



Lawrence Livermore National Laboratory

April 11, 2023

Mr. Daniel Martinez
Supervising Air Quality Inspector
San Joaquin Valley Air Pollution Control District
1990 E. Gettysburg Avenue
Fresno, CA 93726
Daniel.Martinez@valleyair.org

Subject: *LLNL Site 300 Experimental Test Site Prescribed Burning Smoke Management Plan Facility ID# N-472, Lawrence Livermore National Security, LLC*

Dear Mr. Martinez:

Lawrence Livermore National Laboratory (LLNL) has submitted the 2023 Prescribed Burning Smoke Management Plan (SMP) for LLNL Site 300 Experimental Test Site to San Joaquin Valley Air Pollution Control District (SJVAPCD) through the State's Prescribed Fire Information Reporting System (PFIRS). Enclosed with this letter is a copy of the electronic submittal.

If you have any questions regarding this submittal or require additional information, please contact Wai-Man So of my staff at (925) 424-4411.

Sincerely,

DocuSigned by:
Paul Roy
6EA10AF95384431...

Paul Roy, Group Leader
Waste and Air Quality Offices
Environmental Functional Area



Mr. Daniel Martinez, SJVAPCD
LLNL Site 300 Experimental Test Site Prescribed Burning Smoke Management Plan
Facility ID# N-472, Lawrence Livermore National Security, LLNS

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Enclosure: PFIRS Submittal – 2023 Prescribed Burning Smoke Management Plan for LLNL
Site 300 Experimental Test Site

Distribution w/enclosure (PDF):

Amaden, Christopher (NNSA/LFO)
Balaban, Nicholas (NNSA/LFO)
Baylosis, Maggie
Dibley, Valerie
Diregolo, Brian (ACFD)
Fechser, Matt
Fratanduono, Meg
Heard, Marcus (NNSA/LFO)
Kodama, Julie
Mishra, Vijay (NNSA/LFO)
Nakasaki, Steve
Naranjo, Alberto
Roy, Paul
Ruiz, Alex
Saabye, Alexandra
Sagert, Juliana
Sharry, John (ACFD)
So, Wai-Man
Stenzel, Jo Anna
Vaughan, Quentin
Wilson, Scott
Wise, Tammy (NNSA/LFO)
Woodrow, Lisa
Woollett, Jim

Site 300 Prescribed Burn File
UCM: Site 300, Prescribed Burn

Mr. Daniel Martinez, SJVAPCD
LLNL Site 300 Experimental Test Site Prescribed Burning Smoke Management Plan
Facility ID# N-472, Lawrence Livermore National Security, LLNS

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ENCLOSURE 1

Prescribed Fire Information Reporting System (PFIRS) Submittal –
2023 Prescribed Burning Smoke Management Plan (SMP) for
LLNL Site 300 Experimental Test Site



Options

Current Project: **LLNL S300 2023 - SJVAPCD**

Tuesday, April 11, 2023

Edit History ▶

Review SMP for LLNL S300 2023 - SJVAPCD

Submittals ▶

Plan Author: [Wai-Man So](#)

Returns ▶

Approvals ▶

▼ Land Manager Information

Complete

| | |
|------------------------|---|
| Name of Project | LLNL S300 2023 - SJVAPCD |
| Permittee | LLNS |
| Permit Number | |
| Primary Field Contact: | Brian Diregolo |
| Other Field Contacts: | |
| Land Manager Name: | Valerie Dibley/Wai-Man So |
| Address: | 7000 East Ave Livermore, CA 94550 |
| Phone: | (925) 424-4411 |
| 24 Hour Phone: | (925) 724-8040 |
| Email: | so5@llnl.gov |
| Edit | Edit this Land Manager |

▼ Landowner Information

Complete

| | |
|------------------------|---|
| Landowner Name: | US Government-Dept of Energy |
| Address: | 7000 East Ave Livermore, CA 94550 |
| Edit | Edit this Landowner |
| Delete | Delete this Landowner |
| Add | Add a Landowner |

▼ Project Specifics

Complete

| | | | | | |
|----------------------|---|--------------------|------------------------------|-------------------|------------------------------|
| Project Acres | 1967 | Duration (days) | 12 | Overnight Burn? | No |
| Preferred Season | Spring | Burn Start | 05-2023 | Burn End | 08-2023 |
| Burn Goal | Hazard Reduction | | | | |
| Primary District | San Joaquin Valley APCD | Secondary District | None/Unknown | Tertiary District | None/Unknown |
| Edit | Edit this information | | | | |

▼ Broadcast Units

Complete

Currently Active Units

▼ Project 1 (Plots 10 and 9)

(click to expand)

| General Information | | | | | | | |
|-------------------------------|---|------------|-------------------|----------------------|---------------------------|---------------|-------------------------|
| Acres: | 57 | Tons/Acre: | 1 | Fuel Arrangement: | Grassland | Fuel Density: | Typical |
| General Fuel Moisture: | Dry | Min THFM: | 0 | Max THFM: | 0 | | |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | | | | | | |
| General Description: | Previously burnt area and primarily native grasses. | | | | | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | | Estimated Emissions: | 0.399 | | |
| Edit | Edit this information. | | | | | | |

| Unit Location | | | | | |
|---------------|-----------------------------|------------|---|------------|------------------------------------|
| County: | San Joaquin | District: | San Joaquin Valley APCD | Air Basin: | San Joaquin Valley |
| Latitude: | 37.643341 | Longitude: | -121.4962076 | Meridian: | Mt Diablo |
| Township: | 3S | Range: | 4E | Section: | 26 |
| Min Elev: | 588 | Max Elev: | 1044 | Mean Elev: | 816 |

| | | |
|--|---|---|
| Crossroads: HW-580 | Slope: Varied | Aspect: Eastern |
| Edit | Edit this information. | |
| <small>Ignition Prescription</small> | | |
| Source of meteorological information: | LLNL S300 Meteorological Tower | |
| Other considerations to ensure adequate smoke dispersion: | NA | |
| Sfc Wind Direction: | Ideal: W | Min: ANY Max: ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: 0 Max: 25 |
| Transport Wind Direction: | Ideal: NW | Min: ANY Max: ANY |
| RH: | Ideal: 25 | Min: 15 Max: 75 |
| Temperature: | Ideal: 80 | Min: 50 Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) | |
| Edit | Edit this information. | |
| Delete | Delete Project 1 (Plots 10 and 9). | |
| Inactive | Make this unit inactive. | |
| ▼ Project 2 (Plot 8) (click to expand) | | |
| <small>General Information</small> | | |
| Acres: 53.8 | Tons/Acre: 1 | Fuel Arrangement: Grassland Fuel Density: Typical |
| General Fuel Moisture: Dry | Min THFM: 0 | Max THFM: 0 |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | |
| General Description: | Previously burnt area and primarily native grasses. | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | Estimated Emissions: 0.377 |
| Edit | Edit this information. | |
| <small>Unit Location</small> | | |
| County: San Joaquin | District: San Joaquin Valley APCD | Air Basin: San Joaquin Valley |
| Latitude: 37.65 | Longitude: -121.53 | Meridian: Mt Diablo |
| Township: 3S | Range: 4E | Section: 22 |
| Min Elev: 820 | Max Elev: 1040 | Mean Elev: 930 |
| Crossroads: HW-580 | Slope: Varied | Aspect: Eastern |
| Edit | Edit this information. | |
| <small>Ignition Prescription</small> | | |
| Source of meteorological information: | LLNL S300 Meteorological Tower | |
| Other considerations to ensure adequate smoke dispersion: | NA | |
| Sfc Wind Direction: | Ideal: W | Min: ANY Max: ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: 0 Max: 25 |
| Transport Wind Direction: | Ideal: NW | Min: ANY Max: ANY |
| RH: | Ideal: 25 | Min: 15 Max: 75 |
| Temperature: | Ideal: 80 | Min: 50 Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) | |
| Edit | Edit this information. | |
| Delete | Delete Project 2 (Plot 8). | |
| Inactive | Make this unit inactive. | |
| ▼ Project 3 (Plots 7 and 21) (click to expand) | | |
| <small>General Information</small> | | |
| Acres: 35 | Tons/Acre: 1 | Fuel Arrangement: Grassland Fuel Density: Typical |
| General Fuel Moisture: Dry | Min THFM: 0 | Max THFM: 0 |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | |
| General Description: | Previously burnt area and primarily native grasses. | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | Estimated Emissions: 0.245 |
| Edit | Edit this information. | |

| Unit Location | | | |
|------------------------------------|--------------------|------------|-------------------------|
| County: | San Joaquin | District: | San Joaquin Valley APCD |
| Air Basin: | San Joaquin Valley | Latitude: | 37.663528 |
| Longitude: | -121.51921 | Meridian: | Mt Diablo |
| Township: | 3S | Range: | 4E |
| Section: | 15, 22 | Min Elev: | 900 |
| Max Elev: | 1309 | Mean Elev: | 1104.5 |
| Crossroads: | HW-580 | Slope: | Varied |
| Aspect: | Eastern | | |
| <p>Edit Edit this information.</p> | | | |

| Ignition Prescription | | | |
|--|--------------------------------|----------|-------------------|
| Source of meteorological information: | LLNL S300 Meteorological Tower | | |
| Other considerations to ensure adequate smoke dispersion: | NA | | |
| Sfc Wind Direction: | Ideal: W | Min: ANY | Max: ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: 0 | Max: 25 |
| Transport Wind Direction: | Ideal: NW | Min: ANY | Max: ANY |
| RH: | Ideal: 25 | Min: 15 | Max: 75 |
| Temperature: | Ideal: 80 | Min: 50 | Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) | | |
| <p>Edit Edit this information.</p> <p>Delete Delete Project 3 (Plots 7 and 21).</p> <p>Inactive Make this unit inactive. ?</p> | | | |
| <p>▼ Project 4 (Plot 45)</p> | | | (click to expand) |

| General Information | | | |
|------------------------------------|---|---------------|------------------------------|
| Acres: | 55.2 | Tons/Acre: | 1 |
| Fuel Arrangement: | Grassland | Fuel Density: | Typical |
| General Fuel Moisture: | Dry | Min THFM: | 0 |
| Max THFM: | 0 | Cover Type: | VALLEY NEEDLEGRASS GRASSLAND |
| General Description: | Previously burnt area and primarily native grasses. | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | Estimated Emissions: 0.386 |
| <p>Edit Edit this information.</p> | | | |

| Unit Location | | | |
|------------------------------------|--------------------|------------|-------------------------|
| County: | San Joaquin | District: | San Joaquin Valley APCD |
| Air Basin: | San Joaquin Valley | Latitude: | 37.66 |
| Longitude: | -121.52 | Meridian: | Mt Diablo |
| Township: | 3S | Range: | 4E |
| Section: | 22 | Min Elev: | 913 |
| Max Elev: | 1300 | Mean Elev: | 1108 |
| Crossroads: | HW-580 | Slope: | Varied |
| Aspect: | Eastern | | |
| <p>Edit Edit this information.</p> | | | |

| Ignition Prescription | | | |
|---|--------------------------------|----------|-------------------|
| Source of meteorological information: | LLNL S300 Meteorological Tower | | |
| Other considerations to ensure adequate smoke dispersion: | NA | | |
| Sfc Wind Direction: | Ideal: W | Min: ANY | Max: ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: 0 | Max: 25 |
| Transport Wind Direction: | Ideal: NW | Min: ANY | Max: ANY |
| RH: | Ideal: 25 | Min: 15 | Max: 75 |
| Temperature: | Ideal: 80 | Min: 50 | Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) | | |
| <p>Edit Edit this information.</p> <p>Delete Delete Project 4 (Plot 45).</p> <p>Inactive Make this unit inactive. ?</p> | | | |
| <p>▼ Project 5 (Plots 31B and 31A)</p> | | | (click to expand) |

| General Information | | | |
|------------------------|-----------|---------------|---------|
| Acres: | 150.3 | Tons/Acre: | 1 |
| Fuel Arrangement: | Grassland | Fuel Density: | Typical |
| General Fuel Moisture: | Dry | Min THFM: | 0 |
| Max THFM: | 0 | | |

| | |
|--|--|
| Cover Type: VALLEY NEEDLEGRASS GRASSLAND | |
| General Description: Previously burnt area and primarily native grasses. | |
| Emissions Calculation Method: Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | Estimated Emissions: 1.052 |
| Edit | Edit this information. |
| Unit Location | |
| County: San Joaquin | District: San Joaquin Valley APCD |
| Latitude: 37.67126 | Longitude: -121.51771 |
| Township: 3S | Range: 4E |
| Min Elev: 914 | Max Elev: 1322 |
| Crossroads: HW-580 | Slope: Varied |
| Air Basin: San Joaquin Valley | Meridian: Mt Diablo |
| Section: 15 | Mean Elev: 1116 |
| Aspect: Eastern | |
| Edit | Edit this information. |
| Ignition Prescription | |
| Source of meteorological information: LLNL S300 Meteorological Tower | |
| Other considerations to ensure adequate smoke dispersion: NA | |
| Sfc Wind Direction: | Ideal: W Min: ANY Max: ANY |
| Sfc Wind Speed: | Ideal: 15 Min: 0 Max: 25 |
| Transport Wind Direction: | Ideal: NW Min: ANY Max: ANY |
| RH: | Ideal: 25 Min: 15 Max: 75 |
| Temperature: | Ideal: 80 Min: 50 Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) |
| Edit | Edit this information. |
| Delete | Delete Project 5 (Plots 31B and 31A). |
| Inactive | Make this unit inactive. ? |
| ▼ Project 6 (Plots 6, 20, 19, 17 & 18) (click to expand) | |
| General Information | |
| Acres: 48.5 | Tons/Acre: 1 |
| Fuel Arrangement: Grassland | Fuel Density: Typical |
| General Fuel Moisture: Dry | Min THFM: 0 |
| Max THFM: 0 | |
| Cover Type: VALLEY NEEDLEGRASS GRASSLAND | |
| General Description: Previously burnt area and primarily native grasses. | |
| Emissions Calculation Method: Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | Estimated Emissions: 0.34 |
| Edit | Edit this information. |
| Unit Location | |
| County: San Joaquin | District: San Joaquin Valley APCD |
| Latitude: 37.668212 | Longitude: -121.526966 |
| Township: 3S | Range: 4E |
| Min Elev: 859 | Max Elev: 1250 |
| Crossroads: HW-580 | Slope: Varied |
| Air Basin: San Joaquin Valley | Meridian: Mt Diablo |
| Section: 15 | Mean Elev: 1095 |
| Aspect: Eastern | |
| Edit | Edit this information. |
| Ignition Prescription | |
| Source of meteorological information: LLNL S300 Meteorological Tower | |
| Other considerations to ensure adequate smoke dispersion: NA | |
| Sfc Wind Direction: | Ideal: W Min: ANY Max: ANY |
| Sfc Wind Speed: | Ideal: 15 Min: 0 Max: 25 |
| Transport Wind Direction: | Ideal: NW Min: ANY Max: ANY |
| RH: | Ideal: 25 Min: 15 Max: 75 |
| Temperature: | Ideal: 80 Min: 50 Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) |
| Edit | Edit this information. |
| Delete | Delete Project 6 (Plots 6, 20, 19, 17 & 18). |

Inactive [Make this unit inactive. ?](#)

▼ Project 7 (Plot 3) (click to expand)

| General Information | | | | | | | |
|-------------------------------|---|------------------------|---|----------------------|-----------|---------------|---------|
| Acres: | 78.4 | Tons/Acre: | 1 | Fuel Arrangement: | Grassland | Fuel Density: | Typical |
| General Fuel Moisture: | Dry | Min THFM: | 0 | Max THFM: | 0 | | |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | | | | | | |
| General Description: | Previously burnt area and primarily native grasses. | | | | | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | | Estimated Emissions: | 0.549 | | |
| Edit | | Edit this information. | | | | | |

| Unit Location | | | | | | | |
|---------------|-------------|------------------------|-------------------------|------------|--------------------|--|--|
| County: | San Joaquin | District: | San Joaquin Valley APCD | Air Basin: | San Joaquin Valley | | |
| Latitude: | 37.67515 | Longitude: | -121.51964 | Meridian: | Mt Diablo | | |
| Township: | 3S | Range: | 4E | Section: | 15 | | |
| Min Elev: | 864 | Max Elev: | 1336 | Mean Elev: | 1100 | | |
| Crossroads: | HW-580 | Slope: | Varied | Aspect: | Eastern | | |
| Edit | | Edit this information. | | | | | |

| Ignition Prescription | | | | | | | |
|---|--------------------------------|---|------|-----|------|-----|--|
| Source of meteorological information: | LLNL S300 Meteorological Tower | | | | | | |
| Other considerations to ensure adequate smoke dispersion: | NA | | | | | | |
| Sfc Wind Direction: | Ideal: | W | Min: | ANY | Max: | ANY | |
| Sfc Wind Speed: | Ideal: | 15 | Min: | 0 | Max: | 25 | |
| Transport Wind Direction: | Ideal: | NW | Min: | ANY | Max: | ANY | |
| RH: | Ideal: | 25 | Min: | 15 | Max: | 75 | |
| Temperature: | Ideal: | 80 | Min: | 50 | Max: | 100 | |
| Target Mixing Height: | 500 ft (above ground level) | | | | | | |
| Edit | | Edit this information. | | | | | |
| Delete | | Delete Project 7 (Plot 3) . | | | | | |
| Inactive | | Make this unit inactive. ? | | | | | |

▼ Project 8 (Plot 5) (click to expand)

| General Information | | | | | | | |
|-------------------------------|---|------------------------|---|----------------------|-----------|---------------|---------|
| Acres: | 78.9 | Tons/Acre: | 1 | Fuel Arrangement: | Grassland | Fuel Density: | Typical |
| General Fuel Moisture: | Dry | Min THFM: | 0 | Max THFM: | 0 | | |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | | | | | | |
| General Description: | Previously burnt area and primarily native grasses. | | | | | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | | Estimated Emissions: | 0.552 | | |
| Edit | | Edit this information. | | | | | |

| Unit Location | | | | | | | |
|---------------|-------------|------------------------|-------------------------|------------|--------------------|--|--|
| County: | San Joaquin | District: | San Joaquin Valley APCD | Air Basin: | San Joaquin Valley | | |
| Latitude: | 37.67474 | Longitude: | -121.52616 | Meridian: | Mt Diablo | | |
| Township: | 3S | Range: | 4E | Section: | 15 | | |
| Min Elev: | 1012 | Max Elev: | 1394 | Mean Elev: | 1203 | | |
| Crossroads: | HW-580 | Slope: | Varied | Aspect: | Eastern | | |
| Edit | | Edit this information. | | | | | |

| Ignition Prescription | | | | | | |
|---|--------------------------------|----|------|-----|------|-----|
| Source of meteorological information: | LLNL S300 Meteorological Tower | | | | | |
| Other considerations to ensure adequate smoke dispersion: | NA | | | | | |
| Sfc Wind Direction: | Ideal: | W | Min: | ANY | Max: | ANY |
| Sfc Wind Speed: | Ideal: | 15 | Min: | 0 | Max: | 25 |
| Transport Wind Direction: | Ideal: | NW | Min: | ANY | Max: | ANY |
| RH: | Ideal: | 25 | Min: | 15 | Max: | 75 |
| Temperature: | Ideal: | 80 | Min: | 50 | Max: | 100 |

| | |
|--|---|
| Target Mixing Height: 500 ft (above ground level) | |
| Edit | Edit this information. |
| Delete | Delete Project 8 (Plot 5) . |
| Inactive | Make this unit inactive. ? |
| ▼ Project 9 (Plot 2) (click to expand) | |
| <small>General Information</small> | |
| Acres: 65 | Tons/Acre: 1 |
| Fuel Arrangement: Grassland | Fuel Density: Typical |
| General Fuel Moisture: Dry | Min THFM: 0 |
| Max THFM: 0 | |
| Cover Type: VALLEY NEEDLEGRASS GRASSLAND | |
| General Description: Previously burnt area and primarily native grasses. | |
| Emissions Calculation Method: Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | Estimated Emissions: 0.455 |
| Edit | Edit this information. |
| <small>Unit Location</small> | |
| County: San Joaquin | District: San Joaquin Valley APCD |
| Air Basin: San Joaquin Valley | |
| Latitude: 37.67566 | Longitude: -121.53268 |
| Meridian: Mt Diablo | |
| Township: 3S | Range: 4E |
| Section: 15 | |
| Min Elev: 960 | Max Elev: 1310 |
| Mean Elev: 1135 | |
| Crossroads: HW-580 | Slope: Varied |
| Aspect: Eastern | |
| Edit | Edit this information. |
| <small>Ignition Prescription</small> | |
| Source of meteorological information: LLNL S300 Meteorological Tower | |
| Other considerations to ensure adequate smoke dispersion: NA | |
| Sfc Wind Direction: | Ideal: W |
| Min: ANY | Max: ANY |
| Sfc Wind Speed: | Ideal: 15 |
| Min: 0 | Max: 25 |
| Transport Wind Direction: | Ideal: NW |
| Min: ANY | Max: ANY |
| RH: | Ideal: 25 |
| Min: 15 | Max: 75 |
| Temperature: | Ideal: 80 |
| Min: 50 | Max: 100 |
| Target Mixing Height: 500 ft (above ground level) | |
| Edit | Edit this information. |
| Delete | Delete Project 9 (Plot 2) . |
| Inactive | Make this unit inactive. ? |
| ▼ Project 10 (Plot 1A) (click to expand) | |
| <small>General Information</small> | |
| Acres: 14.2 | Tons/Acre: 1 |
| Fuel Arrangement: Grassland | Fuel Density: Typical |
| General Fuel Moisture: Dry | Min THFM: 0 |
| Max THFM: 0 | |
| Cover Type: VALLEY NEEDLEGRASS GRASSLAND | |
| General Description: Previously burnt area and primarily native grasses. | |
| Emissions Calculation Method: Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | Estimated Emissions: 0.099 |
| Edit | Edit this information. |
| <small>Unit Location</small> | |
| County: San Joaquin | District: San Joaquin Valley APCD |
| Air Basin: San Joaquin Valley | |
| Latitude: 37.671744 | Longitude: -121.551499 |
| Meridian: Mt Diablo | |
| Township: 3S | Range: 4E |
| Section: 17 | |
| Min Elev: 940 | Max Elev: 1250 |
| Mean Elev: 1095 | |
| Crossroads: HW-580 | Slope: Varied |
| Aspect: Eastern | |
| Edit | Edit this information. |
| <small>Ignition Prescription</small> | |
| Source of meteorological information: LLNL S300 Meteorological Tower | |

| | | | |
|---|------------------------------------|-----------------|-----------------|
| Other considerations to ensure adequate smoke dispersion: NA | | | |
| Sfc Wind Direction: | Ideal: W | Min: ANY | Max: ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: 0 | Max: 25 |
| Transport Wind Direction: | Ideal: NW | Min: ANY | Max: ANY |
| RH: | Ideal: 25 | Min: 15 | Max: 75 |
| Temperature: | Ideal: 80 | Min: 50 | Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) | | |

- [Edit](#) Edit this information.
- [Delete](#) Delete **Project 10 (Plot 1A)**.
- [Inactive](#) Make this unit inactive. [?](#)

▼ Project 11 (Plots 1 & 16E)

(click to expand)

| General Information | | | |
|--|---|------------------------------------|------------------------------|
| Acres: 174.7 | Tons/Acre: 1 | Fuel Arrangement: Grassland | Fuel Density: Typical |
| General Fuel Moisture: Dry | Min THFM: 0 | Max THFM: 0 | |
| Cover Type: VALLEY NEEDLEGRASS GRASSLAND | General Description: Previously burnt area and primarily native grasses. | | |
| Emissions Calculation Method: Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | Estimated Emissions: 1.223 | | |
| Edit | Edit this information. | | |

| Unit Location | | | |
|----------------------------|--|--------------------------------------|--|
| County: San Joaquin | District: San Joaquin Valley APCD | Air Basin: San Joaquin Valley | |
| Latitude: 37.677174 | Longitude: -121.551058 | Meridian: Mt Diablo | |
| Township: 3S | Range: 4E | Section: 16, 17 | |
| Min Elev: 1127 | Max Elev: 1533 | Mean Elev: 1330 | |
| Crossroads: HW-580 | Slope: Varied | Aspect: Eastern | |
| Edit | Edit this information. | | |

| Ignition Prescription | | | |
|---|------------------------------------|-----------------|-----------------|
| Source of meteorological information: LLNL S300 Meteorological Tower | | | |
| Other considerations to ensure adequate smoke dispersion: NA | | | |
| Sfc Wind Direction: | Ideal: W | Min: ANY | Max: ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: 0 | Max: 25 |
| Transport Wind Direction: | Ideal: NW | Min: ANY | Max: ANY |
| RH: | Ideal: 25 | Min: 15 | Max: 75 |
| Temperature: | Ideal: 80 | Min: 50 | Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) | | |

- [Edit](#) Edit this information.
- [Delete](#) Delete **Project 11 (Plots 1 & 16E)**.
- [Inactive](#) Make this unit inactive. [?](#)

▼ Project 12 (Plot 12)

(click to expand)

| General Information | | | |
|--|---|------------------------------------|------------------------------|
| Acres: 181.9 | Tons/Acre: 1 | Fuel Arrangement: Grassland | Fuel Density: Typical |
| General Fuel Moisture: Dry | Min THFM: 0 | Max THFM: 0 | |
| Cover Type: VALLEY NEEDLEGRASS GRASSLAND | General Description: Previously burnt area and primarily native grasses. | | |
| Emissions Calculation Method: Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | Estimated Emissions: 1.273 | | |
| Edit | Edit this information. | | |

| Unit Location | | | |
|----------------------------|--|--------------------------------------|--|
| County: San Joaquin | District: San Joaquin Valley APCD | Air Basin: San Joaquin Valley | |
| Latitude: 37.671744 | Longitude: -121.551499 | Meridian: Mt Diablo | |
| Township: 3S | Range: 4E | Section: 21 | |

| | | | | | |
|---|---|------------|-------------------------|----------------------|--------------------|
| Min Elev: | 1002 | Max Elev: | 1326 | Mean Elev: | 1164 |
| Crossroads: | HW-580 | Slope: | Varied | Aspect: | Eastern |
| Edit | Edit this information. | | | | |
| Ignition Prescription | | | | | |
| Source of meteorological information: | LLNL S300 Meteorological Tower | | | | |
| Other considerations to ensure adequate smoke dispersion: | NA | | | | |
| Sfc Wind Direction: | Ideal: W | Min: | ANY | Max: | ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: | 0 | Max: | 25 |
| Transport Wind Direction: | Ideal: NW | Min: | ANY | Max: | ANY |
| RH: | Ideal: 25 | Min: | 15 | Max: | 75 |
| Temperature: | Ideal: 80 | Min: | 50 | Max: | 100 |
| Target Mixing Height: | 500 ft (above ground level) | | | | |
| Edit | Edit this information. | | | | |
| Delete | Delete Project 12 (Plot 12) . | | | | |
| Inactive | Make this unit inactive. <input type="checkbox"/> | | | | |
| (click to expand) | | | | | |
| ▼ Project 13 (Plots 15 & 24) | | | | | |
| General Information | | | | | |
| Acres: | 286.5 | Tons/Acre: | 1 | Fuel Arrangement: | Grassland |
| General Fuel Moisture: | Dry | Min THFM: | 0 | Fuel Density: | Typical |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | | | | |
| General Description: | Previously burnt area and primarily native grasses. | | | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | | Estimated Emissions: | 2.006 |
| Edit | Edit this information. | | | | |
| Unit Location | | | | | |
| County: | San Joaquin | District: | San Joaquin Valley APCD | Air Basin: | San Joaquin Valley |
| Latitude: | 37.65582 | Longitude: | -121.537488 | Meridian: | Mt Diablo |
| Township: | 3S | Range: | 4E | Section: | 17, 20 |
| Min Elev: | 1055 | Max Elev: | 1543 | Mean Elev: | 1299 |
| Crossroads: | HW-580 | Slope: | Varied | Aspect: | Eastern |
| Edit | Edit this information. | | | | |
| Ignition Prescription | | | | | |
| Source of meteorological information: | LLNL S300 Meteorological Tower | | | | |
| Other considerations to ensure adequate smoke dispersion: | NA | | | | |
| Sfc Wind Direction: | Ideal: W | Min: | ANY | Max: | ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: | 0 | Max: | 25 |
| Transport Wind Direction: | Ideal: NW | Min: | ANY | Max: | ANY |
| RH: | Ideal: 25 | Min: | 15 | Max: | 75 |
| Temperature: | Ideal: 80 | Min: | 50 | Max: | 100 |
| Target Mixing Height: | 500 ft (above ground level) | | | | |
| Edit | Edit this information. | | | | |
| Delete | Delete Project 13 (Plots 15 & 24) . | | | | |
| Inactive | Make this unit inactive. <input type="checkbox"/> | | | | |
| (click to expand) | | | | | |
| ▼ Project 14 (Plot 14) | | | | | |
| General Information | | | | | |
| Acres: | 33 | Tons/Acre: | 1 | Fuel Arrangement: | Grassland |
| General Fuel Moisture: | Dry | Min THFM: | 0 | Fuel Density: | Typical |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | | | | |
| General Description: | Previously burnt area and primarily native grasses. | | | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | | Estimated Emissions: | 0.231 |

| | | | | | |
|-----------------------------|-------------|------------|-------------------------|------------|--------------------|
| Edit Edit this information. | | | | | |
| Unit Location | | | | | |
| County: | San Joaquin | District: | San Joaquin Valley APCD | Air Basin: | San Joaquin Valley |
| Latitude: | 37.638183 | Longitude: | -121.537528 | Meridian: | Mt Diablo |
| Township: | 3S | Range: | 4E | Section: | 28, 29, 33, 34 |
| Min Elev: | 568 | Max Elev: | 738 | Mean Elev: | 653 |
| Crossroads: | HW-580 | Slope: | Varied | Aspect: | Eastern |
| Edit Edit this information. | | | | | |

| | |
|---|--------------------------------|
| Ignition Prescription | |
| Source of meteorological information: | LLNL S300 Meteorological Tower |
| Other considerations to ensure adequate smoke dispersion: | NA |
| Sfc Wind Direction: | Ideal: W Min: ANY Max: ANY |
| Sfc Wind Speed: | Ideal: 15 Min: 0 Max: 25 |
| Transport Wind Direction: | Ideal: NW Min: ANY Max: ANY |
| RH: | Ideal: 25 Min: 15 Max: 75 |
| Temperature: | Ideal: 80 Min: 50 Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) |

| | |
|-----------------------------|------------------------------|
| Edit Edit this information. | |
| Delete | Delete Project 14 (Plot 14). |
| Inactive | Make this unit inactive. ? |

▼ Project 15 (Plot 13) (click to expand)

| | | | | | | | |
|-------------------------------|---|------------|---|----------------------|-----------|---------------|---------|
| General Information | | | | | | | |
| Acres: | 211 | Tons/Acre: | 1 | Fuel Arrangement: | Grassland | Fuel Density: | Typical |
| General Fuel Moisture: | Dry | Min THFM: | 0 | Max THFM: | 0 | | |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | | | | | | |
| General Description: | Previously burnt area and primarily native grasses. | | | | | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | | Estimated Emissions: | 1.477 | | |
| Edit Edit this information. | | | | | | | |

| | | | | | |
|-----------------------------|-------------|------------|-------------------------|------------|--------------------|
| Unit Location | | | | | |
| County: | San Joaquin | District: | San Joaquin Valley APCD | Air Basin: | San Joaquin Valley |
| Latitude: | 37.639722 | Longitude: | -121.531041 | Meridian: | Mt Diablo |
| Township: | 3S | Range: | 4E | Section: | 17, 28, 33, 34 |
| Min Elev: | 614 | Max Elev: | 1302 | Mean Elev: | 958 |
| Crossroads: | HW-580 | Slope: | Varied | Aspect: | Eastern |
| Edit Edit this information. | | | | | |

| | |
|---|--------------------------------|
| Ignition Prescription | |
| Source of meteorological information: | LLNL S300 Meteorological Tower |
| Other considerations to ensure adequate smoke dispersion: | NA |
| Sfc Wind Direction: | Ideal: W Min: ANY Max: ANY |
| Sfc Wind Speed: | Ideal: 15 Min: 0 Max: 25 |
| Transport Wind Direction: | Ideal: NW Min: ANY Max: ANY |
| RH: | Ideal: 25 Min: 15 Max: 75 |
| Temperature: | Ideal: 80 Min: 50 Max: 100 |
| Target Mixing Height: | 500 ft (above ground level) |

| | |
|-----------------------------|-------------------------------|
| Edit Edit this information. | |
| Delete | Delete Project 15 (Plot 13) . |
| Inactive | Make this unit inactive. ? |

▼ Project 16 (Plot 11) (click to expand)

| | | | | | | | |
|---------------------|-----|------------|---|-------------------|-----------|---------------|---------|
| General Information | | | | | | | |
| Acres: | 1.1 | Tons/Acre: | 1 | Fuel Arrangement: | Grassland | Fuel Density: | Typical |

| | | | | | |
|---|---|------------|-------------------------|-------------------|--------------------|
| General Fuel Moisture: | Dry | Min THFM: | 0 | Max THFM: | 0 |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | | | | |
| General Description: | Previously burnt area and primarily native grasses. | | | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | Estimated Emissions: | 0.008 | |
| Edit | Edit this information. | | | | |
| Unit Location | | | | | |
| County: | San Joaquin | District: | San Joaquin Valley APCD | Air Basin: | San Joaquin Valley |
| Latitude: | 37.635717 | Longitude: | -121.553709 | Meridian: | Mt Diablo |
| Township: | 3S | Range: | 4E | Section: | 29 |
| Min Elev: | 718 | Max Elev: | 732 | Mean Elev: | 725 |
| Crossroads: | HW-580 | Slope: | Varied | Aspect: | Eastern |
| Edit | Edit this information. | | | | |
| Ignition Prescription | | | | | |
| Source of meteorological information: | LLNL S300 Meteorological Tower | | | | |
| Other considerations to ensure adequate smoke dispersion: | NA | | | | |
| Sfc Wind Direction: | Ideal: W | Min: | ANY | Max: | ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: | 0 | Max: | 25 |
| Transport Wind Direction: | Ideal: NW | Min: | ANY | Max: | ANY |
| RH: | Ideal: 25 | Min: | 15 | Max: | 75 |
| Temperature: | Ideal: 80 | Min: | 50 | Max: | 100 |
| Target Mixing Height: | 500 ft (above ground level) | | | | |
| Edit | Edit this information. | | | | |
| Delete | Delete Project 16 (Plot 11) . | | | | |
| Inactive | Make this unit inactive. <input type="checkbox"/> | | | | |
| ▼ Project 17 (Plot 16W) (click to expand) | | | | | |
| General Information | | | | | |
| Acres: | 442.1 | Tons/Acre: | 1 | Fuel Arrangement: | Grassland |
| General Fuel Moisture: | Dry | Min THFM: | 0 | Fuel Density: | Typical |
| Cover Type: | VALLEY NEEDLEGRASS GRASSLAND | | | | |
| General Description: | Previously burnt area and primarily native grasses. | | | | |
| Emissions Calculation Method: | Table 2 (FL is 1 ton/acre; grass EV of 0.007 PM10/ton fuel) | | Estimated Emissions: | 3.095 | |
| Edit | Edit this information. | | | | |
| Unit Location | | | | | |
| County: | San Joaquin | District: | San Joaquin Valley APCD | Air Basin: | San Joaquin Valley |
| Latitude: | 37.652034 | Longitude: | -121.549692 | Meridian: | Mt Diablo |
| Township: | 3S | Range: | 4E | Section: | 17, 20 |
| Min Elev: | 1065 | Max Elev: | 1707 | Mean Elev: | 1386 |
| Crossroads: | HW-580 | Slope: | Varied | Aspect: | Eastern |
| Edit | Edit this information. | | | | |
| Ignition Prescription | | | | | |
| Source of meteorological information: | LLNL S300 Meteorological Tower | | | | |
| Other considerations to ensure adequate smoke dispersion: | NA | | | | |
| Sfc Wind Direction: | Ideal: W | Min: | ANY | Max: | ANY |
| Sfc Wind Speed: | Ideal: 15 | Min: | 0 | Max: | 25 |
| Transport Wind Direction: | Ideal: NW | Min: | ANY | Max: | ANY |
| RH: | Ideal: 25 | Min: | 15 | Max: | 75 |
| Temperature: | Ideal: 80 | Min: | 50 | Max: | 100 |
| Target Mixing Height: | 500 ft (above ground level) | | | | |
| Edit | Edit this information. | | | | |
| Delete | Delete Project 17 (Plot 16W) . | | | | |

Inactive **Make this unit inactive.** [?](#)

Single **Add a single Broadcast Unit**

Multiple **Add a multiple Broadcast Units via spreadsheet**

▼ Pile Units Incomplete

Single **Add a single Pile Unit**

Multiple **Add a multiple Pile Units via spreadsheet**

▼ Smoke Sensitive Areas Complete

| SSA Name | Direction | Distance | Delete? |
|---|------------------------------|----------------|---------|
| City of Tracy | NE | 2.7 mi miles | Delete |
| City of Livermore | E | 7.26 mi miles | Delete |
| Community of Mountain House | N | 5.3 mi miles | Delete |
| City of Manteca,CA | NE | 17.07 mi miles | Delete |
| City of Lathrop | NE | 15.68 mi miles | Delete |
| Edit | Edit Smoke Sensitive Area(s) | | |
| Add | Add Smoke Sensitive Area(s) | | |

▼ Public Contact Methods Complete

TV? [No](#) Radio? [No](#) Newspaper? [Yes](#) Signs/Flyers? [No](#) Telephone? [Yes](#) Email? [Yes](#) Website? [Yes](#)

Description of Contact Method(s) [Letters to neighbors, newspaper notice, local libraries, LLNL webpage, social media platforms, such as LinkedIn, Twitter, etc.](#)

Signage Description [Not applicable, remote site.](#)

Edit **Edit this Land Manager**

▼ Alternatives to Burning Complete

Alternative Name: [Various](#)

Description: [Mowing/disking, grazing, sterilization.](#)

Did you use this alternative? [No](#)

Estimated emissions and fuel reduction (if used) [Too steep for mowing/disking. Grazing or sterilization will have adverse impacts to native plants onsite.](#)

Reasons (if not used)

Additional Comments:

Edit **Edit this Alternative**

Delete **Delete this Alternative**

Add **Add an Alternative**

▼ Smoke Mitigation Complete

Contingency Name: [Smoke Reduction](#)

Contingency Measure? [Yes](#)

Smoke Minimization Measure? [Yes](#)

Description: [Suppress active fire. Reduce the size of burn plot by developing new control lines. Initiate mop-up operations once fire is controlled. Focus suppression and mop-up operations on area of greater smoke production.](#)

Edit **Edit this Smoke Mitigation information**

Delete **Delete this Smoke Mitigation information**

Add Add Smoke Mitigation information

▼ SMP Comments

Complete

| | |
|------------------------|-------------------|
| Land Manager Comments: | None |
| Edit | Edit this Comment |

▼ Project Maps

Complete

| | | |
|--------------------------------|----------|--------|
| LLNL_S300_2023_Burn_Map | View | Delete |
| Google Map with all burn units | Google | |
| Add | Add Maps | |

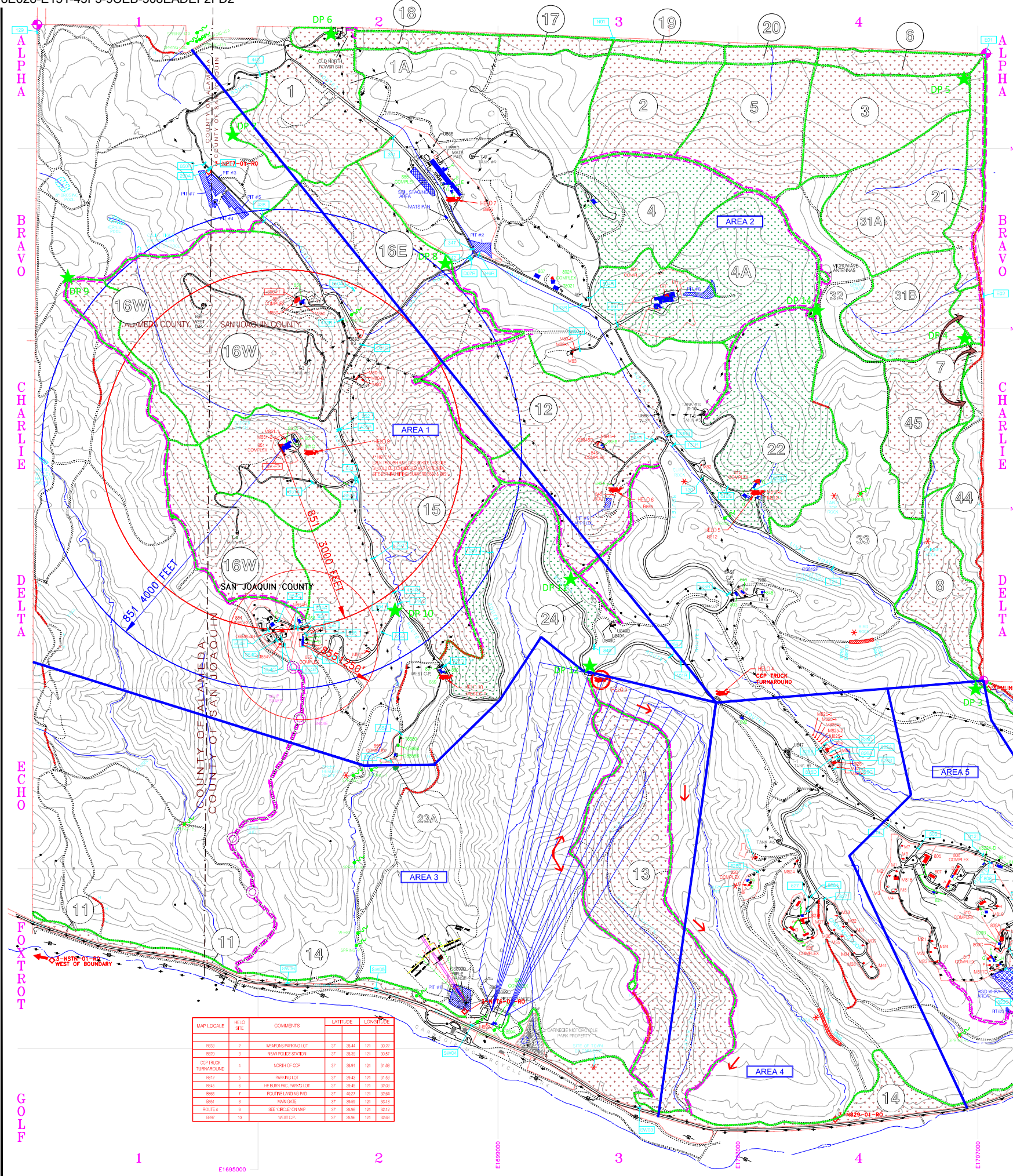
Print Print this plan.

This SMP has been submitted.

- Save Save changes and exit. Plan can be accessed at any time. This choice will NOT submit your plan to any air district.
- Archive Archive this plan. You will be able to access the plan via the Retrieve SMP page, under the Archived Plans menu.

Other Options

- Retrieve Retrieve another SMP.
- Inside Return to the PFIRS Land Manager Inside page.
- Log Out Log out of PFIRS.



| AREA I.D. | ACRES |
|-----------|---------|
| 1 | 64.4 |
| 1A | 14.2 |
| 2 | 65.0 |
| 3 | 78.4 |
| 4 | 81.3 |
| 4A | 133.7 |
| 5 | 78.9 |
| 6 | 9.8 |
| 7 | 9.1 |
| 8 | 53.8 |
| 9 | 30.8 |
| 10 | 26.2 |
| 11 | 8.6 * |
| 12 | 181.9 |
| 13 | 211.0 |
| 14 | 33.0 |
| 15 | 224.9 |
| 16W | 573.7 * |
| 16E | 110.3 |
| 17 | 7.7 |
| 18 | 17.9 |
| 19 | 7.7 |
| 20 | 5.4 |
| 21 | 25.9 |
| 22 | 128.3 |
| 23A | 0.2 |
| 24 | 61.6 |
| 31A | 91.4 |
| 31B | 58.9 |
| 45 | 55.2 |

| ALAMEDA BURN AREAS | |
|--------------------|-------|
| AREA I.D. | ACRES |
| 11 | 7.5 |
| 16W | 131.6 |

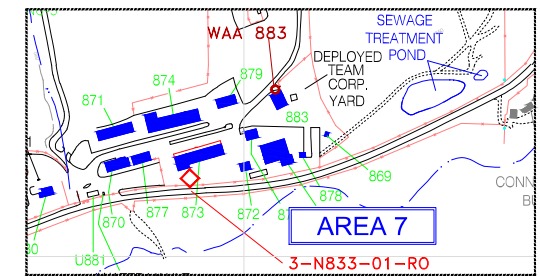
TOTAL BURN ACRES: 139.1

ANNUAL BURN ACRES: 2044.1
 VIABLE BURN ACRES: 2449.2
 TOTAL SITE ACRES: 6795.0
 COMBINED COUNTY TOTAL = *

| BURN LEGEND | |
|------------------------|----------------------------------|
| [Red Dotted Pattern] | SITE 300 BURN (PLOTS) |
| [Green Dotted Pattern] | SITE 300 ROTATIONAL BURN (PLOTS) |

- MISC. MAP LEGEND**
- INTERMITTENT STREAM BEDS
 - CONTOURS (ABOVE M.S.L.)
 - BOUNDARY LINE
 - 3-NB33-01-RO SURFACE WATER SAMPLING LOCATION
 - WAA MBS WASTE ACCUMULATION AREA MONITOR WELLS
 - LIGHT JOINT POLES / POWER POLES
 - HIGH VOLTAGE TRANSMISSION LINE
 - TREATMENT PONDS
 - SPRING
 - PIT #9 CLOSED LANDFILL OR RCRA FACILITY
 - PIT 823-817 LAGOON CLOSED LAGOON/PIT
 - RCRA FACILITY (883, M-71, 845, 816, M1-M5)
 - APPROXIMATE LOCATION OF UNDERGROUND TANK
 - APPROXIMATE LOCATION OF ABOVEGROUND TANK
 - COOLING TOWER
 - VEHICLE TURNAROUND

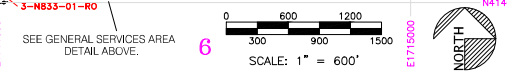
- COOLING TOWER DISCHARGING TO PERCOLATION PIT**
- 801 812 826 836D
 - 805 815 827-1 851-1
 - 809 817 827-2 851-2
 - 810 828 854
- EQUIPMENT DISCHARGING TO PERCOLATION PIT**
- 806A, 827A, 827C, 827D, 827E



- MAP LEGEND**
- PAVED PLAZAS
 - GATE NO.
 - FIRE TRAILS
 - FENCE
 - BUILDING
 - VEHICLE ASSEMBLY
 - EXPLOSION FACILITY
 - DROP POINT(S)

- FIRE TRAILS
- BURN PLOT FIRE TRAILS
- DOUBLE WIDE FIRE TRAILS
- HAZARDOUS FIRE TRAILS
- CLOSED FIRE TRAILS
- UNMAINTAINED FIRE TRAILS

| MAP LOC# | HELD SITE | COMMENTS | LATITUDE | LONGITUDE |
|----------|-----------|--------------------------|----------|-----------|
| 883 | 2 | WSP/SP/SP/SP/LOT | 37 28.4 | 121 52.2 |
| 883 | 3 | WSP/SP/STATION | 37 28.2 | 121 52.2 |
| 883 | 4 | NORTH OF COP | 37 28.9 | 121 51.8 |
| 883 | 5 | PARKING LOT | 37 28.4 | 121 51.3 |
| 883 | 6 | HE BURN FAC. PARKING LOT | 37 28.4 | 121 52.3 |
| 883 | 7 | ROUNDER/WORKING PAD | 37 28.2 | 121 52.4 |
| 883 | 8 | MINI GATE | 37 28.9 | 121 53.3 |
| ROUTE 4 | 5 | SEE CIRCLE ON MAP | 37 28.8 | 121 52.1 |
| 887 | 10 | WEST I.C.F. | 37 28.4 | 121 52.4 |



| DATE | BY | REVISION |
|------|----|----------|
| | | |
| | | |
| | | |
| | | |
| | | |

SITE 300 FIRETRAIL STREAM CROSSING MAP with BURN AREA INDEX

DATE: 02/10/22
 DRAWN BY: J. WOOLLETT
 CHECKED BY: J. WOOLLETT
 SCALE: AS NOTED

LAWRENCE LIVERMORE NATIONAL LABORATORY
 PLANT ENGINEERING

DATE: 02/10/22
 DRAWN BY: J. WOOLLETT
 CHECKED BY: J. WOOLLETT
 SCALE: AS NOTED

DATE OF LAST UPDATE: 2/22/2023