Humboldt Redwood™

Peregrine Falcon Annual Report

2014

February 1, 2015

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Project Description

Title: Peregrine Falcon HCP Monitoring

Purpose: Habitat Conservation Plan (HCP) monitoring

Date Initiated: March 1999

Projected End Date: Ongoing

Manager: Sal Chinnici, Forest Science Manager

Executive Summary:

During the 2014 peregrine falcon breeding season we conducted surveys for peregrine falcon activity at two traditional eyries (nests) at Scotia Bluffs and Holmes Bluff, a third known nest in a large old-growth redwood snag at Tom Gulch, the relatively new nest at Shively Bluff that was confirmed in 2011, and the new nest that was discovered in 2013 along the Van Duzen River near Pamplin Grove (hereafter South Runenberg). Surveys at all five sites were to monitor possible nesting activity, although no timber operations (other than road work) were planned during the breeding season within 0.5-mile of any nesting area in 2014. 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 Shively Bluff nests were all occupied this year. No peregrine activity was observed at the Tom Gulch or South Runenberg sites. Two juvenile peregrines were fledged at the Scotia eyrie, and three at Shively. The Holmes Bluff pair appeared to be nesting early in the season, but the nest may have failed.

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

Reviewed:

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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 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. Survey locations and dates are in Table 1.

Table 1. 2014 Peregrine Falcon Surveys.

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	Monitor only	4/30/14	No	5/15/14	No	6/26/14	No	NA	NA
Scotia Bluffs	Monitor only	3/16/14	Adult Pair at cliff	5/12/14	Female on ledge	6/13/14	Pair and 1 fledgling	6/21/14	Pair and 2 fledglings
Holmes Bluff	Monitor only	4/25/14	Adult Pair at cliff	5/20/14	Adult Pair at cliff	6/24/14	Pair, nest failed?	NA	NA
Shively Bluff	monitor only	4/28/14	Adult Pair at cliff	6/3/14	Pair and 3 nestlings	NA	NA	NA	NA
S. Runenberg	Strong Armed (12-126)	4/17/14	No	5/19/14	No	6/19/14	No	NA	NA

RESULTS

In 2014 the Scotia, Holmes, and Shively territories were all occupied by a pair of peregrine falcons. Nesting occurred at all of the above sites. No peregrine activity was observed at Tom Gulch or S. Runenberg. The Scotia Bluffs eyrie fledged two juvenile falcons, and three were fledged from the Shively eyrie (Table 2). A pair of peregrines occupied the Holmes eyrie this season, but nesting either did not occur or failed. 2014 was the fifth consecutive year that the Scotia, Holmes and Shively nests were all occupied. Brief notes on the individual sites and nest ledge locations are included below.

The percent of known territories occupied in 2014 was 60% (3 of 5), compared to a mean of 88% over the period 1999-2014 (Figure 1). The reproductive rate (measured as number of juveniles per occupied territory) was 1.67 in 2014, compared to a mean of 0.72 over the period 1999-2014 (Figure 2).

Table 2. Status of HRC peregrine falcon eyries by year (if known).

Eyries	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Scotia Bluffs	NC	U	U	PN	PU	PN2J	PF	PN4J	PN	PNN	PU	PN2J	PN2J	PN1J	PN1J	PN2J
Holmes Bluff	U	U	U	PU	U	M	M	PU	M	U + SA	PU	PU	PN2J	PN2J	PN1J	PU
Shively Bluff												PU	PN2J	PN3J	PN2J	PN3J
Tom Gulch									PN1J	PN2J	NC	NC	NC	NC	PU	NC
S. Runenberg															PN2J	NC

NC = no contact, U = unknown status, PN = pair nesting, PU = pair unknown, PF = pair failed, SA = subadult.

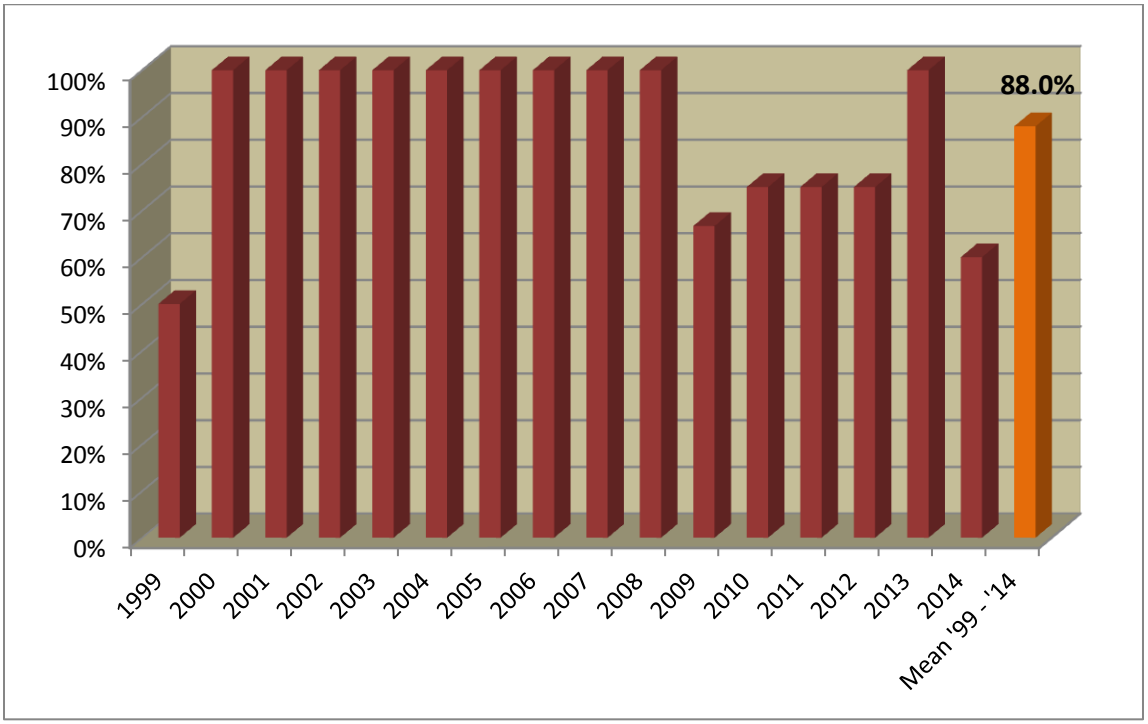

Figure 1. Percent of territories occupied.

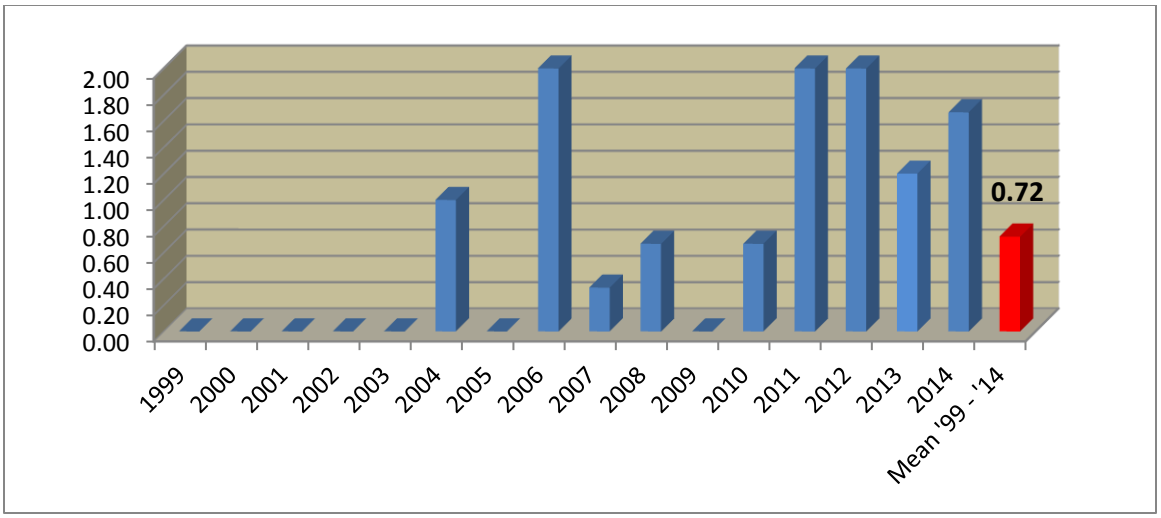

Figure 2. Reproductive rate for occupied territories.

TOM GULCH

The Tom Gulch nest site is a large old growth redwood with its top half consisting of a massive, truncated dead snag (Figure 3). It was first discovered to be occupied by peregrine falcons in 2007 during a survey for osprey (*Pandion haliaeetus*). The snag was also occupied by peregrines in 2008, but was not active from 2009 to 2012. An adult pair of peregrines was observed at the Tom Gulch nest last year, following the four consecutive years that we had not observed peregrines there, but nesting did not occur. In 2014 no operations were planned near the site, but surveys were conducted in preparation for future operations on the McCloud-Shaw THP, as well as potential road and stream restoration projects. No peregrine activity was noted on 3 visits this season (Table 1). No osprey activity was noted either in 2014. Northern spotted owl (*Strix occidentalis caurina*) survey visits to activity site 331 for the 2014 nesting season found that the banded pair of owls occupied the territory, but nesting behavior was not observed.

There are other peregrine falcon nests in trees in nearby watersheds (Hamm, pers. comm.). It is currently unknown if the pair that has previously nested in Tom Gulch is nesting in another snag in the area, or in another watershed. Recent information indicates that tree nesting by peregrine falcons may not be as unusual as previously thought (Buchanan et al 2014).

Figure 3. Tom Gulch Snag (arrow indicates approximate location of nest cavity).

SCOTIA BLUFFS

The Scotia Bluffs traditional cliff site was occupied by a pair of falcons again this year, and two juvenile peregrines were confirmed fledged (Morata, pers. comm..). The 2014 nest ledge appeared to be the same as used in 2011-2013 (Figure 4). Based on observations, the ledge appears to be a broad, deep ledge created by erosion of the cliff face, as are many of the known and potential ledges at Scotia Bluffs. In 2014 a nesting pair and two fledglings were confirmed on a 21 June visit.

Figure 4. Scotia Bluffs (arrow indicates approximate location of nest ledge).

HOLMES BLUFF

The Holmes Bluff eyrie did not appear to fledge any young in 2014, following three consecutive years of successful nesting. The most recent eyrie is higher on the bluff face and farther downriver than previous ledges (i.e. until 2011) (Figure 5). Three visits were conducted in 2014 and the pair appeared to be nesting on the initial visit of 25 April. However, subsequent visits were inconclusive and nestlings or fledglings were not observed.

Figure 5. Holmes Bluff (arrow indicates approximate location of nest ledge).

SHIVELY BLUFF

At Shively Bluff this season the adult pair was able to produce three young from the nest that was initially found in 2011. Surveys during the 2011 nesting season were adequate to confirm pair occupancy, the location of a nest ledge (Figure 6), and the fledging of two juveniles. In 2012 three survey visits confirmed three fledglings at the Shively site. During the 2013 season, an adult pair was confirmed to nest and produce two fledglings from the same ledge. In 2014 three nestlings were confirmed on 3 June. This nest has been highly productive over the last four years in spite of consistent human disturbance near the nest cliff during the breeding season (e.g. presence of summer bridge, off-road vehicle use, swimmers, etc.).

Figure 6. Shively Bluff (arrow indicates approximate location of nest ledge).

SOUTH RUNENBURG

In late August of the 2012 breeding season a daytime spotted owl field visit resulted in the observation of a peregrine falcon flying and vocalizing near a bluff along the Van Duzen River east of Carlotta in an area referred to as Runenburg Camp. During 2013 surveys, an adult female peregrine and two nestlings were observed at the ledge, which is relatively low on the cliff but well obscured by vegetative cover (Figure 7). Monitoring was conducted in 2014 to address planned road work within a 0.5-mile buffer. Three visits to this cliff in 2014 had negative results. No peregrine observations were made, and the fate of the pair that nested there last year is unknown.

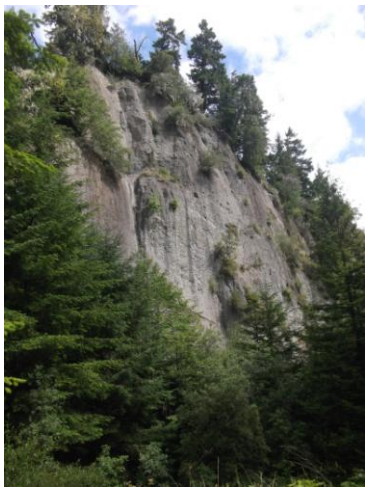

Figure 7. S. Runenburg bluff (the nest ledge is partially hidden by trees, lower right).

DISCUSSION AND RECOMMENDATIONS

Occupancy and reproduction for the five known peregrine falcon sites on or adjacent to HRC lands continues to be relatively high over the past four seasons. Of the five known peregrine falcon eyries monitored during the 2014 season, three of the five sites were occupied (60% occupancy). Tom Gulch and S. Runenberg were not occupied and no nesting occurred there. Five juvenile peregrines were produced (two at Scotia and three at Shively) for a reproductive rate of 1.7 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 property-wide 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 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 site, 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. It may be that nesting activities are often well along (e.g. young are hatched) by the time that significant disturbance by the public begins near the bluffs.

2015 SURVEYS

Surveys in 2015 will again include monitoring of traditional and known sites (i.e., Tom Gulch, Scotia Bluffs, Holmes Bluffs, Shively Bluff, and S. Runenburg). 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. 2012. Personal communication. Senior Biologist and HCP Coordinator for Green Diamond Resource Co.

Morata, E. 2014. Personal Communication. Graduate student at Humboldt State University.

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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

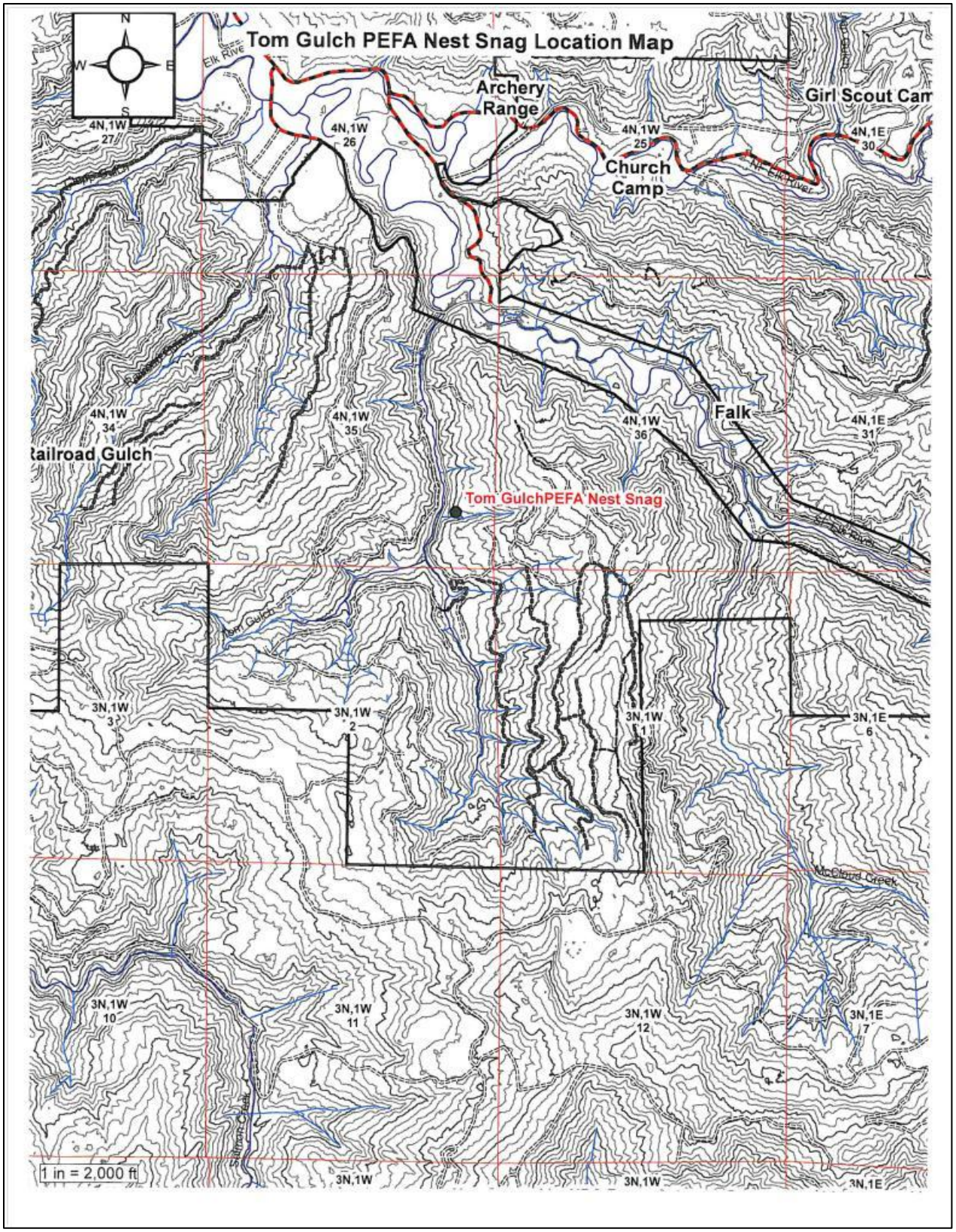

Figure 8. Tom Gulch Peregrine Falcon Nest Snag Location Map.

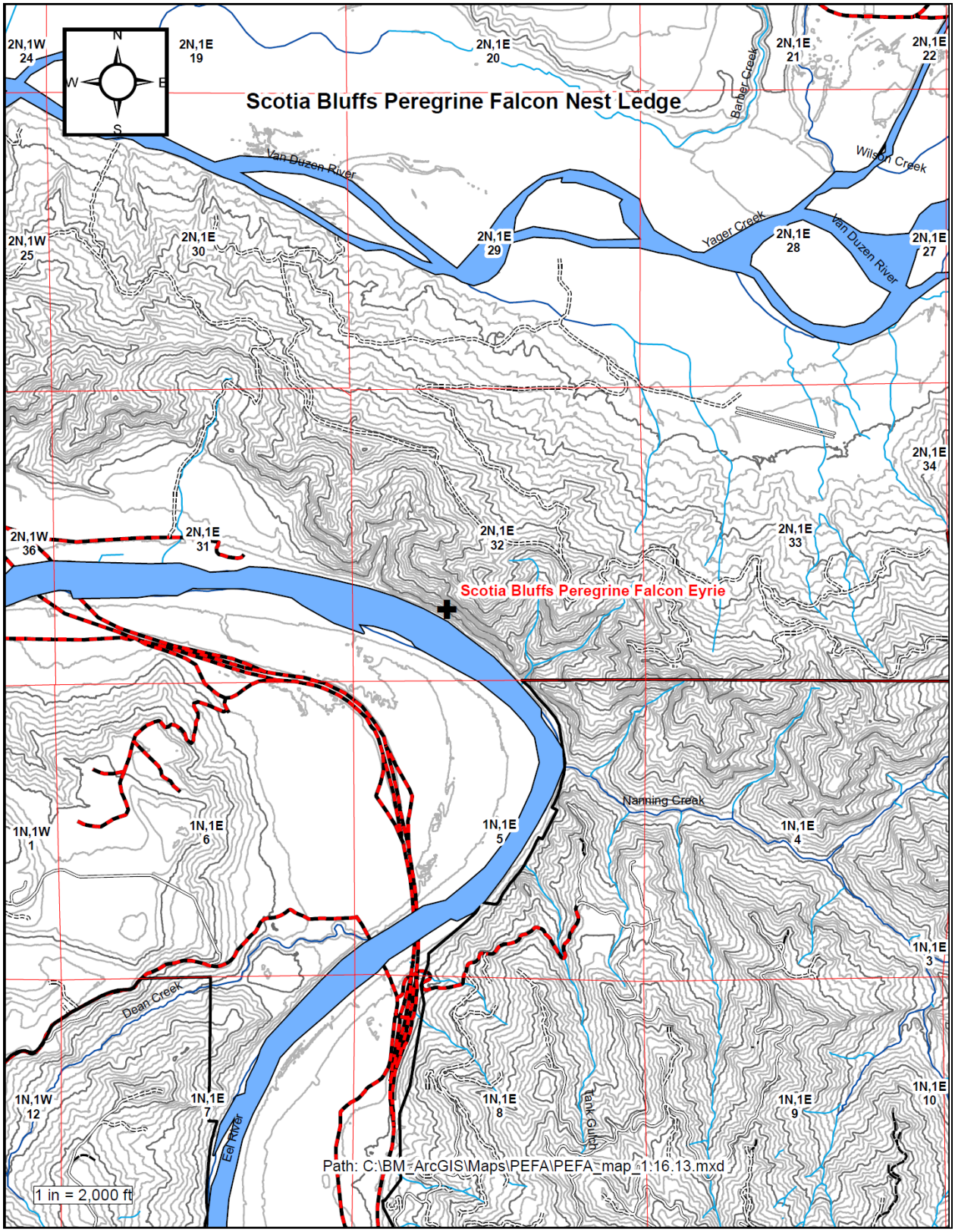

Figure 9. Scotia Bluffs Peregrine Falcon Nest Ledge.

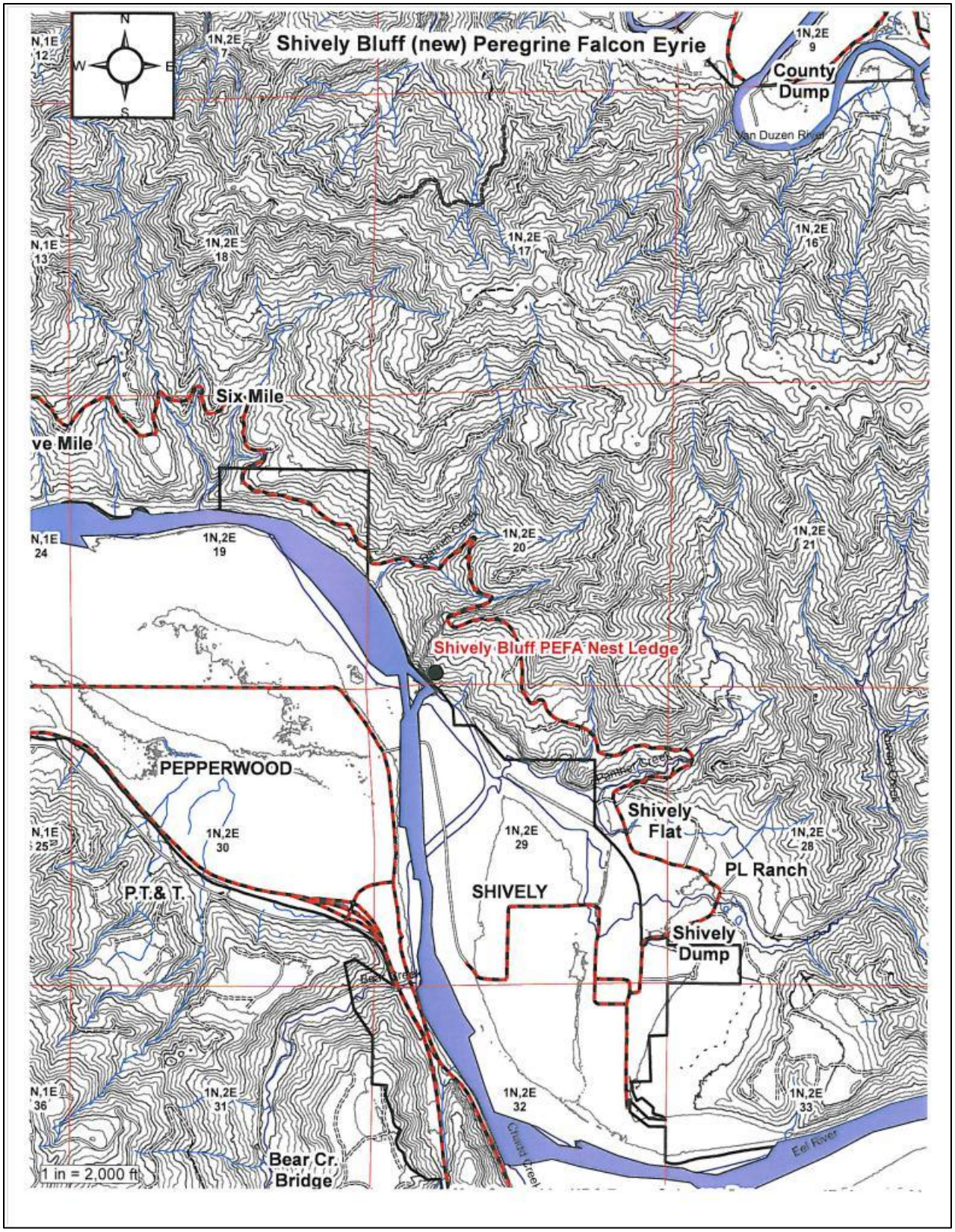

Figure 10. Shively Bluff (new) Peregrine Falcon Eyrie.

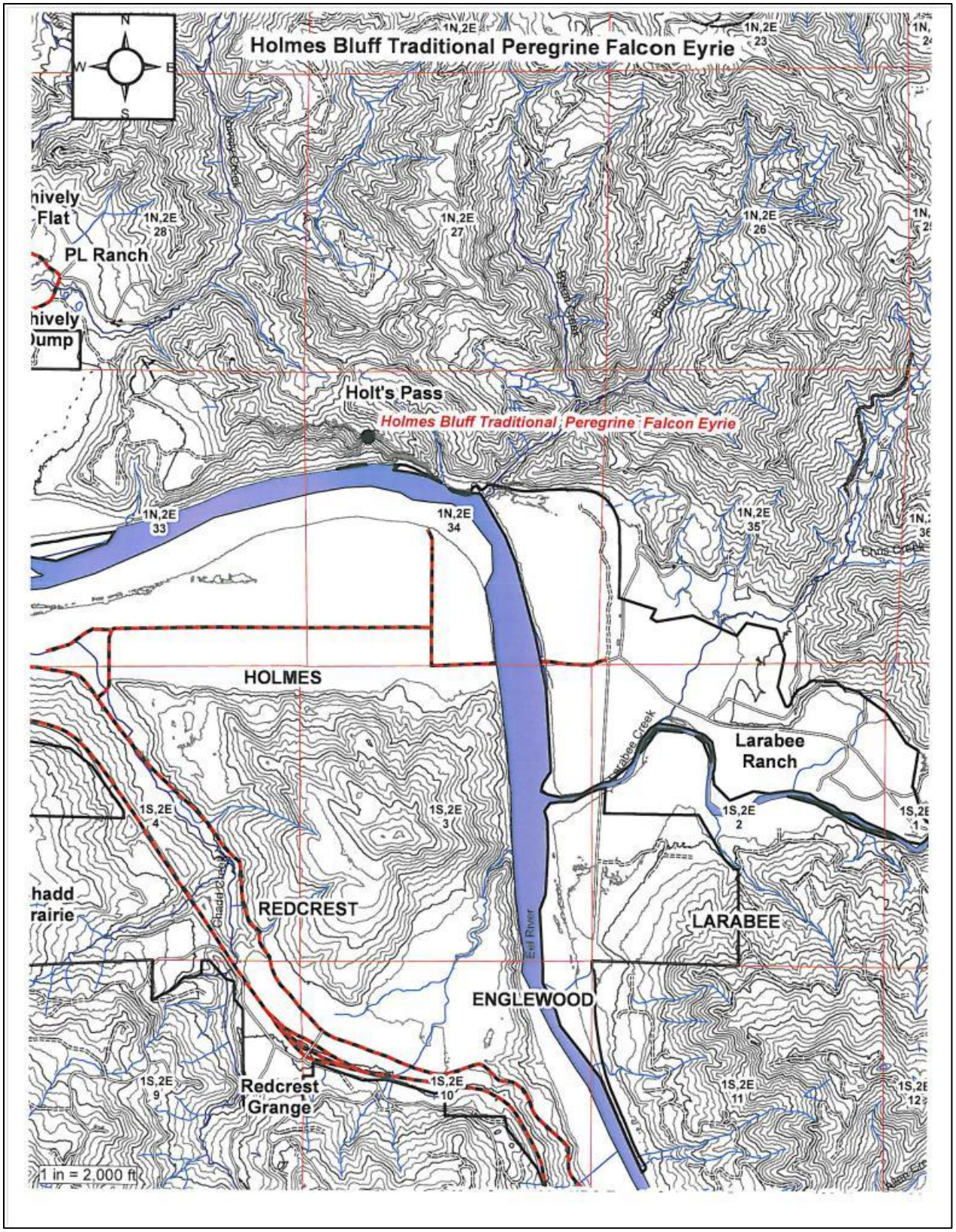

Figure 11. Holmes Bluff Traditional Peregrine Falcon Eyrie.

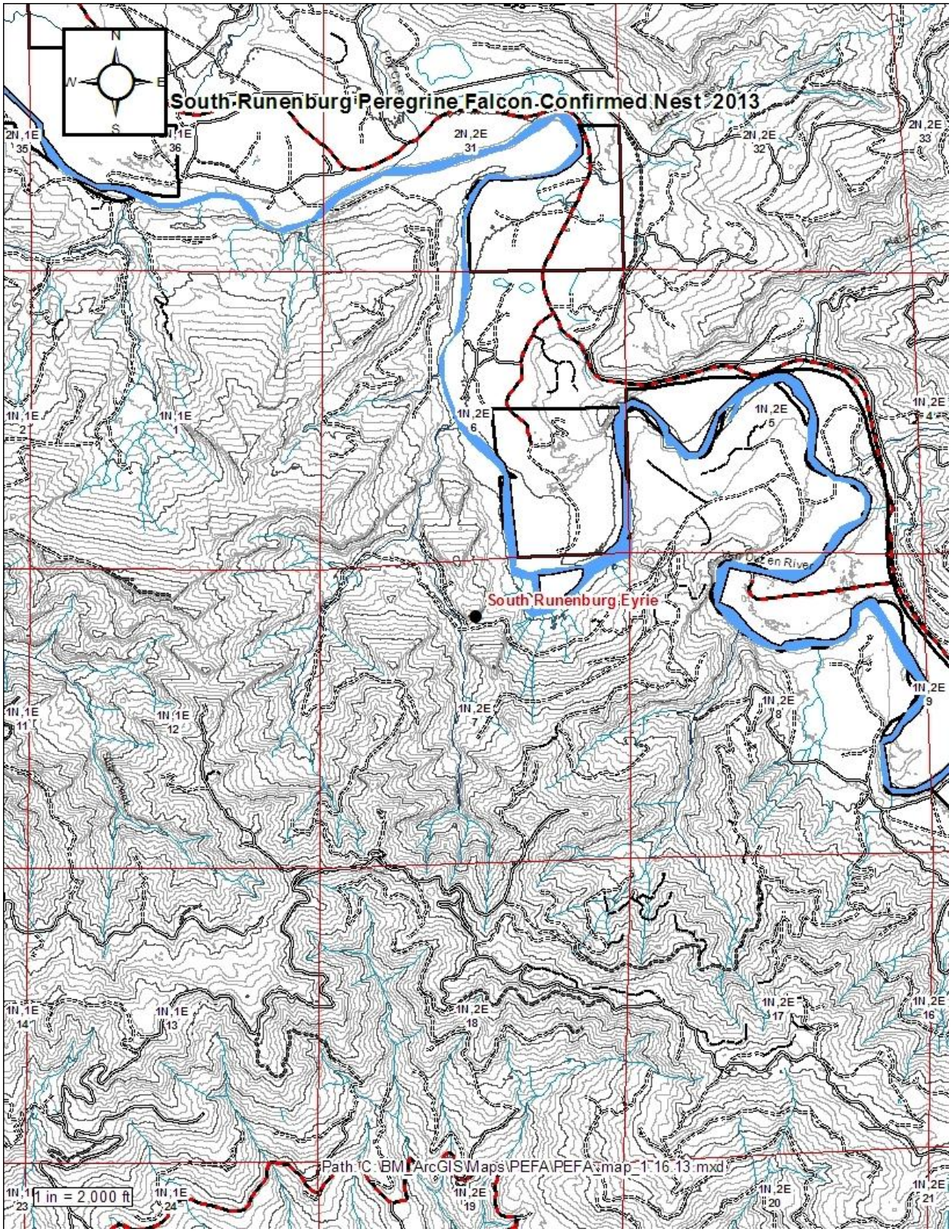

Figure 12. South Runenburg (new) Peregrine Falcon Eyrie