



# Small Forest Landowner Assistance Program (SFLAP)

*2024*

## Request For Proposals

### *Project Summary*

#### Introduction to SFLAP

The Small Forest Landowner Assistance Program (SFLAP) provides no-cost treatments toward fire recovery and resilience to small, non-industrial, private landowners. The Butte County Resource Conservation District (BCRCD) is in an ideal position to function as a "one-stop forest and fire resilience shop" because it serves as a CEQA lead agency, has grant writing and management capacity, can furnish prescribed fire technical assistance through its Prescribed Burn Association (PBA), consults with a Registered Professional Forester (RPF), and employs forestry technicians experienced in writing forest management plans and implementing forestry projects. The SFLAP program is a pilot program showing that Resource Conservation Districts across California can increase the pace and scale of forest health work in the state.

#### What SFLAP Does

On each of 21 properties, a total of 166 acres will be treated (up to 10 acres of treatment units per property). Treatments include felling and burning of large hazard trees, dead vegetation, and brush; thinning and pruning of desirable, resprouting hardwoods; treating woody residue either by chipping or pile burning; and limbing up live trees. Contractor must be a Class A LTO. 17 properties are located in Feather Falls and 4 are located in Berry Creek. All properties burned during the 2020 North Complex (Bear/Claremont) Fire.

## *Proposal Details*

### Contractor Obligations

The Bidder must analyze and respond to all sections for this Request for Proposals (RFP) providing sufficient information to allow the Butte County Resource Conservation District (BCRCD) to evaluate the proposals. The Contractor, by submitting its proposal, agrees that any costs incurred by the Contractor in responding to this RFP, are to be borne by the contractor and may not be billed to the BCRCD.

The Bidder must complete and submit all attachments, in the order listed. If the BCRCD has any confusion or difficulty in retrieving the required information from a Contractor's bid, it may result in the disqualification of such bid.

### Critical Dates

Pre-proposal Site Visit (Bid Walk): **Thursday, August 22, 2024 at 0900.**

Contractors wishing to submit a proposal on this project must attend a mandatory pre-proposal meeting on *Thursday, August 22, 2024 at 0900* meeting at the Enterprise Boat Ramp parking lot (39.541881, -121.355641). Travel north on Lumpkin Rd. After crossing the Enterprise bridge drive approximately 1 mile. Take a left on Enterprise Road. Follow the road to the parking lot. 21 properties will be viewed, some with limited parking, carpooling may be required.

Question Submission: **Thursday, August 29 at 1700**

Contractors may submit questions by email to [ben@bcrd.org](mailto:ben@bcrd.org) before *Thursday, August 29 at 1700*. All pertinent questions will be answered and shared via email with all the other Contractors who attend the mandatory pre-proposal site visit. The contractor understands and agrees that it has a duty to inquire about and clarify any RFP questions that the Contractor does not fully understand or believes may be interpreted in more than one way. The BCRCD, however, is not required to answer questions that are not pertinent to the RFP or are confidential information. Questions will be answered by *Tuesday, September 3 at 1700*.

Please address questions to:

Ben Converse

Email: [ben@bcrd.org](mailto:ben@bcrd.org)

Proposal Due Date: **Tuesday, September 10 at 1700**

Proposals shall be received by the BCRCDC on or before *Tuesday, September 10 at 1700* at the BCRCDC address listed above ([ben@bcrd.org](mailto:ben@bcrd.org)). Late submissions will not be accepted.

Contract Dates: After Notice to Proceed is issued through **November 24, 2024**.

The Contractor shall not begin operation until the Notice to Proceed is issued. All work shall be completed based on the phases outlined in the project specifications. All work must be completed by *November 24, 2024*.

### Contractual Commitment of Proposal

The contents of submitted proposals will be considered the obligations of the successful Contractor. No information should be submitted that is not intended to be incorporated into the proposal and any contract which may result from such proposal. If there is any inconsistency between the terms herein and any of the contract documents, the terms in the contract documents shall prevail.

## *Project Work*

### Unit Acres

<b>Groups</b>	<b>Type of Hardwood Release Treatment</b>	<b>Acres</b>
Bethune	Chipping	3.40
Bethune	Riparian Zone	2.20
Brown	Chipping	2.47
Brown	Riparian Zone	1.00
Brown	ESA	0.18
Brown	Pile & Burn	0.12
Bruce	Pile & Burn	7.91
Bruce	Riparian Zone	2.31
Bruce	ESA	0.37
Buck	Chipping	3.68
Buck	Riparian Zone	0.46
Buck	ESA	0.51
Mild Terrain Units	Chipping	44.38
Mild Terrain Units	Riparian Zone	2.10
Mild Terrain Units	ESA	0.96
Welch/Grove	Chipping	16.55
Welch/Grove	Riparian Zone	1.72
Welch/Grove	ESA	4.78
Harvey Hazard Trees	Pile & Burn	0.26

Rough Terrain Units	Pile & Burn	20.15
Rough Terrain Units	Riparian Zone	5.10
Rough Terrain Units	ESA	0.33
Reffuse	Pile & Burn	9.19
Reffuse	Riparian Zone	4.33
Reffuse	ESA	1.93
Rocky Point Unit	Pile & Burn	28.62
Rocky Point Unit	Riparian Zone	1.55
Rocky Point Unit	ESA	0.36
	Total Chipping	70.48
	Total Pile & Burn	66.23
	Total Riparian Zone	20.76
	Total ESA	9.43
	Grand Total	166.93

**Groups** are units with similar terrain, cover types, and treatments that have been grouped together. Some “groups” contain just one unique property. Conditions on each group are described below:

- *Mild Terrain Units* - Generally characterized by gradual slopes, relatively light fuel loading, and 10 - 20” DBH dead trees predominantly oaks. Material is to be treated via chipping except in riparian zones and environmentally sensitive areas.
  - Includes 6 separate properties.
- *Welch/Grove* - Generally characterized by gradual slopes with some steeper slopes (>40%) interspersed, some sections contain rocky outcroppings obstructing machine access, fuel loading is relatively higher especially on north facing slopes, and a greater component of dead conifers ranging from 12 - 18”

DBH comprise this unit. Material is to be treated via chipping except in riparian zones and environmentally sensitive areas.

- *Rough Terrain Units* - Generally characterized by steeper slopes (>40%), relatively higher fuel loading with greater deerbrush, blackberry and wild grape components. Material is to be treated via pile-and-burn except in riparian zones.
  - Includes 4 separate properties.
- *Rocky Point Unit* - Generally characterized by steep slopes (40 - 60%), relatively light fuel loading, and 10 -20" DBH dead trees predominantly oaks. Material is to be treated via pile-and-burn except in riparian zones.
  - Includes 4 separate properties.
- *Bethune* - Generally characterized by dense fuel loading, steep slopes, wet areas, and dead trees 12 - 24" DBH predominantly conifers. Material is to be treated via chipping except in riparian zones.
- *Brown* - Generally characterized by dense fuel loading, steep slopes, and dead trees 12 - 24" DBH predominantly conifers. Material is to be treated via chipping except in riparian zones and environmentally sensitive areas.
- *Bruce* - Generally characterized by moderate fuel loading, rolling hills with slopes at times exceeding 40%, and dead trees composed of a hardwood conifer mixed forest, conifers tending to be larger, 14 - 24 DBH, and hardwoods tending to be smaller, 10 - 18" DBH. Material is to be treated via pile-and-burn except in riparian zones.
- *Buck* - Generally characterized by steep slopes with some accessibility for machines, the prescription is chipping but alternative methods may be necessary on steep slopes, fuel loading is relatively light, and 10 - 20" DBH dead trees predominantly oaks. Material is to be treated via chipping except in riparian zones and environmentally sensitive areas.

- *Reffuse* - Steep slopes, dense fuel loading composed of deerbrush, blackberry, and broom, unit interrupted by multiple drainages, decent access with a mix of maintained and unmaintained roads throughout the unit, and 12 - 24" DBH dead trees predominantly conifers. Material is to be treated via pile-and-burn except in riparian zones.

*If certain treatments or "groups" are more feasible for a contractor to perform work, it is acceptable to bid on select items. However, the preferred contractor will have the ability to complete at least 50% of project work.*

## Specifications

- **Hardwood Release Specifications**

- Cut all brush and resprouting trees to ground level, except always retain (and do not prune) the following species:
  - Willow
  - Alder
  - Dogwood
  - Any conifer seedlings.

Otherwise, leave 1 tree per 25 feet, pruned (if a bushy resprout) to 3-4 of its strongest leaders. Leave trees will be of the following species (in order of preference from highest to lowest)

- Black oak
  - Big leaf maple
  - Live oak
  - Madrone
- When bay laurel or toyon is encountered, prune to a single leader (do not cut to ground because that will only stimulate resprouting). No spacing is necessary with these species.

- **Burn Pile Specifications**

- Piles shall not be placed within 10' of retained hardwood resprouts.
- Piles shall not be placed within 15' of conifer seedlings.
- Piles shall not be placed within 10' of retained trees and snags.
- In areas containing sensitive resources the contractor shall construct piles following the direction of monitors.

- **Habitat Pile Specifications** *(Only applies in riparian zones)*
  - Piles shall not exceed 12' in diameter and 6' in height
  - Larger, heavier material shall be positioned at the base of piles.
  - Smaller, lighter material shall be positioned on top of larger, heavier material.
  - Piles shall be at least 75' apart from each other.
  - Piles shall be at least 10' from retained trees and snags.
  - Piles shall be at least 5' from the bank of watercourses.
  - Piles shall not be constructed on conifer seedlings.
  
- **Burning Specifications**
  - The contractor shall have the ability and experience to organize and implement low complexity burns (burn piles), contain the fire within the unit and monitor the burn effectively.
    - Although not required, provide documentation of any qualifications such as Type 3 Prescribed Fire Burn Boss (RXB3) as part of the proposal package.
  - The contractor will be responsible for contacting CAL FIRE and Butte County Air Quality Management District (BCAQMD) to ensure burning occurs on permissible burn days.
  - If burning is to occur on days when permitting is required it is incumbent upon the contractor to obtain permits, create smoke management plans, and create burn plans.
  - The contractor will burn all piles and achieve a consumption rate of at least 90%.
  - Ignited piles shall be monitored through the duration of the burn.
  - Ignited piles shall not damage surrounding residual hardwood resprouts.
  
- **Chipping Specifications**
  - Material shall be broadcast as widely as possible to avoid large piles.
  - Material shall not be broadcast to cause piling at the base of residual trees.
  - Material shall be broadcast as evenly as possible across the unit.
  - Material shall not be broadcast on roads or Riparian Zones.
  - Material depth shall not exceed 4 inches.



- Broadcast material shall not cause damage to residual hardwood resprouts.

- **Erosion, Sediment and Rutting Specifications**

- It is the responsibility of the contractor to ensure proper measures are taken to minimize erosion on slopes which includes installing waterbars, spreading slash, and, where necessary, using hay bales or silt screens to prevent sediment movement.
- It is permissible to use existing roads and grades to cross watercourses. Where no crossing exists, the RPF or designee will flag a crossing perpendicular to the channel for equipment passage.
- Equipment operation shall cease after any rainfall exceeding a ¼" and shall not resume until a drying period of at least 24 hours has passed or as much additional time as it takes after 24 hours for the soil to no longer be saturated or at the discretion of the RPF or designee.
- During precipitation events and in wet areas equipment operation shall cease before unacceptable rutting occurs.
  - Unacceptable rutting is considered greater than 8" in depth and 6' in length or in areas where ruts are channeling water or causing significant erosion.
  - If unacceptable rutting occurs the following measures shall be taken:
    - Allow the area to dry.
    - Back blade the area
    - Level all ridges
    - Cover the area in chips or slash

- **Work Site Specifications**

- All trash produced during the workday shall be collected and disposed of off-site.
- The contractor shall implement precautions to prevent the spillage of gasoline and oil from equipment refueling and report any spills to the RPF or RPF designee immediately. No refueling shall occur within riparian zones.
- All equipment utilized for the project shall be cleaned prior to bringing into the project area in order to reduce the spread of invasive weeds.

- The Contractor shall perform work in accordance with the Butte Unit Fuels Reduction - Fire Prevention Plan, attached at the end of this document.

## Treatment Types

- "Chipping" *i.e. Hardwood Release Via Chipping*
  - Cut woody brush, resprouts, and standing dead trees, retaining all live large trees and retain hardwood resprouts as described in "Hardwood Release" specifications above. Retain 6 snags/ac as described below. For down dead trees, remove material less than 10" diameter but leave boles and branches greater than 10".
  - All cut woody brush/resprouts will be chipped.
  - For cut dead trees, it is left to the discretion of the contractor as to what treatment to apply. The contractor may choose to either chip trees, pile-and-burn them, or haul material off-site.
    - If chipping is selected, operations shall be conducted in the manner described in "Chipping Specifications" above.
    - If piling and burning is selected, operations shall be conducted in the manner described in "Burn Pile Specifications" and "Burning Specifications" above.
    - A facility or disposable site for hauled material will not be provided by the RCD.
  - Stumps of felled trees will not exceed 1" in height.
  - On select properties it is permissible to deck the boles of hardwoods along driveways and house pads. Properties where this treatment is desired are highlighted on the attached maps.
  - Material greater than 24" in diameter may be left on site.
    - Material greater than 24" in diameter shall be bucked to lengths not to exceed 16' and spread evenly throughout the unit.
  - Retain 6 snags per acre, preferencing hardwood snags and largest-diameter conifer snags.
    - Snags are defined as trees that are dead as a result of natural phenomena (fire, disease, drought stress, etc...) Do not girdle live trees to produce snags.
    - Fewer than 6 snags per acre is permissible when structures, fences, sensitive/flagged resources, or roads, etc are within striking distance.

- Fell all snags within striking distance of homes, storage sheds, functional fences, boundary lines where fences are planned to be installed, driveways, wells or other resources as specified by the Project Manager.
  - Areas where snags must be felled are delineated on attached maps.
- Chipping will be conducted as detailed in "Chipping Specifications" above.
- Heavy equipment is limited to slopes at or below a 40% gradient.
  - Where slopes exceed 40% or where terrain is not accessible, alternative methods are permissible. Including:
    - Hand cutting, piling and burning which shall be conducted as detailed in "Burn Pile Specifications" and "Burning Specifications" above.
    - Hand cutting and removing materials from the slope via winch, rope, or cable systems to be chipped and broadcast. Where possible, material is to be chipped and broadcast onto the slope from which it was removed.
- Where terrain is inaccessible due to extremely steep slopes and in areas where worker safety is compromised, portions of units may be left untreated as agreed upon by the RPF or designee and the foreman on site.
- "Pile-and-Burn" i.e. *Hardwood Release Via Pile-and-Burn*
  - Cut woody brush, resprouts, and standing dead trees. Retain all live large trees and retain hardwood resprouts as described in "Hardwood Release" specifications above. Retain 6 snags/ac as described below. For *down* dead trees, remove material less than 10" diameter but leave boles and branches greater than 10".
  - All cut woody brush/resprouts will be piled and burned.
  - For dead trees, it is left to the discretion of the contractor as to what treatment to apply. The contractor may choose to either pile-and-burn, or haul material off-site.
    - If piling and burning is selected operations shall be conducted in the manner described in "Burn Pile Specifications" and "Burning Specifications" above.
    - A facility or disposable site for hauled material will not be provided by the RCD.
  - Stumps of felled trees will not exceed 1" in height.

- On select properties it is permissible to deck the boles of hardwoods along driveways and house pads. Properties where this treatment is desired are highlighted on the attached maps.
  - Material greater than 24" in diameter may be left on site.
    - Material greater than 24" in diameter shall be bucked to lengths not to exceed 16' and spread evenly throughout the unit.
  - Equipment is permissible where slopes are less than 40%. Winch, cable, and rope systems can be employed to manipulate materials where slopes exceed 40%.
  - On slopes exceeding 40% all material greater than 10" diameter may be retained or left where it lays.
  - Retain all live trees and 6 snags per acre preferencing hardwood snags and largest-diameter conifer snags.
    - Snags are defined as trees that are dead as a result of natural phenomena (fire, disease, drought stress, etc...) Do not girdle live trees to produce snags.
    - Fewer than 6 snags per acre is permissible when structures, fences, sensitive/flagged resources, or roads, etc are within striking distance.
  - Fell all snags within striking distance of homes, storage sheds, functional fences, boundary lines where fences are planned to be installed, driveways, wells or other resources as specified by the Project Manager.
    - Areas where snags must be felled are delineated on attached maps.
  - It is expected that cutting and piling will be accomplished as early as possible in the season so piles can be left to cure then burned when burning conditions are acceptable.
  - Where terrain is inaccessible due to extremely steep slopes and in areas where worker safety is compromised, portions of units may be left untreated as agreed upon by the RPF or designee and the foreman on site.
- Riparian Zones *Hardwood Release*
    - Activities in Riparian Zones shall be limited to handwork, no chipping.
    - Cut woody brush, resprouts, and standing dead trees. Retain all live large trees and retain hardwood resprouts as described in "Hardwood Release" specifications above. Retain 6 snags/ac as described below. For down dead trees, cut material less than 10" diameter but leave boles and branches greater than 10".

- Riparian adapted species such as bigleaf maple, dogwood, elder, willow, cottonwood, and native rose shall not be cut.
- A combination of piling and lop-and-scatter methods will be employed in Riparian Zones.
  - Material is to be piled according to the "Habitat Pile Specifications" detailed above.
  - Excess material, that if added to habitat piles would cause them to exceed the maximum size specified, is to be lopped and scattered.
- No more than 3 habitat piles per acre will be permissible.
- Habitat piles shall be favored over lop-and-scatter methods.
- It is permissible to manipulate materials in the Riparian Zone (or pull materials out) by using ropes, winch, and cable systems and by using equipment based outside the zone reaching in.
- Retain 6 snags per acre, preferencing hardwood snags and largest-diameter conifer snags.
  - Snags are defined as trees that are dead as a result of natural phenomena (fire, disease, drought stress, etc...) Do not girdle live trees to produce snags.
  - Fewer than 6 snags per acre is permissible when structures, fences, sensitive/flagged resources, or roads, etc are within striking distance.
- Fell all snags within striking distance of homes, storage sheds, functional fences, boundary lines where fences are planned to be installed, driveways, wells or other resources as specified by the Project Manager.
  - Areas where snags must be felled are delineated on attached maps.
- Stumps of felled trees will not exceed 1" in height.
- All material less than 10" diameter shall be treated.
- Trees to be felled with boles exceeding 10" diameter shall be felled perpendicular to and away from watercourses. All material less than 10" diameter shall be piled or lopped and scattered. Material greater than 10" diameter can be left on the ground inside the Riparian Zone. All material falling outside the Riparian Zone shall be treated as specified in the respective unit (chipped or piled and burned).

- *"ESAs" i.e. Hardwood Release in Environmentally Sensitive Areas*
  - Inside ESAs, work will be coordinated with, and directed by, cultural monitors from Mooretown Rancheria. Therefore, the contractor shall contact the Project Manager at least one day prior to beginning work in an ESA.
  - Activities in Environmentally Sensitive Areas (ESA) shall be limited to handwork, no chipping.
  - Cut woody brush, resprouts, and standing dead trees. Retain all live large trees and retain hardwood resprouts as described in "Hardwood Release Specifications" above. Retain 6 snags/ac as described below. For down dead trees, remove material less than 10" diameter but leave boles and branches greater than 10". There may be instances where trees must be directionally felled to avoid damaging sensitive resources.
  - Under supervision of the Cultural Monitor, material is to be piled and burned as detailed in "Burn Pile Specifications" and "Burning Specifications" above.
  - Retain all large live trees and 6 snags per acre preferencing hardwood snags and largest-diameter conifer snags.
    - Snags are defined as trees that are dead as a result of natural phenomena (fire, disease, drought stress, etc...) Do not girdle live trees to produce snags.
    - Fewer than 6 snags per acre is permissible when structures, fences, sensitive/flagged resources, or roads, etc are within striking distance.
  - Fell all snags within striking distance of homes, storage sheds, functional fences, boundary lines where fences are planned to be installed, driveways, wells or other resources as specified by the Project Manager.
    - Areas where snags must be felled are delineated on attached maps.
  - Stumps of felled trees will not exceed 1" in height.
  - All material less than 10" diameter shall be treated.
  - When trees with boles exceeding 10" diameter are felled, the large bole may be left in place but all parts of the bole and branches less than 10" shall be piled and burned.

## *Resource Protection*

### Riparian Zones

*Ephemeral streams* (or wetlands) will be buffered 25' from the streambank (or, for a wetland, from the outer edge of wetland obligate vegetation). Within the buffer, no heavy equipment will enter, but may reach into the buffer as long as the boom arm reaches. If a dense infestation of invasive plants exists within the buffered area, chipping of invasives is acceptable provided chips are broadcast outside the buffered area. Equipment may establish a single perpendicular crossing (if none exists) for each ephemeral stream, and continue to use it for the life of the project.

*Perennial streams* (or wetlands) will be buffered from the streambank: 40' if under 30% slope, 50' if 30-50%, 60' if over 50% . Perennial wetlands will be buffered the same distance from the outer edge of wetland obligate vegetation. Within the buffer, no heavy equipment will enter, but may reach into the buffer as long as the boom arm reaches. Machines and vehicles can use existing roads/driveways, landings and crossings within the stream buffer, but cannot create new ones.

### Noise

Use of fuel-powered equipment (e.g. chain saws, chipper, masticator) is part of the project. The area is a high to extreme wildfire risk zone, where equipment operation carries some risk of unintentional ignition. Therefore, in some cases, it may be safest to operate equipment late at night, when relative humidities are highest. If nighttime operations are necessary, the community will be notified by the project manager using social media and (when feasible) direct communications to neighbors. Notifying every neighbor is not always possible or practical. No sensitive receptors (e.g. hospitals, daycares) are within ¼ mile for this project.

## *Additional Information*

### Contractor Requirements

The contractor selected for the treatment of fuels and standing dead trees must be a Licensed Timber Operator. If selected to perform project work, the contractor will be required to provide a Performance Bond for 100% of the awarded amount and provide the BCRCO with proof of appropriate insurance.

Coverage	Minimum Limits
Worker's compensation	Statutory
Comprehensive or Commercial General Liability (Bodily Injury, Property Damage, Personal Injury and including independent contractors, contractual liability, product & completed operations, underground explosion and collapse hazard, and pollution liability)	\$1,000,000 Per Occurrence \$2,000,000 General Aggregate
Automobile Liability (owned, if any, non-owned, and hired), Bodily Injury, Property Damage	\$1,000,000

### Payment Schedule

Payments will be made on a per-acre basis, following inspection of the work. Work must be in compliance with specifications before payment will be made.

Payment can take from ten(10) to ninety (90) days from receipt of an invoice, depending on the speed of reimbursement by the State. The BCRCO will make every effort to expedite payment to the contractor.

### Proposal Expectations

This contract will not be awarded based solely on the lowest proposal. This project requires experience and references as described in the Additional Information section under the subheading References & Required Experience. The Contractor shall submit the proposal for activities identified in this Request for Proposals using the Bid Form Attachment. Proposals may be rejected if the Bid Forms are not used or are incomplete.

### Site Locations

Exact addresses will be disclosed upon award of contract. The project's 21 units are located in the Berry Creek, Oroville Dam and Forbestown USGS quadrangles, which



include parcels located in T20N, R05E sections 21, 25, 36; T20N, R06E sections 14, 29, 31; and T21N R05E sections 14, 28, 34.

## Subcontracting

Any subcontractors must be identified along with the defined work they will perform on the bid form provided. The BCRC D will not refuse a proposal based on the use of subcontractors but does retain the right to refuse the subcontractors selected. The Contractor shall remain solely responsible for all subcontracted work.

## References & Required Experience

The preferred contractor will have experience in heavy machinery operation, hand-work, pile construction, and pile burning. The contractor will be a Licensed Timber Operator in the state of California. The Contractor will provide proof of completion and references for three (3) projects of similar size and scope (as determined by the BCRC D Project Manager). References should speak to the contractor's experience in the type of work identified in the Project Specifications. References should include a contact name and current phone numbers.

## Performance Bonding

The awarded contractor will be required to provide a Performance Bond for 100% of the awarded amount.

## Disputes

Disputes regarding awarding of the contract will be decided by the BCRC D Board. Written appeal must be received within 10 days of the award.

## Rework & Re-inspection after Rework

If inspection results are below 90% and excess trees or brush constitute a part of the deficiency, payment may not be made until the problem has been corrected, unless the Project Manager determines that a reduction in pay in lieu of rework is acceptable.

## Safety

When Contractor's operations are in progress adjacent to or on County or Forest Service Roads, the Contractor shall furnish, install, and maintain all temporary traffic controls which provide the road user with adequate warning of hazardous or potentially hazardous conditions associated with Contractor's operations. Devices shall be specified as in the "Manual on Uniform Traffic Control Devices for Street and Highway" (MUTCD). Devices shall be appropriate to current conditions and covered or removed when not needed.

## Protection of Improvements and Survey Monuments

The Contractor shall avoid any damage to improvements such as, but not limited to trails, telephone lines, pipelines, structures, roads, fences, gates, utility poles, power lines, pedestals, survey markers or monuments, and survey witness trees. The contractor will be required to repair or pay fair market value to replace any damaged improvements.

## Certification of Compliance

The Contractor shall certify compliance with specific fire precautionary measures included in the attached Fire Plan. The certification shall be made prior to commencement of work and shall be updated if at any time during performance the conditions change.

## *Attachments*

1. Contractor Information (pg. 19)
2. Bid Proposal Form (pg. 20)
3. Work Plan (pg. 22)
4. Proposed Subcontractors (pg. 23)
5. Maps (pg. 25)
6. CAL FIRE - Fire Prevention Plan (pg. 42)

**SFLAP 2024**

*Attachment 1 - Contractor Information*

Proposal Due Date: September 10, 2024 at 1700



Company Name: \_\_\_\_\_

Company  
Address: \_\_\_\_\_

Contact  
Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Federal ID or SSN#: \_\_\_\_\_ Years in Business: \_\_\_\_\_

**References:** Provide 3 references, with contact names and phone numbers for each reference.

1. Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Business Name/ Client: \_\_\_\_\_

2. Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Business Name/ Client: \_\_\_\_\_

3. Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Business Name/ Client: \_\_\_\_\_

**Bid Validity** :Please specify the length of time this bid is valid for (minimum of 30 days). \_\_\_\_\_

**Bid Information**

Bidder agrees to accept as full payment the following total base bid price:

\_\_\_\_\_ dollars

(in words)

\_\_\_\_\_

(in numerals)

In the event of a discrepancy, amount in words shall prevail.

The bidder hereby acknowledges that the total base bid price is based solely on the bidder’s own estimate of costs and includes all applicable taxes, overheads, and profit.

Contractor Signature \_\_\_\_\_



**SFLAP 2024**

*Attachment 2 - Bid Proposal Form*

<b>Groups</b>	<b>Type of Hardwood Release Treatment</b>	<b>Acres</b>	<b>Unit Price</b>	<b>Total</b>
Bethune	Chipping	3.40		
Bethune	Riparian Zone	2.20		
Brown	Chipping	2.47		
Brown	Riparian Zone	1.00		
Brown	ESA	0.18		
Brown	Pile & Burn	0.12		
Bruce	Pile & Burn	7.91		
Bruce	Riparian Zone	2.31		
Bruce	ESA	0.37		
Buck	Chipping	3.68		
Buck	Riparian Zone	0.46		
Buck	ESA	0.51		
Mild Terrain Units	Chipping	44.38		
Mild Terrain Units	Riparian Zone	2.10		
Mild Terrain Units	ESA	0.96		
Welch/Grove	Chipping	16.55		
Welch/Grove	Riparian Zone	1.72		
Welch/Grove	ESA	4.78		
Harvey Hazard Trees	Pile & Burn	0.26		

Rough Terrain Units	Pile & Burn	20.15		
Rough Terrain Units	Riparian Zone	5.10		
Rough Terrain Units	ESA	0.33		
Reffuse	Pile & Burn	9.19		
Reffuse	Riparian Zone	4.33		
Reffuse	ESA	1.93		
Rocky Point Unit	Pile & Burn	28.62		
Rocky Point Unit	Riparian Zone	1.55		
Rocky Point Unit	ESA	0.36		
Mobilization (all units)	N/A	N/A	N/A	
	Total Chipping	70.48	-	-
	Total Pile & Burn	66.23	-	-
	Total Riparian Zone	20.76	-	-
	Total ESA	9.43	-	-
	Grand Total	166.93	-	

**SFLAP 2024**

*Attachment 3 - Work Plan*



Please use the following space to describe in sufficient detail the work plan or methods you will employ to gain site access and accomplish the project according to specifications. This will include a full description of how the project will meet the site requirements and prevent damage to infrastructure.

You may attach a written response to this packet if needed.



**SFLAP 2024**

*Attachment 4 - Proposed Subcontractors*

If the Contractor wishes to subcontract portions of work, the Contractor should submit a list of names and business addresses of subcontracting firms or businesses that will be awarded portions of work.

The Subcontractor list shall be completed and should include the following information:

- A. Subcontractors, listing each subcontractor whose subcontract amount is more than 10 percent of the Contract price with whom the Contractor will subcontract for performance.
- B. The categories of work those subcontractors will perform on the Contract. Categories of work will be listed as treatments described in *Attachment 3 - Project Specifications*.

The subcontract list contained herein shall be submitted to the BCRCD a minimum of 5 days prior to commencement of any subcontracted work.

*Subcontractor List*

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Category of Work to be Performed	Portion of Contract (%)



Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Category of Work to be Performed	Portion of Contract (%)



Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

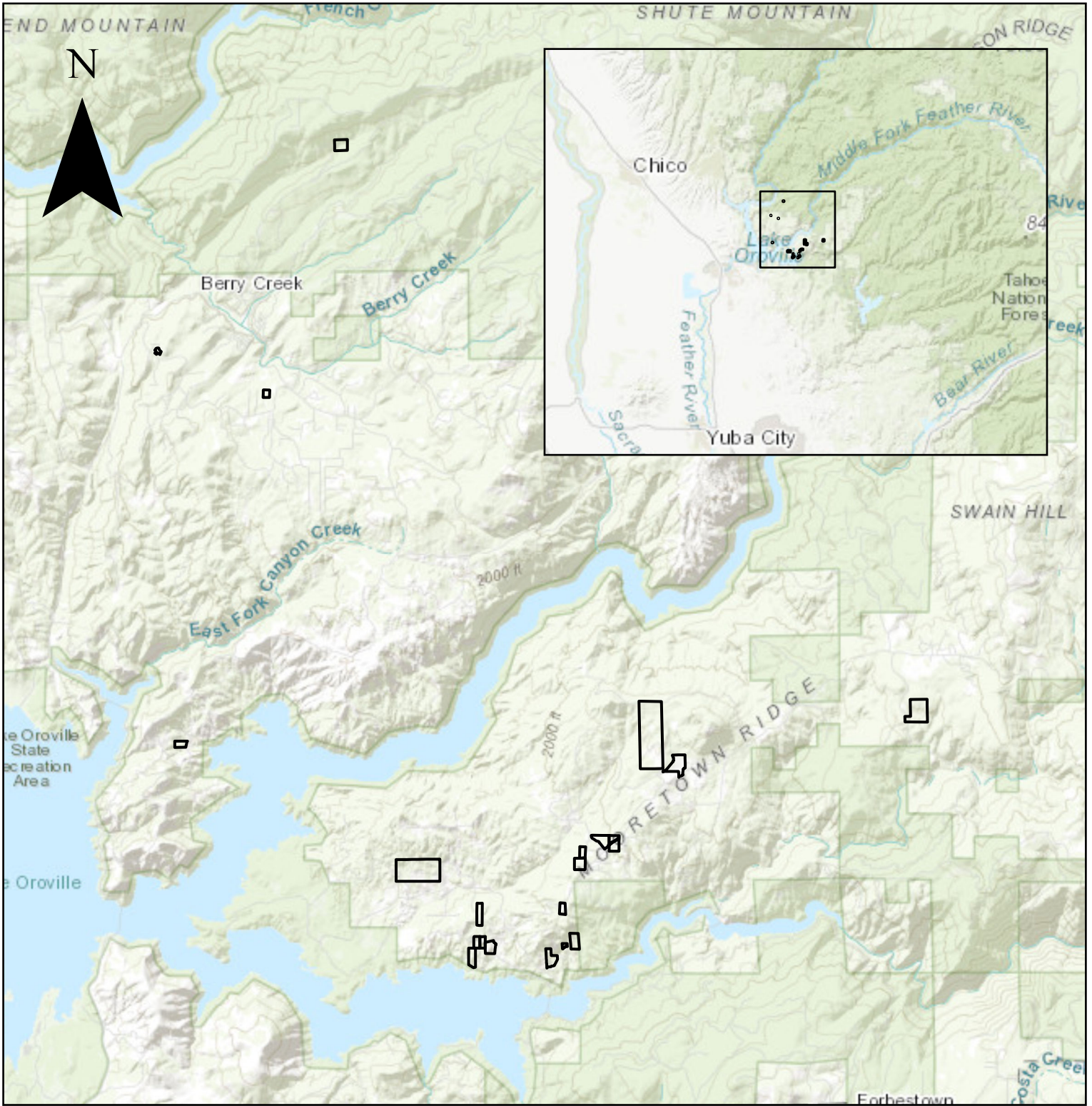
Contact Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

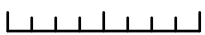
Category of Work to be Performed	Portion of Contract (%)



# SFLAP 2024 Vicinity Map

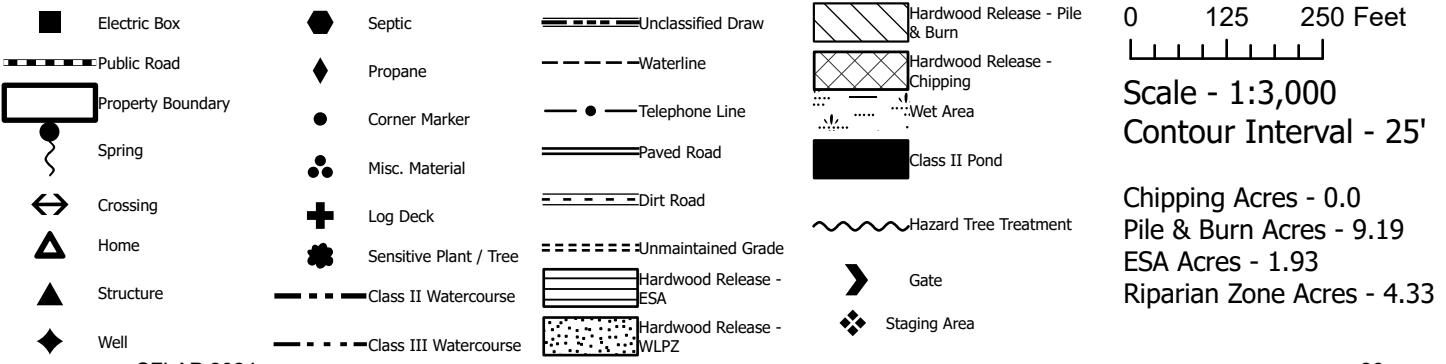
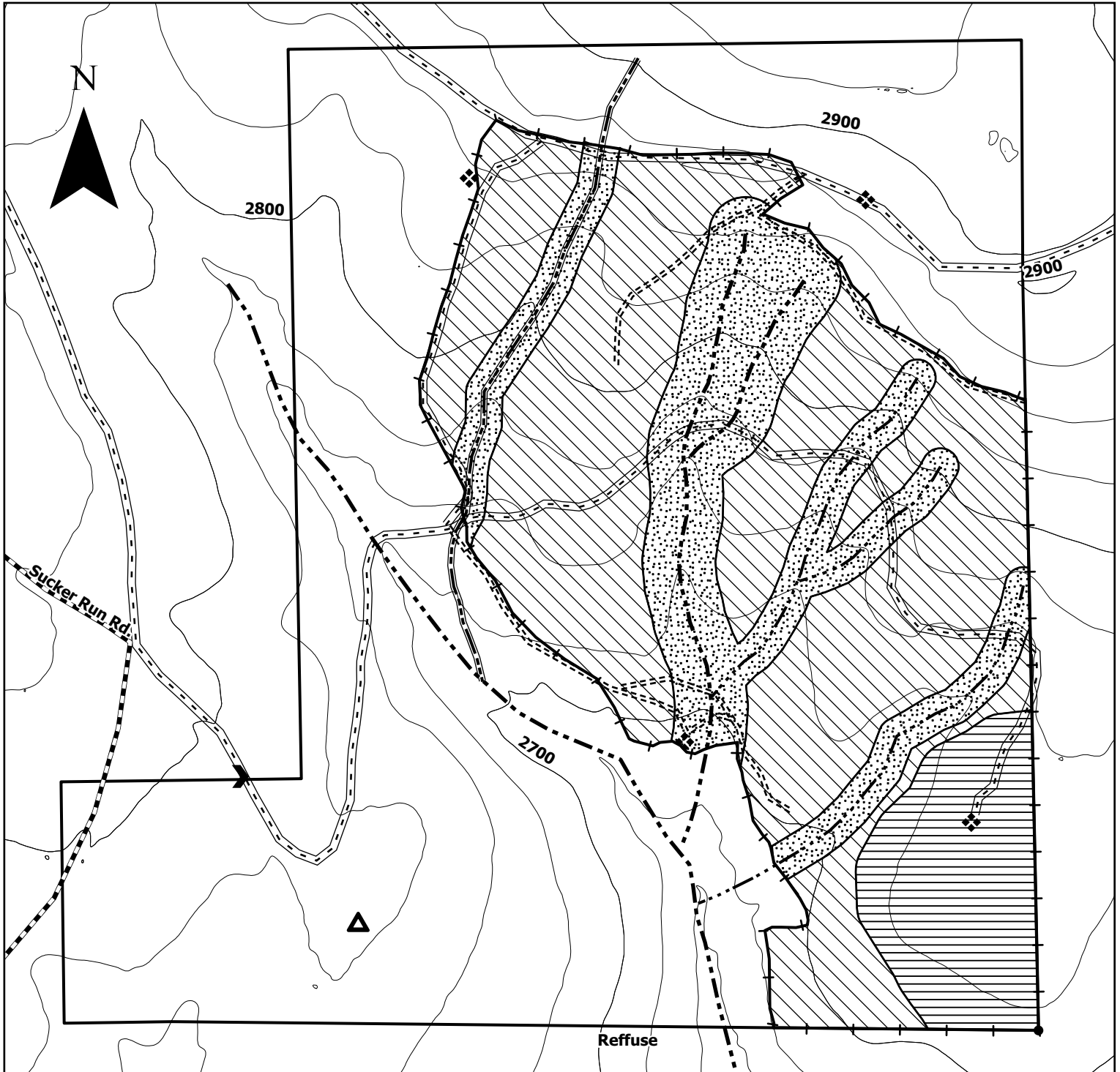


 Properties

0 1 2 Miles  


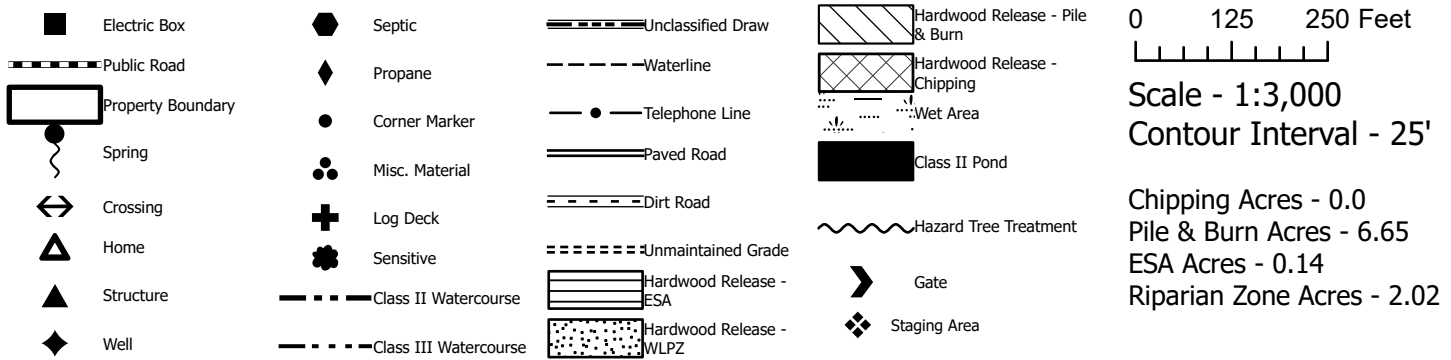
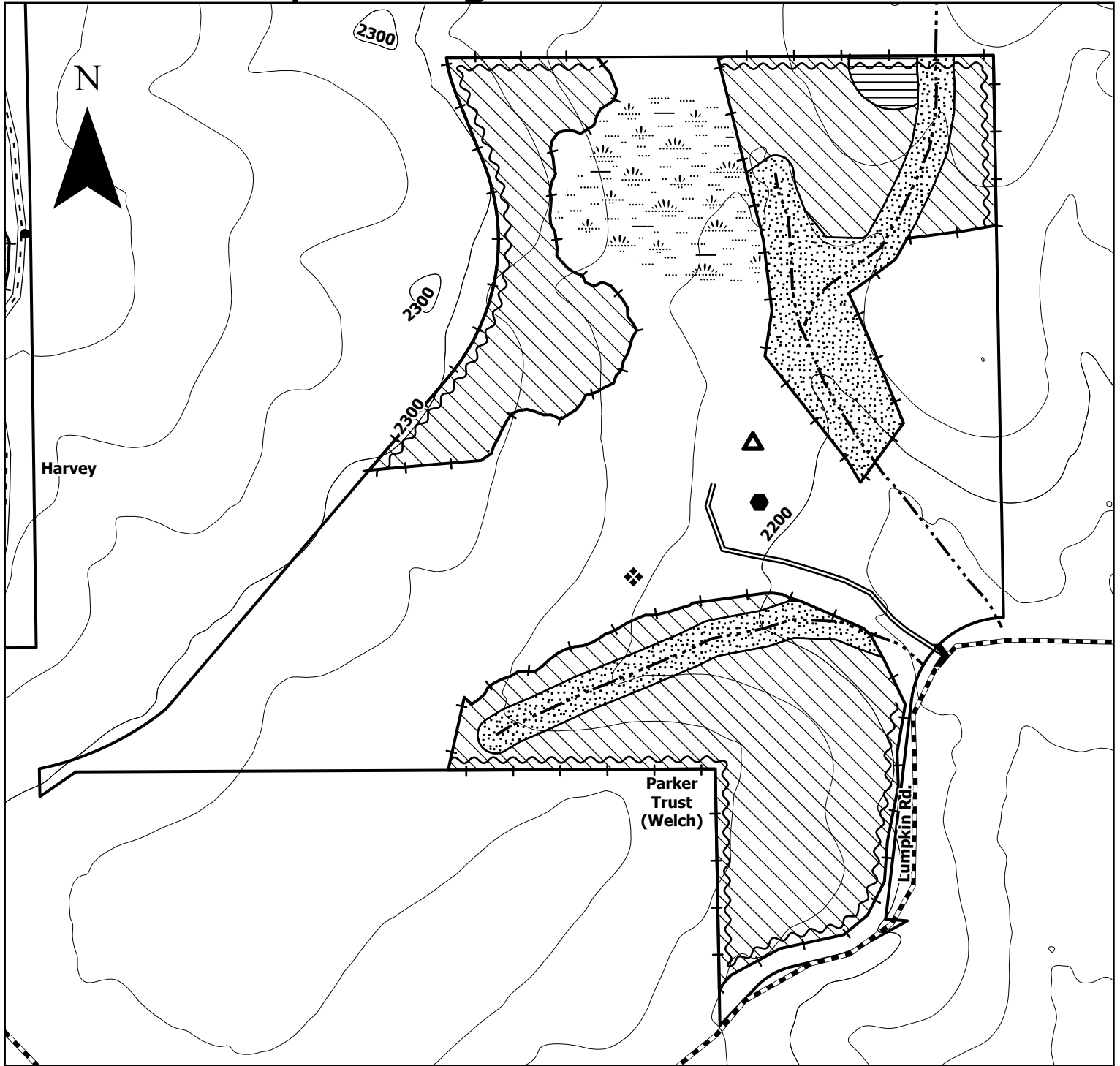
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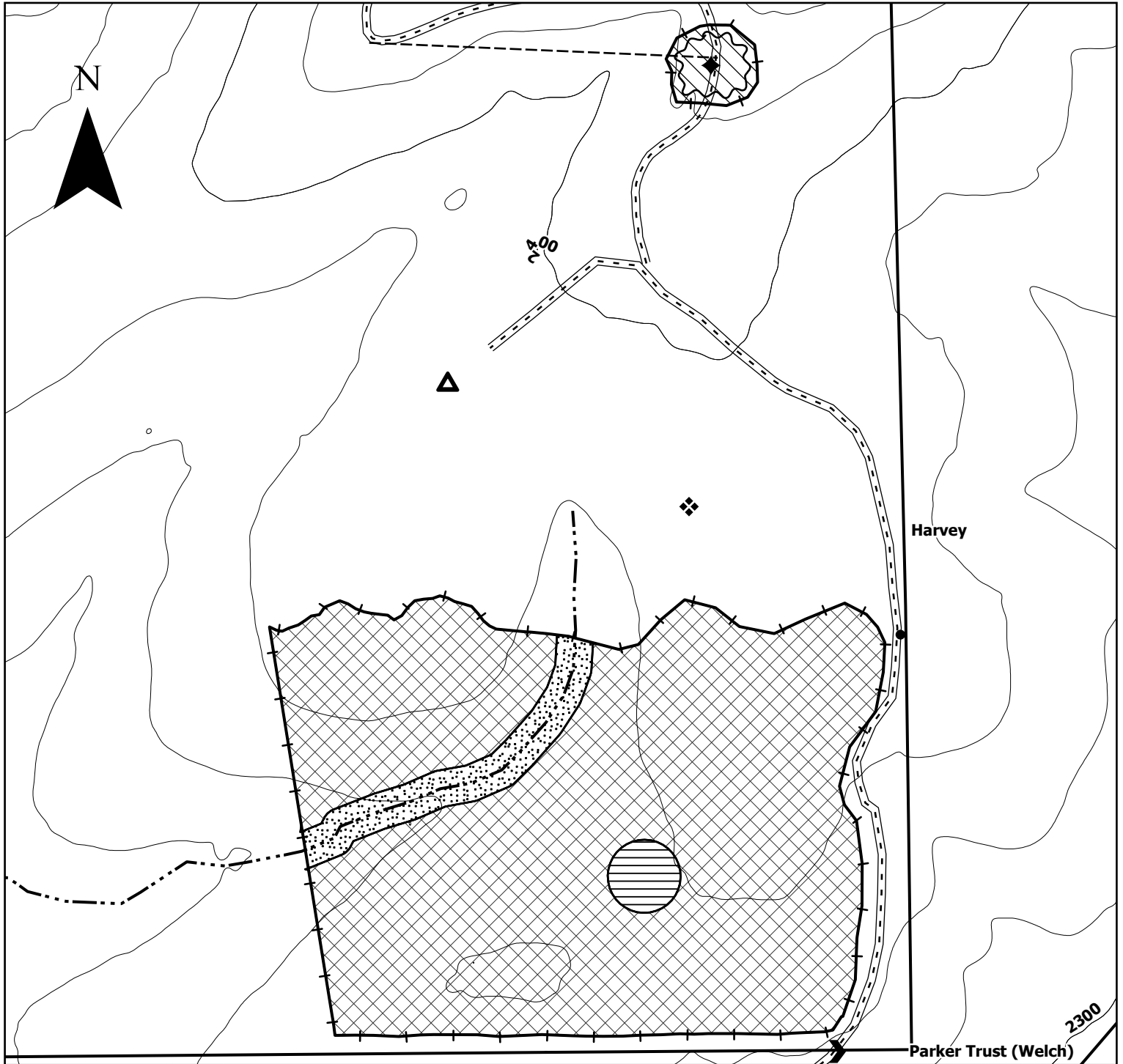
# SFLAP 2024

## Group - Rough Terrain Unit 1 of 4



# SFLAP 2024

## Group - Mild Terrain Unit 1 of 5



<ul style="list-style-type: none"> <li>■ Electric Box</li> <li>▬ Public Road</li> <li>▭ Property Boundary</li> <li>● Spring</li> <li>↔ Crossing</li> <li>▲ Home</li> <li>▲ Structure</li> <li>◆ Well</li> </ul>	<ul style="list-style-type: none"> <li>● Septic</li> <li>◆ Propane</li> <li>● Corner Marker</li> <li>● Misc. Material</li> <li>✚ Log Deck</li> <li>✿ Sensitive</li> <li>— Class II Watercourse</li> <li>— Class III Watercourse</li> </ul>	<ul style="list-style-type: none"> <li>▬ Unclassified Draw</li> <li>--- Waterline</li> <li>—● Telephone Line</li> <li>▬ Paved Road</li> <li>▬ Dirt Road</li> <li>▬ Unmaintained Grade</li> <li>▬ Hardwood Release - ESA</li> <li>▬ Hardwood Release - WLPZ</li> </ul>	<ul style="list-style-type: none"> <li>▨ Hardwood Release - Pile &amp; Burn</li> <li>▩ Hardwood Release - Chipping</li> <li>▨ Wet Area</li> <li>■ Class II Pond</li> <li>~ Hazard Tree Treatment</li> <li>➤ Gate</li> <li>◆ Staging Area</li> </ul>
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0 125 250 Feet

Scale - 1:3,000

Contour Interval - 25'

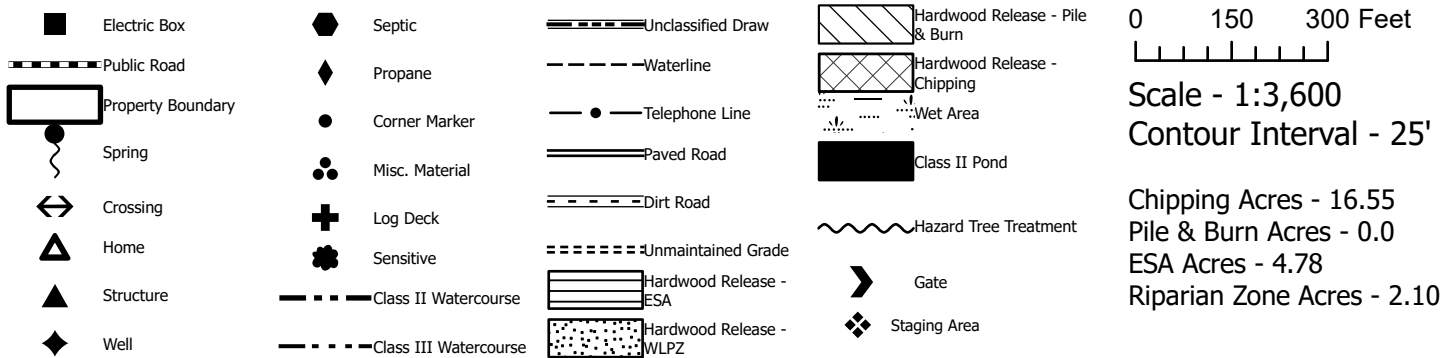
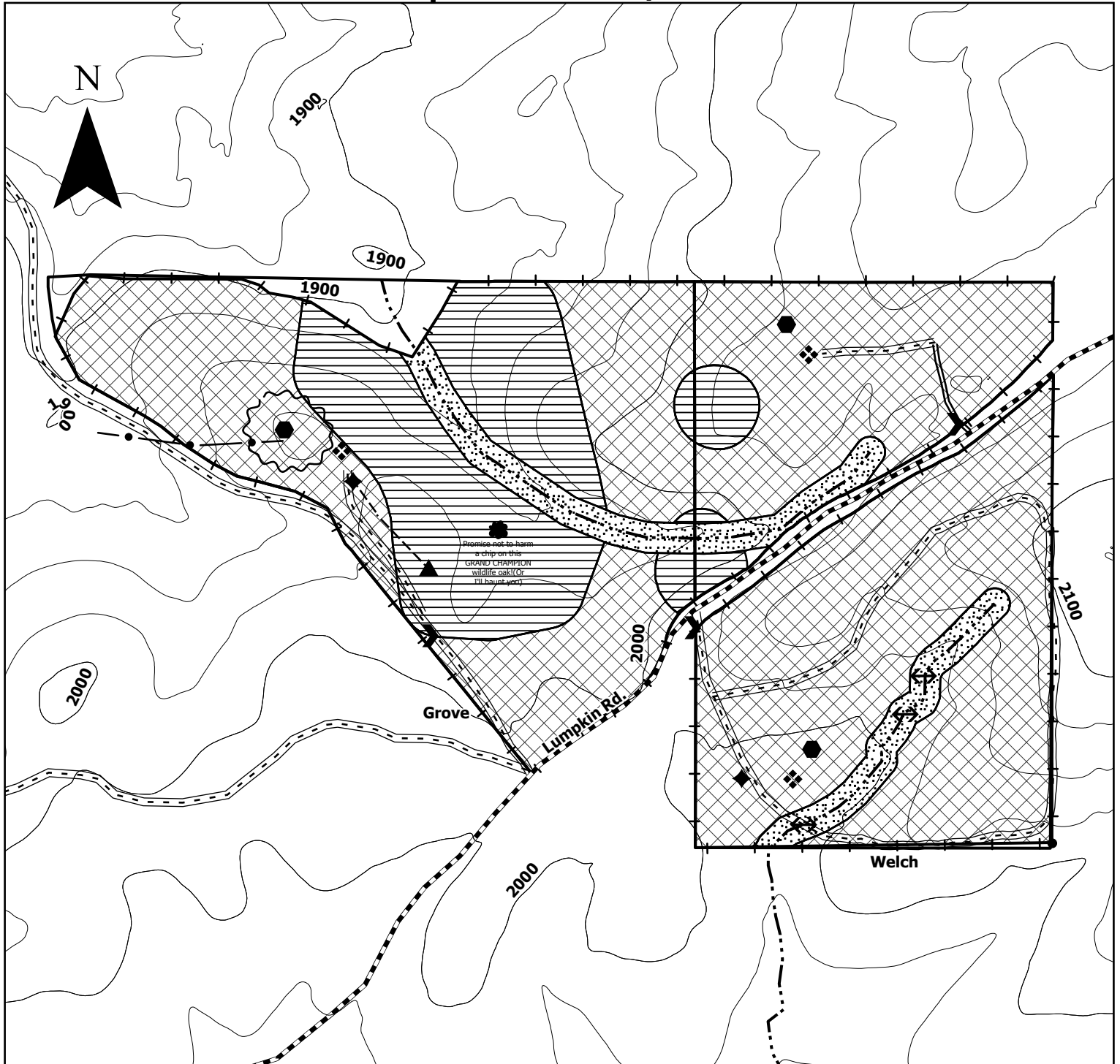
Chipping Acres - 9.19

Hazards Pile & Burn Acres - 0.26

ESA Acres - 0.18

Riparian Zone Acres - 0.58

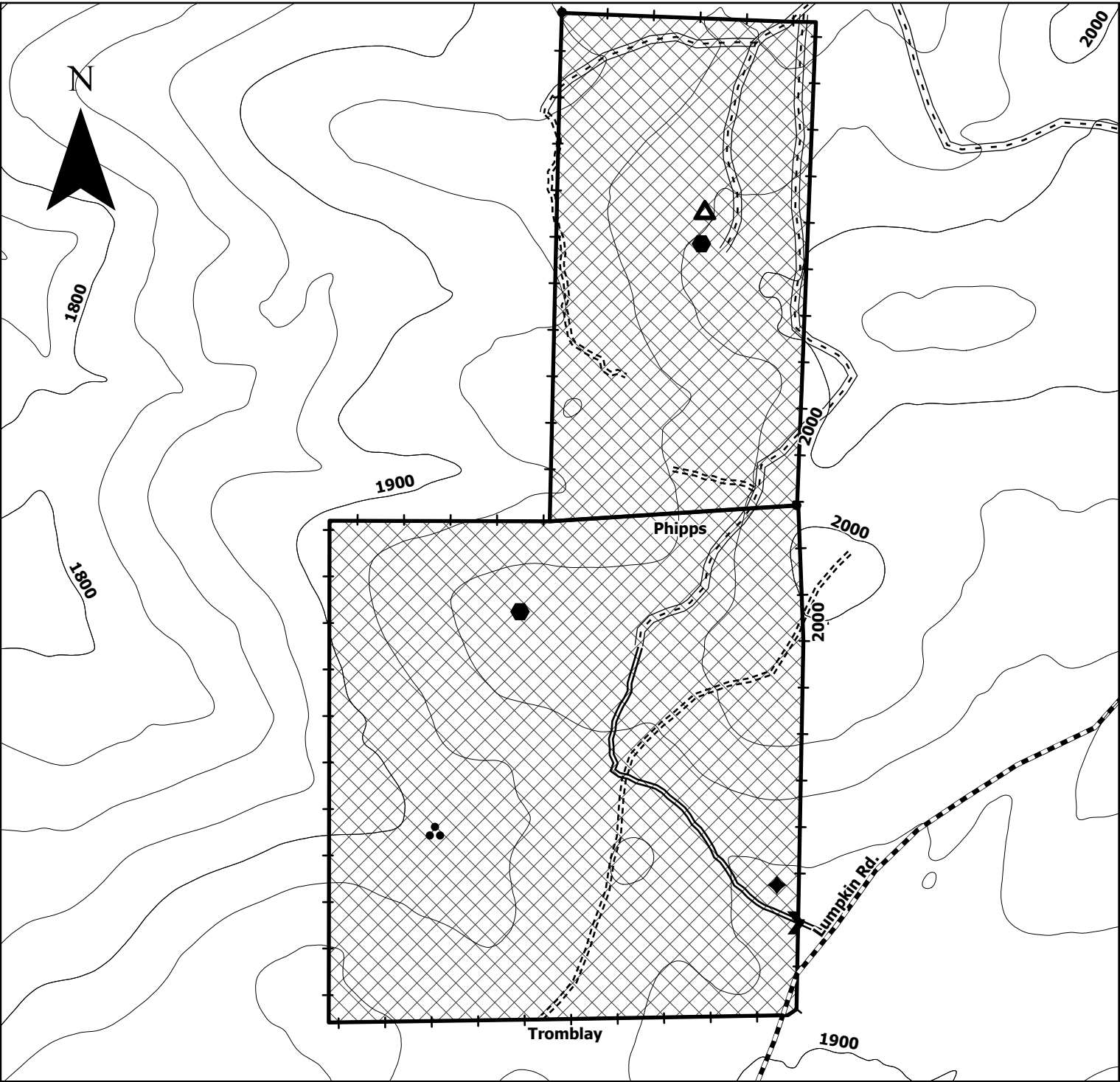
# SFLAP 2024 - Welch & Grove Group - Welch/Grove





# SFLAP 2024

## Mild Terrain Unit 2 of 5



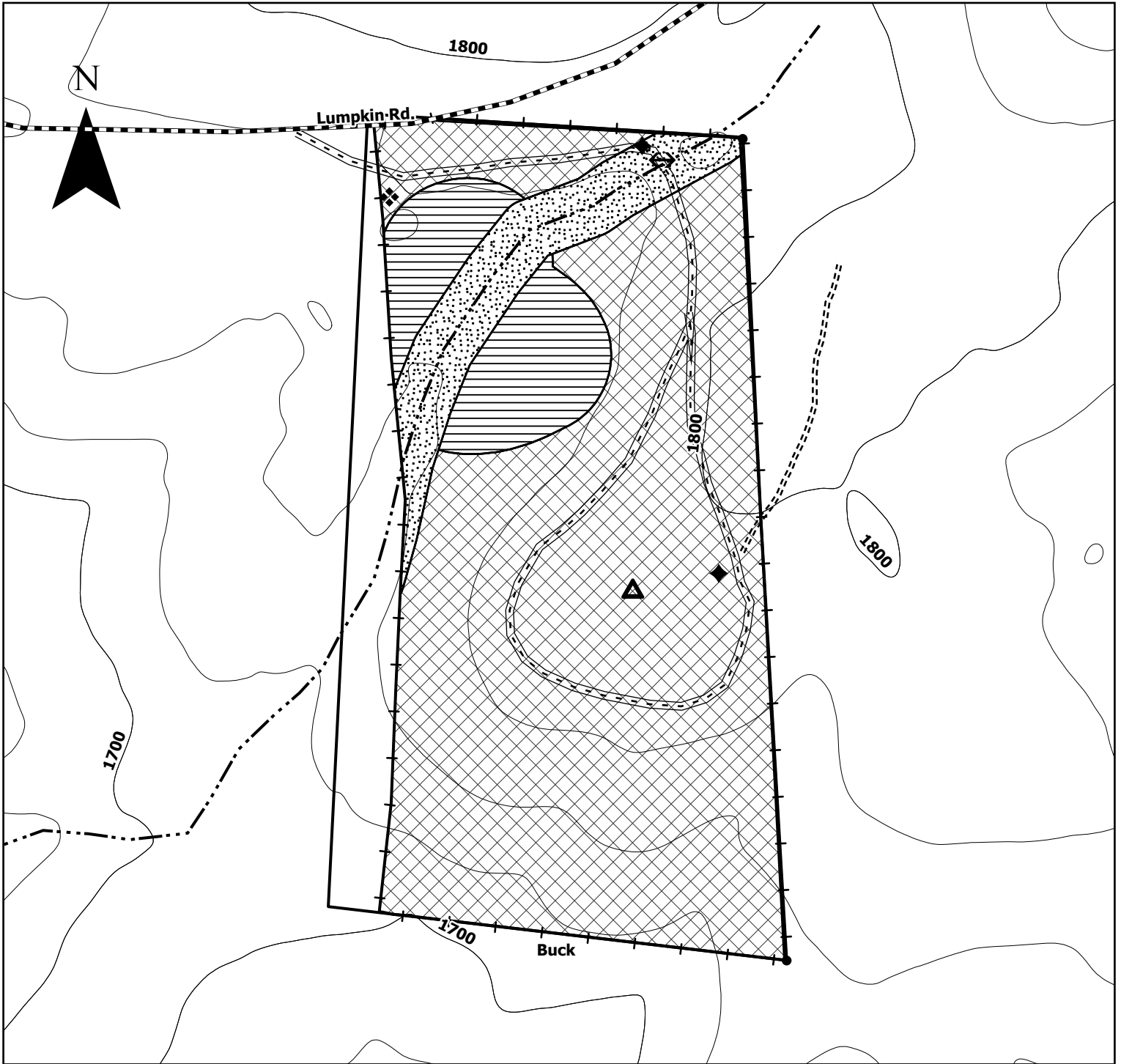
<ul style="list-style-type: none"> <li> Electric Box</li> <li> Public Road</li> <li> Property Boundary</li> <li> Spring</li> <li> Crossing</li> <li> Home</li> <li> Structure</li> <li> Well</li> </ul>	<ul style="list-style-type: none"> <li> Septic</li> <li> Propane</li> <li> Corner Marker</li> <li> Misc. Material</li> <li> Log Deck</li> <li> Sensitive Plant / Tree</li> <li> Class II Watercourse</li> <li> Class III Watercourse</li> </ul>	<ul style="list-style-type: none"> <li> Unclassified Draw</li> <li> Waterline</li> <li> Telephone Line</li> <li> Paved Road</li> <li> Dirt Road</li> <li> Unmaintained Grade</li> <li> Hardwood Release - ESA</li> <li> Hardwood Release - WLPZ</li> </ul>	<ul style="list-style-type: none"> <li> Hardwood Release - Pile &amp; Burn</li> <li> Hardwood Release - Chipping</li> <li> Wet Area</li> <li> Class II Pond</li> <li> Hazard Tree Treatment</li> <li> Gate</li> <li> Staging Area</li> </ul>
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0    125    250 Feet

**Scale - 1:3,000**  
**Contour Interval - 25'**

Chipping Acres - 15.32  
Pile & Burn Acres - 0.00  
ESA Acres - 0.00  
Riparian Zone Acres - 0.00

# SFLAP 2024 - Buck



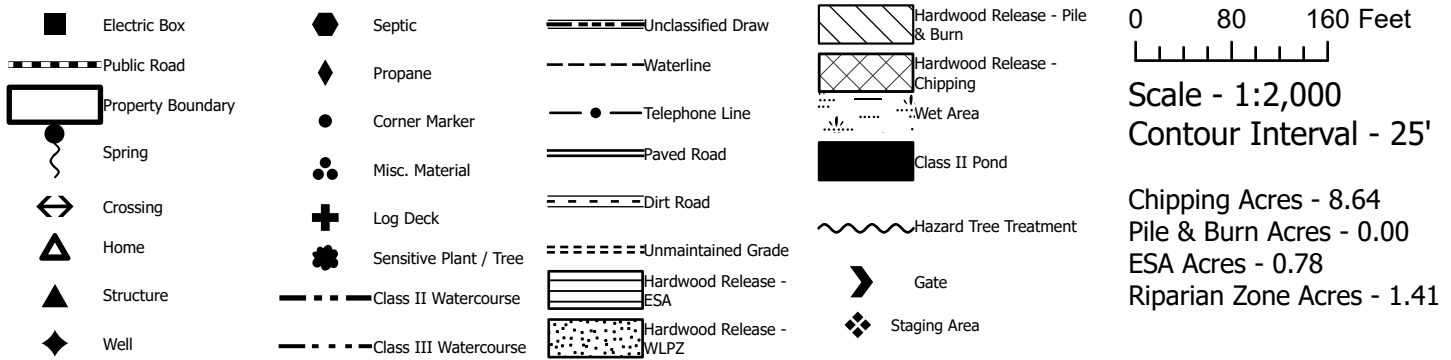
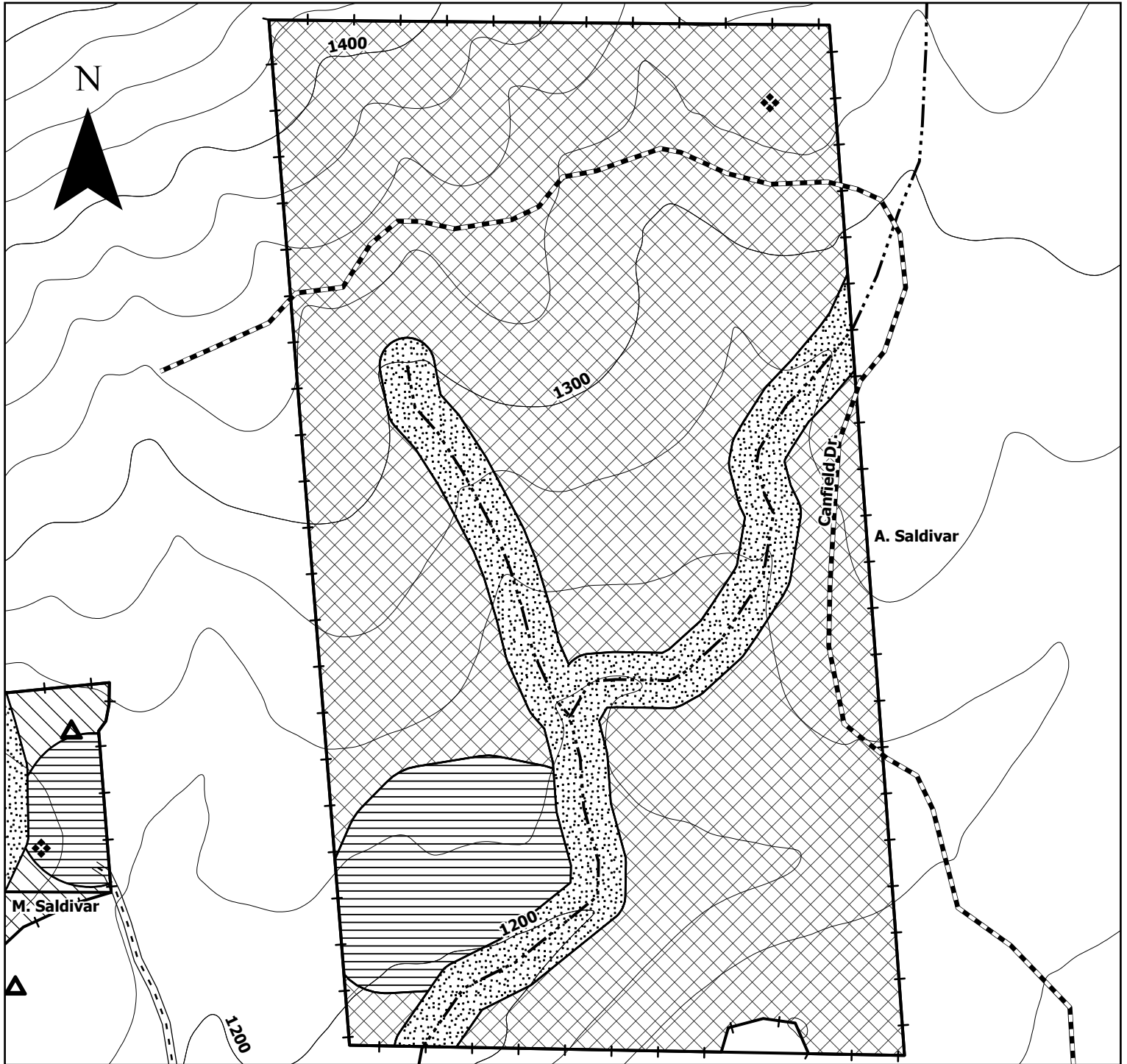
- |                     |                           |                           |                                  |
|---------------------|---------------------------|---------------------------|----------------------------------|
| ■ Electric Box      | ● Septic                  | ==== Unclassified Draw    | ▨ Hardwood Release - Pile & Burn |
| --- Public Road     | ◆ Propane                 | - - - - Waterline         | ▩ Hardwood Release - Chipping    |
| □ Property Boundary | ● Corner Marker           | - ● - Telephone Line      | ⋯ Wet Area                       |
| ⊙ Spring            | ● Misc. Material          | ==== Paved Road           | ■ Class II Pond                  |
| ↔ Crossing          | ⊕ Log Deck                | == Dirt Road              | ~ Hazard Tree Treatment          |
| ▲ Home              | ⊗ Sensitive Plant / Tree  | ⋯ Unmaintained Grade      | ➤ Gate                           |
| ▲ Structure         | --- Class II Watercourse  | ▨ Hardwood Release - ESA  | ◆ Staging Area                   |
| ◆ Well              | --- Class III Watercourse | ▩ Hardwood Release - WLPZ |                                  |

0 75 150 Feet  
 Scale - 1:1,800  
 Contour Interval - 25'

Chipping Acres - 3.68  
 Pile & Burn Acres - 0.00  
 ESA Acres - 0.51  
 Riparian Zone Acres - 0.46

# SFLAP 2024

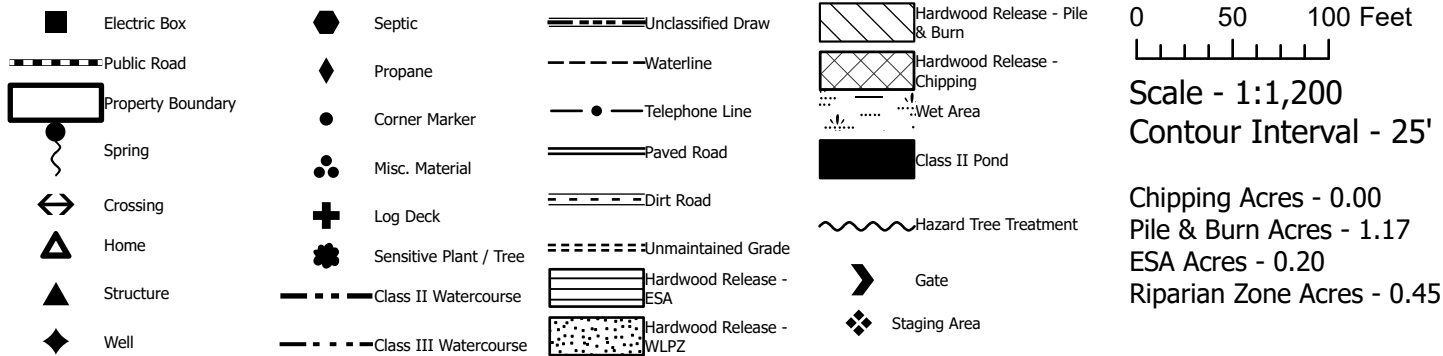
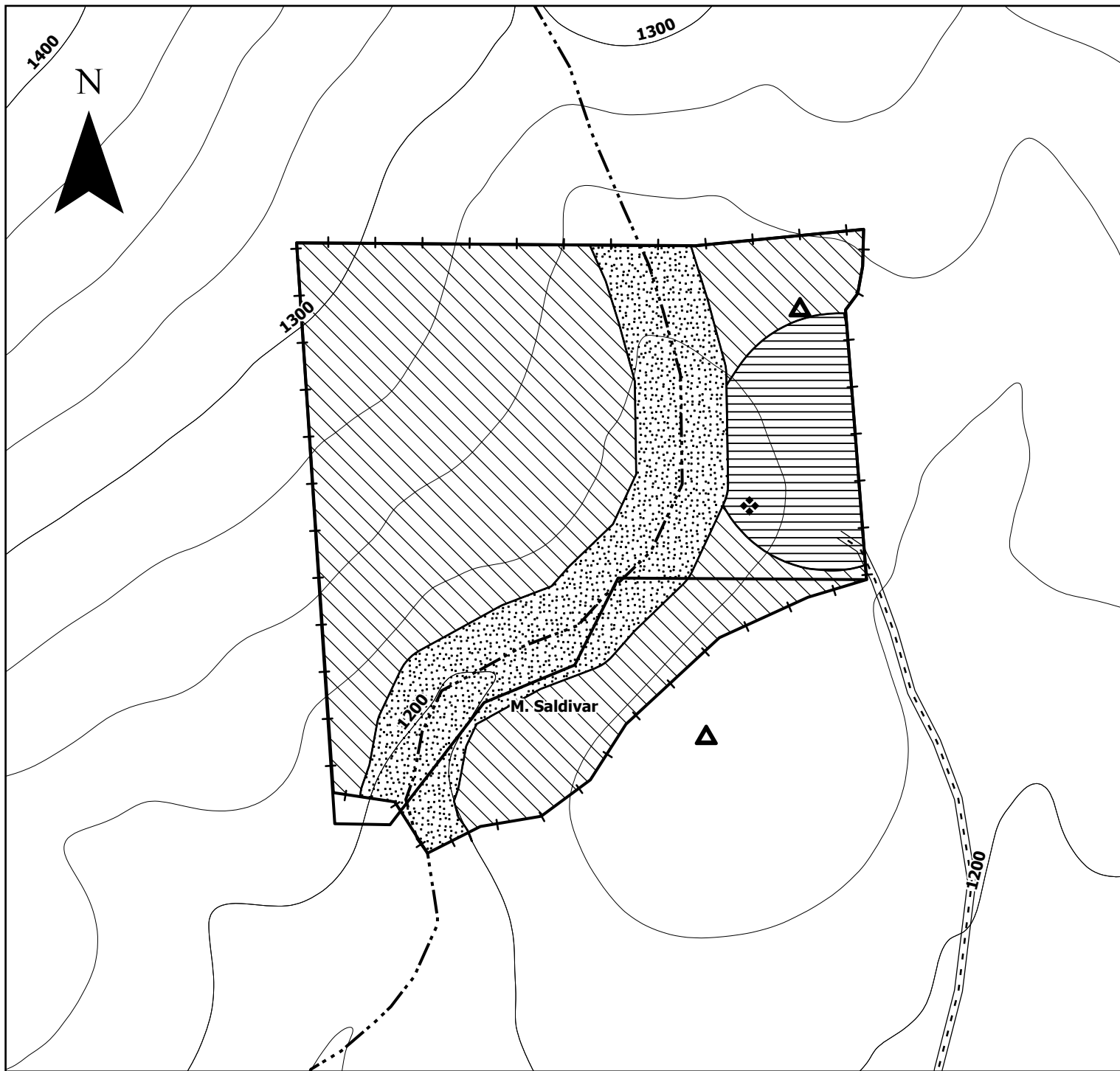
## Group - Mild Terrain Unit 3 of 5





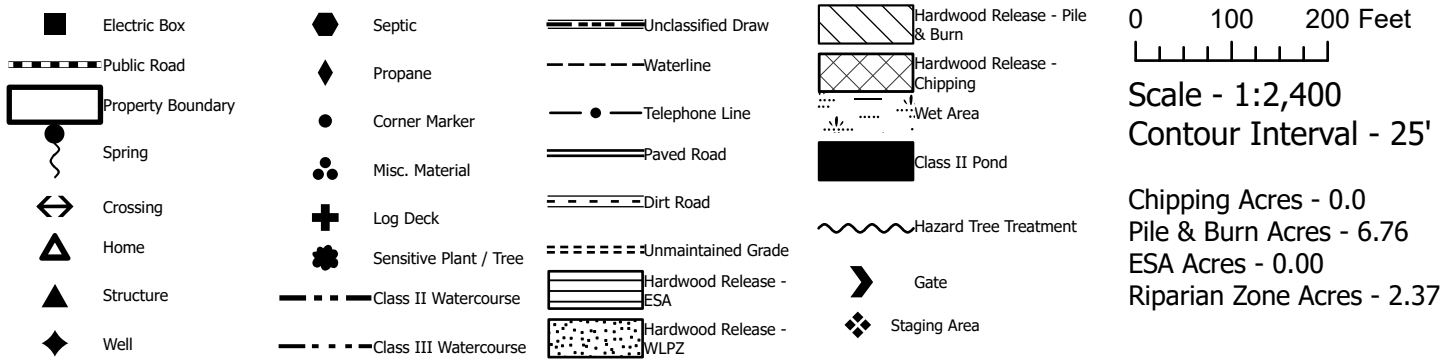
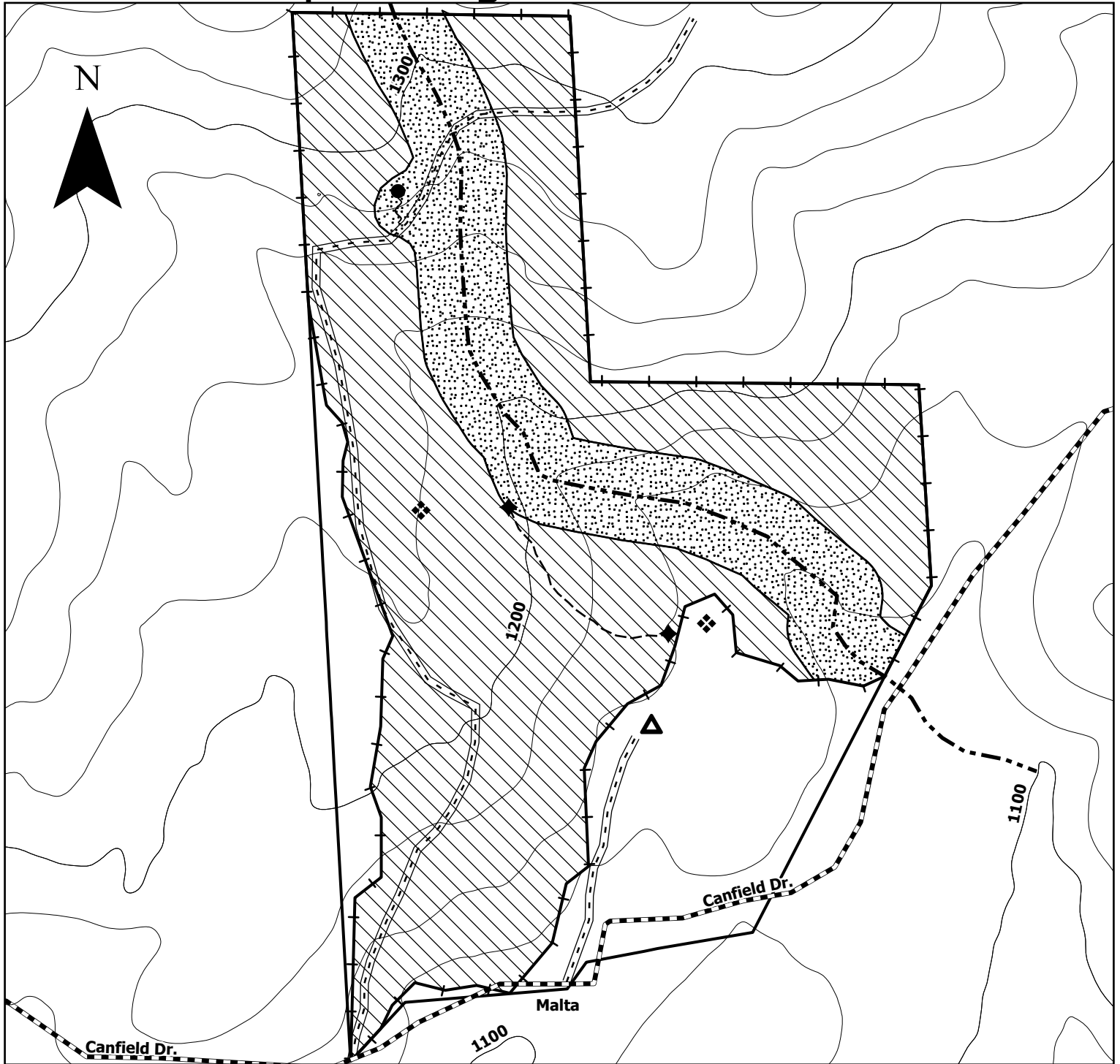
# SFLAP 2024

## Group - Rough Terrain Unit 2 of 4



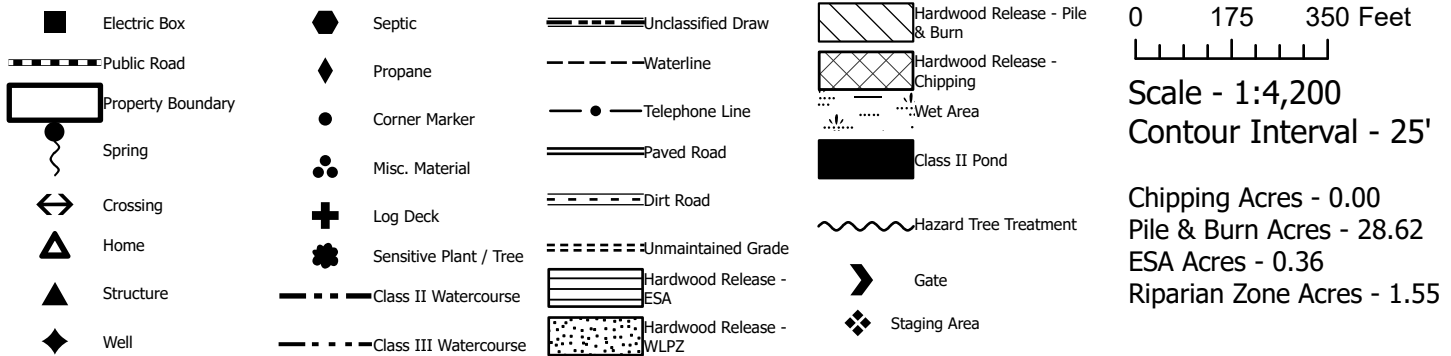
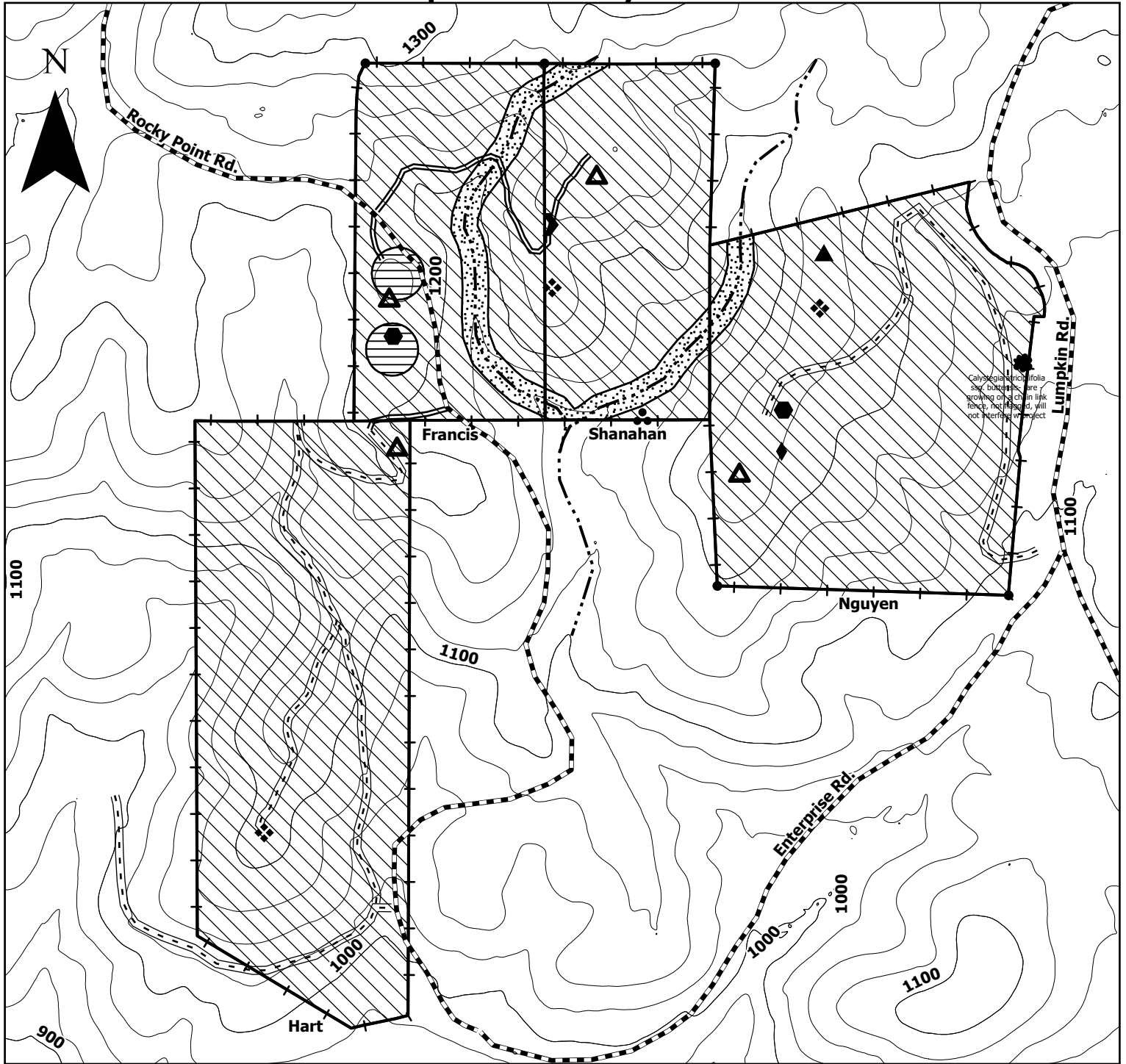
# SFLAP 2024

## Group - Rough Terrain Unit 3 of 4



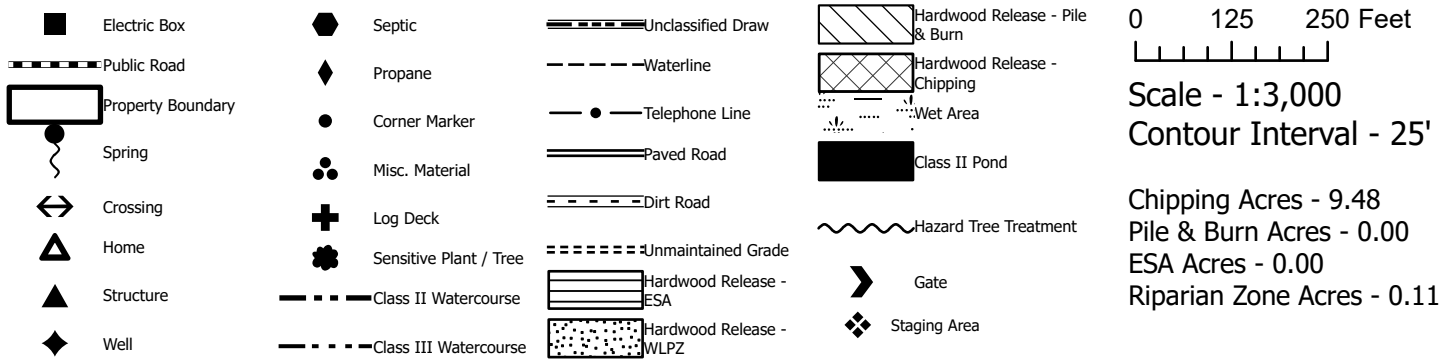
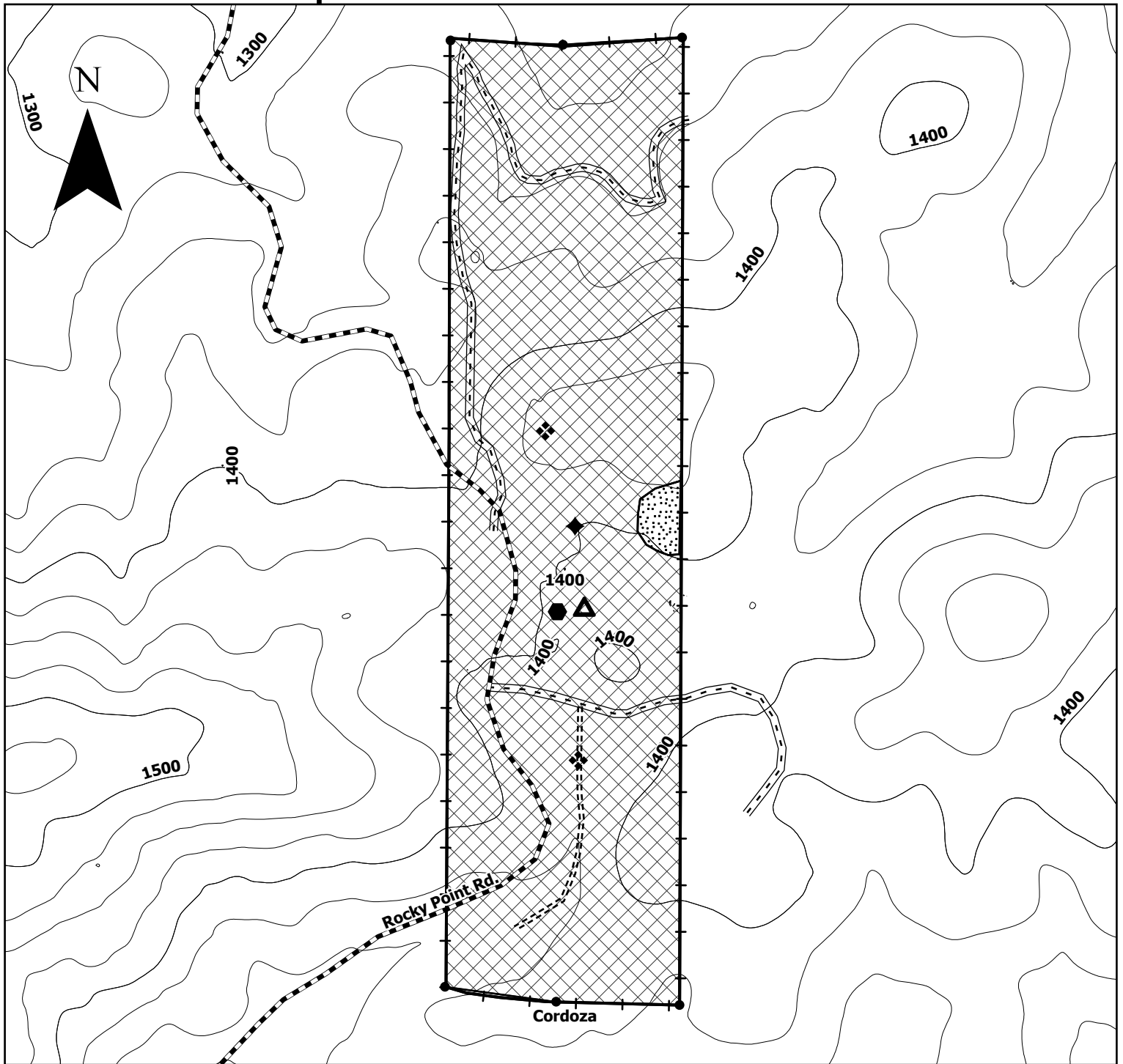
# SFLAP 2024

## Group - Rocky Point Unit

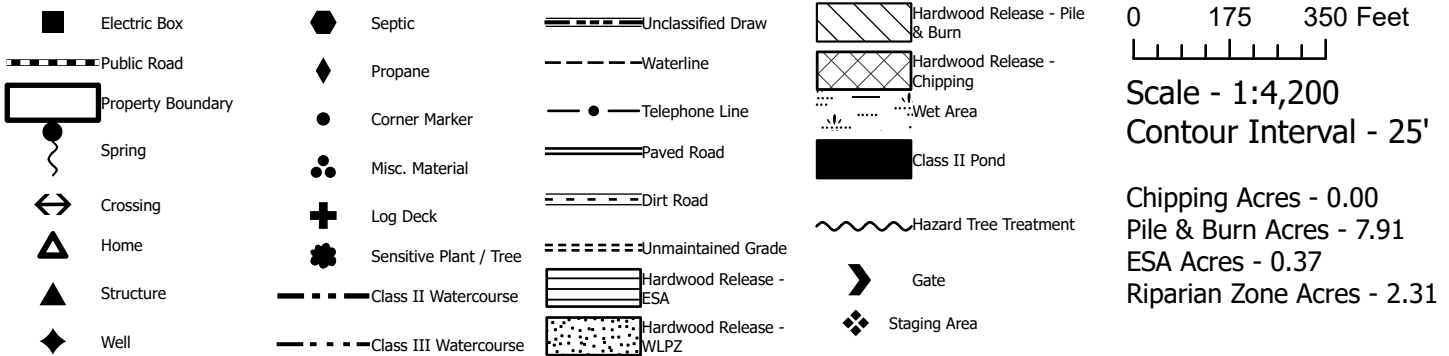
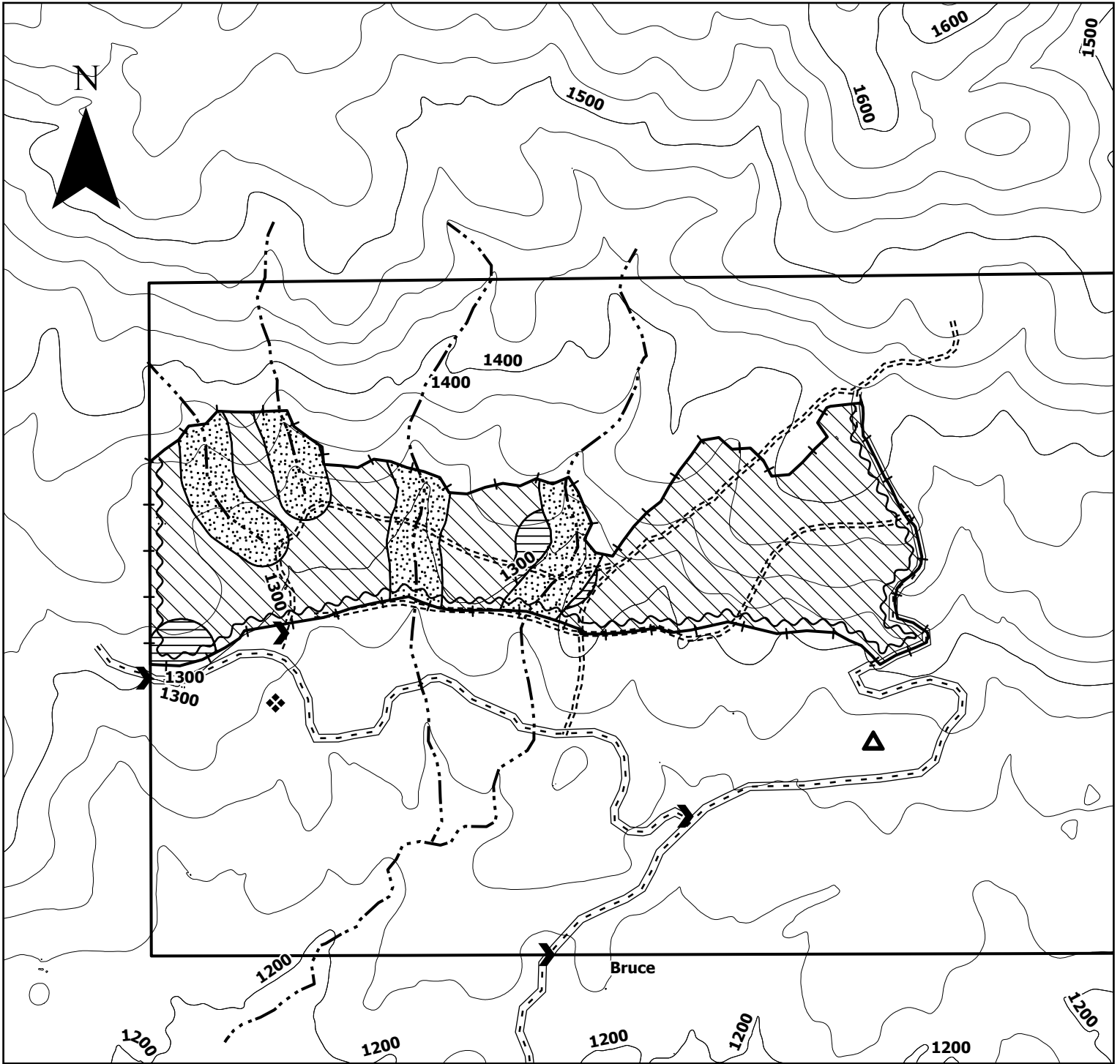


# SFLAP 2024

## Group - Mild Terrain Unit 4 of 5

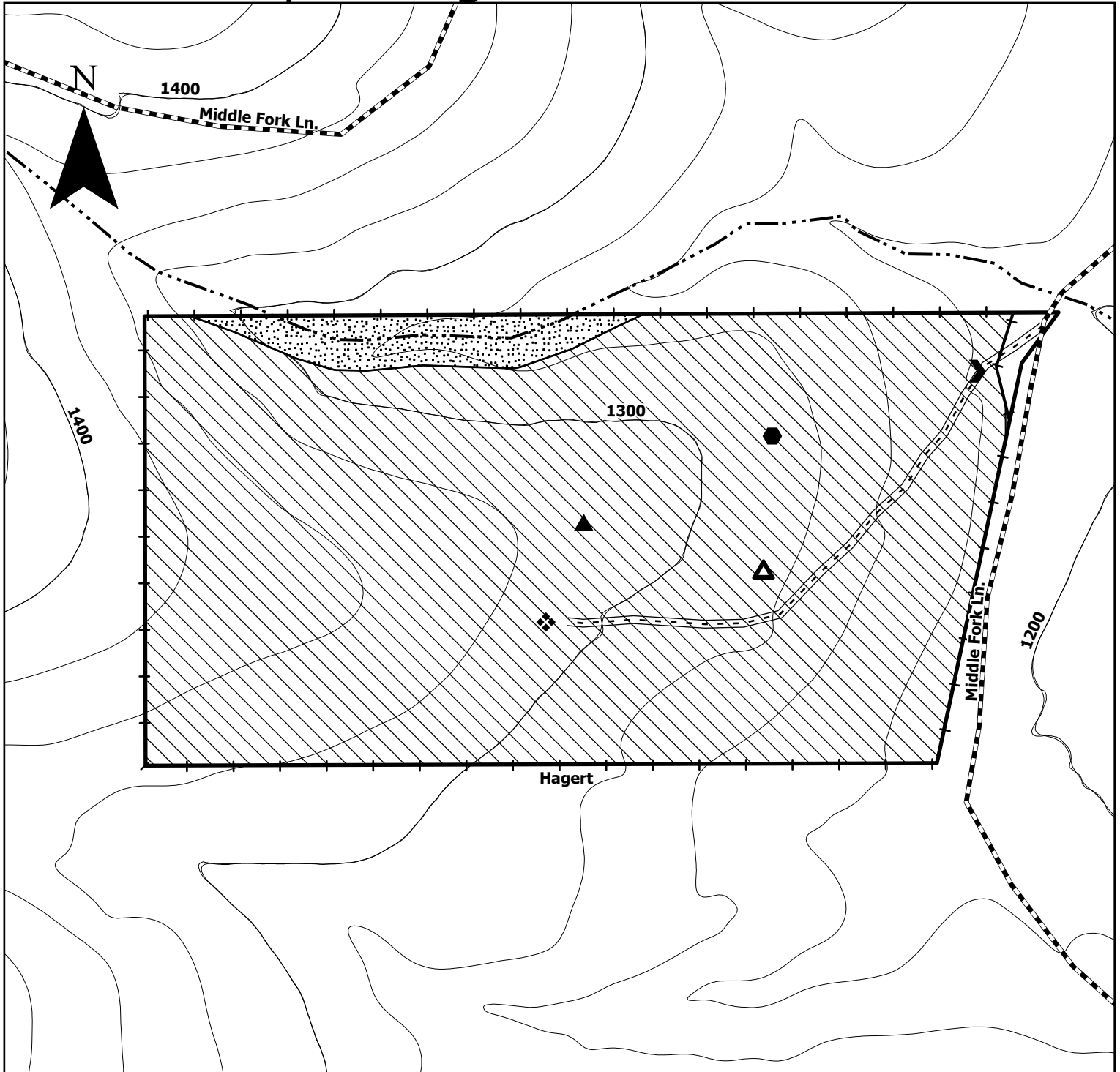


# SFLAP 2024 - Bruce



# SFLAP 2024

## Group - Rough Terrain Unit 4 of 4



<ul style="list-style-type: none"> <li>■ Electric Box</li> <li>▬ Public Road</li> <li>▭ Property Boundary</li> <li>● Spring</li> <li>↔ Crossing</li> <li>▲ Home</li> <li>▲ Structure</li> <li>◆ Well</li> </ul>	<ul style="list-style-type: none"> <li>● Septic</li> <li>◆ Propane</li> <li>● Corner Marker</li> <li>● Misc. Material</li> <li>⊕ Log Deck</li> <li>⊗ Sensitive Plant / Tree</li> <li>— Class II Watercourse</li> <li>— Class III Watercourse</li> </ul>	<ul style="list-style-type: none"> <li>▬ Unclassified Draw</li> <li>- - - Waterline</li> <li>—●— Telephone Line</li> <li>▬ Paved Road</li> <li>▬ Dirt Road</li> <li>▬ Unmaintained Grade</li> <li>▬ Hardwood Release - ESA</li> <li>▬ Hardwood Release - WLPZ</li> </ul>	<ul style="list-style-type: none"> <li>▨ Hardwood Release - Pile &amp; Burn</li> <li>▩ Hardwood Release - Chipping</li> <li>⋯ Wet Area</li> <li>■ Class II Pond</li> <li>⋯ Hazard Tree Treatment</li> <li>➤ Gate</li> <li>◆ Staging Area</li> </ul>
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0      75      150 Feet

Scale - 1:1,800

Contour Interval - 25'

Chipping Acres - 0.0

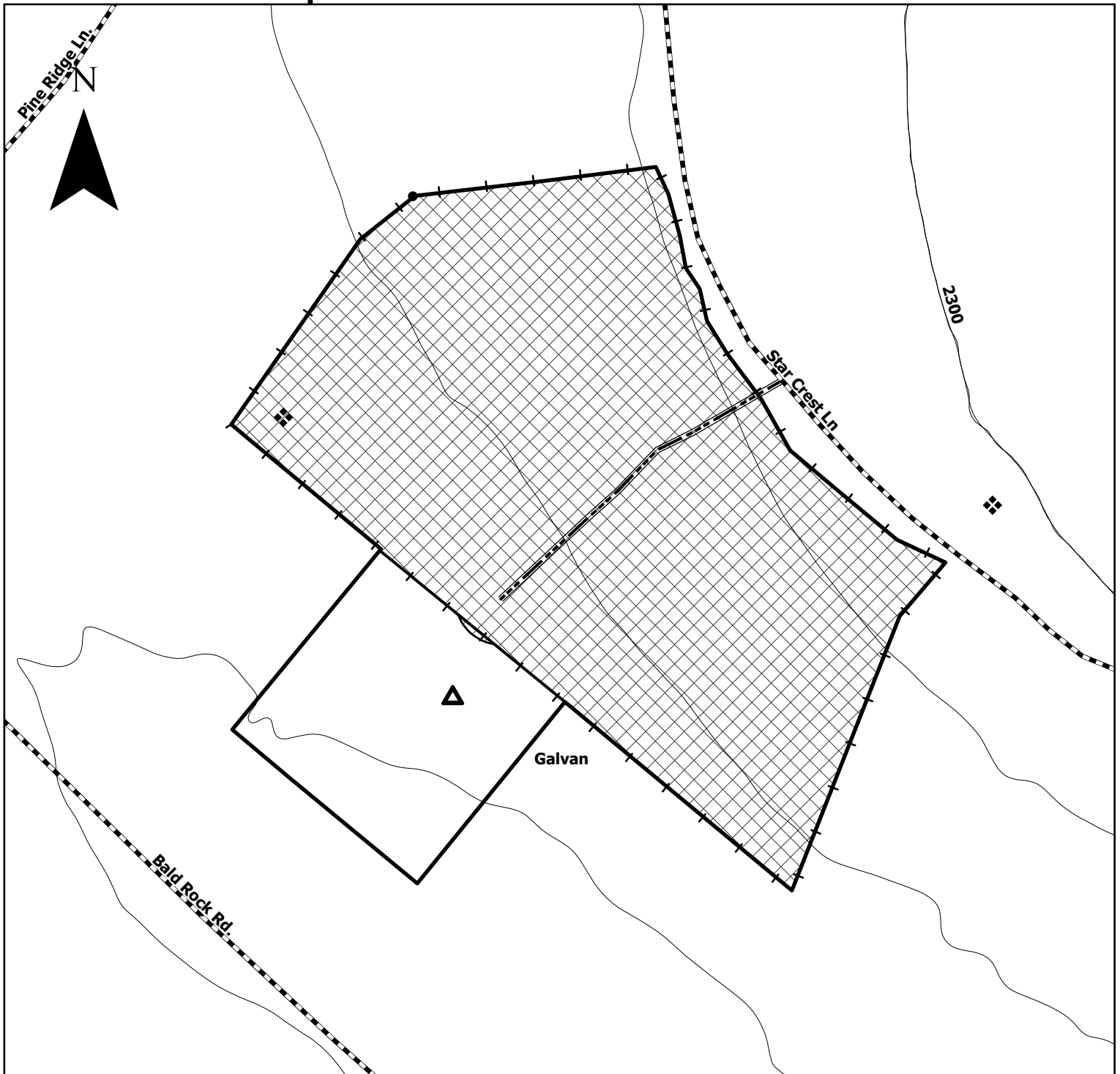
Pile & Burn Acres - 5.56

ESA Acres - 0.00

Riparian Zone Acres - 0.27

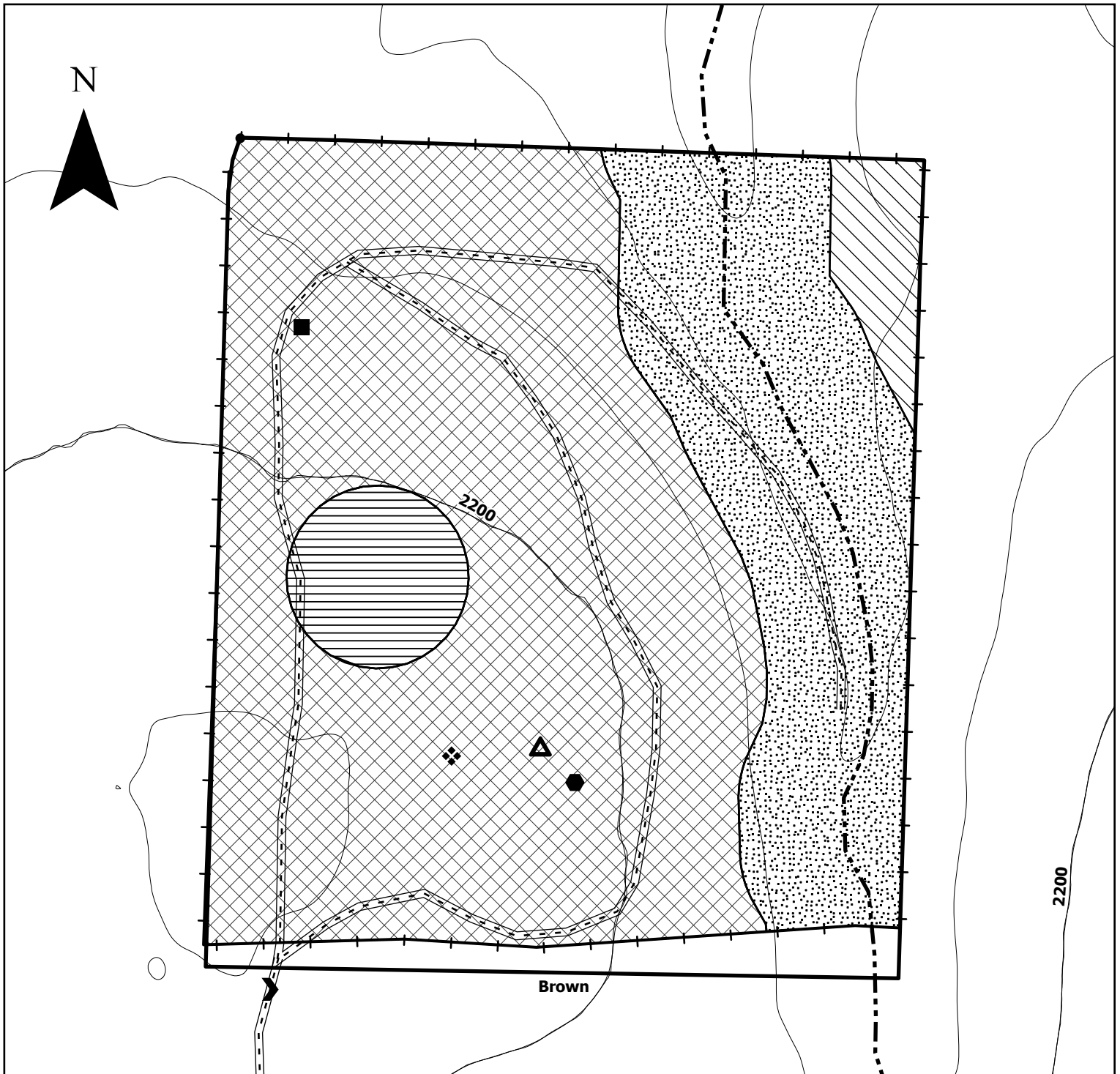
# SFLAP 2024

## Group - Mild Terrain Unit 5 of 5



	Electric Box		Septic		Unclassified Draw		Hardwood Release - Pile & Burn	0 50 100 Feet Scale - 1:1,200 Contour Interval - 25'
	Public Road		Propane		Waterline		Hardwood Release - Chipping	
	Property Boundary		Corner Marker		Telephone Line		Wet Area	Chipping Acres - 1.76 Pile & Burn Acres - 0.00 ESA Acres - 0.00 Riparian Zone Acres - 0.00
	Spring		Misc. Material		Paved Road		Class II Pond	
	Crossing		Log Deck		Dirt Road		Hazard Tree Treatment	Gate Staging Area
	Home		Sensitive Plant / Tree		Unmaintained Grade		Hardwood Release - ESA	
	Structure		Class II Watercourse		Hardwood Release - WLPZ			
	Well		Class III Watercourse					

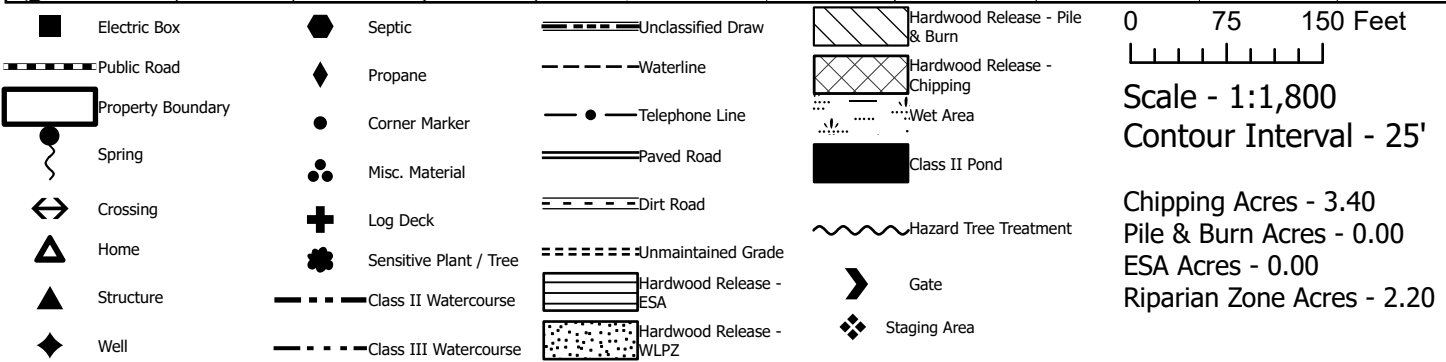
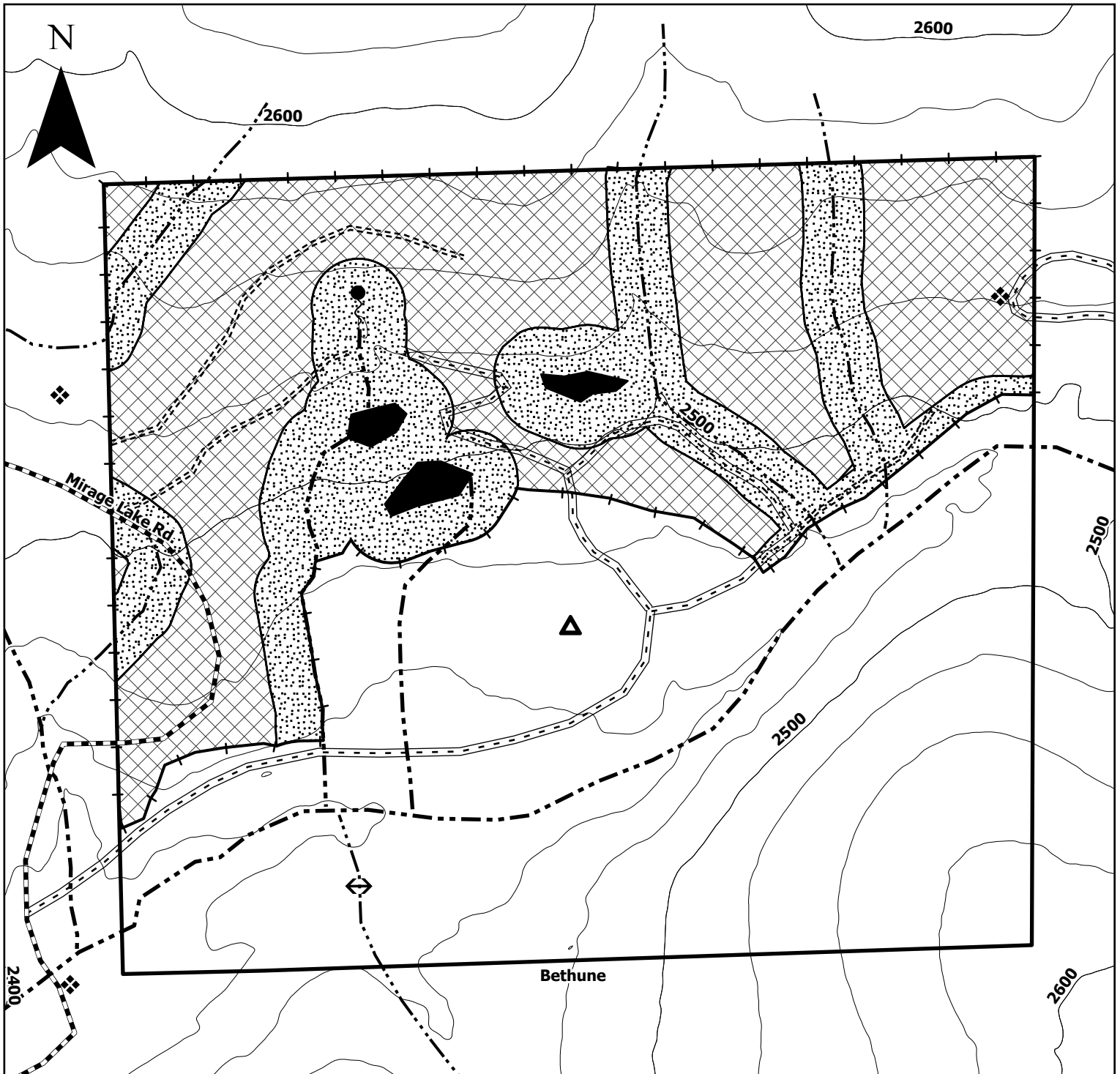
# SFLAP 2024 - Brown



■ Electric Box	● Septic	==== Unclassified Draw	▨ Hardwood Release - Pile & Burn	0 50 100 Feet Scale - 1:1,200 Contour Interval - 25'
--- Public Road	◆ Propane	- - - - Waterline	▩ Hardwood Release - Chipping	
□ Property Boundary	● Corner Marker	- ● - Telephone Line	⋯ Wet Area	Chipping Acres - 2.47 Pile & Burn Acres - 0.12 ESA Acres - 0.18 Riparian Zone Acres - 1.00
⊙ Spring	● Misc. Material	==== Paved Road	■ Class II Pond	
↔ Crossing	⊕ Log Deck	==== Dirt Road	~~~~ Hazard Tree Treatment	Gate ◆ Staging Area
▲ Home	⊗ Sensitive Plant / Tree	==== Unmaintained Grade		
▲ Structure	--- Class II Watercourse	▨ Hardwood Release - ESA		
◆ Well	--- Class III Watercourse	▩ Hardwood Release - WLPZ		



# SFLAP 2024 - Bethune



# Butte Unit Fuels Reduction Fire Prevention Plan



## CAL FIRE Butte Unit Fuel Reduction Fire Prevention Plan-2020

**Intent** - This Fire Prevention Plan ensures personnel are aware of, and comply with, the State of California's (State) fire prevention laws and additional fire preventive measures required by the Department. Some of the Departments' required fire preventive measures are stricter than the state fire prevention laws. Personnel should recognize conditions that may allow a fire to start. Personnel should take the appropriate precautionary measures to avoid a fire and be properly equipped and prepared to take appropriate action in the event of a fire.

**Compliance with the Public Resources Code and Forest Practice Rules** - The California Public Resources Code (PRC) and Forest Practice Rules (FPR) contain many provisions to reduce the risk of fire. Although our personnel are not "timber operators" as specified in the FPR or necessarily conducting "timber operations", the FPR do provide a sound basis for the best management practices when working in conditions that may ignite a fire. These rules are also a State standard for timber regulations. By reference they are both incorporated into this Plan, and this Plan requires strict adherence to the PRC and FPR.

**Effective Period and Project Activity Level (PAL)** - In addition to requirements of the FPR and PRC, the Effective Period for all additional requirements of this Policy shall be determined by the CAL FIRE Unit Chief or designee. The CAL FIRE Unit Chief or designee has authority to invoke a more restrictive PAL (or waive PAL requirements in burned salvage areas), based on local conditions, resource availability or other appropriate considerations. CAL FIRE Unit Chief or designee shall notify personnel verbally or in writing when either increased or decreased PAL measures or patrol requirements are invoked.

### Fuel Reduction Fire Prevention Requirements:

- Obtain the appropriate permits as necessary for fire protection within the federal, state or local government authority.
- Maintain fire suppression related tools and devices as required by PRC §§ 4427, 4428, 4429, 4431, and 4442
  - ❖ *Basis - FPR - Article 8 Fire Protection, 918, 938, 958 Fire Protection [Coast, Northern, Southern]*
- Keep all roads passible until slash disposal has been completed
  - ❖ *Basis - FPR - Article 8 Fire Protection, 918.3, 938.3, 958.3 Roads to be Kept Passable [All Districts]*
- Smoking by persons shall be confined to cleared landings and areas of bare soil at least three feet (.914 m) in diameter.
  - ❖ *Basis - FPR - Article 8 Fire Protection, 918.4, 938.4, 958.4 Smoking and Matches [All Districts]*
- Crew use fires for warming or other needs shall be limited to the following;
  - 10-foot clearance to flammable vegetation
  - Built in a depression to hold the ash
  - Fires will be completely out when leaving the work site.
  - ❖ *Basis - FPR - Article 8 Fire Protection, 918.5, 938.5, 958.5 Lunch and Warming Fires*

*[All Districts]*

- Company Officers or designee shall review reporting and safety procedures, daily, while providing adequate supervision with the crew.
  - ❖ *Basis - FPR - Article 8 Fire Protection, 918.6, 938.6, 958.6 Posting Procedures [All Districts]*
- Personnel shall provide for a diligent fire watch service at the scene of any operations to prevent and extinguish fires.
  - ❖ *Basis - FPR - Article 8 Fire Protection, 918.7, 938.7, 958.7 Blasting and Welding [All Districts]*
- Personnel will provide a diligent inspection of the operational area prior to leaving for the day. The person conducting the inspection shall have adequate communication available for prompt reporting of any fire that may be detected. Note: Fire preventive measures are stricter; requiring 2 continuous hours or more of patrol under certain conditions.
  - ❖ *Basis - FPR - Article 8 Fire Protection, 918.8, 938.8, 958.8 Inspection for Fire [All Districts]*
- Operations using equipment such as any motor, engine, boiler, stationary equipment, welding equipment, cutting torches, tar pots, or grinding devices from which a spark, fire, or flame may originate, which is located on or near any forest-covered land, brush-covered land, or grass-covered land, without doing the following:
  - Provide a 10-foot clearance from object.
  - Maintain one serviceable point shovel no shorter than 46 inches & one backpack pump water-type fire extinguisher.
  - ❖ *Basis - Public Resources Code, Division 4, Chapter 6. 4427.*
- Personnel will maintain the following tools in the event of a fire:
  - One backpack pump-type fire extinguisher filled with water, two axes, two McLeod fire tools, and enough shovels so that each employee at the operation can be equipped to fight fire.
  - One or more serviceable chainsaws of three and one-half or more horsepower with a cutting bar 20 inches in length or longer shall be immediately available within the operating area.
  - Each vehicle will carry at least one shovel.
  - ❖ *Basis - Public Resources Code, Division 4, Chapter 6. 4428.*
- *When* Gasoline powered saws are use, one serviceable round point shovel, with an overall length of not less than 46 inches, or one serviceable fire extinguisher shall be within the cutting proximity (25 feet).
  - ❖ *Basis - Public Resources Code, Division 4, Chapter 6. 4431.*
- If an exhaust system is not designed with a muffler as defined in the Vehicle Code, then a spark arrester is required.
  - A spark arrester is a device constructed of nonflammable materials specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service.
  - Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in effective mechanical condition.
  - ❖ *Basis - Public Resources Code, Division 4, Chapter 6. 4442.*

### **Additional Preventive Measures Required by the Department**

The Effective Period of additional requirements under this Policy shall be determined by the CAL FIRE Unit Chief or designee. The Effective Period may be waived or invoked under specific conditions identified by the CAL FIRE Unit Chief or designee, verbally **or** in writing, of the Effective Period start date. The suspension of PALs for operations will be based on one or more of the following conditions:

- Current weather conditions (accumulated snow on the ground, significant rainfall, sub-freezing temperatures) and spot forecasts.
- Current and predicted PALs forecast data
- Lifting of the burn ban
- Closure of fire season

**Determination of Project Activity Level Monitoring and Operational Requirements** - The PAL is a rating of predicted fire risk based on local fuel and weather data. Each PAL contains specific procedures and restrictions to be implemented to reduce the risk of fire. These are summarized in the Table 1 - Daily Procedures and Restrictions by Project Activity Level

Table 2 - Operational Categories and Requirements lists: categories of activities, PALs applicability, and procedures or equipment necessary for each activity.

The Pal can be accessed through the Northern California Geographical Coordination Center Predictive Services at <https://gacc.nifc.gov/oncc/predictive/weather/> or the local ECC.

ERC/IC	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
0-10	A	A	A	B	C	C	C	C	C	C
11-20	A	A	B	B	C	C	C	C	C	C
21-30	A	B	B	B	C	C	C	C	C	C
31-40	A	B	C	C	C	D	D	D	D	D
41-50	B	B	C	C	D	D	D	D	D	D
51-60	B	B	C	C	D	Ev	Ev	Ev	E	E
61-70	B	B	C	C	D	Ev	Ev	Ev	E	E
71-80	B	B	C	C	D	Ev	Ev	Ev	E	E
81-90	C	C	C	D	D	Ev	Ev	Ev	E	E
91-100	C	C	C	D	D	E	E	E	E	E
>100	C	C	C	D	D	E	E	E	E	E

Note: If the Fire Danger Rating Area personnel are working in is not listed they can look up the ERC <https://gacc.nifc.gov/oncc/fuelsFireDanger.php> and Calculate the Probability of Ignition and use the above chart to determine what the PAL is in the area they are working.

**Table 1. Daily Procedures and Restrictions by Project Activity Level**

Each PAL includes all preceding (lower) PAL requirements.

**Note: On-site weather should be taken regularly and regardless of the predicted PAL if a combination of the (10) Ten Hour Fuel Stick reaching 4% and the Relative Humidity reaching 20% the PAL will be considered E.**

PAL	PROCEDURES AND RESTRICTIONS
A	Immediately following the cessation of operations using Masticators, a walking foot patrol
B	Immediately following the cessation of operations using Chainsaws, road side chipping, ground- based tracked equipment, clearing or mastication, a walking foot patrol is required over all of the areas operated that day.
C	Immediately following the cessation of operations using Chainsaws, road side chipping ground- based tracked equipment, clearing or mastication, a walking foot patrol is required over all of the areas operated that day.
D	Operations using Chainsaws, road side chipping, ground- based tracked equipment, clearing or mastication must be <u>suspended</u> at 1:00 P.M. and a walking foot patrol for <u>2 continuous hours</u> is required over all of the areas operated that day. <b>These operational activities may continue if a walking foot patrol is conducted once every hour on all areas operated that day, with patrols commencing at 1:00 P.M. and continuing for 2 continuous hours after</b>
Ev	Chainsaws, road side chipping, ground based tracked equipment, clearing, and mastication may operate until 1:00 PM as long as a walking foot patrol is conducted once every hour on all areas operated that day, with patrols commencing at 9:00 AM and continuing for <u>2 continuous hours</u> after cessation of
E & Red Flag (Non-Lightning)	All non-road side chainsaw operations, road side chipping, ground based tracked equipment, clearing and mastication, are <b>prohibited</b> .

**Table 2. Operational Categories and Requirements**

“X” - Denotes that the specific requirements apply to the listed Operational Categories

REQUIREMENTS					
Operational Categories	PAL	Designated Patrolman	Walking Patrol	Fire Engine/ Water Tender	Fire Tools, Back Pump
Chainsaw Operations	X		X		X
Tracked Off-Road Chipping	X	X	X	X	X
Roadside Chipping	X	X	X		X
Masticating	X	X	X	X	X
Thinning	X		X		X
Tracked Vehicle Operations	X	X	X	X	X

**Note:** When an operation is conducted that requires a Designated Patrolman for PAL D and Ev in Table 2, the 2 continuous hours of patrol will be performed by a “Designated Patrolman. All other operations within the Operational Categories in Table 2 that require Walking Patrol (but not by a Designated Patrolman) still require a walking patrol for 2 continuous hours on PAL D and Ev days.

## **Definitions and Conditions**

**Brush and Blade Guards** - Ensure that operators clean out guards no less frequently than every two hours during operations to prevent the build-up of vegetative material.

**Communication Devices** - On site of every operation, Crew shall possess a communication device that is capable of contacting fire dispatch directly or indirectly through other contacts.

**Designated Patrolman** - For those activities specified in Table 1 - Operational Categories and Requirements walking patrols described under PAL's D or Ev must be conducted by a designated patrolman who has no other duties to complete during the requisite patrol period. Designated patrolmen must be equipped as described in the "Foot Patrol"

**Foot Patrol** - The individual doing the walking foot patrol shall have a vehicle parked within or as close as possible to the patrolled area, and the vehicle shall be equipped to fight fire with all the following:

- 1) A serviceable 5 gallon backpack pump filled with water,
- 2) A shovel or McLeod fire tool,
- 3) Either a double bit ax or a serviceable chainsaw with a minimum 20-inch bar, and
- 4) Communications equipment capable of summoning additional fire suppression resources

In situations where the individual doing the walking foot patrol is the only person on the operation and a fire is detected, the individual will report the fire and take immediate action to contain and suppress the fire.

**Note** - The patrol shall carry around point shovel or McLeod fire tool during the entire walking foot patrol.

**On-Site Supervisor** - When the daily PAL is D, Ev, or E/Red Flag. The on-site supervisor shall be capable of receiving notices, taking action, and directing a response to a fire.

**Fire Engine/Water Tenders** - As designated in Table 1 - Operational Categories and Requirements several activities and operations require either a staffed water tender with communication devices (as required above) or a fire engine with a minimum capacity of 250 gallons and 200 feet of minimum 1 inch hose. The fire engine, and water tender shall be in working order and capable of delivering water under sufficient pressure at 200 feet to properly operate a standard fire nozzle.

**Red Flag Warning (Non-Lightning)** - Should the Crew become aware through contact with an ECC, National Weather Service or other fire weather web sites, that "**Red Flag Warning**" conditions have been issued and are in effect for the Crew's area of operations, the Crew shall follow the procedures and restrictions of PAL E and shall be in effect for the time period in which the Red Flag Warning is in place.

**Red Flag Warning (For Lightning)** - Operations under a **Red Flag Warning (For Lightning)**, declared specifically in response to predicted lightning activity, may proceed under the PAL assigned to the operation for that day.