



U.S. DEPARTMENT OF  
**ENERGY**



# Annual Site Sustainability Summit

**Nevada National Security Site**

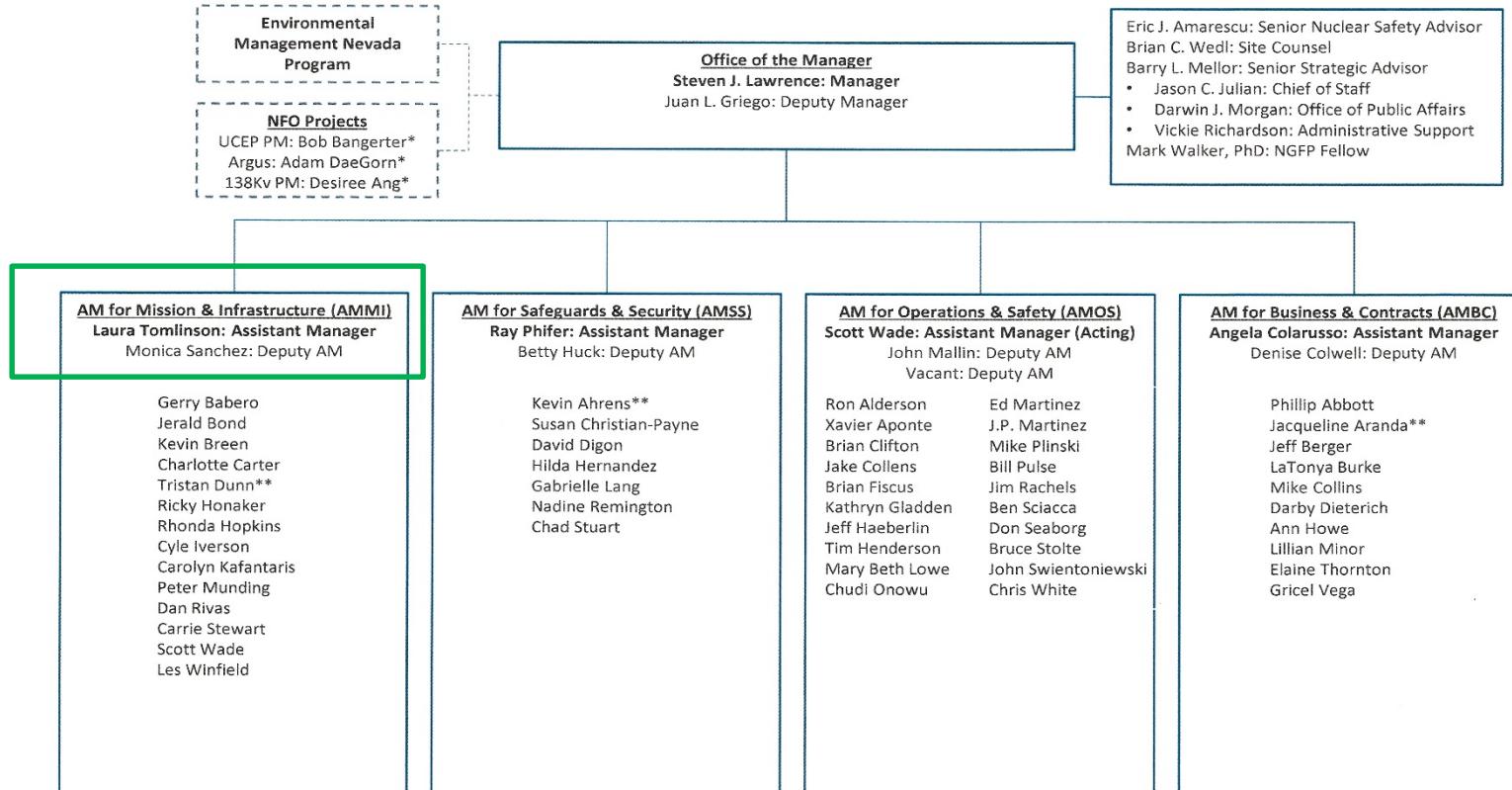
**Contributors: Savitra Candley, Yvette Mason, Shalonda Palmore, Heath Petersen and Christina Smith**

**October 11, 2018**

Realigned on October 1, 2018

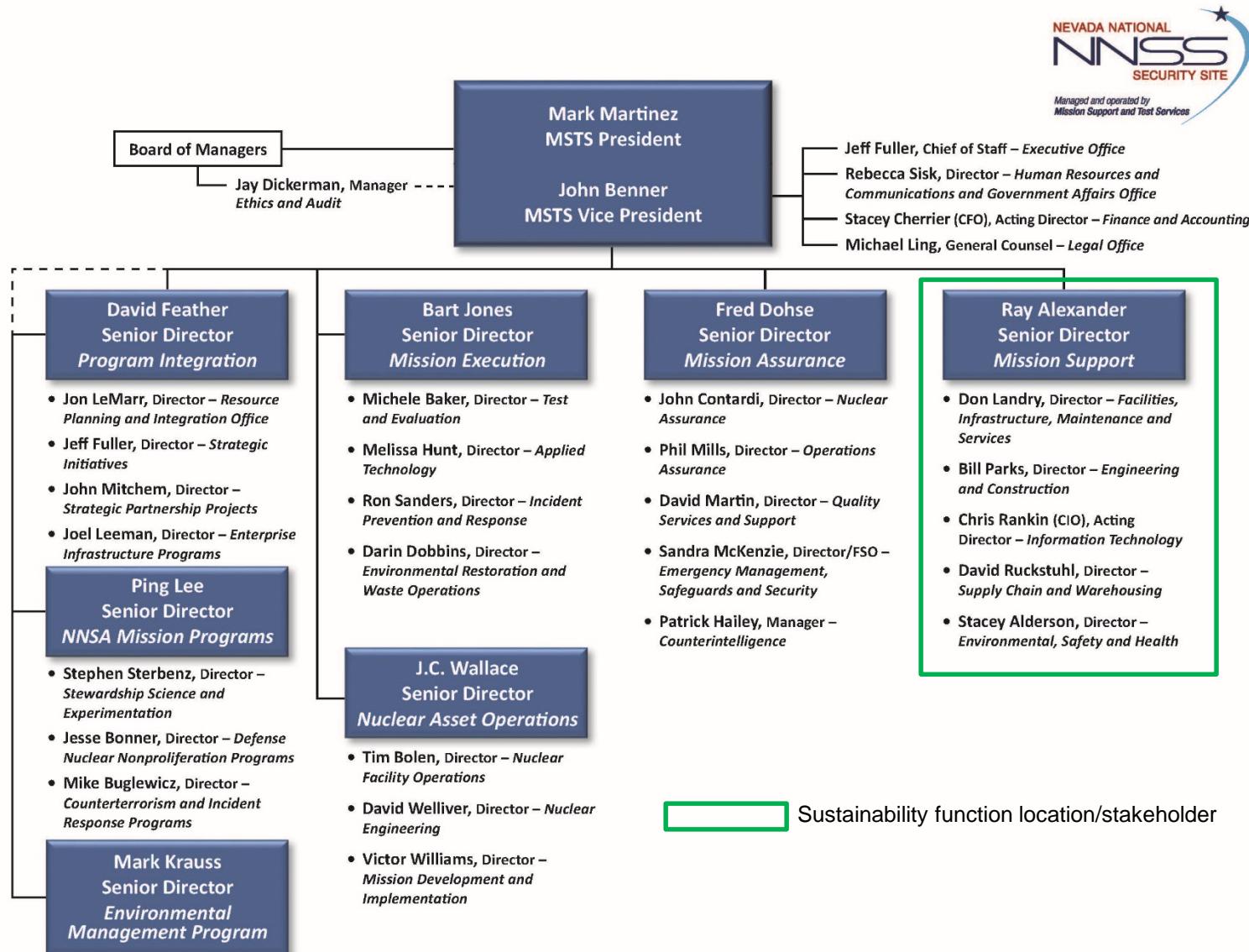


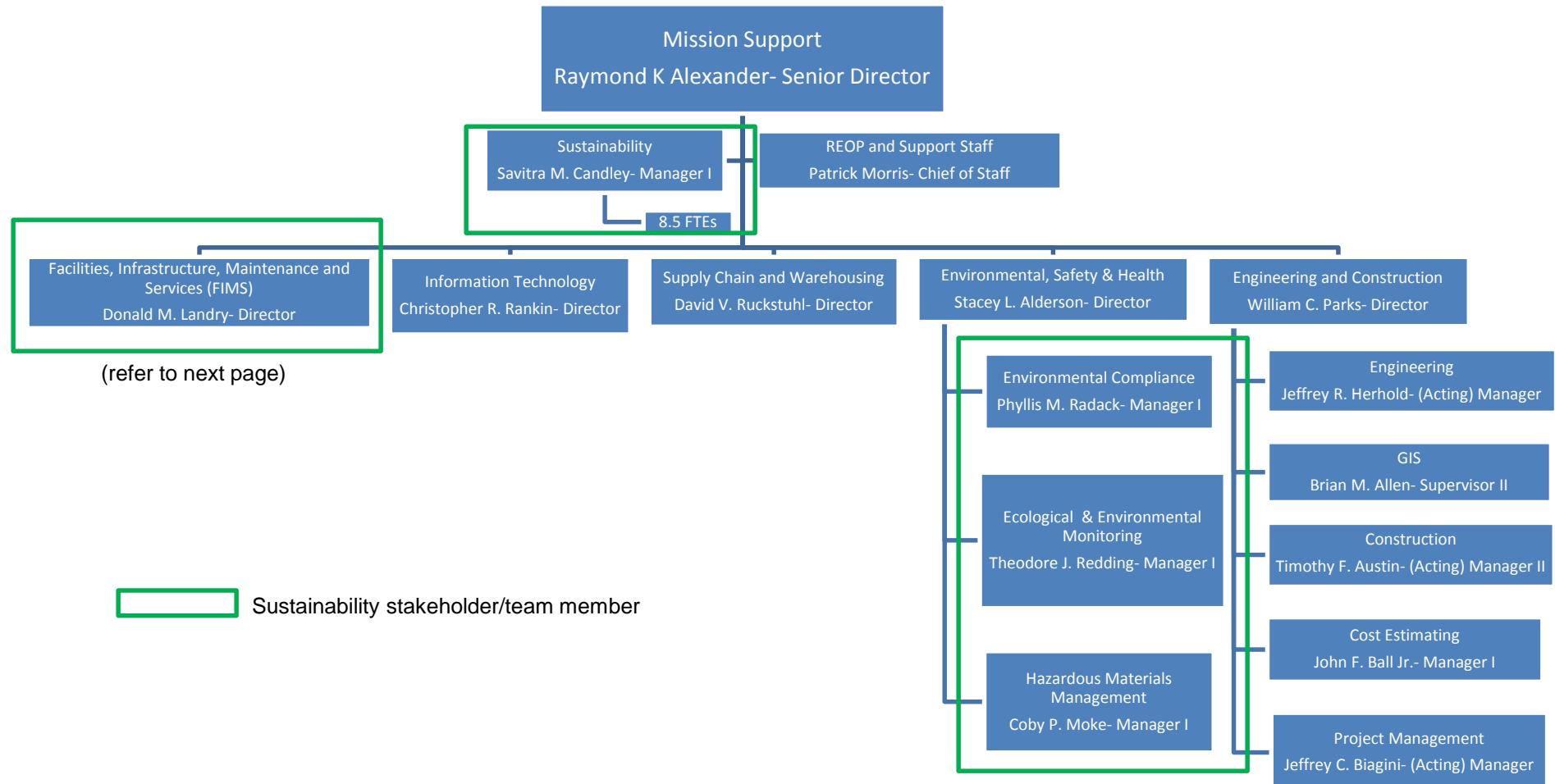
## Nevada Field Office



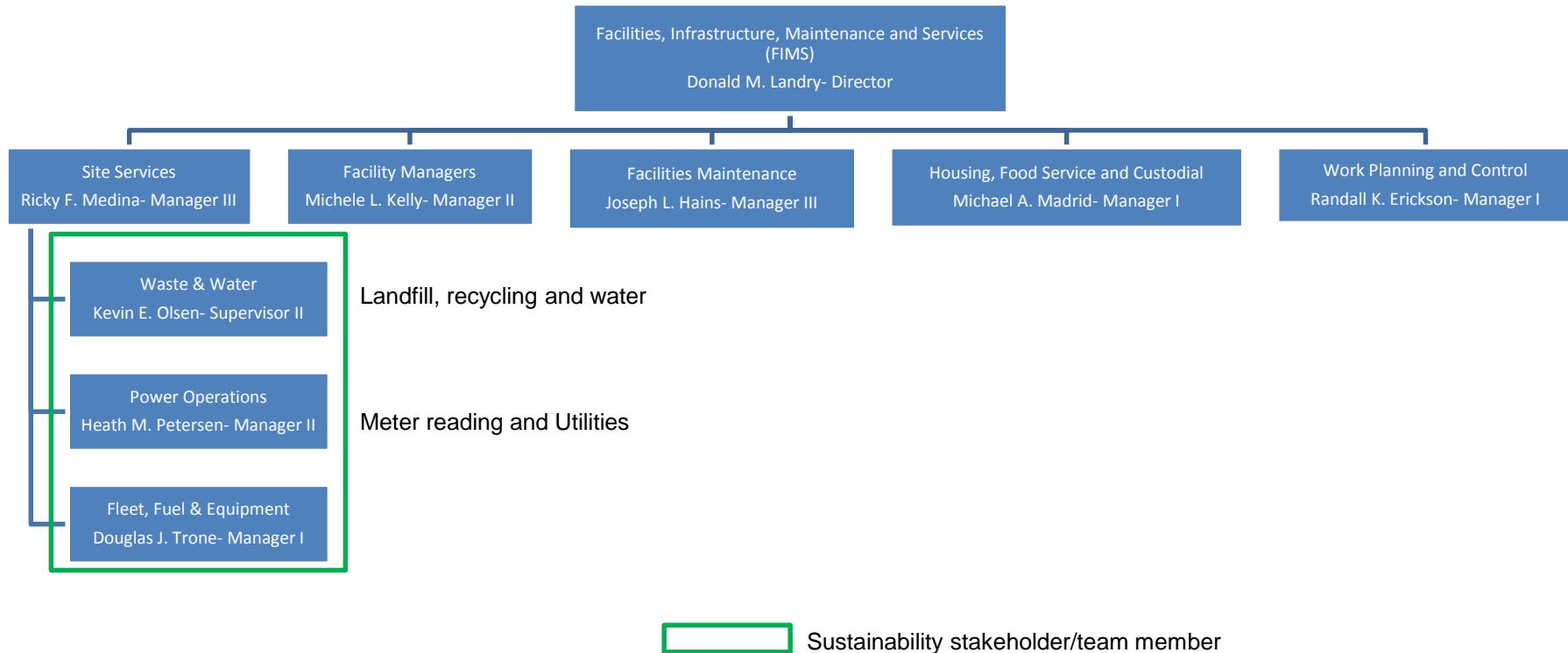
\* Assigned to NA-APM

\*\* Rotational Assignment





Realigned on October 1, 2018



DOE/NNSA Goal	Target	FY17 Status	FY18 Status
Scope 1 & 2 GHG Emissions	50% reduction by FY 2025 from FY 2008 baseline	54%	
Scope 3 GHG Emissions	25% reduction by FY 2025 from FY 2008 baseline	66%	
Energy intensity (Btu per gsf) in goal subject facilities	25% reduction by FY 2025 from FY 2015 baseline ( <i>new baseline yr.</i> )	<b>2.70%</b>	
Potable Water Intensity	36% reduction by FY 2025 from FY 2007 baseline	32%	
Sustainable Existing Buildings (EB)	17% of EB greater than 5,000 GSF comply with the Guiding Principles by FY 2025 ( <i>100% compliance thereafter</i> )	<b>68% (# of Buildings)</b> <b>100% (SF)</b>	
Renewable Energy	Renewable electric energy not less than 10% of a total agency electric consumption in FY2016-2017 working towards 30% by FY2025	<b>N/A</b>	
Fleet Petroleum	20% reduction by FY2015 from FY 2005 baseline (maintain 20% reduction thereafter)	<b>0%</b>	

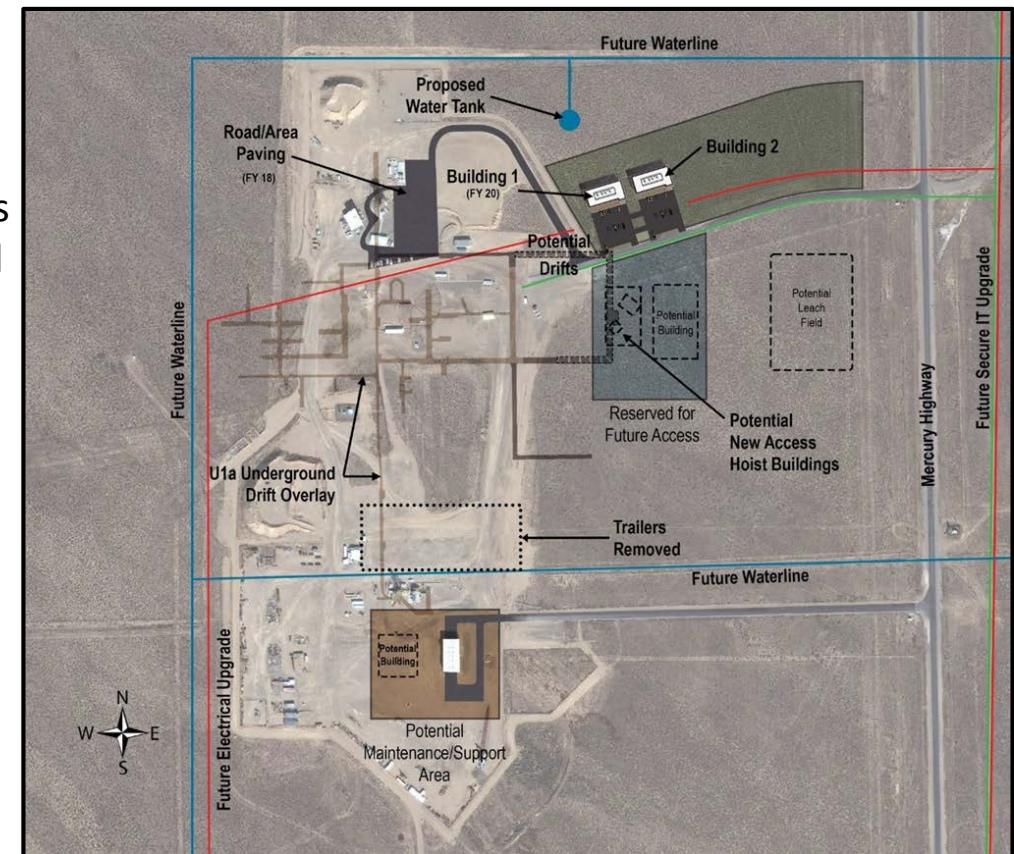
**Blue**= Above Expectations, **Green**= Meets expectations/on-track, **Yellow**= Below Expectations (not on track, but a plan), **Red**= Below Expectations (no recovery)

NFO Utility Status for FY 2018 (estimate-missing data)			
Commodity	FY17	FY18	Unit
Electricity	53,866	60,087	mWh
Natural Gas	106,158	108,879	Therms
Building Fuel	99,203	61,906	kgals
Potable Water	140,040,619	118,883,800	gals
Non-Potable Water	43,897,500	27,051,100	gals

- **Highlight goals where the site is at medium or high risk of goal non-attainment.**
  - **Energy Intensity**- Hurting: FY15 baseline reset was during low activity level at the site. To achieve additional reduction will be challenging
    - Key sustainability need- More funding for energy projects that impact energy reduction on “covered” facilities and an ESPC
  - **Renewable Energy**- Hurting: No large renewable projects scheduled
    - Key sustainability need- Funding/Assistance in the installation of a large renewable project or an ESPC
  - **Metering**- Hurting: Prioritization of funding for meter installations against other mission priorities
    - Key sustainability needs- Dedicated meter installation funding (“*you cannot manage what you cannot measure*”)
  - **Waste Diversion**- Hurting: Minimal number of recycle centers, user education and policy updating/enforcement
    - Key sustainability needs- Senior management support for adding more recycle centers, policy enforcement and improved data collection methodology

- **U1a Surface Planning-**
  - Program changes are occurring and increasing
  - Probable impact to sustainability goals- **energy and water**
  - A Conceptual Vision for the U1a Surface Complex Infrastructure is in progress. Vision includes:

- Utilizing an A&E firm to help develop surface plan
- Establishing development zones for new buildings, underground access, and support areas
- Consolidating into new buildings and removing existing trailers
- Identifying areas for expansion, as needed
- Locating new shaft



- **High Performance Sustainable Building progress:**
  - Current Status (number of Buildings)- 13 (11%)
  - Current Status (GSF)- 441,385 GSF (17%)
  - FY18 HPSB certification target- Two (2) Buildings
    - 23-163 (10,897 GSF)- Pending Documentation Submittal
    - NLV, A-13 (37,278 GSF)- Issues found during certification activity
      - *Action plan developed and being implemented*
- **Barriers for HPSB progress-**
  - Water meter requirement
  - Increase in cost to conduct remaining HPSB certification activities
- **Opportunities-**
  - Construction of new facilities
  - Relocation and Facility Disposal



A-13



23-163

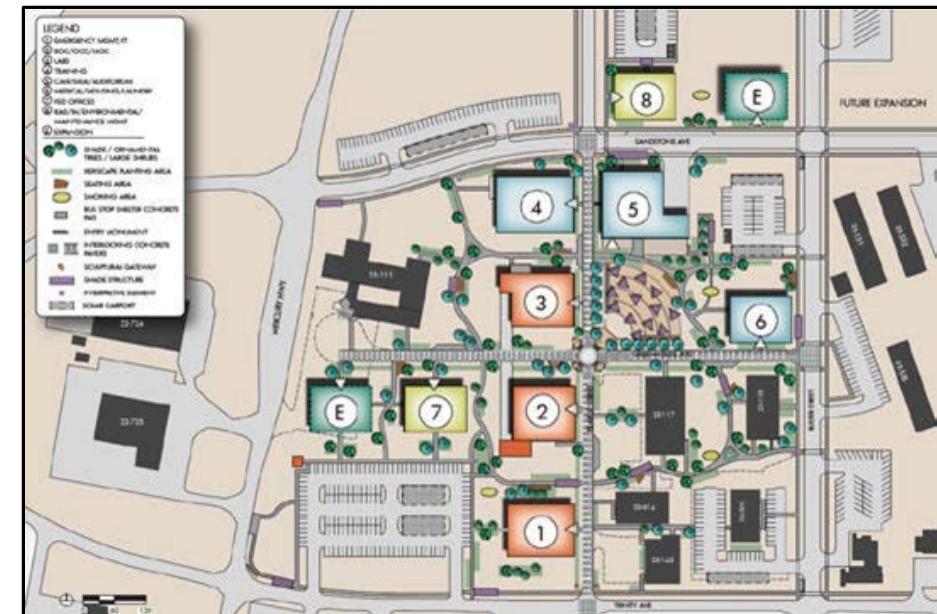


NLV 9

- **Highlight new construction (line items and GPPs) for FYs 2019-2023.**

FY19-FY24 GPP Construction NEW Buildings in FIMS AAIM Module				
Area	No.	Usage Code	GSF	
<b>Mercury</b>	4	Office	Ea,	>12,000
	1	Cafeteria		30,000
<b>U1a</b>	1	Computation Lab		560
	2	Office	Ea.	13,000
<b>Area 6 DC</b>	1	Switching Station		560
<b>DAF</b>	1	Office		10,000

- **Potential for net zero buildings (energy, water, and/or waste.)**
  - **Mercury Fire Station #1 PV Project construction completed in FY18**
    - NNSS First Net zero energy facility
  - **Building #1 Mercury Modernization, 23-460**
    - Potentially the 2<sup>nd</sup> Net zero energy facility at the NNSS



- Identify any site issues with:
  - Waste diversion/Recycling/Sustainable Materials acquisition
    - Has consistently been a challenge for the NNSA
    - Areas to target for action began in FY17:
      - Added cardboard collection areas at high use facilities
      - Conducted a plastic bag pilot in FY18 (*reviewing data*)
      - Reviewed the number of recycle pickup locations
      - Researched options to decrease cost of recycle pickup
      - Researched Battery recycling options (*found an out of state vendor*)
      - Identified policies that require updating for the handling of construction waste
      - Searched for a local E-Waste company (*attended 2018 Earth Day event*)
- Does your site want additional Sustainable Acquisition training?
  - Yes. Interested in Sustainable Acquisition process for data tracking and success stories across the NSE complex





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# Sustainability Successes and Opportunities



- **Successes:**

- **Completion of the Solar PV Demonstration project at the Mercury Fire Station as the first Net Zero Energy facility at the NNSS**
- **NNSS Fleet, Fuel and Equipment services received three (3) awards:**

- North American Fleet Association (NAFA's) FLEXY award winner- Excellence in Fleet Sustainability (Public)
- Outstanding Sustainability Program/Project from DOE
- 2018 NNSA Outstanding Sustainability Program- Small Site Winner





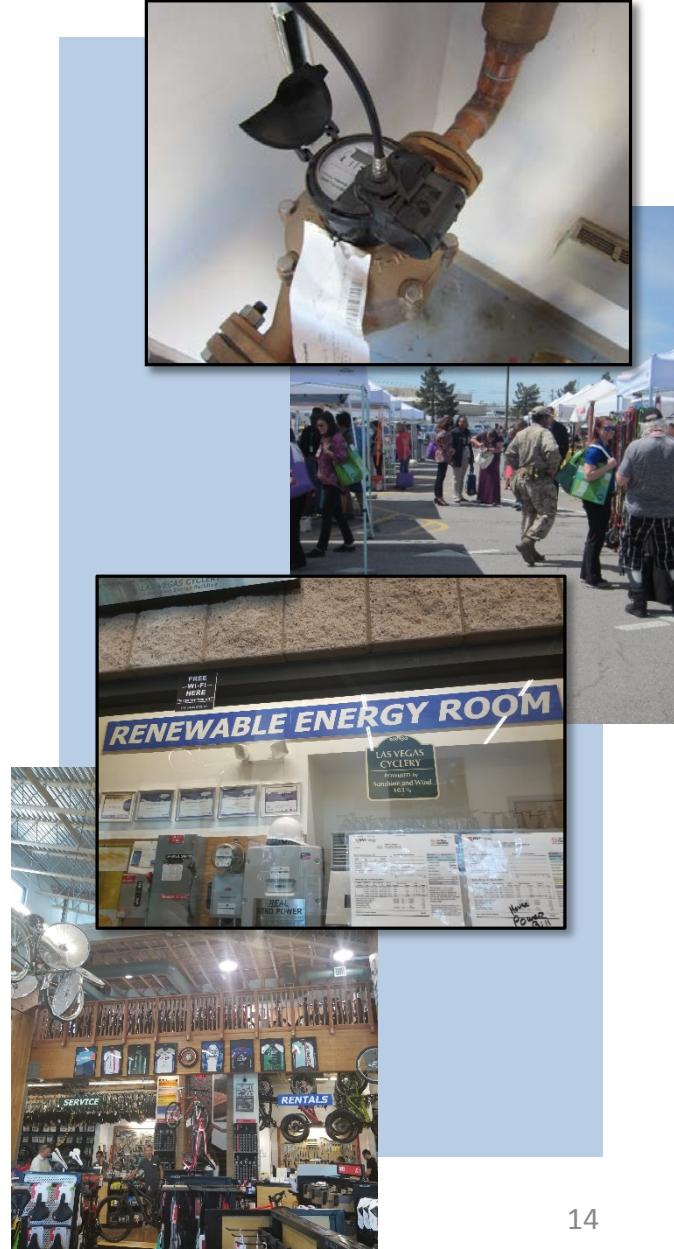
- **Opportunities:**
  - As the Strategic Plan for NNSA is matured, Sustainability is being incorporated
  - Solar Power, as it is becoming more affordable
    - BLM request for information is being addressed for large solar project
- **Top three challenges at your site to implementing sustainability:**
  1. Forward area strategic plan still developing and keeping Sustainability an objective is a challenge
  2. Identification of dedicated Sustainability Projects that complement the NNSA Strategic Plan
    - a) Sustainability is a key objective on current projects (e.g., Building 1 of Mercury Modernization)
  3. Project Development/Planning process identification of sustainable elements (e.g., energy savings, cost savings, etc.) associated with a project
    - a) How to make sure the sustainability elements in projects are adequately highlighted
- **Do you have any training needs (i.e., technical, awareness, outreach, other)?**
  - PPA and UESC Training

## Other funding for sustainability

- Sustainability Program is funded from Indirect Funds under the Mission Support Directorate
- Functional Transformational Initiative was conducted in FY18 to identify potential shifts of various sustainability actions/tasks to Direct Funds
  - In progress

## Integration

- Integration Success stories with other teams:
  - Developed a comprehensive electric and water meter prioritization plan with *MSTS Power Operations Department and the Waste and Water Department*
  - Coordinated the April 2018 Earth Day event with *MSTS Health and Productivity Department* for a 2<sup>nd</sup> year
  - Worked with *NNSA Office of Environment & Sustainability* on an option for a NNSA-wide approach to scoping ESPCs.
  - Assisted with the local *Nevada Chapter for International Facility Management Association (IFMA)* with coordinating LEED facility tours and training officially recognized by GSA as being aligned with the the Federal Buildings Personnel Training Act (FBPTA).



- **Who is your federal point of contact?**
  - **Federal point of contact- TBD**
  - **New Reorganization of the Nevada Field Office on 10/1/18**
- **When do your utility contracts expire:**
  - Electricity- NNSN (expires in 10/2022)
  - Natural Gas- No expiration
  - Water- No expiration
- **Do you have any utilities successes or concerns?**
  - **None at this time**

Questions?