



January 23, 2012

Nevada Site Office Environmental Management

EM NEWS FLASH

Biologists Re-Vegetate Historical Disposal Area at the NNSS

A large-scale re-vegetation effort is currently underway on the Nevada National Security Site (NNSS), completing the final stage of closure on a 92-acre disposal area that first began operation in the 1960s.

In October 2011, NNSS work crews seeded major portions of the 92-acre disposal area, reintroducing native shrubs (10 species), grasses (3 species), and herbaceous flowering plants (3 species). Then in December, workers completed installation of a temporary watering system that will help sustain the plants until the springtime, when they are mature enough to thrive on their own.

Approximately 100,000 gallons of water will be applied to the area every day over the next few weeks, equivalent to approximately one inch of natural precipitation. The watering schedule will be adjusted if any rain or snow falls during the period. Irrigation will continue until seeds germinate and plants are established, which is expected to occur in the spring.



In addition to restoring the land to a more natural state, new vegetation will provide a supplemental layer to engineered covers constructed over 39 [low-level](#) and [mixed low-level](#) waste* disposal units on 45 of the 92 acres. These cover caps, which were completed in May 2011, consist of a soil layer that is eight feet thick. "Surface vegetation removes moisture from surface layers minimizing the amount of moisture that could infiltrate the soils layers," explained Dr. Dave Anderson, Senior Scientist with National Security Technologies, LLC. Monitoring stations installed throughout the site will continue to provide scientists ongoing readings of these moisture levels.

While re-vegetation of the historical disposal area represents the largest effort of this kind at the NNSS, several smaller re-vegetation projects have been undertaken successfully at the

site since the 1990s. These smaller projects are considered successful in that at least 70 percent of the typical natural vegetation has been reestablished and water infiltration into deeper soil layers has been minimal.

Getting to 70 percent re-growth still takes time, according to Dr. Anderson, who says it can take up to five years before significant plant cover is seen. Relying on natural re-vegetation to occur, on the other hand, can take upwards of 50 years, he added.

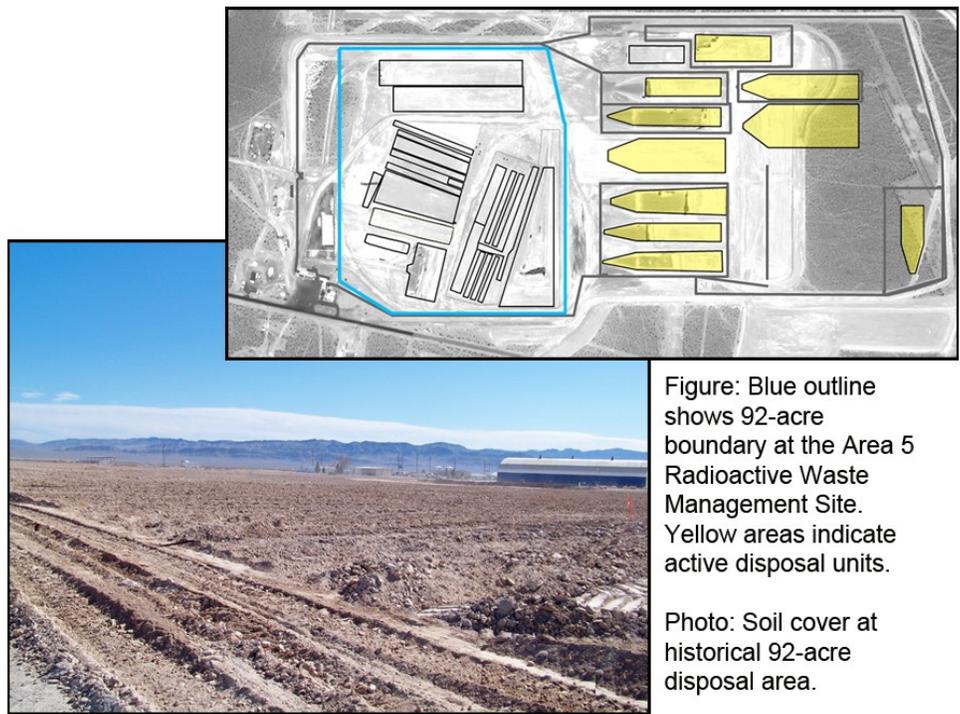


Figure: Blue outline shows 92-acre boundary at the Area 5 Radioactive Waste Management Site. Yellow areas indicate active disposal units.

Photo: Soil cover at historical 92-acre disposal area.

*The NNSA receives federal low-level and mixed low-level radioactive waste from a national network of waste generators, many of which are managing cleanup-related waste. All waste is disposed at the Radioactive Waste Management Site in NNSA's Area 5.

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