

# JACOBSZOOM & ASSOCIATES, INC.

natural resource planning & management

## Jacobszoon & Associates

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20 December 2018

Revised 16 March 2021

Napa County  
1195 Third St. 2<sup>nd</sup> Floor  
Napa, CA 94559

RE: NSO Report for Kateley Property Driveway and Homesite Expansion

Dear Napa County,

This is the Northern Spotted Owl data for the Kateley Property Driveway and Homesite Expansion.

- **Project Location:**
  - Legal Description: Section 4 T06N, R05W, MD B&M.
  - County: Napa
- **Acres:** Conversion of approximately 4 acres for the widening of a driveway and a homesite. Approximately 1 acre of NSO foraging habitat will be converted to non-habitat.
- **Property Total Acres:** 83 acres

This project was surveyed in 2017 and 2018. According to the database dated 31AUG18, there is 1 NSO territory within 0.7 miles of the project area (NAP0015). Nighttime surveys adjacent to the Kateley Viewshed property and NAP0015 AC picked up five responses from 29MAR17 – 26JUN18, four male NSO calls and one female NSO call. Male NSO responses occurred on 29MAR17, 29MAR18, 18APR18, and 26JUN18. The female NSO response occurred on 07MAY18. Subsequent morning surveys after each response did not detect an owl near the NAP0015 Activity Center. It will be assumed that the Activity Center is active for 2018. Habitat maps for the proposed project and NAP0015 are included. NAP0015 is located less than a ¼ mile from the conversion area, yet seasonal restrictions will not apply to this project due to no timber operations being proposed.

JACOBSZOOM & ASSOCIATES, INC.

If you have questions, please contact me.

Sincerely,

Alicia Ives Ringstad  
Senior Wildlife Biologist  
Jacobszoon and Associates, Inc.



**Northern Spotted Owl Information**  
**Kateley Viewshed Property**  
**Portion of Section 4, T06N, R05W, MD B&M.**

**Prepared by:** Alicia Ives Ringstad  
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**Prepared For:** Randy Bryant

**Reason for Survey:** This survey is being completed for the Kateley Viewshed Property Proposed Driveway and Homesite Expansion. The project proposes to convert approximately 1 acre of oak woodland/lower montane coniferous forest, which is considered NSO foraging habitat to non-habitat.

**Property Information:** The Kateley Viewshed Property is located in Napa County approximately two and a half air miles west of the town of Yountville. The project is located in Section 4, T06N, R05W, MD B&M. The total acreage of the property is approximately 83 acres. The proposed project area encompasses approximately 1 acre. The site elevation is approximately 496 feet to 1,254 feet above sea level. The topography of the proposed project area is located on slopes between 0 and 40%. The project site is being developed for property access and house development.

The area is characterized by the Douglas-fir type set within a matrix of Ponderosa Pine type and prairie areas. Tree species present within the plan area are Douglas-fir, ponderosa pine, live oak, bay laurel, and Pacific madrone. Understory vegetation includes Oregon-grape, wood rose, manzanita, poison-oak, and various forbs and grasses.

**Project Type:** Conversion on 1 acre (not timberland).

**NSO Surveys:** No operations shall occur until all required surveys (which follow the most current USFWS NSO Survey Protocol) have been provided to CAL-FIRE, evaluated for consistency with the plan and protocols, and amended into the plan. Pursuant to 14 CCR 939.9(e), this THP is using Scenario 4. All future surveys shall be conducted pursuant to the most current, approved survey protocol and shall be submitted to CAL-FIRE prior to timber operations.

Also, habitat retention, standard protection measures, operational limitations, and surveys shall be conducted in compliance with February 27, 2008 Attachment A for the Coastal Forest District.



**Northern Spotted Owl Territories:** According to the database dated 31AUG18, there is one known NSO territory (NAP0015) within 0.7 miles of the Kateley Viewshed Property. Newly identified NSO territories located within 0.7 miles of the Kateley Viewshed Property require the USFWS standard protection measures (SPMs).

**Description of Northern Spotted Owl Habitat**

Northern spotted owl habitat within the property boundary and the 0.7-mile buffer surrounding the property were reviewed. Vegetative structure was assessed from field survey visits, aerial photo interpretation, and existing habitat maps. No quantitative sampling methods were used to develop this northern spotted owl habitat information and therefore this information should be considered approximate.

**Supplemental Items for the Kateley Viewshed Property**

**NSO Surveys:** The property has been surveyed for northern spotted owls in 2017 and 2018 with NSOs detected following the 2011 Northern Spotted Owl Protocol. Included are the calling records for this timeframe for the Kateley Viewshed Property. Nighttime surveys adjacent to the Kateley Viewshed Property received responses on 29MAR17 - 26JUN18. Daytime follow-up surveys did not receive any responses. Attached is a summary of the survey, field survey forms, and a survey stations map. Habitat maps for the proposed project and NSOs have also been included.

2017, and 2018 Northern Spotted Owl Surveys for the Kateley Viewshed Property:

Date	Survey Station	Survey Time	NSO Response
29MAR17	7	1934-1944	N/R
A. Ives Ringstad	6	1946-1956	N/R
Visit 1	5	1959-2009	N/R
Outing 1	2	2012-2022	N/R
	1	2037-2047	N/R
	3	2104-2110	Male NSO
	4	2113-2123	N/R
30MAR17	3	0530-0700	N/R
A. Ives Ringstad			
Visit 1			
Outing 2			
29MAR18	7	2345-2355	N/R
A. Unroe	6	2357-0007	N/R
Visit 1	5	0009-0019	N/R
Outing 1	2	0021-0031	N/R
	3	0034-0044	N/R
	4	0045-0055	Male NSO



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30MAR18	4	0500-0615	N/R
A. Ives Ringstad			
Visit 1			
Outing 2			
18APR18	7	1950-2000	N/R
A. Unroe	6	2002-2012	N/R
Visit 2	5	2013-2023	N/R
Outing 1	2	2026-2037	N/R
	3	2038-2048	N/R
	4	2050-2100	Male NSO
19APR18	4	0600-0730	N/R
A. Ives Ringstad			
Visit 2			
Outing 1			
07MAY18	4	2055-2105	Female NSO
A. Unroe	3	skipped	-
Visit 3	2	2108-2118	N/R
Outing 1	5	2119-2129	N/R
	6	2130-2140	N/R
	7	2141-2151	N/R
08MAY18	4	0530-0700	N/R
A. Ives Ringstad			
Visit 3			
Outing 2			
29MAY18	7	2231-2241	N/R
A. Unroe	6	2242-2253	N/R
Visit 4	5	2255-2305	N/R
Outing 1	2	2306-2316	N/R
	3	2318-2328	N/R
	4	2330-2340	N/R
26JUN18	4	2231-2241	N/R
A. Unroe	3	2244-2254	N/R
Visit 5	2	2257-2307	N/R
Outing 2	5	2311-2321	N/R
	6	2323-2328	Male NSO
	7	skipped	-



27JUN18	6	0530-0700	N/R
A. Ives Ringstad			
Visit 5			
Outing 2			
06JUL18	7	2041-2051	N/R
A. Ives Ringstad	6	2053-2103	N/R
Visit 6	5	2105-2115	N/R
Outing 1	2	2117-2127	N/R
	3	2130-2140	N/R
	4	2142-2152	N/R

See attached map for survey station location

**Surveys According to 2011 Protocol:**

Explain if No or N/A	Yes	No	N/A
● Survey stations ¼ to ½ mile apart	X		
● 2 surveys completed prior to June 30 <sup>th</sup>	X		
● Minimum of 1 survey after May 15 <sup>th</sup>	X		
● Surveys at least 7 days apart	X		
● Surveys completed between 01FEB-31JUL	X		
● Surveys between sunset and sunrise	X		
● Daytime follow-up if NSO detected	X		
● Survey coverage to 0.7 miles of conversion		X	

**Explanations of No or N/A:**

**Survey Coverage to 0.7 Miles:** Survey stations were placed where they would obtain maximum coverage of the 2018 conversion and surrounding area. When possible, survey stations were placed greater than ¼ mile coverage outside the boundary. Survey coverage outside the boundary was limited in some areas due to access restrictions.

**Definitions**

Nesting NSO habitat appears to be the most restrictive. Canopy closures immediately over the nest generally average 85% with a known range from 50% to 100%. Side closures around the nest are also high (> 40%). Average canopy closure of the nest stand is generally over 80% but varies from 50% to 100%. The size of the nest stand appears to vary, depending upon adjacent vegetation. Generally, if the adjacent landscape is forested, the size of the nest stand becomes less important than if surrounded primarily by a non-forested landscape. NSOs will roost and forage within nesting stands.



The nesting habitat classified for this plan includes mixed and conifer stands with overstory canopy closures exceeding 60% with trees large enough to support nesting structures.

≥Sixty percent overstory canopy closure of trees ≥11 inches DBH and a basal area of 100 ft<sup>2</sup>/acre is used per USFWS NSO roosting habitat definition. Trees may be conifers or hardwoods.

Roosting NSO habitat appears to be similar to those for nesting, but with greater flexibility in what is suitable. Canopy closure immediately over the roosts is generally greater than 40% with a known range from 10% to 100%. The surrounding area can have a fairly high variability in closure, ranging from 19% to 100%. Height and diameter of the roost tree is highly variable. Roost stands have total basal areas of conifers and hardwoods that vary widely. The size of the roost stand appears to be important only in that it must be large enough for the bird to find several suitable roosts with variable heights and locations within the stand to allow for behavioral responses to environmental changes. The roosting habitat classified for this plan includes mixed and conifer stands with overstory canopy closures exceeding 60% with some variable tree heights.

≥Sixty percent overstory canopy closure of trees ≥11 inches DBH and a basal area of 100 ft<sup>2</sup>/acre is used per USFWS NSO roosting habitat definition. Trees may be conifers or hardwoods.

### *Nesting and Roosting is Combined on Habitat Mapping*

Foraging NSO habitat appears to be the most flexible of all. The primary prey for NSOs in this region is the woodrat; with other small rodents, rabbits, and small birds also being consumed. Canopy closures are much more variable than for roosting or nesting habitats. Canopy closure ranges from within small openings to stand interiors with high canopy closure. The owls appear to forage in areas based upon prey abundance rather than upon specific structural features.

As it is difficult to impossible to predict prey abundance and distribution without trapping surveys, foraging habitat for this plan includes mixed and conifer stands with greater than 40% overstory canopy closure with trees present that can provide perches from which owls hunt. Patches of trees within grasslands and large openings are not included under NSO foraging habitat. ≥Forty percent overstory canopy closure of trees ≥11 inches DBH and a basal area of ≥75 ft<sup>2</sup>/acre of trees ≥11 inches DBH is used per USFWS NSO roosting habitat definition. Trees may be conifers or hardwoods.

The following was considered while making the habitat maps:

- a. Narrow strips of habitat (WLPZs, retention areas between clearcuts, etc.) may contain the characteristics of nesting-roosting habitat. However, when these narrow strips of habitat are surrounded by unsuitable or low-quality habitats, they function as foraging habitat at best.



- b. Narrow strips of habitat (100 meters or less) provide for a lot of edge habitat and little or no interior habitat. Franklin et al (2000) describe interior habitats as the amount of spotted owl habitat  $\geq 100$  meters from an edge. They describe edge habitat as edge between spotted owl habitat and all other vegetation types.
- c. Because WLPZs, for example, are 100 meters or less in total width, they are considered edge habitats surrounded by unsuitable habitat. Edge habitats do not provide for protection from predators nor do they provide the microclimates of interior habitats.

This property has no habitat retention areas.

**USFWS March 15, 2011 NSO Take Avoidance Analysis- Attachment A**  
Northern Spotted Owl Coastal District Range

1. When an NSO Activity Center (AC) is surrounded by sufficient Nesting/Roosting habitat, the core area polygon is mapped starting with a 1000 ft. radius circle (72 acres) centered on the AC, and is connected on one side to a WLPZ and expanded until the core area includes 100 acres.
2. To avoid take of NSO from noise disturbance, road use within 0.25 mile of an AC during the breeding season is prohibited until July 10<sup>th</sup>, unless
  - a. Non-nesting, or nesting failure at the AC has been determined by an Activity Center Search conducted on or after May 15<sup>th</sup>, or
  - b. The AC is within 165 feet of a major highway that typically has continuous traffic year round, and the appurtenant road is not within 165 feet of the AC.
  - c. After July 9<sup>th</sup> until the end of breeding season road use within the 100-acre core is restricted to existing road use, maintenance, and map point work.
3. A 0.25 mile seasonal restriction on timber operations (except for road use after July 9<sup>th</sup>) applies to every known NSO AC during the breeding season, unless it is determined by an Activity Center Search that NSO are not nesting, or nesting failure has occurred. If it cannot be determined whether NSO are nesting, or nesting failure cannot be determined, the 0.25 mile seasonal restriction stays in effect for timber operations until after July 31<sup>st</sup>.
4. Within the 0.7 mile assessment area centered on the AC, at least 500 acres of suitable habitat shall be retained post-harvest.
  - a. 200 acres of nesting/roosting habitat
    - 100 of the 200 acres of nesting/roosting habitat retained should be contiguous, or as contiguous as possible with the AC
    - If the remaining 100 acres of nesting/roosting habitat is also contiguous with the activity center or within the same drainage, harvest should retain a minimum of 66% of the pre-harvest basal area per acre of trees at least 11" DBH
    - If the remaining 100 acres of nesting/roosting habitat is not contiguous with the activity center or not within the same drainage, retain at least nesting/roosting habitat





- b.  $\geq 300$  acres of foraging habitat
  - c. Remove no more than  $1/3$  of the remaining suitable habitat in excess of 500 acres within 0.7 mile of an activity center during the life of the timber operations
5. For all known ACs, timber operations shall adhere to the following:
- a. Within the 100 acre Core Area polygon of an NSO AC:
    - Outside the breeding season, limited timber operations (i.e., road use and maintenance, map point work, tail-hold placements, use of existing skid roads, and loading) may be conducted, providing no trees  $>11''$  DBH are cut or removed by the operations, and no logs are yarded through the Core Area
    - During the breeding season, timber operations (including the use of roads before July 9<sup>th</sup>) are not allowed within the 100 acre Core Area polygon, except as listed below
  - b. Timber operations outside the 100 acre Core Area polygon, but within 0.25 mile of an NSO AC:
    - Outside the breeding season, timber operations may be conducted
    - During the breeding season, no timber operations should proceed unless protocol surveys do not detect nesting NSOs
  - c. For all NSO ACs, prior to May 15<sup>th</sup> (until the required May 15<sup>th</sup> or later survey is completed):
    - Timber operations (except helicopter yarding or staging) may be conducted only on those NTMP areas  $>0.25$  mile from the AC.
    - Helicopter yarding and staging may occur only on those harvest areas  $>0.5$  mile from the AC
  - d. For NSO ACs where reproductive status has been determined to be non-nesting or failed nesting:
    - Limited timber operations (i.e., road use and maintenance, map point work, tail-hold placements, use of existing skid roads, and loading) may be conducted, providing no trees  $>11''$  DBH are cut or removed by the operations, and no logs are yarded through the Core Area
    - Full timber operations, including helicopter yarding and staging, may be conducted within 0.25 mile but not within the 100 acre core polygon of the AC. Helicopter fly-overs shall not occur within 1000 ft. of the AC
  - e. For NSO ACs, where reproductive status has been determined to be nesting:
    - For ACs where fledging status has not been determined, timber operations may be conducted only on those harvest areas that are  $>0.25$  mile from the AC until the end of the breeding season
    - Helicopter yarding and staging may occur only on those harvest areas  $>0.5$  mile from the AC
  - f. For NSO ACs, where fledging status has been determined (either nest failure or fledglings have left the Core Area):



- Full timber operations, including helicopter yarding and staging, may be conducted within 0.25 mile but not within the 100 acre core polygon of the AC. Helicopter fly-overs shall not occur within 1000 ft. of the AC
  - Limited timber operations (i.e., road use and maintenance, map point work, tail-hold placements, use of existing skid roads, and loading) may be conducted, providing no trees >11" DBH are cut or removed by the operations, and no logs are yarded through the Core Area
- g. For any NSO AC, regardless of reproductive status:
- If NSO move to a new location (>1000 ft. from the historical AC) and reproductive behavior is confirmed at the new site, request technical assistance to evaluate the status of the historical AC

Pre/Post Conversion NSO Habitat on Kateley Viewshed Property

<b>NSO Habitat</b>	<b>Pre-Conversion Habitat (Acres)</b>	<b>Post-Conversion Habitat (Acres)</b>
Non-NSO Habitat	45.5	46.5
Foraging Habitat	37.5	36.5
Nesting/Roosting Habitat	0	0
<b>Total</b>	<b>83</b>	<b>83</b>

Pre/Post Conversion Northern Spotted Owl Habitat 0.7 miles around the Kateley Viewshed Property:

<b>NSO Habitat</b>	<b>Pre-Conversion Habitat (Acres)</b>	<b>Post-Conversion Habitat (Acres)</b>
Non-NSO Habitat	572	573
Foraging Habitat	467	466
Nesting/Roosting Habitat	958	958
<b>Total</b>	<b>1,995</b>	<b>1,995</b>



**Northern Spotted Owls within 0.7 Miles**

According to the Northern Spotted Owl database dated 01MAR17, there is 1 known NSO territory (NAP0015) within 0.7 miles of the Kateley Viewshed property. Discussion with other local biologists did not know of any other known NSOs. The following briefly describes the latest known status of these owls, protection measures and pre and post habitat for the territory:

**NAP0015** - There is one documented record at the Activity Center of a male/female pair located in 2011. There have been no additional calling records to date. During the 2017 and 2018 calling season a male NSO was located within the close vicinity of the NAP0015 Activity Center during four separate nighttime surveys (29MAR17, 29MAR18, 18APR18, 26JUN18) and a female NSO was located within the close vicinity of the NAP0015 Activity Center during a nighttime survey on 07MAY18. Subsequent daytime stand searches (30MAR17, 30MAR18, 19APR18, 27JUN18, 08MAY18) were unsuccessful to detect any NSOs. The Activity Center is located off the property and could not be accurately mapped due to access restrictions. According to the CNDDDB (dated 01 December 2018) the NAP0015 Activity Center is located south and southwest from the proposed conversion areas. NSO responses were detected adjacent to the Kateley Viewshed Property, approximately 250 feet from the property boundary in the direction of the mapped Activity Center. It is assumed NAP0015 Activity Center is being utilized and it will be assumed that the Activity Center is active in 2018. No seasonal restrictions shall apply to this project.

Habitat within 0.7 Miles of NAP0015:

<u>NSO Habitat</u>	<u>Pre-Conversion Habitat (Acres)</u>	<u>Post-Conversion Habitat (Acres)</u>
<b>Within 100 acres Core Zone around Nest/AC</b>		
Non-NSO Habitat	13	13
Foraging Habitat	15	15
Nesting/Roosting Habitat	100	100
<b>Total</b>	<b>128</b>	<b>128</b>
<b>Within 0.7 miles Nest/AC</b>		
Non-NSO Habitat	316	317
Foraging Habitat	303	302
Nesting/Roosting Habitat	366	366
<b>Total</b>	<b>985</b>	<b>985</b>



### Additional Surveys

This report is effective through 01FEB19. Timber harvests to be completed after this date require NSO surveys according to USFWS protocol. Re-consultation will be completed if a new northern spotted owl territory is identified within 0.7 miles of the plan boundary or if the existing NSO moves more than ¼ mile. NSO survey data shall be submitted prior to timber operations and the survey data shall include: survey route, survey summary sheets, including the survey date, the survey start time, and the survey results; follow up forms, if NSOs are detected during surveys; and maps of detection and response locations, if NSOs are detected during surveys. If a northern spotted owl is detected during operations, all conversion activities will be stopped and USFWS will be consulted to determine adequate protection measures.

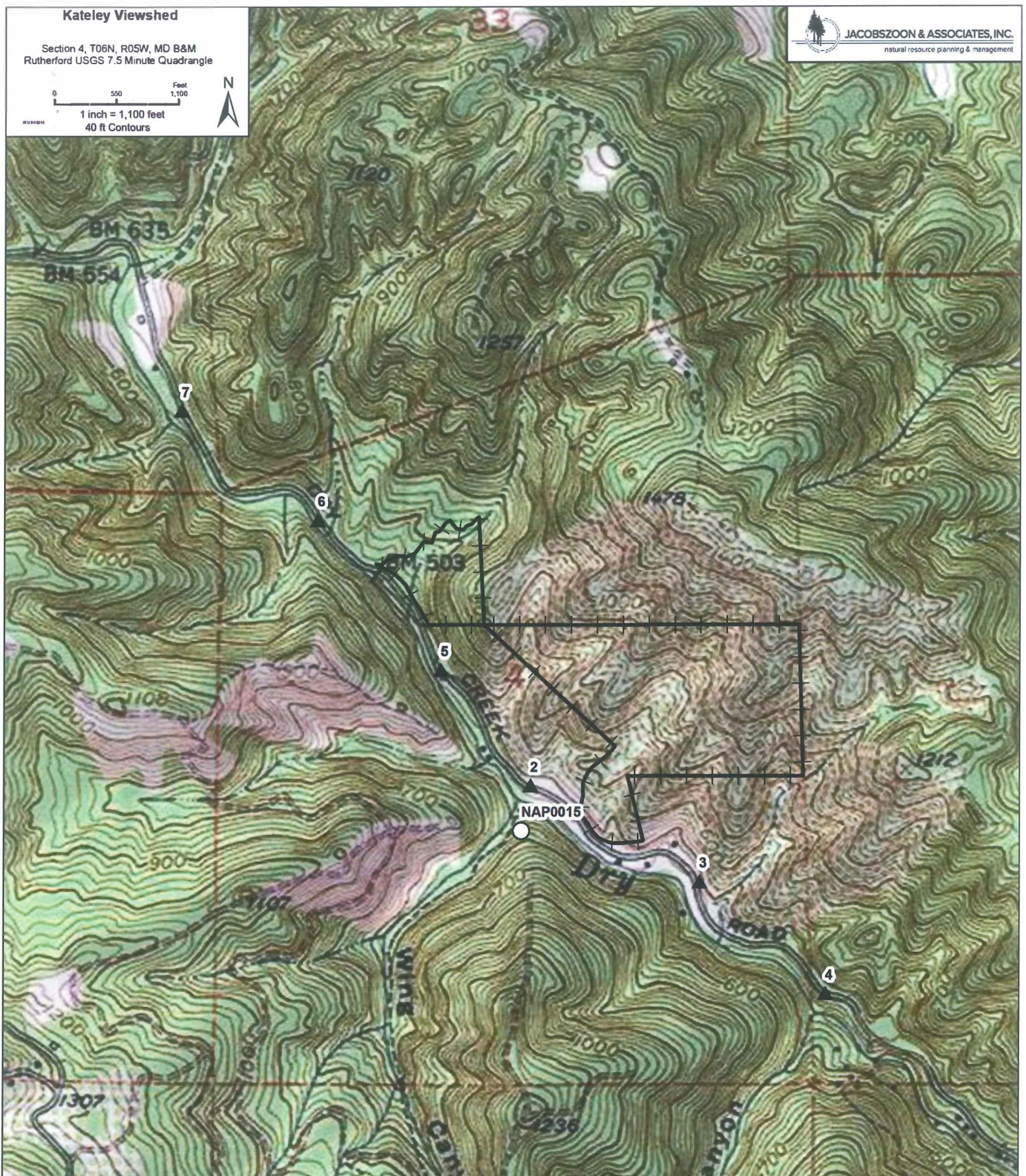
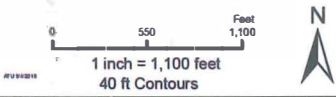
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Alicia Ives Ringstad  
Senior Wildlife Biologist



**Kateley Viewshed**

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle

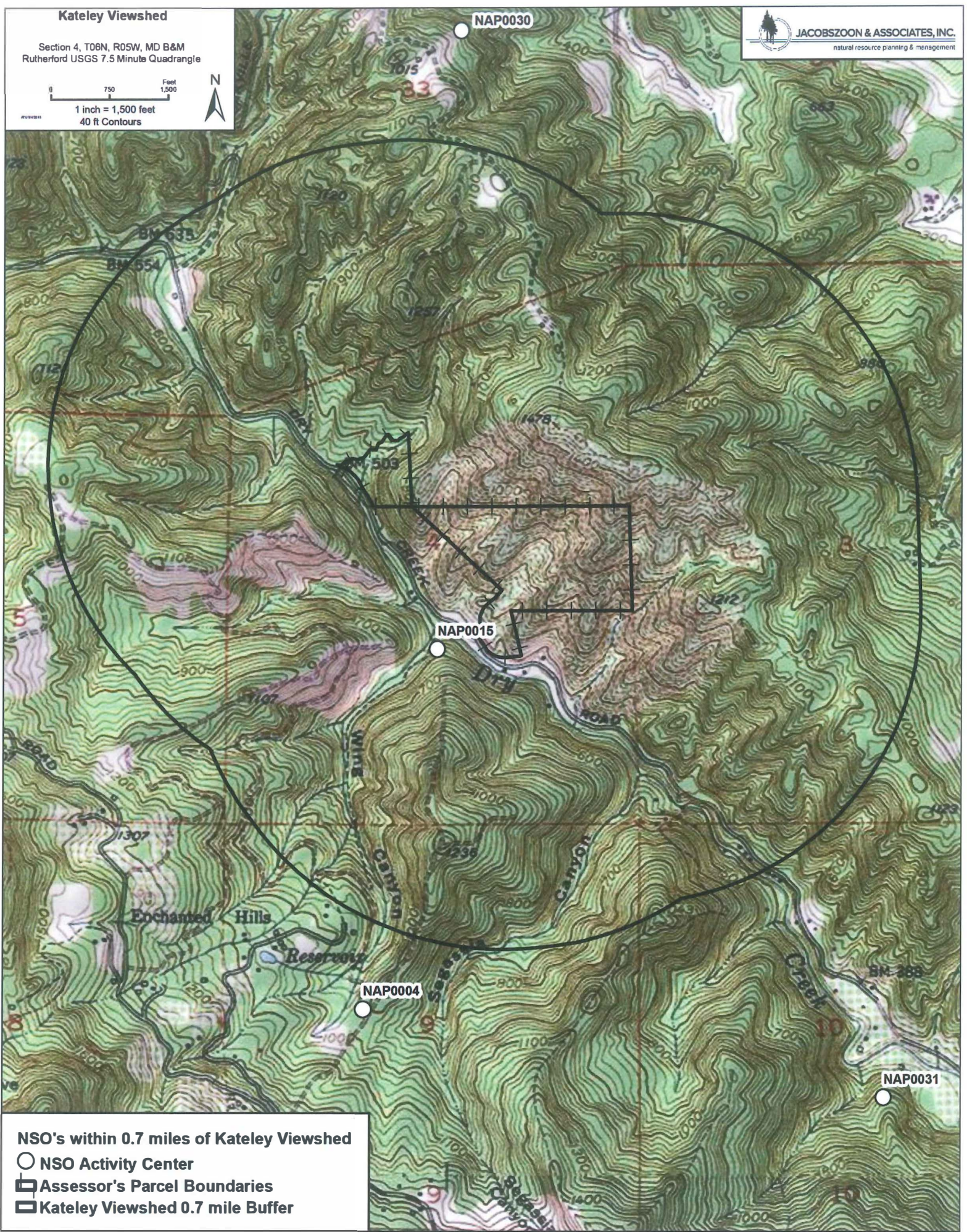
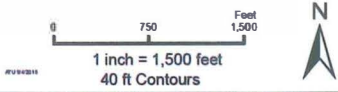


**Kateley Viewshed NSO Survey Stations**

- NSO Activity Center
- ▲ NSO Survey Stations
- ▭ Assessor's Parcel Boundaries

# Kateley Viewshed

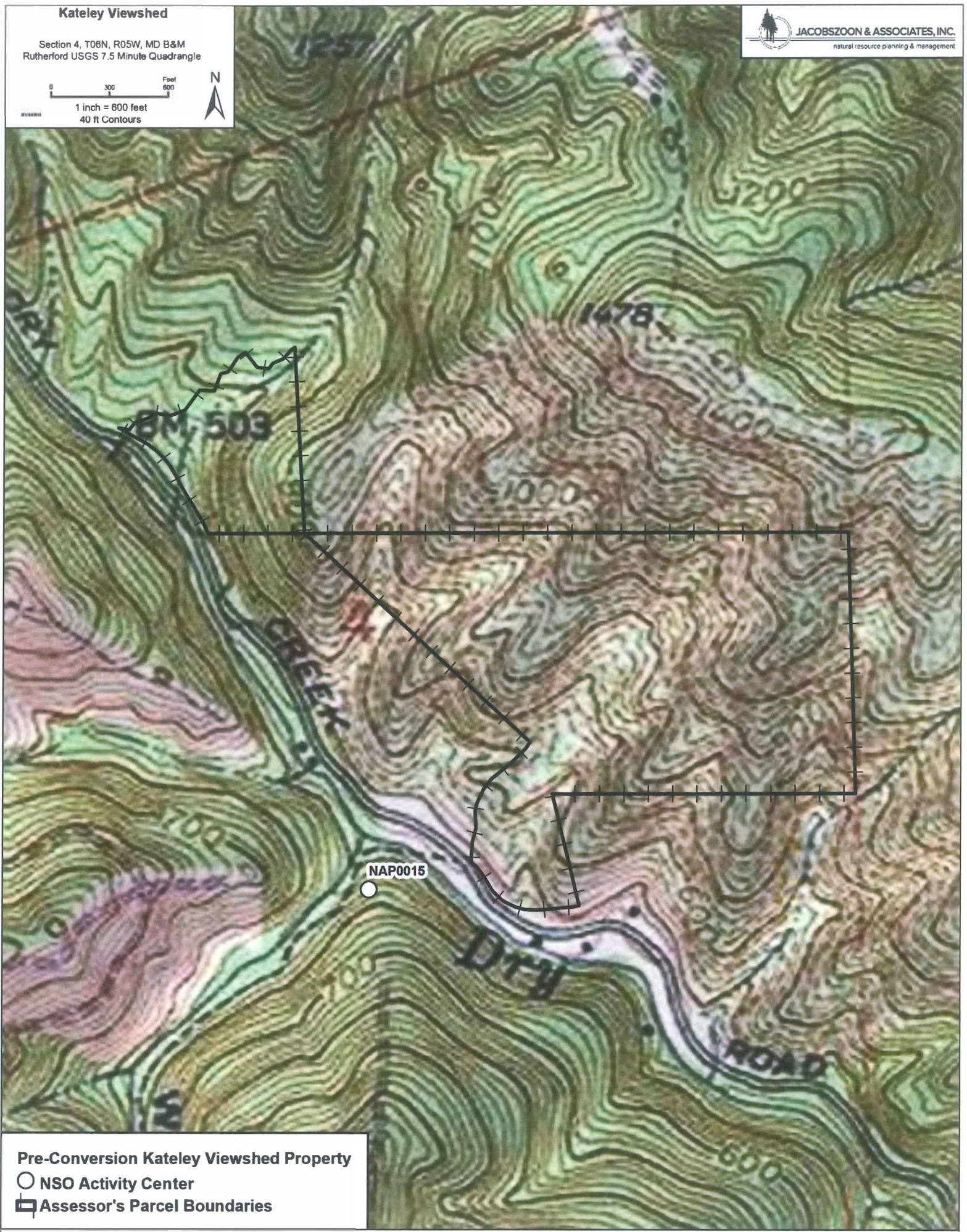
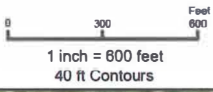
Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle



- NSO's within 0.7 miles of Kateley Viewshed
- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- Kateley Viewshed 0.7 mile Buffer

**Kateley Viewshed**

Section 4, T08N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle



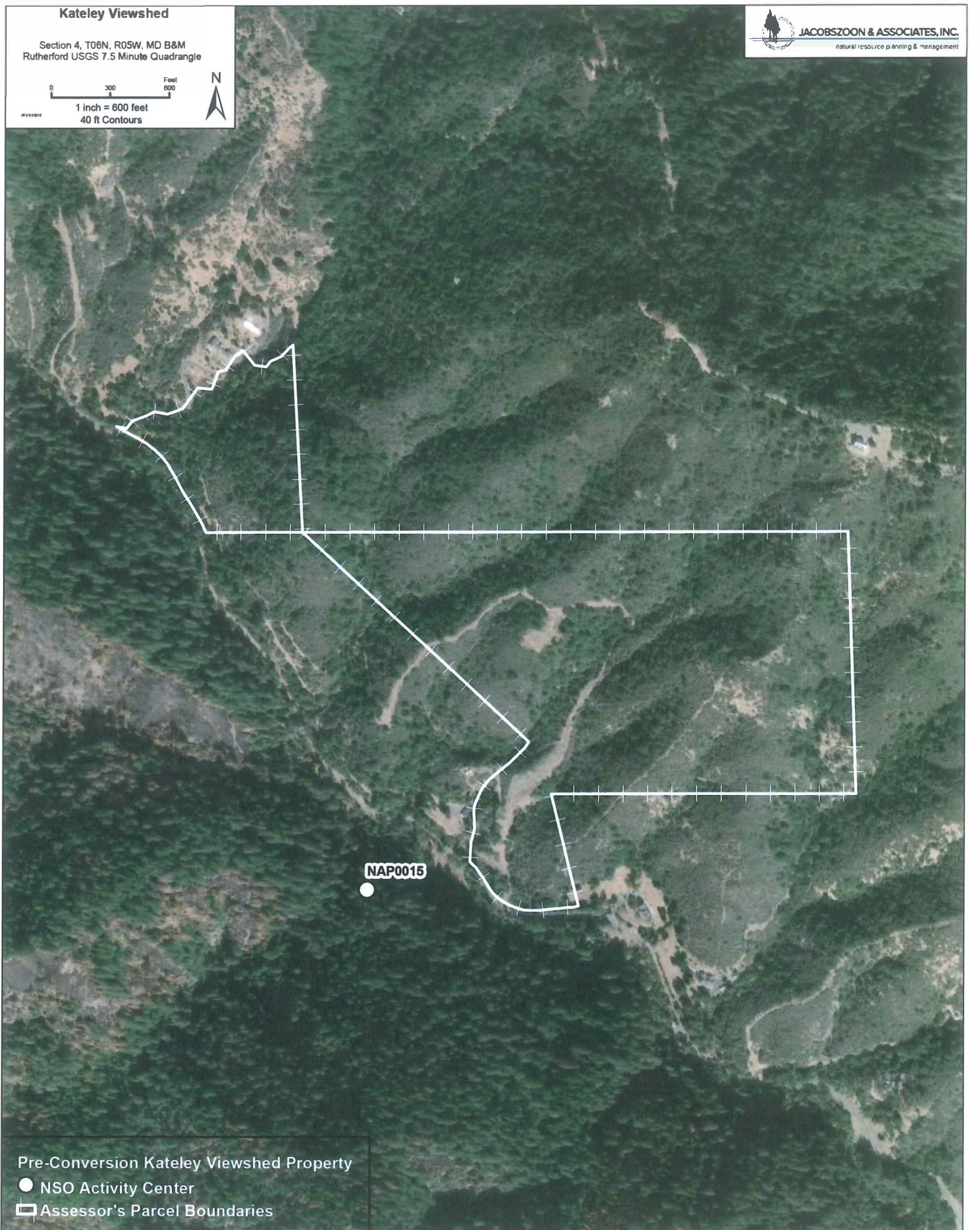
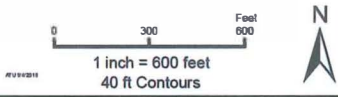
**Pre-Conversion Kateley Viewshed Property**

○ NSO Activity Center

▭ Assessor's Parcel Boundaries

# Kateley Viewshed

Section 4, T08N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle

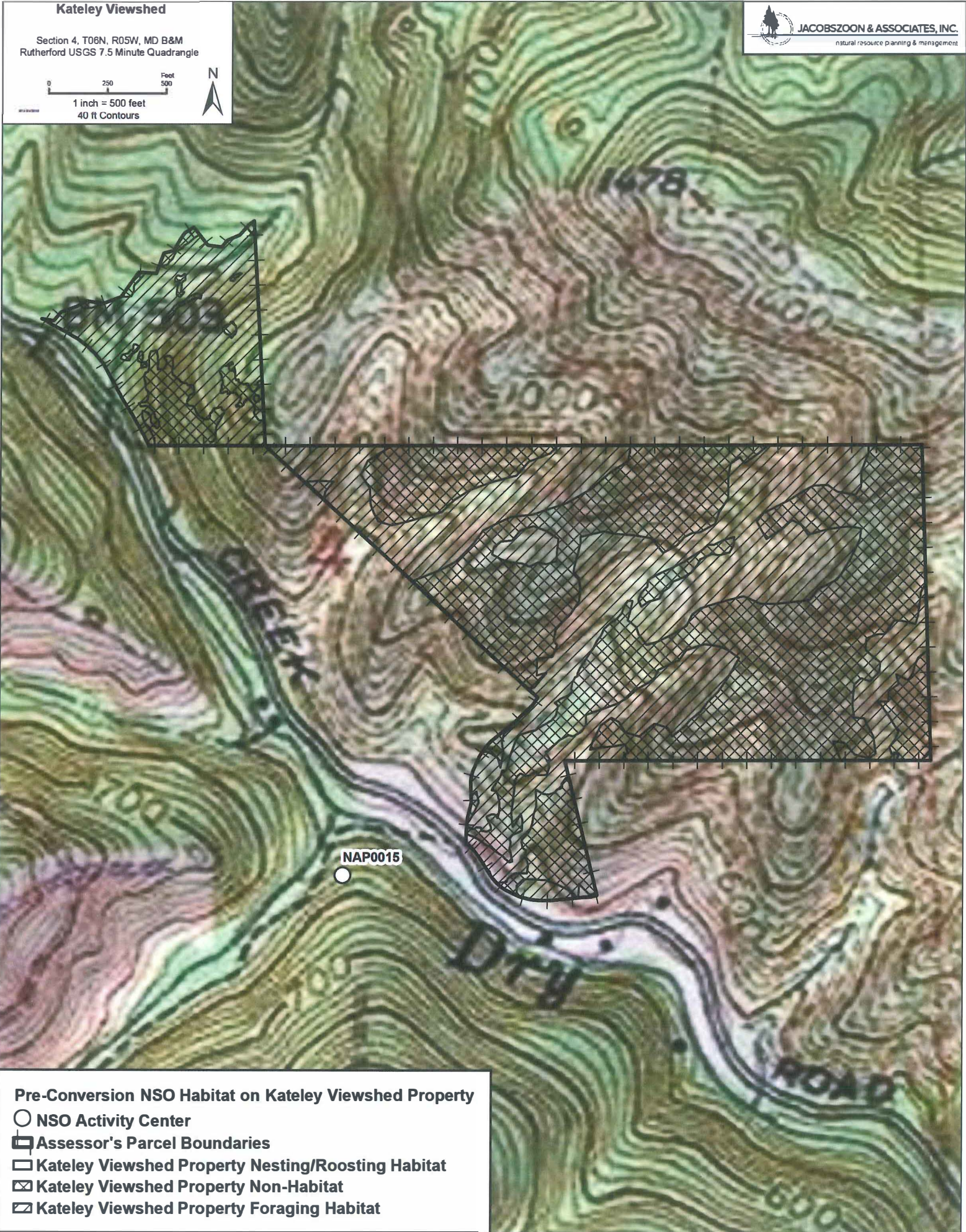
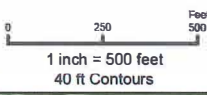


- Pre-Conversion Kateley Viewshed Property
- NSO Activity Center
- ▭ Assessor's Parcel Boundaries



**Kateley Viewshed**

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle

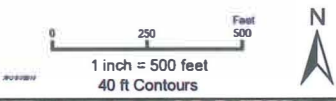


**Pre-Conversion NSO Habitat on Kateley Viewshed Property**

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ▭ Kateley Viewshed Property Nesting/Roosting Habitat
- ▨ Kateley Viewshed Property Non-Habitat
- ▩ Kateley Viewshed Property Foraging Habitat

# Kateley Viewshed

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle

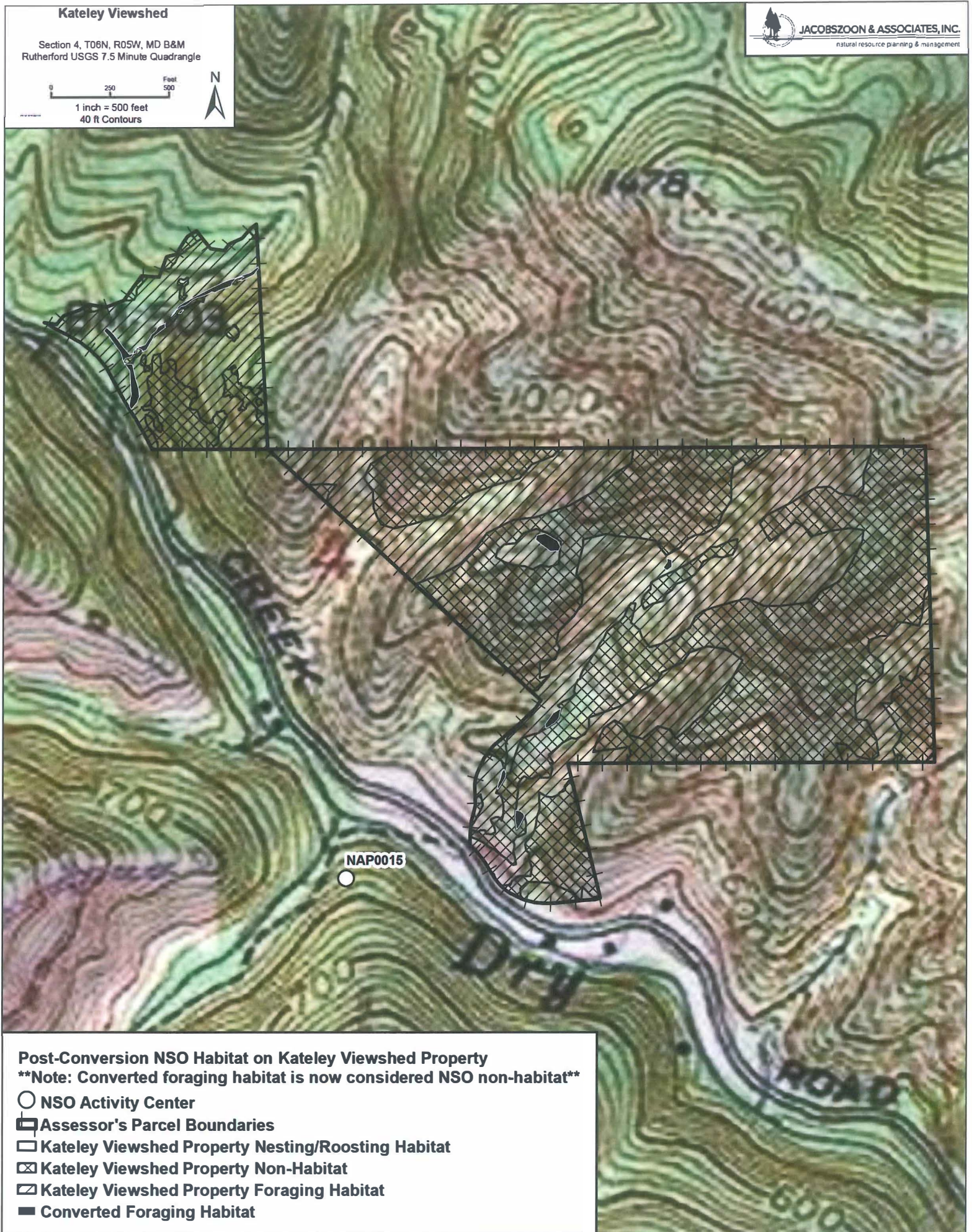


NAP0015

- Pre-Conversion NSO Habitat on Kateley Viewshed Property
- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ▭ Kateley Viewshed Property Nesting/Roosting Habitat
- ▨ Kateley Viewshed Property Non-Habitat
- ▩ Kateley Viewshed Property Foraging Habitat

**Kateley Viewshed**

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle



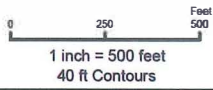
**Post-Conversion NSO Habitat on Kateley Viewshed Property**

**\*\*Note: Converted foraging habitat is now considered NSO non-habitat\*\***

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ▭ Kateley Viewshed Property Nesting/Roosting Habitat
- ▨ Kateley Viewshed Property Non-Habitat
- ▨ Kateley Viewshed Property Foraging Habitat
- Converted Foraging Habitat

**Kateley Viewshed**

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle



**NAP0015**



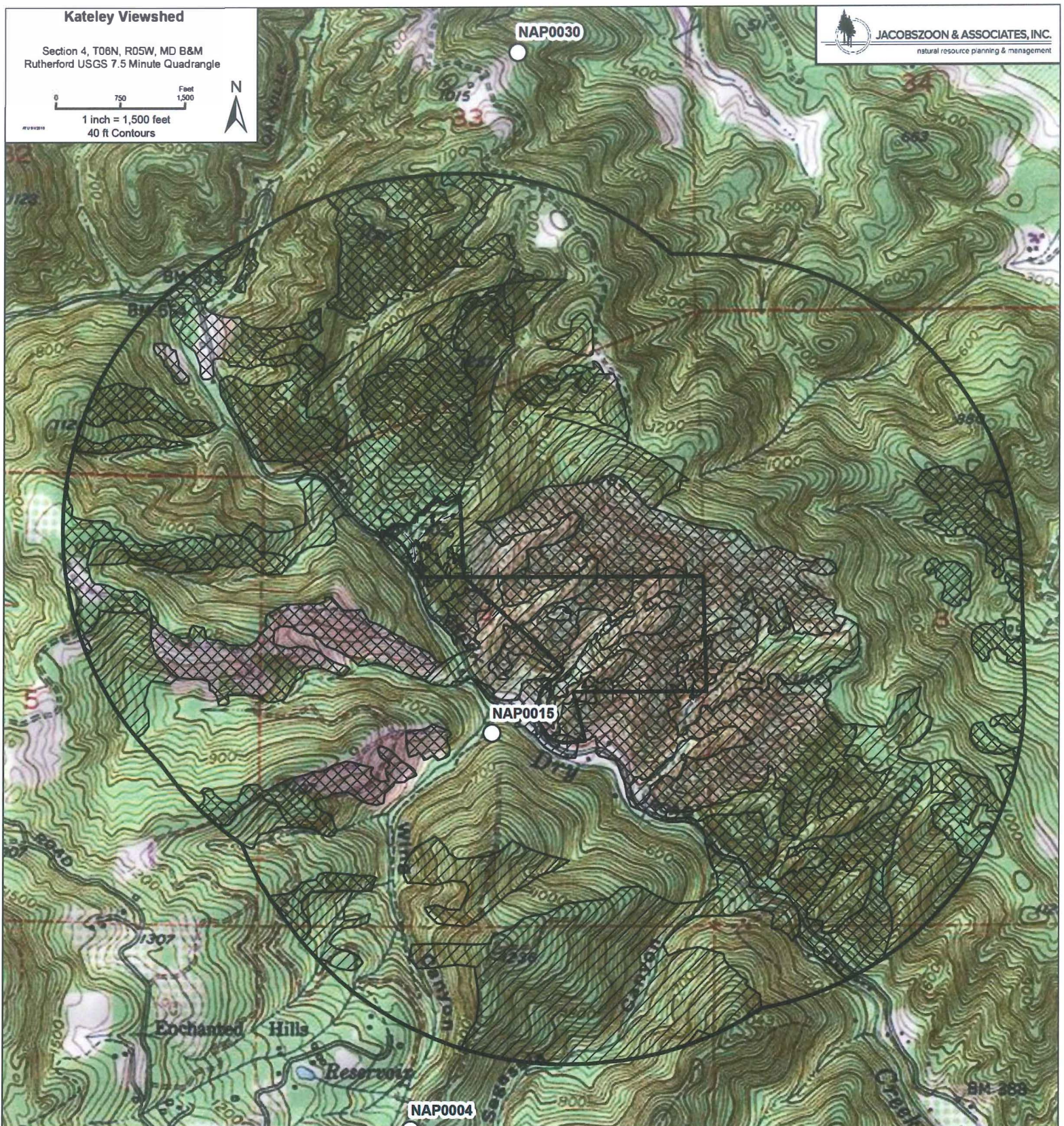
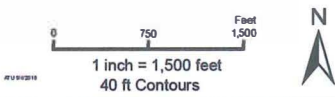
**Post-Conversion NSO Habitat on Kateley Viewshed Property**

**\*\*Note: Converted foraging habitat is now considered NSO non-habitat\*\***

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ▭ Kateley Viewshed Property Nesting/Roosting Habitat
- ▨ Kateley Viewshed Property Non-Habitat
- ▨ Kateley Viewshed Property Foraging Habitat
- ▭ Converted Foraging Habitat

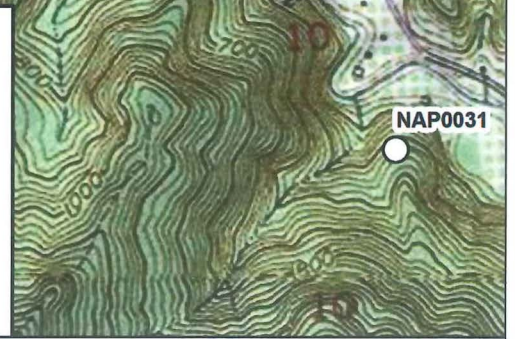
# Kateley Viewshed

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle



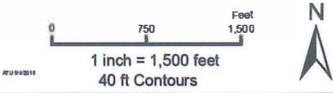
## Pre-Conversion NSO Habitat within 0.7 mile Buffer of Kateley Viewshed Property

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ▭ Kateley Viewshed 0.7 mile Buffer
- ▭ Kateley Viewshed 0.7 mile Buffer Nesting/Roosting Habitat
- ▨ Kateley Viewshed 0.7 mile Buffer Non-Habitat
- ▨ Kateley Viewshed 0.7 mile Buffer Foraging Habitat
- Converted Foraging Habitat



**Kateley Viewshed**

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle



● **NAP0030**



**NAP0015**

**NAP0004**

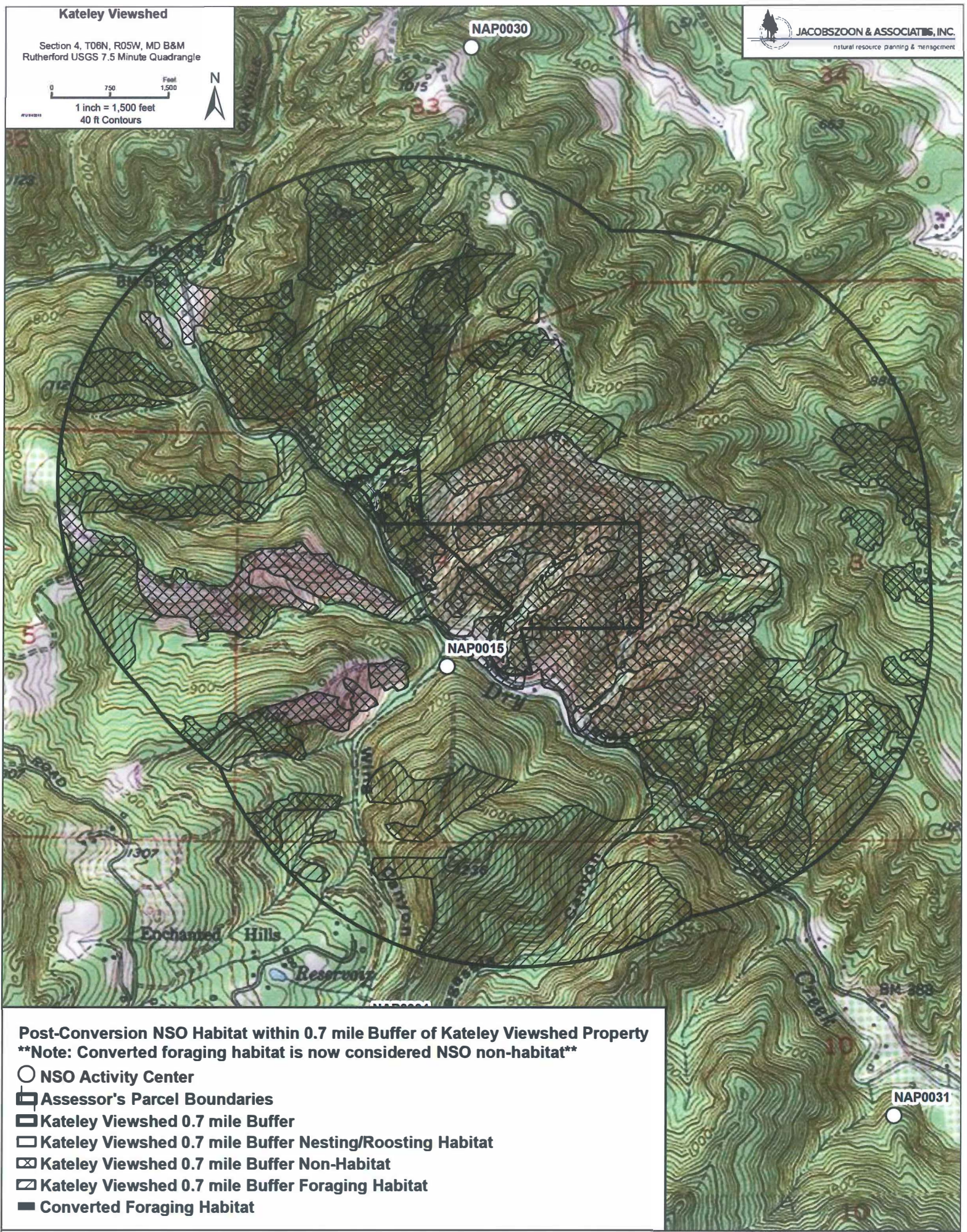
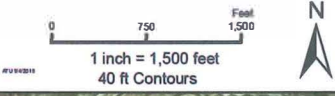
**NAP0031**

**Pre-Conversion NSO Habitat within 0.7 mile Buffer of Kateley Viewshed Property**

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ▭ Kateley Viewshed 0.7 mile Buffer
- ▭ Kateley Viewshed 0.7 mile Buffer Nesting/Roosting Habitat
- ▨ Kateley Viewshed 0.7 mile Buffer Non-Habitat
- ▩ Kateley Viewshed 0.7 mile Buffer Foraging Habitat

**Kateley Viewshed**

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle

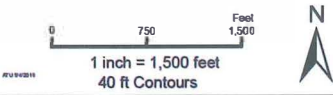


**Post-Conversion NSO Habitat within 0.7 mile Buffer of Kateley Viewshed Property**  
**\*\*Note: Converted foraging habitat is now considered NSO non-habitat\*\***

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ▭ Kateley Viewshed 0.7 mile Buffer
- ▭ Kateley Viewshed 0.7 mile Buffer Nesting/Roosting Habitat
- ▨ Kateley Viewshed 0.7 mile Buffer Non-Habitat
- ▨ Kateley Viewshed 0.7 mile Buffer Foraging Habitat
- Converted Foraging Habitat

**Kateley Viewshed**

Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle



● NAP0030



NAP0015

NAP0004

NAP0031

**Post-Conversion NSO Habitat within 0.7 mile Buffer of Kateley Viewshed Property**

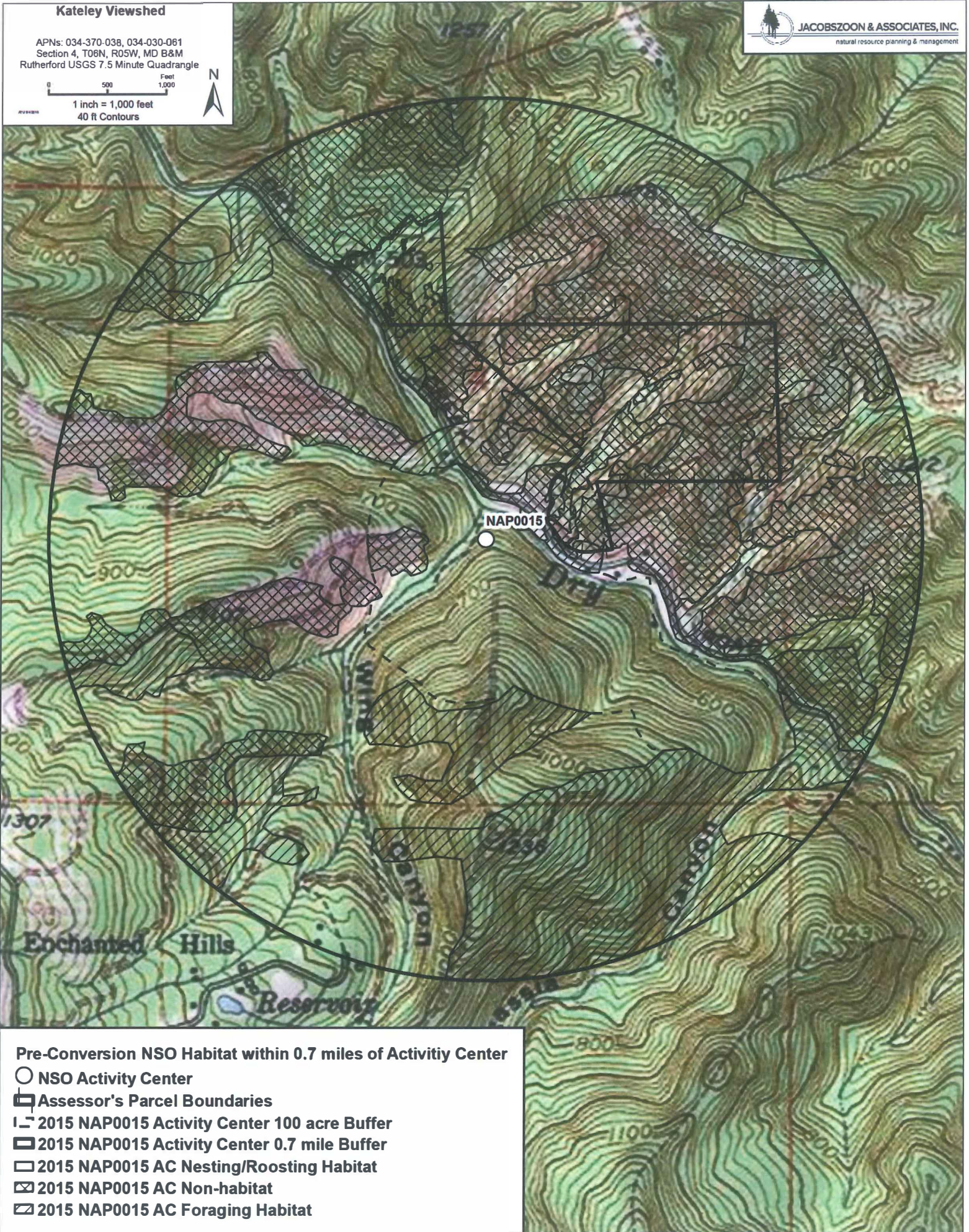
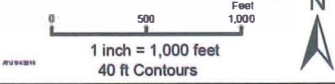
**\*\*Note: Converted foraging habitat is now considered NSO non-habitat\*\***

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ▭ Kateley Viewshed 0.7 mile Buffer
- ▭ Kateley Viewshed 0.7 mile Buffer Nesting/Roosting Habitat
- ▨ Kateley Viewshed 0.7 mile Buffer Non-Habitat
- ▨ Kateley Viewshed 0.7 mile Buffer Foraging Habitat
- ▭ Converted Foraging Habitat



**Kateley Viewshed**

APNs: 034-370-038, 034-030-061  
Section 4, T06N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle

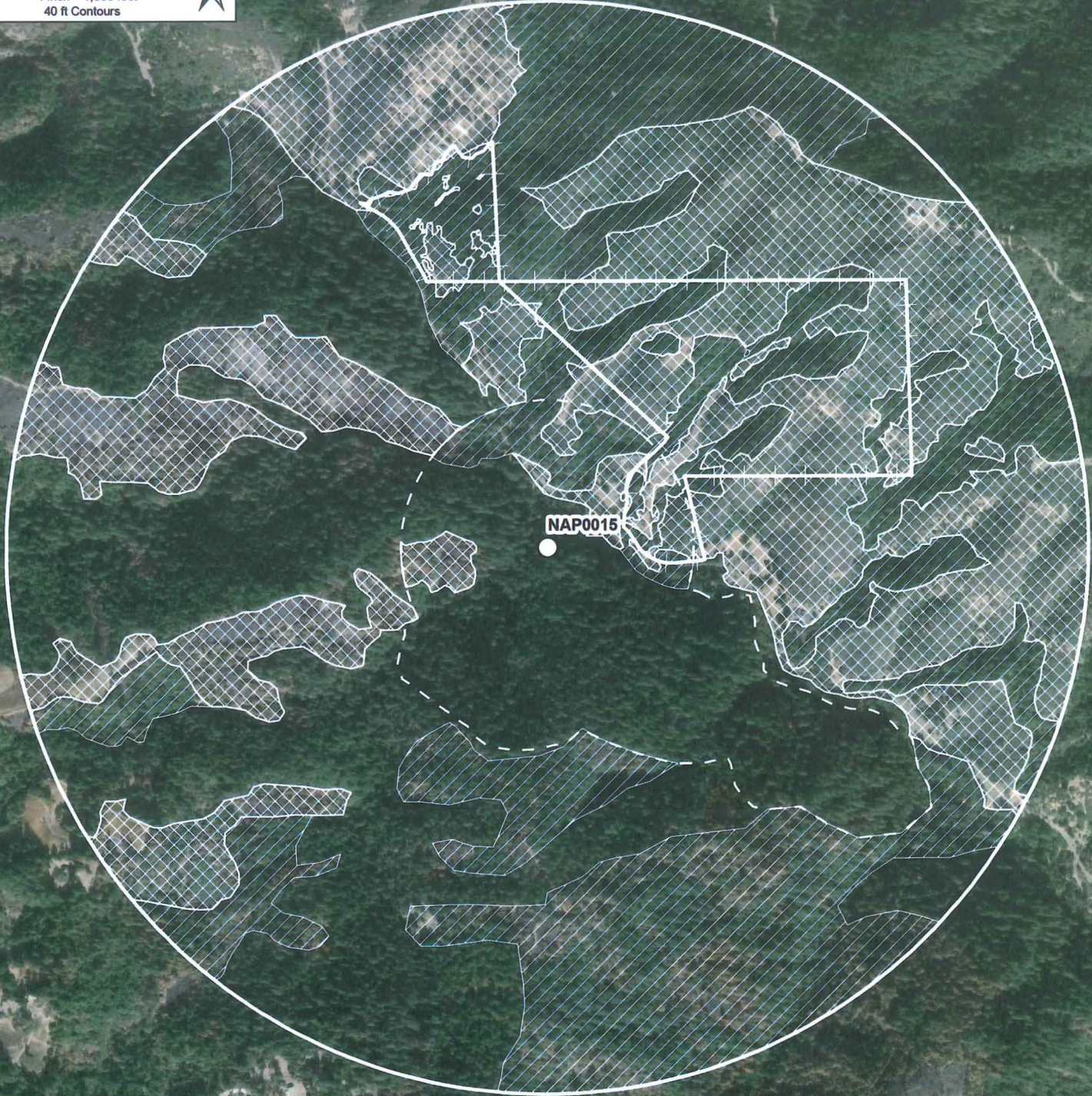
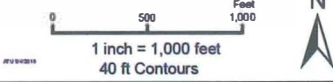


**Pre-Conversion NSO Habitat within 0.7 miles of Activity Center**

- NSO Activity Center
- ▣ Assessor's Parcel Boundaries
- ┌ 2015 NAP0015 Activity Center 100 acre Buffer
- ▣ 2015 NAP0015 Activity Center 0.7 mile Buffer
- ▣ 2015 NAP0015 AC Nesting/Roosting Habitat
- ▣ 2015 NAP0015 AC Non-habitat
- ▣ 2015 NAP0015 AC Foraging Habitat

**Kateley Viewshed**

APNs: 034-370-038, 034-030-081  
Section 4, T08N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle



Pre-Conversion NSO Habitat within 0.7 miles of Activity Center

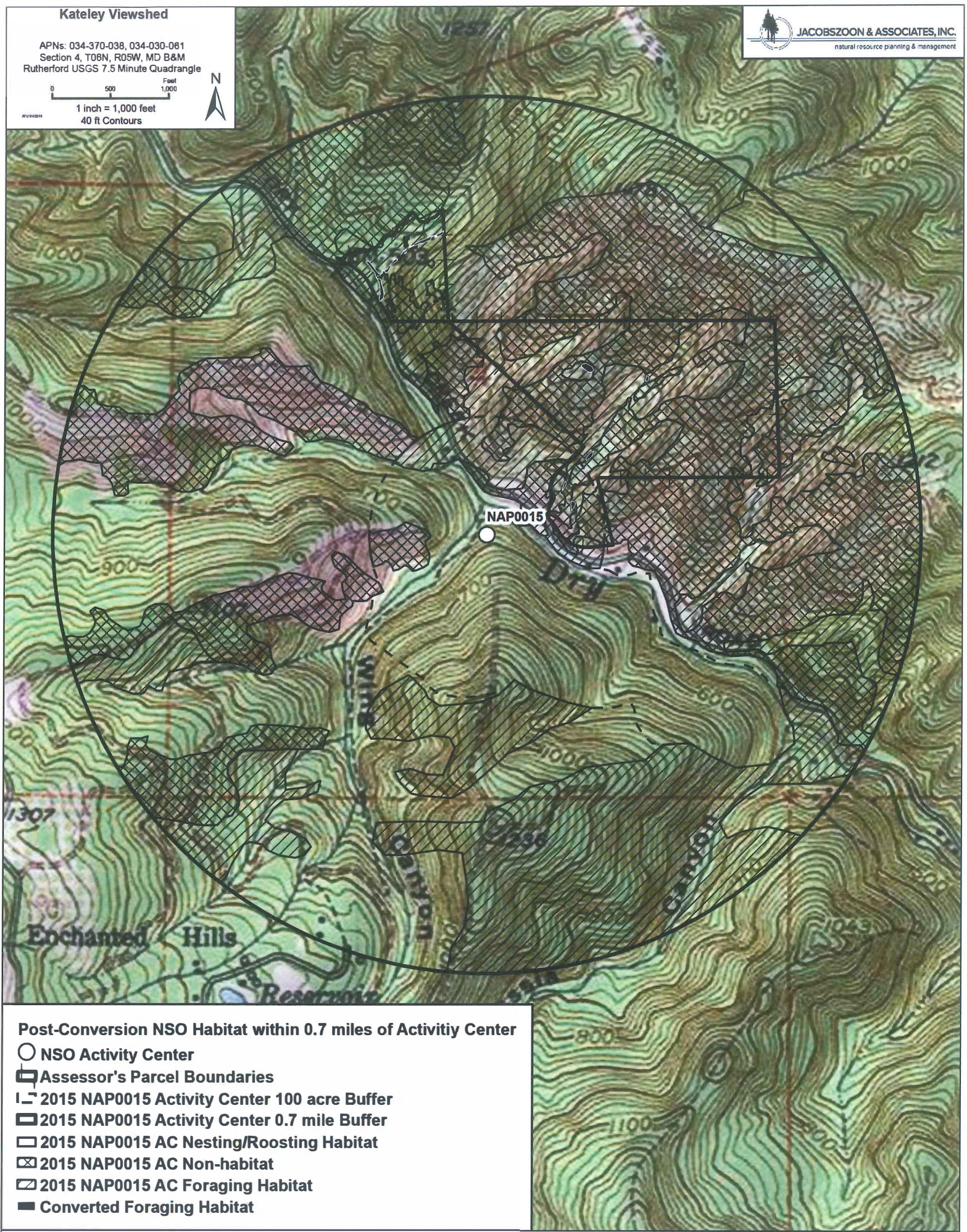
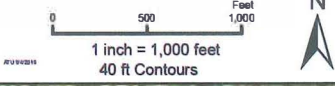
- NSO Activity Center
- Assessor's Parcel Boundaries
- ┌ 2015 NAP0015 Activity Center 100 acre Buffer
- ▭ 2015 NAP0015 Activity Center 0.7 mile Buffer
- ▭ 2015 NAP0015 AC Nesting/Roosting Habitat
- ▨ 2015 NAP0015 AC Non-habitat
- ▩ 2015 NAP0015 AC Foraging Habitat

**NAP0004**



**Kateley Viewshed**

APNs: 034-370-038, 034-030-061  
Section 4, T08N, R05W, MD B&M  
Rutherford USGS 7.5 Minute Quadrangle

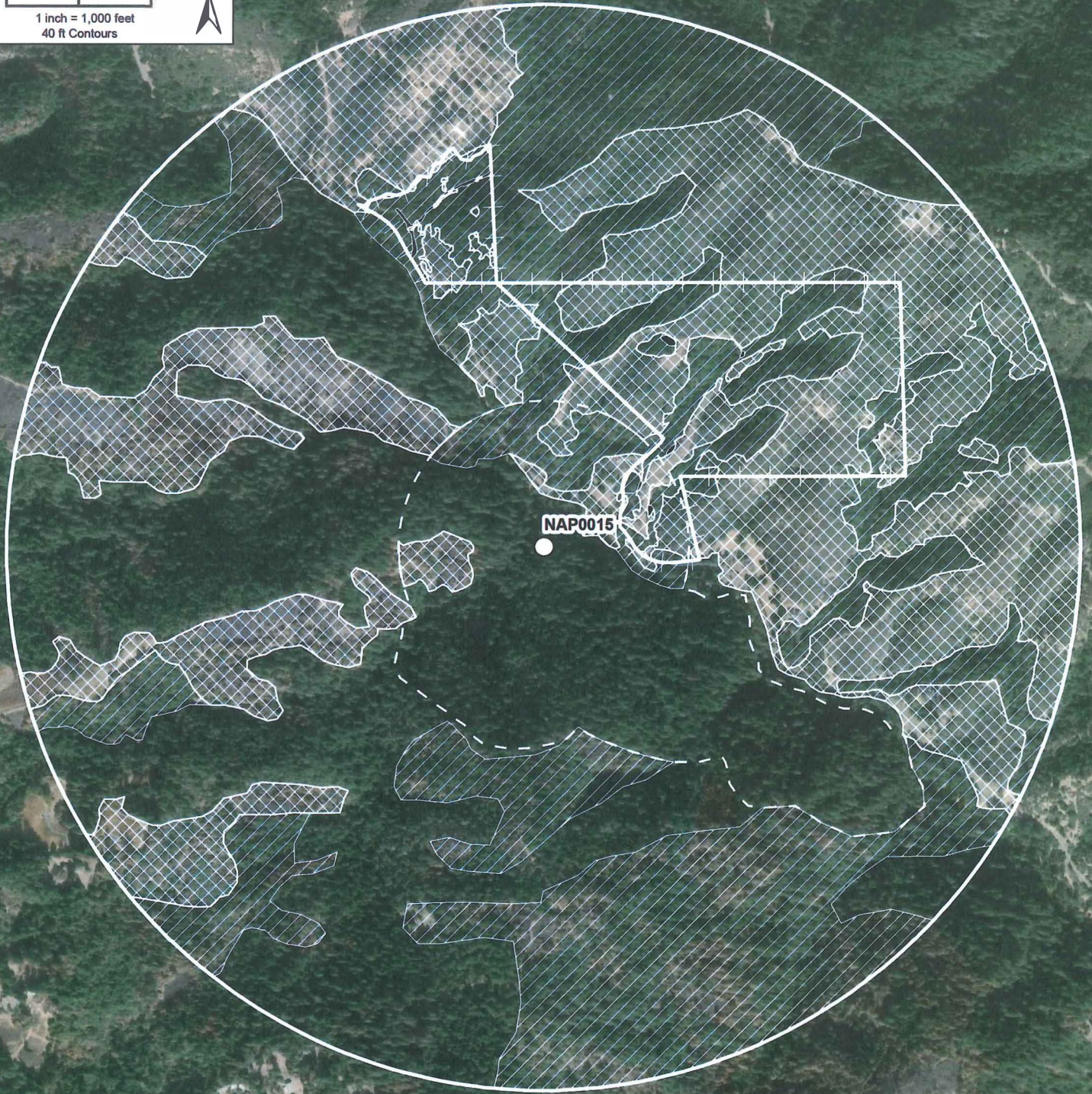
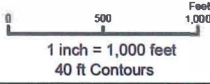


**Post-Conversion NSO Habitat within 0.7 miles of Activity Center**

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- ┌ 2015 NAP0015 Activity Center 100 acre Buffer
- ▭ 2015 NAP0015 Activity Center 0.7 mile Buffer
- ▭ 2015 NAP0015 AC Nesting/Roosting Habitat
- ▨ 2015 NAP0015 AC Non-habitat
- ▨ 2015 NAP0015 AC Foraging Habitat
- Converted Foraging Habitat

**Kateley Viewshed**

APNs: 034-370-038, 034-030-061  
 Section 4, T08N, R05W, MD B&M  
 Rutherford USGS 7.5 Minute Quadrangle



Post-Conversion NSO Habitat within 0.7 miles of Activity Center

- NSO Activity Center
- ▭ Assessor's Parcel Boundaries
- (with label NAP0004) NSO Activity Center
- ⊖ 2015 NAP0015 Activity Center 100 acre Buffer
- ⊖ (larger) 2015 NAP0015 Activity Center 0.7 mile Buffer
- ▨ (diagonal lines) 2015 NAP0015 AC Nesting/Roosting Habitat
- ▩ (cross-hatch) 2015 NAP0015 AC Non-habitat
- ▧ (horizontal lines) 2015 NAP0015 AC Foraging Habitat
- ▭ (white) Converted Foraging Habitat