



**Humboldt
Redwood™**

Peregrine Falcon Annual Report 2018

February 1, 2019



Cover photo: 2014 Scotia Bluffs nest ledge 2014 (HRC Staff).

Project Description

Title: Peregrine Falcon HCP Monitoring

Purpose: Habitat Conservation Plan (HCP) monitoring

Date Initiated: March 1999

Projected End Date: Ongoing

Manager: Sal Chinnici, Manager, Forest Sciences

Executive Summary:

During the 2018 peregrine falcon breeding season we conducted surveys for peregrine falcon activity at seven total sites, including six known eyries (nests) at Scotia Bluffs, Holmes Bluff, Tom Gulch, Shively Bluff, South Runenburg, and McCready Ridge, as well as a new tree nest discovered in 2018 in Clapp Gulch.

Surveys were to monitor the eyries for possible nesting activity, monitor the nests during timber operations, or to confirm fledging of juveniles prior to commencement of timber operations, or road work within 0.5-mile of a nesting area. The Tom Gulch snag has also been used by ospreys and northern spotted owls for nesting in the past, and so the snag was monitored for potential nesting activity by those species as well. The Scotia, Holmes, and Clapp Gulch nests were occupied this year. The South Runenburg nest had peregrine presence, but observations of nesting activity were inconclusive. No peregrine activity was observed at the Tom Gulch, Shively Bluff, and McCready Ridge sites. There were peregrine nestlings produced at the Holmes and Clapp Gulch eyries.

No changes in the HCP peregrine falcon monitoring strategy are recommended at this time.

Project Manager / Primary Author



Sal Chinnici

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INTRODUCTION

The American peregrine falcon (*Falco peregrinus anatum*) is a covered species under the HRC HCP. The species was formerly listed as endangered under the California State Endangered Species Act and also under the Federal Act, but has been found to be recovered and delisted pursuant to both the State and Federal Acts. It is also a Board of Forestry Sensitive Species, and a California Fully Protected Species. The objective of surveying for peregrine falcons on HRC lands is to survey traditional and potential nest sites and adjacent habitat if timber operations are to occur within 0.5 mile (conventional operations), or 1.0 mile (e.g., helicopter operations), and to apply HCP nest site protection measures when necessary to ensure a high probability of successful nesting.

METHODS

Surveys were conducted according to section 6.5.2.1 of HRC's HCP, the Mutually Agreed Upon Peregrine Falcon Survey Language (as modified, Appendix I) and followed guidelines in both the Protocol for Observing Known and Potential Peregrine Falcon Eyries in the Pacific Northwest (Pagel 1992), and the U.S. Fish and Wildlife Monitoring Protocol (USFWS 2003). Additional nest checks or surveys are sometimes done in an attempt to establish whether a site is active, occupied, or to assess nesting success if applicable.

Monitoring of nesting activity only was conducted at the Scotia, Holmes, Shively Bluff, and McCready Ridge sites as no timber operations were planned within the appropriate disturbance minimization buffers. Tom Gulch, South Runenburg, and Clapp Gulch were surveyed to determine nesting status and to seasonally restrict any timber operations within the buffers as required. Survey locations, dates, associated THPs, and status results for 2018 surveys are shown in Table 1.

Table 1. 2018 Peregrine falcon survey schedule.

Known Eyrie Location	Associated THP (name, #)	Visit 1 Date	PEFA activity?	Visit 2 Date	PEFA activity?	Visit 3 Date	PEFA activity?	Visit 4 Date	PEFA activity?
Tom Gulch	McCloud Shaw (12-110)	5/29/18	NC	6/25/18	NC	7/18/18	NC	NA	NA
Scotia Bluffs	Monitor only	6/21/18	PU	7/18/18	PU	-	NA	NA	NA
Holmes Bluff	Monitor only	6/20/18	PN3J	7/20/18	PN3J	-	NA	NA	NA
Shively Bluff	Monitor only	6/18/18	NC	7/16/18	NC	-	NA	NA	NA
South Runenburg	Westside (15-121), LVD 17 (17-107)	5/15/18	PU	6/18/18	PU	6/26/18	PU	NA	NA
McCready Ridge	Monitor only	6/22/18	NC	7/19/18	NC		NA	NA	NA
Clapp Gulch	McCloud Shaw (12-110)	5/8/18	PN	6/4/18	PN2J	6/26/18	PN	7/17/18	NC

NC = no contact, U = unknown status, PN = pair nesting, PNJ = pair with juvenile(s), PNN = pair not nesting, PU = pair unknown, PF = pair failed, SA = sub adult, NA = Not applicable.

RESULTS

In 2018 the Scotia, Holmes, S. Runenburg, and Clapp territories were all occupied by a pair of peregrine falcons. Nesting was confirmed at Holmes and Clapp, and was suspected at S. Runenburg, but at S. Runenburg we may have missed the nesting attempt, or the nest may have failed. Three nestlings were confirmed at the Holmes Bluff nest, and two at the Clapp Gulch site. No peregrine activity was observed at Tom Gulch, Shively Bluff, or McCready Ridge (Table 2).

The percent of known territories occupied in 2018 was 57.1% (4 of 7), compared to 66.7% (4 of 6) in 2017, with a mean of 87% over the period 1999-2018 (Figure 1). The reproductive rate (measured as number of juveniles per occupied territory) was 1.25 in 2018, compared to 0.75 in 2017, with a mean of 0.79 over the period 1999 - 2018 (Figure 2). Reproductive rate is showing a slight increase over the last two years after the 2016 decline (0.60), following a five-year period (i.e., 2011 – 2015) with much higher reproductive rates.

Table 2. Status of HRC peregrine falcon eyries 1999 - 2018 (if known).

Eyries	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Scotia Bluffs	NC	U	U	PN	PU	PN2J	PF	PN4J	PN	PNN	PU	PN2J	PN2J	PN1J	PN1J	PN2J	PN3J	PNF?	U	PU
Holmes Bluff	U	U	U	PU	U	M	M	PU	M	U + SA	PU	PU	PN2J	PN2J	PN1J	PU	PN2J	PN3J	PU	PN3J
Shively Bluff												PU	PN2J	PN3J	PN2J	PN3J	U	PU	NC	NC
Tom Gulch									PN1J	PN2J	NC	NC	NC	NC	PU	NC	NC	NC	NC	NC
South Runenburg															PN2J	NC	PN2J	U	PN3J	PU
McCready Ridge																		PN	PU	NC
Clapp Gulch																				PN2J

NC = no contact, U = unknown status, PN = pair nesting, PNJ = pair with juvenile(s), PNN = pair not nesting, PU = pair unknown, PF = pair failed, SA = subadult.

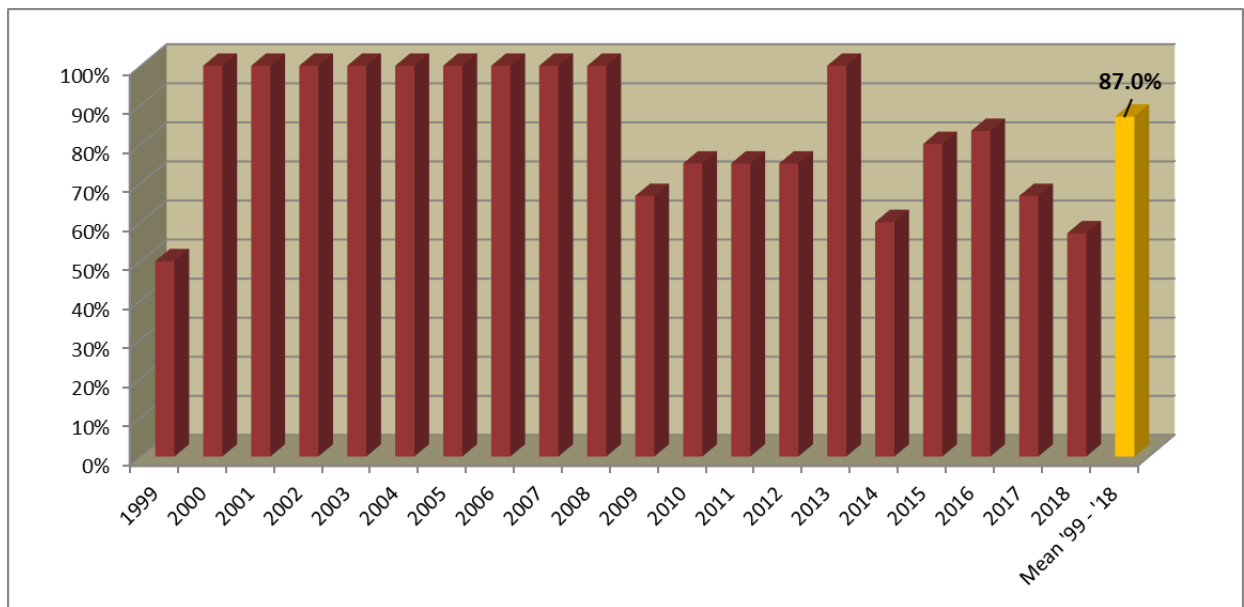


Figure 1. Percent of HRC territories occupied and mean 1999 - 2018.

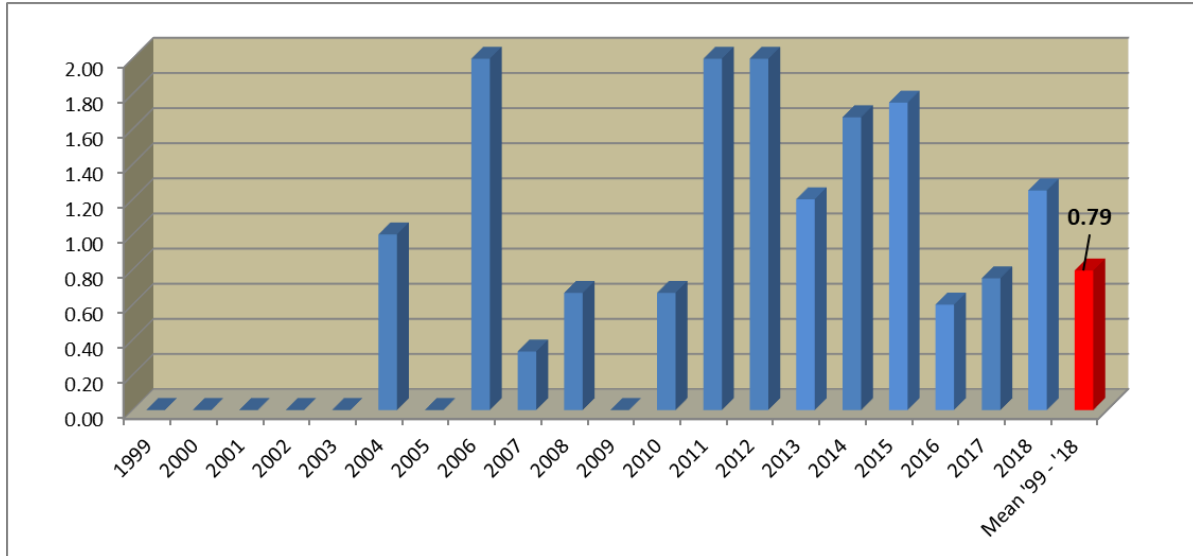


Figure 2. Reproductive rate for HRC occupied territories and mean 1999 - 2018.

CLAPP GULCH

In 2018 a new PEFA tree nest was found in the Clapp Gulch drainage, a tributary of the Elk River (Figure 14). It is unknown if this is the same PEFA pair that has nested in Tom Gulch previously. The Clapp Gulch nest tree is approximately 1.6 miles east of the Tom Gulch tree and could potentially be considered the same nest territory. The Clapp Gulch nest tree is the same tree as historic osprey tree (HRC # 8). Along with Tom Gulch and McCready Ridge, the Clapp Gulch nest is the third tree nest we have found during HRC surveys.

The nest was first discovered during osprey surveys for the McCloud Shaw THP (12-110), when an observer detected a Peregrine falcon on 3 April. Subsequent follow-up surveys confirmed a pair nesting at historic osprey nest # 8, a large snag-top old growth redwood similar in appearance to the Tom Gulch nest tree. Observations determined that the pair produced at least two juveniles.



Figure 3. Osprey nests # 8 and 9 as seen from a Clapp Gulch observation point. OSPR # 8 was used for nesting by PEFA in 2018.

DISCUSSION AND RECOMMENDATIONS

Occupancy and reproduction for the now seven known peregrine falcon sites on or adjacent to HRC lands continues to be relatively high over the past nine seasons. Of the seven known peregrine falcon eyries monitored during the 2018 season, four sites were occupied (57% occupancy). Shively Bluff, Tom Gulch, and McCready Ridge were not occupied and no nesting occurred there. At least five juvenile peregrines were produced (Holmes and Clapp) for a reproductive rate of 1.25 young per occupied territory.

There were no operations within 0.5 mile of any of the occupied eyries, with the exception of use of the Shively Road, as discussed in the CDFW property-wide consultation language. The property-wide language was revised to account for the new eyrie at Shively Bluff on 14 July 2011, with the concurrence of the Wildlife Agencies on 26 July (Appendix I). There were no HRC operations within 1.0 mile such as helicopter yarding, blasting, or pile driving at any eyrie location during the breeding season. Operations were scheduled to occur either before or after the breeding season in other buffer locations.

With the exception of the Tom Gulch, McCready Ridge, and Clapp Gulch sites, all of the other sites (Scotia, Holmes, Shively, and S. Runenburg) are on bluff faces above either the Eel or Van Duzen Rivers at what are very popular recreation sites in the spring and summer months. The S. Runenburg nest cliff is more obscured than the others, and occurs south of the river and the Highway 36 corridor. At the Eel River sites, HRC personnel commonly observe swimmers, boaters, recreational vehicle riders, and even rock climbers near the falcon eyries.

2019 SURVEYS

Surveys in 2019 will again include monitoring of traditional and known sites (i.e., Tom Gulch, Scotia Bluffs, Holmes Bluffs, Shively Bluff, S. Runenburg, McCready Ridge, and Clapp Gulch). All forestry and science staff will continue to report incidental peregrine sightings to the wildlife staff, and follow-up surveys will be conducted when necessary.

No change in the HCP monitoring strategy for peregrine falcons is recommended at this time.

REFERENCES

- Buchanan, J.B., K.A. Hamm, L.J. Salzer, L.V. Diller, and S.J. Chinnici. 2014. Tree-nesting by Peregrine Falcons in North America: Historical and Additional Records. *J. Raptor Res.* 48(1): 61-67.
- Hamm, K. 2014. Personal communication. Senior Biologist and HCP Coordinator for Green Diamond Resource Co.
- Morata, E. 2016. Personal Communication. Graduate student at Humboldt State University.
- Pagel, J.E. 1992. Protocol for observing known and potential peregrine falcon eyries the Pacific Northwest. Pp. 83-96 *In Proceedings: Symposium on peregrine falcons in the Pacific Northwest.* J.E. Pagel, ed. Rogue River National Forest, Medford, OR 97501.
- U.S. Fish and Wildlife Service. 2003. Monitoring Plan for the American Peregrine Falcon, A Species Recovered Under the Endangered Species Act. U.S. Fish and Wildlife Service, Divisions of Endangered Species and Migratory Birds and State Programs, Pacific Region, Portland, OR. 53 pp.

APPENDIX 1

PEREGRINE FALCON SURVEY LANGUAGE

Final DFG, USFWS and HRC Mutually Agreed Upon Peregrine Falcon Survey Language (3/30/00) as modified (1/8/07) and 7/14/11.

Surveys shall be conducted at traditional and potential nest sites if operations occur between January 15 and August 15. If operations occur after August 15 and before January 15, no surveys are required. Survey visits shall be scheduled based on the estimated duration of operations. The area of influence will be 0.5 mile for conventional operations and 1.0 mile for helicopter operations. All surveys shall follow Pagel (1992), *Protocol for Observing Known and Potential Peregrine Falcon Eyries in the Pacific Northwest*, with respect to placement of observation posts, duration of surveys, time of day of surveys, observer preparation and equipment, and weather conditions. Helicopter surveys for peregrine falcon should not be conducted without prior consultation and concurrence with both the USFWS and DFG.

1. Surveys at traditional sites shall be conducted according to the following guidelines:
 - a. If operations commence after January 14:
 - i. One survey shall be conducted prior to operations, but no more than five days prior to operations.
 - ii. Conduct two additional surveys spaced at least 25 days apart but no more than 30 days. If due to the estimated duration of operations, two additional surveys cannot be spaced by at least 25 days, conduct two additional surveys well distributed throughout the operational period of the project prior to June 30 and prior to completion of operations.
 - b. If timber operations commence before January 15 (beginning at least two weeks prior to January 15), those survey requirements as specified above for operations that commence after January 14 shall be applied, except that all three surveys would occur concurrently with operations.
 - c. Surveys shall not be required for hauling on the Shively Road within the 0.5 mile disturbance minimization buffer for the Holmes and Shively eyries as per the 8 January 2007 and 14 July 2011 consultations.
2. Surveys of potential sites shall be conducted according to the following:
 - a. If timber operations commence after January 14:
 - i. One survey shall be conducted prior to operations, but no more than five days prior to operations.
 - ii. In addition, if the estimated duration of operations allows, conduct one survey prior to the completion of operations spaced at least 25 days after the first survey but no more than 30 days. If the operational period is estimated to end in less than 25 days, conduct the additional survey half-way through the estimated operational period.

APPENDIX 2

MAPS OF PEREGRINE FALCON EYRIES

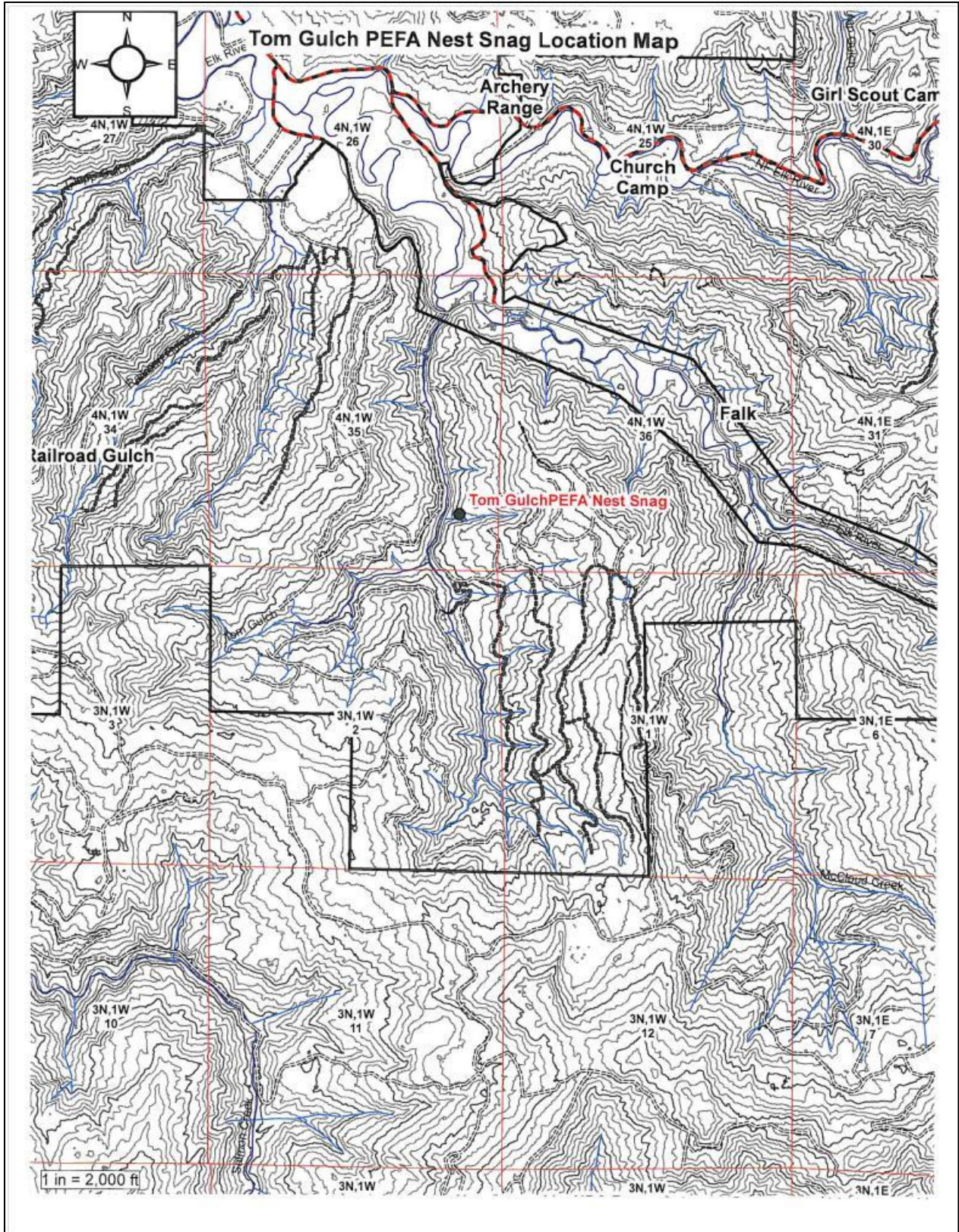


Figure 3. Tom Gulch Peregrine Falcon Nest Snag Location Map.

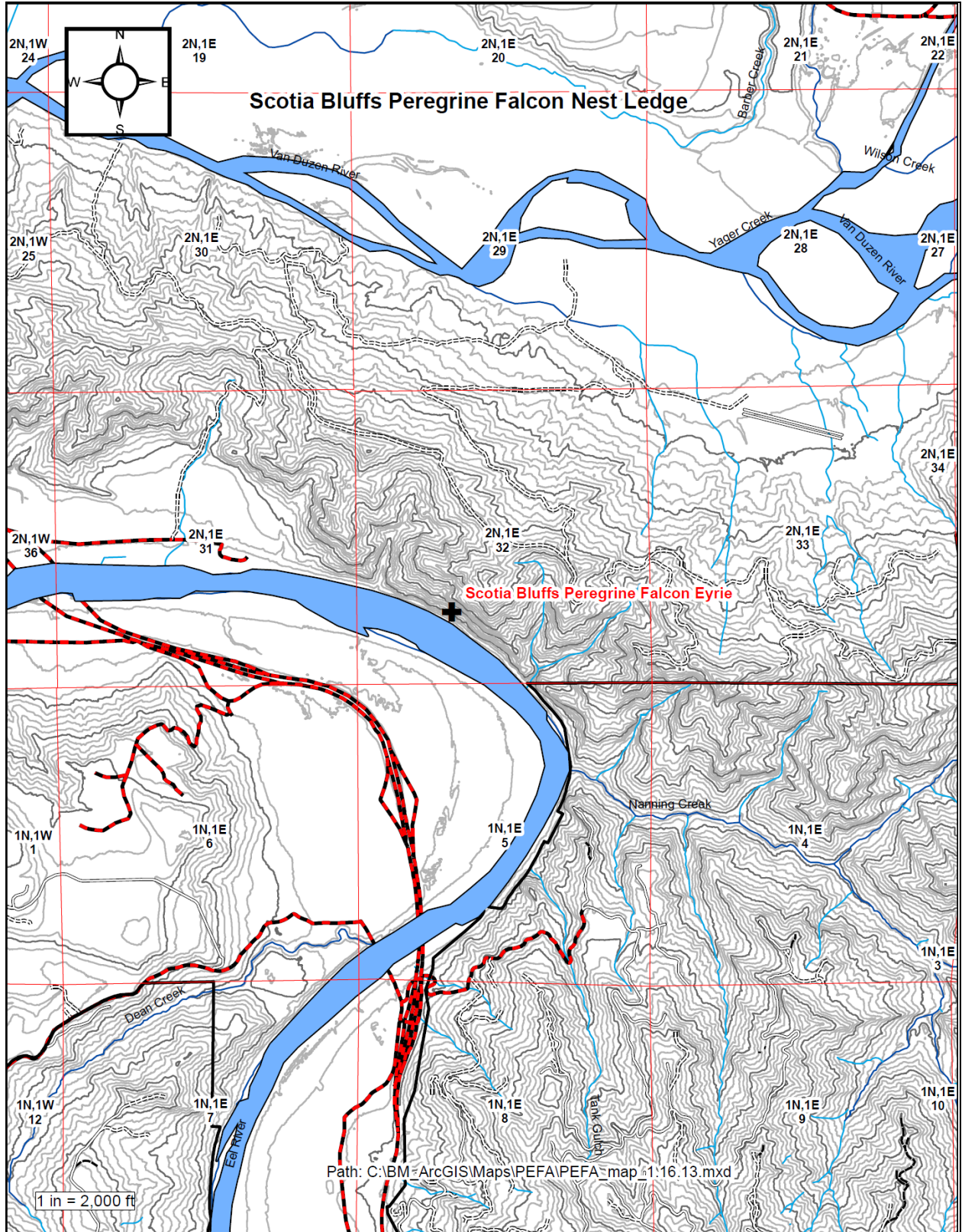


Figure 4. Scotia Bluffs Peregrine Falcon Nest Ledge.

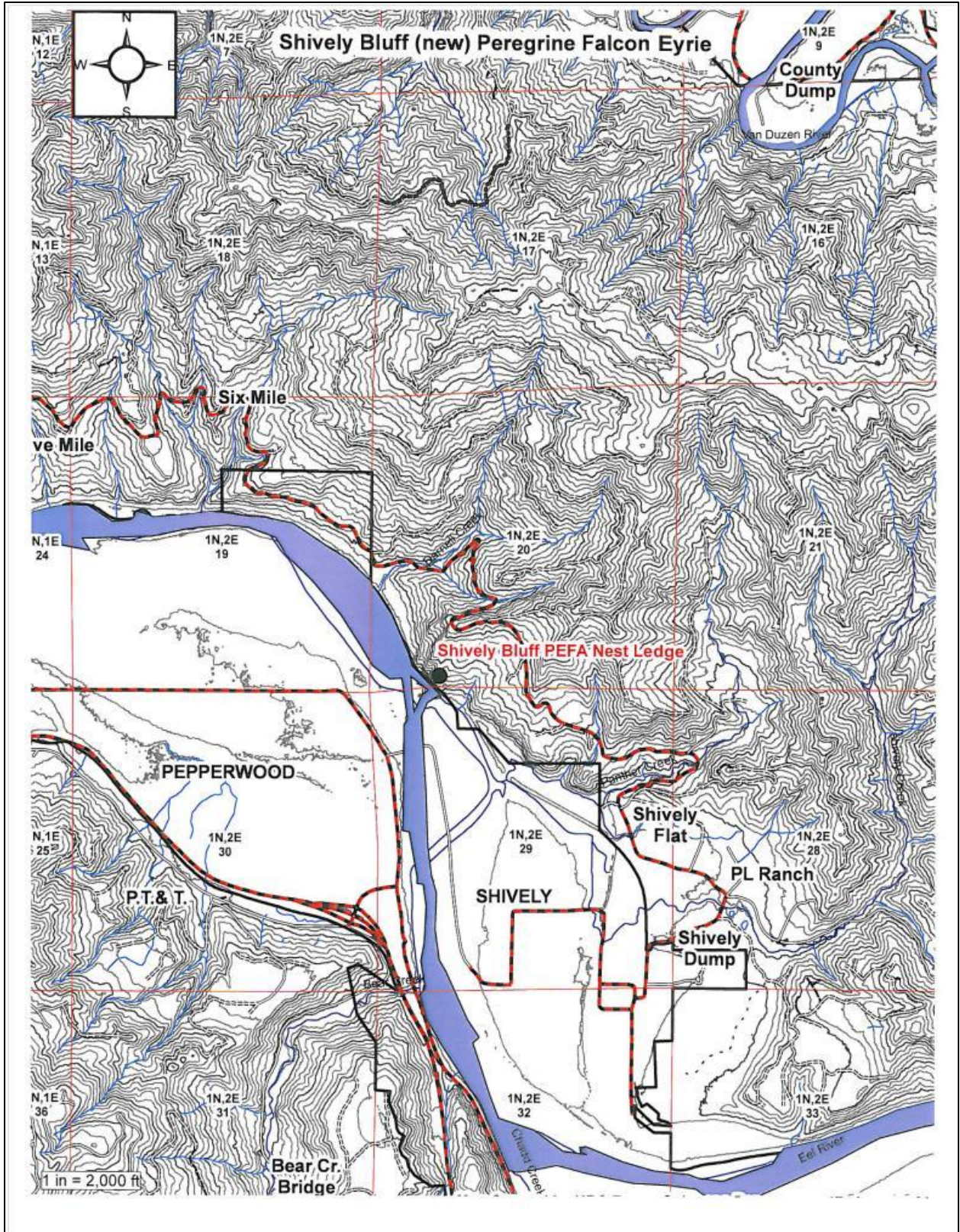


Figure 5. Shively Bluff Peregrine Falcon Eyrie.

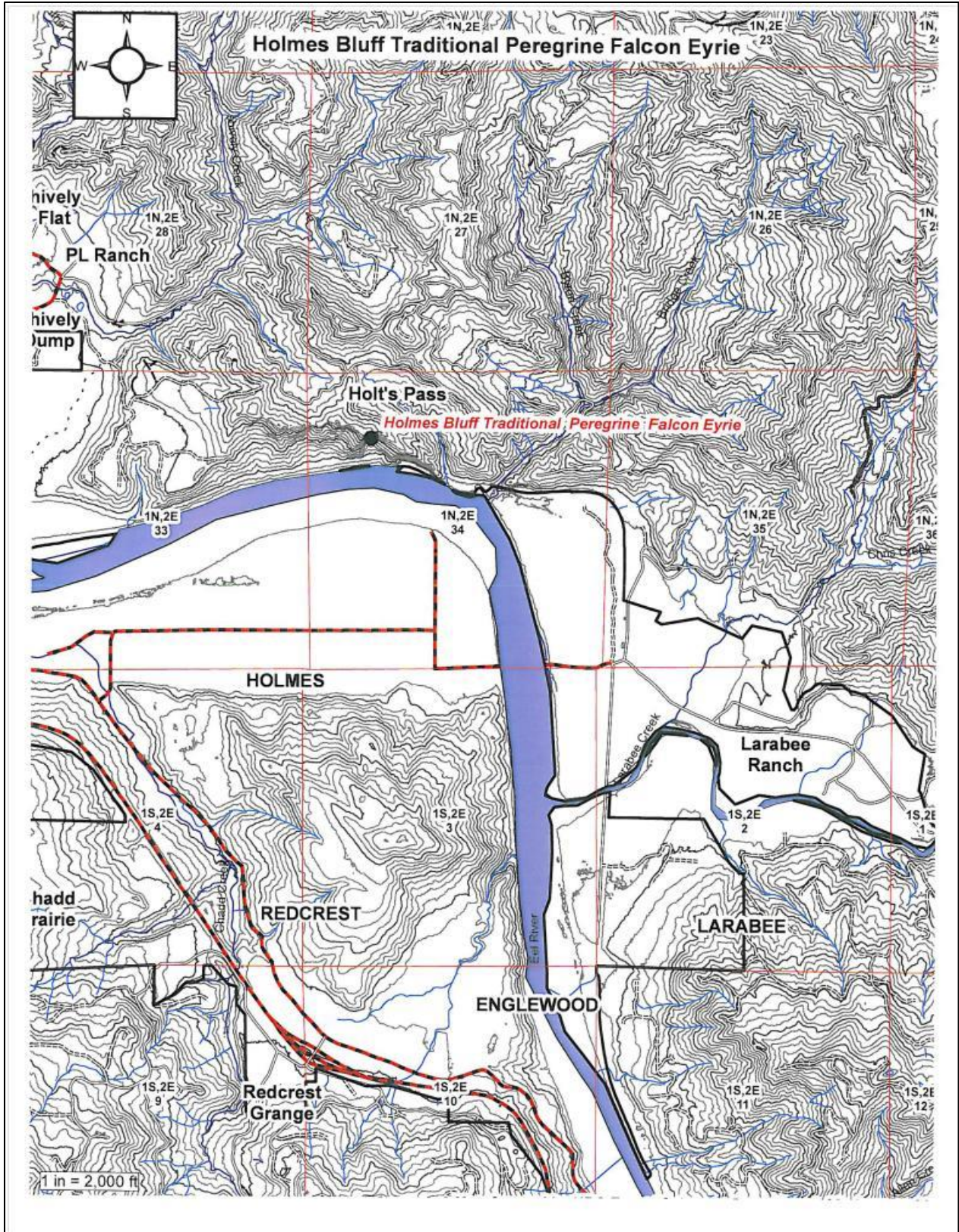


Figure 6. Holmes Bluff Traditional Peregrine Falcon Eyrrie.

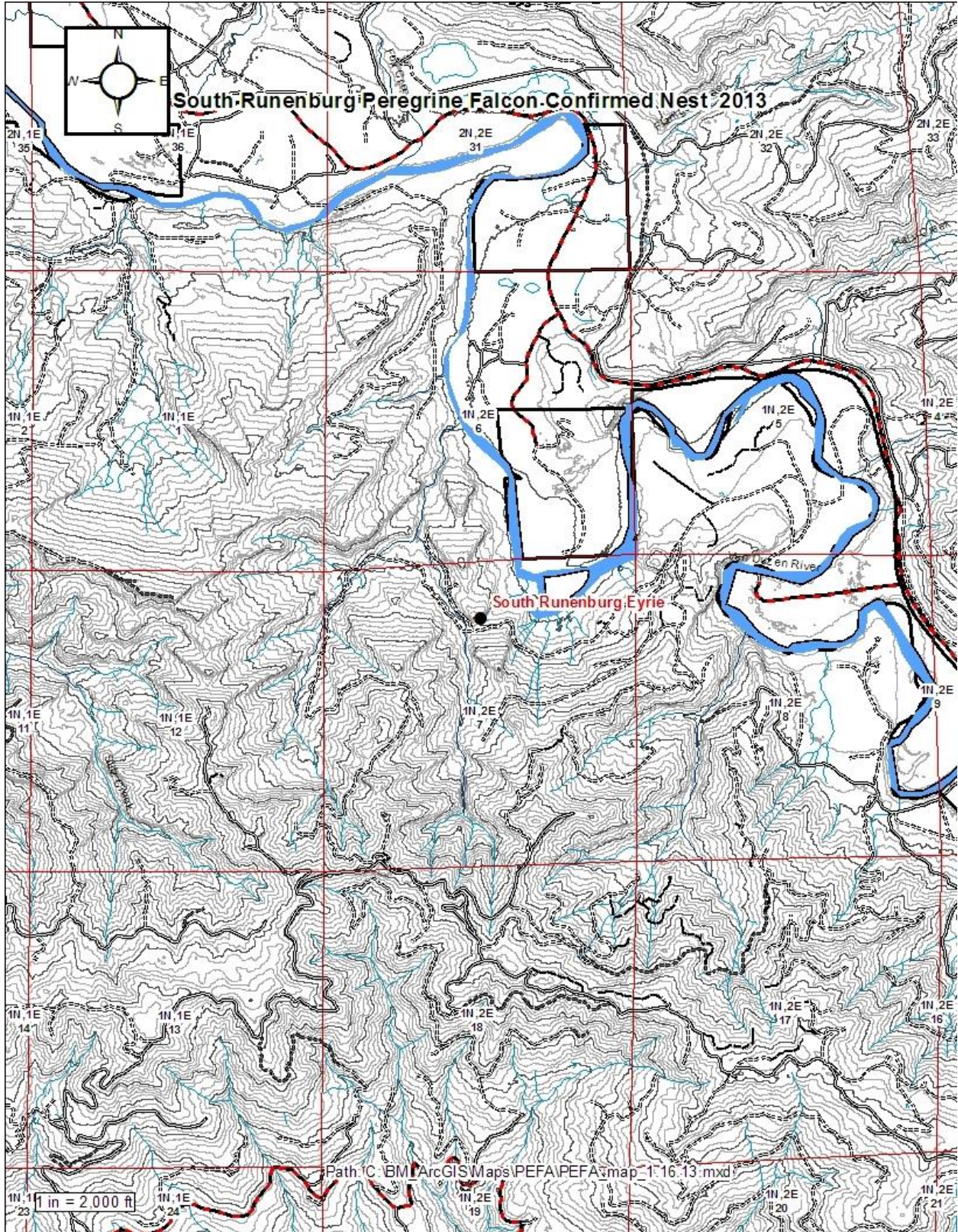


Figure 7. South Runenburg Peregrine Falcon Eyrie.

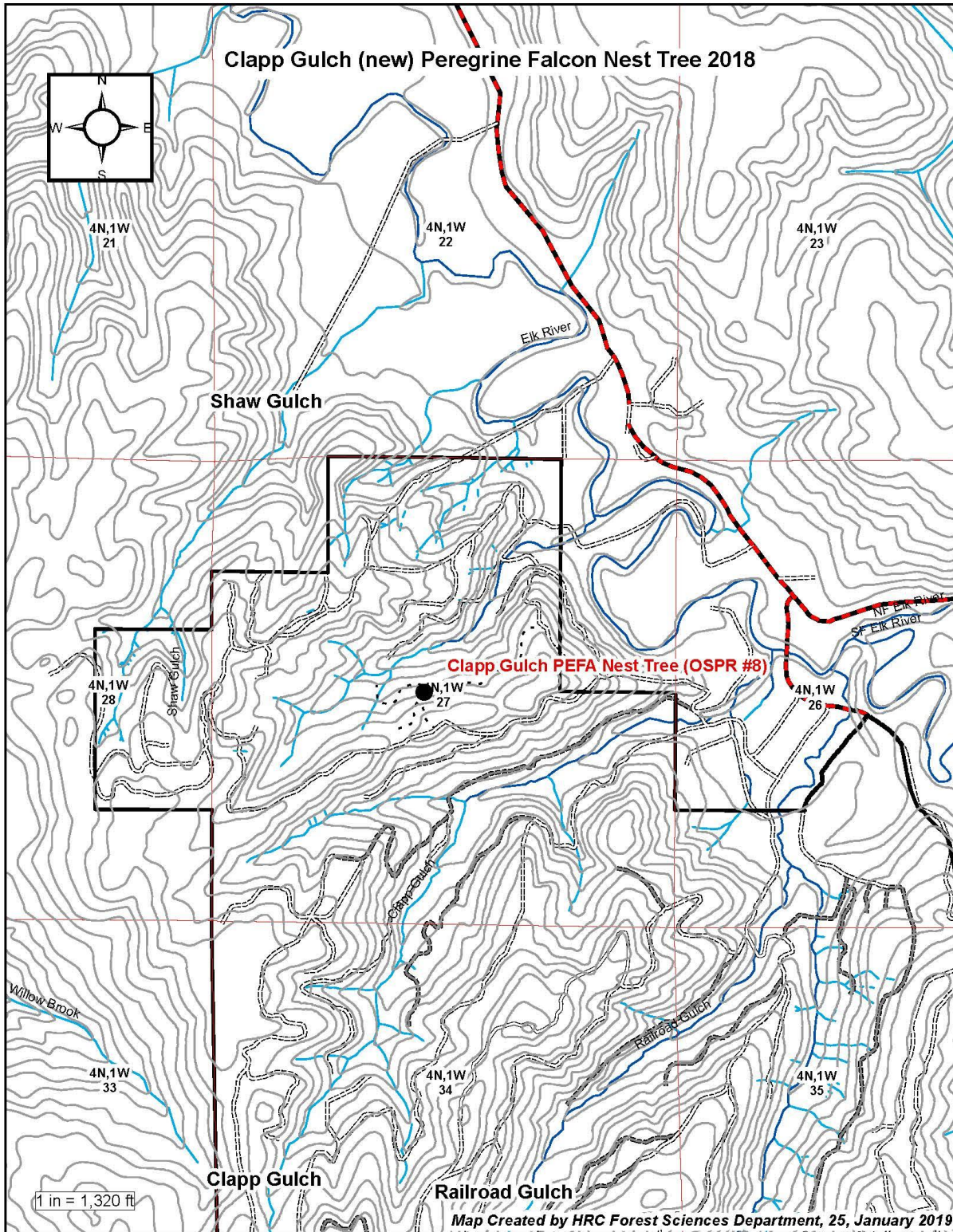


Figure 14. Clapp Gulch Peregrine Falcon Eyrie.