

## APPENDIX E – SUPPLEMENTAL INFORMATION

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APPENDIX E – SUPPLEMENTAL INFORMATION

APPENDIX E, PART 1

POINT REYES NATIONAL SEASHORE

DAILY RESOURCE AVAILABILITY

Date: \_\_\_\_\_

Fire Management Office .....415-464-5233

Point Reyes Law Enforcement-Public Safety Dispatch.....415-464-5170

Duty Officer (call in order listed):

Order	Name	Office Phone	Pager	Cell Phone	Home Phone
1	Roger Wong	415-464-5232	415-227-2943	xxx-xxx-xxxx	xxx-xxx-xxxx
2	Jordan Reeser	415-464-5235	xxx-xxx-xxxx	xxx-xxx-xxxx	xxx-xxx-xxxx
3	Jon Haag	415-464-5236	xxx-xxx-xxxx	xxx-xxx-xxxx	xxx-xxx-xxxx

Agency Administrator/Chief Park Ranger:

Colin Smith	415-464-5175	xxx-xxx-xxxx	xxx-xxx-xxxx	xxx-xxx-xxxx
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Today's Predicted Fire Danger (circle one):

LOW          MODERATE          HIGH          VERY HIGH          EXTREME

Today's Available Resources (Circle)

ENGINES

Patrol 6-2 Type 6          available          staffing          .....

Engine 3-1 Type 3          available          staffing          .....

HAZARDOUS FUELS REMOVAL MODULE

Crew #9 Type 2 IA          available          staffing          .....

SINGLE RESOURCES

Contact Duty Officer to confirm availability of positions and personnel listed in /ROSS.

COMMITTED RESOURCES	ACTIVE FIRES



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**APPENDIX E, PART 2****DISPATCH PROTOCOL FOR FIRES  
2006**

1. Gather information about the **FIRE (Initial)**:
  - Location.
  - Type (Structure, Wildland, Vehicle)
  - Name and Phone Number of the Reporting Party. **(911 call)**
  
2. Notify **WOODACRE**: 415-499-6717. Coordinate as to what equipment etc. is being dispatched. They will become the ordering point for both Initial Attack and Extended Attack fires.
  
3. Radio Notification of **FIRE AND LAW ENFORCEMENT PERSONNEL**:
  - **Three tones** followed by “**Wildland, Structure/ Vehicle Fire reported in the vicinity of \_\_\_\_\_.**” (Include any other available information). “**The following units respond.**”
    - **LEO units.**
    - **Engine(s) with staffing level.**
    - **Duty Officer.**
  
  - After two minutes, re-contact dispatched units. “**The Following Units Responding to \_\_\_\_\_, acknowledge.**” “**First unit on-scene will be the \_(name of the location)\_ I.C.**”
  
  - **Two tones** followed by “Following Units responding to “**Wildland, Structure/ Vehicle can cancel and return. Following units acknowledge \_(off the dispatch log).**”
  
  - **One tone** followed by “**All units responding to \_\_\_\_\_ additional information \_\_\_\_\_ (give details).**”
  
4. Contact **Roger Wong**: 415-464-5232 (work) and or **Jordan Reeser**: 415-464-5235 (work)  
 xxx-xxx-xxxx (cell) xxx-xxx-xxxx (cell)

**\*\*Duty Officer Pager Number 415-227-2943**

5. Notify Park Superintendent/ Chief Ranger/ Chief of Resource Management.
  
6. Information needed from **QUALIFIED** fire personnel upon arrival. (First Unit On-Scene, Initial Attack I.C.) **Prompt them if this information is not relayed to you.**
  - Specific Fire Location. (address, etc.)
  - Fire Size (acres).
  - Fuel Type.
  - Fire Behavior (smoldering, creeping, running, torching, crowning)
  - Direction of Fire Spread.
  - Values at Risk. (structures, etc.)
  - Best **SAFE** Access to the Area.
  - Request for Resources. (Type and Quantity)
  - Special Hazards (i.e. Downed powerlines, aerial hazards, Haz. Mat., etc.)

**Note:** By this time a **QUALIFIED I.C.** should be on scene, have assumed command, and should have been identified. Dispatch will make it known to all incoming and on-scene personnel an I.C. has been established, and convey similar information whenever a new person assumes command. All radio traffic should be relayed through that identified person. The I.C. will use the fire name followed by “IC” . During the incident, keep records of personnel and equipment requests and locations. **It is the understanding that Woodacre will handle all fire incidents, but request a copy of the Dispatch Log of the incident for Park records. Once obtained, send a copy of it to the FMO.**

August 24, 2006



**APPENDIX E, PART 3**

**WEATHER INFORMATION MANAGEMENT SYSTEM WALK-THROUGH  
(WIMS)**

Go to [\[not public information\]](#)

Click on WIMS

User Name: [not public information]

Password: [not public information]

Go to “fast path”, type in “didx” and hit “go”

Click on Station ID, enter date (@1730 today’s date, 0800 yesterday’s date), enter

**xxxxx = Barnabe** or enter xxxx in SIG to get all the data

xxxxx = Woodacre

xxxxx = Marin Civic Center

As stated in the Step-Up plan, **xxxxx is the first choice**. If it is not available, collect information from either of the others listed (xxxxx, xxxxx)

Scroll over to the BI column to retrieve fire danger information.

forecasted BI (OT column will be F, O = observed)

fuel model MSGC7A2A2 (grass fuels not MSGC7B2A2 = forest fuels)

**Step-Up Plan**

Low	Mod	High	Very High	Extreme
0-18	19-27	28-33	34-37	38+

Call to BVVC (5919) and dispatch (5170) before 0900.

On weekends, dispatch will retrieve info the night prior and leave a message at the VC since no fire staff is on duty and dispatch gets in at 0900.



**APPENDIX E, PART 4**

**NFDRS INDICES AND PARK VISITOR FIRE RESTRICTIONS**

**Fire Danger – How Will It Affect You?**

If the FIRE DANGER RATING is....	Is this type of use allowed??			
	Self-contained gas stoves	Park provided grills (designated picnic areas & campgrounds)	Self-contained charcoal barbecues (ex., Webers)	Beach open pit fires
<b>LOW</b>	YES	YES	YES	YES
<b>MODERATE</b>	YES	YES	YES	YES
<b>HIGH</b>	YES	YES	YES	NO
<b>VERY HIGH</b>	YES	NO	NO	NO
<b>EXTREME or RED FLAG WARNING</b>	YES	NO	NO	NO

- ✘ Fires shall at all times be maintained in a safe condition that does not threaten any person, natural or structural feature.
- ✘ Firewood gathering is prohibited.
- ✘ The possession or discharge of fireworks is prohibited.
- ✘ Never leave a fire unattended.
- ✘ Report all wildfires immediately.
- ✘ Extinguish all fires prior to departure.
- ✘ Ground fires are not permitted.
- ✘ Ask a park ranger for further information.



**APPENDIX E, PART 5.****FIRE STEP UP PLAN (SOP PR-37)**

A5639

June 30, 2005

POINT REYES STANDARD OPERATING PROCEDURE: PR-37

SUBJECT: FIRE STEP UP PLAN

The Point Reyes National Seashore fire step up plan will be in operation from approximately July 1 through November 15 each fire season. During years of unusual drought or wetness, starting and ending dates of the fire step up plan may be adjusted in writing by the Fire Management Office and approved by the Superintendent. As required in NPS Reference Manual #18, this plan will be revisited on an annual basis. Minor revisions may be made to the plan in writing during fire season if a revision better meets Seashore staffing needs. This will be determined by the Fire Management Officer and approved by the Superintendent.

The Point Reyes fire step up plan is based on the Burning Index (BI), which is one of the outputs from the National Fire Danger Rating System (NFDRS). Burning Index is defined as an estimate of potential difficulty of fire containment as it relates to the flame length at the head of a fire. For this fire step up plan, staffing levels determinations will be based on the BI in cured short annual grass (NFDRS Fuel Model A) based on weather observations from the Mount Barnabe weather station (station identification number 42308).

At approximately 0800 each day, the Point Reyes Fire Program Assistant will obtain the day's forecasted BI from the predicted NFDRS outputs from the Weather Information Management System (WIMS). On days when the Fire Program Assistant is unavailable due to prescribed burns, suppression activities, or on weekends, the Point Reyes park dispatcher will obtain the BI. If the park dispatcher is unavailable, the Visitors Center will obtain the BI from Marin County Fire Department by phone (499-6717). If there is no data available from the Mount Barnabe weather station, the BI should be obtained from observations from the Woodacre weather station (station identification number 42307). Fire danger ratings are derived based on the break down of the BI values listed below. Upon receipt of the Burning Index:

1. The Fire Program Assistant will relay the daily predicted fire danger to fire personnel, the park dispatcher, and the Visitor Center.
2. At 0900, the park dispatcher will broadcast the daily fire danger to all park personnel.
3. At 1600 the park dispatcher will announce if there will be extended staffing for red carded personnel (very high and extreme fire danger days only).

August 24, 2006

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If fire personnel are not available to staff engines on weekends, engine staffing will be the responsibility of law enforcement personnel. Cross training on the Point Reyes fire engines will be provided to these individuals at the earliest possible convenience.

Assistance on wildfire suppression, weekends or otherwise, should be requested from Marin County Fire Department.

If you have any questions or concerns concerning this step up plan please do not hesitate to contact me.

/s/

Don L. Neubacher  
Superintendent

Attachments:  
Fire Step Up Plan

Responsible:  
Superintendent

Distribution:  
All Employees

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FIRE DANGER RATING: LOW  
BURNING INDEX: 0-18

1. Fire personnel will work normal tour of duty hours and are required to have their fire packs and personal protective equipment immediately available. Fire personnel will monitor pertinent radio channels throughout the day.
2. Engine Crew personnel will perform apparatus inspections by 0815. Inoperative units are to be reported to the Fire Management Office.
3. The Engine Crew, Hazard Fuels Crew, and Prescribed Fire Specialist will status themselves via the Fire Program Assistant, with Marin County Fire by 0830.
4. If a high visitation period is determined to pose exceptional human caused risk of wildland fire (e.g., 4<sup>th</sup> of July weekend), the staffing class may be moved up to level 4 at the discretion of the Fire Duty Officer (per RM-18).
5. If the predicted or observed lightning activity level (LAL) is 4, 5, or 6, the staffing class may be moved up to level 4 at the discretion of the Fire Duty Officer (per RM-18).
6. If a “Red Flag Warning” has been issued by the National Weather Service, the staffing class will be moved up to level 5.
7. The following will be implemented on a “Low Fire Danger Day”:
  - The park entrance fire sign at Bear Valley will be changed to indicate “low Fire Danger” by Engine Crew personnel.
8. At 0900, the park dispatcher will broadcast the following message on a LOW FIRE DANGER RATING DAY:

“All park personnel standby for today’s fire danger information. Today is a low fire danger day. Staffing class is 1. There are no special staffing requirements or restrictions in effect.”

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FIRE DANGER RATING: MODERATE

## BURNING INDEX: 19-27

1. Fire personnel will work normal tour of duty hours and are required to have their fire packs and personal protective equipment immediately available. Fire personnel will monitor pertinent radio channels throughout the day.
2. Engine Crew personnel will perform apparatus inspections by 0815. Inoperative units are to be reported to the Fire Management Office.
3. The Engine Crew, Hazard Fuels Crew, and Prescribed Fire Specialist will status themselves via the Fire Program Assistant, with Marin County Fire by 0830.
4. If a high visitation period is determined to pose exceptional human caused risk of wildland fire (e.g., 4<sup>th</sup> of July weekend), the staffing class may be moved up to level 4 at the discretion of the Fire Duty Officer (per RM-18).
5. If the predicted or observed lightning activity level (LAL) is 4, 5, or 6, the staffing class may be moved up to level 4 at the discretion of the Fire Duty Officer (per RM-18).
6. If a “Red Flag Warning” has been issued by the National Weather Service, the staffing class will be moved up to level 5.
7. The following will be implemented on a “Moderate Fire Danger Day”:
  - The park entrance fire sign at Bear Valley will be changed to indicate “Moderate Fire Danger” by Engine Crew personnel.
8. At 0900, the park dispatcher will broadcast the following message on a MODERATE FIRE DANGER RATING DAY:

“All park personnel standby for today’s fire danger information. Today is a moderate fire danger day. Staffing class is 2. There are no special staffing requirements or restrictions in effect.”

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FIRE DANGER RATING: HIGH  
BURNING INDEX: 28-33

1. Fire personnel will work normal tour of duty hours and are required to have their fire packs and personal protective equipment immediately available. Fire personnel will monitor pertinent radio channels throughout the day.
2. Engine Crew personnel will perform apparatus inspections by 0815. Inoperative units are to be reported to the Fire Management Office.
3. The Engine Crew, Hazard Fuels Crew, and Prescribed Fire Specialist will status themselves via the Fire Program Assistant, with Marin County Fire by 0830.
4. If a high visitation period is determined to pose exceptional human caused risk of wildland fire (e.g., 4<sup>th</sup> of July weekend), the staffing class may be moved up to level 4 at the discretion of the Fire Duty Officer (per RM-18).
5. If the predicted or observed lightning activity level (LAL) is 4, 5, or 6, the staffing class may be moved up to level 4 at the discretion of the Fire Duty Officer (per RM-18).
6. If a “Red Flag Warning” has been issued by the National Weather Service, the staffing class will be moved up to level 5.
7. The following will be implemented on a “High Fire Danger Day”:
  - The park entrance fire sign at Bear Valley will be changed to indicate “High Fire Danger” by Engine Crew personnel.
  - High Fire Danger signs are to be posted by Engine Crew personnel on Bear Valley Road just west of the Highway One intersection, on Limantour Road just south of the Bear Valley intersection, and on Sir Francis Drake mid-way up Ottinger Hill.
  - Engine Crew personnel will flip down the “High Fire Danger – No Fires” signs on Highway One south of Olema, at Stewart’s Horse Camp, at the bottom of Drakes View Drive in Inverness Park, and at the Palomarin trailhead. (Point Reyes Bird Observatory can be contacted at 868-0655 to flip down the Palomarin sign.)

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- All beach fires will be banned within the Seashore. All other previously issued beach fire permits become null and void. Only self-contained gas stoves, self-contained charcoal barbecues (such as Webers) and the park-provided cooking grills will be permitted at designated campgrounds and picnic areas. Law Enforcement personnel will post any “No Fires” signs at campgrounds, trailheads, and appropriate beaches.

8. At 0900, the park dispatcher will broadcast the following message on a HIGH FIRE DANGER RATING DAY:

“All park personnel standby for today’s fire danger information. Today is a high fire danger day. Staffing class is 3. There are no special staffing requirements in effect.

All beach fires are banned within the Seashore. Only self-contained gas stoves, self-contained charcoal barbecues (such as Webers) and the park-provided cooking grills are allowed in designated campgrounds and picnic areas.”

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FIRE DANGER RATING: VERY HIGH  
BURNING INDEX: 34-37

1. Fire personnel will work normal tour of duty hours and are required to have their fire packs and personal protective equipment immediately available. Fire personnel will monitor pertinent radio channels throughout the day. Extended staffing of fire and other park red carded personnel will be determined by the Fire Duty Officer and relayed to the park dispatcher by 1600. Extended staffing will generally be until the end of the burning period, but can be modified at the discretion of the Fire Duty Officer. Funding for extended staffing will be established through the appropriate emergency account.
2. Red carded personnel from non-fire divisions working extended hours may be expected to report to either the Hagmaier Work Center or the Headquarters Fire Cache (check with the Fire Duty Officer) by 1645. (On duty Law Enforcement personnel are exempt from this requirement.) Personnel will be required to wear fire boots and Nomex, and have their fire packs and personal protective equipment with them.
3. Engine Crew personnel will perform apparatus inspections by 0815. Inoperative units are to be reported to the Fire Management Office.
4. The Engine Crew, Hazard Fuels Crew, and Prescribed Fire Specialist will status themselves via the Fire Program Assistant, with Marin County Fire by 0830.
5. If a “Red Flag Warning” has been issued by the National Weather Service, the staffing class will be moved up to level 5.
6. If the lightning activity level is observed at 4, 5, or 6, Fire Management will contact Marin County Fire to determine if either the Mount Barnabe or Mount Tamalpais lookouts have observed any smokes on park land. Engine Crew personnel will patrol for smokes at least once during the day or more often if determined by the Fire Duty Officer. Additional detection patrols may be requested from Law Enforcement personnel.
7. The following will be implemented on a “Very High Fire Danger Day”:
  - The park entrance fire sign at Bear Valley will be changed to indicate “High Fire Danger” by Engine Crew personnel.
  - High Fire Danger signs are to be posted by Engine Crew personnel on Bear Valley Road just west of the Highway One intersection, on Limantour Road just south of the Bear Valley intersection, and on Sir Francis Drake mid-way up Ottinger Hill.
  - Engine Crew personnel will flip down the “High Fire Danger – No Fires” signs on Highway One south of Olema, at Stewart’s Horse Camp, at the bottom of Drakes View Drive in Inverness Park, and at the Palomarin trailhead. (Point Reyes Bird Observatory can be contacted at 868-0655 to flip down the Palomarin sign.)
  - All fires will be banned within the Seashore. All other previously issued beach fire permits become null and void. Only self-contained gas stoves will be permitted at

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designated campgrounds and picnic areas. Law Enforcement personnel will post any “No Fires” signs at campgrounds, trailheads, and appropriate beaches.

8. At 0900, the park dispatcher will broadcast the following message on a VERY HIGH FIRE DANGER RATING DAY:

“All park personnel standby for today’s fire danger information. Today is a very high fire danger day. Staffing class is 4.

All fire personnel and red carded Law Enforcement personnel are required to have their fire packs and personal protective equipment immediately available. Other park red carded personnel who are available for extended staffing should contact the Fire Duty Officer by 1400.

All fires, including charcoal fires, are banned within the Seashore. Only self-contained gas stoves are allowed in designated campgrounds and picnic areas.”

9. At 1600, the park dispatcher will be broadcast the following message if there is to be extended staffing:

“All park personnel standby for a fire staffing announcement. There will be extended staffing for red carded employees until \_\_\_\_\_ hours. All non-fire personnel must have authorization from their supervisor prior to working extended hours. Red carded employees working extended hours will report to their assigned work place by 1645. Employees will be need to be wearing boots and Nomex and have their fire packs and personal protective equipment with them.”

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FIRE DANGER RATING: EXTREME  
BURNING INDEX: 38+

or a

RED FLAG WARNING

has been issued by the National Weather Service

1. Fire personnel will work normal tour of duty hours and are required to have their fire packs and personal protective equipment immediately available. Fire personnel will monitor pertinent radio channels throughout the day. Extended staffing of fire and other park red carded personnel will be determined by the Fire Duty Officer and relayed to the park dispatcher by 1600. Extended staffing will generally be until the end of the burning period, but can be modified at the discretion of the Fire Duty Officer. Funding for extended staffing will be established through the appropriate emergency account.
2. Red carded personnel from non-fire divisions working extended hours may be expected to report to either the Hagmaier Work Center or the Headquarters Fire Cache (check with the Fire Duty Officer) by 1645. (On-duty Law Enforcement personnel are exempt from this requirement.) Personnel will be required to wear fire boots and Nomex, and have their fire packs and personal protective equipment with them.
3. Engine Crew personnel will perform apparatus inspections by 0815. Inoperative units are to be reported to the Fire Management Office.
4. The Engine Crew, Hazard Fuels Crew, and Prescribed Fire Specialist will status themselves via the Fire Program Assistant, with Marin County Fire by 0830.
5. The Fire Duty Officer may request additional red-carded employees to staff apparatus with a minimum two of individuals.
6. Fire personnel will generally restrict their activities to station maintenance or other duties where they can meet a rapid response time. Physical fitness training will be cancelled for the day. Hazard Fuel Crew personnel will be available to staff engines as requested.
7. If the lightning activity level is observed at 4, 5, or 6, Fire Management will contact Marin County Fire to determine if either the Mount Barnabe or Mount Tamalpais lookouts have observed any smokes on park land. Engine Crew personnel will patrol for smokes at least once during the day or more often if determined by the Fire Duty Officer. Additional detection patrols may be requested from Law Enforcement personnel.
8. The following will be implemented on an “Extreme Fire Danger or Red Flag Day”:
  - The park entrance fire sign at Bear Valley will be changed to indicate “Extreme Fire Danger” by Engine Crew personnel.
  - Extreme Fire Danger signs are to be posted by Engine Crew personnel on Bear Valley Road just west of the Highway One intersection, on Limantour Road just south of the Bear Valley intersection, and on Sir Francis Drake mid-way up Ottinger Hill.

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- Engine Crew personnel will flip down the “High Fire Danger – No Fires” signs on Highway One south of Olema, at Stewart’s Horse Camp, at the bottom of Drakes View Drive in Inverness Park, and at the Palomarin trailhead. (Point Reyes Bird Observatory can be contacted at 868-0655 to flip down the Palomarin sign.)
- All fires will be banned within the Seashore. All other previously issued beach fire permits become null and void. Only self-contained gas stoves will be permitted at designated campgrounds and picnic areas. Law Enforcement personnel will post any “No Fires” signs at campgrounds, trailheads, and appropriate beaches.
- The Mount Vision Road will be closed to vehicle traffic. North District Rangers will implement the closure.
- Park employees will not use equipment such as chain saws, lawn mowers, weed eaters, welders, and other potential ignition sources outside of developed areas in the park. Developed areas are defined as areas where defensible space (30 foot clearance of vegetation) has been established. Exemptions to this must have mitigation measures in place pre-approved by the Fire Duty Officer and the Superintendent.
- A press release will be prepared and faxed to local media outlining the Seashore’s extreme fire danger and/or red flag warning status. On weekdays, the Interpretative Division will be responsible for the press release; on weekends the park dispatcher will be responsible.

9. At 0900, the park dispatcher will broadcast the following message on an EXTREME FIRE DANGER RATING and/or RED FLAG DAY:

“All park personnel standby for today’s fire danger information. Today is an extreme fire danger day (or red flag warning day or both, whichever it is). Staffing class is 5.

All fire personnel and red carded Law Enforcement personnel are required to have their fire packs and personal protective equipment immediately available. Other park red carded personnel who are available for extended staffing should contact the Fire Duty Officer by 1400.

All fires, including charcoal fires, are banned within the Seashore. Only self-contained gas stoves are allowed in designated campgrounds and picnic areas.

All park personnel are to refrain from activities such as welding or using chain saws or weed eaters outside of developed areas in the park.”

10. At 1600, the park dispatcher will be broadcast the following message if there is to be extended staffing:

“All park personnel standby for a fire staffing announcement. There will be extended staffing for red carded employees until \_\_\_\_\_ hours. All non-fire personnel must have authorization from their supervisor prior to working extended hours. Red-carded employees working extended hours will report to their assigned work place by 1645. Employees will be need to be wearing boots and Nomex and have their fire packs and personal protective equipment with them.”

**APPENDIX E, PART 6 -- BAY AREA NETWORK PARTS POCKETCARD**

**FIRE DANGER -- Bay Area Nat'l Parks**  
Maximum, Average, and 90th Percentile

**Fire Danger Area:**

- Bay Area National Parks
- Golden Gate & Pt. Reyes
- Bay Area Weather Stations

**Fire Danger Interpretation:**

**EXTREME** -- Use extreme caution  
**(Caution)** -- Watch for change  
**Moderate** -- Lower Potential, but always be aware

**Maximum** -- Highest Burning Index by day for 1981 - 2000  
**Average** -- shows peak fire season  
**90th Percentile** -- Only 10% of the days from 1981 - 2000 had an Burning Index above 28

**Local Thresholds - Watch out:** Combinations of any of these factors can greatly increase fire behavior:  
**20' Wind Speed** over 15 mph, **RH** less than 25%,  
**Temperature** over 80

**Years to Remember: 1982 1995**

**VISION \***  
**OLEMA WHITE GULT \***

**Remember what Fire Danger tells you:**

- ✓ Burning Index gives day-to-day fluctuations calculated from 2 pm temperature, humidity, wind, daily temperature & rh ranges, and precip duration.
- ✓ Wind is part of BI calculation.
- ✓ Watch local conditions and variations across the landscape -- Fuel, Weather, Topography.
- ✓ Listen to weather forecasts -- especially WIND.

**Past Experience:**  
 Fire Danger for the Bay Area National Parks- Golden Gate NRA and Pt. Reyes 1981-2000

Developed by NAGFDR--National Advisory Group for Fire Danger Rating



## **APPENDIX E, PART 7, DELEGATION FOR PARK FMO FROM SUPERINTENT PRNS**



### **United States Department of the Interior**

NATIONAL PARK SERVICE

Point Reyes National Seashore

Point Reyes Station, California 94956

#### **DELEGATION FOR PARK FIRE MANAGEMENT OFFICER FROM PARK SUPERINTENDENT, POINT REYES NATIONAL SEASHORE**

THE FIRE MANAGEMENT OFFICER FOR POINT REYES NATIONAL SEASHORE (INCLUDING NORTH DISTRICT LANDS – GOLDEN GATE NATIONAL RECREATION AREA) IS DELEGATED AUTHORITY TO ACT ON MY BEHALF FOR THE FOLLOWING DUTIES AND ACTIONS:

- PROVIDE DIRECTION, SUPERVISION AND LEADERSHIP TO THE PARK FIRE OPERATIONS STAFF OUTLINED IN THE ATTACHED ORGANIZATION CHART.
- COORDINATE WITH AND PROVIDE TIMELY AND ACCURATE REPORTS TO CHIEF RANGER ON ALL ACTIVITIES OF FIRE OPERATIONS PERSONNEL.
- RESPONSIBLE FOR FIRE BUDGET COORDINATION AND OVERSIGHT TO ASSURE THE FISCAL GUIDELINES ARE ADHERED TO WITHIN PARK FUNDING CRITERIA.
- ASSURE PERSONNEL PARTICIPATING IN PRESCRIBED FIRE AND WILDFIRE OPERATIONS ARE FULLY QUALIFIED.
- REQUEST AND OVERSEE DISTRIBUTION OF PREPAREDNESS, SEVERITY AND HAZARDOUS FUELS FUNDING FOR PARK FIRE OPERATIONS.
- ENSURE ALL PARK FIRE INCIDENTS ARE MANAGED IN A SAFE AND COST-EFFECTIVE MANNER.
- OVERSEE THE RECRUITMENT AND HIRING OF PARK FIRE OPERATIONS PERSONNEL.
- RESPONSIBLE FOR REPRESENTING POINT REYES NATIONAL SEASHORE IN ALL MATTERS RELATED TO THE WILDLAND AND PRESCRIBED FIRE MANAGEMENT WITH LOCAL COOPERATORS AND THE NORTHERN CALIFORNIA GEOGRAPHICAL AREA.

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- COORDINATE PARK FIRE PREVENTION ACTIVITIES WITH THE CHIEF OF INTERPRETATION, CHIEF OF RESOURCE MANGEMENT, AND ASSIST WITH APPROPRIATE PROGRAM DIRECTION AND GUIDANCE.
- PROVIDE FOR MANAGEMENT OF PROPERTY RECORDS FOR EQUIPMENT AND SUPPLIES PURCHASED WITH PROGRAM ALLOCATIONS.
- COORDINATE, PREPOSITION, SEND AND ORDER FIRE AND AVIATION RESOURCES IN RESPONSE TO CURRENT AND ANTICIPATED PARK, REGIONAL AND NATIONAL FIRE CONDITIONS.
- HIRE EMERGENCY FIREFIGHTERS IN ACCORDANCE WITH DEPARTMENT OF INTERIOR “PAY PLAN FOR EMERGENCY WORKERS.”
- MANAGE INCIDENT QUALIFICATIONS CERTIFICATION SYSTEM AND CERTIFY INCIDENT QUALIFICATION CARDS WITHIN THE PARK.
- ENSURE STAFF MEMBERS ARE TRAINED IN PARK SAFETY PROGRAM. CREATE AWARENESS THAT PUBLIC AND FIREFIGHTER SAFETY IS THE FIRST PRIORITY IN ANY FIRE ACTIVITY.

---

DON L. NEUBACHER  
PARK SUPERINTENDENT, POINT REYES NATIONAL SEASHORE

**APPENDIX E, PART 8**

2006-2007  
PRESEASON WILDLAND FIRE SUPPRESSION PLAN  
FOR  
POINT REYES NATIONAL SEASHORE AND  
GOLDEN GATE NATIONAL RECREATION AREA

**PARTICIPANTS:**

Bolinas Fire Protection District  
Inverness Fire Department  
Marin County Fire Department  
Stinson Beach Fire Department  
Muir Beach Fire Department  
Presidio Fire Department  
Southern Marin Fire Department

**PURPOSE:**

This plan is to facilitate the joint use of resources and identify areas of concern in the suppression of wildfires for the 2006 fire season.

**AREA DESCRIPTION:**

This plan covers National Park Service lands located with Marin County including Point Reyes National Seashore and Golden Gate National Recreation Area.

**SUPPRESSION TACTICS:**

The National Park Service priorities in the suppression of wildfires are the protection of life, property, and natural/cultural resources. In carrying out these priorities, the National Park Service is dedicated to minimize the impacts of fire suppression activities on its lands. **Minimum Impact Suppression Tactics** will be used whenever possible on all park lands. (See Appendix "A") **The Park Superintendent or his/her representative must approve the use of bulldozers, and only after all other tactics have been considered.**

**SPECIAL PROTECTION AREAS:**

Special Protection Areas include: Muir Woods National Monument, Philip Burton Wilderness (PRNSS), historic buildings, and habitat of federally listed plants and animals. It is important that the wildland fire suppression tactics implemented limit the impacts on these features.

\*A National Park Service Resource Advisor will be made available to help guide decision-making on all wildland fires occurring on federal lands.

**PROTECTION ORGANIZATION:**

The Incident Command System (I.C.S.) will be used on all fires located on National Park Service lands. A "**Unified Command**" structure will be established on all fires located

## APPENDIX E – SUPPLEMENTAL INFORMATION

on or threatening National Park Service lands and on fires with multiple jurisdictions. Each agency involved will provide a person capable of assuming the I.C. (Incident Commander) or Deputy I.C. responsibility. In the event that the National Park Service does not have a qualified incident commander on the fire, the I.C. position will be assumed by Marin County Fire and the National Park Service will provide an Agency Representative. A National Park Service representative must be requested for all wildfires burning on National Park Service lands **immediately after dispatch of initial attack resources.**

If a fire on National Park Service lands goes beyond extended attack, an incident management team will be ordered. **The National Park Service preference is that a federal interagency incident management team (I.M.T.) be ordered. No I.M.T. will assume command unless a Delegation of Authority has been signed and issued by the Park Superintendent, or his/ her representative.**

Prior to the beginning of fire season, each agency shall have the opportunity to update this plan, including boundary changes, telephone lists, common communication frequencies and designated persons.

**PROCEDURES:**

It is anticipated that there will be "RED FLAG" days during the year. The Fire Management Office will normally obtain notification of "RED FLAG" days daily directly from the National Weather Service web site. To ensure "RED FLAG" days are promptly notified, Marin County Fire will also notify the National Park Service of any predicted "RED FLAG" days. This notification will be done by Marin County Fire Dispatch faxing the daily fire danger rating and weather predictions to 415-331-6942 and to 415-663-8132 and 415-663-5182. On those days the Golden Gate Fire Management Office will notify Marin County and GGNRA Dispatch 415-561-5510 of any restrictions or closures at Golden Gate. The Point Reyes Fire Management Office will report restrictions or closures to Marin County and Point Reyes N.S. Dispatch 415-464-5170.

**FIRE REPORTING:**

Any wildfire occurring on lands identified in this plan will be immediately reported to Marin County Fire Department (415) 499-6717. Marin County Fire Department will immediately notify GGNRA Dispatch (415) 561-5656, or Point Reyes National Seashore Dispatch 415-464-5170 of any fires on respective National Park Service lands. GGNRA Dispatch will notify the Fire Management Officer Alex Naar at (415) 331-6374 (work), (xxx) xxx-xxxx(cell/pager), (xxx) xxx-xxxx(residence), or during work hours by radio call number "xxxx". Point Reyes National Seashore Dispatch will notify the Point Reyes Fire Management Officer Roger Wong at (415) 464-5232 (work), (xxx) xxx-xxxx (pager), (xxx) xxx-xxxx (cell), (xxx) xxx-xxxx (residence), or during working hours by radio call number "Seashore xxx" OR Fuels Management Specialist Jordan Reeser (Seashore xxx) at (415) 464-5235 (work), (xxx) xxx-xxxx (cell), (xxx) xxx-xxxx (residence). **In the event Marin County Fire Department is unable to reach a National Park Service Dispatcher, all attempts will be made to contact the Fire Management Officer directly. This is especially critical during after work hours.**

**WILDLAND FIRE INVESTIGATIONS:**

Marin County Fire Department will be the lead agency in providing for the investigation of all Wildland fires on National Park Service lands.

**RESTRICTIONS AND CLOSURES:**

Point Reyes National Seashore: There are no blanket fire restrictions at PRNSS. Fire restrictions and closures at PRNSS are based upon daily Fire Danger ratings obtained from the Burn Index (BI) calculated from Barnabe RAWS (WIMS ID #42308). See attached Fire Danger Rating Adjectives and associated campfire restrictions.

Golden Gate National Recreation Area: Fires are not permitted within the GGNRA except at Kirby Cove camping area, Battery Alexander camping area, and at Muir Beach. Any change in this policy will be communicated to Marin County Fire Department.

**SHARING OF EQUIPMENT/RESOURCES/REIMBURSEMENT:**

**Marin County Fire Department will be the single ordering point for resources requested for initial fires burning on National Park Service lands.** Each agency will provide resources as requested, provided such sharing does not impact the sending agency's ability to meet its protection obligations. Reimbursement shall be agreed upon in MOUs. If an incident extends longer than 24 hours on National Park Service lands the ordering point will be transferred to Mendocino National Forest.

**RESOURCE AVAILABILITY**

The following resources are available for initial attack at PRNSS area:

- (1) 5 person hand crew.
- (1) 3 person Type 3 Engine.
- (1) Type III I.C. Trainee. Jordan Reeser, Fuels Specialist
- (3) Type IV ICs. Roger Wong, Fire Management Officer  
Jon Haag, Engine Captain  
Bill Yohn, Fire Management Specialist

The following resources are available for initial attack at GGNRA Area:

- (1) 4 person Type 6 Engine.
- (1) Type IV I.C. Greg Jones, Engine Captain
- (1) Type III Information Officer Trainee. Mark Grupe'

The following resources are available for initial attack from Marin County Fire Dept.

- (1) Battalion Chief IA
- (6) Type III Engines IA (High Dispatch)/(4) Type III Engines IA (Medium Dispatch)
- (1) Bulldozer IA
- (2) Water Tender IA
- (1) 12 Person Crew

The following resources are available for initial attack Local Government:

- (1) Battalion Chief
- (1) Type III Engine IA, (6) more on request.
- (2) Water Tenders

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The following resources are available for initial attack CDF:

- (1) Agency Rep.
- (1) Air Tactical (CDF Air Attack 140 – Sonoma)
- (2) Air Tankers (CDF Airtanker 86 & 85 – Sonoma)
- (1) Helicopter (CDF Copter 104 – Boggs Mountain)
- (2) Type 1 State Hand Crews (Delta Conservation Camp)

Point Reyes Fire Management and GGNRA Fire Management will submit a daily fax to Marin County Fire Department with the availability of the above resources beginning June 26, 2006.

**COMMUNICATIONS:**

<u>Radio Frequencies:</u>	<u>TX Freq.</u>	<u>Tone</u>	<u>RX Freq.</u>	<u>Tone</u>
Fed Travel	xxx.xxx		xxx.xxx	
NIFC TAC 1	xxx.xxx		xxx.xxx	
NIFC TAC 2	xxx.xxx		xxx.xxx	
NIFC TAC 3	xxx.xxx		xxx.xxx	
Fed Shared Use 1	xxx.xxx		xxx.xxx	
Fed Shared Use 2	xxx.xxx		xxx.xxx	
Fed Air to Ground	xxx.xxx		xxx.xxx	
Point Reyes Direct	xxx.xxx	xxx.x	xxx.xxx	
Point Reyes Barnabe Repeat	xxx.xxx	xxx.x	xxx.xxx	xxx.x
Point Reyes Lighthouse Repeat	xxx.xxx	xxx.x	xxx.xxx	xxx.x
White Fire 1	xxx.xxx		xxx.xxx	
White Fire 2	xxx.xxx		xxx.xxx	
White Fire 3	xxx.xxx		xxx.xxx	
Blue Air	xxx.xxx		xxx.xxx	
Green Air	xxx.xxx		xxx.xxx	
Yellow Air	xxx.xxx		xxx.xxx	
Marin County Fire	xx.xx			
	xx.xx – Control 13			
	x			
	x			
	xx.xx – Control 6			
CALCORD	xxx.xxx		xxx.xxx	

## APPENDIX E – SUPPLEMENTAL INFORMATION

**TELEPHONE NUMBERS: (all area codes are 415)**

Golden Gate Fire Management Office	331-6374	
Golden Gate Fire Management Officer	331-6374,	xxx-xxxx(cell), xxx-xxxx(H)
Golden Gate Fire Management Office FAX	331-6942	
Golden Gate Engine Crew	331-6374,	xxx-xxxx(cell)
Golden Gate Dispatch	561-5510	
Presidio Fire Department	561-5135	
Presidio Fire Department FAX	561-4222	
Point Reyes Dispatch	464-5170	
Point Reyes Fire Management Office	464-5233	
Point Reyes Dispatch FAX	464-5182	
Point Reyes Fuels Specialist	464-5235	
Point Reyes Fuels Crew	464-5251	
Point Reyes Engine Crew	464-5252	
Marin County Fire Department	499-6717	
Bolinas Fire Protection District	868-1566	
Inverness Fire Department	669-7151	
Mill Valley Fire Department	388-4231	
Muir Beach Fire Department	380-9627	
Stinson Beach Fire Department	868-0622	
Southern Marin Fire Department	380-1100	

APPENDIX E – SUPPLEMENTAL INFORMATION

PRESEASON WILDLAND FIRE SUPPRESSION PLAN  
2006-2007  
OPERATING PLAN

MARIN COUNTY FIRE DEPARTMENT  
POINT REYES NATIONAL SEASHORE  
GOLDEN GATE NATIONAL RECREATION AREA

This Operating Plan has been approved by the following COUNTY and FEDERAL administrators and is authorized as an attachment to the PLAN.

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Ken Massucco, Fire Chief  
Marin County Fire Department

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Alex Naar, FMO  
Golden Gate National Recreation Area

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Roger Wong, FMO  
Point Reyes National Seashore

APPENDIX E – SUPPLEMENTAL INFORMATION

**APPENDIX E, PART 9 – MARIN EMERGENCY RADIO AUTHORITY (MERA) RADIO TALK GROUP MATRIX**

		MARIN EMERGENCY RADIO AUTHORITY (MERA) RADIO TALK GROUP MATRIX														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>A</b>	FD DSP Fire Dispatch	EMS EMS Dispatch	HOSP All Hospitals	MGH 1 Consult	MGH 2 Report	KSR 1 Consult	KSR 2 Report	NCH 1 Consult	NCH 2 Report	EMS 10 EMS Tactical	LG CLL Local Gvt Call	LG TLK Local Gvt Talk	PD CLL Police Call	PD TLK Police Talk	KNOX Knox box	911 Emergency
<b>B</b>	FD DSP Fire Dispatch	FDCNV1 Fire Car-to- car	FDCNV2 Fire Car-to- car	CPW 1 Marin Co. DPW	NPW 1 Novato DPW	SRPW 1 San Rafael DPW	CMPW Crite Madera DPW	LPW Larkspur DPW	RPW Ross DPW	SAPW San Anselmo DPW	FPW Fairfax DPW	SPW Sausalito DPW	MVPW Mill Valley DPW	TPW Tiburon DPW	BPW Belvedere DPW	911 Emergency
<b>C</b>	FD DSP Fire Dispatch	IC CLL ICS Call	ICS 3 ICS Tactical	ICS 4 ICS Tactical	ICS 5 ICS Tactical	ICS 6 ICS Tactical	ICS 7 ICS Tactical	ICS 8 ICS Tactical	ICS 9 ICS Tactical	ICS 10 ICS Tactical	ICS 11 ICS Tactical	ICS 12 ICS Tactical	ICS 13 ICS Tactical	ICS 14 ICS Tactical	ICS 15 ICS Tactical	911 Emergency
<b>D</b>	FD DSP Fire Dispatch	CTL D2 Novato Control	CTL D3 Novato Control	TAC D4 Fire Tactical	CMD D5 Fire Command	TAC D6 Fire Tactical	NY CMD Novato Command	TAC D8 Fire Tactical	TAC D9 Fire Tactical	NP Novato PD Dispatch	NP2 Novato PD Dispatch	NP T1 NPD Tac	FD CLL FD CLL	FD TLK FD TLK	NF AD	911 Emergency
<b>E</b>	FD DSP Fire Dispatch	CTL E2 San Rafael Control	CTL E3 San Rafael Control	TAC E4 Fire Tactical	CMD E5 Fire Command	TAC E6 Fire Tactical	SR CMD SR Command	TAC E8 Fire Tactical	TAC E9 Fire Tactical	SRP SRPD Dispatch	JL CLL Jail Call	COURT Marin SO Courts	FD CLL FD CLL	FD TLK FD TLK	SRF AD	911 Emergency
<b>F</b>	FD DSP Fire Dispatch	CTL F2 Central Control	CTL F3 Central Control	TAC F4 Fire Tactical	CMD F5 Fire Command	TAC F6 Fire Tactical	CA CMD Central Command	TAC F8 Fire Tactical	TAC F9 Fire Tactical	TCP TCPD Dispatch	SAP SAPD Dispatch	FP FPD Dispatch	FD CLL FD CLL	FD TLK FD TLK	CAF AD	911 Emergency
<b>G</b>	FD DSP Fire Dispatch	CTL G2 Southern Control	CTL G3 Southern Control	TAC G4 Fire Tactical	CMD G5 Fire Command	TAC G6 Fire Tactical	SA CMD Southern Command	TAC G8 Fire Tactical	TAC G9 Fire Tactical	SMP SMPD Dispatch	GNRA Golden Gate NRA	CHP CHP Dispatch	FD CLL FD CLL	FD TLK FD TLK	SAF AD	911 Emergency
<b>H</b>	FD DSP Fire Dispatch	CTL H2 Woodacre Control	CTL H3 Woodacre Control	TAC H4 Fire Tactical	CMD H5 Fire Command	TAC H6 Fire Tactical	WS CMD Western Command	TAC H8 Fire Tactical	TAC H9 Fire Tactical	SO Marin SO Dispatch	MMWD Marin Water	FD INF (Weather)	FD CLL FD CLL	FD TLK FD TLK	WSF AD	911 Emergency
<b>I</b>	FD DSP Fire Dispatch	EVNT 2 Special Events	EVNT 3 Special Events	EVNT 4 Special Events	EVNT 5 Special Events	EVNT 6 Special Events	EVNT 7 Special Events	EVNT 8 Special Events	EVNT 9 Special Events	PO MAC	EOC Emerg. Ops Center	OES County OES	CPR RG County Pk Rangers	OSD Open Space Dist.	NP T2 NPD Tac	911 Emergency
<b>M</b>	FD DSP Fire Dispatch	USAR M2	USAR M3	USAR M4	USAR M5	ICS 6 ICS Tactical	ICS 7 ICS Tactical	ICS 8 ICS Tactical	ICS 9 ICS Tactical	ICS 10 ICS Tactical	SAR 1 Search & Rescue	SAR 2 Search & Rescue	SAR 3 Search & Rescue	BAY CR Bay Cor Repeater	BAY CD Bay Cor Direct	911 Emergency



**APPENDIX E, PART 10, MINIMUM IMPACT SUPPRESSION TACTICS.  
MINIMUM IMPACT SUPPRESSION TACTICS (MIST)  
GUIDELINES**

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**CONCEPT**

The concept of Minimum Impact Suppression Tactics (MIST) is to use the minimum amount of forces necessary to effectively achieve the fire management protection objectives consistent with land and resource management objectives. It implies a greater sensitivity to the impacts of suppression tactics and their long-term effects when determining how to implement an appropriate suppression response. In some cases MIST may indicate cold trailing or wet line may be more appropriate than constructed hand line. In another example, the use of an excavator may be used rather than a dozer. Individual determinations will be dependent on the specific situation and circumstances of each fire.

MIST is not intended to represent a separate or distinct classification of firefighting tactics but rather a mind set of how to suppress a wildfire while minimizing the long-term effects of the suppression action. When the term MIST is used in this document it reflects the above principle.

Suppression actions on all wildfires within PRNS protected wilderness will be those having a minimum impact on the physical resources associated with each site. In so doing, the principle of fighting fire aggressively but providing for safety first will not be compromised.

The key challenge to the line officer, fire manager and firefighter is to be able to select the wildfire suppression tactics that are appropriate given the fire's probable or potential behavior. The guiding principle is always least cost plus loss while meeting land and resource management objectives. It is the second part of this statement which must be recognized more than it has in the past. Appreciation of the values associated with wilderness has been more difficult to articulate but, nevertheless, are important. As this recognition emerges, actions must be modified to accommodate a new awareness of them.

These actions, or MIST, may result in an increase in the amount of time spent watching, rather than disturbing, a dying fire to insure it does not rise again. They may also involve additional rehabilitation measures on the site that were not previously carried out.

When selecting an appropriate suppression response, firefighter safety must remain the highest concern. In addition, fire managers must be assured the planned actions will be effective and will remain effective over the expected duration of the fire.

## GOAL

The goal of MIST is to halt or delay fire spread in order to maintain the fire within predetermined parameters while producing the least possible impact on the resource being protected. These parameters are represented by the initial attack incident commander's size-up of the situation in the case of a new start or by the escaped fire situation analysis (EFSA) in case of an escaped fire.

It is important to consider probable rehabilitation need as a part of selecting the appropriate suppression response. Tactics that reduce the need for rehab are preferred whenever feasible.

## SUPPRESSION RESPONSIBILITY

As stated previously, safety is the highest priority. All action will be anchored to the standard fire orders and watch out situations. Safety will remain the responsibility of each person involved with the incident.

### Initial/Extended Attack

Incident Commander – To understand and carry out an appropriate suppression response, which will best meet the land management objectives of the area at the least cost plus loss. Insure all forces used on the fire understand the plan for suppressing the fire in conjunction with MIST.

Keep in communication with responsible fire management or line officer to insure understanding and support of tactics being used on the fire. Evaluate and provide feedback as to the tactical effectiveness during and after fire incident.

### Project Fire

Type 1/ Type 2 Incident Commander – To carry out instructions given by the responsible line officer both verbally and through the WFSA. Establish and nurture a close dialogue with the resource advisors assigned to the fire team. Review actions on site and evaluate for compliance with land line officer direction and effectiveness at meeting fire management protection objectives.

Responsible Line Officer –transmits the land management objectives of the fire area to the fire team and to define specific fire management protection objectives. Periodically review for compliance.

Resource Advisor – To insure the interpretation and implementation of WFSA and other oral or written line officer direction is adequately carried out. Provide specific direction and guidelines as needed. Participate at fire team planning sessions, review incident action plans and attend daily briefings to emphasize resource concerns and management's expectations. Provide assistance in updating WFSA when necessary. Participate in incident management team debriefing and assist in evaluation of team performance related to MIST.

## APPENDIX E – SUPPLEMENTAL INFORMATION

**IMPLEMENTATION GUIDELINES**

Following is a list of considerations for each fire situation.

**Hot-Line/Ground Fuels**

- Allow fire to burn to natural barriers.
- Use cold-trail, wet line or combination when appropriate.
- If constructed fire line is necessary, use only width and depth to check fire spread.
- Burn out and use low impact tools like swatter or 'gunny' sack.
- Minimize bucking and cutting of trees to establish fire line; build line around logs when possible.
- Use alternative mechanized equipment such as excavators, rubber tired skidders, etc. rather than tracked vehicles. Use high pressure type sprayers to clean equipment prior to assigning equipment to the incident command in order to reduce the potential to spread noxious weeds.
- Constantly re-check cold trailed fire line.

**Hot-Line/Aerial Fuels**

- Limb vegetation adjacent to fire line only as needed to prevent additional fire spread.
- During fire line construction, cut shrubs or small trees only when necessary. Make all cuts flush with the ground.
- Minimize felling of trees and snags unless they threaten the fire line or seriously endanger workers. In lieu of felling, identify hazard trees with a lookout or flagging.
- Scrape around tree bases near fire line if it is likely they will ignite.

**Mop-up/Ground Fuels**

- Do minimal spading; restrict spading to hot areas near fire line.
- Cold-trail charred logs near fire line; do minimal tool scarring.
- Minimize bucking of logs to extinguish fire or to check for hotspots; roll the logs instead if possible.
- Return logs to original position after checking and when ground is cool.

## APPENDIX E – SUPPLEMENTAL INFORMATION

- Refrain from making bone yards; burned and partially burned fuels that were moved should be returned to a natural arrangement.
- Consider allowing large logs to burn out. Use a lever rather than bucking to manage large logs that have to be extinguished.
- Use gravity socks in stream sources and/or a combination of water blivits and fold-a-tanks to minimize impacts to streams.
- Consider using infrared detection devices along perimeter to reduce risk.
- Personnel should avoid using rehabilitated fire lines as travel corridors whenever possible because of potential soil compaction and possible detrimental impacts to rehab work, i.e. water bars.

**Mop-up/Aerial Fuels**

- Remove or limb only those fuels which if ignited have potential to spread fire outside the fire line.
- Before felling consider allowing ignited tree/snag to burn itself out. Ensure adequate safety measures are communicated if this option is chosen.
- Identify hazard trees with a lookout or flagging.
- If burning trees/snag pose a serious threat of spreading fire brands, extinguish fire with water or dirt whenever possible. Consider felling by blasting when feasible. Felling by crosscut or chainsaw should be the last resort.
- Align saw cuts to minimize visual impacts from more heavily traveled corridors. Slope cut away from line of sight when possible.

**LOGISTICS****Campsite Considerations**

- Locate facilities outside of wilderness whenever possible.
- Coordinate with the Resource Advisor in choosing a site with the most reasonable qualities of resource protection and safety concerns.
- Evaluate short-term low impact camps such as coyote or spike versus use of longer-term higher impact camps.
- Use existing campsites whenever possible.
- New site locations should be on impact resistant and naturally draining areas such as rocky or sandy soils, or openings with heavy timber.

## APPENDIX E – SUPPLEMENTAL INFORMATION

- Avoid camps in meadows, along streams or on lakeshores. Camps should be located at least 200 feet from water resources or other sensitive areas.
- Consider impacts on both present and future users. An agency commitment to wilderness values will promote those values to the public.
- Lay out the camp components carefully from the start. Define cooking, sleeping, latrine, and water supply.
- Minimize the number of trails and ensure adequate marking.
- Consider fabric ground cloth for protection in high use areas such as around cooking facilities.
- Use commercial portable toilet facilities where available. If these cannot be used a latrine hole should be used.
- Select latrine sites a minimum of 200 feet from water sources with natural screening.
- Do not use nails in trees.
- Constantly evaluate the impacts which will occur, both short and long term.

**Personal Camp Conduct**

- Use “leave no trace” camping techniques.
- Minimize disturbance to land when preparing bedding site. Do not clear vegetation or trench to create bedding sites.
- Use stoves for cooking, when possible. If a campfire is used limit to one site and keep it as small as reasonable. Build either a “pit” or “mound” type fire. Avoid use of rocks to ring fires.
- Use down and dead firewood. Use small diameter wood, which burns down more cleanly.
- Don’t burn plastics or aluminum – “pack it out” with other garbage.
- Keep a clean camp and store food and garbage so it is unavailable to wildlife. Ensure items such as empty food containers are clean and odor free, never bury them.
- Select travel routes between camp and fire and define clearly.
- Carry water and bathe away from lakes and streams. Personnel must not introduce soaps, shampoos or other personal grooming chemicals into waterways.

## AVIATION MANAGEMENT

One of the goals of wilderness managers is to minimize the disturbance caused by air operations during an incident.

### Aviation Use Guidelines

- Maximize back haul flights as much as possible.
- Use long line remote hook in lieu of constructed helispots for delivery or retrieval of supplies and gear.
- Take precautions to insure noxious weeds are not inadvertently spread through the deployment of cargo nets and other external loads.
- Use natural openings for helispots and paracargo landing zones as far as practical. If construction is necessary, avoid high visitor use areas.
- Consider maintenance of existing helispots over creating new sites.
- Obtain specific instructions for appropriate helispot construction prior to the commencement of any ground work.
- Consider directional falling of trees and snags so they will be in a natural appearing arrangement.
- Buck and limb only what is necessary to achieve safe/practical operating space in and around the landing pad area.

### Retardant Use

During initial attack, fire managers must weigh the non-use of retardant with the probability of initial attack crews being able to successfully control or contain a wildfire. If it is determined that use of retardant may prevent a larger, more damaging wildfire, then the manager might consider retardant use even in sensitive areas. This decision must take into account all values at risk and the consequences of larger firefighting forces' impact on the land.

- Consider impacts of water drops versus use of foam/retardant. If foam/retardant is deemed necessary, consider use of foam before retardant use.
- Are there restrictions on certain types of retardant.

## APPENDIX E – SUPPLEMENTAL INFORMATION

**HAZARDOUS MATERIALS****Flammable/Combustible Liquids**

- Store and dispense aircraft and equipment fuels in accordance with National Fire Protection Association (NFPA) and Health and Safety Handbook requirements.
- Avoid spilling or leakage of oil or fuel, from sources such as portable pumps, into water sources or soils.
- Store any liquid petroleum gas (propane) downhill and downwind from firecamps and away from ignition sources.

**Flammable Solids**

- Pick up residual fusees debris from the fire line and dispose of properly.

**Fire Retardant/Foaming Agents**

- Do not drop retardant or other suppressants near surface waters.
- Use caution when operating pumps or engines with foaming agents to avoid contamination of water sources.

**FIRE REHABILITATION**

Rehabilitation is a critical need. This need arises primarily because of the impacts associated with fire suppression and the logistics that support it. The process of constructing control lines, transport of personnel and materials, providing food and shelter for personnel, and other suppression activities has a significant impact on sensitive resources regardless of the mitigating measures used. Therefore, rehabilitation must be undertaken in a timely, professional manner.

During implementation, the resource advisor should be available for expert advice and support of personnel doing this work as well as quality control.

**Rehabilitation Guidelines**

- Pick up and remove all flagging, garbage, litter, and equipment. Dispose of trash appropriately.
- Clean fire pit of unburned materials and fill back in.
- Discourage use of newly established trails created during the suppression effort by covering with brush, limbs, small diameter poles, and rotten logs in a naturally appearing arrangement.
- Replace dug-out soil and/or duff and obliterate any berms created during the suppression effort.

APPENDIX E – SUPPLEMENTAL INFORMATION

- If impacted trails have developed on slopes greater than six percent, construct waterbars according to the following waterbar spacing guide:

Trail Percent Grade	Maximum Spacing Ft.
6-9	400
10-15	200
15-25	100
25+	50

- Where soil has been exposed and compacted, such as in camps, on user-trails, at helispots and pump sites, scarify the top 2-4 inches and scatter with needles, twigs, rocks, and dead branches. It is unlikely that seed and fertilizer for barren areas will be appropriate, in order to maintain the genetic integrity of the area. It may be possible, depending on the time of year and/or possibility of a rainy period, to harvest and scatter nearby seed, or to transplant certain native vegetation.
- Blend campsites with natural surroundings, by filling in and covering latrine with soil, rocks, and other natural material. Naturalize campfire area by scattering ashes in nearby brush (after making sure any sparks are out) and returning site to a natural appearance.
- Where trees were cut or limbed, cut stumps flush with ground, scatter limbs and boles, out of sight in unburned area. Camouflage stumps and tree boles using rocks, dead woody material, fragments of stumps, bolewood, limbs, soil and fallen or broken green branches. Scattered sawdust and shavings will assist in decomposition and be less noticeable. Use native materials from adjacent, unimpacted areas if necessary.
- Remove newly cut tree boles that are visible from trails or meadows. Drag other highly visible woody debris created during the suppression effort into timbered areas and disburse. Tree boles that are too large to move should be slant cut so a minimal amount of the cut surface is exposed to view. Chopping up the surface with an axe or pulaski, to make it jagged and rough, will speed natural decomposition.
- Leave tops of felled trees attached. This will appear more natural than scattering the debris.

## APPENDIX E – SUPPLEMENTAL INFORMATION

- Consider -- if no other alternatives are available -- helicopter sling loading rounds and tops from a disturbed site when there has been an excessive amount of bucking, limbing and topping.
- Tear out sumps or dams, where they have been used, and return site to natural condition. Replace any displaced rocks or streambed material that has been moved. Reclaim streambed to its predisturbed state, when appropriate.
- Walk through adjacent undisturbed area and take a look at your rehab efforts to determine your success at returning the area to as natural a state as possible. Good examples should be documented and shared with others!

### DEMOBILIZATION

Because demob is often a time when people are tired or when weather conditions are less than ideal, enough time must be allowed to do a good job. When moving people and equipment, choose the most efficient and least impactful method to both the landscape and fire organization mission. An on-the-ground analysis of “How Things Went” will be important.

### POST-FIRE EVALUATION

Post-fire evaluation is important for any fire occurrence so management can find out how things went. Identify areas needing improvement, to formulate strategies and to produce quality work in the future. This activity is especially important in wilderness and like sensitive areas due to their fragility and inclination to long-term damage by human impacts.

Resource advisors and functional specialists such as wilderness rangers will be responsible for conducting the post-fire evaluation. They are the people who have the experience and knowledge to provide information required to make the evaluation meaningful and productive.

Post-fire evaluation by Burn Area Response Emergency Team will begin during the suppression effort. An emergency stabilization plan will be completed within 7 days of the date of fire containment per 620 DM 3.

### DATA COLLECTION/DOCUMENTATION/RECOMMENDATIONS

This phase will be completed by a review of the rehab plan and visit to the fire site as soon after demobilization as possible. An inventory of comps and helispots will be completed. This will also include an objective overview of other areas covered by the rehab plan.

Observations will be documented in a brief report to the line officer with a copy to the appropriate incident commander. In the report, the evaluator will include recommendations for ensuing fire suppression activities on similar lands. It is important that the evaluator recognize and commend the initial attack forces or overhead team for positive activities. Make special note of the extra efforts and sensitivity to suppression impacts.

## STANDARD FIRE ORDERS

- F** Fight fire aggressively but provide for safety first.
- I** Initiate all actions based on current and expected fire behavior.
- R** Recognize current weather conditions and obtain forecast.
- E** Ensure instructions are given and understood.
  
- O** btain current information on fire status.
- R** Remain in communication w/ crew members, your supervisor, & adjoining forces.
- D** Determine safety zones and escape routes.
- E** Establish lookouts in potentially hazardous situations.
- R** Retain control at all times.
- S** Stay alert, keep calm, think clearly, act decisively.

## WATCH OUT SITUATIONS

1. Fire not scouted and sized up.
2. In country not seen in daylight.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behavior.
5. Uninformed on strategy, tactics and hazards.
6. Instructions and assignments not clear.
7. No communication link with crew members/supervisor.
8. Constructing fire line without safe anchor point.
9. Building fire line downhill with fire below.
10. Attempting frontal assault on fire.
11. Unburned fuel between you and the fire.
12. Cannot see main fire, not in contact with anyone who can.
13. On a hillside where rolling material can ignite fuel below.
14. Weather is getting hotter and drier.
15. Wind increases and/or changes direction.
16. Getting frequent spot fires across line.
17. Terrain and fuels make escape to safety zone difficult.



## APPENDIX E, PART 11 – MINIMUM TOOL FLOW CHART

### Wilderness Minimum-Requirement Worksheet

#### Introduction

The Minimum Requirement Analysis is designed to assist program managers in making appropriate decisions affecting wilderness that are consistent with the Wilderness Act and National Park Service Management Policies.

The worksheet is divided into two parts; 1) the Minimum Requirement Analysis to determine whether the action is necessary and consistent with wilderness goals, and 2) the Minimum Tool Determination that selects methods and tools that minimize environmental and aesthetic impacts. These concepts flow from the Wilderness Act and NPS Management Policies:

...except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

- *Wilderness Act: Section 4(c)*

All management decisions affecting wilderness must be consistent with a minimum requirement concept ... When determining minimum requirement, the potential disruption of wilderness character and resources will be considered before, and given significantly more weight than economic efficiency and convenience. If a compromise of wilderness resource or character is unavoidable, only those actions that preserve wilderness character and/or have localized, short-term adverse impacts will be acceptable. ...the method used must clearly weigh the benefits and impacts of the proposal, document the decision-making process and be supported by an appropriate environmental compliance document.

- *NPS Management Policies: 6.3.5*

#### Purpose

The Minimum Requirement process is implemented as a two-part process:

1. A determination of whether or not a proposed action is appropriate or necessary for the administration of the area as wilderness and does not pose significant impact to the wilderness resource or character
2. If the project is appropriate and necessary in wilderness, the selection of management tools and methods that cause the least amount of impacts to the physical environment or wilderness character.

#### Procedure

Step 1 - Complete Part 1 (Minimum Requirement Analysis). If the project is consistent with the minimum wilderness requirement, proceed to step 2.

Step 2 – Complete the Minimum Tool Determination to select the methods, tools and techniques to implement the proposal with the least impact to wilderness resources and values.

## Minimum Requirement Analysis Worksheet Point Reyes National Seashore

Proposed Action:

Project Lead:

Date:

### PART A: Minimum Requirement (Should the action be done in wilderness)

**1**

IS THE ACTION AN EMERGENCY?

**YES**

Act according to  
established procedures

**NO**



Answer: Yes  No

Explain:

**2**

Does the Action conflict with legislation,  
wilderness goals or DFC?

**YES**

Do Not Undertake

**NO**



Answer: Yes  No

Explain:

**3**

Can the action be accomplished with less  
intrusive means?

**YES**

Do It

**NO**



Answer: Yes  No

Explain:

**4**

Can the action be accomplished outside of  
wilderness?

**YES**

Do it there

**NO**



Answer: Yes  No

Explain:

**5**

**Proceed to PART B**

**PART B: Minimum Tool (how the action should be done in wilderness)**

What is Proposed:

Location:

**When will the action occur:**

Start:

End:

Method 1

Method 2

Method 3

Method 4

Use of motorized equipment or mechanical transport

Use of non-motorized equipment or non-mechanical transport

Combination of Methods 1 & 2

Other methods

Use extra sheets if needed

**1**

Rational for Method

*(use additional sheets if needed)*

**2**

Impacts to wilderness resources and wilderness character

**3**

Impact Mitigations

*(use additional sheets if needed)*

Resources Environment

Social Experiential Character

Health Safety

=

\_\_\_\_\_  
Superintendent Concurrence

\_\_\_\_\_  
Date





## WILDLAND FIRE SITUATION ANALYSIS

**Wildland Fire Situation Analysis (WFSA) is a decision-making process in which the Agency Administrator or representative describes the situation, establishes objectives and constraints for the management of the fire, compares multiple strategic wildland fire management alternatives, evaluates the expected effects of the alternatives, selects the preferred alternative, and documents the decision. The format and level of detail required is dependent on the specific incident and it's complexity. The key is to document the decision.**

### WFSA INITIATION

**FIRE NAME**

**JURISDICTION(S)**

**DATE AND TIME INITIATED**

### WFSA COMPLETION/FINAL REVIEW

**THE SELECTED ALTERNATIVE ACHIEVED DESIRED OBJECTIVES ON (DATE/TIME):**

**THE SELECTED ALTERNATIVE DID NOT ACHIEVE THE DESIRED OBJECTIVES AND A NEW WFSA WAS PREPARED ON (DATE/TIME):**

**AGENCY ADMINISTRATOR OR REPRESENTATIVE SIGNATURE:**

## WFSA INSTRUCTIONS

### Section I. WFSA Information Page

*The Agency Administrator completes this page.*

- I.A. Jurisdiction(s): Assign the agency that have or could have fire protection responsibility, e.g., USFWS, Forest Service, BLM, etc.**
- I.B. Geographic Area: Assign the recognized "Geographic Coordination Area" in which the fire is located, e.g., Northwest, Northern Rockies, etc.**
- I.C. Unit: Designate the local administrative unit, e.g., Hart Mountain Refuge Area, Flathead Indian Reservation, etc.**
- I.D. WFSA #: Identify the number assigned to the most recent WFSA for this fire.**
- I.E. Fire Name: Self-explanatory.**
- I.F. Incident Number: Identify the agency number assigned to the fire, e.g., BOD 296, BNF 001.**
- I.G. Accounting Code: Insert the local unit's accounting code.**
- I.H. Date/Time Prepared: Self-explanatory.**
- I.I. Attachments: Check here to designate attachments used in the completion of the WFSA. "Other" could include data or models used in the development of the WFSA. Briefly describe the "other" items used.**

## I. WILDLAND FIRE SITUATION ANALYSIS

**A. JURISDICTION(S):**

**B. GEOGRAPHIC AREA:**

**C. UNIT(S):**

**D. WFSA #:**

**E. FIRE NAME:**

**F. INCIDENT #:**

**G. ACCOUNTING CODE:**

**H. DATE/TIME PREPARED:**

**I. ATTACHMENTS:**

- COMPLEXITY MATRIX/ANALYSIS<sup>1</sup>**
- RISK ASSESSMENT<sup>1</sup>**
- PROBABILITY OF SUCCESS<sup>1</sup>**
- CONSEQUENCES OF FAILURE<sup>1</sup>**
- MAPS<sup>1</sup>**
- DECISION TREE<sup>2</sup>**
- FIRE BEHAVIOR PROJECTIONS<sup>1</sup>**
- CALCULATIONS OF RESOURCE REQUIREMENTS<sup>1</sup>**
- OTHER (SPECIFY)**

<sup>1</sup> Required

<sup>2</sup> Required by the USFS

## **Section II. Objectives and Constraints**

***The Agency Administrator completes this page.***

### **II.A. Objectives: Specify criteria that should be considered in the development of alternatives.**

**Safety objectives for firefighters, aviation, and public must receive the highest priority, Suppression objectives must relate to resource management objectives in the unit resource management plan.**

**Economic objectives could include closure of all portions of an area, thus impacting the public, or impacts to transportation, communication and resource values.**

**Environmental objectives could include management objectives for airshed, water quality, wildlife, etc.**

**Social objectives could include any local attitudes toward fire or smoke that might affect decisions on the fire, safety, etc.**

**Other objectives might include legal or administrative constraints which would have to be considered in the analysis of the fire situation, such as the need to keep the fire off other agency lands, etc.**

### **II.B. Constraints: List constraints on wildland fire action. These could include constraints to designated wilderness, wilderness study areas, environmentally or culturally sensitive areas, irreparable damage to resources or smoke management/air quality concerns. Economic constraints such as public and Agency cost could be considered here.**

## II. OBJECTIVES AND CONSTRAINTS

### A. OBJECTIVES (must be specific and measurable):

1. **SAFETY:**  
**Public**

**Firefighter**

2. **ECONOMIC:**

3. **ENVIRONMENTAL:**

4. **SOCIAL:**

5. **OTHER:**

### B. CONSTRAINTS:

## Section III. Alternatives

**The FIRE MANAGER/and or INCIDENT COMMANDER complete(s) this page.**

- III.A. Wildland Fire Management Strategy:** Briefly describe the general wildland fire strategies for each alternative. Alternatives must meet resource management plan objectives.
- III.B. Narrative:** Briefly describe each alternative with geographic names, locations, etc., that would be used when implementing a wildland fire strategy. For example, "Contain within the Starvation Meadows' watershed by the first burning period".
- III.C. Resources Needed:** Resources listed must be reasonable to accomplish the tasks described in Section III.B. It is critical to also look at the reality of the availability of these needed resources.
- III.D. Estimated Final Fire Size:** Estimated final size for each alternative at time of containment.
- III.E. Estimated Contain/Control Date:** Estimates for each alternative shall be made based on predicted weather, fire behavior, resource availability and the effects of wildland fire management efforts.
- III.F. Cost:** Estimate all fire costs for each alternative. Consider mopup, rehabilitation, and other costs as necessary.
- III.G. Risk Assessment: Probability of success/Consequences of failure:** Describe probability as a % and associated consequences for success and failure. Develop this information from models, practical experience or other acceptable means. Consequences described will include fire size, days to contain, days to control, costs and other information such as park closures and effect on critical habitat. Include fire behavior and long-term fire weather forecasts to derive this information.
- III.H. Complexity:** Assign the complexity rating calculated in the Guide for Assessing Fire Complexity.
- III.I. Maps:** A map for each alternative must be prepared. The map shall be based on the "Probability of success/Consequences of Failure" and include other relative information.

<b>III. ALTERNATIVES</b>			
	<b>A</b>	<b>B</b>	<b>C</b>
<b>A. WILDLAND FIRE STRATEGY:</b>			
<b>B. NARRATIVE:</b>			
<b>C. RESOURCES NEEDED:</b> <b>HANDCREWS</b> <b>ENGINES</b> <b>DOZERS</b> <b>AIRTANKERS</b> <b>HELICOPTERS</b>			
<b>D. ESTIMATED FINAL FIRE SIZE:</b>			
<b>E. ESTIMATED CONTAIN/ CONTROL DATE</b>			
<b>F. COSTS:</b>			
<b>G. RISK ASSESSMENT:</b> <b>PROBABILITY OF SUCCESS/</b>  <b>CONSEQUENCES OF FAILURE</b>			
<b>H. COMPLEXITY:</b>			
<b>I. ATTACH MAPS FOR EACH ALTERNATIVE</b>			

## **Section IV. Evaluation of Alternatives**

**The Agency Administrator(s), FMO and/or Incident Commander(s) completes this page.**

**IV.A. Evaluation Process: Conduct an analysis for each element of each objective and each alternative. Objective shall match those identified in section II.A. Use the best estimates available and quantify whenever possible. Provide ratings for each alternative and corresponding objective element. Fire effects may be negative, cause no change or may be positive. Examples are: 1) a system which employs a "-" for negative effect, a "0" for no change, and a "+" for positive effect; 2) a system which uses a numeric factor for importance of the consideration (soils, watershed, political, etc.) and assigns values (such as -1 to +1, -100 to +100, etc.) to each consideration, then arrives at a weighted average. If you have the ability to estimate dollar amounts for natural resource and cultural values this data is preferred. Use those methods which are most useful to managers and most appropriate for the situation and agency. To be able to evaluate positive fire effects, the area must be included in the resource management plan and be consistent with prescriptions and objectives of the Fire Management Plan.**

**Sum Of Economic Values: Calculate for each element the net effect of the rating system used for each alternative. This could include the balance of: pluses (+) and minuses (-), numerical rating (-3 and +3), or natural and cultural resource values in dollar amounts. (Again resource benefits may be used as part of the analysis process when the wildland fire is within a prescription consistent with approved Fire Management Plans and in support of the unit's Resource Management Plan.)**

## IV. EVALUATION OF ALTERNATIVES

<b>A. EVALUATION PROCESS</b>	<b>A</b>	<b>B</b>	<b>C</b>
<b>SAFETY</b>  <b>Firefighter</b>  <b>Aviation</b>  <b>Public</b>			
<b>Sum of Environmental Values</b>			
<b>ECONOMIC</b>  <b>Forage</b>  <b>Improvements</b>  <b>Recreation</b>  <b>Timber</b>  <b>Water</b>  <b>Wilderness</b>  <b>Wildlife</b>  <b>Other (specify)</b>			
<b>Sum of Economic Values</b>			
<b>ENVIRONMENTAL</b>  <b>Air</b>  <b>Visual</b>  <b>Fuels</b>  <b>T &amp; E Species</b>  <b>Other (specify)</b>			
<b>Sum of Environmental Values</b>			
<b>SOCIAL</b>  <b>Employment</b>  <b>Public Concern</b>  <b>Cultural</b>  <b>Other (Specify)</b>			
<b>Sum of Social Values</b>			
<b>OTHER</b>			

## Section V. Analysis Summary

**The Agency Administrator(s), FMO and/or Incident Commander(s) complete this page.**

- V.A. Compliance with Objectives:** Prepare narratives that summarize each alternative's effectiveness in meeting each objective. Alternatives that do not comply with objectives are not acceptable. Narratives could be based on effectiveness and efficiency. For example: "most effective and least efficient", "least effective and most efficient", "or "effective and efficient". Or answers could be based on a two-tiered rating system such as "complies with objective" and "fully complies with or exceeds objective". Use a system that best fits the manager's needs.
- V.B. Pertinent Data:** Data for this section has already been presented and is duplicated here to help the Agency Administrator(s) confirm their selection of an alternative. Final Fire Size is displayed on page three, section III.D. Complexity is calculated in the attachments and displayed on page three, section III.H. Costs are displayed on page three, section III.F. Economic Values have been calculated and displayed on page four. Probability of Success/Consequences of Failure are calculated in the attachments and displayed on page three, section III.G.
- V.C. External and Internal Influences:** Assign information and data occurring at the time the WFSAs are signed. Identify the Preparedness Index (1 through 5) for the National and Geographic levels. If available, indicate the Incident Priority assigned by the MAC group. Designate the Resource Availability status. This information is available at the Geographic Coordination Center and needed to select a viable alternative. Designate "yes" indicating an up-to-date weather forecast has been provided to, and used by, the Agency Administrator(s) to evaluate each alternative. Assign information to the "other" category as needed by the Agency Administrator(s).

## Section VI. Decision

**Identify the alternative selected. Must have clear and concise rationale for the decision, and a signature with date and time. Agency Administrator(s) signature is mandatory.**

**V. ANALYSIS SUMMARY**

<b>ALTERNATIVES</b>	<b>A</b>	<b>B</b>	<b>C</b>
<b>A. COMPLIANCE WITH OBJECTIVES:</b>  <b>SAFETY</b> <b>ECONOMIC</b> <b>ENVIRONMENTAL</b> <b>SOCIAL</b> <b>OTHER</b>			
<b>B. PERTINENT DATA:</b> <b>FINAL FIRE SIZE</b> <b>COMPLEXITY</b> <b>COST</b> <b>RESOURCE VALUES</b> <b>PROBABILITY of SUCCESS</b> <b>CONSEQUENCES of FAILURE</b>			
<b>C. EXTERNAL/INTERNAL INFLUENCES:</b> <b>NATIONAL AND GEOGRAPHIC PREPAREDNESS LEVEL</b> _____ <b>INCIDENT PRIORITY</b> _____ <b>RESOURCE AVAILABILITY</b> _____ <b>WEATHER FORECAST (LONG-RANGE)</b> _____ <b>FIRE BEHAVIOR PROJECTIONS</b> _____			

**VI. DECISION**

**The selected alternative is:**

**RATIONALE:**

**AGENCY ADMINISTRATOR SIGNATURE** \_\_\_\_\_

**DATE/TIME** \_\_\_\_\_

## **Section VII. Daily Review**

**The Agency Administrator(s), or designate complete(s) this page.**

**The date, time and signature of reviewing officials are reported in each column for each day of the Incident. The status of Preparedness Level, Incident Priority, Resource Availability, Weather Forecast, and WFSA Validity is completed for each day reviewed. Ratings for the Preparedness Level, Incident Priority, Resource Availability, Fire Behavior, and Weather Forecast are addressed on page five, section V.C. Assign a “yes” under “WFSA Valid” to continue use of this WFSA. A “no” indicates this WFSA is no longer valid and another WFSA must be prepared or the original revised.**



## **Section VII. Daily Review**

**The Agency Administrator(s), or designate complete(s) this page.**

**The date, time and signature of reviewing officials are reported in each column for each day of the Incident. The status of Preparedness Level, Incident Priority, Resource Availability, Weather Forecast, and WFSA Validity is completed for each day reviewed. Ratings for the Preparedness Level, Incident Priority, Resource Availability, Fire Behavior, and Weather Forecast are addressed on page five, section V.C. Assign a “yes” under “WFSA Valid” to continue use of this WFSA. A “no” indicates this WFSA is no longer valid and another WFSA must be prepared or the original revised.**

## APPENDIX E, PART 13. Delegation of Authority

*Name of Incident Commander* is assigned as Incident Commander of the *Name of Incident*, Point Reyes National Seashore for the National Park Service, effective *Time and Date*.

The Incident Commander has full authority and responsibility for managing the fire suppression activities within the framework of the law and National Park Service policy and direction as provided by this office. The Resource Advisor will provide Resource Management Plans and other appropriate documents.

*Names of Resources Advisors and contact Information* are assigned as Resource Advisors. They or the Park Superintendent (or designate) will be consulted in situations where natural resource decisions or trade offs are involved unless life safety issues require immediate attention and those actions will be documented.

Specific direction and fire suppression priorities for the *Name of Incident* are as follows, and are in priority order:

1. Provide for firefighter and public safety.
2. Use of minimal impact techniques should be employed to reduce habitat damage. Use natural barriers and roads if possible for burnout operations.
3. Use of dozers or tractors requires approval of the Park Superintendent or their designate (resource advisors) prior to implementation.

*Include other Standards or conditions as needed.*

### Turn Back Standards

1. All *Name of Incident* contracts, agreements, bills, medical problems, equipment repairs, and fire cache re-supply shall be closed out prior to team being released.
2. Road or levee damage during suppression efforts will be repaired prior to the team's departure.
3. Fire perimeter mopped-up *Specify* and all lines checked for heat and integrity.
4. Rehabilitation Plan will be completed in Coordination with the Resource Advisor.
5. Fire perimeter mapped by GPS and loaded into the Refuges GIS Database.
6. Tort claims reviewed by Park Superintendent or their designate.

The Chief Ranger, Fire Program Manager, or their designate will represent the Park Superintendent on any occasion where Park Superintendent is not immediately available.

Park Superintendent, \_\_\_\_\_ Point Reyes National Seashore,

*Date and Time.* \_\_\_\_\_



APPENDIX E – SUPPLEMENTAL INFORMATION

**APPENDIX E, PART 14. Incident Complexity Analysis**

<b>Incident Complexity Analysis (Type 4, 5)</b>			
<b>Type 5 Incident</b>		<b>Yes</b>	<b>No</b>
1. Span of Control > 6 firefighting personnel			
2. Fire Suppression Containment Time > 4 hours (disregard if managing fire as a WFRB or implementing 'Confined' strategy).			
3. Fire intensity - flame length > 2 feet			
4. Public safety concerns (roads, urban interface, populated/congested areas, sightseers, etc.) Specify: _____			
5. Aviation – Any Tactical aviation resources assigned			
If Item # 1 is checked YES, classify incident as Type 4. If any two additional items are checked (2,3,4,5), this is a Type 4 incident. If decision has been made to stay at Type 5, document your rationale and discussion. If fire is Type 4 order IC if not qualified. TAKE ACTION TO THE LEVEL OF YOUR TRAINING AND QUALIFICATIONS UNTIL RELIEVED. If transition does take place, give a thorough briefing to incoming IC and make transfers of command official with dispatch and fireline personnel.			
IC Comments:		Date:	Time:
<b>Type 4 Incident</b>		<b>Yes</b>	<b>No</b>
1. Span of control > 5 resources			
2. Containment time – beyond first operation period hours (disregard if managing fire as a WFRB or implementing 'Confined' strategy).			
3. Fire Intensity – flame length > 4 feet			
4. Public safety concerns (roads, urban interface, populated/congested areas, sightseers, etc.) Specify: _____			
5. Aviation – any tactical aviation resources assigned			
If item #1 or item #2 are checked YES, classify incident as Type 3. If any two additional items are checked (3, 4, 5) this is a Type 3 Incident. If decision has been made to stay at Type 4, document your rationale and discussion. If fire is Type 3 order IC if not qualified. TAKE ACTION TO THE LEVEL OF YOUR TRAINING AND QUALIFICATIONS UNTIL RELIEVED. If transition does take place, give a thorough briefing to incoming IC and make transfers of command official with dispatch and fireline personnel.			
IC Comments :		Date:	Time:



APPENDIX E. SUPPLEMENTAL INFORMATION

**APPENDIX E, PART 15. PRNS INCIDENT ORGANIZER**

Point Reyes National  
Seashore



**Incident Organizer**

Fire Management

Incident Name	
Incident Number	
Fire Code	
Other Code	
Unit	

IC Time & Date	
IC Time & Date	

Containment Date & Time	
Control Date & Time	
Final Size	

Directions and Intent:

MOST INCIDENTS ONLY REQUIRE FILLING OUT THE FIRST FEW PAGES - i.e., TYPE 4 AND 5 INCIDENTS. (In these situations, fill out afterwards when doing your AAR.)

- Intended to provide the IC with a format and focal point to begin processing an incident that is emerging. (Start to plan the fight – delegate – instead of fighting the fight and possibly losing your situational awareness as IC.)
- Use until an Incident is out or operating on an IAP.
- Serves as an Incident Workbook used in conjunction with the Incident Response Pocket Guide, Redbook or Fireline Handbook.
- Red-blocked items are required to be filled in for 30-mile accident prevention (Forest Service).

IC Signature: \_\_\_\_\_

IC Signature: \_\_\_\_\_

APPENDIX E. SUPPLEMENTAL INFORMATION

<b>Initial Attack Fire Size-Up</b>											
Fire Name:			Fire Number			DOI:			USDA:		
IC Name:			State:								
Descriptive Location:											
*Arrival Date:			Time:								
*Legal:			Township			Range			Section(s)		
			Latitude			Longitude					
*Coordinates:			UTM:			E:			N:		
Reported by:											
*Estimated Size:			acres			Ownership:					
<b>Estimated Containment</b>			Date:			Time:					
<b>Estimated Control</b>			Date:			Time:					
Fire Investigator? <input type="checkbox"/> No <input type="checkbox"/> Yes, on order											
Resources Responding (use resource summary on next page to record this data):											
<b>Initial Fire Size-Up</b>											
*Are any structures threatened? <input type="checkbox"/> No <input type="checkbox"/> Yes - specify:											
Does the fire constitute any control problems? <input type="checkbox"/> No <input type="checkbox"/> Yes - specify:											
Are additional resources needed? <input type="checkbox"/> No <input type="checkbox"/> Yes - specify:											
*Hazard(s):											
*Spread Potential:			1. Low		2. Moderate		3. High		4. Extreme		
*Character of Fire:			1. Smoldering		3. Running		5. Torching		7. Crown/spotting		
			2. Creeping		4. Spotting		6. Crowning		8. Erratic		
*Slope at Head of Fire:			1. 0-25%		2. 26-40%		3. 41-55%		4. 56-75%		5. 76+%
Position on Slope:			1. Ridgetop		4. Middle 1/3 of slope		7. Valley bottom				
			2. Saddle		5. Lower 1/3 of slope		8. Mesa/Plateau				
			3. Upper 1/3 of slope		6. Canyon bottom		9. Flat or rolling				
*Fuel Type:			1. Grass		4. Coastal Scrub		7. Eucalyptus				
			2. Grass/brush		5. Bishop pine		8. Riparian Forest				
			3. Hardwood Forest		6. Douglas fir		9. Other (specify)				

<b>Radio Frequencies</b>	
<b>Net</b>	<b>Frequency</b>
<b>Command</b>	Rx
	Tx
<b>Support/Dispatch</b>	Rx
	Tx
<b>Air-to-Ground</b>	Rx
	Tx
<b>Air-to-Air</b>	Rx
	Tx
<b>Tac 1</b>	Rx
	Tx
<b>Tac 2</b>	Rx

APPENDIX E. SUPPLEMENTAL INFORMATION

**EXPECTATIONS:**

- **YOU ARE RESPONSIBLE FOR YOUR OWN SAFETY AND THOSE AROUND YOU.**
- You have the right to a safe workplace and assignments.
- If you don't understand an assignment, ask for clarification. **COMMUNICATE** within the chain of command. **Communicate. Coordinate** and **Cooperate.**
- You ARE paid to think. If you have a better way to do things, let's hear it. If you think what you are doing is stupid, then speak up. A supervisor has the responsibility to explain to you why what you are doing is meaningful and needed.

• **You are expected to exercise LCES everyday and in every situation.** Make it meaningful to you. **Remember your 10 Standard AND 18 Situations.**

• You are in a job where you will have to make decisions. You will be held accountable for your decisions. Be able to explain your rationale for your decision.

• You are a fire professional, you must be physically fit and mentally prepared to go to work. You can expect to complete arduous work under inclement conditions for long periods of time. Others are counting on you to carry your load, to show up to work on time and be a professional. If you have special needs for time off or a special event let your supervisor know far in advance.

• Your Mom does not work here. Don't expect anyone else to clean up after you. Keep your areas, projects and vehicles clean and organized.

• You have been hired to go to fires in and out of the Park and assist in other emergencies. We expect you to always have your gear, red card and taskbooks ready, and respond within a 3-5 minute getaway.

• We have the responsibility to ensure you have the latest trend and specific information available. There are information boards available to you. These include information on fuels, their **moistures**, and **weather forecasts** and **expected fire severity information.** **IT IS YOUR RESPONSIBILITY TO CHECK THIS INFORMATION DAILY.**

• We offer 3 hours of physical training time weekly. Due to fires or special circumstances you may not always be able to take PT time.

• **If you need help, ask for it. No one expects you to injure yourself.**

• Complete tailgate safety sessions every day and when your tasks change significantly from what you had been doing.

• **Exercise Situational Awareness**

• **USE SPOTTERS WHEN BACKING VEHICLES.**

**Size Up Information**

1. Fire Name
2. Legal Location (S, T, R)
3. Cause
4. Size (Acres or 10ths)
5. Aspect
6. Slope (%)
7. Rate of Spread/Direction
8. Flame Length
9. Winds (Spd/Dir)
10. Temp / RH
11. Hazards
12. Anticipated Fire Behavior and Spread
13. Needs

**General Information**

Weather is to be taken, recorded and called in hourly for spot weather forecasts:

- Temperature (Dry Bulb)
- Relative Humidity (Alt)
- Wind Direction/Speed
- Cloud Cover (%)
- Elevation
- Aspect

**Fire Size Classes (In Acres):**

- A = 0 - .25 ac
- B = .26- 9.9 ac
- C = 10 - 99.9
- D = 100 - 299.9
- E = 300 - 999.9
- F = 1000 - 4999.9
- G = 5000 +

- 1 Chain = 66 feet
- 1 Mile = 80 Chains
- 1 Mile = 1.6 Kilometers
- 1 Mile = 5280 feet
- 1 Acre = 10 Sq. Chains

**Fire Monitoring Info**

- Helispots near Fire (Lat/Long)
- Access to Fire
- Spike Camps near Fire
- Fuels Ahead of Fire
- Fuel Models
- Unusual Argmt/Loading
- Predicted Rate of Spread
- Smoke Production
- Smoke Dispersal
- Sensitive Features
- Critical Resource Values
- Review Trigger Points
- Review Mgmt Action Pts
- Additional Mitigation Necessary

Installation of HOBOS/Wx Stations  
Temp Gradient p/1000 ft Elev.  
Time Spot Wx Forecast Needed

**Other Information: LCES;**

- **Lookouts**
- **Communications**
- **Escape Routes**
- **Safety Zones**

**What frequencies will be used for intra crew communication and for inner crew posted Lookout be using.**

APPENDIX E. SUPPLEMENTAL INFORMATION

**OUT OF PARK/AREA FIRE ASSIGNMENTS (CHIEF OF PARTY DUTIES):**

FIRE NAME: \_\_\_\_\_ ORDER #: \_\_\_\_\_

Request #: \_\_\_\_\_ Position Ordered: \_\_\_\_\_

Request Date: \_\_\_\_\_ Request Time: \_\_\_\_\_

Report to Location: \_\_\_\_\_

**Order(s) Filled By:** \_\_\_\_\_

Directions: \_\_\_\_\_

Incident Phone: \_\_\_\_\_ Contact: \_\_\_\_\_

Est Time & Date of Departure: \_\_\_\_\_

Vehicle: \_\_\_\_\_ Beg Mi: \_\_\_\_\_ Ending Mi: \_\_\_\_\_

Release Date & Time: \_\_\_\_\_ Date/Time at Park: \_\_\_\_\_

**BEFORE LEAVING THE PARK:**

- Ensure you have a current Blanket Travel Authorization.
- If traveling in a Govt vehicle ensure it has a gas card.
- Recommend taking personal money (\$50) keep receipts.

- Ensure you have a CA and other state maps you will be traveling to.
- Stay together and communicate what will be the standard procedure to establish contact should you get separated.

**WHILE TRAVELLING:**

- Keep track of meals en-route to and from fire assignments.
- Separate out all travel time to and from the fire.
- Separate out all hazard time make note of hazard type and exposure time for wage employees. Show all breaks on timesheets.
- Check in with "Check-In" and "Timekeeping" when arriving at incident base. Turn in timesheets that you started when you left the Park. Tell timekeepers the fax number for your home unit (415) 868-8918 so that they can fax times to the FPA.
- Keep all receipts from your travel, turn them into the FPA upon return.
- Check in with the Park FMO or Duty Officer while in travel status, your location, any problems and your status and those assigned to you. (415-464-5243 FMO)
- Adhere to R&R guidelines (1 in 14) and 15/8 Driving regs.

**ON RETURNING TO THE PARK:**

- Turn in timesheets to the Fire Program Assistant.
- Complete a DI-1202 Fire Report (the RNP-1202 in this book should help you). Make sure your experience and those you were responsible for are recorded for the SACS.
- CLEAN VEHICLES, clarify when due back at work (R&R).

**PORE - FIRE MANAGEMENT EXTENSION & PHONE LISTING (415) 464-5100**

Point Reyes Fire Management Staff	Radio Call	Work Extension	Cell/Pager c/p	Residence
Davis, James Assistant engine foreman	xxx	415-464-5241	xxx-xxx-xxxx	xxx-xxx-xxxx
Haag, Jon Engine Foreman	xxx	415-464-5252	xxx-xxx-xxxx	xxx-xxx-xxxx
Jensen, Jim Crew 9 seasonal	xxx +last name	415-464-5241	xxx-xxx-xxxx	
Kruger, Brian Crew 9 Supervisor	xxx	415-464-5241	xxx-xxx-xxxx	xxx-xxx-xxxx xxx-xxx-xxxx cell
<b>Neubacher, Don Superintendent</b>	<b>xxx</b>	<b>464-1000</b>	<b>xxx-xxx-xxxx</b>	<b>xxx-xxx-xxxx</b>
Poinsot, Wendy Fire Program Planner		415-218-6551	xxx-xxx-xxxx	xxx-xxx-xxxx

## APPENDIX E. SUPPLEMENTAL INFORMATION

Reeser, Jordan Prescribed fire specialist	xxx	415-464-5251	xxx-xxx-xxxx p xxx-xxx-xxxx c	xxx-xxx-xxxx
Raelander, Wende Fire effects monitor	xxx	415-464-5286		xxx-xxx-xxxx
Thomas, Loren Fire program analyst	xxx	415-464-5240		
Wong, Roger Fire management officer	xxx	415-464-5243	xxx-xxx-xxxx p xxx-xxx-xxxx c	xxx-xxx-xxxx xxx-xxx-xxxx
Chapman, Jennifer Fire Information		415-464-5133		
FMO FAX	<b>415-868-1202</b>			
Fire Management Fax	<b>415-868-8918</b>			
<b>GOGA Fire Management</b>	<b>Radio Call</b>	<b>Work Extension</b>	<b>Cell/Pager c/p</b>	<b>Residence</b>
GGNRA General Number		415-331-6374 (tel) 415-331-6942 (fax)		
Grupe, Mark GIS Specialist		415-331-6374		
Naar, Alex FMO	xxxx	415-331-6374	xxx-xxx-xxxx	
Poinsot, Wendy Fire Program Planner		415-218-6551	xxx-xxx-xxxx	xxx-xxx-xxxx
Jones, Greg Engine Foreman				
Engine Tech 1				
Engine Tech 2				
Engine Tech 3				
<b>PORE Law Enforcement</b>	<b>Radio Call</b>	<b>Work Extension</b>	<b>Cell/Pager c/p</b>	<b>Residence</b>
Buehl, Rene Boating officer	xxx	415-464-5277	xxx-xxx-xxxx Safeboat patrol boat xxx-xxx-xxxx	
Conde, Gus L.E. Ranger	xxx	415-464-5275	xxx-xxx-xxxx	
Dombrowski, Bruce L.E. Ranger	xxx	415-464-5274	xxx-xxx-xxxx	
Gregorio, Angelina L.e. Ranger	xxx	415-464-5279	xxx-xxx-xxxx	
Habig Dan LE Ranger	xxx	415-464-5128	xxx-xxx-xxx	

Schifsky, David L.E. Ranger	xxx	415-464-5178	xxx-xxx-xxxx	
Smith, Collin Chief Ranger	xxx	415-464-5175	xxx-xxx-xxxx	
<b>PORE Fire GIS/ Ecologist</b>	<b>Radio Call</b>	<b>Work Extension</b>	<b>Cell/Pager c/p</b>	<b>Residence</b>
Alison Forrester	xxx	415-464-5200		
<b>PORE Dispatch</b>	<b>Radio Call</b>	<b>Work Extension</b>	<b>Cell/Pager c/p</b>	<b>Residence</b>
Fiske, Jeni, Griffin, Meg	799	415-464-5170		

APPENDIX E. SUPPLEMENTAL INFORMATION

MARIN County Fire Overhead	Radio Call	Work Extension	Cell/Pager c/p	Residence
Fire chief	XXXX	<b>Ken Massucco</b>	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Deputy chief	XXXX	<b>Rich Lopez</b>	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Battalion chief Training officer	XXXX	Brian Mueser	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Battalion chief A shift	XXXX	Steve Del La Montanaya	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Battalion chief C shift	XXXX	Tim Thompson	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Battalion chief B shift	XXXX	Ed Mestre	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Forester	XXXX	Kent Julin	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Fire Marshall	XXXX	Scott Alber	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Fire Captain, GIS	XXXX	Tim Walsh	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
Fire Captain, EMS	XXXX	Mike Giannini	XXX-XXX-XXXX XXX-XXX-XXXX	XXX-XXX-XXXX
<b>Marin County Stations</b>	<b>Radio Call</b>	<b>Work Extension</b>	<b>Station Captain</b>	<b>Fax Number</b>
Woodacre	XXXX XXXXXX XXXXXXXXXX	415-499-6717	Doug Cole	
Point Reyes	XXXX	415-663-1018	Ken Carter	XXX-XXX-XXXX
Tomales	XXXX	707-878-2464	Mark Brown	XXX-XXX-XXXX
Hicks Valley	XXXX XXXXXX	415-662-2503	Ken Finn	XXX-XXX-XXXX
Marin City	XXXX	415-499-7517	Bill Roberts	XXX-XXX-XXXX
Throckmorton	XXXX	415-388-5414	Frank Neer	XXX-XXX-XXXX

## APPENDIX E. SUPPLEMENTAL INFORMATION

Volunteer Fire Departments	Wildand engine	Phone Ch-chiefs	Fire Chief & Radio call	Fax Number
Inverness Volunteer Fire Dept	xxx	415-669-7151 415-669-1413ch	Jim Fox xxx	415-669-1010
Bolinas Volunteer Fire Dept	xxx	415-868-1566 415-868-2914 ch	Kevin Hicks xxx	415-868-2009
Stinson Beach Volunteer Fire Dept	xxx	415-868-0622 415-868-0859ch	K. Stevens xxx	
<b>Other Emergency Numbers</b>		<b>Phone Number</b>	<b>FAX</b>	
GGNRA Fire		<b>415-331-6374</b>	<b>415-331-6942</b>	
GGNRA Dispatch Info		<b>415-561-5505</b>	Alex Naar GGNR FMO xxx-xxx-xxxx cell	
GGNRA Dispatch Emergency		<b>415-551-4202</b>	GGNRA Engine foreman xxx-xxx-xxxx cell	
GGNRA Marin office		<b>415-331-1540</b>	Josh Rollins GGNRA xxx-xxx-xxxx cell	
Stinson Tower		<b>415-868-0942</b>	CA RNP E-61 xxx-xxx-xxxx C	
<b>HAZMAT RESPONSE</b>			CA RNP E-62 xxx-xxx-xxxx C	
CHEMTREC		1-800-424-900		
<b>EMERGENCY ROAD NUMBERS</b>	<b>PHONE NUMBER</b>	<b>Miscellany</b>		
Marin Sheriff	415-499-7284			
CHP	415-924-1100			
<b>AAA Towing Cheda 's</b>	415-663-1227	Gary Cheda xxx-xxx-xxxx home		
AAA towing	1-800-222-4357			
Caltrans	1-800-427-7623	xxx-xxx-xxxx		
Marin County Road Dept	415-499-7518			

## APPENDIX E. SUPPLEMENTAL INFORMATION

Helicopter Services	Phone Number
Cal Star	1-800-252-5050
CHP H30 Henry 1	707-257-0103
Life Flight (Stanford)	1-800-321-7820
Reach 1 (Santa Rosa)	707-575-6886
Reach 2 (Vacaville)	
PG&E 24Hr Assistance	1800-743-5000
<b>STATE PARKS</b>	<b>Phone Number</b>
Pantoll	415-388-2070
S.P. Taylor	415-488-9897
Tomales Bay	415-669-1140
China Camp	415-456-0766
Air Quality	1-800-435-7247
Air Quality Fax	415-928-0338
North ops	530-224-2466
Mendocino Dispatch	530-934-1155
Mendocino Fax	530-934-2326
NIFCC	
<b>Coast Guard</b>	415-399-3417 (SAR)
<b>Fish &amp; Game</b>	707-944-5500
F&G Marin area office	415-893-1580
F&G Angel Island	415-435-1915
F&G Boat operator	415-435-2055
F&G Northern Dispatch	916-358-1311

PORE - FIRE MANAGEMENT RADIO FREQUENCIES -- BANK 1

**Primary Interagency channel 10 White 2**

Channel	Label	Rx Freq	Rx CG	Tx Freq	Tx CG
1	PORE DIRECT	xxx.xxx		xxx.xxx	
2	PORE LIGHTHOUSE	1xx.xxx	xxx.x	xxx.xxx	xxx.x
3	PORE BARNABY	xxx.xxx	xxx.x	xxx.xxx	xxx.x
4	SPECIAL USE 1	xxx.xxx		xxx.xxx	
5	SPECIAL USE 2	xxx.xxx		xxx.xxx	
6	NIFC TAC 1	1xx.xxx		xxx.xxx	
7	NIFC TAC 2	1xx.xxx		xxx.xxx	
8	NIFC TAC 3	1xx.xxx		xxx.xxx	
9	WHITE 1	1xx.xxx		xxx.xxx	
10	WHITE 2	1xx.xxx	<b>Marin county</b>	xxx.xxx	<b>CDF</b>
11	WHITE 3	1xx.xxx		xxx.xxx	
12	CAL CORD	1xx.xxx		xxx.xxx	
13	USFS A2G	1xx.xxx		xxx.xxx	
14	NOAA WEATHER	1xx.xxx		xxx.xxx	

**BENDIX KING RADIO PROGRAMMING PROTOCOL**

**PROGRAMMING**

1. PRESS SWITCH AND HOLD **FCN**
2. ENTER **000000** PRESS **ENT**
3. ENTER CHANNEL NUMBER TO BE PROGRAMMED AND PRESS **ENT** THEN **FCN**
4. PRESS **CLR** TO REMOVE OLD RX FREQUENCY AND ENTER NEW RX FREQUENCY AND PRESS **ENT**
5. PRESS **CLR** TO REMOVE OLD RX CG FREQUENCY AND ENTER NEW RX CG FREQUENCY AND PRESS **ENT**
6. PRESS **CLR** TO REMOVE OLD TX FREQUENCY AND ENTER NEW TX FREQUENCY AND PRESS **ENT**
7. PRESS **CLR** TO REMOVE OLD TX CG FREQUENCY AND ENTER NEW TX CG FREQUENCY AND PRESS **ENT**
8. PRESS **FCN** REPEATEDLY TO REVIEW AND CORRECT IF NEEDED
9. REPEAT STEP 3 TO PROGRAM MORE CHANNELS OR TURN RADIO OFF AND BACK ON AGAIN TO USE

**CLONING**

1. PRESS SWITCH AND HOLD **FCN**
2. ENTER **000000** PRESS **ENT**
3. PRESS **FCN** AND \*
4. SCREEN FLASHES **PRGM**
5. PRESS **FCN**
6. IF COMPLETE, FLASHES **PRGRM**
7. IF INCOMPLETE, FLASHES **FAIL**
8. TO CLONE AGAIN, PRESS **FCN**



<b>Spot Weather Observation and Forecast Request</b>									
1. Name of Incident or Project		2. Control Agency:		<b>3. Request Made</b>					
				Date:		Time:			
4. Location: (Township, Range, Section)			5. Drainage Name:			6. Exposure / Aspect			
7. Size of Incident or Project (acres):			8. Elevation		9. Fuel Type:		10. Project On:		
			Top	Bottom					
11. Weather Conditions at Incident or Project or from RAWS:									
Place	Elev.	Observation Date/Time	Wind		Temperature		RH		Sky Condition
			Direction/Velocity	Eye-level	Dry bulb	Wet bulb	DP		
			20 ft						
The weather Forecaster will furnish information for									Date/Time:
Block 13									

<b>Risk Management</b>		<b>Decision Points</b>	
<p>Maintain your situational awareness. Ensure compliance with the 10 Standard Firefighting Orders and LCES. Continually monitor the 18 Situations and apply appropriate mitigation. As the incident progresses, continually re-evaluate your situation. When hazards are identified mitigate them or change tactics and or strategy.</p>			
<p>Refer to the green pages in the IRPG.</p>			
<b>YES</b>	<b>NO</b>	<b>Decision Points</b>	
		Controls in place for identified hazards? If no reassess your situation	
		Are selected tactics based on expected fire behavior? If no reassess your situation	
		Are the current strategy and tactics working? If no reassess your situation	
<b>Incident Complexity Analysis (Type 3, 4, 5)</b>			
<b>Fire Behavior</b>			
		<b>Yes</b>	<b>No</b>
	Fuels extremely dry and susceptible to long-range spotting or you are currently experiencing extreme fire behavior.		
	Weather forecast indicating no significant relief or worsening conditions.		
	Current or predicted fire behavior dictates indirect control strategy with large amounts of fuel within planned perimeter.		
<b>Firefighter Safety</b>			
	Performance of firefighting resources affected by cumulative fatigue.		
	Overhead overextended mentally and/or physically.		
	Communication ineffective with tactical resources or dispatch.		
<b>Organization</b>			



APPENDIX E. SUPPLEMENTAL INFORMATION

Values to be protected	
Urban interface; structures, developments, recreational facilities, or potential for evacuation.	
Fire burning or threatening more than one jurisdiction and potential for unified command with different or conflicting management objectives.	
Unique natural resources, special-designation areas, critical municipal watershed, T&E species habitat, cultural value sites.	
Sensitive political concerns, media involvement, or controversial fire policy.	

If you have checked "Yes" on 3 to 5 of the analysis boxes, consider requesting the next level of incident management support.

**Type 5 Characteristics:** (a) C&G Staff positions are not activated. (b) Resources vary from one to five firefighters. (c) Incident is normally contained rapidly during I.A. (d) A written action plan is not required.

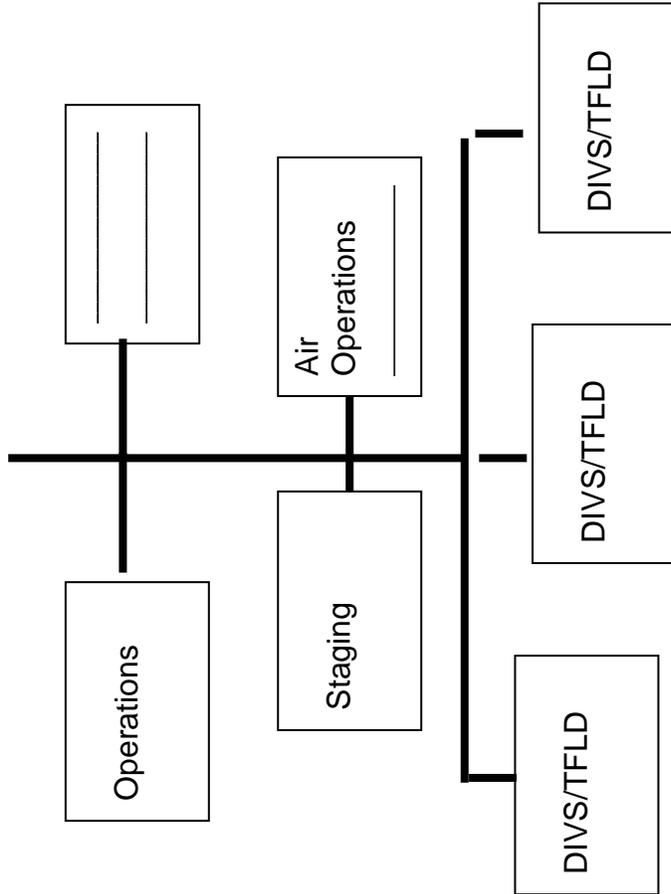
**Type 4 Characteristics:** (a) C&G Staff positions are not activated. (b) Resources vary from single Firefighter to several single resources or a single Task Force or Strike Team. (c) The incident is limited to one operational period in the control phase. Mop-up may extend into multiple periods. (d) A written plan is not required.

**Type 3 Characteristics:** (a) Some of the C&G Staff may be activated, as well as DIVS/GROP Supervisor and Unit leaders. (b) Resources vary from several single resources to several TFL's/STL's. (c) Incident may be separated into several divisions, but usually does not meet the DIVS/GROP Supervisor position for span or control. (d) May involve several burning periods prior to control, which requires a written action plan.

<b>Work Rest Ratio Documentation Worksheet</b>				
This worksheet is designed to help the IC document and calculate amount of rest required to meet the Work/Rest guidelines.				
<ul style="list-style-type: none"> <li>• For every 2 hours of work or travel provide 1 hour of sleep or rest.</li> <li>• IC must justify and document work shifts exceeding 16 hours and those that do not meet the 2:1 work/rest guidelines -- see below.</li> </ul>				
Date	Operational Period Start Time	Operational Period Stop Time	Total Hours Worked	Rest Time (document hours when employee or module rested)



<b>PWR Fire Contact Card</b>			
6/18/2004			
<b>Sue Husari</b> <b>FMO</b> w 510-817-1371 m xxx-xxx-xxx h xxx-xxx-xxx	<b>Bob Appling</b> <b>Fuels Specialist</b> w 360-696-7540 m xxx-xxx-xxxx Seattle w 206-220-4021 h xxx-xxx-xxxx	<b>Christy Neill</b> <b>Prescribed Fire Spec</b> m xxx-xxx-xxxx h xxx-xxx-xxxx	<b>Mary Beth Keifer</b> <b>Fire Monitoring</b> w 510-817-1504 m xxx-xxx-xxxx ho xxx-xxx-xxxx h xxx-xxx-xxxx
<b>John Kraushaar</b> <b>Deputy Regional FMO</b> w 510-817-1370 m xxx-xxx-xxx h xxx-xxx-xxx	<b>Paul Reeberg</b> <b>Fire Monitoring</b> w 510-817-1372 h xxx-xxx-xxxx	<b>Berkeley Yoshida</b> <b>Fire Fiscal Analyst</b> w 808-985-6100 m xxx-xxx-xxxx h xxx-xxx-xxxx	
<b>Robin Wills</b> <b>Fire Ecologist</b> w 510-817-1432 m xxx-xxx-xxxx h o xxx-xxx-xxxx h xxx-xxx-xxxx	<b>Rick Smedley</b> <b>Fire Planner</b> w 360-696-7545 m xxx-xxx-xxxx h xxx-xxx-xxxx	<b>Brenda Kauffman</b> <b>FPA</b> w 510-817-1373 m xxx-xxx-xxxx h xxx-xxx-xxxx	
<b>Corky Conover</b> <b>Fuels Specialist</b> w 559-565-3129 m xxx-xxx-xxxx h xxx-xxx-xxxx	<b>Nelson Siefkin</b> <b>Fire Archeologist</b> w 510-817-1502 m xxx-xxx-xxxx h xxx-xxx-xxxx	<b>Teresa Wright</b> <b>Incident Business Mngt</b> w 206-220-4069 m xxx-xxx-xxxx h xxx-xxx-xxxx	



<b>POINT REYES AREA RUN CARD</b>			
<b>DAILY FIRE DANGER</b>	<b>MARIN COUNTY RESPONSE ZONES</b>		
	<b>4A</b>	<b>4B</b>	<b>4C</b>
<b>LOW</b>	BC	BC	BC
	PREV	PREV	PREV
	E1564	E1564	E1564
	E1584	E1584	E1584
<b>MEDIUM</b>	E1562	E1562	BOL E265
	WT1592	WT1592	E1562
	E1566	E1566	WT1592
	E1568	E1568	E1566
	DZ1540	WT1496	E1568
	INV E380	DZ1540	DZ1540
	--	INV E380	STN WT890
<b>HI</b>	E1560	E1560	STN E861
	E1565	E1565	E1565
	--	--	E1560
<b>Additional CDF Resources (only MEDIUM and HIGH)</b>			
(1) AIR ATTACK SUPERVISOR	AA140		
(2) AIR TANKER TYPE 2	AT86 AT85		
(1) COPTER	H104		
(2) HANDCREW (INMATE) TYPE 1	DELTA CONSERVATION CAMP		



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## PRESCRIBED FIRE PLAN

**ADMINISTRATIVE UNIT(S):**

**PROJECT NAME:**

**PREPARED BY:**

Name & Qualification

**DATE:**

**TECHNICAL REVIEW BY:**

Name & Qualification

**DATE:**

**COMPLEXITY RATING:**

**APPROVED BY:**

Agency Administrator

**DATE:**

**DOI:** The approved Prescribed Fire Plan constitutes the authority to burn. No one has the authority to burn without an approved plan or in a manner not in compliance with the approved plan. Actions taken in compliance with the approved Prescribed Fire Plan will be fully supported. Personnel will be held accountable for actions taken that are not in compliance with elements of the approved plan regarding execution in a safe and cost-effective manner.

**AGENCY ADMINISTRATOR GO/NO-GO PRE-IGNITION APPROVAL CHECKLIST**

**PRESCRIBED FIRE NAME:**

Instructions: The Agency Administrator’s GO/NO-GO Pre-Ignition Approval is the intermediate planning review process (i.e. between the Prescribed Fire Complexity Rating System Guide and Go/No-Go Checklist) that should be completed before a prescribed fire can be implemented. The Agency Administrator’s Go/No-Go Pre-Ignition Approval evaluates whether compliance requirements, Prescribed Burn Plan elements, and internal and external notifications have been completed and expresses the Agency Administrator’s intent to implement the Prescribed Burn Plan. If ignition of the prescribed fire is not initiated prior to expiration date determined by the Agency Administrator, a new approval will be required.

YES	NO	KEY ELEMENT QUESTIONS
		Is the Prescribed Fire Plan up to date? <i>Hints: amendments, seasonality.</i>
		Have all compliance requirements been completed? <i>Hints: cultural, threatened and endangered species, smoke management, NEPA.</i>
		Is risk management in place and the residual risk acceptable? <i>Hints: Prescribed Fire Complexity Rating Guide completed with rational and mitigation measures identified and documented?</i>
		Will all elements of the Prescribed Fire Plan be met? <i>Hints: Preparation work, mitigation, weather, organization, prescription, contingency resources</i>
		Will all internal and external notifications and media releases be completed? <i>Hints: Preparedness level restrictions</i>
		Are key agency staff fully briefed and understand prescribed fire implementation?
		Other:

Recommended by: \_\_\_\_\_ Date: \_\_\_\_\_  
FMO/Prescribed Fire Burn Boss

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Agency Administrator

Approval expires (date): \_\_\_\_\_

APPENDIX E. SUPPLEMENTAL INFORMATION

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**PRESCRIBED FIRE GO/NO-GO CHECKLIST**

**PRESCRIBED FIRE NAME:**

<p><b>A.</b> Has the burn unit experienced unusual drought conditions or contain above normal fuel loadings which were not considered in the prescription development? If <b>NO</b> proceed with checklist., if <b>YES</b> go to item B.</p>	<p><b>YES</b></p>	<p><b>NO</b></p>
<p><b>B.</b> If <b>YES</b> have appropriate changes been made to the Ignition and Holding plan and the Mop Up and Patrol Plans? If <b>YES</b> proceed with checklist below, if <b>NO</b> STOP.</p>		

YES	NO	QUESTIONS
		Are ALL fire prescription elements met?
		Are ALL smoke management specifications met?
		Has ALL required current and projected fire weather forecast been obtained and are they favorable?
		Are ALL planned operations personnel and equipment on-site, available, and operational?
		Has the availability of ALL contingency resources been checked, and are they available?
		Have ALL personnel been briefed on the project objectives, their assignment, safety hazards, escape routes, and safety zones?
		Have all the pre-burn considerations identified in the Prescribed Fire Plan been completed or addressed?
		Have ALL the required notifications been made?
		Are ALL permits and clearances obtained?
		In your opinion, can the burn be carried out according to the Prescribed Fire Plan and will it meet the planned objective?

**If all the questions were answered "YES" proceed with a test fire. Document the current conditions, location, and results**

\_\_\_\_\_  
Burn Boss

\_\_\_\_\_  
Date

APPENDIX E. SUPPLEMENTAL INFORMATION

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<b>COMPLEXITY ANALYSIS SUMMARY</b>			
<b>ELEMENT</b>	<b>RISK</b>	<b>POTENTIAL CONSEQUENCE</b>	<b>TECHNICAL DIFFICULTY</b>
1. Potential for escape			
2. The number and dependence of activities			
3. Off-site Values			
4. On-Site Values			
5. Fire Behavior			
6. Management organization			
7. Public and political interest			
8. Fire Treatment objectives			
9. Constraints			
10. Safety			
11. Ignition procedures/methods			
12. Interagency coordination			
13. Project logistics			
14. Smoke management			

<b>COMPLEXITY RATING SUMMARY</b>	
	<b>OVERALL RATING</b>
<b>RISK</b>	
<b>CONSEQUENCES</b>	
<b>TECHNICAL DIFFICULTY</b>	
<b>SUMMARY COMPLEXITY DETERMINATION</b>	
<b>RATIONALE:</b>	

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>DESCRIPTION OF PRESCRIBED FIRE AREA</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>PHYSICAL DESCRIPTION</b>		
<b>PROJECT OR BURN UNIT BOUNDARY DESCRIPTION</b>		
<b>FUELS DESCRIPTION</b>		
<b>ON-SITE FUELS DATA</b>	<b>ADJACENT FUELS DATA</b>	
<b>DESCRIPTION OF UNIQUE FEATURES</b> (hazards, regulations, issues, constraints, etc. Examples may include: fences to protect, power poles, historical/cultural sites, threatened and endangered species or habitat, etc.)		

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>GOALS AND OBJECTIVES</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>PURPOSE AND RESOURCE MANAGEMENT GOALS:</b>		
<b>RESOURCE AND PRESCRIBED FIRE OBJECTIVES</b>		
<b>RESOURCE OBJECTIVES:</b>	<b>PRESCRIBED FIRE OBJECTIVES:</b>	
<b>OBJECTIVES ARE S.M.A.R.T.</b>	Specific Measurable Attainable Reasonable Time Related	
<b>CONSTRAINTS:</b>		

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>FUNDING</b>	<b>PROJECT NAME:</b>		
	<b>BURN UNIT NAME:</b>		
<b>PRESCRIBED FIRE PHASE:</b>	<b>COST:</b>	<b>FUNDING SOURCE:</b>	
<b>TOTAL OF ALL ESTIMATED COSTS:</b>			

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>PRESCRIPTION: ENVIRONMENTAL PARAMETERS</b>	<b>PROJECT NAME:</b>			
	<b>BURN UNIT NAME:</b>			
	<b>PRESCRIPTION COVERAGE: (Rx type &amp;/or ignition method and season should be covered when multiple Rx included)</b>			
<b>ENVIRONMENTAL PARAMETERS NEEDED TO PRODUCE THE DESIRED FIRE BEHAVIOR: Fill in applicable environmental parameters (weather, topography, fuels, etc.) for this fuel model. Separate environmental prescriptions may be needed for multiple fuel model conditions, seasonal differences and/or types of ignition (black lining, underburning, broadcast aerial ignition, etc.*</b>	<b>Fuels Within the Project or Burn Unit Boundary</b>		<b>Fuels Outside of The Project or Burn Unit Boundary</b>	
	<b>Low Fire Intensity</b>	<b>High Fire Intensity</b>	<b>Adjacent</b>	<b>Max. Spot Distance</b>
	<b>Environmental parameters discussion, or description of empirical evidence utilized:</b>			

\*Separate prescriptions pages should be added for multiple prescriptions and result in multiple complexity ratings and burn organizations.

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>PRESCRIPTION: FIRE BEHAVIOR PARAMETERS OUTPUTS</b>	<b>PROJECT NAME:</b>			
	<b>BURN UNIT NAME:</b>			
	<b>PRESCRIPTION COVERAGE:</b> (Rx type &/or ignition method and season should be covered when multiple Rx included)			
<b>DESCRIPTION OF PRESCRIBED FIRE BEHAVIOR CHARACTERISTICS NEEDED TO MEET THE RESOURCE MANAGEMENT OBJECTIVES STATED IN THE OBJECTIVES SECTION: Fill-in all applicable fire behavior parameters (flame lengths, rate of spread, scorch height, ERC, etc.) for this fuel model. Separate environmental prescriptions may be needed for multiple fuel model conditions, seasonal differences and/or types of ignition (black lining, underburning, broadcast, aerial ignition, etc.)*</b>	<b>Fire Behavior For Fuels Within the Project or Burn Unit Boundary</b>		<b>Fire Behavior For Fuels Outside the Project or Burn Unit Boundary</b>	
	<b>Low Fire Intensity</b>	<b>High Fire Intensity</b>	<b>Adjacent</b>	<b>Max. Spot Distance</b>
	Fire Behavior outputs may be derived from BEHAVE models, nomograms, or historical/empirical evidence. Include modeling and/or empirical evidence documentation as an appendix or in the fire behavior narrative.			
<b>Fire Behavior Narrative or description of empirical evidence:</b>				
[Empty space for narrative]				

\*Separate prescriptions pages should be added for multiple prescriptions and result in multiple complexity ratings and burn organizations.

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>SCHEDULING</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>IGNITION TIMEFRAMES:</b>		
<b>PROJECT DURATION:</b>		
<b>CONSTRAINTS:</b>		

<b>PRE-BURN CONSIDERATIONS</b>	<b>PROJECT NAME:</b>				
	<b>BURN UNIT NAME:</b>				
<b>ON AND OFF-SITE CONSIDERATIONS</b>					
<b>ON SITE:</b> <b>OFF SITE:</b>					
<b>METHOD AND FREQUENCY FOR OBTAINING WEATHER FORECAST(S):</b>					
<b>NOTIFICATIONS:</b>					
<b>Who</b>	<b>When*</b>	<b>Phone Number and/or e-mail</b>	<b>Responsibility</b>	<b>Date</b>	<b>Method</b>

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>PRESCRIBED FIRE BRIEFING CHECKLIST</b>	
<input type="checkbox"/>	<b>Burn Organization</b>
<input type="checkbox"/>	<b>Burn Objectives</b>
<input type="checkbox"/>	<b>Description of Burn Area</b>
<input type="checkbox"/>	<b>Expected Weather &amp; Fire Behavior</b>
<input type="checkbox"/>	<b>Communications</b>
<input type="checkbox"/>	<b>Ignition plan</b>
<input type="checkbox"/>	<b>Holding Plan</b>
<input type="checkbox"/>	<b>Contingency Plan</b>
<input type="checkbox"/>	<b>Wildfire Conversion</b>
<input type="checkbox"/>	<b>Safety</b>
<p>The Prescribed Fire Burn Boss, or designee, will ensure that any new personnel arriving to the prescribed fire receives a briefing prior to assignment.</p>	

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>ORGANIZATION AND EQUIPMENT</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<p>Specify the minimum required implementation organization to meet the capabilities by position, equipment, and the supplies needed for the prescribed fire until declared out. Different organizations may be identified for different stages of implementation (i.e. holding v. mop-up and patrol, different ignition operations, different prescriptions).</p>		
<b>CHANGES TO ORGANIZATION DURING IMPLEMENTATION:</b>		
<p>Any changes to the organization during implementation must be documented. These are changes that may reflect assignments to other personnel not changes to the capabilities, equipment or supplies which would require an amendment.</p>		



APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>PUBLIC, PERSONNEL SAFETY</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>GENERAL PUBLIC AND PERSONNEL SAFETY MESSAGE:</b>		
<b>SPECIFIC SAFETY DISCUSSION INCLUDING UNIQUE HAZARDS AND CONCERNS:</b>		

Final Draft July 15, 2005

<b>EMERGENCY MEDICAL PLAN</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>EMERGENCY FACILITIES:</b>		
<b>EMERGENCY EVACUATION:</b>		
<b>MEDICAL EMERGENCY PROCEDURES:</b>		
<b>DIRECTIONS FROM NEAREST MEDICAL FACILITY TO PROJECT VIA GROUND:</b>		

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>TEST FIRE</b>	<b>PROJECT NAME:</b>				
	<b>BURN UNIT NAME:</b>				
<b>PLANNED LOCATION &amp; SPECIFIC INSTRUCTIONS:</b>					
<b>BURN DAY DOCUMENTATION</b>					
<b>WEATHER CONDITIONS ONSITE:</b>			<b>RESULTS OF TEST FIRE:</b>		
<b>Does the test fire meet prescription parameters?</b>	<b>YES</b>		<b>NO</b>		
<b>COMMENTS:</b>					

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>IGNITION PLAN</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>NARRATIVE FOR IGNITION PLAN:</b>		
<p>METHOD(S)*:</p> <p>TECHNIQUES:</p> <p>SEQUENCES:</p> <p>ANTICIPATED PATTERNS:</p>		
<p>If aerial ignition (or other aerial operations) is planned, also cover aviation operations, organization, and safety. If a specific administrative or agency aerial ignition plan exists, attach to the prescribed fire plan</p>		

\*Multiple prescriptions may require identifying and developing multiple ignition organizations and implementation instructions.

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>HOLDING PLAN</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>GENERAL PROCEDURES NARRATIVE FOR PRESCRIBED FIRE HOLDING:</b>		
<b>CRITICAL HOLDING POINTS AND MITIGATION ACTIONS:</b>		
Critical holding points and safety zones will be identified on the project map		

<b>PRESCRIBED FIRE MOP-UP &amp; PATROL</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>GENERAL PROCEDURES NARRATIVE FOR PRESCRIBED FIRE MOP-UP AND PATROL:</b>		
<b>PRESCRIBED FIRE DECLARED OUT BY:</b>		

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>CONTINGENCY PLAN</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>TRIGGER POINTS:</b>		
Determine trigger points that indicate when additional holding resources and actions are needed to ensure the prescribed fire stays within prescription.		
<b>ACTIONS NEEDED:</b>		
Describe actions to be taken to ensure the prescribed fire stays within prescription.		
<b>MINIMUM RESOURCES AND MAXIMUM RESPONSE TIME(S):</b>		
Describe personnel needed to ensure the prescribed fire stays within prescription. Plans may identify different levels of contingency staffing needed for different stages of the burn, ignition through patrol. Verify availability of identified contingency resources on day of implementation.		

If contingency resources availability falls below plan levels for that stage of the burn, actions must be taken to secure operations until identified contingency resources are replaced.

With the ordering and/or deployment of contingency resources, the burn boss will notify the Agency Administrator through the appropriate chain of command.

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>WILDFIRE CONVERSION</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<p>A prescribed fire must be declared a wildfire by those identified in the plan when that person(s) determines that the contingency actions have failed or are likely to fail and cannot be mitigated within the next burning period by on-site holding forces and any listed contingency resources. In addition, an escaped prescribed fire must be declared a wildfire when the fire has spread outside the project boundary, or is likely to do so and cannot be contained within the next burning period.</p>		
<b>WILFIRE DECLARED BY:</b>		
Who will make the decision that the fire has escaped		
<b>IC ASSIGNMENT:</b>		
Identify who will be the IC		
<b>NOTIFICATIONS:</b>		
Identify the notifications to be made and who will make them.		
<b>EXTENDED ATTACK ACTIONS AND OPPORTUNITIES TO AID IN SUPPRESSION EFFORTS:</b>		

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>SMOKE MANAGEMENT AND AIR QUALITY</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>COMPLIANCE:</b>		
Describe how the project will comply with local community, County, State, Tribal, and Federal air quality regulations.		
<b>IMPACTED AREAS:</b>		
Identify Class I air sheds, restricted areas, non-attainment areas (designated areas), and population centers that may be impacted.		
<b>SENSITIVE FEATURES AND RECEPTORS:</b>		
<b>MITIGATION STRATEGIES AND TECHNIQUES TO REDUCE IMPACTS (If Applicable):</b>		

APPENDIX E. SUPPLEMENTAL INFORMATION

Final Draft July 15, 2005

<b>MONITORING</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>MONITORING:</b>		
Describe the monitoring that will be required for the prescribed fire. At a minimum specify the weather, fire behavior and fuels information (forecast and observed) and smoke dispersal monitoring required during all phases of the project and the procedures for acquiring it, including who and when.		

<b>POST-BURN ACTIVITIES</b>	<b>PROJECT NAME:</b>	
	<b>BURN UNIT NAME:</b>	
<b>POST-BURN REPORT:</b>		
Prescribed fire reporting will include: burn day conditions, fire behavior, smoke dispersal, and first order fire effects.		
<b>OTHER:</b>		
Describe other post-burn activities that must be completed. This may include: safety mitigation measures, and rehabilitation needs including those as a result of pre-burn activities undertaken.		



## HAZARD REDUCTION FIRES

**Please Print Legibly**

### BURNER AND BURN SITE INFORMATION

Property Owner(s):		Date:
Location (Street Address):		Tel: ( )
City:	County:	Planned burn dates:
Name of Person Setting the Fire if different:		

### SPECIFIC TYPE(S) OF MATERIAL TO BE BURNED

Natural Vegetation Cleared From Around Buildings or Structures: (PRC Section 4291-related)	Quantity: ( ) Yd <sup>3</sup> or ( ) Tons
Natural Vegetation Cleared From Other Areas on Property: (Unrelated to PRC Section 4291)	Quantity: ( ) Yd <sup>3</sup> or ( ) Tons

**Fires must be set or allowed by the public fire official having jurisdiction. Compliance with Regulation 5 does not relieve a person of the responsibility to know and comply with any other applicable rule, regulation, or law governing the use of fire.**

### BURN AUTHORIZATION (if required by local fire agency)

Authorizing Public Fire Official:	Tel: ( )
Title:	Date Authorized:
Authorizing Fire Agency:	

**Emergency Waivers (This section should only be completed by an authorizing public fire official to grant an emergency waiver, pursuant to Regulation 5-404.)**

5-401.6 Hazardous Material – See Regulation 5 for definition.

Authorizing Public Fire Official: Tel: ( )

*This notification form is **not** an application for a permit. The District does **not** require a permit in order to burn. You are required to notify the District prior to burning by submitting this form. You will **not** receive a response.*

**By submitting this notification, I understand and acknowledge the restrictions set forth for a Hazardous Material fire as defined in BAAQMD Regulation 5-208, "Hazardous Material."**

Name: Date:

SEE BACK OF FORM FOR INSTRUCTIONS



APPENDIX E, PART 18

FMU MAPS  
OF PAST AND PROPOSED  
FIRE MANAGEMENT PROJECTS

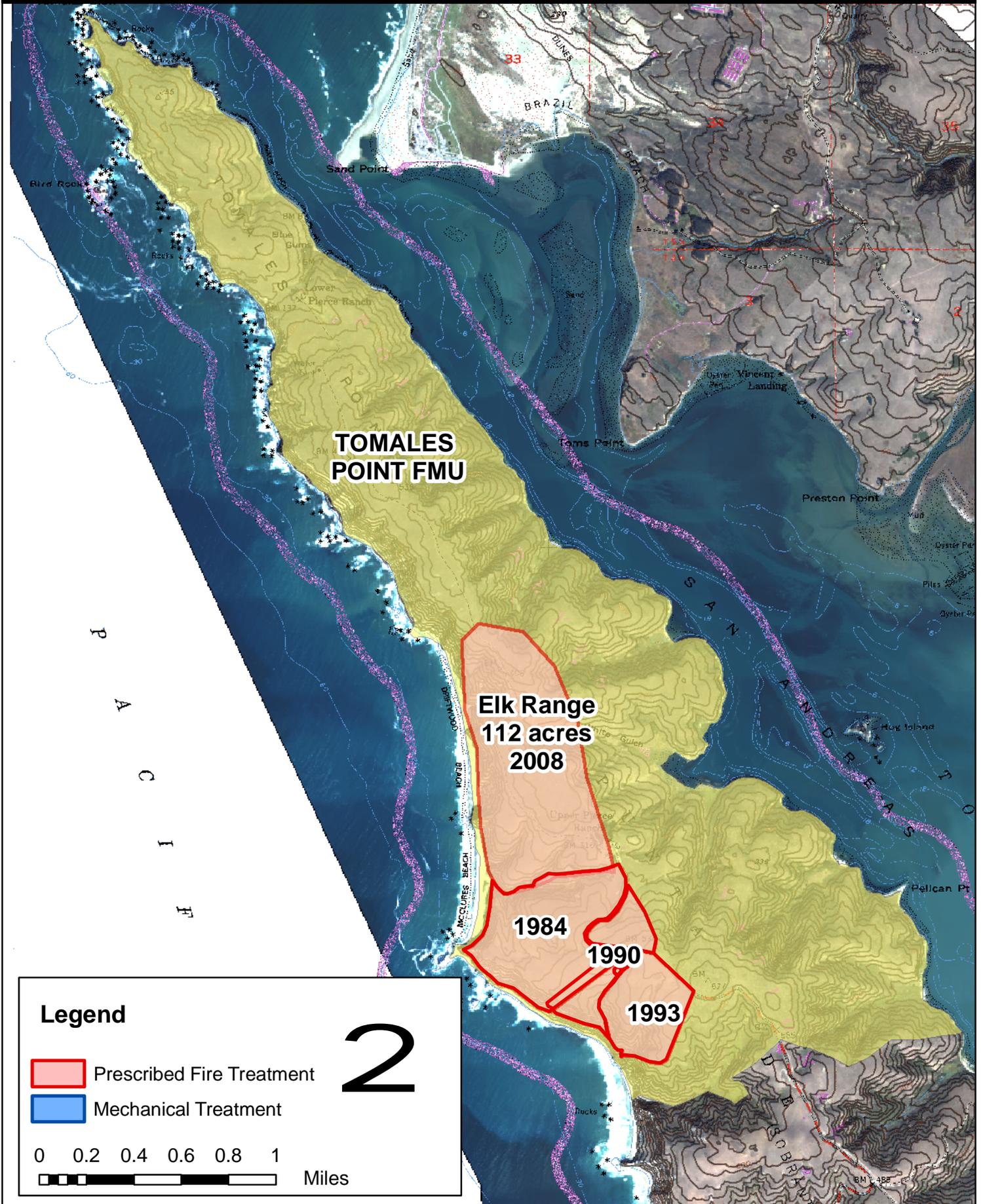
Tomales Point FMU  
Estero FMU  
Inverness FMU  
Limantour FMU  
North Wilderness FMU  
Highway One FMU  
Bolin Ridge FMU  
Palomarin FMU

IMPLEMENTATION STRATEGY  
FOR THE  
PRNS FIRE MANAGEMENT PLAN



# Tomales Point FMU

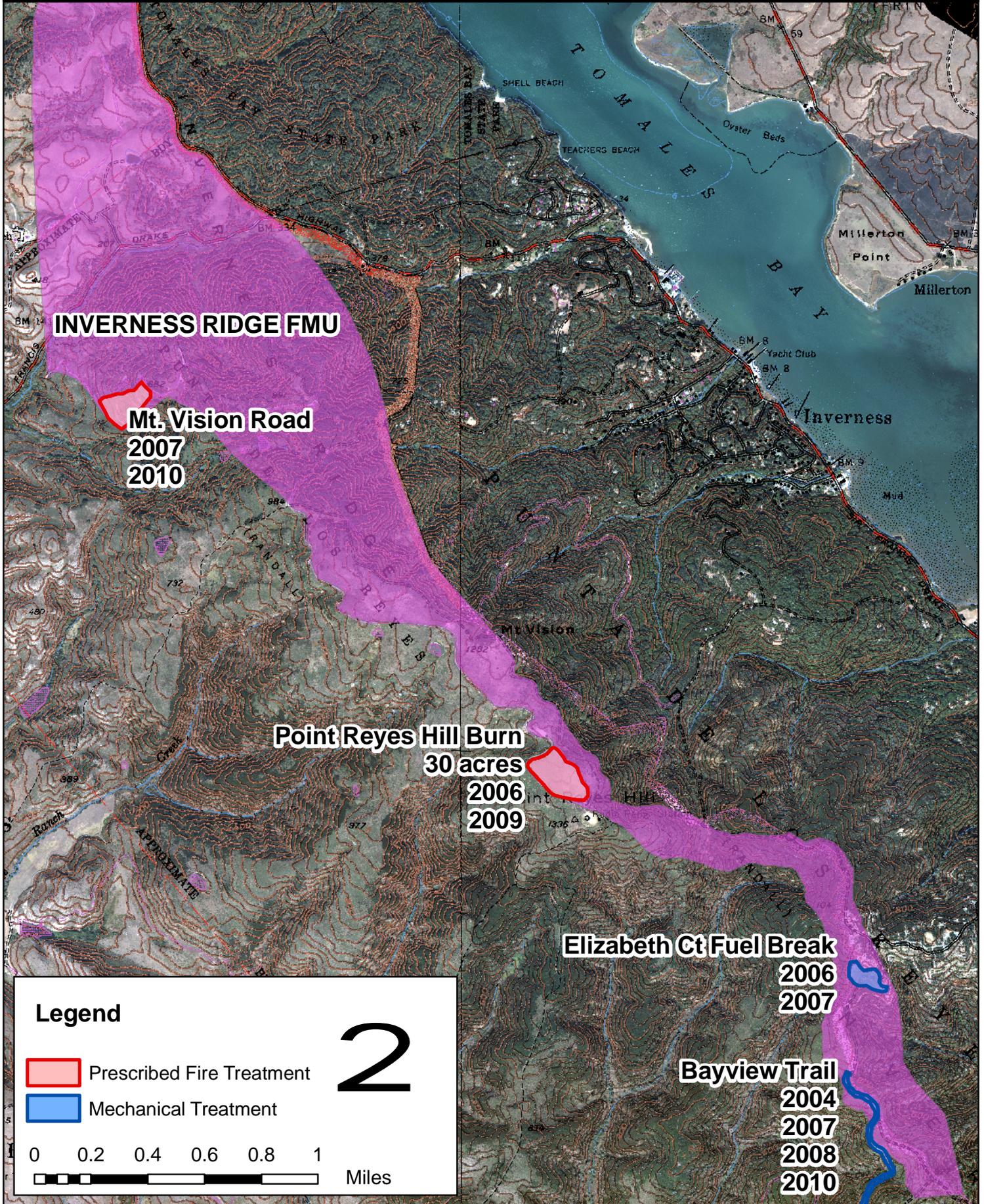
Point Reyes National Seashore  
National Park Service  
Department of the Interior





# Inverness Ridge FMU

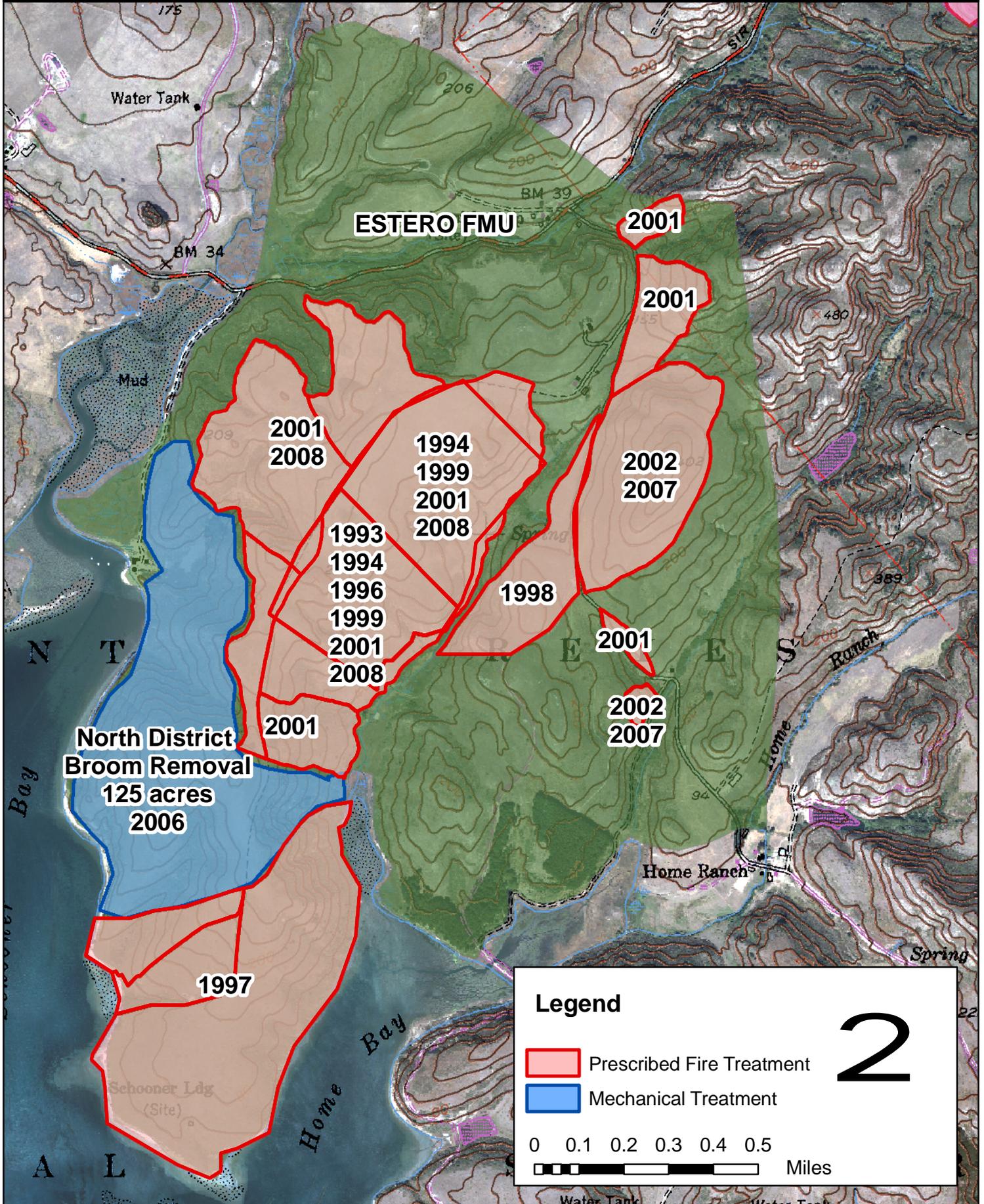
Point Reyes National Seashore  
National Park Service  
Department of the Interior





# Estero FMU

Point Reyes National Seashore  
National Park Service  
Department of the Interior

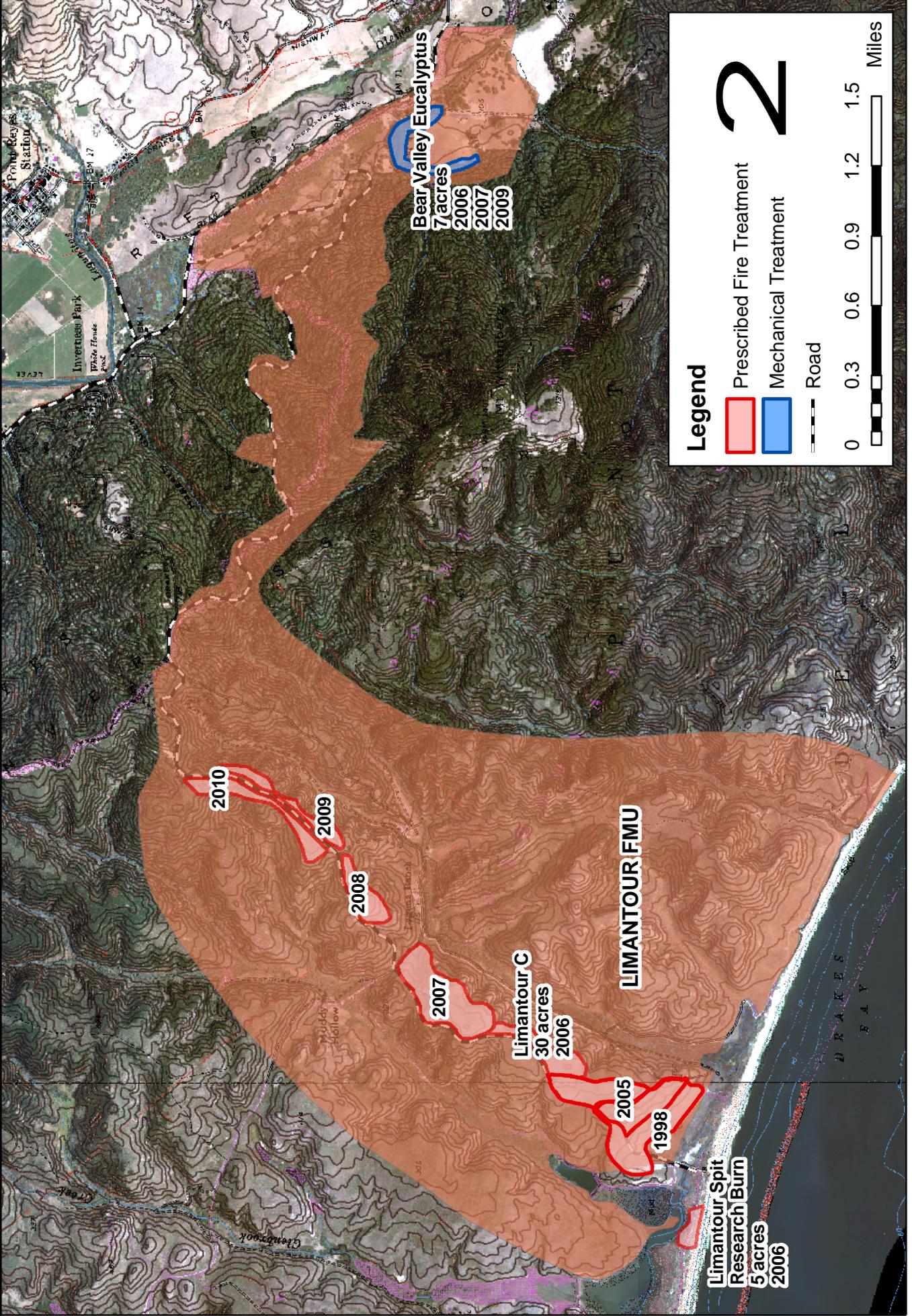






Point Reyes National Seashore  
National Park Service  
Department of the Interior

# Limantour FMU



## Legend

█ Prescribed Fire Treatment

█ Mechanical Treatment

— Road

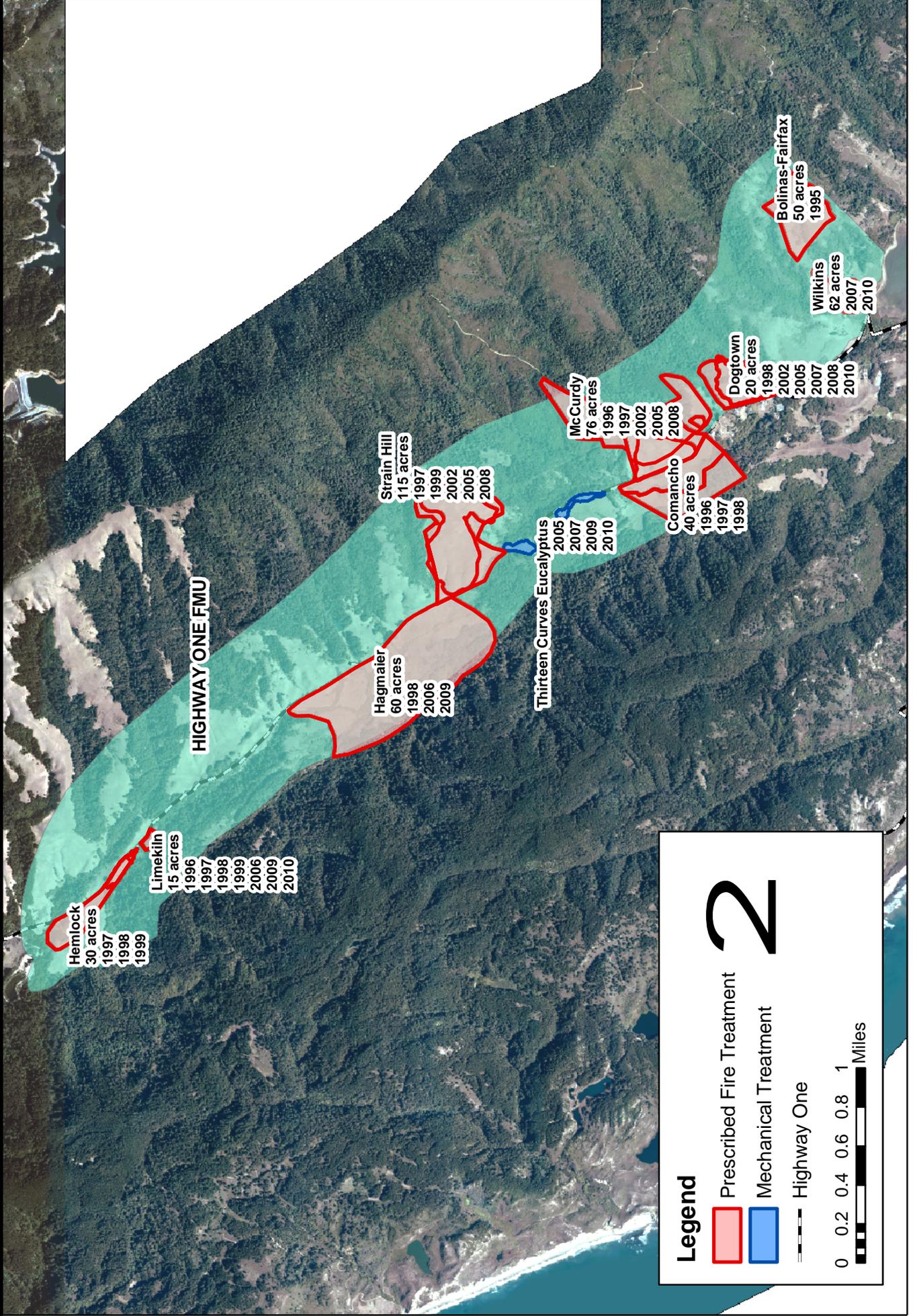


# 2





# Highway One FMU

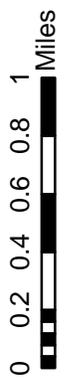


## Legend

Prescribed Fire Treatment

Mechanical Treatment

Highway One

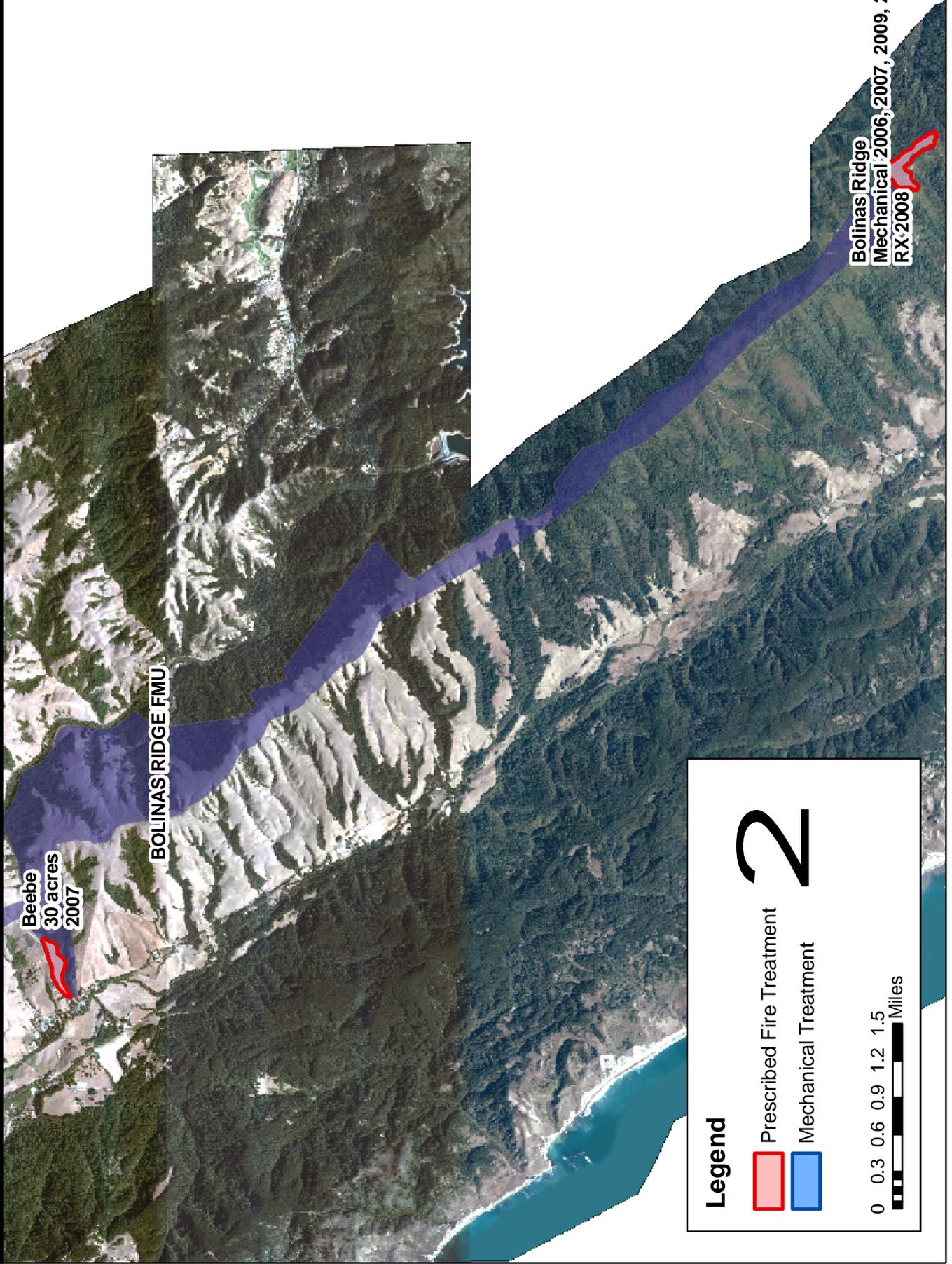


# 2



# Bolinas Ridge FMU

Point Reyes National Seashore  
National Park Service  
Department of the Interior



Beebe  
30 acres  
2007

BOLINAS RIDGE FMU

Bolinas Ridge  
Mechanical 2006, 2007, 2009, 2010  
RX 2008

### Legend

 Prescribed Fire Treatment

 Mechanical Treatment

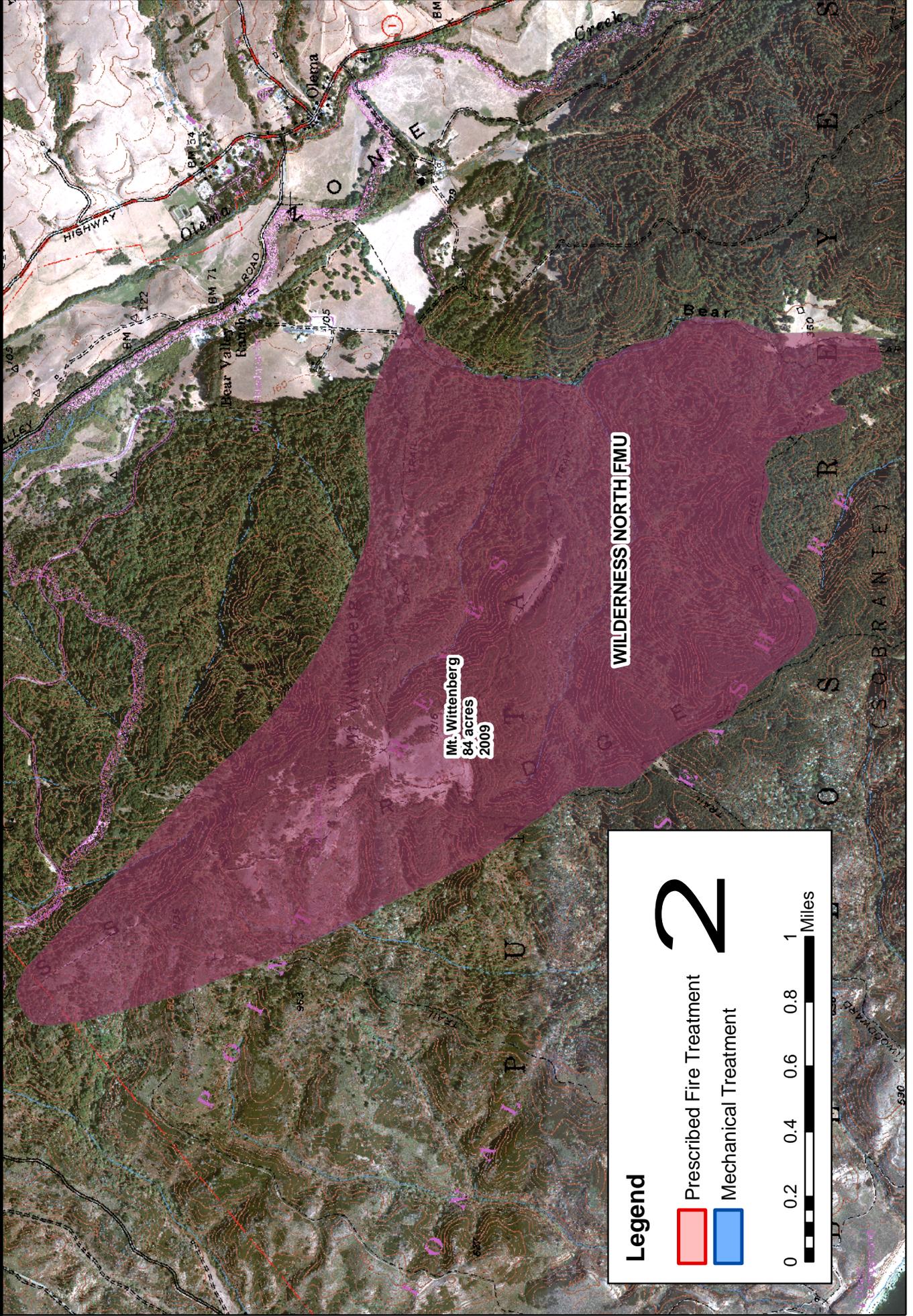
0 0.3 0.6 0.9 1.2 1.5 Miles

2



# Wilderness North FMU

Point Reyes National Seashore  
National Park Service  
Department of the Interior





# Palomarin FMU

Point Reyes National Seashore  
National Park Service  
Department of the Interior

PALOMARIN FMU

Palomarin Eucalyptus  
25 acres  
2006  
2008

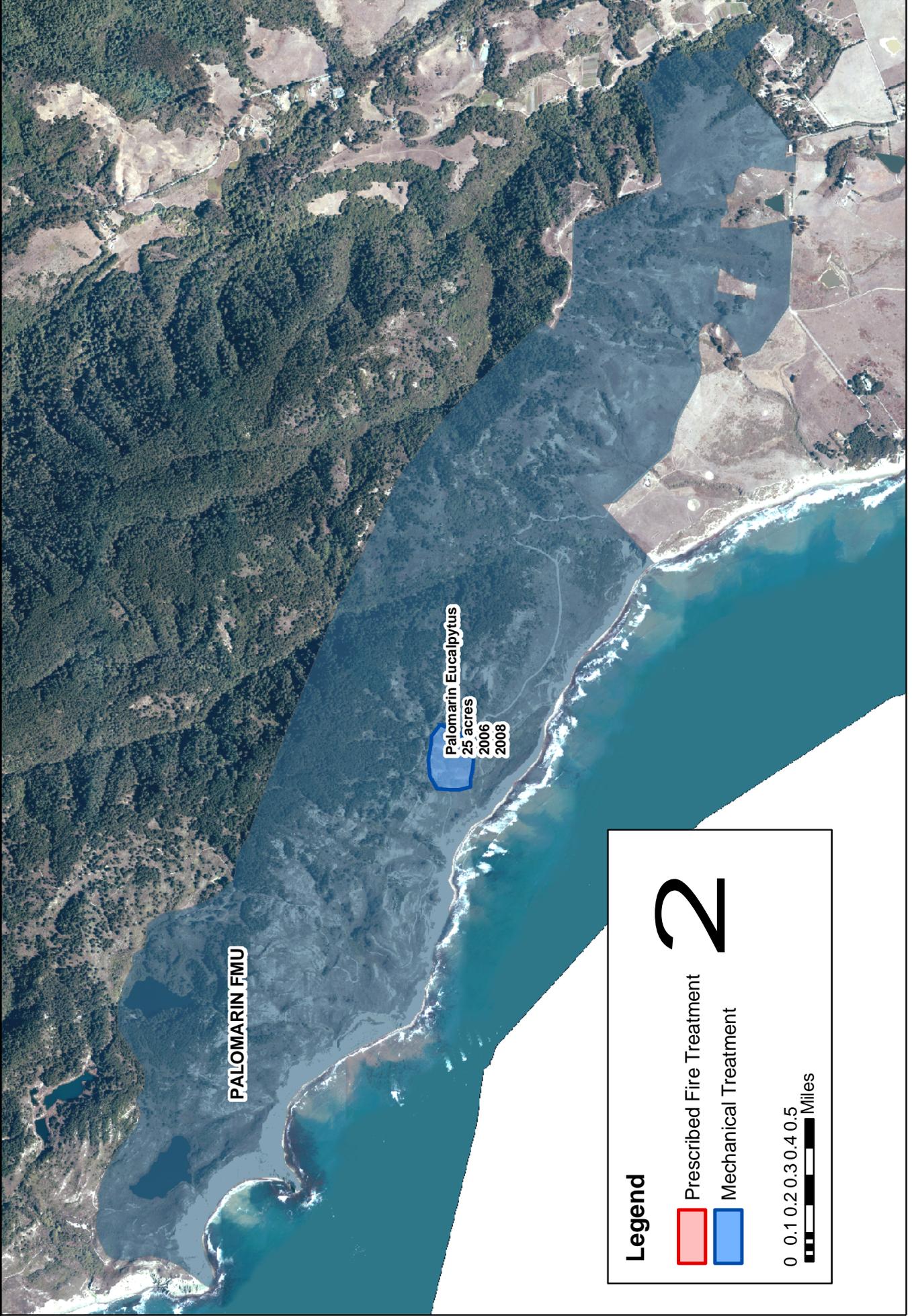
## Legend

 Prescribed Fire Treatment

 Mechanical Treatment

0 0.1 0.2 0.3 0.4 0.5 Miles

# 2





# Palomarin FMU

Point Reyes National Seashore  
National Park Service  
Department of the Interior

PALOMARIN FMU

Palomarin Eucalyptus  
25 acres  
2006  
2008

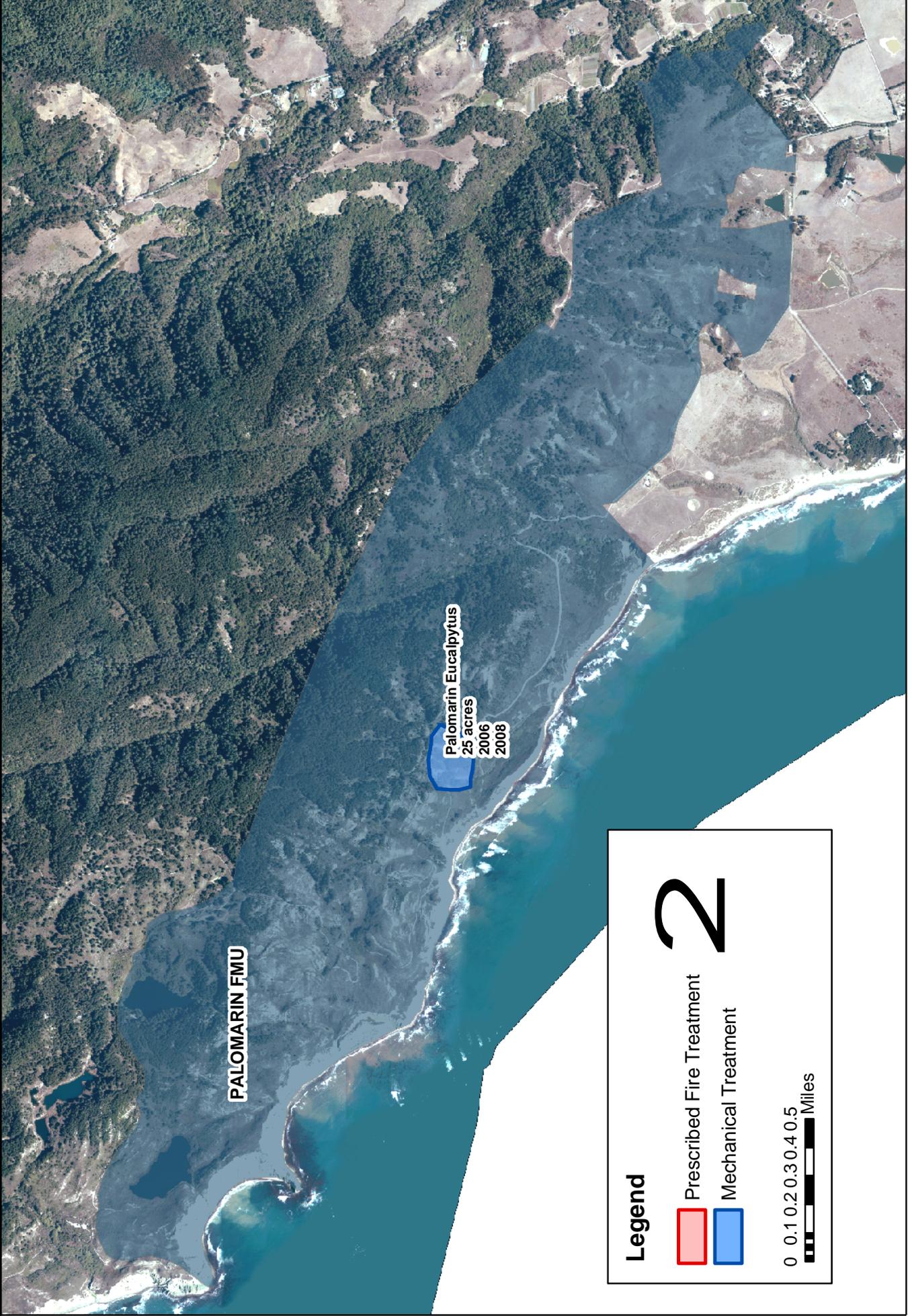
## Legend

 Prescribed Fire Treatment

 Mechanical Treatment

0 0.1 0.2 0.3 0.4 0.5 Miles

# 2





APPENDIX F, PART 19

PRNS FIVE-YEAR TREATMENT PLAN  
AND MAPS

IMPLEMENTATION STRATEGY  
FOR THE  
PRNS FIRE MANAGEMENT PLAN

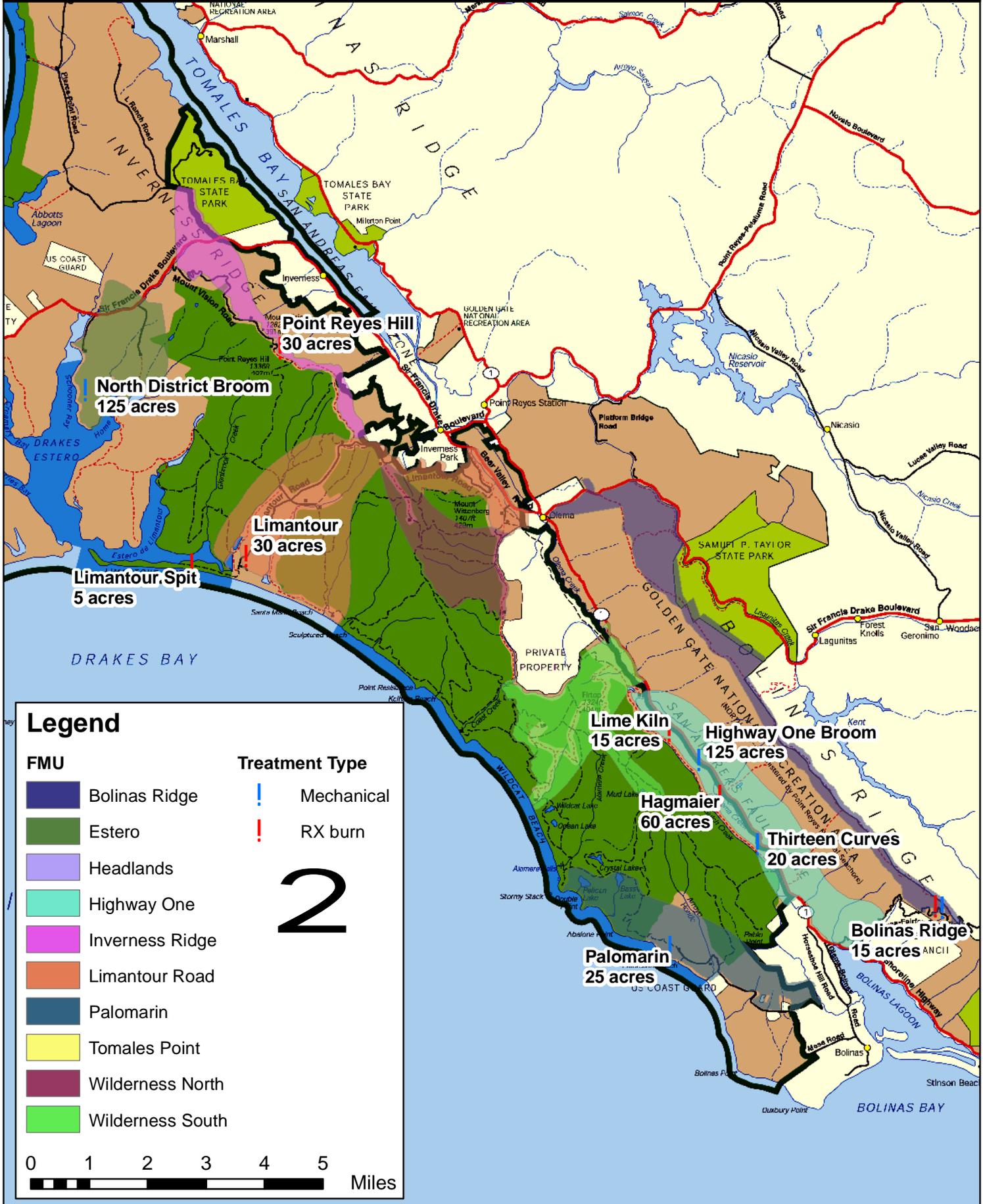


Project	FMU	Acres	Project Type	Specifics	%grass	%shrub	% forest/wdland	Timing	Funding	Last Treated	Maint. Freq.	Issue 1	Issue 2	Obj 1	Obj 2	Date Completed
<b>RX BURN PROJECTS</b>		<b>244</b>														
1	Hagmeier	59	Rx		100%	0%	0%	july - sept		1998	8	hazard fuel reduction along Hwy 1.	French broom and velvet grass.	Maintain or decrease the % cover of non-native species.	Maintain GEMO at 10% cover. & Obj #3 Hazard reduction on Hwy One.	
2	Lime Kiln	15	Rx		100%	0%	0%	july - sept		1999	2	French broom	high fuel	Maintain or decrease the % cover of non-native species.	Maintain GEMO at 10% cover. & Obj #3 Hazard reduction on Hwy One.	
3	Point Reyes Hill	30	Rx		0%	100%	0%	july - sept		1995 Fire	11			No Crushing		
4	Limantour Phase 2	40	Rx		0%	100%	0%	july - sept	15,000.00	1995 Fire	phased	high fuel	tending towards baccharis monoculture	20% decrease in Baccharis cover by 1 year post-burn.	Increase cover of native plants & maintain height of BAPI below xx cm.	10/20/2006
5	Limantour Phase 3	30	Rx		0%	100%	0%	july - sept		1995 Fire	phased	high fuel	tending towards baccharis monoculture			
6	D Ranch	65	Rx		100%	0%	0%	winter		2005	phased	non-native grasses		Prepare site for seed drilling	Reduce residue grass/match by 75%.	11/1/2006
7	Limantour spit	5	Rx		100%	0%	0%			1st Treatment		European beach grass		Use a combination of fire & herbicide to control European beach grass		
	<b>MECHANICAL PROJECTS</b>	<b>365</b>														
8	Marin Manzanita monitoring	0	compliance	mapping	0%	100%	0%	january	2,500.00	N/A	N/A	CNPS 1B fire adaptive plant	Becomes rare as overstory or taller shrubs develop	Determine extent & population dynamics of A. virgata population in PORE		
9	Bolinas Ridge Fuel Zone	15	mechanical	thinning, piling, chipping	0%	50%	50%	oct - march	15,000.00	2004	phased	High fire hazard	Rare plants	Hazard fuel reduction	coordinate with Janet Kleinh at MMWD	
10	North District Nonnative Plant Treatment	125	mechanical	mowing	0%	100%	0%	august - sept	\$48,000 (\$15,000)	1st Treatment	annual	Scotch broom		% reduction in Scotch broom in mature plants.		
11	Park Structures Defensible Space	50	mechanical	mow, brush	75%	25%	0%	yearound	55,000.00	2005	annual	Protection of life & property		Defensible space		
12	Hwy 1 Broom, McDonald, McCurdy, Hagmaier and Wilkins	125	mechanical	mow	0%	100%	0%	spring	23,000.00	2005	annual	Broom		Reduction in broom		
13	Herbicide application [euc stumps]	25	chemical	chemical	0%	0%	100%	aug-march	5,000.00	2005	continuation	Fire hazard	Invasive plants	Reduce eucalyptus density & spread		
14	Euc Removal Highway One	25	mechanical	thinning, piling and chipping	0%	0%	100%	aug-march	20,000.00	2005	phased	Fire hazard	Invasive plants	Reduce eucalyptus density & spread	decrease dead and downed fuels	decrease dead and downed fuels

Project	FMU	Acres	Project Type	Specifics	%grass	%shrub	% forest/wdland	Timing	Funding	Last Treated	Maint. Freq.	Issue 1	Issue 2	Obj 1	Obj 2	Date Completed
<b>ON HOLD - UNFUNDED</b>																
15 Palomarin Eucalyptus Removal	Palomarin	25	mechanical	felling	0%	0%	100%	aug-march	0 (45000)			High Fire Hazard	Wilderness			
16 Palomarin Eucalyptus Removal	Palomarin	25	chemical	felling	0%	0%	100%	aug-march	5,000.00			High Fire Hazard	Wilderness			
17 Elizabeth Ct. Fuel Break	Inverness Ridge	15	mechanical	thinning, piling, chipping	0%	0%	100%	aug-march	0 (30000)			High Fire Hazard	WUI			
18 Elizabeth Ct. Fuel Break	Inverness Ridge	15	mechanical	thinning, piling, chipping	0%	0%	100%	aug-march	0 (20000)			High Fire Hazard	WUI			
19 Bear Valley Euc Removal	Limantour	7	mechanical	thinning, piling, chipping	0%	0%	100%	aug-march	0 (12000)			High Fire Hazard	Near center of visitor activity/ties			
20 Lime Kiln Compliance	Hwy One	15	compliance	cultural resource Survey	75%	25%	0%	aug-march	0.00			Cultural Resource	Creek supporting listed salmonids			
21 Five Brooks Defensible Space	Hwy One	1	Mechanical	brush, felling	0%	20%	80%	aug-march								
<b>PORE WUI PROJECTS</b>																
22 Cascade Canyon Fuels Treatment Plan	N/A		compliance/ FWS consultation	fuel reduction zone, roadside fuel reduction	25%	25%	50%	aug-march	\$105,000	N/A	N/A	Project area is within 0.25 miles of 2 NSOW activity sites	Rare plants in serpentine area	Complete NEPA compliance	Complete FWS consultation & obtain MCOSD permit	75% complete, needs to complete consultation
23 Laurel Canyon Roadside Fuel Reduction Project	N/A	14.4	implementation and monitoring	limbing trees, brushing shrubs	0%	2000%	8000%	aug-march	\$21,000	N/A	85	NSCW activity site near project area.	Project area adjacent to creek supporting steelhead and coho	Complete NPS NEPA compliance.	Complete consultation with USFWS.	Feb-06
24 Seahaven Roadside Fuel Reduction	N/A	3.4	compliance & implementation	limbing trees, brushing shrubs	0%	1000%	9000%	aug-march	\$24,000	N/A	N/A	high fuel loading	hazardous trees	improve access and safety	reduce roadside fuels	Mar-06

# 2006 Projects

Point Reyes National Seashore  
National Park Service  
Department of the Interior



### Legend

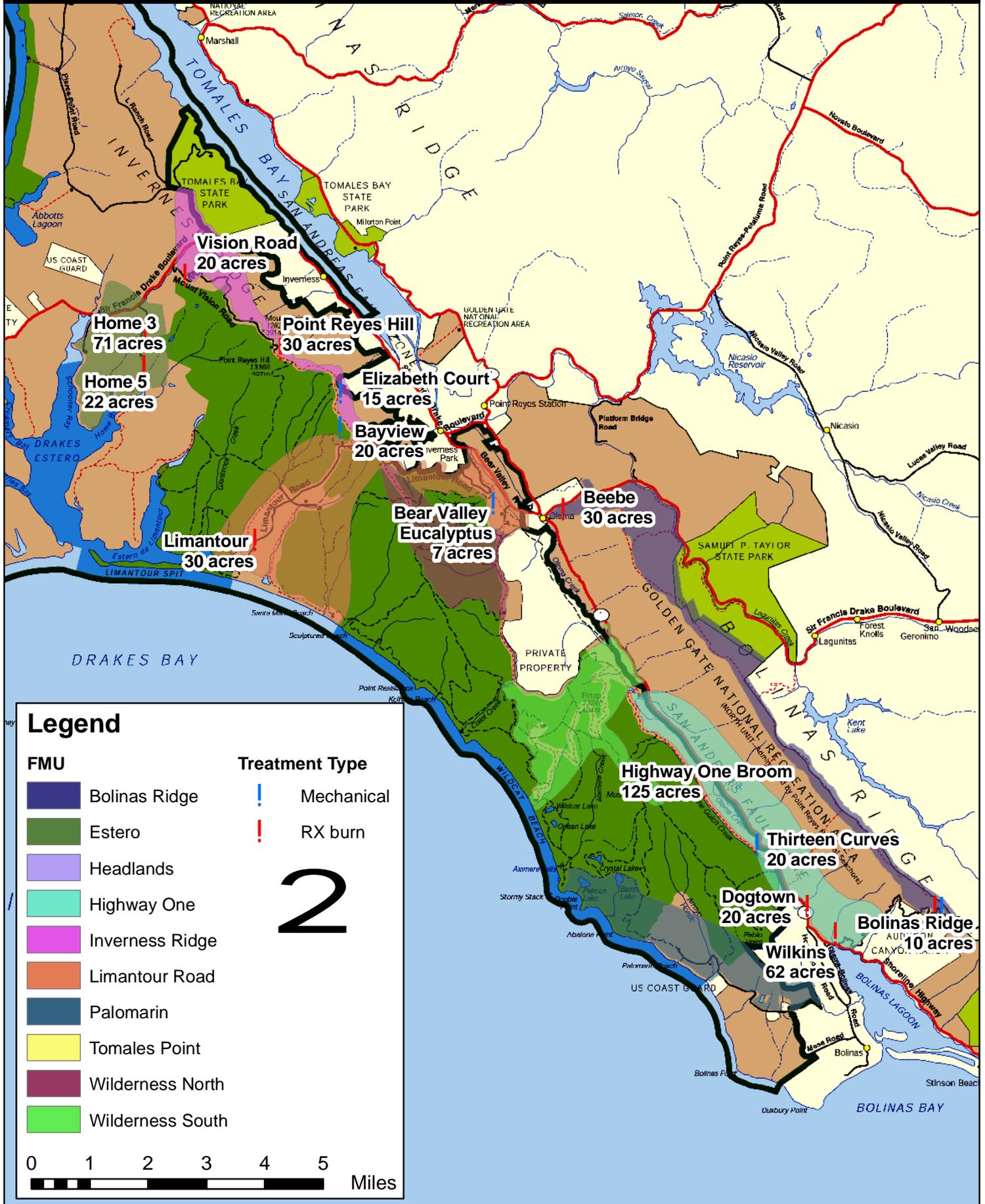
FMU	Treatment Type
Bolinas Ridge	Mechanical
Estero	RX burn
Headlands	
Highway One	
Inverness Ridge	
Limantour Road	
Palomarin	
Tomales Point	
Wilderness North	
Wilderness South	

# 2

	Project	FMU	Acres	Project Type	Specifics	%grass	%shrub	% forest/wdland	Timing	Funding	Last Treated	Maint. Freq.	Issue 1	Issue 2	Obj 1	Obj 2
	<b>RX BURN PROJECTS</b>		<b>341</b>													
1	Limantour Phase 4	Limantour	40	Rx		100%	0%	0%	aug-sept		1995 Fire	phased	priority substitute for Beebe			
2	Pt. Reyes Hill	Inverness Ridge	30	Rx		25%	65%	10%	aug-nov		1st Treatment	phased				
3	Vision Rd Switchback	Inverness Ridge	20	Rx		0%	85%	15%	aug-nov		1st Treatment		Heavy Fuels		Roadside fuel reduction	
4	Strain Hill	Hwy One	115	Rx		100%	0%	0%	fall		late FY 2005	2	Broom	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
5	McCurdy Broadcast	Hwy One	76	Rx		100%	0%	0%	fall		late FY 2005	2	Broom	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
6	Dogtown	Hwy One	30	Rx		100%	0%	0%	aug-nov		late FY 2005	2	Broom	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
7	Beebe	Bolinas Ridge	30	Rx		80%	20%	0%	aug-nov	16,000	late FY 2005	4	Hazard fuels/funded	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
	<b>MECHANICAL PROJECTS</b>		<b>391</b>													
8	Park Structures Defensible Space	All	50	mechanical	mow, brush	N/A	N/A	N/A	yearound	\$45,000	2006	annual	funded			
9	Hwy 1 Broom, McDonald, McCurdy, Hagmeier, Wilkins	Hwy One	125	mechanical	mow	90%	10%	0%	spring	\$23,000	2006	annual	funded			
14	Bayview Trail Fuel Break	Limantour	10	mechanical	remove	0%	100%	0%	aug-march	17,600	1st Treatment	2	funded			
15	Bayview Trail Fuel Break	Limantour	6	mechanical	piling	0%	100%	0%	aug-march	0	1st Treatment	2	funded			
16	Bayview Trail Fuel Break	Limantour	10	mechanical	chipping	0%	100%	0%	aug-march	0	2005	2	funded			
11	Elizabeth Ct. Fuel Break (thin)	Inverness Ridge	15	mechanical	thin	0%	0%	100%	oct - march	30,000	1st Treatment		unfunded			
12	Elizabeth Ct. Fuel Break (disposal)	Inverness Ridge	15	mechanical	disposal	0%	0%	100%	oct - march	20,000	1st Treatment		unfunded			
13	Highway One Euc Removal - 13 curves (intermed. cut)	Hwy One	25	mechanical	thin	0%	0%	100%	aug-march		2006	phased	unfunded			
14	Highway One Euc Removal - 13 curves (intermed. cut)	Hwy One	25	mechanical	chip	0%	0%	100%	aug-march		2006	phased	unfunded			
15	Highway One Euc Removal - 13 curves (intermed. cut)	Hwy One	25	mechanical	herbicide	0%	100%	100%	aug-march		2006	phased				
16	Bolinas Ridge	Bolinas Ridge	10	mechanical	brush	0%	50%	50%	aug-march		2006	phased				
17	Palomarin (first thinning)	Palomarin	25	mechanical	thin	0%	0%	100%	aug-march	45,000	1 treatment	phased	funded			
18	Palomarin (first thinning)	Palomarin	25	mechanical	treat	0%	0%	100%	aug-march	0	1 treatment	phased	funded			
19	Palomarin (first thinning)	Palomarin	25	mechanical	disposal	0%	0%	100%	aug-march	0	1 treatment	phased	funded			

# 2007 Projects

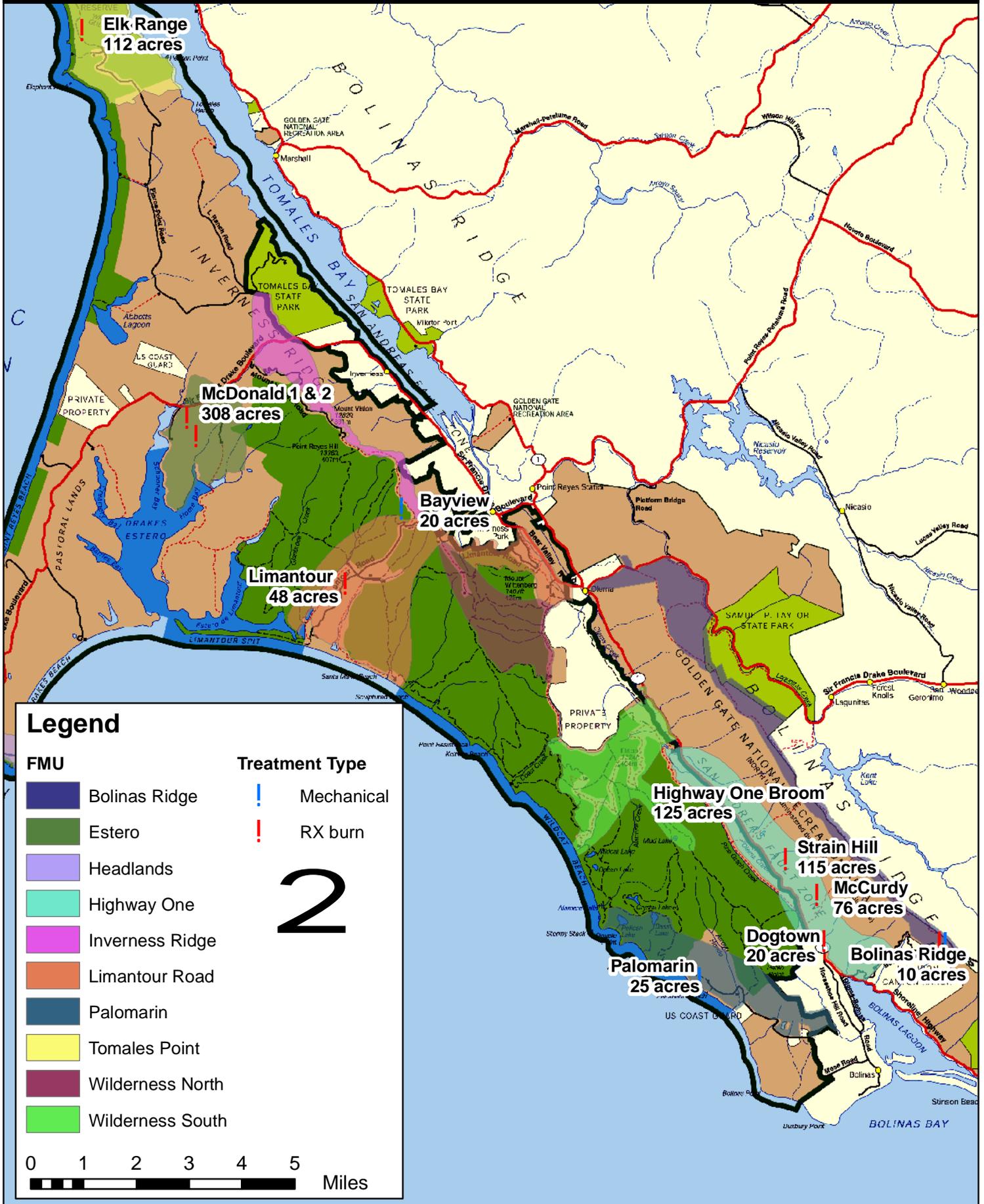
Point Reyes National Seashore  
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		FMU	Acreage	Project Type	Specifics	%grass	%shrub	% forest/ woodland	Proposed Season	Funding	Yr. Last Treated	Maint. Freq.	Issue 1	Issue 2	Obj 1	Obj 2
	<b>RX BURN PROJECTS</b>		<b>677</b>													
1	Limantour 5	Limantour	48	Rx		50%	50%	0%	fall		2005	3				
2	Elk Range 2	Tomales Pt.	112	Rx		55%	45%	0%	late summer/fall or late winter		1st Treatment		Need to avoid exclosures & unfenced reference sites.	must avoid calving season.		
3	Bolinas Ridge	Bolinas Ridge	39	Rx		55%	45%	0%	fall		1st Treatment					
4	Lime Kiln	Hwy One	15	Rx		100%		0%	july - sept		1999	2	French broom	high fuel	Maintain or decrease the % cover of non-native species.	Maintain GEMO at 10% cover. & Obj #3 Hazard reduction on Hwy One
5	Home 3	Estero	71	Rx		100%	0%	0%	aug-nov		2001	2				
6	Home 5	Estero	22	Rx		100%	0%	0%	aug-nov		2001	2				
7	Wilkins	Hwy One	62	Rx		100%	0%	0%	aug-nov		1st Treatment?	2	Broom	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
8	McDonald 1	Hwy One	187	Rx		55%	45%	0%	fall		2001	1 - 2 years				
9	McDonald 2	Hwy One	121	Rx		55%	45%	0%	fall		2001	1 - 2 years				
	<b>MECHANICAL PROJECTS</b>		<b>75</b>													
10	Park Structures Defensible Space	All	50	mechanical	mow, brush	N/A	N/A	N/A	yearound	\$45,000	2007	annual				
11	Hwy 1 Broom, McDonald, McCurdy, Hagmeier, Wilkins	Hwy One	125	mechanical	mow	90%	10%	0%	spring	\$23,000	2007	annual				
12	Bear Valley Euc Removal (intermed. thin)	Limantour	7	mechanical	thinning, piling	0%	0%	100%	oct - march	12,000	2004	phased				
13	Bear Valley Euc Removal (disposal)	Limantour	7	mechanical	chipping & disposal	0%	0%	100%	aug-march		2004	phased				
14	Bear Valley Euc Removal (chemical)	Limantour	7	mechanical	herbicide	0%	0%	100%	aug-march		2004	phased				
15	Palomarin (intermed. cut)	Palomarin	25	mechanical	thin	0%	0%	100%	aug-march		2007	phased				
16	Palomarin (intermed. cut)	Palomarin	25	mechanical	treat	0%	0%	100%	aug-march		2007	phased				
17	Palomarin (intermed. cut)	Palomarin	25	mechanical	disposal	0%	0%	100%	aug-march		2007	phased				

# 2008 Projects

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### Legend

FMU	Treatment Type
Bolinas Ridge	Mechanical
Estero	RX burn
Headlands	
Highway One	
Inverness Ridge	
Limantour Road	
Palomarin	
Tomales Point	
Wilderness North	
Wilderness South	

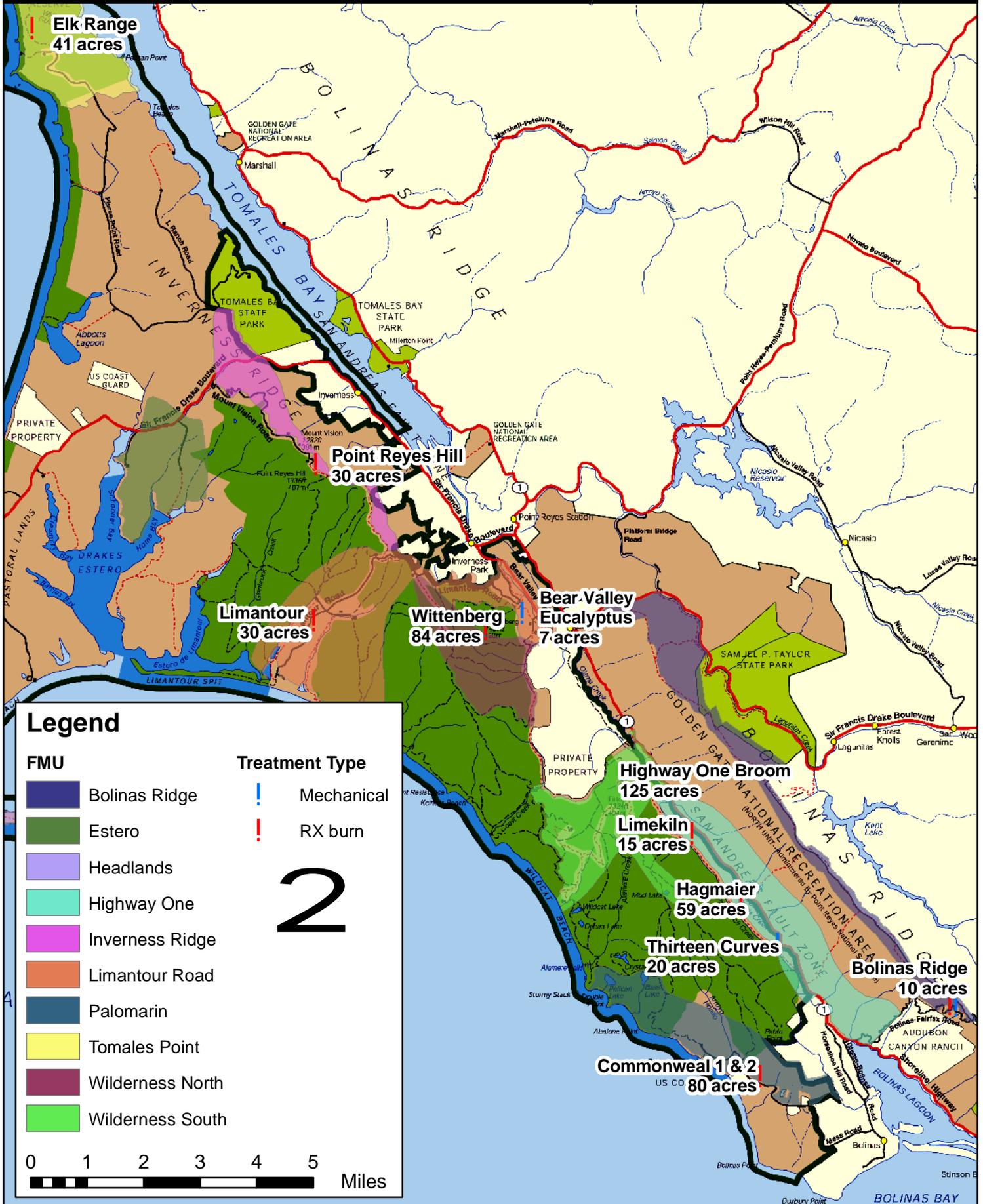
2

0 1 2 3 4 5 Miles

	Project	FMU	Acres	Project Type	Specifics	%grass	%shrub	% forest/ wdland	Timing	Funding	Last Treated	Maint. Freq.	Issue 1	Issue 2	Obj 1	Obj 2
	<b>RX BURN PROJECTS</b>		<b>582</b>													
1	Hagmeier	Hwy One	59	Rx		100%	0%	0%	July - sept		2006	3	French broom	velvet grass		
2	Lime Kiln	Hwy One	15	Rx		100%	0%	0%	July - sept		2006	2	French broom	high fuel		
3	Point Reyes Hill	Inverness Ridge	30	Rx		50%	50%	0%	July - sept		2006					
4	Limantour 6	Limantour	30	Rx		0%	100%	0%	July - sept		2006	phased				
5	Elk Range 1	Tomales Point	41	Rx		80%	20%	0%	fall		1st Treatment					
6	Dogtown	Hwy One	30	Rx		100%	0%	0%	aug-nov		late FY 2007	2	Broom	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
7	Strain Hill	Hwy One	115	Rx		100%	0%	0%	fall		late FY 2007	2	Broom	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
8	McCurdy Broadcast	Hwy One	76	Rx		100%	0%	0%	fall		late FY 2007	2	Broom	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
9	Wilkins	Hwy One	62	Rx		100%	0%	0%	aug-nov		1st Treatment?	2	Broom	Fuel loading along critical ingress/egress route	Roadside fuel reduction	control of invasive exotic species
10	Mt. Vision B	Inverness Ridge	40	Rx		40%	60%	0%	fall		1st Treatment					
11	Wittenberg 1	Wilderness North	84	Rx		10%	0%	90%	July - sept		1st Treatment					
	<b>MECHANICAL PROJECTS</b>		<b>332</b>													
12	Park Defensible Space	All	50	mechanical	maintenance	N/A	N/A	N/A	spring		2008	annual				
13	Highway One Broom Control	Hwy One	150	mechanical	mowing	95%	5%	0%	spring		2008	annual				
16	Bayview Trail Fuel Break	Limantour	26	mechanical	maintain	0%	100%	0%	aug- march		2007	2				
17	Bear Valley Euc Removal (intermed. thin)	Limantour	7	mechanical	thinning, piling, chipping	0%	0%	100%	aug - march		2008	phased	high fuel hazard	near center of visitor activity		
18	Bear Valley Euc Removal (disposal)	Limantour	7	mechanical	disposal	0%	0%	100%	aug - march		2008	phased	high fuel hazard	near center of visitor activity		
19	Bear Valley Euc Removal (chemical)	Limantour	7	mechanical	herbicide	0%	0%	100%	aug - march		2008	phased	high fuel hazard	near center of visitor activity		
20	Highway One Euc Removal - 13 curves (overstory removal)	Hwy One	25	mechanical	thin	0%	0%	100%	aug - march		2007	phased	high fuel hazard	cultural resource and roadside visibility		
21	Highway One Euc Removal - 13 curves (overstory removal)	Hwy One	25	mechanical	chip	0%	0%	100%	aug - march		2007	phased	high fuel hazard	cultural resource and roadside visibility		
22	Highway One Euc Removal - 13 curves (overstory removal)	Hwy One	25	mechanical	herbicide	0%	0%	100%	aug		2007	phased	high fuel hazard	cultural resource and roadside visibility		
23	Bolinas Ridge	Bolinas Ridge	10	mechanical	brush	0%	50%	50%	aug - feb		2007	phased	listed plants and animals	management plan needed for rare plants		

# 2009 Projects

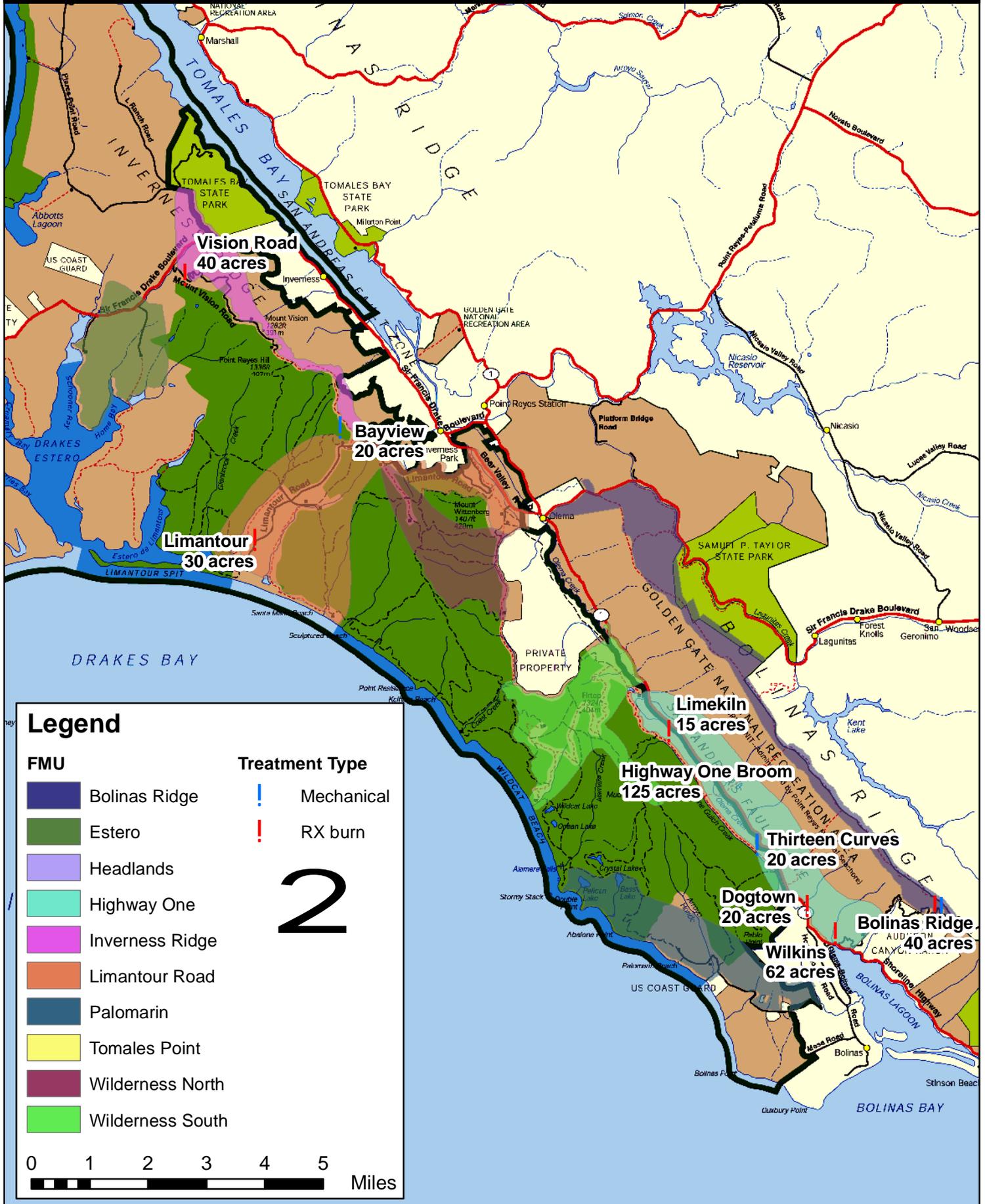
Point Reyes National Seashore  
National Park Service  
Department of the Interior



	Project	FMU	Acres	Project Type	Specifics	%grass	%shrub	% forest/wdland	Timing	Funding	Last Treated	Maint. Freq.	Issue 1	Issue 2	Obj 1	Obj 2
	<b>RX BURN PROJECTS</b>		<b>606</b>													
1	Limantour 7	Limantour	30	Rx		20%	80%	0%	july-sept		2006	4				
4	Bolinas Ridge	Bolinas Ridge	40	Rx		15%	80%	5%	fall		2008	continuation				
6	Commonweal 2	Palomarin	69	Rx		20%	80%	0%	fall		1st Treatment					
7	Commonweal 1	Palomarin	11	Rx		20%	80%	0%	july - sept		1st Treatment					
4	Home 3	Estero	71	Rx		100%	0%	0%	aug-nov		2001	2				
5	Home 5	Estero	22	Rx		100%	0%	0%	aug-nov		2001	2				
7	McDonald 1	Hwy One	187	Rx		55%	45%	0%	fall		2001	1 - 2 years				
8	McDonald 2	Hwy One	121	Rx		55%	45%	0%	fall		2001	1 - 2 years				
	Mt. Vision C	Inverness Ridge	40	Rx												
2	Lime Kih	Hwy One	15	Rx		100%		0%	july - sept		1999	2	French broom	high fuel	Maintain or decrease the % cover of non-native species.	Maintain GEMO at 10% cover. & Obj #3 Hazard reduction on Hwy One.
	<b>MECHANICAL PROJECTS</b>		<b>335</b>													
7	Bayview Trail	Limantour	35	mechanical	trimming and chipping	0%	100%	0%	aug-march		2005 & 2007	5				
8	Bolinas Ridge	Bolinas Ridge	15	mechanical	trimming and chipping	0%	50%	50%	aug-march		2006 & 2007	5				
9	Park Defensible Space	All	50	mechanical	maintenance	N/A	N/A	N/A	spring		2009	annual				
10	Highway One Broom Control	Hwy One	150	mechanical	mowing	95%	5%	0%	spring		2007	3				
	Highway One Eucalyptus Removal - 13 curves	Hwy One	20	mechanical	thinning	0%	0%	100%	aug-march		2009	continuation				
	Highway One Eucalyptus Removal - 13 curves	Hwy One	20	mechanical	chipping and disposal	0%	0%	100%	aug-march		2009	continuation				
	Highway One Eucalyptus Removal - 13 curves	Hwy One	20	mechanical	herbicide	0%	0%	100%	aug-march		2009	continuation				
14	Mt. Vision Road	Inverness Ridge	15	mechanical	thinning	0%	0%	100%	aug-march		1st Treatment					
15	Sky Camp	Wilderness North	10	mechanical	felling/pile burning	0%	20%	80%	aug-march		1st Treatment					

# 2010 Projects

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APPENDIX E, PART 20

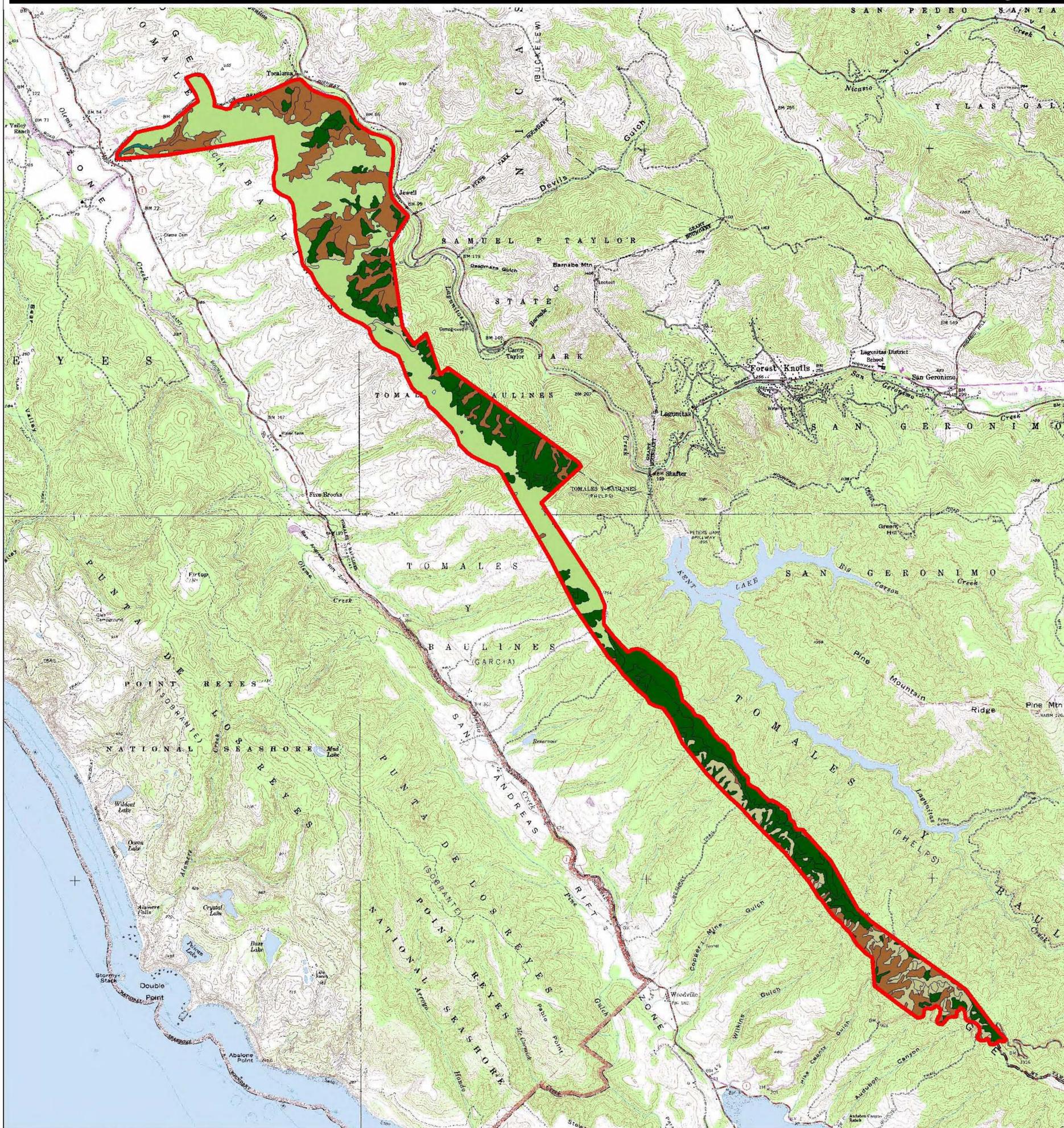
VEGETATION MAPS  
OF THE FIRE MANAGEMENT UNITS,  
POINT REYES NATIONAL SEASHORE

IMPLEMENTATION STRATEGY  
FOR THE  
PRNS FIRE MANAGEMENT PLAN



# Vegetation in Bolinas Ridge FMU

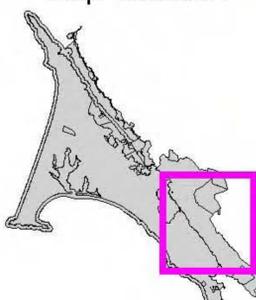
## Point Reyes National Seashore



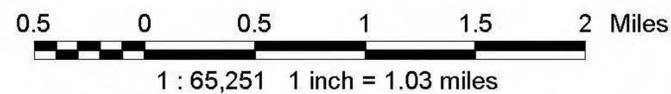
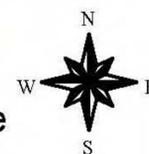
### Vegetation Classes and Acreage

	Douglas-fir / Redwood = 755.4
	Grassland = 846.7
	Hardwood Forest = 570.0
	Riparian = 5.9
	Scrub = 203.4
	Water = 0.3
	Unvegetated = 0.2
	FMU Boundary

### Map Location



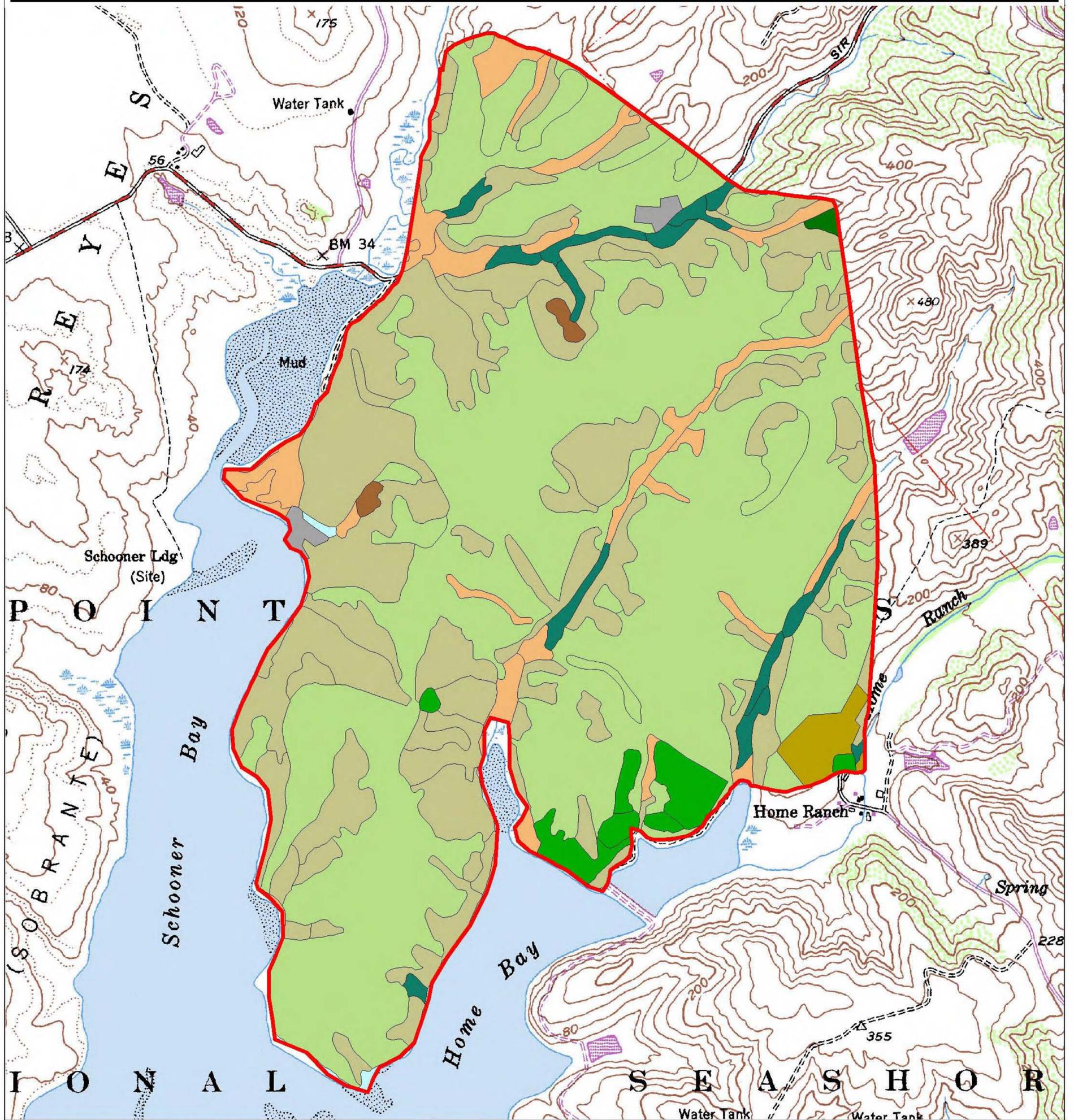
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# Vegetation in the Estero FMU

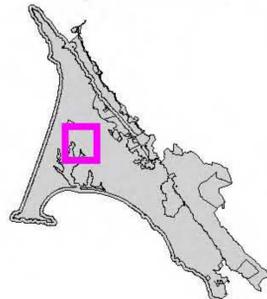
## Point Reyes National Seashore



### Vegetation Classes and Acreage

	Bishop Pine = 2.2		Riparian = 37.9
	Grassland = 913.1		Scrub = 520.2
	Hardwood Forest = 5.3		Unvegetated = 7.6
	Marsh = 94.2		Water = 4.7
	Monterey Pine/Cypress = 37.0		FMU Boundary
	Pasture = 16.9		

### Map Location



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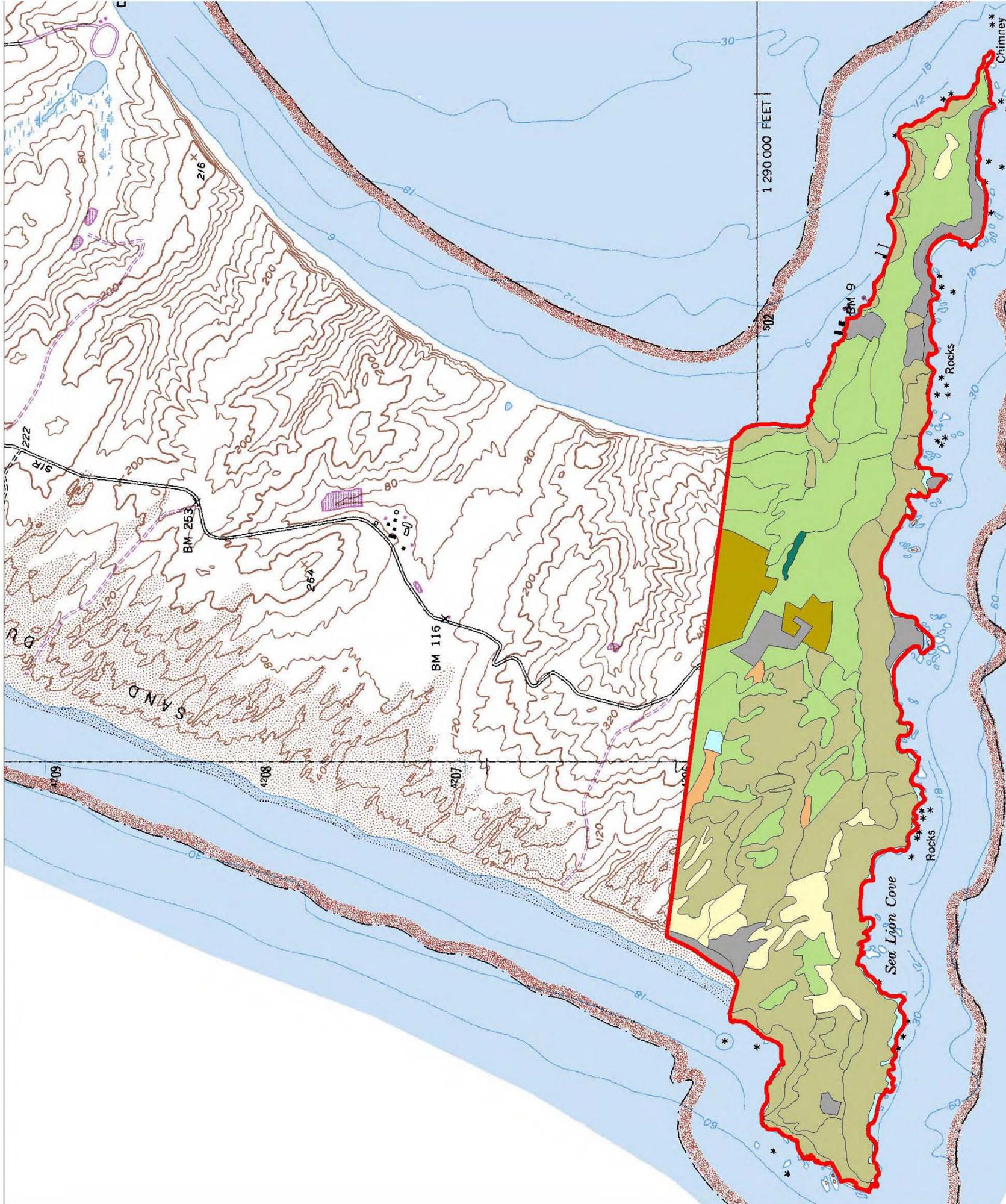
0.1 0 0.1 0.2 0.3 0.4 0.5 Miles



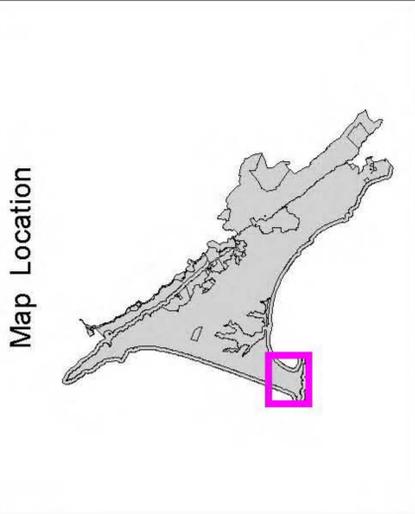
1 : 23,207 1 inch = 0.37 miles



# Vegetation in the Headlands FMU Point Reyes National Seashore



	FMU Boundary
<b>Vegetation Types and Acreage</b>	
	Dune = 51.3
	Grassland = 299.4
	Marsh = 7.7
	Pasture = 38.1
	Riparian = 1.8
	Scrub = 400.7
	Unvegetated = 56.8
	Water = 24.5



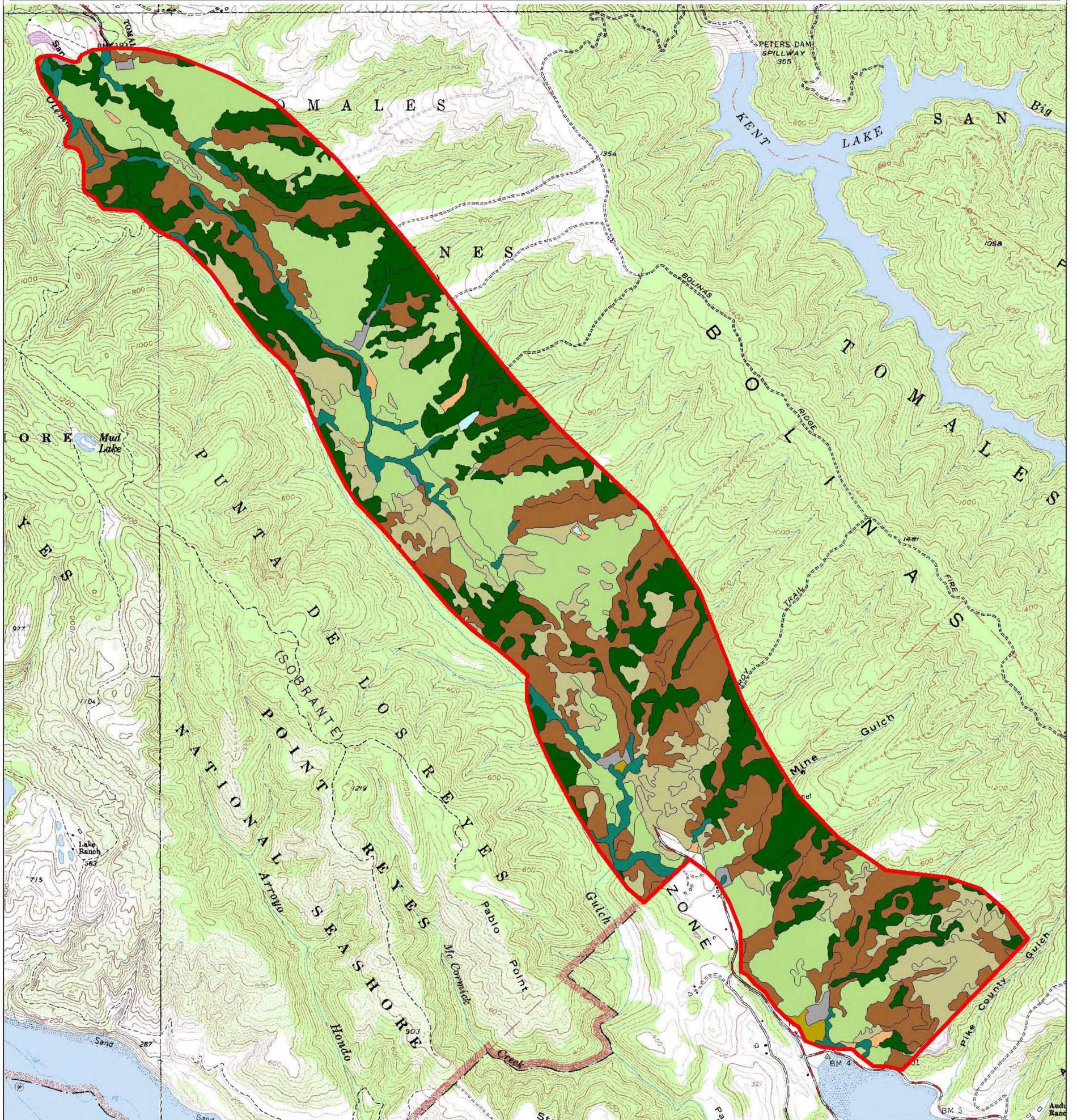
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0.1 0 0.1 0.2 0.3 0.4 0.5 Miles  
1 : 28,981 1 inch = 0.46 miles



# Vegetation in the Highway One FMU

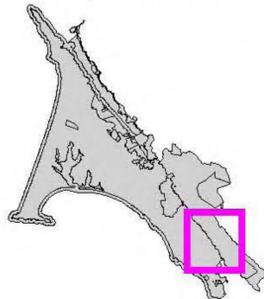
## Point Reyes National Seashore



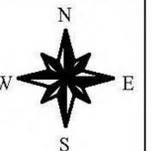
### Vegetation Classes and Acreage

	Douglas-fir / Redwood = 719.3		Scrub = 421.6
	Grassland = 797.4		Unvegetated = 21.0
	Hardwood Forest = 771.1		Water = 2.8
	Marsh = 13.4		FMU Boundary
	Pasture = 8.8		
	Riparian = 112.4		

### Map Location



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0.2 0 0.2 0.4 0.6 0.8 Miles

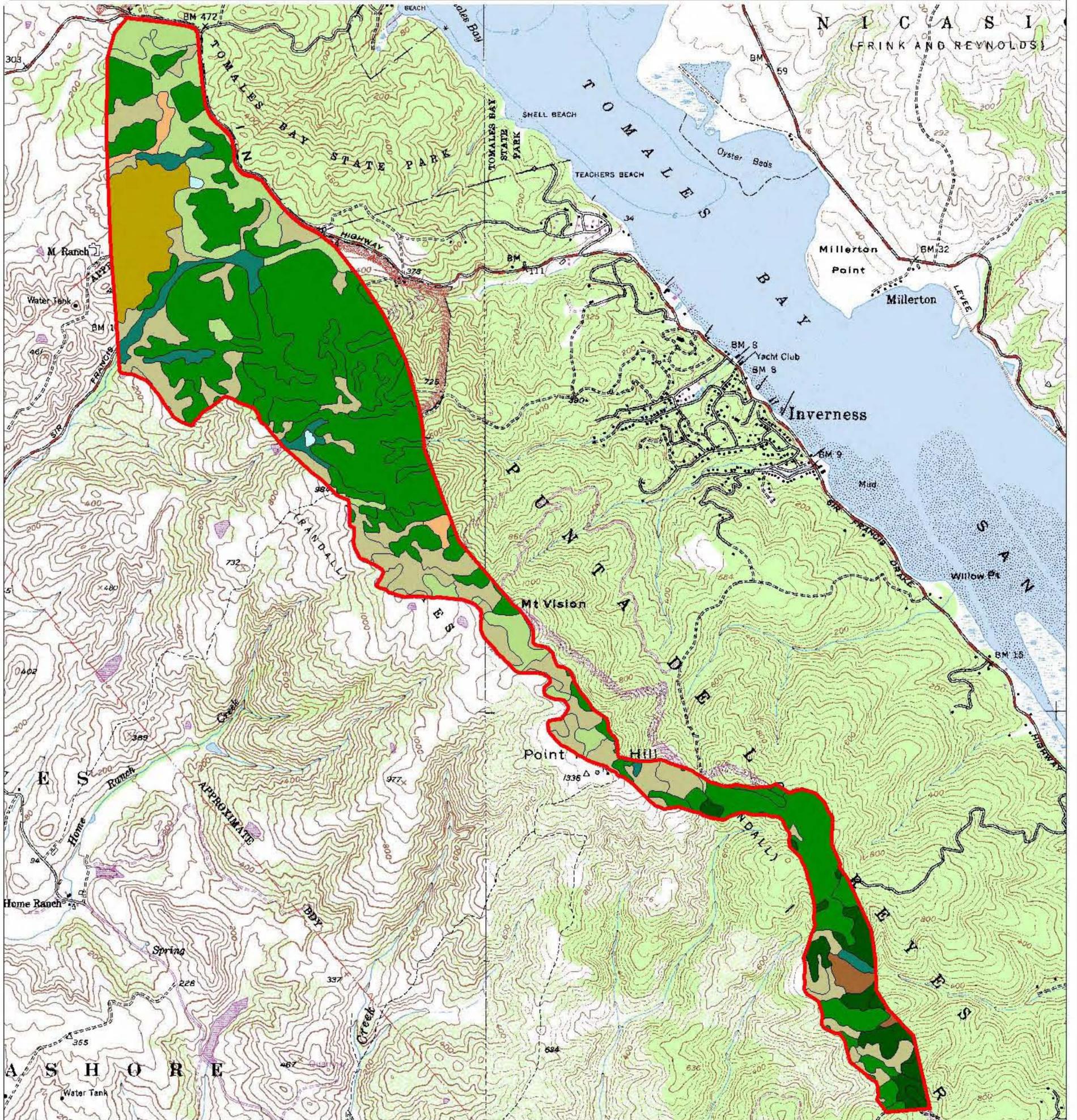


1 : 39,414 1 inch = 0.62 miles



# Vegetation in Inverness Ridge FMU

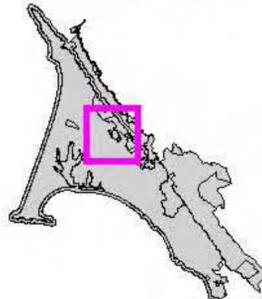
## Point Reyes National Seashore



### Vegetation Classes and Acreage

	Bishop Pine = 646.3		Riparian = 46.2
	Douglas-fir / Redwood = 55.7		Scrub = 245.6
	Grassland = 143.8		Unvegetated = 0.0007
	Hardwood Forest = 12.5		Water = 2.6
	Marsh = 13.4		FMU Boundary
	Pasture = 84.4		

### Map Location



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0.2 0 0.2 0.4 0.6 0.8 Miles

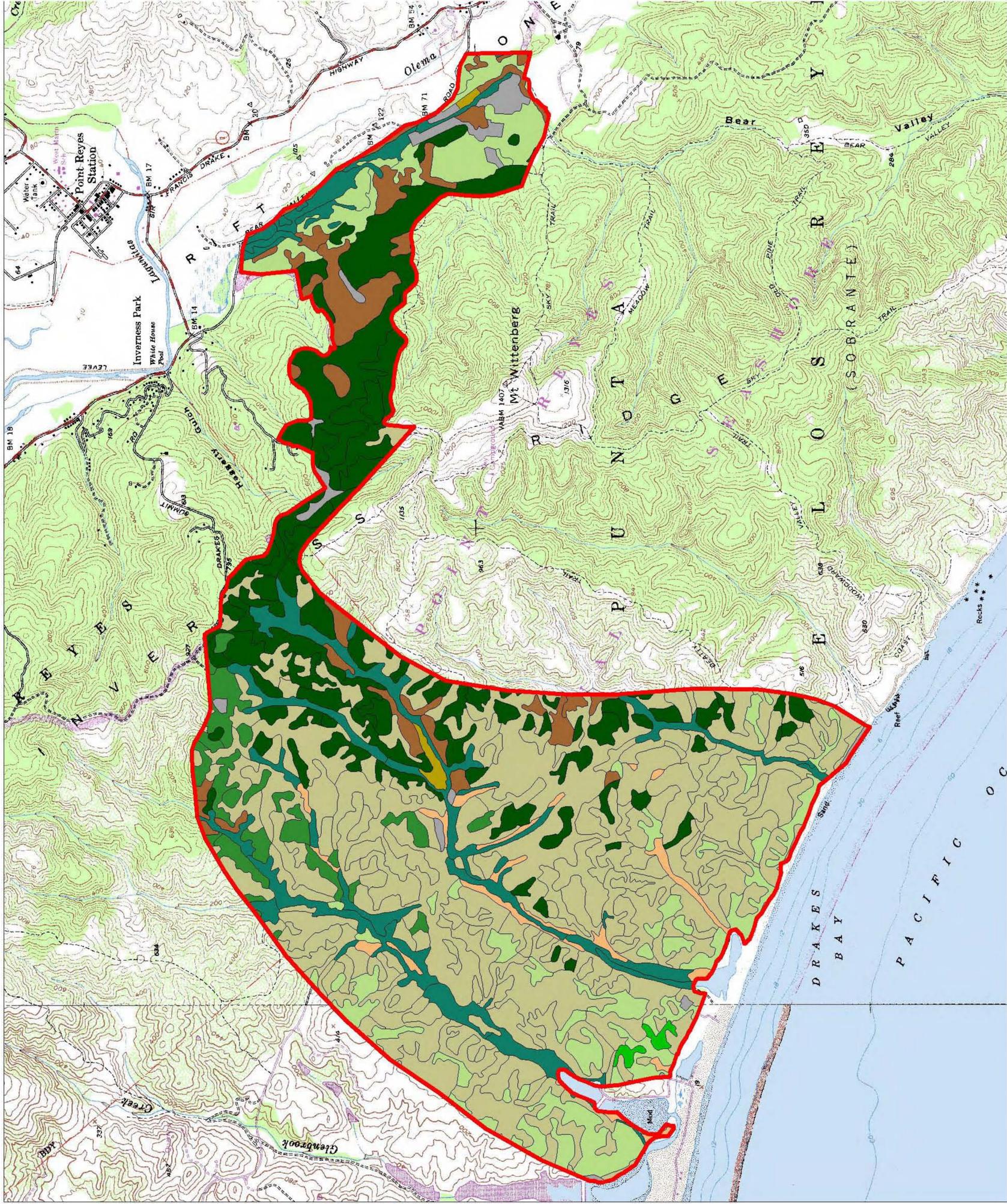


1 : 37,161 1 inch = 0.59 miles



# Vegetation in the Limantour Road FMU

## Point Reyes National Seashore



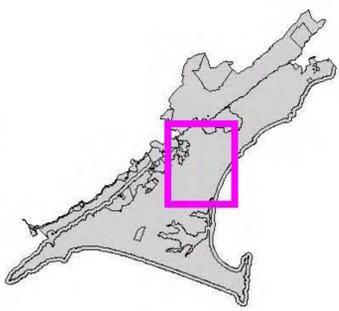
FMU Boundary



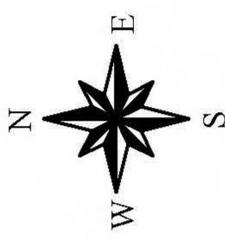
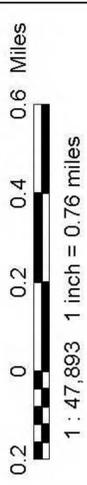
Vegetation Classes and Acreage

	Bishop Pine = 140.9
	Douglas-fir / Redwood = 748.4
	Dune = 0.2
	Grassland = 462.2
	Hardwood Forest = 216.9
	Marsh = 69.7
	Monterey Pine/Cypress = 12.1
	Pasture = 13.6
	Riparian = 371.5
	Scrub = 2040.3
	Unvegetated = 65.1
	Water = 2.8

Map Location

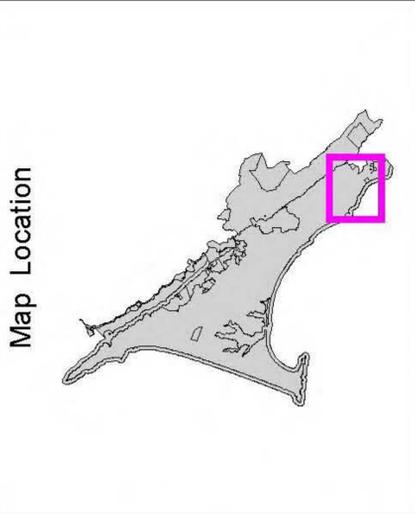
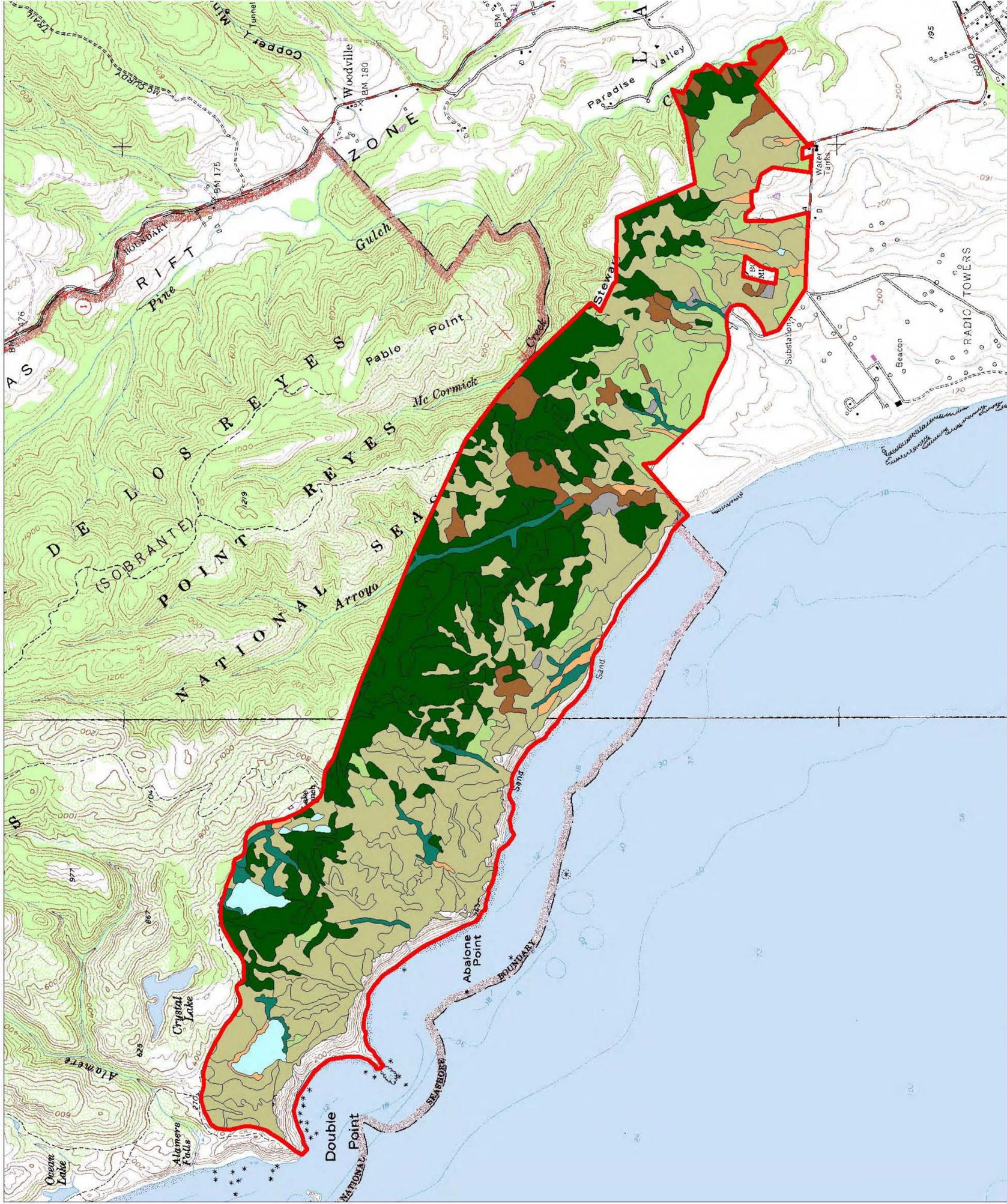


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# Vegetation in the Palomarin FMU Point Reyes National Seashore

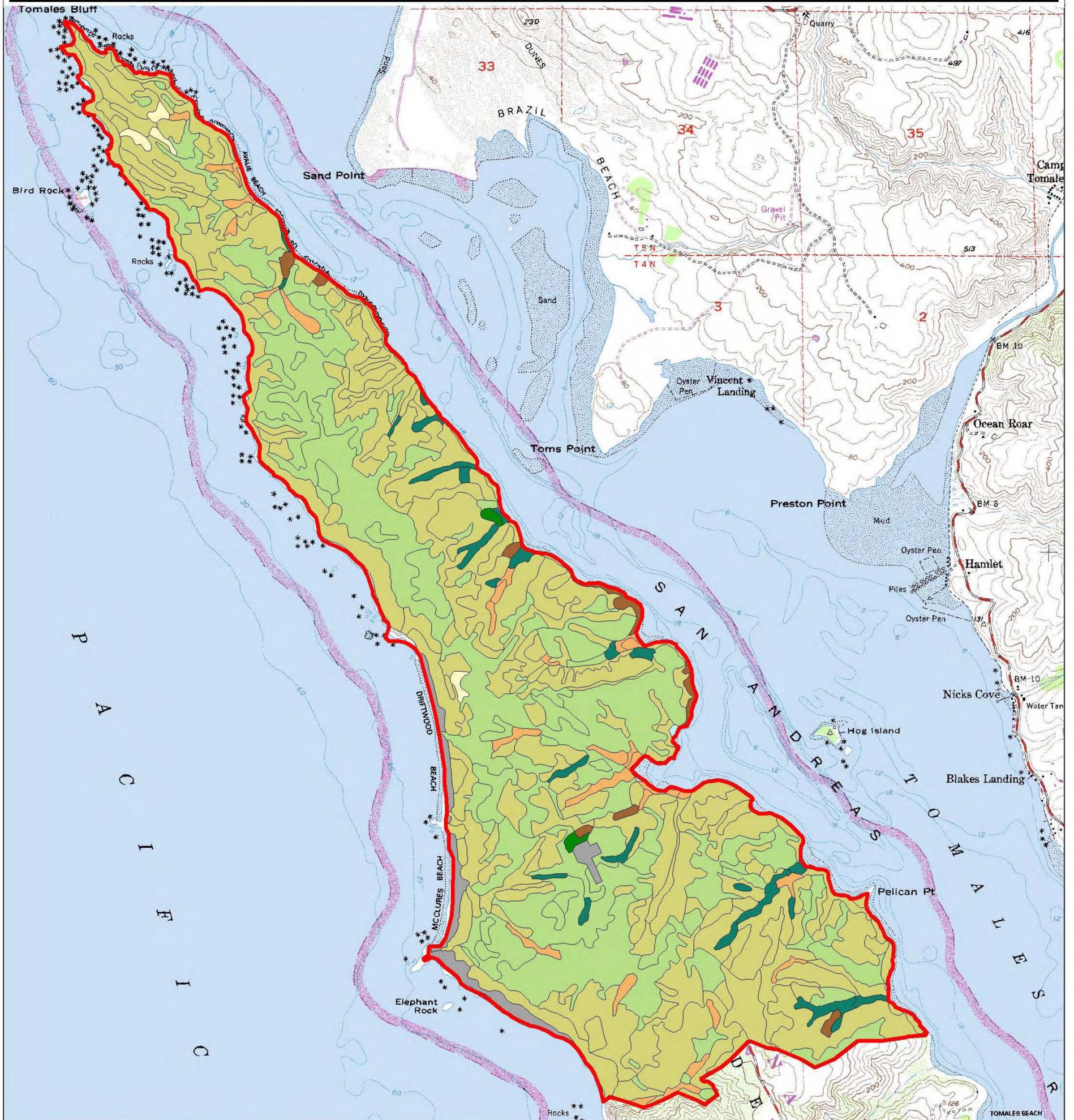


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# Vegetation in Tomales Point FMU

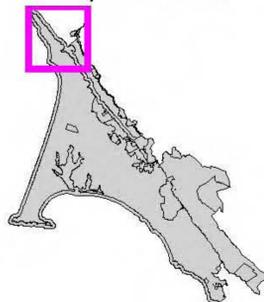
## Point Reyes National Seashore



### Vegetation Classes and Acreage

	Dune = 12.5		Scrub = 1518.9
	Grassland = 1006.7		Unvegetated = 49.5
	Hardwood Forest = 24.9		Water = 22.5
	Marsh = 74.3		FMU Boundary
	Monterey Pine / Monterey Cypress = 5.6		
	Riparian = 64.3		

### Map Location



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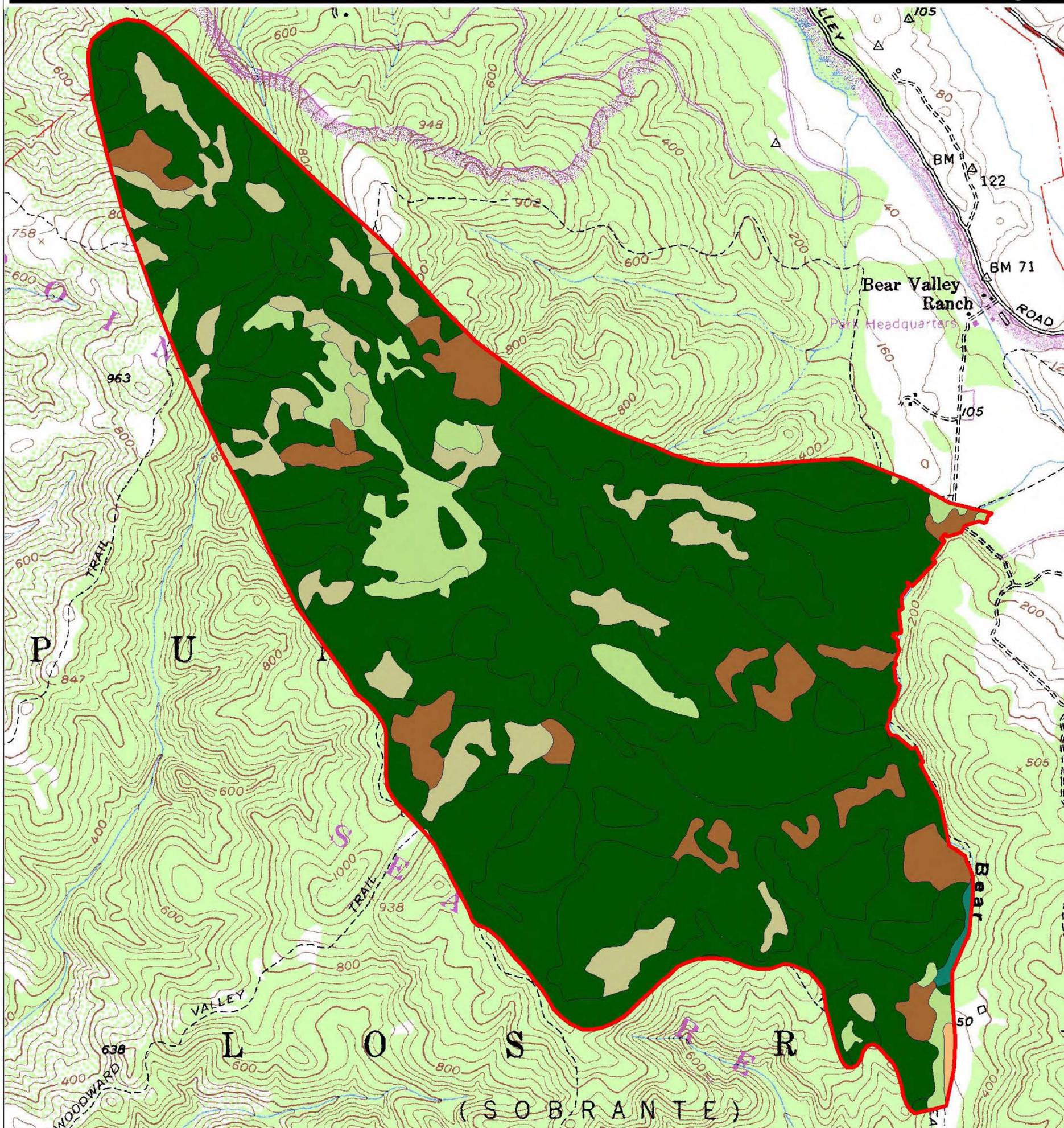
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1 : 42,270 1 inch = 0.67 miles

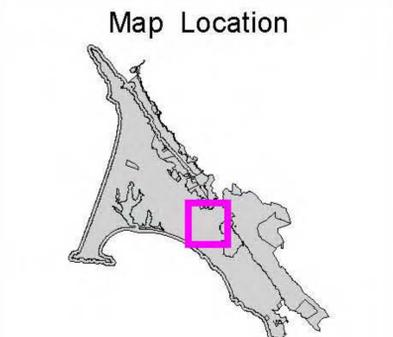


# Vegetation in Wilderness North FMU

## Point Reyes National Seashore



Vegetation Classes and Acreage	
	Douglas-fir / Redwood = 1,262.3
	Grassland = 88.4
	Hardwood Forest = 103.5
	Marsh = 2.6
	Riparian = 4.0
	Scrub = 130.6
	FMU Boundary



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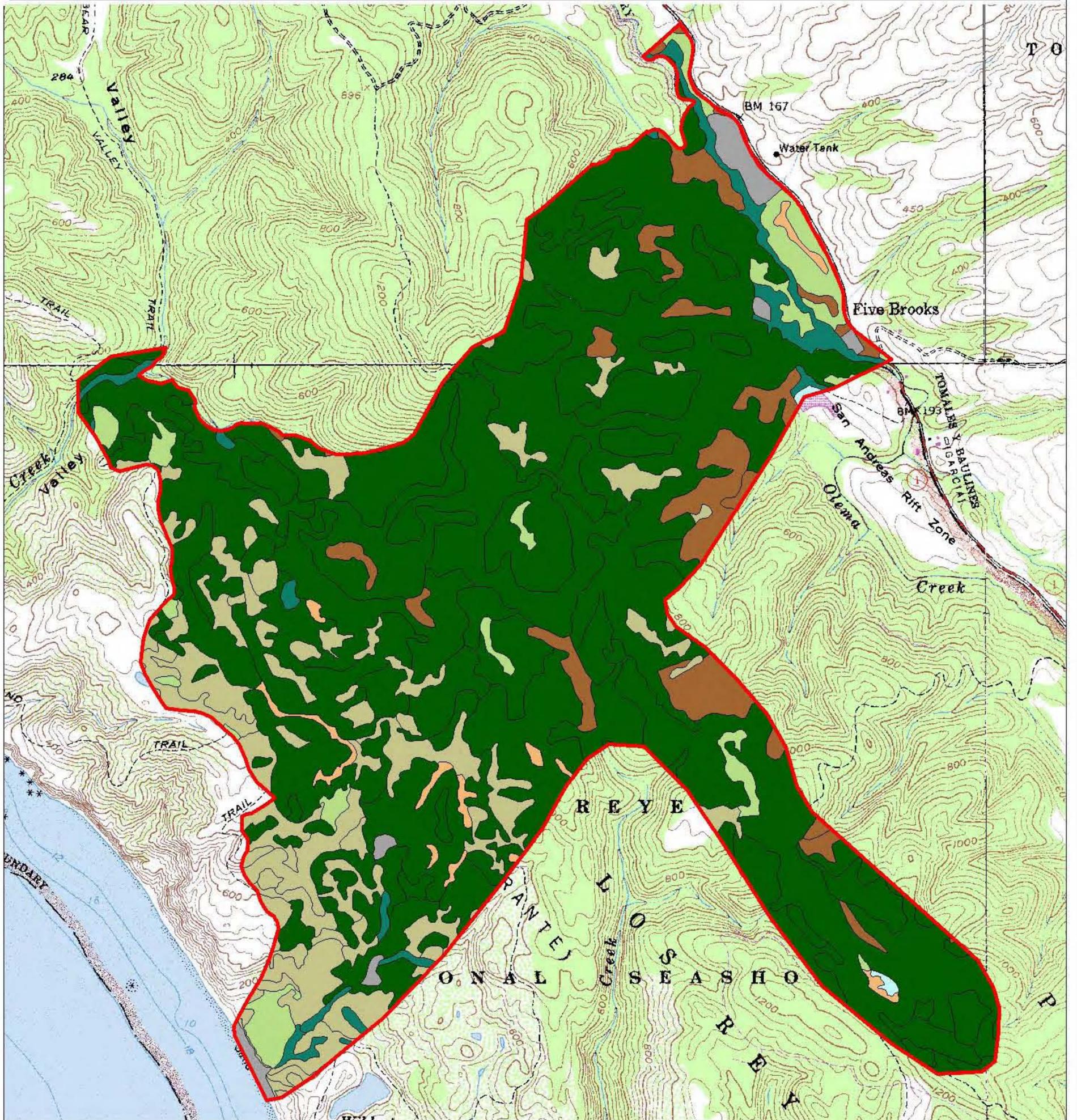
0.1 0 0.1 0.2 0.3 0.4 Miles

1 : 28,401 1 inch = 0.45 miles



# Vegetation in Wilderness South FMU

## Point Reyes National Seashore



### Vegetation Classes and Acreage

	Douglas-fir / Redwood = 1673.3		Unvegetated = 28.2
	Grassland = 85.5		Water = 3.0
	Hardwood Forest = 128.0		FMU Boundary
	Marsh = 22.4		
	Riparian = 54.0		
	Scrub = 303.6		

### Map Location



National Park Service  
Point Reyes National Seashore  
GIS Team



0.2 0 0.2 0.4 0.6 Miles



1 : 31,879 1 inch = 0.50 miles

