



Newsletter

Chado Farm Salt Storage Structure Replacement Project Delaware Water Gap National Recreation Area

The National Park Service (NPS) proposes to replace a failed salt storage shed within the Chado Farm maintenance complex on the New Jersey side of Delaware Water Gap National Recreation Area (DEWA).

Purpose of the Project

The purpose of the project is to replace an existing salt storage shed with a safe, effective salt storage facility that prevents environmental impacts at the Chado Farm maintenance complex.

The current salt storage shed at the Chado Farm maintenance complex (see photo at right) is in poor condition and has exceeded its life cycle. The storage shed has been removed from service for salt storage

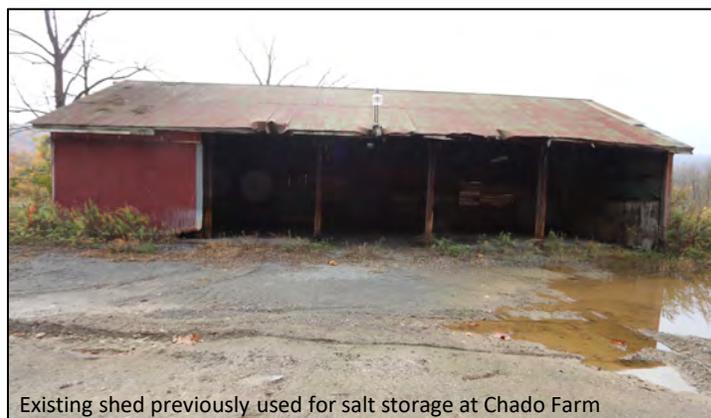
because of operational issues, structural concerns, lack of capacity, and environmental damage due to salt runoff. Continued use of the shed could result in long-term water quality degradation of wetlands, groundwater, and nearby Flat Brook, which has been classified by the NJ Department of Environmental Protection as a Category One waters, which must be protected from measurable or calculable change in water quality.

Since the current salt storage shed has been removed from service, DEWA road crews must return to the Pennsylvania salt storage facility during snow events in empty, unloaded plow trucks, up to 33 miles, or a 1-hour drive, from the most distant snow clearing operations in NJ. After reloading salt into the truck, the plow driver returns on the same route, resulting in a round trip total of nearly 2 ½ hours. Replacing the Chado Farm salt storage shed would reduce the travel distance from the southernmost NJ snowplow operations to just over 6 miles, or 13 minutes, subsequently increasing efficiency, response time, and safety, while reducing staff time, fuel costs, and natural resource impacts.

Options

The current centralized location for salt storage is key to achieving efficient snow plowing operations, functional requirements, and the health and safety of NPS employees and the public. Although Chado Farm is environmentally sensitive, the NPS decided it was best to use a previously disturbed area at an existing developed location to keep all functions consolidated at the same site (maintenance/fuel station/fire cache), rather than impacting a new site. The NPS therefore identified three possible options to replace the existing salt storage shed at Chado Farm, including (1) retrofitting the existing structure, (2) retrofitting the existing Lower Barn for salt storage, and (3) constructing a new salt storage structure.

In October 2021, a choosing by advantages (CBA) / value analysis (VA) workshop was conducted by NPS staff to determine whether to pursue design of a new salt storage structure or adaptive reuse of an existing structure. Through this process, the NPS chose construction of a new salt storage facility as the preferred option. Project objectives were evaluated during the CBA/VA workshop to determine the preferred option, including improving safety of salt loading and snow plowing operations; minimizing natural resource and visitor experience impacts; improving efficiency of park operations; and providing the greatest resiliency, maintainability, and sustainability.



Existing shed previously used for salt storage at Chado Farm

Preferred Option

The new salt storage structure would be constructed at the eastern edge of the Chado Farm maintenance complex near the existing salt storage shed (Equipment Shed #1 on the site plan at the bottom of the page and pictured on the previous page), which would be demolished as part of this project.

The new structure would be nestled into the hillside with vehicular entrances on the south side, away from the road. The structure would be designed to accommodate interior truck unloading and loading (to minimize salt runoff), and storage capacity for up to 500-tons of salt. A schematic rendering and drawing of the new salt storage structure are provided to the right.

The project also includes extending the existing driveway to provide an additional entrance to the east along Route 615 (to improve safety and site lines); stormwater management, including drainage improvements and a water quality basin to capture salt laden runoff; and other site improvements.

Project Status

The NPS has developed a schematic design for the new salt storage facility, as well as a civil site plan for access and circulation and stormwater management improvements.

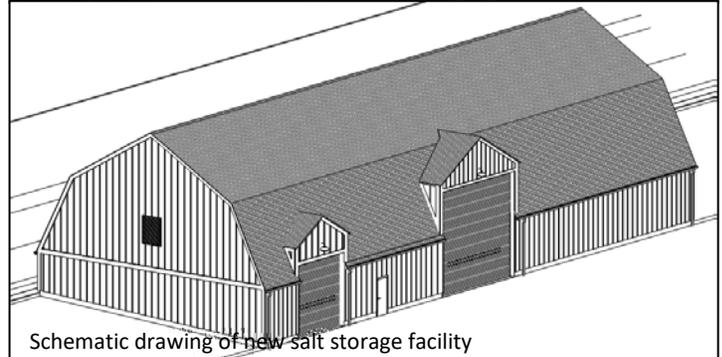
Through consultation with New Jersey's Historic Preservation Office (HPO), the NPS has determined the new salt storage facility would have an "Adverse Effect" pursuant to 36 Code of Federal Regulations (CFR) 800.5 based on the demolition of the existing salt shed (Equipment Shed #1), a contributing element to the National Register of Historic Places eligible Chado Farm; the extension of the driveway; and erection of a new salt storage facility at the Chado Farm property. The park has initiated the development of a draft Memorandum of Agreement with New Jersey HPO that will outline the commitments that NPS will make to mitigate the adverse effect.

The NPS will also conduct an analysis of the proposed project in accordance with the National Environmental Policy Act (NEPA) prior to further developing project designs. Project design development will continue through the fall of 2023, with construction tentatively occurring from April to October 2024, assuming funding becomes available.

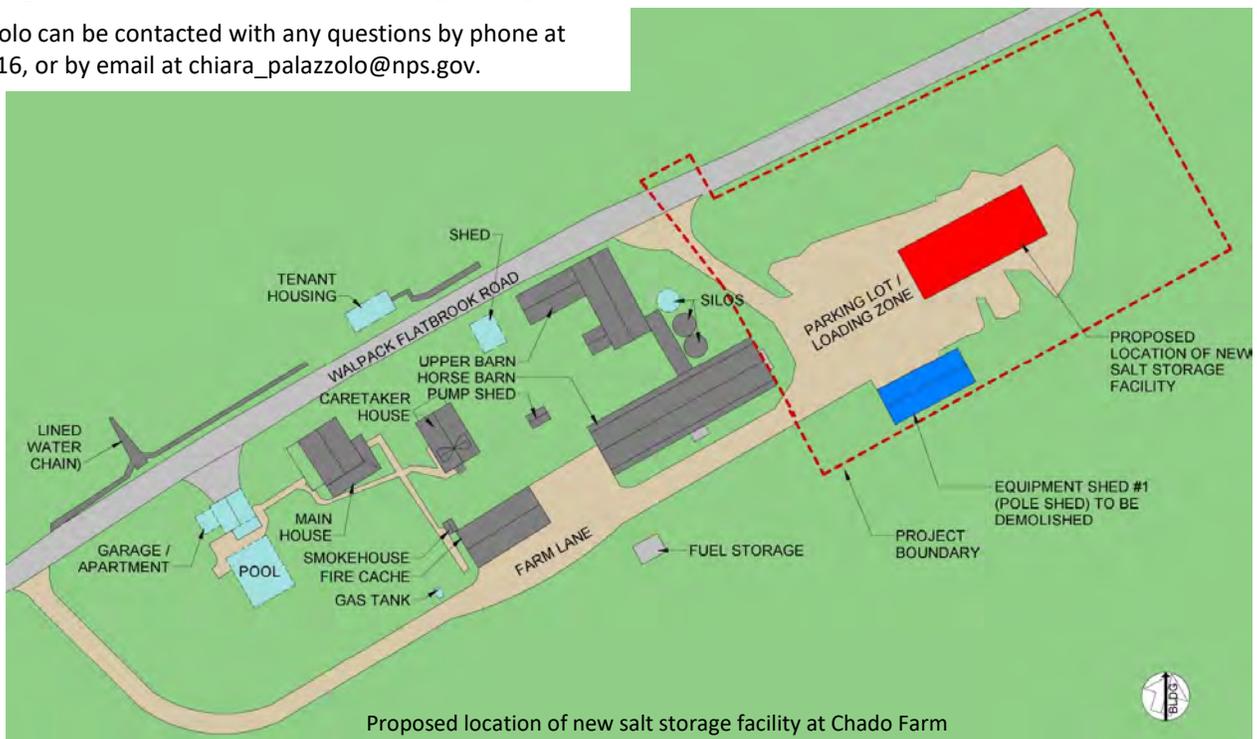
Ms. Chiara Palazzolo can be contacted with any questions by phone at (570) 296-6952 x16, or by email at chiara_palazzolo@nps.gov.



Rendering of new salt storage facility at Chado Farm



Schematic drawing of new salt storage facility



Proposed location of new salt storage facility at Chado Farm