summary

The following summarizes important information associated with NASA White Sands Test Facility (WSTF) environmental program activities in the first quarter (January – March) of 2024:

- NASA completed shipments of PCB ballasts, universal waste, hazardous waste, and contaminated debris in January 2024; scrap metal, non-hazardous waste, hazardous waste, paint-related waste, sand-blasting debris, paint filters, and contaminated debris in February 2024; and waste fuel, hazardous waste, and universal waste in March 2024.
- NASA sampled 62 of 62 groundwater monitoring wells scheduled for January 2024, 60 of 60 wells scheduled for February 2024, and 45 of 45 wells scheduled for March 2024. NASA scheduled 39 groundwater monitoring wells for sampling in April 2024.
- NASA operated the MPITS and PFTS for 11 and 25 days in January 2024; 18 and 29 days in February 2024; and 20 and 27 days in March 2024, respectively.
- NASA addressed NMED comments on the 2023 soil vapor RBCs.
- NASA continued to plan for additional fieldwork at or near the 300 and 400 Area Closures.
- NASA continued extraction of perched groundwater at monitoring well 600-G-138.
- NASA submitted one revised wastewater lagoon investigation report and continued addressing NMED comments in their disapprovals of the two remaining investigation reports.
- NASA performed accelerated corrective measures at SWMU 16 and began working on the Remedy Completion Report.
- NASA is addressing NMED comments in the approval with modifications of the SWMU 33 IWP.
- NASA began planning investigation fieldwork for SWMU 54.
- NASA continued project planning for several additional monitoring well projects and is working to address NMED comments in several related approvals with modification or disapprovals.
- NASA submitted 15 documents to the NMED Hazardous Waste Bureau in the first quarter of 2024.
- There were no reportable non-compliance issues in January, February, or March 2024.

National Aeronautics and Space Administration



Quarterly Environmental Activity Report

First Quarter 2024

NM8800019434

Report Deadline: April 15, 2024

NASA Johnson Space Center White Sands Test Facility
Quarterly Environmental Activity Report

First Quarter 2024

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Timothy Davis Digitally signed by Timothy Davis
Date: 2024.04.12 12:38:17 -06'00'

Timothy J. Davis
Chief, Environmental Office

See Electronic Signature

Date

National Aeronautics and Space Administration

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Executive Summary

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- There were no reportable non-compliance issues in January, February, or March 2024.

1.0 Waste Management Activities

1.1 NASA completed the following waste shipments in the first quarter of 2024.

Date	Shipped To	Type of Waste	No. of Containers	Amount of Waste	Disposition
1/11/24	Veolia, Phoenix, AZ	PCB Ballasts	2	89 kg	Incineration
1/11/24	Veolia, Phoenix, AZ	Universal	26	348 kg	Recovery; Bulked/Stored
1/18/24	Veolia, Henderson, CO	Hazardous (Lab Pack)	20	273 kg	Bulked/ Stored
1/18/24	US Ecology, Beatty, NV	Contaminated Debris	3	138 kg	Landfill/Recovery/ Reclamation/Reuse
1/18/24	Veolia, Henderson, CO	Hazardous (Aqueous Fuel)	1	122 kg	Bulked/Stored
2/1/24	W. Silver, El Paso, TX	Scrap Metal	1	7,965 kg	Recycle
2/8/22	South Central Solid Waste Authority, Las Cruces, NM	Non-hazardous	1	20 yd^3	Landfill
2/22/24	Veolia, Henderson, CO	Hazardous (Lab Pack)	9	144 kg	Bulked/Stored
2/22/24	ACT, Albuquerque, NM	Waste Paint Related	2	274 kg	Bulked/Stored
2/22/24	US Ecology, Beatty, NV	Contaminated Debris	5	3,914 kg	Landfill
2/28/24	South Central Solid Waste Authority, Las Cruces, NM	Non-hazardous	4	2,057 kg	Landfill
3/28/24	Veolia, Henderson, CO	Waste Fuel	8	1,080 kg	Final Disposition to be Determined
3/28/24	US Ecology, Beatty, NV	Hazardous Waste	5	585 kg	Final Disposition to be Determined
3/28/24	Veolia, Phoenix, AZ	Universal	8	476 kg	Final Disposition to be Determined
3/28/24	Veolia, Henderson, CO	Hazardous (Lab Pack)	11	156 kg	Final Disposition to be Determined

2.0 Environmental Monitoring

2.1 NASA performed sampling at 62 of 62 groundwater monitoring wells or zones scheduled for sampling in January 2024 (including 17 additional sampling zones increased to a monthly sampling schedule to better monitor potential contaminant plume migration and potential low-level NDMA laboratory contamination/interference), 60 of 60 wells or zones in February 2024 (including 15 additional wells or zones for NDMA monitoring), and 45 of 45 wells or zones in March 2024 in accordance with the approved Groundwater Monitoring Plan (GMP). Previous deviations from the planned sampling schedule are described below and have been reported to NMED in previous monthly reports:

- Wells 600A-001-GW and 600A-002-GW (scheduled for sampling in November 2022) were not sampled because of equipment failure. NASA obtained replacement sampling equipment in December 2022 for use in January 2023. Upon further evaluation, NASA determined that previous development of these wells using on-site equipment after colloidal borescope tests may have been inadequate. In October, a subcontracted drilling company began development of the two groundwater monitoring wells. NASA acquired additional development equipment and is performing further well development. NASA will continue providing updates on well development progress in future reports.
- NASA could not sample well PL-7-480 in August 2022, because the Westbay zone did not produce water. NASA believes the water level at this location has dropped below this sample port and expects to remove the zone from scheduled sampling in the next GMP update.
- Wells BLM-1-435 (scheduled for sampling in April 2021) and PL-3-453 (scheduled for sampling in December 2020) have not been sampled, because the water levels are not sufficient for sampling. NASA continued planning the abandonment and replacement of wells BLM-1-435 and PL-3-453 in accordance with NMED-approved work plans.

2.2 NASA performed other regulatory groundwater sampling requirements as scheduled and as allowed by operational status. NASA did not sample well MPE-8 in the first quarter because it was not operational due to equipment failure. NASA is evaluating the well's equipment and operational capability and will provide updates in future reports.

2.3 NASA developed the April 2024 groundwater sampling schedule and plans to sample 39 groundwater monitoring wells or zones based on GMP requirements.

3.0 Corrective Actions/Investigations

3.1 Mid-plume Interception and Treatment System Operations

Month	Days Operated	Average Flow Rate (gpm)	Volume Extracted and Treated (acre-feet)	Volume of Groundwater Discharged to Infiltration Basin (acre-feet)	Volume of IDW Treated and Discharged to the Infiltration Basin (gallons)
Jan-24	11 of 31	9.9	0.38	0.32	305
Feb-24	18 of 29	9.5	0.56	0.57	447
Mar-24	20 of 31	9.5	0.53	0.58	310

Shutdown Date	Restart Date	Shutdown Status	Discussion
1/19/24	1/22/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
1/25/24	1/29/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
2/2/24	2/5/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
2/8/24	2/12/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
2/16/24	2/20/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
2/22/24	2/26/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
3/1/24	3/4/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
3/7/24	3/11/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
3/12/24	3/12/24	Unplanned	The system shut down automatically because of a minor wiring issue on the UV reactor flow meter.
3/15/24	3/18/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
3/21/24	3/25/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.
3/29/24	3/31/24	Planned	The system was shut down to allow aquifer levels to recover over the weekend.

3.2 Plume Front Treatment System Operations

Month	Days Operated	Average Flow Rate (gpm)	Volume Extracted and Treated (acre-feet)	Volume Injected (acre-feet)	Volume Discharged to Grade (acre-feet)	Volume Discharged to Modu-Tank (acre-feet)
Jan-24	25 of 31	793	70.9	71.0	0.54	0.007
Feb-24	29 of 29	817	103.9	104.2	0.52	0.011
Mar-24	27 of 31	817	88.1	89.0	0.52	0.011

Shutdown Date	Restart Date	Shutdown Status	Discussion
12/30/23	1/3/24	Unplanned	The system shut down automatically due to a leak detection alarm.
1/8/24	1/8/24	Unplanned	The system shut down automatically due to disruption in the electrical power supply.
1/12/24	1/16/24	Unplanned	The system shut down automatically due to a power issue at well PFE-5 and a fault with the MP-204 motor protection unit at well PFE-1.
1/17/24	1/17/24	Unplanned	The system shut down automatically due to a leak detection alarm.
1/25/24	1/25/24	Unplanned	The system shut down automatically due to a communication fault with the extraction wells.
1/26/24	1/27/24	Unplanned	The system shut down automatically due to a communication fault with well PFE-2.
2/6/24	2/6/24	Planned	NASA shut the system down to test a programming modification in the industrial controls system.
2/7/24	2/7/24	Planned	NASA shut the system down to test a programming modification in the industrial controls system.
2/28/24	2/28/24	Planned	NASA shut the system down to test a programming modification in the industrial controls system.
3/1/24	3/4/24	Unplanned	The system shut down automatically because of a disruption in the off-site electrical power supply.
3/15/24	3/18/24	Unplanned	The system shut down automatically because of a disruption in the electrical power supply.
3/24/24	3/25/24	Unplanned	The system shut down automatically because of a disruption in the electrical power supply.

3.3 200 Area Investigation

- NMED disapproved the *2023 WSTF Soil Vapor Risk Based Concentration Memorandum* (January 26, 2023) on October 18, 2023 and provided two comments that NASA addressed in the January 18, 2024 *Response to Disapproval of the NASA WSTF 2023 Soil Vapor Risk Based Concentrations (RBC) Memorandum*. NASA is adapting the 2024 RBCs to incorporate NMED input from 2023.
- NMED is reviewing the *Response to Second Disapproval 200 and 600 Area Vapor Intrusion Assessment Report* (April 27, 2023).

3.4 300/400 Area

- NASA continued project planning for the installation of additional groundwater monitoring wells in the 300 Area Closures in accordance with the NMED-approved *300 Area Supplemental Abbreviated Drilling Work Plan*. In addition to the initial project scope, NASA plans to perform an NMED-approved matrix diffusion study at two boreholes in conjunction with heat pulse flow meter and optical televiewer logging.

- An NMED-required replacement well in the 400 Area was added to the scope of work required in the 300 Area. NASA continued working with the drilling subcontractor to include this in the scheduled 300 Area drilling effort.
- NASA completed procurement efforts for the drilling and the matrix diffusion work and coordinated the fieldwork schedule with the two subcontractors. The drilling subcontractor is expected to mobilize to WSTF in early to mid-April 2024 and initiate sonic drilling at the first 300 Area borehole. Pace, the matrix diffusion subcontractor, is expected on-site approximately one week after the drilling subcontractor to begin core processing. NASA continued working to procure the services of the geophysical logging subcontractor.
- NASA performed project planning to implement the NMED-approved *400 Area Supplemental Groundwater and Soil Vapor Monitoring Plan* (July 11, 2023). Required sample containers and related materials were acquired in January 2024 and NASA performed groundwater and soil vapor sampling in accordance with the approved plan on February 26-28, 2024. All samples were shipped to the subcontracted analytical laboratories and NASA began initial preparation of the quarterly monitoring report for submittal to NMED.

3.5 600 Area Perched Groundwater Extraction Pilot Test and Investigation

- In January, February, and March 2024, NASA extracted approximately 148, 210, and 185 gallons of perched groundwater, respectively, from monitoring well 600-G-138 in accordance with NMED's March 1, 2013, *Approval Time Extension for Implementation of the Perched Groundwater Extraction Pilot Test at the 600 Area*. Groundwater elevation measurements indicate there is approximately 3.18 feet of perched groundwater within this well. This perched groundwater thickness has been relatively consistent since the inception of extraction activities in 2013. Extracted groundwater was containerized for treatment at the Mid-plume Interception and Treatment System (MPITS) and discharged in accordance with DP-1255.
- NMED is reviewing the *600 Area Perched Groundwater Phase II Abbreviated Investigation Work Plan* (November 27, 2023) and the *600 Area Perched Groundwater Extraction Pilot Test Interim Status Report – Project Year 10* (April 19, 2023).

3.6 SWMUs 2, 8, and 34 and AOC 51 (Wastewater Lagoons)

- NASA continued working to address NMED comments in their disapprovals of the *NASA White Sands Test Facility (WSTF) 200 Area Wastewater Lagoons Closure (SWMU 8) Investigation Report* (November 25, 2019) from June 6, 2022; the *NASA White Sands Test Facility (WSTF) 600 Area Wastewater Lagoons Closure (SWMU 34) Investigation Report* (November 26, 2019) from June 16, 2022; and, the *NASA White Sands Test Facility (WSTF) 100 Area Wastewater Lagoons Closure (SWMU 2) Investigation Report* (August 3, 2020) from July 5, 2022.
- NASA revised the investigation report for the 600 wastewater lagoons (SWMU 34) and submitted the *Response to Disapproval of 600 Area Lagoons (SWMU 34) IR and Risk Assessment* on February 21, 2024.
- NASA continued reviewing chemical analytical data to support revision of the remaining two Investigation Reports and development of the Risk Assessment reports for each lagoon area.
- NMED is reviewing the *Response to Disapproval of NASA White Sands Test Facility (WSTF) STGT Wastewater Lagoons Closure (AOC 51) Investigation Report* (November 20, 2023).

3.7 SWMU 10 (200 Area Hazardous Waste Transmission Lines [HWTL])

- As indicated in the *Response to Approval with Modifications of the NASA WSTF 200 Area HWTL (SWMU 10) Investigation Report and Risk Assessment Report* (December 12, 2023), no

further investigation work is required at SWMU 10. NASA is evaluating this SMWU for a corrective action complete determination.

3.8 SWMU 16 (600 Area BLM Off-site Soil Pile)

- NASA finalized project planning and procurement activities in early January 2024 and mobilized the off-site excavation subcontractor to WSTF on January 15, 2024. NASA and the responsible subcontractors completed excavation and removal of potentially contaminated sludge and soil in accordance with the NMED-approved *Accelerated Corrective Measures Work Plan for the NASA WSTF SWMU 16 (600 Area BLM Off-Site Soil Pile)* on January 25, 2024. During the project, NASA excavated and disposed of 1,140 yd^3 (1,081 tons) of soil, including the over-excavation of 6" of native soil from beneath the sludge pile to ensure complete contaminant removal. The sludge and soil were transported to the Corralitos Landfill for disposal as special waste.
- NASA collected confirmation soil samples and shipped them to the off-site laboratory for analysis. Analytical data from these samples will be used to determine if additional soil removal will be necessary.
- NASA began preparing the Remedy Completion Report.

3.9 SWMUs 21-27 (Septic Tanks)

- No additional work is planned at these units pending a complete evaluation of their suitability for corrective action complete status determination.

3.10 SWMUs 29-31 (Small Arms Firing Ranges)

- No additional work is planned at these units pending a complete evaluation of their suitability for corrective action complete status determination.

3.11 SWMU 33 (Test Stand 302 Cooling Water Pond)

- NMED approved the *Response to Disapproval of NASA WSTF 300 Area Test Stand 302 Cooling Water Pond (SWMU 33) IWP and HIS* (September 14, 2022) with modifications on January 19, 2024. NMED directed NASA to address five comments and submit a revised work plan no later than April 30, 2024. NASA is reviewing NMED comments and working on the revised plan.

3.12 SWMU 49 (700 Area Landfill)

- NMED is reviewing the *NASA White Sands Test Facility (WSTF) 700 Area Landfill (SWMU 49) Phase II Abbreviated Investigation Work Plan* (October 25, 2023).

3.13 SWMU 54 (500 Area Former Oxidizer Burner)

- NASA began planning investigation fieldwork to be performed in accordance with the NMED-approved *NASA White Sands Test Facility (WSTF) 500 Area Former Oxidizer Burner (FOB) Investigation Work Plan (IWP) and Historical Information Summary (HIS)* (December 21, 2023; revised). The investigation report is due to NMED no later than July 31, 2024.

3.14 Groundwater Monitoring Well Abandonment, Installation, and Reconfiguration

- NMED reviewed the *Work Plan for Drilling and Installation of Monitoring Wells 600C-003-GW and 600C-004-GW* (replacements for wells BLM-1-435 and PL-3-453) (April 27, 2023). NMED approved the plan for well 600C-004-GW with no comments but approved the plan for well 600C-003-GW with modifications. NASA addressed two NMED comments and submitted the *Response to Approval with Modifications of the NASA WSTF*

Work Plan for Abandonment of NASA WSTF Well BLM-1-435 and Replacement with Monitoring Well 600C-003-GW on January 30, 2024.

- NMED approved the *Abandonment Report for NASA Well BLM-28* (March 14, 2023) and the *Reconfiguration Report for NASA Wells 200-SG-2 and 200-SG-3* (March 21, 2023) on February 6, 2024. NMED approved the *Abandonment Report for PFE-4 and PFE-6* (March 9, 2023) and the *Abandonment Report for NASA Wells 400-C-118, 400-KV-142, 400-LV-125, BLM-2-482, and NASA 8* (March 30, 2023) on February 20, 2024.
- NMED disapproved the *Reconfiguration Report for NASA Well BW-4* (March 21, 2023) on February 6, 2024. NMED provided a comment about the report and directed NASA to address it and provide a revised report no later than July 31, 2024. NASA is reviewing the comments and working on the revised report.
- NMED disapproved the *Reconfiguration Work Plans for Wells PL-6, PL-7, PL-8, PL-10, ST-5, and WW-3* (April 29, 2021) on February 6, 2024. NMED directed NASA to address a substantial comment regarding well replacement and to provide a revised report no later than July 31, 2024. NASA is reviewing the comment and working on the revised report.
- NASA continued to plan for the installation of wells 400-001-GW (replacement for NASA 9), 600B-001-GW (replacement for BLM-28), 600C-001-GW (deeper well adjacent to BLM-10-517), 600C-002-GW (replacement for PL-6), and BLM-43 (replacement for BLM-30).

3.15 Targeted Mobile Remediation Process (TMRP)

- NMED is reviewing the *Targeted Mobile Remediation Process Pilot Test Work Plan, Phase 2* (April 25, 2023).
- NMED approved the *NASA White Sands Test Facility ST-1-541 Contaminated Groundwater Release Abbreviated Investigation Report* (May 16, 2023) with modifications on March 25, 2024, and directed NASA to address a comment and submit a revised report no later than June 18, 2024.

3.16 Groundwater Data Representativeness Evaluation

- NMED disapproved the *Groundwater Data Representativeness Phase 2: Water FLUTe Well Evaluation Abbreviated Investigation Report* (April 27, 2023) on February 6, 2024. NMED directed NASA to address eight comments and submit a revised report no later than July 31, 2024. NASA is reviewing the comment and working on the revised report.

3.17 Dye Tracer Test Investigation

- NASA continued planning for the installation of three groundwater monitoring wells in accordance with the NMED-approved *Abbreviated Drilling Work Plan in Response to the NMED Approval with Modification of the Report on Tracer Testing in the WSTF 200/600 Areas and Mid-plume Constriction Area* (December 20, 2022). Based on current schedule constraints, NASA submitted the *Request for Extension of Time for Submittal of the Groundwater Monitoring Well Completion Report for Wells Downgradient of WSTF 200 and 400 Areas* on February 21, 2024. NMED approved the request on March 7, 2024, extending the due date for submittal of the well completion reports to December 31, 2024.

3.18 Site-wide Geophysics Investigation

- NMED approved the *Site-wide Geophysical Survey Investigation Report* (November 8, 2022) on March 22, 2024.

3.19 PFAS Monitoring

- In the 2022 update of the Groundwater Monitoring Plan, NASA informed NMED of an ongoing preliminary assessment of PFAS being conducted by NASA Headquarters. The NASA Headquarters contractor for the preliminary assessment performed groundwater sampling at WSTF in April 2022 and developed a report for NASA review. Based on the results of the preliminary assessment, NASA proposed the installation of additional monitoring wells as described in the *Response to Approval with Modifications Abbreviated Drilling Work Plan for the Installation of Monitoring Wells in the WSTF 100 and 600 Areas* (Proposed Monitor Wells for PFAS Assessment) (April 13, 2023). NASA performed fieldwork in accordance with the plan in July through September 2023 and submitted the *NASA White Sands Test Facility (WSTF) Well Completion Report for PFAS Site Investigation Well Completion Summary Report* on March 29, 2024. NASA Headquarters expects the report detailing the field activities and findings to be ready for submittal to NMED in mid-2024.

4.0 Non-compliance Issues

The NASA RCRA Permit requires that other non-compliance conditions be reported to NMED. There were no instances of other non-compliance conditions during this reporting period that require notification under the Permit. The criteria for non-compliance reporting in this report (as defined by 40 CFR 270.30 (l)(10) and EPA interpretations at RCRA Faxbacks 13142 and 13686) would be any non-compliance with permit conditions that is not classified as minor recordkeeping, reporting, and similar oversights that were corrected once discovered. Additionally, there were no issues meeting the previously defined criteria (minor items immediately corrected) that were part of a repeating pattern of non-compliance.

5.0 Documents Submitted

5.1 Documents submitted to the Hazardous Waste Bureau in the first quarter of 2024

- *Request for Extension of Time for NASA White Sands Test Facility (WSTF) Periodic Monitoring Report – Fourth Quarter 2023*, January 5, 2024
- *NASA White Sands Test Facility (WSTF) Quarterly Environmental Activity Report for Fourth Quarter 2023*, January 11, 2024
- *Request for Extension of Time for Submittal of the Report Documenting the Well Installation and Sampling of Wells A03-MW-01 and A11-MW-01*, January 18, 2024
- *Response to Disapproval of the NASA WSTF 2023 Soil Vapor Risk Based Concentrations (RBC) Memorandum*, January 18, 2024
- *2024 NASA White Sands Test Facility (WSTF) Annual Waste Accumulation Areas Location Map*, January 25, 2025
- *Response to Approval with Modifications of the NASA WSTF Work Plan for Abandonment of NASA WSTF Well BLM-1-435 and Replacement with Monitoring Well 600C-003-GW*, January 30, 2024
- *Fee Assessment for the 600 Area Perched Groundwater (PGW) Phase II Abbreviated Investigation Work Plan (AIWP) (NMED Invoice Number HWB-NASA-23-021)*, February 5, 2024
- *Fee Assessment for the Third Quarter 2023 Periodic Monitoring Report (PMR) - NMED Invoice Number HWB-NASA-23-022*, February 7, 2024

- *Response to Disapproval of 600 Area Lagoons (SWMU 34) IR and Risk Assessment*, February 21, 2024
- *Request for Extension of Time for Submittal of the Groundwater Monitoring Well Completion Report for Wells Downgradient of WSTF 200 and 400 Areas*, February 21, 2024
- *Request for Fifth Extension of Time for NASA White Sands Test Facility (WSTF) 100 Area Wastewater Lagoons Closure (SWMU 2) Investigation Report Response to Disapproval*, February 28, 2024
- *NASA White Sands Test Facility 2023 Biennial Hazardous Waste Report*, February 29, 2024
- *NASA WSTF Periodic Monitoring Report – Fourth Quarter 2023*, March 7, 2024
- *Request for Extension of Time for NASA White Sands Test Facility (WSTF) Periodic Monitoring Report – First Quarter 2024*, March 28, 2024
- *NASA White Sands Test Facility (WSTF) Well Completion Report for PFAS Site Investigation Well Completion Summary Report*, March 29, 2024

5.2 Pertinent documents submitted to other NMED bureaus in the first quarter of 2024

- *NASA White Sands Test Facility (WSTF) Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units – 40 CFR Part 60, Subpart Dc (NSPS Dc) Semi-annual Report for Period July 1 through December 31, 2023* to the Air Quality Bureau on January 18, 2024
- *NASA White Sands Test Facility (WSTF) Discharge Permit (DP)-392 Public Notice Proof of Publication* to the Ground Water Quality Bureau on January 19, 2024
- *NASA White Sands Test Facility (WSTF) Discharge Permit (DP)-584 Public Notice Proof of Publication* to the Ground Water Quality Bureau on January 19, 2024
- *NASA White Sands Test Facility (WSTF) Discharge Permit (DP)-697 Public Notice Proof of Publication* to the Ground Water Quality Bureau on January 19, 2024
- *NASA White Sands Test Facility (WSTF) Discharge Permit (DP)-1170 Public Notice Proof of Publication* to the Ground Water Quality Bureau on January 19, 2024
- *NASA White Sands Test Facility (WSTF) Discharge Permit DP-1170 Semi-Annual Monitoring Report* to the Ground Water Quality Bureau on January 19, 2024
- *Compliance Report (NESHAP)(RICE)* to the Air Quality Bureau on January 19, 2024
- *Analytical Results for Discharge Permit DP-392 (NASA White Sands Test Facility 100 Area, 200 Area, and 600 Area Sewage Lagoons)* to the Ground Water Quality Bureau on January 19, 2024
- *2024 Air Quality Bureau Annual Minor Source Permit Fee for the NASA White Sands Test Facility (WSTF)* to the Air Quality Bureau on January 25, 2024
- *NASA White Sands Test Facility (WSTF) Semi-annual Report for Discharge Permit (DP)-1255 – Second Half of 2023* to the Ground Water Quality Bureau on January 25, 2024
- *Solid Waste Management Annual Report White Sands Test Facility (WSTF) 700 Area Post-Closure Solid Waste Landfill for 2023* to the Solid Waste Bureau on February 2, 2024
- *NASA JSC White Sands Test Facility (WSTF) – FF, NM3590607 – Request for Reduced Monitoring for Drinking Water Lead and Copper* to the Drinking Water Bureau on February 16, 2024

- *NASA White Sands Test Facility 700 Area Landfill Detection Monitoring Results for 2023 Second Semi-annual Sampling Event* to the Solid Waste Bureau on March 15, 2024
- *NASA White Sands Test Facility (WSTF) Discharge Permit DP-697 Quarterly Analytical Results – First Quarter 2024* to the Ground Water Quality Bureau on March 18, 2024
- *Minor Source Emissions Inventory for CY2023* to the Air Quality Bureau on March 19, 2024
- *Quarterly Opacity/Emissions Eval of 400 Area Boilers (Units 1A, 1B, 1C, and 1D)* to the Air Quality Bureau on March 27, 2024

5.3 Status of documents previously submitted to the NMED Hazardous Waste Bureau for which additional correspondence was recorded in the first quarter of 2024

- NASA submitted the *Groundwater Data Representativeness Phase 2: Water FLUTe Well Evaluation Abbreviated Investigation Report* on April 27, 2023. NASA received NMED's May 1, 2023 fee assessment and invoice for review of the report and provided the $10,000 review fee on June 26, 2023. NMED disapproved the report on February 6 and directed NASA to address eight comments and provide a revised report no later than July 31, 2024.
- NASA submitted the *Site-wide Geophysical Survey Investigation Report* on November 8, 2022. NASA received NMED's December 7, 2022 fee assessment and invoice for review of the report and provided the $10,000 review fee on February 23, 2023. NMED approved the report on March 22, 2024.
- NASA submitted the *Request for Fourth Extension of Time for NASA White Sands Test Facility (WSTF) 200 Area Wastewater Lagoons Closure (SWMU 8) Investigation Report (IR) Response to Disapproval* on November 22, 2023. NMED approved the request on January 9, 2024, extending the due date for submittal of the investigation report to April 30, 2024.
- NASA submitted the *NASA White Sands Test Facility (WSTF) 600 Area Perched Groundwater Phase II Abbreviated Investigation Work Plan* on November 27, 2023. NASA received NMED's January 10, 2024 fee assessment for review of the report and provided the $15,000 review fee on February 5, 2024.
- NASA submitted the *Response to Disapproval of NASA WSTF 300 Area Test Stand 302 Cooling Water Pond (SWMU 33) Investigation Work Plan (IWP) and Historical Information Summary (HIS)* on September 14, 2022. NMED approved the IWP on January 19, 2024 with modifications and directed NASA to address five comments and submit a revised IWP no later than April 30, 2024. NMED also directed NASA to submit the SWMU 33 investigation report no later than May 30, 2025.
- NASA submitted the *ST-1-541 Contaminated Groundwater Release Abbreviated Investigation Report* on May 16, 2023. NASA received NMED's July 10, 2023 fee assessment and invoice for review of the report and provided the $6,000 review fee on August 22, 2023. NMED approved the report with modifications on March 25, 2024 and directed NASA to address a comment and submit a revised report no later than June 18, 2024.
- NASA submitted the *NASA WSTF Westbay Well Reconfiguration Work Plan for Wells PL-7, PL-8, PL-10, ST-5, and WW-3* on April 29, 2021. NASA received NMED's June 15, 2021 assessment and invoice for review of the work plan and provided the $10,000 review fee on July 14, 2021. NMED disapproved the work plan on February 6, 2024 and directed NASA to address a substantial comment and provide a revised work plan no later than July 31, 2024.
- NASA submitted the *Reconfiguration Report for NASA Well BW-4* on March 21, 2023. NASA received NMED's April 6, 2023 fee assessment and invoice for review of the report and

provided the $2,000 review fee on May 11, 2023. NMED disapproved the report on February 6, 2024 and directed NASA to address a comment and submit a revised report no later than July 31, 2024.

- NASA submitted the *NASA White Sands Test Facility (WSTF) 2023 Soil Vapor Risk Based Concentrations (RBC) Memorandum* on January 26, 2023. NASA received NMED's February 22, 2023 fee assessment and invoice for review of the memo and provided the $14,000 review fee on March 13, 2023. NMED disapproved the memorandum on October 18, 2023, and directed NASA to address two comments and submit a revised memorandum no later than January 31, 2024. NASA submitted the *Response to Disapproval of the NASA WSTF 2023 Soil Vapor Risk Based Concentrations (RBC) Memorandum* on January 18, 2024. NMED approved the revised memorandum on March 7, 2024. NMED also approved NASA's request to extend the due date for submittal of the 2024 RBC Memorandum to June 30, 2024.
- NASA submitted the *Abandonment Report for PFE-4 and PFE-6* on March 9, 2023. NASA received NMED's April 6, 2023 fee assessment and invoice for review of the report and provided the $4,000 review fee on May 11, 2023. NMED approved the report on February 20, 2024.
- NASA submitted the *Abandonment Report for NASA Well BLM-28* on March 14, 2023. NASA received NMED's April 6, 2023 fee assessment and invoice for review of the report and provided the $2,000 review fee on May 11, 2023. NMED approved the report on February 6, 2024.
- NASA submitted the *Reconfiguration Report for NASA Wells 200-SG-2 and 200-SG-3* on March 21, 2023. NASA received NMED's April 6, 2023 fee assessment and invoice for review of the report and provided the $4,000 review fee on May 11, 2023. NMED approved the report on February 6, 2024.
- NASA submitted the *Abandonment Report for NASA Wells 400-C-118, 400-KV-142, 400-LV-125, BLM-2-482, and NASA 8* on March 30, 2023. NASA received NMED's April 19, 2023 fee assessment and invoice for review of the report and is provided the $10,000 review fee on May 9, 2023. NMED approved the report on February 20, 2024.
- NASA submitted the *600 Area Perched Groundwater Extraction Pilot Test Interim Status Report – Project Year 10* on April 19, 2023. NASA received NMED's May 1, 2023 fee assessment and invoice for review of the report and provided the $8,000 review fee on June 15, 2023. NMED approved the report on March 7, 2024.
- NASA submitted the *NASA WSTF Remediation System Monitoring Plan Annual Update for 2023* on July 27, 2023. NASA received NMED's September 6, 2023 *Fee Assessment Remediation System Monitoring* and provided the $10,000 review fee on September 18, 2023. NMED approved the plan on February 6, 2024.
- NASA submitted the *NASA WSTF Periodic Monitoring Report – Second Quarter 2023* on July 27, 2023. NASA received NMED's September 6, 2023 *Fee Assessment NASA WSTF Periodic Monitoring Report for Second Quarter 2023* and provided the $5,000 review fee on September 18, 2023. NMED approved the report on February 6, 2024.
- NASA submitted the *NASA WSTF Periodic Monitoring Report – Third Quarter 2023* on December 21, 2023. NASA received NMED's January 24, 2024 fee assessment for review of the report and provided the $5,000 review fee on February 7, 2024.
- NASA submitted the *Request for Extension of Time for NASA White Sands Test Facility (WSTF) Periodic Monitoring Report – Fourth Quarter 2023* on January 5, 2024. NMED

approved the request on February 1, 2024, extending the due date for submittal of the report to March 8, 2024.

- NASA submitted the *Request for Extension of Time for Submittal of the Report Documenting the Well Installation and Sampling of Wells A03-MW-01 and A11-MW-01*. on January 18, 2024. NMED approved the request on February 6, 2024, extending the due date for submittal of the report to March 29, 2024.
- NASA submitted the *Request for Extension of Time for Submittal of the Groundwater Monitoring Well Completion Report for Wells Downgradient of WSTF 200 and 400 Areas* on February 21, 2024. NMED approved the request on March 7, 2024, extending the due date for submittal of the report to December 31, 2024.