



Horse Heaven Wind Farm

Pre-operational Technical Advisory Group

Facilitator Report: Spec-1, 4, 8, 10, 12

Prepared for:
Horse Heaven Wind Farm, LLC.

Prepared by:

K E A R N S  W E S T



September 2025

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1.0 Introduction

This Facilitator Report is being submitted on behalf of the Horse Heaven Wind Farm Pre-operational Technical Advisory Group (PTAG). This report summarizes coordination between the certificate holder, Horse Heaven Wind Farm, LLC (Certificate Holder), and the PTAG related to the Site Certification Agreement (SCA) measures Spec-1, Spec-4, Spec-8, Spec-10, and Spec-12. The need for this report is specified as required by SCA measure Spec-4, and this report constitutes the formal submission of the required materials outlined in aforementioned measures to the Energy Facility Site Evaluation Council (EFSEC) for review and approval.

2.0 Purpose and Need

The SCA includes the following measures:

Spec-1 Striped Whipsnake and Sagebrush Lizard: The Certificate Holder shall conduct pre-construction surveys for sensitive reptile species prior to alteration or destruction of suitable habitat such as areas within the Lease Boundary identified as core habitat in GAP mapping, as well as shrubland (e.g., shrub-steppe, rabbitbrush).

Spec-4 Burrowing Owl: The Certificate Holder shall conduct burrowing owl surveys within areas of direct loss (permanent, temporary, and modified) and associated Zones of Influence. The results of these surveys shall be provided to the PTAG and EFSEC and used to inform the final Project layout. Active burrows shall be retained and satellite burrows with characteristics used by burrowing owls shall be avoided where feasible to maintain habitat capacity. WDFW-recommended seasonal buffers (0.5 miles) shall be applied around burrowing owl nests to avoid disturbing nesting burrowing owls, if present (Larsen et al. 2004).

Spec-8 Prairie Falcon: The Certificate Holder shall conduct pre-construction surveys for prairie falcon nests for construction work proposed during the prairie falcon nesting season and the winter season preceding the start of construction and maintain a seasonal buffer of 2,640 feet from active nest sites (Larsen et al. 2004) to reduce potential destruction or disturbance of active nests.

Spec-10 Black-tailed Jackrabbit & White-tailed Jackrabbit: The Certificate Holder shall conduct surveys for jackrabbit in suitable habitat identified through GAP predictive mapping. If jackrabbits are identified, the Certificate Holder shall develop and implement a management plan with additional mitigation measures to reduce potential loss of habitat supporting jackrabbits.

Spec-12 Townsend's Ground Squirrel: The Certificate Holder shall conduct surveys for Townsend's ground squirrel colonies within the Lease Boundary in areas of the Project disturbance footprint to inform final design. If Project components are required in habitat

concentration areas (rated as medium or greater) or near known colonies, the Certificate Holder shall prepare a species-specific management plan for areas where avoidance is not feasible. This plan shall provide rationale for why colonies cannot be avoided and shall detail additional mitigation measures to reduce impacts to Townsend's ground squirrel. Additional mitigation measures may include identification of setbacks, colony monitoring, habitat restoration, colony relocation, and reconstruction of habitat features.

To meet the intent of these measures the Certificate Holder has prepared the Horse Heaven Clean Energy Center Pre-construction Wildlife Survey Plan (Wildlife Survey Plan) (Attachment 1).

3.0 Summary of Pre-Construction Wildlife Survey Plan

Pre-construction wildlife surveys will include a combination of systematic transect surveys and intuitive meandering surveys across the Project's microsite corridor. These surveys will occur across the entire microsite corridor, including primary survey areas comprised of native habitats and pasturelands, and secondary survey areas comprised of croplands. Systematic transect surveys will occur in primary survey areas while intuitive meandering surveys will occur in secondary survey areas. Two rounds of surveys will be completed between May – June, which is the period of peak activity for the species of interest.

In addition, one round of audio callback surveys will occur for burrowing owls in primary survey areas. These surveys include playing recordings of burrowing owls to elicit a response from burrowing owls defending nesting territories within and adjacent to the microsite corridor. Finally, raptor nest surveys will be conducted to identify any prairie falcon nests, as required by Spec-8.

Further details about each of the surveys can be found in Attachment 1. Survey results will be reported to the Washington Department of Fish and Wildlife (WDFW), EFSEC, and either the PTAG or the Technical Advisory Committee, depending on the timing of the submission of the report.

4.0 PTAG Coordination

An overview of the Wildlife Survey Plan was introduced to the PTAG during the May 30, 2025, meeting. Following the meeting the Wildlife Survey Plan was circulated to the PTAG for review and comments. The Wildlife Survey Plan was revised in response to PTAG comments and recommendations. A review of comments and review of the revised version of the Wildlife Survey Plan was presented to the PTAG during the July 25, 2025 meeting, where the PTAG agreed to advance the Wildlife Survey Plan to EFSEC for review and approval.

5.0 Next Steps

Under the recommendation of the PTAG the Certificate Holder formally submits the Wildlife Survey Plan to EFSEC for review and approval. The Plan is intended to meet the requirements outlined in Spec-1, Spec-4, Spec-8, Spec-10, Spec-12, and Hab-4.

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Attachment 1

Horse Heaven Clean Energy Center

Pre-Construction Wildlife Survey Plan

Prepared for:

Horse Heaven Wind Farm, LLC.

Prepared by:



July 2025

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1.0 Introduction

The Horse Heaven Wind Farm (Project) is located approximately 4 miles south/southwest of the city of Kennewick and the larger Tri-Cities urban area along the Columbia River in unincorporated Benton County and covers approximately 72,000 acres of private land. The Project's Wind Energy Micrositing Corridor encompasses 11,850 acres, the Project's Solar Siting Areas, which includes three locations under consideration for the proposed solar arrays encompassing approximately 6,000 acres.

The Energy Facility Site Evaluation Council (EFSEC) executed a Site Certification Agreement (SCA) for the Project that included several mitigation measures, which require pre-construction species surveys. This Species Survey Plan (Plan) outlines the methods and locations where species surveys will be conducted in order to comply with each individual measure, and to demonstrate that target species and their habitats are avoided as much as practical, during construction.

1.1 Species Requiring Pre-construction Surveys

Seven species are required to be surveyed prior to construction according to the SCA. Surveys will be conducted prior to construction, focusing on the following species: striped whipsnake (*Coluber taeniatus*), sagebrush lizard (*Sceloporus graciosus*), burrowing owl (*Athene cunicularia*), prairie falcon (*Falco mexicanus*), black-tailed jackrabbit (*Lepus californicus*), white-tailed jackrabbit (*Lepus townsendii*), and Townsend's ground squirrel (*Urocitellus townsendii*). Surveyors will also note the presence of other Washington priority species or habitats that are observed during surveys.

In each case, if the species is documented, additional plans are required in the SCA to describe how the Project will avoid, minimize, and mitigate impacts to the species or the habitat that it relies upon. The species and associated SCA measures are as follows:

- Striped whipsnake (Spec-1)
- Sagebrush lizard (Spec-1)
- Burrowing owl (Spec-4)
- Prairie falcon (Spec-8)
- Black-tailed jackrabbit (Spec-10)
- White-tailed jackrabbit (Spec-10)
- Townsend's ground squirrels (Spec-12)

Survey areas and protocols for bats (Wild-10) and pronghorn (Spec-13) are described in separate survey plans, outside of this document.

2.0 Survey Areas

The SCA defines the area requiring survey for each species slightly differently. Since many of the surveys will occur at the same time, due to overlapping survey periods and locations, an effort is made here to define survey areas that are sufficient for all species. Due to species life histories, available habitat, and avoidance requirements, separate survey areas are defined for terrestrial species and avian species.

2.1 Terrestrial Species Survey Area

The SCA defines the pre-construction survey area for each terrestrial species in the following way:

Spec-1 Striped Whipsnake and Sagebrush Lizard: The Certificate Holder shall conduct pre-construction surveys for sensitive reptile species prior to alteration or destruction of suitable habitat such as areas within the Lease Boundary identified as core habitat in GAP mapping, as well as shrubland (e.g., shrub-steppe, rabbitbrush).

Spec-10 Black-tailed Jackrabbit & White-tailed Jackrabbit: The Certificate Holder shall conduct surveys for jackrabbit in suitable habitat identified through GAP predictive mapping. If jackrabbits are identified, the Certificate Holder shall develop and implement a management plan with additional mitigation measures to reduce potential loss of habitat supporting jackrabbits.

Spec-12 Townsend's Ground Squirrel: The Certificate Holder shall conduct surveys for Townsend's ground squirrel colonies within the Lease Boundary in areas of the Project disturbance footprint to inform final design. If Project components are required in habitat concentration areas (rated as medium or greater) or near known colonies, the Certificate Holder shall prepare a species-specific management plan for areas where avoidance is not feasible. This plan shall provide rationale for why colonies cannot be avoided and shall detail additional mitigation measures to reduce impacts to Townsend's ground squirrel. Additional mitigation measures may include identification of setbacks, colony monitoring, habitat restoration, colony relocation, and reconstruction of habitat features.

2.1.1 Primary Terrestrial Survey Area

The primary terrestrial survey area is comprised of the areas where native habitats, including those used as pasturelands, or on the edges of fields, occur in the micrositeing corridor. The GAP modeled habitat layer shown in Figure 1 will be used as a surrogate for where native habitat is most likely to occur. This will guide surveyors when selecting survey locations. However, once in the field surveyors will have the discretion about how surveys should be conducted based on the methods outlined below for native habitat and pasturelands versus croplands. All areas shown as GAP modeled habitat in Figure 1 will be examined in the field. If locations include native habitat, including pasturelands they will be surveyed using the transect survey method described below.

This includes lands enrolled in the Conservation Reserve Program (CRP). If surveyors find that a location shown as habitat in GAP modeled data is actually cropland or residential, the area will not be surveyed using the transect method. Instead, surveyors will use their discretion regarding where surveys will occur and will use the intuitive meandering transect method described below.

2.1.2 Secondary Terrestrial Survey Area

The secondary terrestrial survey area is any other location in the microsite corridor that does not fall into the primary survey area. These areas may or may not be accessible for surveys, depending on the time of year and land use. Many of these areas will be cropland. Surveyors will use their judgement when determining where surveys need to be conducted for wildlife species within the secondary survey area. When surveys are completed, the intuitive meandering transect method described below will be used during surveys in the secondary terrestrial survey area. This will allow surveyors to selectively survey locations with the highest potential for target species to occur. For example, surveyors may decide not to survey a location because it is cropland with standing crops, but still survey along the edges of fields, where habitats are more natural and wildlife species can persist. Fields that are in a resting crop rotation during the survey year, and therefore have no standing crops, may be surveyed. The surveyors will make that determination based on the condition of the fields at the time of the survey and will determine whether a transect survey is warranted or if an intuitive meandering transect survey is sufficient.

2.2 Avian Species Survey Area

The SCA defines the pre-construction survey area for each avian species in the following way:

Spec-4 Burrowing Owl: The Certificate Holder shall conduct burrowing owl surveys within areas of direct loss (permanent, temporary, and modified) and associated Zones of Influence. The results of these surveys shall be provided to the PTAG and EFSEC and used to inform the final Project layout. Active burrows shall be retained and satellite burrows with characteristics used by burrowing owls shall be avoided where feasible to maintain habitat capacity. WDFW-recommended seasonal buffers (0.5 miles) shall be applied around burrowing owl nests to avoid disturbing nesting burrowing owls, if present (Larsen et al. 2004).

Spec-8 Prairie Falcon: The Certificate Holder shall conduct pre-construction surveys for prairie falcon nests for construction work proposed during the prairie falcon nesting season and the winter season preceding the start of construction and maintain a seasonal buffer of 2,640 feet from active nest sites (Larsen et al. 2004) to reduce potential destruction or disturbance of active nests.

Since seasonal buffers of 0.5 miles (2,640 feet) are recommended for both species nests, surveys will occur in areas that are suitable for burrowing owl or prairie falcon and are accessible to surveyors within 0.5 miles of planned construction activities.

Pedestrian burrowing owl surveys will occur during the typical breeding period for burrowing owls in the Project Area, which is late March – early August. This means that surveys will occur at the same time as those occurring for terrestrial species, and across the same primary and secondary survey areas within the Project microsite corridor. In instances where suitable habitat for burrowing owl extends outside of the microsite corridor, and surveyors have access, the survey area will be extended up to 0.5 mile, or to the end of access, whichever comes first. Audio burrowing owl surveys, as described in Section 3.3.1, will occur when burrowing owls are most likely to respond to audio calls, which is May-June in the Project Area.

Prairie falcon surveys will be focused on accessible locations that contain features that could support nesting, such as rock faces, cliffs, or abandoned buildings. The results of raptor nest surveys will be used to identify natural features, such as cliffs and rock faces, where prairie falcon nests could occur. In 2024 three prairie falcon nests were documented northwest of the Project Area. Two of the nests were documented as active, while the third was inactive. All three nests are outside of the Project Boundary, in the Chandler Butte area. Raptor nests surveys will be completed from the ground, where possible. Targeted aerial surveys may occur for locations that are not accessible from the ground if necessary. Surveys of other potential nest support structures (e.g., buildings), that are unable to be observed from the air, will be surveyed from the ground where accessible. Surveys will occur up to 0.5 mile from locations where construction activities are planned, during the breeding season (April – August).

3.0 Terrestrial Species Survey Protocol

Each survey type will be conducted concurrently and scheduled at appropriate dates and times to maximize the likelihood of observing the species. Detailed descriptions of each survey type and their proposed methods are provided below.

3.1 Systematic Transect Surveys

Systematic transect surveys will occur in the Primary Survey Area described in Section 3.1.1. Surveys will occur twice, once during April early May to correspond with the highest activity period of Townsend's ground squirrels and a second survey in June, during the highest activity period for striped whipsnakes and sagebrush lizards. Jackrabbits and their sign can be observed at any point in the spring and summer. In the Primary Survey Area transects will be walked by biologists that are no more than 60 meters apart. In some cases, when vegetation is taller or thicker, or the terrain dictates, transects may be closer together. The objective of walking transect surveys is to be able to see the ground and vegetation on either side of the transect, and see animals if they are present or detect burrows or other habitat features where target species are likely to persist.

Prior to conducting any surveys, all field crew members will be trained in the survey protocol. Surveyors will be experienced in surveying for and detecting Townsend's ground squirrels and will be provided with materials illustrating the potential types of sign (e.g., feathers, scat, pellets,

whitewash) that could be encountered during the survey. Surveys will be conducted in the morning, beginning at least one hour after sunrise to allow for temperatures to increase sufficiently to support ground squirrel and jackrabbit activity and typically extending into the afternoon, when snakes and lizards are likely to be more active. Surveys will generally not be conducted when wind conditions are such that it impairs the surveyor's ability to hear the high-pitched alarm calls of Townsend's ground squirrels or the songs of nesting birds, or when visibility is poor. Whenever a target species or its sign is observed, the surveyors will break from the transect in order to intensively search the area around the sign and to document the location. If Townsend's ground squirrels are detected the perimeter of the colony will be mapped, using GPS. If black-tailed or white-tailed jackrabbits are seen or their sign (e.g., scat) are observed, the location will be documented using GPS. Similarly, if sagebrush lizards or striped whipsnakes are observed, their location will be documented.

Whenever a target species or species sign is documented, the surveyors will visually map the extent of habitat that is primarily supporting the species. Notably, species will use a matrix of habitats, both native and agricultural, but for the purpose of informing how avoidance and minimization measures will be implemented during construction, there will be an emphasis on minimizing disturbance to the available habitat patch, rather than the location where the animal was observed or sign was detected.

3.2 Intuitive Meandering Survey

An intuitive meandering survey will be used in the secondary survey area, described in Section 3.1.2. Rather than walking in rigid survey transects, as are used in systematic transect surveys, in intuitive meandering surveys the surveyor has flexibility to determine locations where species or other resources are more likely to be found and to survey more intensively in those areas, than in areas where species or resources are less likely to be found. A large proportion of the Project Area is in some form of agricultural use. Intuitive meandering surveys will allow surveys to determine when agricultural fields should be surveyed more intensively, such as when they are out of crop rotation or fallow, and when a less intensive survey is warranted. This methods also allows surveyors to spend time surveying around the margins or edges of croplands or in patches of habitat between fields, more efficiently.

During intuitive meandering surveys species and sign will be documented in the same manners as is described under systematic transect surveys, in Section 4.1.

3.3 Burrowing Owl Surveys

Walking surveys for burrowing owls or their sign will be conducted concurrent with surveys described under Sections 4.1 and 4.2. Any observations of burrowing owls or their sign will be recorded. If burrowing owls are observed during the breeding season the surveyor will attempt to determine where the nest is located or to at least document where there are concentrations of burrowing owl activity and what behaviors are being exhibited. This will help determine where

burrowing owl activity is occurring relative to where construction activity is planned, so the proper 0.5-mile no-activity buffer can be put in places if construction activities will be occurring while the nest is active. By completing surveys in April and again in June surveyors will be able to detect burrowing owls during different stages of the breeding period, increasing the chances that observation will be made, if burrowing owls are present.

3.3.1 Audio Burrowing Owl Surveys

Since systematic transect surveys and intuitive meandering surveys will only allow for opportunistic observations of burrowing owls, a separate audio survey will be conducted. Audio surveys will occur in the primary survey area. The Surveys will be conducted during the breeding season, typically from late March to early August. The optimal times for surveys are early morning 0.5 hour before sunrise until two hours after sunrise, and early evening, two hours before sunset until 0.5 hour after sunset when owls are most active. Surveys will only be conducted on days with little or no wind and no precipitation.

Audio surveys will be completed in in May or June to take advantage of the period when males are establishing or protecting breeding territories most fervently. During surveys male calls will be broadcasted at 80 decibels. Call stations will be placed every 0.25 to 0.5 miles throughout the primary survey area, as possible, in locations where the best view of the landscape occurs.

Recommended sequence for call broadcasting:

- 3 minutes of silence
- 30 seconds call-broadcast of primary call (coo-coo)
- 30 seconds silence
- 30 seconds call-broadcast of primary call (coo-coo)
- 30 seconds silence
- 30 seconds call-broadcast of alarm call (quick-quick-quick)
- 30 seconds silence
- 4 minutes of silence

A GPS point will be taken at each calling station, no matter whether a burrowing owl is seen or not. The number of individuals seen will be recorded along with their location and behaviors.

3.4 Prairie Falcon Surveys

Prairie falcon nest surveys could include either aerial surveys or ground-based surveys. Ground-based surveys would be the preferred method. Several years of aerial raptor nests surveys have been conducted for the Project and three prairie falcon nest locations have been documented. If additional aerial raptor nests surveys occur, they will follow the methods described below. Additional ground-based surveys will occur in locations where prairie falcon nests have been observed in the past, if construction activities are expected to occur within 0.5 miles (2,640 feet) of the nest location during the breeding season. If a prairie falcon nest is active no construction

activity will occur within 0.5 miles (2,640 feet) of the nest, while it remains active. Once the nest is no longer active, as determined by a biologist, construction work can resume within the buffer.

3.4.1 Nest Surveys

Two rounds of raptor nest surveys will be completed. In some instances, double-observer aerial raptor nest surveys be conducted for the Project Area, though ground-based surveys are preferred. If used, a helicopter will fly transects up to 0.5 mile from each side of the site boundary, specifically focusing on suitable habitats like cliffs and rocky outcroppings, for prairie falcon nests. The first survey will be conducted during the early nesting period, while the follow-up survey will take place during the mid- to late breeding season. During the surveys, the helicopter will maintain a safe distance from nests and cliffs, adjusting speed and flight path to ensure clear documentation. GPS locations, photographs, and nest attribute data should be collected for each nest or group of nests. Nesting territories should be classified as active or in-use based on specific criteria such as the presence of adults, eggs, nestlings, or newly constructed nests.

3.4.2 Follow-up Surveys

Ground-based, follow up ground truthing surveys with a spotting scope or binoculars will be conducted in suitable habitats and where nesting territories have been identified. This will allow biologists to determine if nests are active in a given year or if they remain active during a particular breeding season. This will be particularly of interest if there is proposed construction work within the 0.5-mile (2,640-foot) buffer around the nest while it is active. Ground-based surveys will focus on known prairie falcon nest locations and could more generally be used instead of aerial surveys, if potential nesting areas (e.g., cliffs) are visible from accessible lands.

Biologists will also survey any abandoned buildings or other structures that could support nesting prairie falcons and are located within 0.5 miles (2,640 feet) of locations where construction activities are planned. It is not common for prairie falcons to nest in structures, especially when suitable natural nesting areas are available, but it has been documented in Washington.

As with routine surveys, if a nest or suspected nest is identified during a follow up survey, the biologists will record the nest substrate, nest activity, and GPS coordinates. Each nest will be photographed, if possible, and significant behavioral observations will be documented.

4.0 Reporting

The results of pre-construction surveys will be compiled in a Pre-construction Survey Report for review by the PTAG/TAC, WDFW, and EFSEC. It is possible that construction will span several years so pre-construction surveys may be required in more than one year. In that case an annual report will be prepared for each calendar year when surveys are completed. The report will be compiled following the survey period of March – August.

Information about resources discovered by field surveyors that will have implications on how or where construction activities can proceed will be communicated to the Certificate Holder on an ongoing basis, so that construction planning can proceed. Similarly, if information arises that requires coordination with or decision-making by the PTAG/TAC, WDFW, or EFSEC, that information will be made available via email or in the form of a memorandum, so that coordination can occur quickly, rather than waiting for the annual report. All information will be summarized in the annual report. Any decisions or recommendations that the PTAG/TAC, WDFW, or EFSEC make during the years will also be summarized in the annual report.

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