Nevada Site Specific Advisory Board (NSSAB)
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Full Board Meeting Handouts for
Wednesday, November 18, 2020

NSSAB FULL BOARD MEETING ATTENDANCE

October 2020 through September 2021 (FY 2021)

Name	*11/18/20	1/20/21	2/17/21	5/19/21	7/21/21	9/22/21	Max Terms
MEMBERS							
Gail Alexander							2026
Francis Bonesteel							2022
William DeWitt							2024
Bill Dolan							2026
Karen Eastman							2020
Gary Elgort							2026
Charles Fullen							2022
Anthony Graham							2024
Mark Hilton							2026
Bruce Jabbour							2026
Ron Korner							2026
James Moldenhauer							2026
Dan Peterson							2026
Janice Six							2024
Richard Stephans							2022
Favil West							2026
Dina Williamson-Erdag							2022
LIAISONS							
Clark County							
Consolidated Group of Tribes & Organizations							
Elko County Commission (limited)							
Esmeralda County Commission							
Lincoln County Commission							
Nye County Commission							
Nye County Emergency Management							
Nye Co. Nuclear Waste Repository Project Office							
State of NV Division of Env Protection							
U.S. Natl Park Service (limited)							
White Pine County Commission (limited)							

KEY: √ - Present E - Excused V - Vacant U - Unexcused

*Virtual Full Board Meeting

Nevada Site Specific Advisory Board (NSSAB) Long-Term Strategy - Work Plan Item #4

Kelly Snyder, Designated Federal Officer
U.S. Department of Energy (DOE)
Environmental Management Site-Specific Advisory Board (EM SSAB)
November 18, 2020

NSSAB - Work Plan Item #4

- From a community perspective, the NSSAB will provide a recommendation for how the NSSAB envisions its future role as the EM Nevada Program mission transitions to completion
  - Including recommendations on the frequency of meetings, number of members, and overall community expectations
- NSSAB recommendation is due in January 2021

NSSAB Meeting in Pahrump – January 2020

Outline

- NSSAB Scope for EM Activities
- Current NSSAB Composition
- Current NSSAB Meetings
- NSSAB Key Points

NSSAB Scope for EM Activities

- **Groundwater characterization (Underground Test Area [UGTA])**:
  - Frenchman Flat, Yucca Flat, and Rainier Mesa – in closure/long-term monitoring
  - Pahute Mesa – in progress
- **Surface soil contamination/remediation**:
  - Completed


Groundwater Well on the NNSS

NSSAB Scope for EM Activities (continued)

- **Facility contamination/remediation (Industrial Sites)**:
  - Closure completed at 99% of Federal Facility Agreement and Consent Order (FFACO) sites (1857 of 1870 total)
  - Planned closure of Engine Maintenance Assembly and Disassembly (EMAD) facility by fiscal year (FY) 2027
  - Planned closure of Test Cell C ancillary buildings and structures by FY 2024


EMAD – October 2019

NSSAB Scope for EM Activities (continued)

- **Low-level waste (LLW) disposal**:
  - Final path forward for waste management operations after FY 2030 undetermined at this time
- **Prioritization of EM activities**:
  - EM HQ requires NSSAB recommendation annually

NSSAB Scope for EM Activities (continued)

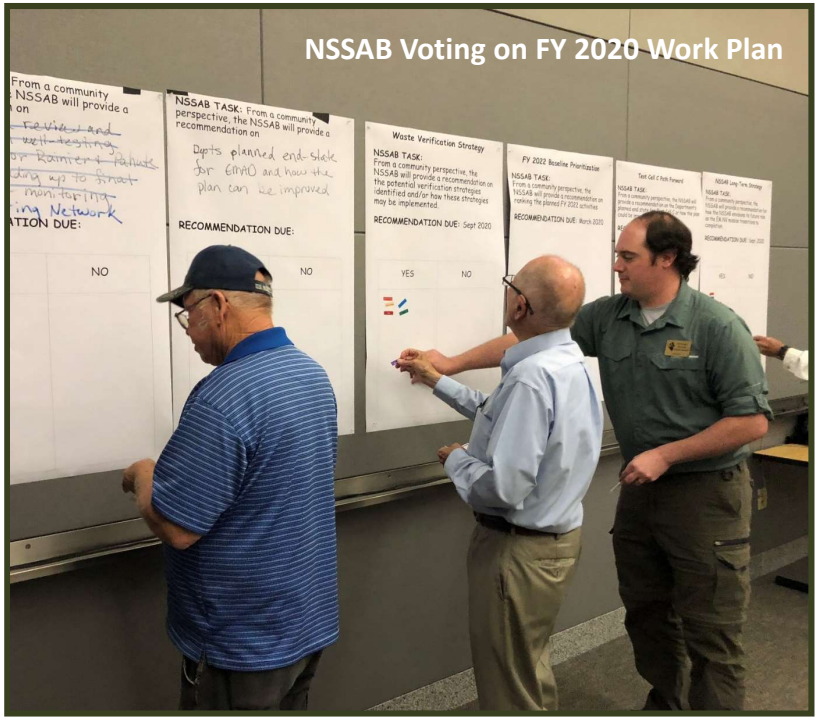
- **Post-closure monitoring completed by EM**
- **Stakeholder outreach**:
  - NSSAB, open houses/events, fact sheets, social media, Operation Clean Desert, displays, articles, website links, etc.

Current NSSAB Composition

- Strive for 15-20 voting members with appointments staggered so at least one-third of Board retained for continuity
  - Current Board consists of 17 members:
    (1) Amargosa Valley, (1) Boulder City, (1) Dyer,
    (6) Las Vegas valley, (1) Mesquite, (5) Pahrump, and
    (2) Tonopah
- Currently 11 non-voting liaison positions [eight (8) "full" and three (3) "limited"] that represent their parent organizations

Current NSSAB Meetings

- On average, recent work plans have dictated:
  - Typically six (6) Full Board meeting per fiscal year
  - Length of meetings lasting three – four (3 – 4) hours
  - Six – eight (6 – 8) work plan items per fiscal year



NSSAB Key Points

- EM Nevada Program values NSSAB
- NSSAB has two (2) purposes:
  - Venue for communicating EM activities to stakeholders
  - Formal mechanism to receive recommendations from the community on EM activities
- NSSAB can only provide recommendations to DOE EM
- Availability of work plan items is decreasing due to activities being completed
- NSSAB structure may need to be modified, i.e. number of meetings, number of members, meeting agenda topics, etc.

NSSAB Path Forward

- From a community perspective, the NSSAB will provide a recommendation for how the NSSAB envisions its future role as the EM Nevada Program mission transitions to completion
  - Including recommendations on the frequency of meetings, number of members, and overall community expectations
- NSSAB recommendation is due in January 2021

Groundwater Open House in Beatty – October 2019


Q
A

Charges to the EM SSAB Chairs

Charge #1 - Advisory Board and Site Outreach

- Develop a best practices white paper that the Department could use as a guide to augment existing outreach programs and set expectations for future outreach activities
  - Each Board shall identify existing outreach practices performed at their site by both the SSAB and DOE (a template will be provided)
    - Outreach data should include, but not limited to, STEM, budget prioritization, and events
    - Determine if there are any gaps or need for additional outreach
    - Each Board will present their results during the Spring 2021 Chairs meeting
  - The Chairs will collaboratively discuss the individual Board results and develop the requested white paper. (Spring 2021 – Fall 2021)

Charge #2 – SSAB Expectations/ Guiding Principles

- Identify SSAB end-state expectations and guiding principles that could be used as a complex-wide framework for DOE EM's interaction with stakeholders/communities
  - Each Board will document their expectations regarding what EM mission completion looks like at their site and the Board's expectations for how DOE EM will interact with local stakeholders/communities to reach that vision (a template will be provided to each board)
    - Each Board will present their results during the Spring 2021 Chairs meeting
  - The Chairs will collaboratively discuss the individual Board results, identify commonalties and develop a complex-wide SSAB expectations and guiding principles framework (Spring 2021 – Fall 2021)

Chair & Vice-Chair Responsibilities

What are the Chair responsibilities?

- Serves as the Chair for 12 months (October 1 – September 30)
- Participates in EM SSAB Chairs conference calls
- Assists in the development of draft meeting agendas
- Leads full board meetings and ensures all members have the opportunity to participate
- Certifies to the accuracy of all minutes within 45 days
- Signs recommendations that the Board has passed
- Serves as spokesperson for the NSSAB between regular meetings of the Board
- Attends national EM SSAB meetings and/or workshops semi-annually
- Adheres to all standard NSSAB member responsibilities (i.e. attendance requirements, etc.)

What are the Vice-Chair responsibilities?

- Serves as the Vice-Chair for 12 months (October 1 – September 30)
- Participates in EM SSAB Chairs conference calls
- Assists in the development of draft meeting agendas
- Acts as the NSSAB chair in the absence of the elected chair
- Attends national EM SSAB meetings and/or workshops semi-annually
- Adheres to all standard NSSAB member responsibilities (i.e. attendance requirements, etc.)

Please contact the NSSAB office by December 31 and advise if you are willing to be considered for the FY 2021 Vice-Chair position.

EM Nevada Program Strategic Vision Document

Site Outline

- **Overview**

The Nevada National Security Site (NNSS) was used from 1951 to 1992 to conduct a total of 100 atmospheric and 828 underground nuclear weapons tests. As a result, some groundwater, surface soils, and industrial facilities were contaminated on the NNSS and the surrounding Nevada Test and Training Range (NTTR). The Department of Energy's Environmental Management (EM) Nevada Program is responsible for completing environmental corrective actions at these historic nuclear testing locations, as well as waste disposal for both onsite and offsite generators.

In accordance with the Federal Facility Agreement and Consent Order (FFACO), the EM Nevada Program is responsible for environmental corrective actions at 148 surface soil locations, 1,013 industrial locations, and groundwater contaminated by historical nuclear testing. Environmental corrective actions are now complete at 100% of FFACO surface soil sites, an accomplishment reached six years ahead of schedule, saving nearly $67 million in federal funding. Environmental corrective actions have been completed at 99% of all industrial sites, with only two legacy industrial facilities remaining to be addressed.

Concerning groundwater contamination, the FFACO strategy agreed upon with State of Nevada regulators is to identify contaminant boundaries, restrict access to contaminated groundwater, and implement a long-term monitoring program. Because of the vast and complex geology of the NNSS, groundwater contamination is grouped into characterization areas based on location and similar geology. Three of the four groundwater characterizations areas managed by EM Nevada have now transitioned into the final "closure" phase of the FFACO groundwater strategy, which involves long-term monitoring. Notably, the Rainier Mesa/Shoshone Mountain groundwater area was brought to closure in 2020, three years ahead of schedule, saving $5 million in federal funding. Investigations are ongoing in the last groundwater area, Pahute Mesa, to fully understand the nature and extent of contamination.

- **CY 2020 Cleanup Accomplishments**
  - Completed the transfer of long-term stewardship responsibilities for 70 closed clean-up sites on and around the Tonopah Test Range to the DOE Office of Legacy Management (LM). The transition was a 2020 EM Strategic Vision and Mission Priority item, was completed ahead of schedule and under budget, and represented the first EM to LM transfer in more than a decade.
  - Achieved closure at the Rainier Mesa/Shoshone Mountain (RM/SM) groundwater area three years ahead of schedule, saving $5 million in federal funding.
  - Achieved closure at the Yucca Flat/ Climax Mine (YF/CM) groundwater area, bringing 75% of all NNSS groundwater areas to end-state completion.

- Safely and securely disposed ~500,000 ft³ of classified and low-level (LLW)/mixed low-level (MLLW) radioactive waste in support of DOE complex sites involved with nuclear research, development, and testing, and ongoing national security and science missions.

- **Planned Cleanup Scope 2021-2031.**

  Over the coming decade, EM will complete its current scope of cleanup activities at the NNSS.

  Groundwater/Soil Remediation

  In collaboration with regulatory interfaces, the EM Nevada Program has broadly adopted the use of risk-informed decision making, which prioritizes the protection of human health and the environment, while considering future land use, in the development of cleanup strategies. As a result, the accelerated closure of NNSS groundwater areas is anticipated to result in $80 million in savings over initial baseline estimates, with the timeline expedited by two years.

  At the Pahute Mesa groundwater characterization area, the Corrective Action Investigation phase (including completion of the Flow and Transport Model, External Peer Review, and regulatory approval of the Corrective Action Plan) will be completed by the end of FY 2023. By the end of FY 2027, the Model Evaluation Phase will be completed for Pahute Mesa, including the drilling of four model evaluation wells, data analysis, flow and transport model adjustments, and regulatory approval to move to the final phase. By the end of FY 2028, the Pahute Mesa area will transition into long-term monitoring. This action will complete groundwater corrective action activities and long-term monitoring will be transferred to the landlord of the NNSS, the National Nuclear Security Administration (NNSA).

  Long-term monitoring of the soil correction action sites on the NNSS will remain the responsibility of the EM Nevada Program until all FFACO-required environmental corrective actions on the NNSS are completed in FY 2028. At that time, any sites requiring future post-closure monitoring and use restrictions per the FFACO will be managed by NNSA.

  Industrial Facilities

  The two remaining industrial facilities are the Engine Maintenance Assembly and Disassembly (EMAD) facility and Test Cell C (TCC) Ancillary Buildings and Structures, which consist of eight sites required to be addressed under the FFACO. By the end of FY 2022, the EM Nevada Program plans to receive regulatory approval on the corrective action strategy for the EMAD and Test Cell C sites. In FY 2023, the EM Nevada Program will have addressed the required regulatory actions to close Test Cell C sites. The plan is to demolish the buildings to grade with appropriate disposal of the waste generated, and to close in place any contamination located below grade. In FY 2025, the EM Nevada Program will complete similar regulatory actions to close EMAD. The completion of environmental correction actions at EMAD and Test Cell C sites will result in the completion of all industrial facilities that are included in the FFACO.

Long-term monitoring of NNSS industrial sites will remain the responsibility of the EM Nevada Program until all FFACO-required environmental corrective actions are completed in FY 2028. At that time, any sites requiring future post-closure monitoring and use restrictions per the FFACO will be managed by the NNSS landlord, the NNSA.

Waste Disposal Activities

The EM Nevada Program will continue to support cleanup activities across the DOE complex by providing disposal capacity and services for up to 1.2 million cubic feet annually of low-level radioactive waste, mixed low-level radioactive waste, and classified waste through FY 2030.

- **Key Regulatory Milestones for 2021-2031**
  - **6/30/2021:** Submit Test Cell C (CAU 572) Streamlined Approach for Environmental Restoration (SAFER) Plan to the Nevada Division of Environmental Protection (NDEP)
  - **12/31/2021:** Submit Pahute Mesa (CAUs 101/102) groundwater Flow & Transport Model Phase II to NDEP
  - **8/31/2022:** Complete Pahute Mesa (CAUs 101/102) groundwater External Peer Review
  - **4/28/2023:** Submit Test Cell C (CAU 572) Closure Report to NDEP
  - **8/31/2023:** Submit Pahute Mesa (CAUs 101/102) groundwater Corrective Action Decision Document/Corrective Action Plan to NDEP
  - **9/30/2024:** Submit Engine Maintenance Assembly and Disassembly facility (CAU 114) Closure Report to NDEP
  - **3/31/2027:** Submit Pahute Mesa (CAUs 101/102) groundwater Model Evaluation Report to NDEP
  - **9/30/2027:** Transition Post-Closure Monitoring for all sites (excepting CAUs 101/102) to NNSA
  - **4/28/2028:** Submit Pahute Mesa (CAUs 101/102) Closure Report to NDEP
  - **9/30/2028:** Transition Post-Closure Monitoring of CAUs 101/102 to NNSA
  - **9/30/2028:** Physical completion of all program baseline remediation activities

- **Post-2031 Cleanup Scope**
  - The EM Nevada Program is scheduled to reach end-state for its Environmental Restoration mission no later than 2030, which will ultimately involve the completion of all active remediation activities and the conveyance of remediated sites for long-term stewardship.
  - *A*lthough it is currently anticipated that there will be a need within the DOE Complex for NNSS waste disposal beyond 2030, management by EM Nevada is not currently planned beyond 2030.
  - In November of 2020, the EM Nevada Program will provide a briefing to the Nevada Site Specific Advisory Board (NSSAB) describing the planned end state for the EM Nevada Environmental Restoration mission. As part of its Approved FY21 Work Plan, the NSSAB will provide a recommendation, from a community perspective, for how the NSSAB envisions its future role as the EM Nevada Program mission transitions to end-state completion, including the frequency of meetings, number of members, and overall stakeholder expectations.