

Nevada National Security Site (NNS) Final Site-Wide Environmental Impact Statement (SWEIS) Update



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Transportation Working Group Meeting

November 16, 2012



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Overview of NSO Activities

- Historic nuclear weapons testing conducted from 1951 to 1992
 - 100 atmospheric tests
 - 828 underground tests
 - Nuclear reactor/rocket development
- Current major mission areas include stockpile stewardship/non-proliferation, national security training, emergency response, and EM



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National Security Mission Area

- Certifying the reliability of nuclear stockpile through experiments
 - Subcritical
 - Conventional explosives
 - Shock physics
 - Plasma physics and fusion
- Disposition of improvised nuclear devices
- Conducting controlled chemical and biological simulant releases



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EM Mission Area

- Waste Management
 - Low-level waste (LLW)
 - Mixed low-level waste (MLLW)



- Environmental Restoration
 - Surface soils
 - Industrial sites
 - Groundwater

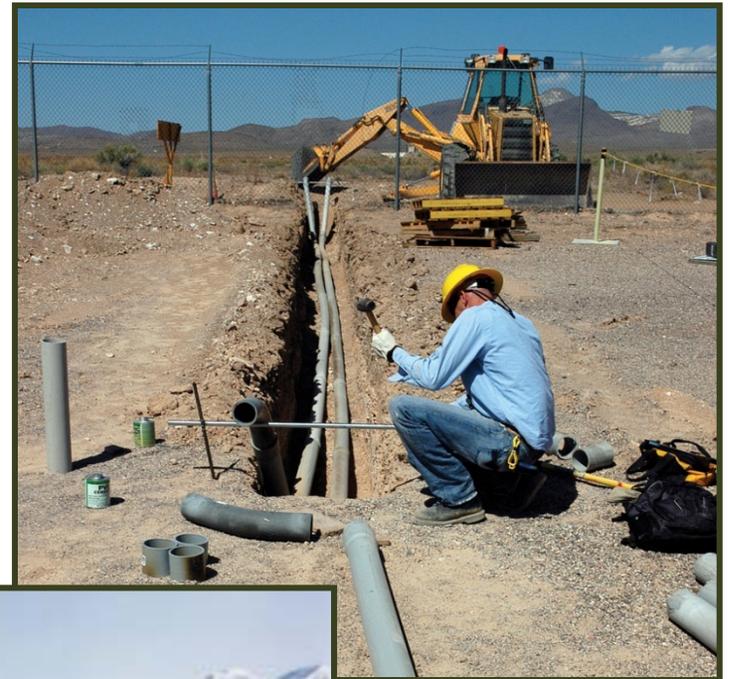


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Non-Defense Mission Area

- General site support and infrastructure
- Renewable energy
- Other research and development



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SWEIS Alternatives

- No Action – Reflects use of existing facilities and operations consistent with those experienced in recent years
- Reduced Operations – Reflects diminished activity levels and decommissioned facilities; includes continued implementation of previous *National Environmental Policy Act* (NEPA) decisions, but may not retain all capabilities from those decisions and no new projects or facilities are proposed
- Expanded Operations – Includes activities and level of operations under “No Action” plus expansion of existing activities and additional capabilities



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Preferred Alternative

- “Hybrid” alternative
 - Elements selected from each action alternative
- Process for selecting Preferred Alternative
 - Consulted key program officials and management at the Nevada Site Office
 - Incorporated public comments



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Public Comments on the Draft SWEIS

- Statistics
 - 128 comment documents received
 - Form letters (three campaigns) only counted once
 - Only 39 unique documents from individual commenters
 - 758 comments identified
 - State of Nevada: 172 (transportation was primary topic)
 - Healing Ourselves and Mother Earth (HOME): 73
 - Nevada Site Specific Advisory Board: 68



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Public Comments on the Draft SWEIS

(continued)

- State of Nevada (Attorney General, NDEP, Nuclear Projects Office)
- Clark, Lincoln and Nye Counties, NV
- Las Vegas, Henderson, North Las Vegas and Indian Springs, NV
- State of California
- Bureau of Land Management
- National Park Service
- Nevada Desert Experience
- Sierra Club
- So. Nevada Building and Construction Trades
- Tri-Valley CARES
- Nuclear Watch of New Mexico
- Consolidated Group of Tribes and Organizations
- HOME
- Solar Energy Industries Association



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Public Comments on the Draft SWEIS

(continued)

- Key issues raised
 - Unconstrained transportation routing in Las Vegas
 - General risks from waste transportation and disposal
- Other themes raised
 - DOE's definition of No Action Alternative
 - General concerns about risks of radiation
 - Concerns about resumption of nuclear testing



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Public Comments on the Draft SWEIS

(continued)

- Alternate uses of land or return to the public
- Perception-based impacts to local economy
- Alternative energy
 - Mostly positive
 - Concerns about water/land use



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Current Transportation Practices

- Primarily all truck transport to NNSS
- Minimal rail-to-truck shipments
- Transportation within Las Vegas Valley restricted by previous agreements with State of Nevada
 - Routing through I-15/U.S. 95 interchange or over O'Callaghan-Tillman Bridge is prohibited



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Estimated Number of Shipments Over a 10-year Period

	<i>No Action Alternative</i>	<i>Expanded Operations Alternative</i>	<i>Reduced Operations Alternative</i>
Truck			
In-state radioactive waste shipments	2,300	15,000	2,300
Out-of-state radioactive waste shipments	25,000	30,000	25,000
Out-of-state radioactive material shipments	240	11,000	180
Truck-to-Rail			
Out-of-state radioactive waste shipments (rail only)	2,300	15,000	2,300
Out-of-state radioactive waste shipments (rail and truck)	38,000	92,000	38,000



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SWEIS Transportation Analysis

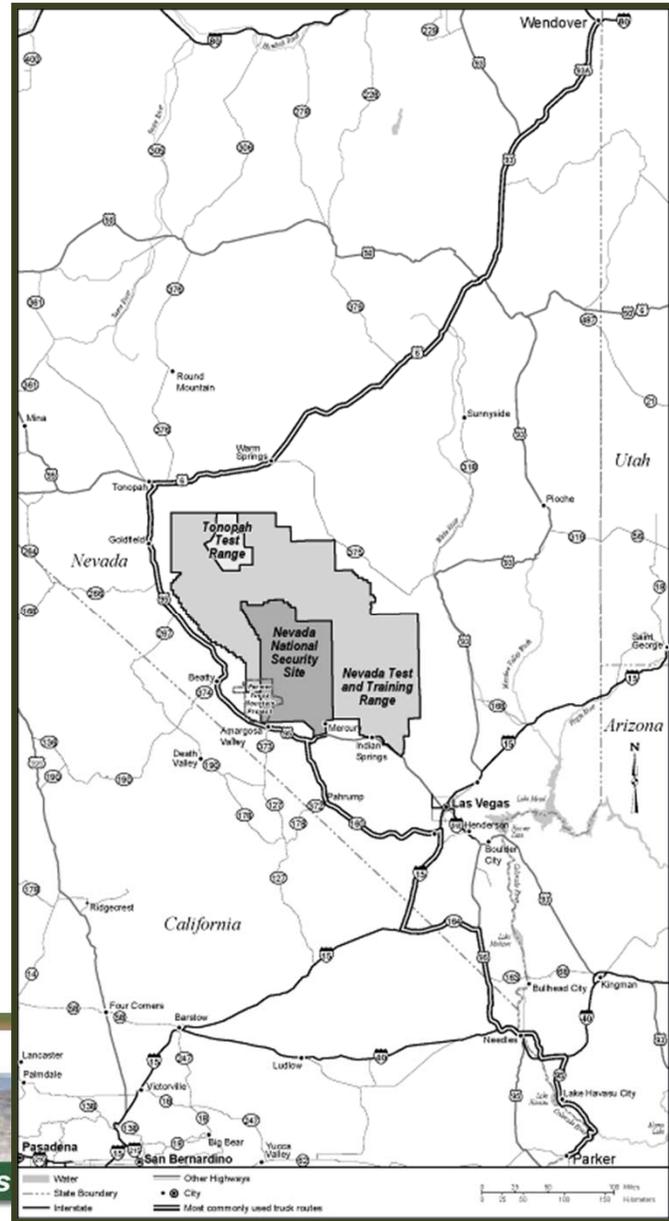
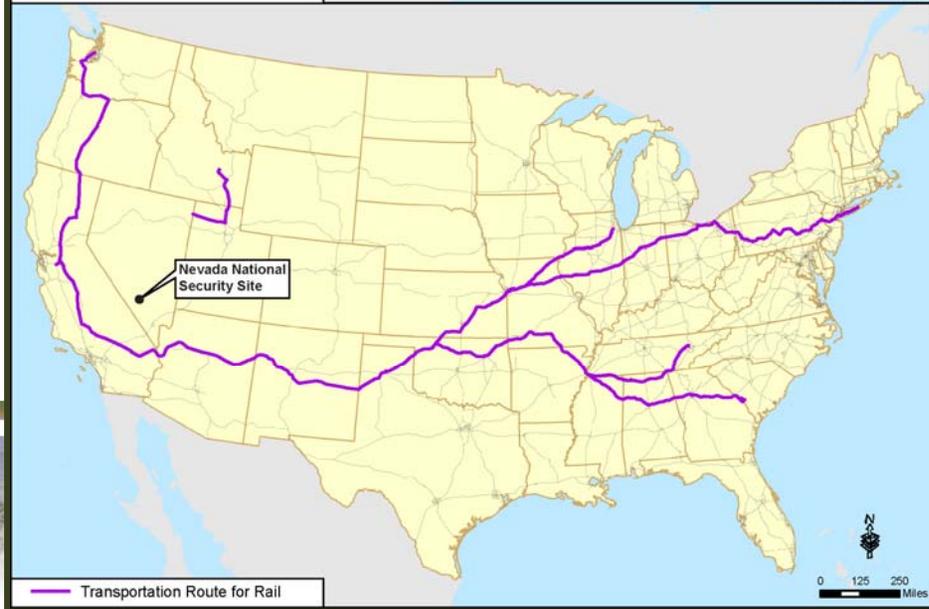
- SWEIS analyzes two cases:
 - Constrained Case
 - Status quo maintained avoiding truck shipment through I-15/ U.S.-95 interchange in Las Vegas and via Hoover Dam or the new O’Callaghan-Tillman bridge, and continue transloading at Parker, AZ and West Wendover, NV
 - Transportation by (a) all truck and (b) the combination rail-to-truck analyzed
 - Unconstrained Case
 - Analyzed several routes for truck transport through Southern Nevada
 - Analyzed additional rail-to-truck transload locations: Apex and Arden, NV and Kingman, AZ
 - Transportation by (a) all truck and (b) the combination rail-to-truck analyzed



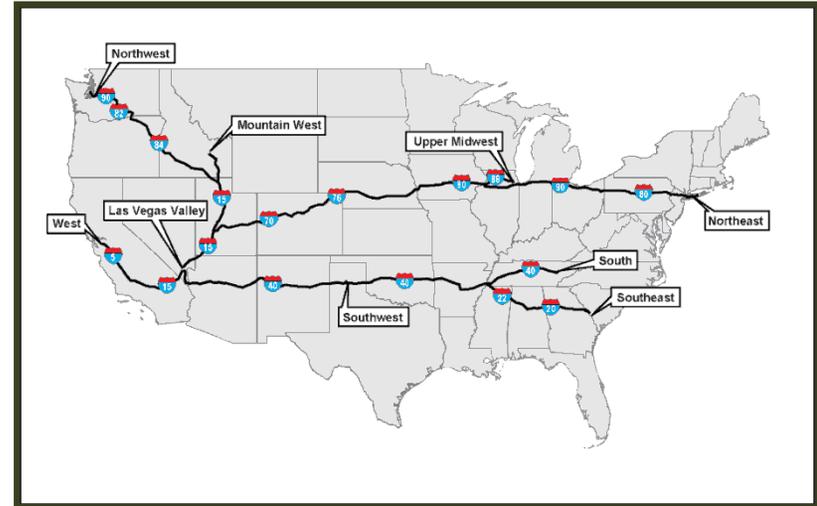
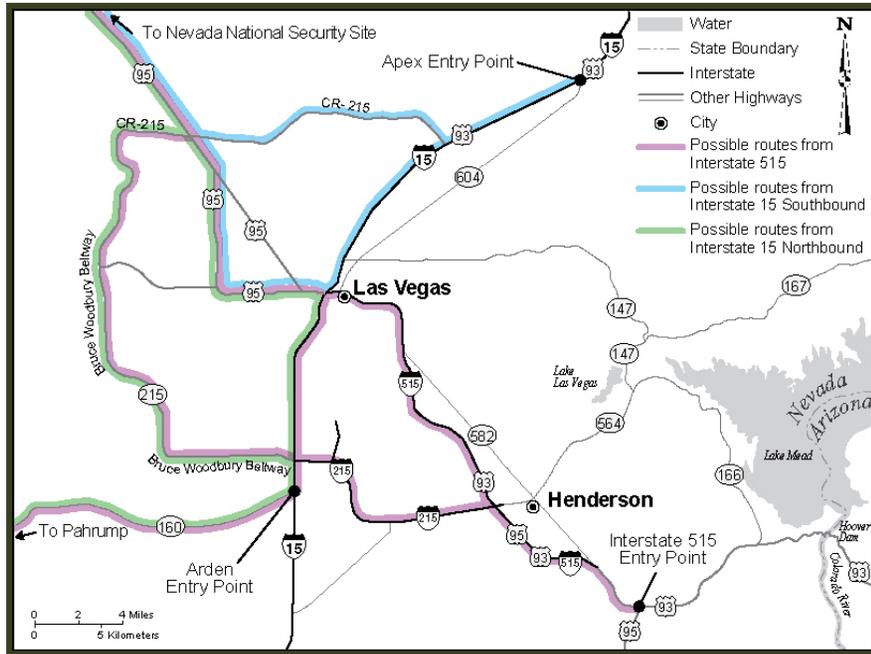
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Constrained Case Routes



Unconstrained Case Routes



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What We Learned

- Constrained vs. unconstrained truck-only transport
 - Radiological impacts (dose and latent cancer fatalities [LCFs]) to public and workers slightly lower under unconstrained case
 - Primarily a function of lower route mileage and/or quicker trips due to higher average speed on roadways
- Constrained vs. unconstrained for rail-to-truck transport
 - Radiological impacts to public and workers under unconstrained case vary slightly (depending on transfer stations utilized), but generally lower than those seen in constrained case



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What We Learned

(continued)

- Truck-only vs. mainly-rail modes
 - Rail-to-truck mode results in lower doses and LCFs than truck-only
 - Rail-to-truck is much more fuel-efficient, and results in much lower (~1:4 ratio) levels of greenhouse gas and criteria pollutant emissions
- Public and stakeholder primary concerns
 - Human health and safety in the event of a transportation accident
 - Clear preference to maintain existing route preference



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Outcome

- Maintain current routing commitments
 - Avoid Las Vegas metropolitan area (I-15/U.S. 95)
 - Avoid Hoover Dam and O’Callaghan-Tillman Bridge



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Anticipated Key Dates for Final SWEIS

Early January 2013	Publication and distribution of the final NNSS SWEIS
Mid-January 2013	Federal Register notice of availability for final SWEIS
Late February 2013	Record of Decision (minimum of 30 days after Notice of Availability)



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