



STATE OF WASHINGTON  
ENERGY FACILITY SITE EVALUATION COUNCIL  
*PO Box 47250 • Olympia, Washington 98504-7250*

## Memorandum

**To:** Stephen Posner, EFSEC Manager, (360) 664-1903  
**From:** Sonia E. Bumpus, EFSEC Siting and Compliance Manager, (360) 664-1363  
**Date:** November 7, 2018

**RE: Revised Environmental Review and Staff Recommendation for State Environmental Policy Act (SEPA) Review for Desert Claim Wind Power Project Request for Amendment to the Site Certification Agreement**

**PROPOSAL:** On February 26, 2018, the Certificate Holder, Desert Claim Wind Power LLC, requested an amendment to their Site Certification Agreement (SCA) that was issued on February 1, 2010. The approved SCA is for constructing a wind power facility consisting of a maximum of 95 wind turbines on tubular steel towers with 190 total megawatts (MW) and a tower height not to exceed a maximum height of 410 feet within an approximately 5,200 acre project site. The project is located north and west of Ellensburg near the intersection of U.S. Route 97 and Smithson Road. Site access during construction was primarily from Reecer Creek Road. Seven non-participating residences are located between 1,687 and 2,241 feet of one or more turbines. No temporary or permanent stream or wetland impacts were identified during the environmental analysis initially conducted by EFSEC. As a result, measures to address these types of impacts were not included in the original SCA.

The revised proposal is for constructing and operating a smaller facility consisting of 25-31 turbines not to exceed 492 feet in height and 100 MW. The project remains at the same site with acreage reduced to 4,400 acres in which approximately 370 acres have been added to the west and south and 1,271 acres have been removed east of Reecer Creek. Primary site access during construction and operation has been changed to Smithson Road (accessed from Hwy 97). All turbines are located at least 2,500 feet from all residences in the revised proposal. A total of 0.347 acres of permanent wetland impacts and 0.026 acres of permanent stream impacts are proposed. An additional 1.949 acres (0.126 acres stream and 1.823 acres wetland) temporary impacts are proposed to streams and wetlands. There is an expected 66% decrease in turbine delivery trips and 10% increase in concrete trucks per hour during construction.

CASE NUMBER: EFSEC SCA No. 2006-02  
Docket No. 180105

CERTIFICATE HOLDER: Desert Claim Wind Power LLC

LOCATION: Kittitas County, Washington.

OTHER PERMITS: Implementation of this revised proposal would require the following permits or approvals (\*included in Proposed SCA Amendment):

<b>Permit or Requirement</b>	<b>Agency Code, Ordinance, Statute, Rule, Regulation, or Permit</b>
Threatened or Endangered Species	U.S. Fish and Wildlife Service  Endangered Species Act of 1973 (16 USC, Section 1531, et seq.) and implementing regulations. Designates and provides for protection of threatened and endangered plants and animals and their critical habitat.
Migratory Birds	U.S. Fish and Wildlife Service  Migratory Bird Treaty Act (16 USC 703-711)
Bald Eagles	U.S. Fish and Wildlife Service  Bald and Golden Eagle Protection Act (16 CFR 668-668c)  Eagle permit regulations (50 CFR 22)
Waters of the United States*	U.S. Army Corps of Engineers, Seattle District  Clean Water Act of 1972 (Waters of the U.S. 1986/1988 regulatory definition in 40 CFR 230.3)  Joint Aquatic Resource Permit Application (JARPA) for Section 404 fill in Waters of the U.S.
Electrical Construction Permit	Washington Department of Labor and Industries  WAC 296-746A, Washington Department of Labor and Industries Safety Standards – Installing Electrical Wires and Equipment – Administration Rules.
Noise Control	Washington Department of Ecology  RCW 70.107, Noise Control; WAC 173-58, Sound Level Measurement Procedures  WAC 173-60, Maximum Environmental Noise Levels; WAC 463-62-030, Noise Standards*

<b>Permit or Requirement</b>	<b>Agency Code, Ordinance, Statute, Rule, Regulation, or Permit</b>
Water Quality Storm Water Discharge: Construction Activities	<p>Washington Department of Ecology</p> <p>RCW 90.48, Water Pollution Control Act, establishes general stormwater permits for the Washington Department of Ecology National Pollutant Discharge Elimination System Permit Program</p> <p>WAC 173-201A, Washington Department of Ecology Water Quality Standards for Surface Waters of the State of Washington, which regulates water quality of surface waters</p> <p>WAC 173-220, National Pollutant Discharge Elimination System Permit Program. Construction Stormwater General Permit</p> <p>Federal statute(s) and regulations implemented by the above state statute(s) and regulations include: Federal Clean Water Act, 42 USC 1251; 15 CFR 923-930</p> <p>Kittitas County Code (KCC) 12.06 – Roads and Bridges – Storm Water Management Standards</p> <p>KCC 12.07 – Roads and Bridges - Bridges and Major Drainage Structures</p>
Fish and Wildlife	<p>Washington Department of Fish and Wildlife</p> <p>WAC 220-610, defines State species status and protections</p> <p>WAC 232-12, Washington Department of Fish and Wildlife Permanent Regulations, provides information on classification of wildlife species, including “Priority Habitats and Species”*</p> <p>RCW 77, Hydraulic Code for in-water work</p>
State Environmental Policy Act (SEPA)	<p>RCW 43.21C, Washington Environmental Policy Act</p> <p>WAC 197-11, Washington Department of Ecology SEPA Rules, which establishes uniform requirements for compliance with SEPA</p>
Archaeology and Historic Preservation	<p>National Historic Preservation Act (Public Law 89-665)</p> <p>Washington State Department of Archaeology and Historic Preservation*</p> <p>RCW 27.53, Archaeological Sites and Resources</p> <p>RCW 27.53, Indian Sites and Resources Act</p> <p>RCW 27.44, Indian Graves and Records Act</p>
Comprehensive Plan	Kittitas County Comprehensive Plan, 2000–2020
Zoning Ordinance, including Critical Areas Ordinance	<p>KCC 17 - Zoning</p> <p>KCC 17A – Critical Areas</p>
Access Permit	KCC 12.05, Roads and Bridges – Driveways and Accesses
Grading Permit (if necessary)	KCC 14.05, Buildings and Construction - Grading
Aviation & Lighting	<p>Federal Aviation Administration – Federal Aviation Regulations</p> <p>49 USC 44718, Structures interfering with air commerce or national security</p> <p>14 CFR 77, Safe, Efficient Use, and Preservation of the Navigable Airspace</p>

Notes: CFR = Code of Federal Regulations; KCC = Kittitas County Code; RCW = Revised Code of Washington; USC = United States Code; WAC = Washington Administrative Code

## REQUIRED

SUBMITTALS: The following documents are required as noted in the original SCA and the proposed SCA Amendment:

- Temporary Erosion and Sediment Control (TESC) Plan
- Stormwater Pollution Prevention Plan (SWPPP)
- Construction Spill Prevention, Control and Countermeasure Plan (Construction SPCCP)
- Initial Site Restoration Plan (Initial SRP)
- Final Site Restoration Plan (Final SRP)
- Wetland Compensatory Mitigation Plan
- Wetlands Restoration Plan
- Construction Soil Management and Vegetation Plan
- Habitat Restoration Plan
- Pre-Construction Raptor Nest Survey
- Pre-Construction Townsends Ground Squirrel Survey
- Habitat Mitigation Plan
- Noxious Weed Control Plan
- Establish a Technical Advisory Committee (TAC)
- Site Management Plan (to identify environmental features and wildlife areas)
- Cultural Resources Monitoring and Mitigation Plan
- Fire Control Plan – Construction Phase
- Fire Control Plan – Operations Phase
- Construction Traffic Management Plan
- Construction Emergency Plan
- Construction Phase Health and Safety Plan
- Construction Phase Site Security Plan
- Construction Management Plan
- FAA Determination of Non-Hazard Certificates
- Final Construction Plans (plans, specifications, drawings, and design documents)
- Final Project Layout Plan
- Environmental Compliance Program
- Operations SWPPP
- Operations SPCCP
- Operations Emergency Plan
- Post-Construction Avian Monitoring Plan
- Post-Construction Bald Eagle Study Plan
- Pre-Operational Bat Survey and Bat Monitoring Plan
- Operations Phase Health and Safety Plan
- Operations Phase Site Security Plan

## A. ENVIRONMENTAL RECORD and EXHIBITS

The environmental review conducted by EFSEC consisted of analysis based on the following documents included in the environmental record. The documents listed are available for review on EFSEC's website at: [http://www.efsec.wa.gov/Desert\\_Claim/SCA.html](http://www.efsec.wa.gov/Desert_Claim/SCA.html)

- Environmental Checklist received February 26, 2018
- Desert Claim Wind Power Project Request for an Amendment to the Site Certification Agreement (SCA) received February 26, 2018, EFSEC Original Application No. 2006-02
- Desert Claim Wind Power Project May 30, 2018 Staff Site Visit Report
- Desert Claim Wind Power Project EFSEC Site Certification Agreement Amendment Wetlands Report, Grette Associates, January 31, 2018.
- Desert Claim Wind Power Project Wetland Delineation and Analysis Report, Grette Associates, May 2018
- Desert Claim Wind Power Project Compensatory Mitigation Plan, Grette Associates, July 2018

- Desert Claim Wind Project Environmental Noise Assessment Technical Report, Ramboll US Corporation, February 2018
- Environmental Noise Assessment Technical Report for the revised Desert Claim Wind Project, Ramboll US Corporation, May 25, 2018
- Shadow Flicker Study Desert Claim Wind Project, EDF Renewable Energy, January 30, 2018
- Kittitas County 2016 Comprehensive Plan
- Visual Effects Assessment, Desert Claim Wind Power Project, Golder Associates Inc., September 7, 2018
- Certificate Holder Responses to Data Request 1, April 16, 2018
- Certificate Holder Responses to Data Request 2, May 25, 2018
- Certificate Holder Responses to Data Request 3, August 1, 2018 and August 21, 2018
- Cultural Resource Assessment of Updated Project Design for the Desert Claim Wind Power Project, Archaeological Investigations Northwest, Inc., February 9, 2018

The environmental review also consisted of input or recommendations from State and Federal agencies, tribes, and EFSEC’s consultant via several forms of communication, as listed below.

Commenter and Acronym	Date of Comment	Form of Comment	Resource Subject
Washington Department of Ecology (Ecology)	08/30/2018	Letter from Lori White	Wetlands
Washington Department of Fish and Wildlife (WDFW)	05/02/2018	Phone - with Scott Downes	Animals (birds and bats)
Washington State Department of Archaeology and Historic Preservation (DAHP)	07/31/2018	Historic Property Report for N. Branch Canal Farm Bridge Station No 346	Historic
Washington State Department of Archaeology and Historic Preservation (DAHP)	04/19/2018	Letter from Gretchen Kaehler	Cultural Resource Assessment
Washington Department of Fish and Wildlife (WDFW)	04/20/2018	Email and attached Letter from Scott Downes	Wildlife, habitat and wetland/ streams
Washington Department of Ecology (Ecology)	09/07/2018	Letter from Lori White	Wetland Addendum
Washington Department of Natural Resources (DNR)	05/09/2018	Phone call with Wyatt Leighton	Environmental Health (Aerial firefighting)
EFSEC Consultant (Golder Associates)	09/07/2018	Email Correspondence	Comprehensive Plan Review (compare 2016 to 1996)
Federal Aviation Administration (FAA)	09/14/2018	Email Correspondence	FAA Non-Hazard Certification
Federal Aviation Administration	07/19/2018	Email Correspondence	Aircraft Detection Lighting System (ADLS)
Confederated Tribes and Bands of the Yakama Nation (Yakama Nation)	11/07/2018	Phone call and Email from Jessica Lally	Cultural Resource Assessment

## B. STAFF REVIEW OF THE ENVIRONMENTAL CHECKLIST AND PUBLIC COMMENTS

EFSEC and its consultant (Golder Associates), the Certificate Holder (Desert Claim Wind Power LLC) and their consultant (Grette Associates), and Department of Ecology’s wetlands specialist visited the site on May 30, 2018.

The following sections correspond with elements of the environment listed in WAC 197-11-444 and with the sections in the environmental checklist WAC 197-11-960, and were used to organize and document EFSEC’s environmental review of the revised proposal. Additional

information provided by the Certificate Holder in their SCA amendment request, existing SEPA documents, and EFSEC's consultants were used as part of the environmental review.

EFSEC published a draft SEPA Addendum, dated September 25, 2018. A public comment period was held September 26, 2018 through October 10, 2018. Three public comments were submitted and reviewed by EFSEC staff to identify substantive issues. Consequently, one of the proposed mitigation measures related to cultural resources was revised in light of the public comments received. Final mitigation measures have been updated and documented in the Final SEPA Addendum, dated November 5, 2018. The following sections in this Revised SEPA Staff Memo have been updated to include discreet comments relevant to SEPA environmental review and EFSEC responses. Discreet issues are discussed in detail under their respective resource area below. Concerns raised during the 15 day SEPA public comment period include the following:

- Potential water quality impacts to Dry Creek, Green Canyon Creek, Reecer Creek, and Jones Creek for stream heating and bacterial contamination.
- Potential impacts to wetlands and streams.
- Potential impacts from turbine noise- require highest noise standards and monitoring.
- Potential visual impacts from taller turbines, spacing between turbines- visual confusion and disunity.
- Potential impacts from turbine lighting- encourage use of Aircraft Detection Lighting System (ADLS).
- Cultural Resource- concern from the Certificate Holder on the proposed mitigation measure and SCA requirement to adhere to their Memorandum of Understanding (MOU) with the Yakama Nation.
- Potential impacts to transportation during construction associated with concrete truck delivery trips.

## **1. EARTH**

No new or increased adverse environmental impacts are expected from the amended proposal. No mitigation measures recommended.

## **2. AIR**

No new or increased adverse environmental impacts are expected from the amended proposal. No mitigation measures recommended.

## **3. WATER**

- a. A Construction Stormwater General Permit (CSWGP) would be required as part of the Site Certification Agreement approval. The Certificate Holder would be required to comply with the permit to protect water quality during construction activities.
- b. Impacts to Wetlands, Streams, and Riparian Areas On-Site.

Ecology and EFSEC reviewed the May 2018 Wetland Delineation and Analysis Report. Permanent impacts to approximately 0.026 acres associated with 13 streams and 0.347 acres associated with 8 wetlands are anticipated. The Certificate Holder proposes to conduct required mitigation by enhancing three onsite wetlands. Final mitigation would be developed to fully mitigate for any permanent impacts identified, and for the size of buffers based on Best Available Science (BAS).

Wetland enhancement may include removing existing cattle grazing uses, installing exclusion fencing, and planting bare areas with plug sized herbaceous vegetation. EFSEC and Ecology reviewed the credit/debit analysis proposed by the Certificate Holder and concluded there would be “no net loss” of wetland function within the project area with proposed mitigation (Ecology 09/07/2018).

The Certificate Holder proposed wetland mitigation monitoring for 5 years in the SCA Amendment; however, Ecology recommended a monitoring period of 10 years for the project (Ecology 09/07/2018). A compensatory mitigation plan will be submitted prior to beginning site preparation, EFSEC will coordinate with Ecology and WDFW for approval of the plans.

Temporary impacts to approximately 0.126 acres of streams and 1.823 acres of wetlands are anticipated as a result of underground utility installation and crane access. Temporary impacts would be minimized through sediment and erosion control Best Management Practice (BMP) implementation and Spill Prevention, Control, and Countermeasure Plan implementation.

**10/5/18 Public Comment** received from the Washington Department of Ecology (Ecology) regarding the protection of impaired waterbodies. In summary, Ecology commented that Dry Creek, Green Canyon Creek, Reecer Creek, and Jones Creek flow through the project area and are included in the Upper Yakima River Tributaries Temperature Total Maximum Daily Load (TMDL) water quality improvement project. Therefore, these streams must be protected from additional stream heating. Ecology requested that the project avoid removal of existing streamside vegetation during construction, as well as during future operations. The TMDL also recommends that supplementary shade, via installation of new riparian plants, should be added where possible. In addition, the Reecer Creek reach located immediately upstream of the Kittitas Reclamation District canal is included in Washington State’s list of 303(d) impaired waterbodies due to high levels of fecal coliform bacteria. It is important that project planning and construction, and all future use of the site, include water quality protection to avoid further bacterial contamination in Reecer Creek. Ecology stated that a CSWGP and the development of a SWPPP will be required for off-site construction stormwater discharges.

**Comment Response:** The proposed mitigation in the SCA Amendment requires the Certificate Holder to coordinate with WDFW and Ecology regarding finalizing construction and operating plans to avoid or minimize temporary and permanent impacts on streams and wetlands. Prior to construction a final set of wetland buffers, setbacks, and mitigation standards for permanent and temporary impacts must be determined by EFSEC in consultation with Ecology. The SCA Amendment includes the requirement to develop a Temporary Erosion and Sediment Control (TESC), Stormwater Pollution Prevention Plan, Wetland Compensatory Mitigation Plan (SWPPP), Habitat Mitigation Plan, and Construction Soil Management and Vegetation Plan. These plans will address

protection of impaired waterbodies as will the Construction Stormwater General Permit that is required for discharging construction stormwater off-site.

No further mitigation measures are recommended.

**Proposed mitigation:** Wetlands, Streams and Riparian Areas.

While finalizing construction plans, the Certificate Holder will coordinate with WDFW and Ecology regarding finalizing construction and operating plans, in relation to micro-siting of project facilities and roads, in order to avoid or minimize the facility elements' temporary and permanent impacts on streams and wetlands.

The Certificate Holder will be required to conduct wetland mitigation monitoring for a period of 10 years.

Prior to construction of the site, a final set of wetland buffers, setbacks, and mitigation standards for permanent and temporary impacts shall be determined by EFSEC in consultation with Ecology. Wetland buffers shall be determined in accordance with applicable provisions of the Kittitas County Code for Critical Areas in KCC 17A. Where supported by the following Ecology guidance documents, EFSEC may require buffers of greater width than would be required under KCC 17A: Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance, Ecology Publication #06-06-011a (March 2006); Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans, Ecology Publication #06-06-011b (March 2006); Update on Wetland Buffers: The State of the Science, Final Report, Ecology Publication #13-06-011 (October 2013). Based on the final wetlands requirements from EFSEC, the Certificate Holder shall submit a Wetlands Mitigation Plan to EFSEC for approval at least sixty (60) days prior to the beginning of Site Preparation, which shall summarize how the Site is in compliance with those wetland buffers, setbacks, and mitigation standards.

**This mitigation applies to SCA Amendment: ARTICLE IV.E and ARTICLE V.**

**4. PLANTS**

No new or increased adverse environmental impacts to plants are expected from the amended proposal. No mitigation measures recommended.

**5. ANIMALS**

- a. The Certificate Holder has agreed to establish a Technical Advisory Committee (TAC). A Post-Construction Avian Monitoring Plan will be developed in coordination with the TAC.
- b. Possible impacts on birds and bats from turbines located in the amended project area, from taller turbines and longer blades.

EFSEC in coordination with WDFW, reviewed the SCA Amendment materials and determined the amended project location is not in an obvious migration route. An excessive amount of birds around the rotor-swept area is not expected. WDFW's review concluded that impacts and mortality are expected to be similar to those experienced by EFSEC's Kittitas Valley Wind Farm facility (WDFW 5/2/2018). Although the turbine



blades will be longer and create a larger wind swept area for each turbine, the decrease from a maximum of 95 turbines to a maximum of 31 turbines for the amended project would result in a 36-48% reduction in rotor swept area. This reduction would reduce bird/bat interaction with turbine blades than was analyzed in the FSEIS for the original project, (Desert Claim Wind Power Revised Project Description). WDFW requests that the Certificate Holder work with them on several plant, animal, and wetland topics listed in the amended SCA and finalize well before construction, including an opportunity to participate in micro-siting of roads that might further reduce stream or wetland impacts (WDFW 4/20/2018). Per the SCA Amendment, the Certificate Holder is required to coordinate with WDFW to develop a Habitat Mitigation Plan, Habitat Restoration Plan, Pre-Construction Raptor Nest Survey, and a Pre-Construction Townsends Ground Squirrel Survey.

No new or increased adverse environmental impacts to animals and their habitats are expected from the amended proposal. No other mitigation measures recommended.

## **6. ENERGY AND NATURAL RESOURCES**

- a. The creation of congestion on existing lines would not be considered an adverse environmental impact. It may limit the usability of the energy that is produced by the project.

No new or increased adverse environmental impacts to energy are expected from the amended proposal. No mitigation measures recommended.

## **7. ENVIRONMENTAL HEALTH**

- a. Possible impact to aerial firefighting abilities of planes to fly and drop water on fires in areas with turbines.

Turbines can create an additional hazard and complication for aerial firefighting which is a desirable method for protecting residences from fire. As long as there is some buffer between the turbines and residences, aerial firefighting methods can be used. EFSEC coordinated with DNR. Based on that coordination, EFSEC determined the turbine distance of 2,500 feet from a residence is adequate. In regards to fire fighting in general, wind farms can be advantageous because they add roads to an otherwise rural area where roads may not exist (DNR/Wyatt Leighton 05/09/2018).

- b. Possible impacts from taller turbines to aeronautic approaches to Kittitas County Airport (Bowers field) and Federal Aviation Administration (FAA) review of the amended proposal for hazards to aeronautic approaches to Bowers field.

The SCA requires that the Certificate Holder provide copies of the determination of non-hazard certificates issued by the FAA and other information to EFSEC, which demonstrate that the Project will not impact approved flight approaches, flight communications, or operations at the Kittitas County Airport (Bowers Field) prior to the start of construction.

- c. Potential for shadow flicker affecting residences.

Turbines will be placed greater than 2,500 feet from residences. Residences may experience brief periods of shadow flicker.

EFSEC reviewed a study on shadow flicker (EDF Renewable Energy 01/30/2018), which indicates that up to 30 residences would experience a maximum of 22-50 minutes per day (2.4 hours to 40.5 hours per year) of shadow flicker from wind turbines. The Certificate Holder proposed a revised mitigation measure for shadow flicker in their SCA Amendment request. The original SCA condition required the Certificate Holder to shut down a turbine for the duration of a shadow flicker impact upon the written request of a nonparticipating landowner for residences within 2,500 feet. Based on EFSEC's environmental review of this issue, shut down of the turbine by programming the control system of a wind turbine to stop the blades, when operating conditions result in a perceptible shadow flicker, is the most effective measure for mitigating shadow flicker impacts. Shadow flicker may also be addressed by planting trees, shading windows, or implementing other mitigation measures. Because the original SCA mitigation measure for shadow flicker included only one mitigation option (avoidance) there was no need for EFSEC to provide any oversight on mitigation options. However, the amended language allows for multiple options.

The proposed mitigation in the September 25, 2018 SEPA Addendum has been supplemented to include a clarification that EFSEC review and approval of the mitigation and complaint monitoring plan includes review and approval of any denials of any complaint requests as well as review and approval of the mitigation selected to address individual complaints.

**Proposed mitigation:** Shadow Flicker Mitigation Measures

Develop a mitigation and complaint monitoring plan to respond to any residential complaints. The mitigation plan will include avoidance, minimization, and mitigation of shadow flicker through turbine shut down, planting trees, shading windows, or other mitigation measures. The complaint monitoring plan will be reviewed and approved by EFSEC prior to operation and, at a minimum, will include:

- Notification of EFSEC within five (5) business days of receipt of any request to mitigate shadow flicker,
- Notification of EFSEC, within two (2) weeks of original receipt, of the actions taken in response, and
- EFSEC shall retain authority to review and override the Certificate Holder's denial(s) of any requests or choice of mitigation in this regard.

**This mitigation applies to SCA Amendment: ARTICLE VII.H.**

**8. NOISE**

a. Noise from operation of wind turbines.

EFSEC and its consultant reviewed the Environmental Noise Assessment Technical Reports to assess the Project's compliance with Washington Administrative Code 173-

60-040 for noise. Based on the noise inputs and baseline data detailed in the assessment report and follow-up technical memo, the expected noise levels were below the most limiting standard of 50 decibels (dBA) for the wind turbine generator and electrical substation for all modeled scenarios. These levels comply with WAC 173-60-040.

Review by EFSEC and its consultant determined that low frequency noise (or aeroacoustic noise) generated by the turbine blade moving through the atmosphere was not addressed in the technical information provided by the Certificate Holder. Although noise from wind turbine generators are not anticipated to exceed noise standards, it is possible that low frequency noise may be perceived as a nuisance. A complaint-based noise monitoring plan/protocol could be developed prior to construction and implemented during operation to respond to complaints related to operational noise.

Noise models conducted show no exceedances of noise standards and while low frequency nuisance noise is not expected, a complaint-based monitoring plan and follow up response procedure for any reported nuisance noise would ensure any unexpected noise issues could be mitigated during operation.

**10/10/18 Public Comment** from a member of the public regarding the noise monitoring plan. In summary, the comment requested that the applicant be held to the strictest standards in their noise monitoring plan.

**Comment Response:** The proposed mitigation in the SCA Amendment includes Complaint-Based Noise Monitoring and Response Plan submittal to EFSEC for review and approval prior to operation to address low frequency noise and aeroacoustic noise.

No further mitigation measures are recommended.

**Proposed mitigation:** Noise Emissions.

The Certificate Holder shall submit a Complaint-Based Noise Monitoring and Response Plan to EFSEC for review and approval prior to operation, to address low frequency noise and aeroacoustic noise.

**This mitigation applies to SCA Amendment: ARTICLE VII.B.**

## **9. LAND AND SHORELINE USE**

- a. The Desert Claim project is not within the Wind Farm Resource overlay district as defined in the Kittitas County 2016 Comprehensive Plan (KCCP).

However, the 2016 KCCP identifies siting criteria for areas outside the Wind Farm Resource overlay district. The Wind Farm Overlay Zone is included in Kittitas County Code (KCC) 17.61A. The Desert Claim project is not within this zone. The Desert Claim project area is classified as rural working land, zoned as Ag 20 and Forest and Range. This zoning is consistent with the zoning that was in place in 2010 when the Desert Claim SCA was issued by EFSEC.

- b. The Kittitas County 1996 Comprehensive Plan (KCCP) did not contain language specific to energy facilities or wind energy when the original SCA for Desert Claim was issued.

EFSEC and its consultant reviewed and compared the 1996 KCCP to the updated 2016 KCCP. The 2016 KCCP identifies goals, policies, and objectives (GPOs) to protect, preserve, maintain, and enhance the County's natural resource industry base including energy resources. According to the 2016 KCCP, factors that should be used as the basis for siting decisions for energy facilities are: 1) Minimal health risk to residents of neighboring properties, whether from noise, fumes, radiation or other hazards; 2) Minimal visual impact, achieved with buffering through distance and/or landscaping; 3) For power lines and transmission/ reception towers, no adverse impact on aviation traffic patterns; 4) Convenient access (may not be needed if the facility is automated); 5) Encourage use of cold weather engineering practices to cope with power outages; and 6) Ensure that new developments are designed with facilities to withstand a minimum 48-hour power outage.

No new or increased adverse environmental impacts to land use, are expected from the amended proposal. No mitigation measures recommended.

## 10. HOUSING

- a. The turbines will be located greater than 2,500 feet from residences.

No new or increased adverse environmental impacts to housing are expected from the amended proposal. No mitigation measures recommended.

## 11. VISUAL AND AESTHETICS

- a. Possible impacts from increased turbine height.

EFSEC's consultant conducted an independent Visual Effects Assessment which concluded that the proposed turbine configuration in the amended SCA would reduce visual impacts relative to the previously permitted project.

Taller turbines would not increase visual/aesthetic impacts to a significant level and in areas where the number of turbines have been reduced as compared to the previously approved proposal, the amended proposal would reduce impacts.

**10/10/18 Public Comment** from a member of the public regarding visual impacts of the turbines during operation. In summary, the commenter expressed concern regarding the tallest land turbines on earth being sited next to many homes without EFSEC finding any significant impacts and more specifically concern regarding visual impacts to residences on Smithson Road. Concern was also expressed regarding the variation in size of the turbines and various distances apart from one another and differing turbine models causing visual confusion and disunity.

**Comment Response:** EFSEC's consultant determined that from this viewing location, Project features would be distinct and would attract viewer attention; however, fewer turbines will be visible than the previous configuration in the SCA.

The independent Visual Effects Assessment indicated that construction and decommissioning activities and components would likely be visible to those viewers adjacent to the work sites (e.g. viewers along Smithson Rd. and at nearby residences) with a localized effect that would be experienced for a relatively short duration (weeks to months). The previous visual assessment in the FEIS and FSEIS also indicated a moderate level of visual impact related to this general location.

The technical approach used in the Visual Assessment (and previous visual assessments in the FEIS and FSEIS) did consider dimensions of vividness, intactness, and unity, as well as the degree of visual dominance of the Project to determine the changes to visual quality. The established Federal Highway Administration (FHWA) definition of 'unity' refers to the visual coherence and compositional harmony of the viewshed where effects are evaluated based on the degree to which they disrupt the harmony of the landscape setting. The visual assessment (Visual Effects Assessment Section 4.1.1) as well as the photos and simulation provided by Truescape (Visual Effects Assessment Appendix A – Sheet 8 and Sheet 9) illustrate that the views of the valley from this area are dominated by agricultural development and currently include evident wind projects in the northwest portion of the study area. Based on the existing visual quality and character visible from this area, while distinct, the Project features would not substantially affect the visual unity of the views or be incoherent within the context of the surrounding landscape.

No new or increased adverse environmental impacts to visual and aesthetics are expected from the amended proposal. No mitigation measures recommended.

## 12. LIGHT AND GLARE

### a. Possible impacts from turbine lighting.

The FSEIS identifies flashing lights at night as an impact to viewing the night sky. New mitigation in the form of radar based aircraft detection lighting has become available that could offset some of this impact. While no new or increased impacts are expected for the amended SCA, the application of an Aircraft Detection Lighting System (ADLS) would be beneficial at reducing the nonsignificant impacts of the amended proposal.

**10/10/18 Public Comment** from a member of the public regarding turbine lighting. In summary, the commenter encouraged the use of ADLS.

**Comment Response:** The proposed mitigation in the SCA Amendment requires the Certificate Holder to investigate the application of ADLS prior to construction and report its finding to EFSEC. The report will include the benefits and feasibility of ADLS for the project.

No further mitigation measures are recommended.

**Proposed mitigation:** Light, Glare and Aesthetics.

The Certificate Holder shall investigate the application of an Aircraft Detection Lighting System (ADLS) prior to construction and report its findings to EFSEC. The report should include the benefits and feasibility of ADLS for the Desert Claim project.

**This mitigation applies to SCA Amendment: ARTICLE V.J.**

### **13. RECREATION**

Hunting will not be allowed in the Project Area during construction. No mitigation measures recommended.

No new or increased impacts to recreation are expected from the amended proposal. No mitigation measures recommended.

### **14. HISTORIC AND CULTURAL PRESERVATION**

- a. Possible impacts to historic and cultural resources included review of the Desert Claim amended project proposal's compliance with RCW 27.53.

In conducting its environmental review, EFSEC coordinated with the Department of Archaeology and Historic Preservation (DAHP) and reviewed the FSEIS prepared by EFSEC, which identified a Memorandum of Understanding (MOU) between Desert Claim and the Yakama Nation.

EFSEC staff also reviewed information submitted related to the historic status of the Kittitas Division North Branch Canal Farm Bridge Station No 346.

DAHP recommended a pre-construction archaeological survey and the development of an archaeological monitoring schedule for any archaeological sites that can't be avoided during construction (4/19/2018 and 9/2/2018). DAHP also recommend the development of an Inadvertent Discovery Plan (IDP). DAHP determined the Kittitas Division North Branch Canal Farm Bridge Station No 346 is not eligible for the historic register.

The Certificate Holder consulted with the Yakama Nation and entered into a Memorandum of Understanding (MOU) concerning surveys that will be performed prior to construction to identify traditionally important plants and root gathering grounds, Traditional Cultural Properties (TCPs), and archaeological sites of interest to the Yakama Nation.

No new or increased impacts are expected from the amended proposal after DAHP final review and recommendations are implemented. Prior to construction, the Certificate Holder shall obtain all necessary DAHP permits and perform all necessary archaeological work in order to comply with RCW 27.53. The Certificate Holder will comply with their MOU with the Yakama Nation.

**10/10/18 Public Comment** from the Certificate Holder regarding the requirement to adhere to their MOU with the Yakama Nation. The comment explained that the MOU document is a "Scope of Work" between the Certificate Holder and the Yakama Nation, the contents of which EFSEC does not know; and this it is not a binding agreement between the two parties. The Certificate Holder's comment further explained that some activities identified in the "Scope of Work" document have already been completed. The Certificate Holder also expressed concerns about the appropriateness of EFSEC including a requirement that relates to a private document between the Certificate Holder and the Yakama Nation.

**Comment Response:** Proposed mitigation in the draft SEPA Addendum, dated September 25, 2018, requiring the Certificate Holder to adhere to the MOU was developed based on EFSEC's initial SEPA environmental review of the FSEIS and the SCA Amendment request materials submitted by the Certificate Holder (Desert Claim). Input to EFSEC from DAHP was also considered to develop the proposed mitigation measure in the draft SEPA Addendum.

For example, the FSEIS discussed additional cultural resource surveys to be conducted by the Certificate Holder; it states, "the Applicant has also agreed to conduct additional surveys of Traditional Cultural Properties (TCPs) of importance to the Yakama Nation and to work with the Yakama Nation to prepare a Traditional Cultural Resources Mitigation Plan." The mitigation measure included that the cultural resource mitigation plan be developed in consultation with the Yakama Nation and DAHP. According to the FSEIS, the plan "would include mitigation measures tailored to the specific circumstances of each resource and would be consistent with applicable federal, state, and local regulations", (FSEIS, Section 3.3.5, Mitigation Measures).

The FSEIS also acknowledged the MOU and characterized its intended purpose, that the "MOU addresses concerns expressed by the Yakama Nation's comments on the Draft SEIS, and provides a framework for developing a Traditional Cultural Resources Mitigation Plan with the Yakama Nation", (FEIS, Section, 3.3.5, Mitigation Measures).

In DAHP's comments to EFSEC, they concurred with the condition regarding Tribal involvement in developing mitigation, stating, "We agree with the recommendation for Tribal consultation regarding mitigation for impacts to traditional subsistence and medicinal plant resource areas", (FSEIS, Section 3.3.2.4, Site Significance Evaluations).

In addition, DAHP provided the following recommendations to EFSEC:

- Requested additional photos of historic-period field clearing pile archaeological sites and evidence of tribal consultation, otherwise these resources must be avoided or obtain a DAHP permit prior to any impacts.
- Stated all Revised Project impacts should be avoided to all pre-contact archaeological sites and one historic-period archaeological site and if they can't be avoided, a permit from DAHP is required for formal archaeological testing with recommendations for further mitigation.
- Requested a robust Inadvertent Discovery Plan be developed for the Revised Project and training of construction and operations crews.
- Requested additional archaeological survey for micrositing of turbines and for alterations in roadway plans.

In light of the references to the MOU in the FSEIS, and its apparent importance for addressing potential adverse impacts to tribal resources of concern to the Yakama Nation, on September 20, 2018, EFSEC requested a copy of the MOU from Desert Claim. Desert Claim did not provide a copy to EFSEC.

Because the Yakama Nation did not provide comments relative to EFSEC's draft SEPA Addendum, in a letter dated October 17, 2018, EFSEC Siting and Compliance Manager, Sonia E. Bumpus, contacted the Yakama Nation to request that it notify EFSEC of any concerns related to the MOU and/or Desert Claim's SCA amendment request. The Yakama Nation responded to EFSEC and on November 7, 2018 EFSEC staff and the

Yakama Nation held a call to discuss four aspects of their previous agreements with the Certificate Holder and any other concerns related to the amended proposal.

The four areas of agreement entail: 1.) Development of a traditional cultural resources mitigation plan prior to construction; 2.) Access for Yakama Tribal members to the root grounds within the Project area; 3.) Yakama Nation participation on the Technical Advisory Committee (TAC); and 4.) Restoration of lands to pre-Project conditions following decommissioning. This conversation helped to improve EFSEC's understanding of the agreement between Desert Claim and the Yakama Nation and it is expected that Desert Claim's commitments in the FSEIS in conjunction with the new and supplemented mitigation measures in the SCA Amendment, are sufficiently expansive to address the four considerations outlined above.

Recommendations from the Yakama Nation from a 2010 survey of the project area were also discussed during the call. EFSEC staff had previously identified the recommendations during its review of the updated cultural resource assessment prepared by the Certificate Holder's consultant, Archaeological Investigations Northwest, Inc. (AINW), titled, "*Cultural Resource Assessment of Updated Project Design for the Desert Claim Wind Power Project*". Based on input related to EFSEC during the call, it is EFSEC's understanding that the Yakama Nation's recommendations in the AINW report continue to be topics of concern related to the Revised Project. In consideration of the amended proposal, the input from DAHP and the Certificate Holder, and more recently, the input from the Yakama Nation (11/07/2018), EFSEC staff proposes further revision and clarification to the mitigation to improve the mitigation measure to address cultural resource impacts:

**Revised mitigation in the SCA Amendment is recommended:**

The development of the Cultural Resources Monitoring and Mitigation Plan must be done in coordination with DAHP and the Yakama Nation and approved by EFSEC. The following must be considered during the plan development:

- Avoidance of the concentrated-resource areas.
- Habitat rehabilitation of impacted-resource area as a means of mitigation for impacts to the diffuse-resource areas.
- Archaeological sites be provided a minimum 30 meter/100 foot buffer.
- Archaeological isolates should be further studied and be provided a minimum 15 meter/50 foot buffer.
- 51 rock features should be re-evaluated and recorded as archaeological sites.
- Archaeological monitoring during construction when ground-disturbing activity is involved.

**This mitigation applies to SCA Amendment: ARTICLE IV.H.**

## **15. TRANSPORTATION**

- a. Possible impacts to traffic on Smithson Road during construction.

Smithson Road is a new access road, and is the only access road to the Desert Claim project site in the amended SCA. EFSEC reviewed traffic information provided by the Certificate Holder regarding road improvements and traffic on Smithson Road. Based on updated transportation numbers provided by the Certificate Holder, there will be



approximately 558 total turbine delivery trips which represents a 66% decrease in turbine delivery trips over the life of the project. In contrast to the FEIS construction traffic analysis which assumed 7 truck trips for each of the 120 turbines to be delivered to the site, the amended SCA proposal expects that 9 truck trips will be necessary to carry each of the 31 turbines to the amended project site. The Certificate Holder indicated that approximately 22 concrete delivery trips will be made each hour during a daily 12-hour delivery period which represents a 10% increase in concrete trucks per hour during construction from the transportation numbers presented in the FEIS. The estimated increase in concrete trucks per hour during construction is dependent on the concrete production vendor and is not considered a substantial increase.

Access roads will be 1-foot wider on the straight sections than presented in the FEIS from 15 feet to 16 feet wide.

**10/10/18 Public Comment** from a member of the public regarding concrete truck delivery traffic. The commenter is concerned that “approximately 22 concrete delivery trips will be made each hour during a daily 12-hour delivery period which represents a 10% increase in concrete trucks per hour during construction from the transportation numbers presented in the FEIS. Of course the 10% increase is not considered substantial”. The commenter asked “how long is this daily 12-hour period going to last” and “why is the applicant not making its concrete onsite like most other wind farms?”

**Comment Response:** Based on the project description provided by the Certificate Holder, project construction would last approximately 9 months. Concrete trucks would travel to the site during a small portion of the construction period. The Certificate Holder estimates an average of 22 concrete truck deliveries per hour (see 09/18/2018 email from Karen McGaffey in the Certificate Holder Responses to Data Request 3). This is based on:

- 2,067 one-way concrete truck trips for all concrete deliveries;
- Approximately two foundations could be poured in one day; and
- Two foundations would require 134 truck trips.

At the rate of 134 delivery truck trips in a day, there would be approximately 15 days of concrete delivery trips.

The proposed SCA Amendment required the submittal of a Construction Traffic Management Plan that addresses increased construction traffic on Smithson Road to limit construction delivery vehicles during peak travel times and to accommodate agricultural road use on Smithson Road. The Construction Traffic Management Plan includes delivery trips, timeframe, duration, and concrete source (including an option for on-site concrete batch plants).

No further mitigation measures are recommended.

**Proposed mitigation:** Construction Traffic Development Standards.

The Certificate Holder’s Construction Traffic Management Plan should address increased construction traffic on Smithson Road to limit construction delivery vehicles during peak travel times and to accommodate agricultural road use on Smithson Road.

**This mitigation applies to SCA Amendment: ARTICLE IV.F.**

## **16. PUBLIC SERVICES**

No new or increased adverse environmental impacts to public services are expected from the amended proposal. No mitigation measures recommended.

## **17. UTILITIES**

No new or increased adverse environmental impacts to utilities are expected from the amended proposal. No mitigation measures recommended.

## **18. ENVIRONMENTAL MONITORING**

- a. Possible impacts resulting from removal of the full-time on-site environmental monitor requirement.

The Certificate Holder proposed an amended SCA that deletes the requirement for “full-time on-site” environmental monitoring during the construction phase. The original SCA stipulates full-time on-site environmental monitoring for the construction phase, there is no information indicating why this requirement should be revised to omit “full-time” and “on-site” for this requirement. EFSEC would retain the original language in the SCA requiring “full-time” and “on-site” to ensure environmental compliance throughout the construction phase of the Project.

**Proposed mitigation:** Environmental Monitoring during Construction

EFSEC will provide full-time on-site environmental monitoring for the construction phase of the Project, at the Certificate Holder’s cost.

**This mitigation applies to SCA Amendment: ARTICLE V.A.**

## **C. APPLICABLE SEPA RULES**

EFSEC has conducted an environmental analysis of the changes to the proposal following WAC 197-11-600(3)(b) which states:


For DNSs and EISs, preparation of a new threshold determination or supplemental EIS is required if there are:

- (i) Substantial changes to a proposal so that the proposal is likely to have significant adverse environmental impacts (or lack of significant adverse impacts, if a DS is being withdrawn); or
- (ii) New information indicating a proposal’s probable significant adverse environmental impacts (This includes discovery of misrepresentation or lack of material disclosure). A new threshold determination or SEIS is not required if probably significant adverse environmental impacts are covered by the range of alternatives and impacts analysis in the existing environmental documents.

If EFSEC determines the new information and analysis does not substantially change the analysis of significant impacts and alternatives in the existing environmental document (WAC 197-11-600 (4)(c)), an addendum is appropriate for documenting this review under SEPA.

Nothing in this environmental review or the associated Final SEPA Addendum shall preclude further review or conditioning of future development proposals for the subject property.

I have reviewed and considered the referenced Amended Proposal, the Environmental Checklist, agency comments, public comments and proposed responses, recommended and proposed mitigation, and other available material. I hereby recommend an Addendum to the Desert Claim Wind Power Project Final Supplement EIS issued November 2009.

  
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Sonia E. Bumpus,  
EFSEC Siting and Compliance Manager

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Date 11/13/2018