ATTACHMENT L: RAPTOR NEST SURVEY REPORTS

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ENVIRONMENTAL & STATISTICAL CONSULTANTS

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TECHNICAL MEMORANDUM

Public Draft - For Distribution

DATE: July 3, 2019

TO: Kristen Goland, Avangrid Renewables

FROM: Eric Hallingstad and Samantha Brown, WEST, Inc.

RE: 2019 Raptor Nest Survey Results for the Wenatchee Solar Project

Introduction

Avangrid Renewables (Avangrid) is developing the proposed Wenatchee Solar Project (Project) in Douglas County, Washington. Western EcoSystems Technology, Inc. (WEST) conducted aerial surveys for raptor nests with an emphasis on golden eagle (*Aquila chrystaetos*) and ferruginous hawk (*Buteo regalis*) nests within the Project boundary and surrounding 2.0-mile (mi; 3.2-kilometer [km]) buffer (Survey Area). This buffer size is recommended by the Washington Department of Fish and Wildlife in their Wind Energy Guidelines (WDFW 2009). Absent state or federal solar energy guidelines for wildlife surveys in Washington, WEST tiered the survey approach to complimentary recommendations in WDFW (2009) and the US Fish and Wildlife Service Eagle Conservation Plan (USFWS 2013). This memorandum summarizes the characteristics of the Survey Area, survey methodology, and results of the spring 2019 raptor nest survey at the Project.

Survey Area

The Survey Area consisted of the Project boundary (provided by Avangrid) and a 2-mi Project buffer of the Project boundary created in a Geographic Information System (GIS). The Survey Area is located on the northern end of the Columbia Plateau Ecoregion in Douglas County, Washington; approximately 5.0 mi (8.0 km) east of Wenatchee, Washington (Clarke and Bryce 1997; Figure 1). The two major land features within the Survey Area consisted of 1) steep basalt cliffs that flanked the western perimeter of the Project boundary and provided characteristic golden eagle nesting habitat, and 2) the Beaver Creek drainage, which aligns north and south along the eastern perimeter of the Project boundary. Between the cliff face and Beaver Creek is a broad plateau of cultivated croplands where the Project is proposed and is largely devoid of nesting substrate (Figures 1-3). Beaver Creek and its associated tributaries contain areas of ponderosa pine (*Pinus ponderosa*) and western juniper (*Juniperus occidentalis*), both of which provide potential nesting substrate for large raptors. Several high-voltage (e.g., 500 kilovolt) transmission lines bisect the western and northern portions of the Survey Area (Figure 1); these towers can also support large raptor nests. Landownership within the Survey Area is private and

consists of two types of landcover: cultivated cropland, primarily located on the plateau within the Project Area, and shrub-steppe located along the side slopes and rolling hills within the 2-mile buffer.

Methods

Prior to aerial surveys, WEST obtained data from the WDFW Priority Habitats and Species database for Douglas County to identify nests of special-status raptor species (e.g., golden eagle, ferruginous hawk) potentially occurring in the Survey Area. Two rounds of double-observer (i.e., a primary and secondary observer) raptor nest surveys were conducted at least 30 days apart in a Robinson R-44 Raven II helicopter with bubble windows that provided excellent visibility (Pagel et al. 2010, USFWS 2013). The initial survey was conducted during a time period that overlapped the primary early nesting period of eagles in the Pacific Northwest, when breeding pairs are exhibiting courtship, nest-building, and/or incubation behaviors. The follow-up survey was performed at a time when eagles were actively engaged in mid- to late breeding season reproductive activities (e.g., incubating, brooding, feeding nestlings), and when all raptors engaged in ongoing nesting activities would be reliably on or around nests.

During the first survey, coverage included a check of the location and status of the previously documented nest within the Survey Area and utilized an intuitive controlled survey method to check for new nests. Intuitive controlled surveys focused on areas with the highest potential to support eagle and ferruginous nests, such as cliffs, transmission line towers, rock outcrops, incised drainages, canyons, and large trees. During the second survey round, biologists revisited previously located nests to evaluate reproductive nesting status and once again flew high-quality nesting habitat to search for new nests. Previously unidentified nests were categorized as characteristic golden eagle nests when nests were large, approximately 1.5-3.0 feet (0.5-1.0 meters [m]) high and around 3.0-5.0 feet (1.0-1.5 m) in diameter, comprised of a few large, frequent medium-sized, and abundant small sticks that were found on rock cliffs, trees, or human-made structures such as transmission infrastructure or nesting platforms (Watson 2010).

During surveys, the helicopter was positioned to allow thorough visual inspection of all appropriate habitat features. In general, the helicopter maintained a distance of at least 66 feet (20 m) from cliff faces and nests (Pagel et al. 2010). When nests were located, the helicopter reduced speed and adjusted flight track to allow for a clear view of the nest for documentation and photographing. For each nest or group of nests, a Global Positioning System (GPS) location was recorded, a photograph was taken, and nest attribute data were collected (Table 1). A group of nests was defined as two or more nests that occurred on the same shelf or cliff face within close proximity to one another (e.g., approximately 80 feet [25 m]). To reduce the confusion of record keeping, the nest identification code was maintained without adding additional waypoints. The GPS location of a nest was updated if the location of a previously identified nest was found inaccurate.

WEST categorized basic nesting territories and nest status using definitions originally proposed by Postupalsky (1974) and largely followed today (USFWS 2013). Nests were classified as occupied if any of the following were observed at the nest structure: (1) an adult in an incubating position; (2) eggs; (3) nestlings or fledglings; (4) presence of an adult (sometimes sub-adults); (5)

a newly constructed or refurbished stick nest in the area where territorial behavior of a raptor had been observed earlier in the breeding season; or (6) a recently repaired nest with fresh sticks (clean breaks) or fresh boughs on top, and/or droppings and/or molted feathers on its rim or underneath. Occupied nests were further classified as active if an egg or eggs were laid. Nests were classified as inactive if no eggs or chicks were present. Nests not meeting the above criteria for "Occupied" during at least two consecutive surveys were classified as "Unoccupied."

Results

The data request from WDFW resulted in one golden eagle nest (Nest W2) within the Survey Area. Two rounds of raptor nest surveys were conducted at the Project on March 4, 2019 and May 17, 2019. A total of five raptor nests were documented within the Survey Area. Of the five nests, four were documented as occupied by golden eagles and comprised two separate territories; one previously undocumented nest was characterized as a large raptor nest, but was not consistent with the size and shape of a typical eagle nest. No ferruginous hawk or other raptor nests were observed within the 2-mi Survey Area during the 2019 aerial surveys.

Two golden eagle nests were documented as occupied--active during the survey (Nests W1 and W2), and both had alternate nests associated with them that were classified as occupied--inactive (labeled as point number "alt" in Figures 2 and 3). Each alternate nest was located within 656 feet (200 m) of each territory's occupied--active nest. During the first survey on March 4, 2019, Nest W1 was not yet occupied nor active whereas Nest W2 was observed with two adult golden eagles tending to the nest (Photos 1 and 2). During the second survey on May 17, 2019, Nest W1 was observed with one adult golden eagle in an incubation/brooding posture (Photo 1), while Nest W2 was observed with one adult golden eagle and two chicks estimated to be approximately 14 days old (Photo 2). The remaining nest (Nest W3) had no signs of recent nesting activity and was determined as unoccupied--inactive (Photo 3). During the second survey, a third pair of adult golden eagles was also observed within the Survey Area; this pair was observed [redacted] (Figures 2 and 3). The eagles were observed flying together and landing on the ground in similar areas. No nest associated with the pair could be found within the Survey Area despite an extensive search along the wooded drainages and cliff faces where the birds were observed.

Table 1. Results of 2019 Raptor Nest Surveys at the Wenatchee Solar Project, Douglas County, Washington.

Nest ID	Species	Territory Occupancy	Nest Status	Nest Condition	# Eggs	# Nestlings	Nest Substrate	Historic Nest	Comments
W1	Golden Eagle	Occupied	Active	Good	0	0	Cliff	No	1 Adult incubating or brooding during 2nd survey; prey remains in nest
W1-Alt	Golden Eagle	Occupied	Inactive	Fair	0	0	Cliff	No	Larger nest than W1, material sloughing; no activity both rounds associated with W1 located to S of W1
W2	Golden Eagle	Occupied	Active	Good	0	2	Cliff	Yes	Historical territory [redacted]; 2 adults prestent round 1; 2 chicks round 2; adult overhead
W2-Alt	Golden Eagle	Occupied	Inactive	Good	0	0	Cliff	No	Alt nest to [redacted], located on same cliff face; no activity both rounds
W3	Unknown	Unoccupied	Inactive	Fair	0	0	Cliff	No	Nest located on N-facing cliff face. Nest material sloughing; no activity.

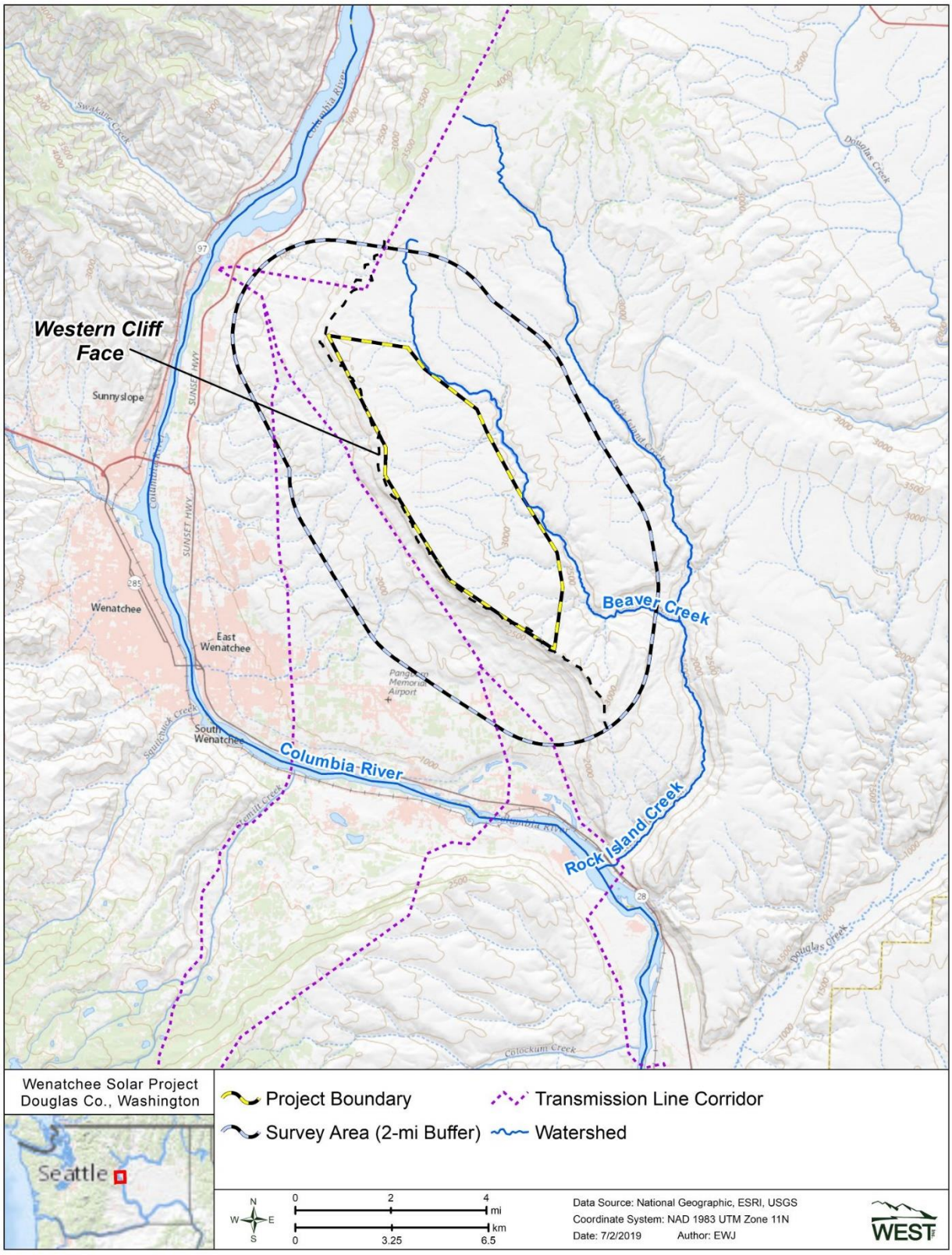

Figure 1. Wenatchee Solar Project and surrounding 2-mile Survey Area for 2019 raptor nest survey.

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Figure 2. Aerial survey results of 2019 eagle nest survey at the proposed Wenatchee Solar Project and surrounding 2-mile Survey Area, March 4, 2019 and May 17, 2019.

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Figure 3. Aerial survey results of 2019 eagle nest survey at the proposed Wenatchee Solar Project and surrounding 2-mile Survey Area, March 4, 2019 and May 17, 2019.

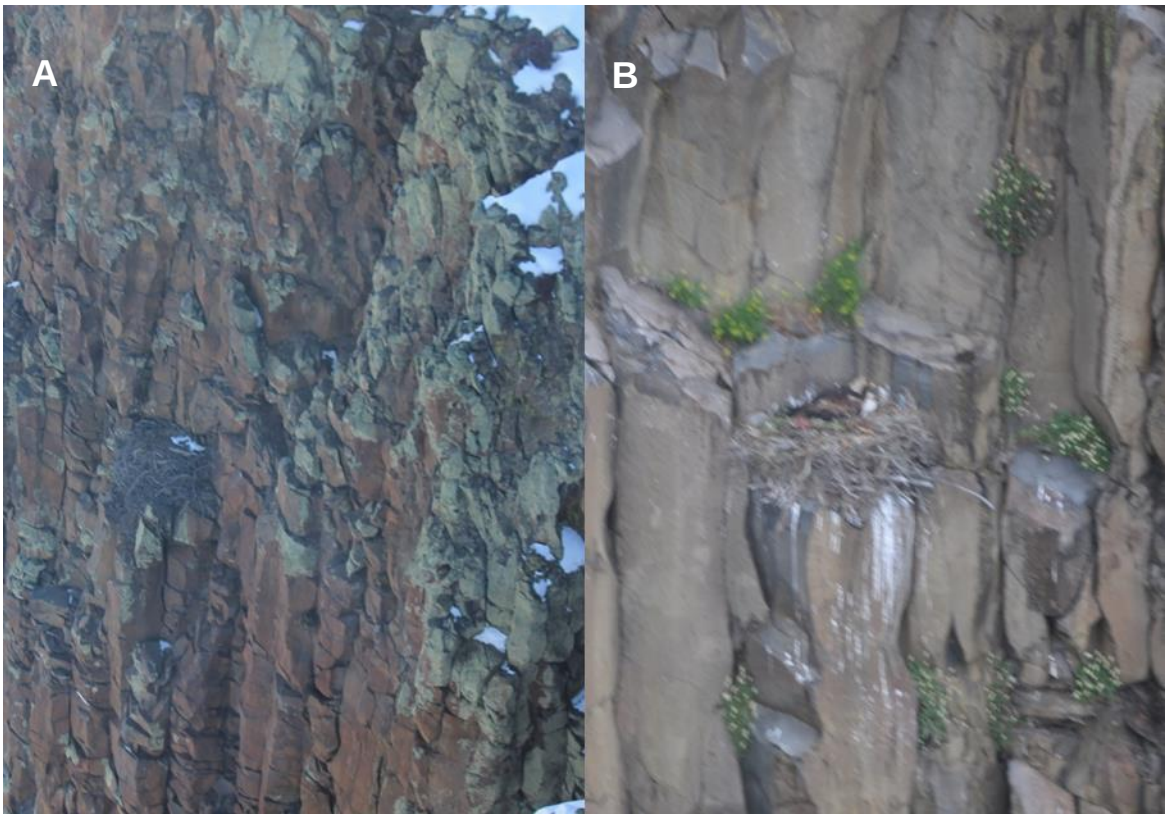

Photo 1. Nest W1-Alt (A) was an alternate nest to W1 (B). Photo taken during the first aerial flight on March 4, 2019. Nest W1 (B) had one adult golden eagle in a brooding position during second aerial flight survey on May 17, 2019.

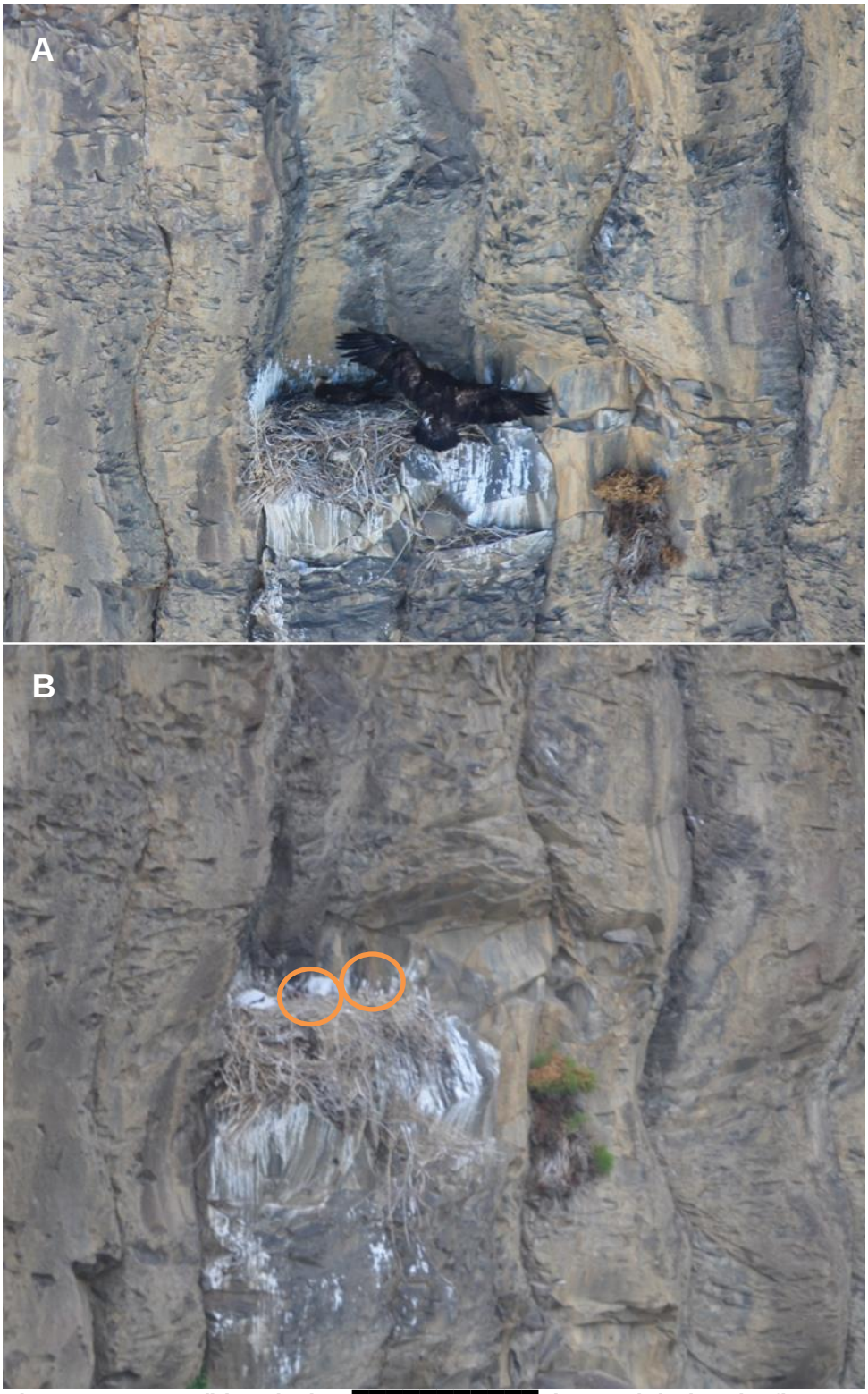

Photo 2. W2 nest (historical ID [redacted] detected during the first aerial survey on March 4, 2019 (A) with two adult golden eagles tending to the nest. Second aerial survey on May 17, 2019 (B) with two nestlings approximately 14 days old (nestlings indicated here by the orange circles).

Photo 3. Nest W3 observed during the second aerial survey on May 17, 2019 and was classified as unoccupied--inactive.

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TECHNICAL MEMORANDUM

Public Draft - For Distribution

DATE: September 9, 2020, rev. August 12, 2021

TO: Kristen Goland, Avangrid Renewables, LLC

FROM: Andrea Chatfield and Joel Thompson, WEST, Inc.

RE: 2020 Raptor Nest Survey Results for the Badger Mountain Solar Project

Introduction

Avangrid Renewables, LLC (AR) is developing the proposed Badger Mountain Solar Project (Project; previously referred to as the Wenatchee Solar Project) in Douglas County, Washington. To supplement previous raptor nest data collected for the Project in 2019 (Hallingstad and Brown 2019), Western EcoSystems Technology, Inc. (WEST) conducted a second year of aerial raptor nest surveys in 2020, with an emphasis on golden eagle (*Aquila chrysaetos*) nests within the Project boundary and surrounding 2.0-mile (mi; 3.2-kilometer [km]) buffer (Survey Area). Absent state or federal solar energy guidelines for wildlife surveys in Washington, WEST tiered the survey approach to complimentary survey recommendations in the Washington Department of Fish and Wildlife (WDFW) Wind Energy Guidelines (WDFW 2009) and the US Fish and Wildlife Service Eagle Conservation Plan Guidance (ECPG; USFWS 2013). This memorandum summarizes the characteristics of the Survey Area, survey methodology, and results of the spring 2020 raptor nest surveys at the Project.

Survey Area

The Survey Area consisted of the Project boundary (provided by AR) and a 2.0-mi buffer of the Project boundary created in a Geographic Information System (GIS). The Survey Area is located on the northern end of the Columbia Plateau Ecoregion (Clarke and Bryce 1997) in Douglas County, Washington; approximately 5.0 mi (8.0 km) east of Wenatchee, Washington (Figure 1). Land within the Survey Area is privately-owned and consists of two types of landcover: cultivated cropland, primarily located on the plateau within the Project boundary, and shrub-steppe located along the side slopes and rolling hills within the 2.0-mile buffer. The two major land features within the Survey Area include: 1) steep basalt cliffs that flank the western perimeter of the Project boundary and provide characteristic golden eagle nesting habitat, and 2) the Beaver Creek drainage, which aligns north and south along the eastern perimeter of the Project boundary. The Project is proposed on a broad plateau of cultivated croplands largely devoid of nesting substrate

between the cliff face and Beaver Creek (Figures 1 and 2). Beaver Creek and its associated tributaries contain areas of ponderosa pine (*Pinus ponderosa*) and western juniper (*Juniperus occidentalis*), both of which provide potential nesting substrates for large raptors. Several high-voltage (e.g., 500-kilovolt) transmission lines bisect the western and northern portions of the Survey Area (Figure 1); towers associated with these lines can also support large raptor nests.

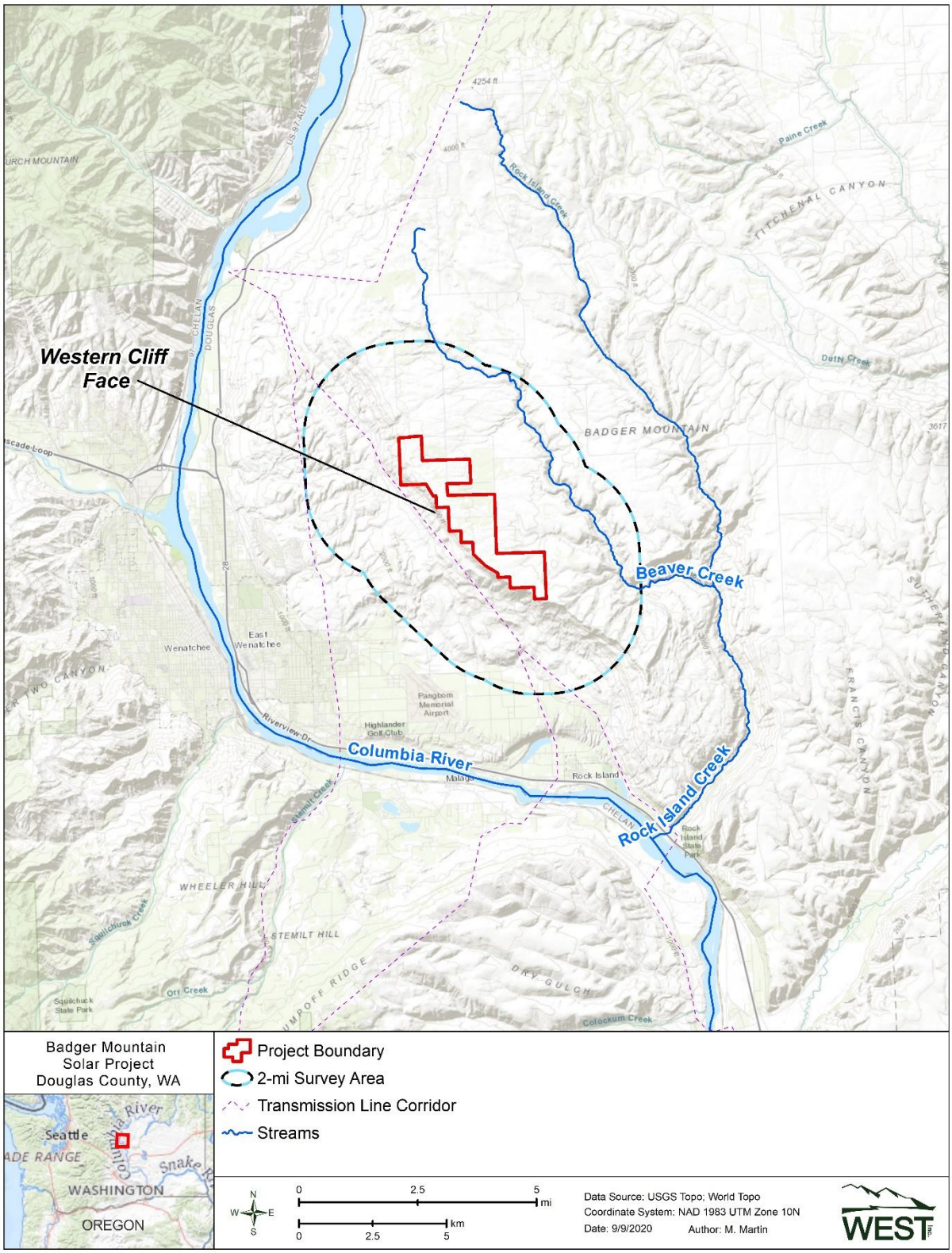

Figure 1. Badger Mountain Solar Project and surrounding 2-mile Survey Area evaluated during 2020 raptor nest surveys.

Methods

Consistent with aerial raptor nest surveys performed for the Project in 2019 (Hallingstad and Brown 2019), the 2020 survey effort included two rounds of double-observer (i.e., a primary and secondary observer) raptor nest surveys conducted at least 30 days apart in a Robinson R-44 Raven II helicopter with bubble windows that provided excellent visibility (Pagel et al. 2010, USFWS 2013). The initial survey was conducted on March 18 during the primary early nesting period of eagles in the Pacific Northwest, when breeding pairs are exhibiting courtship, nest-building, and/or incubation behaviors. The follow-up survey was performed on May 12 at a time when eagles are actively engaged in mid- to late breeding season reproductive activities (e.g., incubating, brooding, feeding nestlings), and when all raptors engaged in ongoing nesting activities would be reliably on or around nests.

The initial survey in March consisted of an intensive search of suitable nesting substrates within the Survey Area using an intuitive controlled survey method. Intuitive controlled surveys focus on areas with the highest potential to support eagle, ferruginous hawk (*Buteo regalis*), and other large raptor nests, such as cliffs, transmission line towers, rock outcrops, incised drainages, canyons, and large trees. All raptor nests identified within the Survey Area during the previous year of surveys (2019) were also visited during the March survey. During the follow-up survey conducted in May, biologists revisited nests located in March to evaluate nesting status, and once again flew high-quality nesting habitat to search for new nests. A nest was categorized as characteristic of a golden eagle nest if the nest was: 1) large in size (approximately 1.5-3.0 feet [0.5-1.0 meters [m]] high and 3.0-5.0 feet [1.0-1.5 m] in diameter), 2) composed of a few large, numerous medium-sized, and abundant small sticks, and 3) located on a rock cliff, tree, or human-made structure such as transmission infrastructure or nesting platform (Watson 2010).

During surveys, the helicopter was positioned to allow thorough visual inspection of all appropriate habitat features. In general, the helicopter maintained a distance of at least 66 feet (20 m) from cliff faces and nests (Pagel et al. 2010). When nests were located, the helicopter reduced speed and adjusted the flight track to allow for a clear view of the nest for documentation and photographing. For each nest or group of nests, a Global Positioning System (GPS) location was recorded, a photograph was taken, and nest attribute data were collected (Table 1). A group of nests was defined as two or more nests that occurred on the same shelf or cliff face within close proximity to one another (e.g., approximately 80 feet [25 m]).

WEST categorized basic nesting territories and nest status using definitions originally proposed by Postupalsky (1974) and largely followed today (USFWS 2013). Nests were classified as occupied if any of the following were observed at the nest structure: (1) an adult in an incubating position; (2) eggs; (3) nestlings or fledglings; (4) presence of an adult (sometimes sub-adults); (5) a newly constructed or refurbished stick nest in the area where territorial behavior of a raptor had been observed earlier in the breeding season; or (6) a recently repaired nest with fresh sticks (clean breaks) or fresh boughs on top, and/or droppings and/or molted feathers on its rim or underneath. Occupied nests were further classified as active if an egg or eggs were laid. Nests

were classified as inactive if no eggs or chicks were present. Nests not meeting the above criteria for "Occupied" during both of the survey rounds were classified as "Unoccupied."

Results

During the 2020 raptor nest surveys, nine raptor nests were observed within the Survey Area, of which six were documented as occupied and active. These included two active golden eagle nests, two active red-tailed hawk (*Buteo jamaicensis*) nests, and two active great horned owl (*Bubo virginianus*) nests (Figure 2, Table 1). The remaining three nests identified within the Survey Area were found to be inactive (Figure 2, Table 1). One nest identified in 2019 (W1-a) was not located in 2020.

The two active golden eagle nests (W1-c and W2-a; Figures 3 and 4) were located within the two historical golden eagle nesting territories which overlap the Survey Area (Figure 2). During the second survey in May, both of these nests were observed to contain young, estimated to be about two weeks old (Table 1; Figures 3 and 4). Each of the territories associated with these nests (W1 and W2) also contains at least one alternate nest which were classified as Occupied-Inactive during the surveys (Figure 2, Table 1). All identified eagle nests were situated [redacted] from the Project boundary (Figure 2). Both territories were also found to contain active golden eagle nests during the previous year's survey (Hallingstad and Brown 2019). In 2020, Nest W1-c was a newly discovered nest within the W1 territory, while W2-a was the same nest used in 2019.

Within the 2.0-mi Survey Area, five non-eagle raptor nests were documented (Figure 2; Table 1). Of these, two were active red-tailed hawk nests, two were active great horned owl nests, and one nest was determined to be unoccupied (Figure 2; Table 1). No nests were located within the Project boundary; non-eagle raptor nest distances ranged from 0.5 to 1.8 mi (0.9 to 2.9 km) to the Project boundary (Figure 2).

Table 1. Results of 2020 Raptor Nest Surveys at the Badger Mountain Solar Project, Douglas County, Washington

Nest ID	Species	2020 Nest Status	Nest Condition	Nest Substrate	Comments
W1-a	--	DNL	--	--	Nest active in 2019; not located in 2020
W1-b	Golden Eagle	Occupied-Inactive	Good	Cliff	Alternate nest to W1-c; larger than all associated W1 nests; was also inactive in 2019
W1-c	Golden Eagle	Occupied-Active	Good	Cliff	New nest located about 100 meters southeast of W1-a and W1-b; smaller than W1-b; 2 nestlings estimated to be about 2 weeks old observed in May
W2-a	Golden Eagle	Occupied-Active	Good	Cliff	Historical [redacted] territory; at least 1 nestling estimated to be 2 weeks old observed in May; nest also active in 2019
W2-b	Golden Eagle	Occupied-Inactive	Poor	Cliff	Alternate nest to W2-a ([redacted] territory), located on same cliff face about 50 meters away but in poor condition
BM1	Red-tailed hawk	Occupied-Active	Good	Coniferous tree	1 nestling estimated to be 3 weeks old observed in May
BM2	Unknown	Unoccupied-Inactive	Good	Deciduous tree	--
BM3	Great horned owl	Occupied-Active	Good	Coniferous tree	3 owl nestlings estimated to be 2 weeks old observed in May. Nest was initially occupied by red-tailed hawks in March.
BM4	Great horned owl	Occupied-Active	Good	Coniferous tree	2 adults observed at nest in May, one in brooding/incubating position
BM5	Red-tailed hawk	Occupied-Active	Good	Coniferous tree	Greenery observed on nest in March; 1 adult on nest in May

[1] Highest level of reproductive status determined for the current breeding season: **DNL** = did not locate nest; **Occupied-Active** = evidence of tending the nest and there are eggs, chicks, and/or an adult in incubating/brooding position at the time of the survey; **Occupied-Inactive** = evidence of recent tending of the nest or presence by an adult, but there are no eggs, chicks or an adult in incubating/brooding position; **Inactive** = No evidence of nest tending and no eggs, chicks or adults present; **Unoccupied** = Nest has been classified as inactive for at least 2 consecutive surveys; **Unknown** = Nest is present, but status cannot be determined

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Figure 2. Results of the 2020 raptor nest surveys conducted at the proposed Badger Mountain Solar Project and surrounding 2-mile Survey Area, March 18 and May 12, 2020.

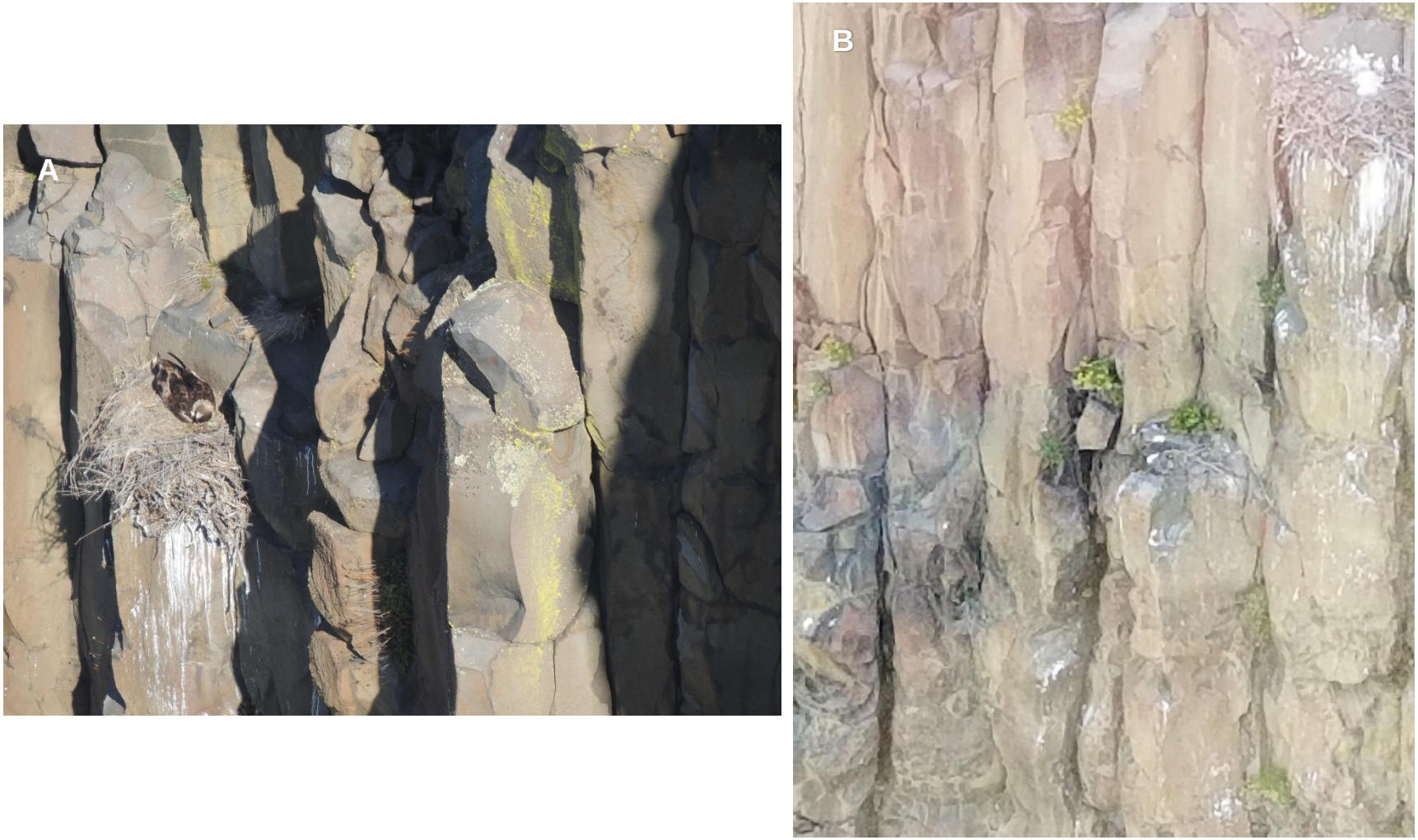

Figure 3. Active golden eagle nest W1-c. Photo A (left) taken during initial survey on March 18, 2020. Photo B (right) taken during second survey on May 12, 2020; two nestlings, estimated to be two weeks old, visible in nest.

Figure 4. Active golden eagle nest W2-a. Photo A (left) taken during initial survey on March 18, 2020. Photo B (right) taken during second survey on May 12, 2020. At least one nestling, estimated to be two weeks old, visible in nest.

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TECHNICAL MEMORANDUM

Public Draft - For Distribution

DATE: August 2, 2021

TO: Mike DeRuyter and Kristen Goland, Avangrid Renewables, LLC

FROM: Eric Hallingstad and Samantha Hanson, Western EcoSystems Technology, Inc.

RE: 2021 Eagle Nest Monitoring Results for the Badger Mountain Solar Project

INTRODUCTION

Avangrid Renewables, LLC (AR) is developing the Badger Mountain Solar Project (Project) in Douglas County, Washington. To supplement previous raptor nest data collected for the Project in 2019 (Hallingstad and Brown 2019) and 2020 (Chatfield and Thompson 2020), Western EcoSystems Technology, Inc. (WEST) conducted ground monitoring of known golden eagle (*Aquila chrysaetos*) nests within the Project boundary and surrounding 2.0-mile (mi; 3.2-kilometer [km]) buffer (Survey Area) in 2021. Absent state or federal solar energy guidelines for wildlife surveys in Washington, WEST tiered the survey approach to complimentary survey recommendations in the Washington Department of Fish and Wildlife (WDFW) Wind Energy Guidelines (WDFW 2009) and the US Fish and Wildlife Service (USFWS) Eagle Conservation Plan Guidance (ECPG; USFWS 2013). This memorandum summarizes the characteristics of the Survey Area, survey methodology, and results of the spring 2021 eagle nest monitoring at the Project.

SURVEY AREA

The Survey Area consisted of the Project boundary (provided by AR) and a 2.0-mi buffer of the Project boundary created in a Geographic Information System (commonly, GIS). The Survey Area is located on the northern end of the Columbia Plateau Ecoregion (Clarke and Bryce 1997) in Douglas County, Washington; approximately 5.0 mi (8.0 km) east of Wenatchee, Washington (Figure 1). Land within the Survey Area is privately owned and consists of two types of landcover: cultivated cropland, primarily located on the plateau within the Project boundary, and shrub-steppe located along the side slopes and rolling hills within the 2.0-mi buffer. The two major land features within the Survey Area include: 1) steep basalt cliffs that flank the western perimeter of the Project boundary and provide characteristic golden eagle nesting habitat, and 2) the Beaver Creek drainage, which aligns north and south along the eastern perimeter of the Project boundary. The proposed Project is on a broad plateau of cultivated croplands largely devoid of nesting

substrate between the cliff face and Beaver Creek (Figures 1 and 2). Beaver Creek and its associated tributaries contain areas of ponderosa pine (*Pinus ponderosa*) and western juniper (*Juniperus occidentalis*). Several high-voltage (e.g., 500-kilovolt) transmission lines bisect the western and northern portions of the Survey Area (Figure 1).

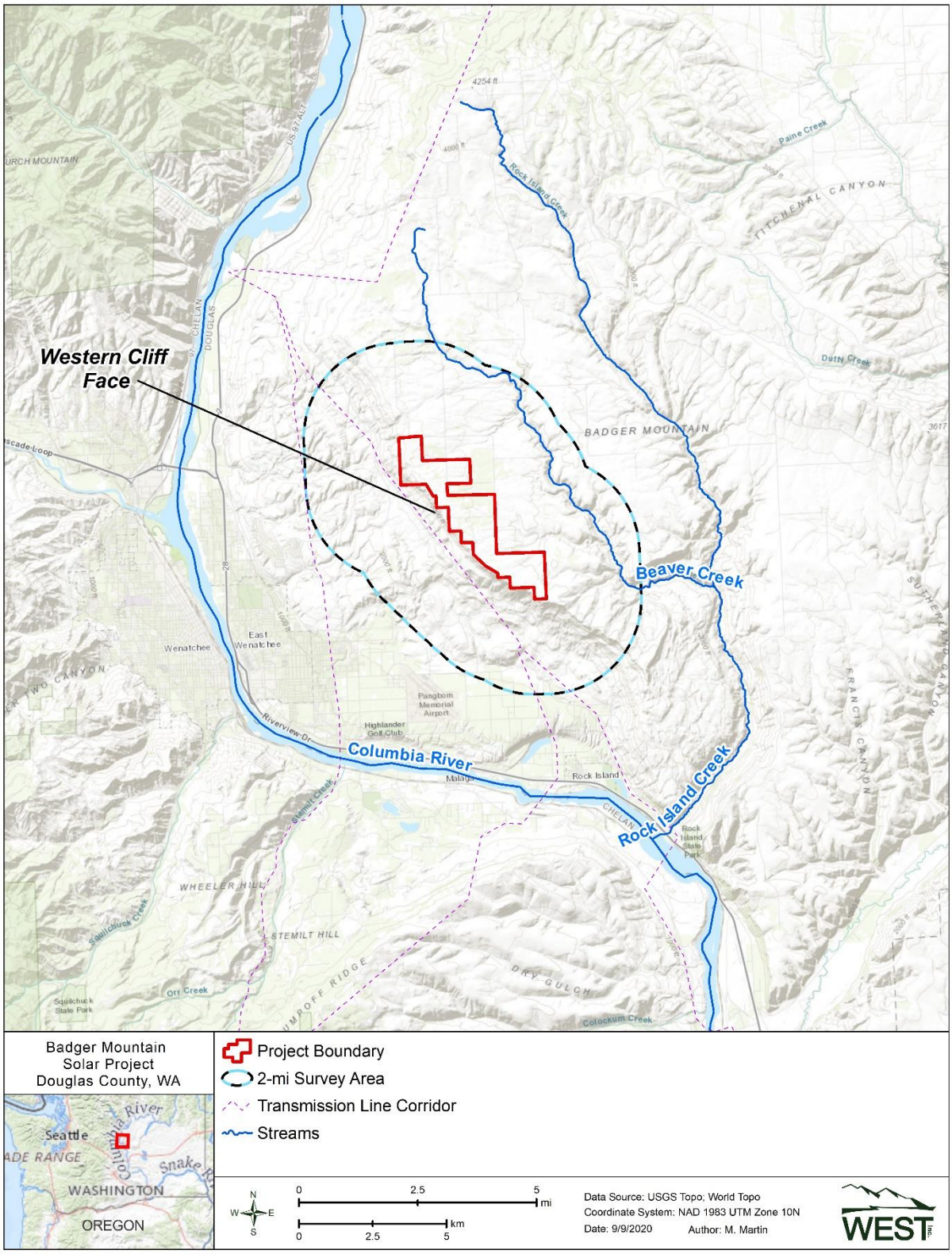

Figure 1. Badger Mountain Solar Project and surrounding 2-mile Survey Area.

METHODS

To determine territory occupancy and potential breeding activity, ground-based observations were conducted during 2021 golden eagle nest monitoring surveys. Nest monitoring followed USFWS protocol recommendations (Pagel et al. 2010, USFWS 2013).

Ground-based observations were conducted at two eagle territories documented during 2019 and 2020 aerial nest surveys for the Survey Area (Hallingstad and Brown 2019, Chatfield and Thompson 2020). Two 4-hour ground-based monitoring surveys were conducted at each territory in 2021, one in March and one in May 2021. Biologists positioned themselves at provisional observation points [redacted] that allowed for a clear view of the previously documented eagle use areas (e.g. Historical [redacted] territory Nest W2, 2019/2020 Nest W1). The biologists monitored these areas to assess occupancy and determine if nest construction was occurring within the territories. To determine the status of all monitored nests and identify new nest locations, the biologists evaluated adult eagle behavior and looked for the presence of eggs, young, whitewash, or fresh building materials in nests (Pagel et al. 2010).

WEST categorized basic nesting territories and nest status using definitions originally proposed by Postupalsky (1974) and largely followed today (USFWS 2013). Nests were classified as occupied if any of the following were observed at the nest structure: (1) an adult in an incubating position; (2) eggs; (3) nestlings or fledglings; (4) presence of an adult (sometimes sub-adults); (5) a newly constructed or refurbished stick nest in the area where territorial behavior of an eagle had been observed earlier in the breeding season; or (6) a recently repaired nest with fresh sticks (clean breaks) or fresh boughs on top (i.e., tending), and/or droppings and/or molted feathers on its rim or underneath. Occupied nests were further classified as active if an egg or eggs were laid. Nests were classified as inactive if no eggs or chicks were present. Nests not meeting the above criteria for “Occupied” during both of the survey rounds were classified as “Unoccupied.”

RESULTS

On March 24, May 10, and May 11, 2021, a WEST biologist monitored two known eagle nest territories W1 (nests W1-b, W1-c) and W2 (nests W2-a, W2-b). Golden eagle occupancy was observed within the W1 territory during both March and May survey visits. On March 24, two adult golden eagles were observed soaring and perching [redacted]; however, no territorial or courtship behavior was observed. On May 10, three golden eagle observations were recorded within the territory[1]. The eagles were observed perching near the nest and conducting territorial flight behaviors. Both nests W1-b and W1-c showed signs of recent tending; however, there were no signs of brooding or egg-laying at either nest (Photos 1 and 2). Therefore, both W1 nests were classified as occupied-inactive (Table 1).

[1] Repeated observations may have been made on the same individuals.

Golden eagle activity was observed within the W2 territory during both the March and May survey visits. On March 24, one golden eagle was seen within the territory. The eagle was seen perching near the nests, and made two tending visits to nest W2-a, but did not stay at the nest (Photo 3). On May 11, three golden eagles observations were recorded within the territory[1]. No eagles visited either nest, but were seen flying and perching near nest W2-a. Two golden eagle nestlings were confirmed within nest W2-a, and were estimated to be between two and three weeks old. Nest W2-b was in fair condition with no evidence of refurbishment during either survey visit. Nest W2-a was classified as occupied-active, and nest W2-b was classified as unoccupied (Table 1).

Table 1. Results of 2021 Eagle Nest Monitoring Surveys at the Badger Mountain Solar Project, Douglas County, Washington

Nest ID	Species	2021 Nest Status	Nest Condition	Nest Substrate	Comments
W1-b	Golden Eagle	Occupied-Inactive	Good	Cliff	Adjacent to W1-c; was also inactive in 2019 and 2020; nest tended in 2021
W1-c	Golden Eagle	Occupied-Inactive	Good	Cliff	Nest located about 100 meters southeast of W1-b; smaller than W1-b; was discovered and determined active in 2020; adult GOEA seen perched near nest during 2021 surveys; nest tended in 2021
W2-a	Golden Eagle	Occupied-Active	Good	Cliff	Historic [redacted] territory; two nestlings estimated to be 2-3 weeks old in May; nest also active in 2019 and 2020
W2-b	Golden Eagle	Unoccupied	Fair	Cliff	Adjacent to W2-a ([redacted] territory), located on same cliff face about 50 meters away but in fair condition

[1] Highest level of reproductive status determined for the current breeding season: **Occupied-Active** = evidence of tending the nest and there are eggs, chicks, and/or an adult in incubating/brooding position at the time of the survey; **Occupied-Inactive** = evidence of recent tending of the nest or presence by an adult, but there are no eggs, chicks or an adult in incubating/brooding position; **Unoccupied** = Nest classified as inactive for at least 2 consecutive surveys.

[REDACTED DUE TO SENSITIVE INFORMATION]

Figure 2. Results of the 2021 eagle nest monitoring surveys conducted at the Badger Mountain Solar Project and surrounding 2-mile Survey Area, March 24 and May 10, 2021.

Photo 1. Occupied-inactive golden eagle nest W1-b. Photo taken during initial survey on March 24, 2021.

Photo 2. Occupied-inactive golden eagle nest W1-c. Photo taken during initial survey on March 24, 2021.

Photo 3. Occupied-active golden eagle nest W2-a. Photo taken during initial survey on March 24, 2021.

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