



DERP FORUM

Achieving Greater Success Through Strong Partnerships

November 14-17, 2023 • Kansas City, MO

DERP 101

Fort Drum, New York Case Study
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November 14, 2023



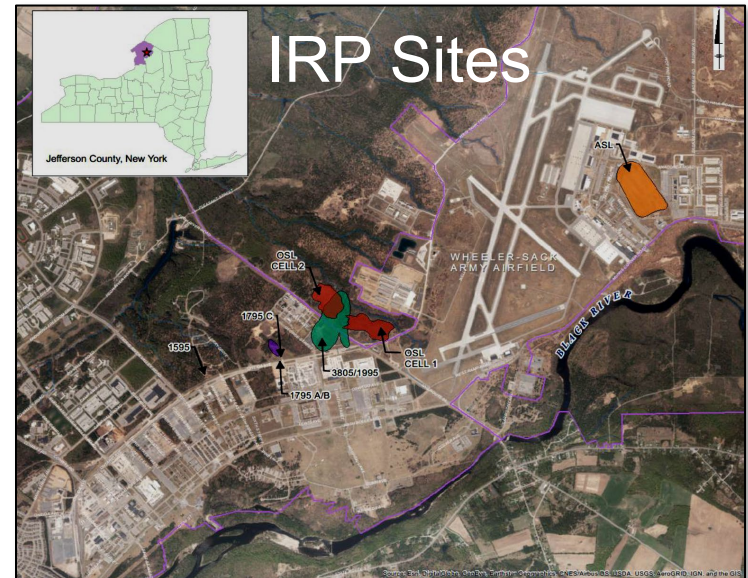
Fort Drum, New York

BACKGROUND

- Located in Jefferson County in northern New York
- Encompasses 108,000 acres
- Home to one of most deployed units in Army
- Maintains 47 live-fire facilities and > 74,000 acres of training areas
- Serves ~35,000 military personnel, dependents, and civilians

INSTALLATION RESTORATION PROGRAM (IRP)

- Legacy contamination from:
 - Military operations
 - Maintenance activities
 - Expansion efforts
 - Releases of aqueous film forming foam (AFFF)
- Predominant contaminants:
 - Petroleum
 - Chlorinated solvents
 - Per- and polyfluoroalkyl substances (PFAS)





A Brief Remediation History

REMEDIATION HISTORY AND PROGRESS

- Early investigations in the mid-1980's identified **72** Areas of Concern:
 - Petroleum fueling/storage locations
 - Sanitary landfills/waste dumps
 - Pesticide and hazardous waste storage points
 - Former fuel firefighting sites (identified later)
- Environmental clean-up regulated under:
 - Judicial Consent Decree
 - Established in 2010 for the Oasis Jet Fuel Spill Site
 - RCRA Consent Order
 - Established in 2014 for all Solid Waste Management Units and Areas of Concern
 - CERCLA
 - 2014 Consent Order mandates all newly discovered sites will be managed under CERCLA
 - Currently includes PFAS sites





A Brief Remediation History Cont.

REMEDIATION HISTORY AND PROGRESS CONT.

- Cleanup collaboration and strategy
 - DoD/USAEC/USACE/NYSDEC/Contractor joint-effort
 - Implemented various advanced/green technologies
 - Accelerated site cleanup with significant cost savings
- Current status of cleanup sites
 - **One** site in RA(O) phase
 - 3800 PCE Site in MNA
 - **Eight** sites in/nearing long term management (LTM) phase
 - Two landfills
 - Five petroleum spill sites (“Gasoline Alley”)
 - One petroleum spill site (“Oasis Site” at airfield)
 - **Twenty-seven** active PFAS sites (Remedial Investigation phase)



Mobile Solar Power Platform



Phytoremediation Technology



Clean-up Site Success Stories

CLEAN-UP SUCCESS STORY EXAMPLES

1. 3800 PCE Site (State Superfund Site)

- Dissolved-phase PCE discovered in aquifer below existing petroleum contamination
- Clean-up Strategy: In-Situ Chemical Oxidation (ISCO) treatment + MNA + LTM
- In-situ remedy supported mission readiness with minimal operational disruptions
- Prepared PRAP/ROD using NYSDEC templates, resulting in significant time savings
- Single, optimized full-scale injection event saved \$750,000
- **Remediation Response Complete (RC)/Site in RA(O) for MNA**
- Site Management Plan (SMP) and Land Use Controls (LUCs)



2. Site 1795 Petroleum Leak

- One of several former petroleum storage/fueling sites along “Gasoline Alley”
- UST/piping leakage from multiple sites contributed to > 66 acres and 414 million gallons of groundwater contamination
- NYSDEC administratively separated parts A/B of Site when additional plume (Site 1795 C) was discovered
- Allowed for **RC**, with SMP and LUCs, of 1795 A/B to meet contractual milestone ahead of 1795 C, which is now in **RC** as well



Clean-up Site Success Stories Cont.

CLEAN-UP SUCCESS STORY EXAMPLES CONT.

3. Oasis Jet Fuel Spill Site

- In 2006, 500,000-gallon jet-fuel spill to groundwater at Airfield's Oasis refueling point
- Since 2007, 159 Technical Review Board meetings, between Army and NYSDEC Region 6, held to discuss remediation and optimization strategies/progress
- NYSDEC-approved shutdown of three remedial systems several years ahead of schedule
- \$7.2M in cost savings to date
- All requirements in Judicial Consent Decree have been fulfilled by Army
- **Response Complete in 2023** (with LTM)



2020 System Upgrades



Remedial infrastructure at Airfield's Oasis Fuel Point



DoD and State Partnership

PARTNERSHIP “SECRETS TO SUCCESS”

- Transparency/open communication (early and often)
- Draft document reviews ahead of final submittals
- Utilize Joint Execution Plan (JEP) to ensure schedule availability for timely document reviews
- Annual program review meetings with NYSDEC Central Office
- Quarterly Technical Review Board meetings with NYSDEC Region 6
- Inclusion of NYS Department of Health on relevant issues (e.g. PFAS)
- Quarterly joint DoD/EPA/NYSDEC working group meetings
- Awareness of Restoration Activity Board solicitation of local stakeholders
- Joint attendance at public meetings
- Accommodate all requests for installation visits/tours by Regulators

