**Utility-Scale Onshore Wind Energy Facilities PEIS**

**Project Consistency Worksheet**

**Purpose**

**This worksheet supports the use of the** [**Utility-Scale Onshore Wind Energy Facilities Programmatic Environmental Impact Statement (PEIS)**](https://apps.ecology.wa.gov/publications/summarypages/2506003.html)**[[1]](#footnote-2) when a permit application is being submitted, as part of the State Environmental Policy Act (SEPA) environmental review process.** Another worksheet, the Project Siting and Design Worksheet, can be used in earlier phases of the project development process.

This worksheet helps a developer document their actions and assists lead agencies in reviewing a utility-scale onshore wind energy project’s consistency with the PEIS. [Revised Code of Washington (RCW) 43.21C.538](https://app.leg.wa.gov/RCW/default.aspx?cite=43.21C.538)[[2]](#footnote-3) requires a lead agency consider the PEIS.

The PEIS includes measures to avoid, reduce, and mitigate impacts (compiled in Appendix A) and they are grouped into the following five categories:

* **General measures:** The general measures apply to all projects using the PEIS.
* **Recommended measures for siting and design:** These measures are recommended for siting and design in the early phases of a project.
* **Required measures:** These measures must be implemented, as applicable, to use the PEIS. These include permits and approvals, plans, and other regulatory requirements.
* **Recommended measures for construction, operation, and decommissioning:** These measures are recommended for the construction, operation, and decommissioning phases of a project.
* **Mitigation measures for potential significant impacts:** These measures are provided only for resources for which potential significant impacts have been identified.

This worksheet provides a framework for documenting and reviewing a project’s consistency with the measures in all categories except recommended measures for siting and design. The Project Siting and Design Worksheet can be used for those measures.

This worksheet can support—but not substitute for—the [SEPA checklist](https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance)[[3]](#footnote-4) prepared for a project. Local governments may have their own SEPA checklist so please confirm which checklist to use. When completing the SEPA checklist, project developers can use the contents of this worksheet to support the responses to items in the checklist. This worksheet provides cross-references to sections of the SEPA checklist that address similar content.

**How to use this worksheet**

Use of this worksheet by project developers and lead agencies is optional. Use of this worksheet by lead agencies may vary according to local environmental review procedures.

**Project developers:**

* Can use this worksheet at any time during the project development process to document and track a project’s consistency with the PEIS.
* At the time of project application for SEPA environmental review, can submit this worksheet with the SEPA checklist as supporting documentation. Project developers can also submit a current version of the Project Siting and Design Worksheet for SEPA environmental review.

**Lead agencies:**

* At the time of project application for SEPA environmental review, can request a developer submit this worksheet along with the SEPA checklist as supporting documentation. Lead agencies can also request a project developer submit a current version of the Project Siting and Design Worksheet for SEPA environmental review.

**A. Background**

1. **Name of proposed project:**
2. **Name, address, email, and phone number of applicant and contact person:**
3. **Date worksheet prepared:**
4. **Is a Project Siting and Design Worksheet included in the application for SEPA environmental review? If yes, sections B and D of this worksheet can be left blank.**

Yes

No

**B. Tiering to the PEIS**

1. **Utility-scale onshore wind energy facility type proposed (refer to PEIS Section 2.6):**

Utility-scale onshore wind energy facilities

Utility-scale facilities with co-located battery energy storage system (BESS)

Utility-scale facilities combined with agricultural land use

1. **Is the proposed project consistent with the facility type as described in the PEIS? If not, describe any differences.**
2. **Location of utility-scale onshore wind energy facility relative to PEIS geographic scope of study (refer to map shown in PEIS Figure 1-1):**

Within PEIS geographic scope of study

Outside of PEIS geographic scope of study

Unknown/not sure

**C. Potentially required permits and approvals**

The PEIS describes permits that may be required for a project in Chapter 7 and in each resource technical appendix. Check the permits that the project is expected to need and list them on SEPA checklist question A.10.

**Federal**

Bald and Golden Eagle Protection Act (**U.S. Fish and Wildlife Service** [USFWS])

Clean Water Act Section 404 Permit (U.S. Army Corps of Engineers [USACE])

Coastal Zone Management Act Consistency (**Washington State Department of Ecology [Ecology]**)

Determination of No Hazard to Air Navigation, Form 7460-1 Notice of Proposed Construction or Alteration (Federal Aviation Administration [FAA])

**Endangered** Species Act Section 7 Consultation (USFWS/ National Oceanic and Atmospheric Administration [NOAA])

**Endangered** Species Act Section 10 Review (USFWS/NOAA)

**Federal** Communications Commission (FCC) filing

Land Evaluation and Site Assessment (Natural Resources Conservation Service, local farm agency, or rural development agency)

Magnuson-Stevens Fishery Conservation and Management Act (NOAA Fisheries)

Migratory Bird Treaty Act (USFWS)

National Environmental Policy Act (federal agency)

National Historic Preservation Act (federal agency and Advisory Council on Historic Preservation [ACHP])

Right-of-way or lease (federal, state, local agency)

U.S. Department of Defense Clearance for Radar Interference (U.S. Department of Defense [DoD])

U.S. Department of Transportation Act of 1966, Section 4(f) Review (U.S. Department of Transportation [DoT])

**Washington State**

Access Connection Permit and General Permit (**Washington State Department of Transportation [**WSDOT])

Air Quality Permits (Ecology, Energy Facility Site Evaluation Council [EFSEC], local agency)

Aquatic Use Authorization (**Department of Natural Resources [**DNR])

Archaeological Site Alteration and Excavation Permit (Department of Archaeology and Historic Preservation [DAHP])

Clean Water Act Section 401 Water Quality Certification (U.S. Environmental Protection Agency [USEPA], Ecology, or Tribes)

Clean Water Act Section 402 National Pollution Discharge Elimination System (NPDES) Construction Stormwater Permit (Ecology)

Clean Water Act Section 402 (NPDES) Industrial Stormwater Permit (Ecology)

Clean Water Act Section 402 NPDES Individual Permit (Ecology)

Chapter 90.48 RCW waters of the state authorization (Ecology)

Electrical Permits (Washington State Department of Labor and Industries)

Forest Practices Act application/notification (DNR or local agency)

Hydraulic Project Approval (Washington Department of Fish and Wildlife [WDFW])

Notice of Intent to Construct or Decommission a Well (Ecology)

Overweight/Oversize Permits (WSDOT)

Sand and Gravel General Permit (Ecology)

Shoreline Management Act (Ecology)

State Environmental Policy Act (state or local agency)

State Waste Discharge Permit (Ecology)

Surface Mining Reclamation Permit (DNR)

Water Right Authorization (Ecology)

Utility Accommodation Permits and Franchises (WSDOT or local agency)

**Local**

Blasting Permits (local fire department or building authority)

Construction and Development Permits (e.g., road access, grading, building, mechanical, lights, signage) (local agency)

Environmental Permits (e.g., Critical Areas, Shorelines) (local agency)

Floodplain Development Permit (local agency)

Land Use Permits (e.g., Comprehensive Plan Amendments, Conditional Use Permit/Special Use Permit, or Zoning Amendments) (local agency)

Local utility connection permits/approvals (local utility)

Road Haul Agreement (local agency)

**D. General measures**

Use the following table to describe the implementation status for the general measures.

For sections D and E, please select an implementation status from the following options. Supporting rationale and notes with additional information can be added in the last column.

* Measure completed
* Measure completed with modifications
* Measure will be implemented
* Measure will be implemented with modifications
* Measure will not be implemented
* Measure not applicable

| **#** | **Measure** | **Implementation Status** | **Rationale / Notes** |
| --- | --- | --- | --- |
| 1 | **Laws, regulations, and permits:** Obtain required approvals and permits and ensure that a project adheres to relevant federal, state, and local laws and regulations | Select descriptor. | Enter supporting rationale or notes. |
| 2 | **Coordination with agencies, Tribes, and communities:** Coordinate with agencies, Tribes, and communities prior to submitting an application and throughout the life of the project to discuss project siting and design, construction, operations, and decommissioning impacts; and measures to avoid, reduce, and mitigate impacts. Developers should also seek feedback from agencies, Tribes, and communities when developing and implementing the resource protection plans and mitigation plans identified in the PEIS. | Select descriptor. | Enter supporting rationale or notes. |
| 3 | **Land use:** Consider the following when siting and designing a project:   * Existing land uses * Land ownership/land leases (e.g., grazing, farmland, forestry) * Local comprehensive plans and zoning * Designated flood zones, shorelines, natural resource lands, conservation lands, priority habitats, and other critical areas and lands prioritized for resource protection * Military testing, training, and operation areas | Select descriptor. | Enter supporting rationale or notes. |
| 4 | **Choose a project site and a project layout to avoid and minimize disturbance:** Select the project location and design the facility to avoid potential impacts to resources. Examples include:   * Minimizing the need for extensive grading and excavation and reducing soil disturbance, potential erosion, compaction, and waterlogging by considering soil characteristics. * Minimizing facility footprint and land disturbances, including limiting clearing and alterations to natural topography and landforms and maintaining existing vegetation. * Minimizing the number of structures required and co-locate to share pads, fences, access roads, lighting, etc. | Select descriptor. | Enter supporting rationale or notes. |
| 5 | **Use existing infrastructure and disturbed lands, and co-locate facilities:** During siting and design, avoid and minimize impacts by:   * Using existing infrastructure and disturbed lands, including roads, parking areas, staging areas, aggregate resources, and electrical and utility infrastructure. * Co-locating facilities within existing rights-of-way or easements. * Considering limitations of existing infrastructure, such as water and energy resources. | Select descriptor. | Enter supporting rationale or notes. |
| 6 | **Conduct studies and surveys early:** Conduct studies and surveys early in the process and at the appropriate time of year to gather data to inform siting and design. Examples include:   * Geotechnical study * Habitat and vegetation study * Cultural resource survey * Wetland delineation | Select descriptor. | Enter supporting rationale or notes. |
| 7 | **Restoration and decommissioning:** Implement a Site Restoration Plan for interim reclamation following temporary construction and operations disturbance. Implement a Decommissioning Plan for site reclamation at the end of a project. Coordinate with state and local authorities such as WDFW, county extension services, weed boards, or land management agencies on soil and revegetation measures, including approved seed mixes. Such plans address:   * Documentation of pre-construction conditions and as-built construction drawings * Measures to salvage topsoil and revegetate disturbed areas with native and pollinator-supporting plants * Management of hazardous and solid wastes * Timelines for restoration and decommissioning actions * Monitoring of restoration actions * Adaptive management measures | Select descriptor. | Enter supporting rationale or notes. |
| 8 | **Cumulative impact assessment:** Assess cumulative impacts on resources based on reasonably foreseeable past, present, and future projects. Identify actions to avoid, reduce, and mitigate cumulative impacts. Consider local studies and plans, such as comprehensive plans. | Select descriptor. | Enter supporting rationale or notes. |

**E. Measures to Avoid, Reduce, and Mitigate Impacts**

Use the following table to describe the implementation status for the measures to avoid, reduce, and mitigate impacts.

| **#** | **Category / Measure** | **Implementation Status** | **Rationale / Notes** |
| --- | --- | --- | --- |
|  | Tribal Rights, Interests, and Resources |  |  |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
| 1 | Many of the general measures and recommended measures for construction, operation, and decommissioning listed for other resources may apply to Tribal rights, interests, and resources. The significance of impacts to Tribal rights, interests, and resources can be understood only from within the cultural context of an affected Tribe. This will depend on the project and the federally recognized Tribes potentially affected. Accordingly, the impact assessment, determinations of significance or non-significance, and development of mitigation would be done with engagement and in consultation with potentially affected Tribes. | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Maintain open Tribal access routes during construction, operations, and decommissioning and consider timing of activities to avoid disrupting Tribal access to sites and resources. | Select descriptor. | Enter supporting rationale or notes. |
|  | Environmental Justice |  |  |
|  | **Required measures** |  |  |
| 1 | Ensure that engagement and communications practices comply with Title VI and federal and state accessibility requirements and are culturally effective, linguistically appropriate, and accessible. Strategies include:   * Engage with communities on how they prefer to receive information and tailor communications accordingly. * Use a variety of media tailored to affected communities, such as local print, online publications, and radio. | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Comply with local plans, such as comprehensive plans and sustainability plans, which may include environmental justice elements. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
| 3 | Develop and implement public information sharing to provide technical project and environmental health information, including information on potential impacts and proposed mitigation, directly to potentially affected populations, overburdened communities, local agencies, and representative groups. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Mitigation measures for potential significant impacts** |  |  |
| 4 | To address disproportionate effects on historic and cultural resources, Tribes and Tribal communities, biological resources, land use, aesthetics/visual quality, public services and utilities, noise and vibration, and environmental health and safety, develop Community Benefit Agreements, Tribal Benefit Agreements, community investments, or other agreements in coordination with potentially affected communities and Tribes to address impacts through mutually agreed upon mitigation. Examples of agreement outcomes could include measures to support local labor, such as workforce development opportunities, or measures to support community facilities and services. | Select descriptor. | Enter supporting rationale or notes. |
|  | Earth Resources (SEPA checklist Section B.1) |  |  |
|  | **Required measures** |  |  |
| 1 | Design new roads based on agency requirements and local climate conditions, soil moisture, and erosion potential. | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Develop an Erosion and Sediment Control Plan to prevent transportation of soil materials, particularly into surface waters or wetlands. The plan must be approved by applicable state and local agencies. Plan measures could include:   * Construct and maintain erosion control in all disturbed areas and along roadways (e.g., silt fences, sediment traps, erosion control surfaces, stabilized road entrances and exit points). * Implement vegetative cover or mulching to stabilize exposed soil and reduce erosion risks. * Implement regular monitoring and maintenance programs to assess soil erosion, sedimentation, and soil stability throughout the facility life cycle. Promptly implement corrective actions or repairs to address any soil-related issues identified during monitoring activities. | Select descriptor. | Enter supporting rationale or notes. |
| 3 | Develop a Spill Prevention, Control, and Countermeasure (SPCC) Plan if the project has an aggregate storage capacity of oil greater than 1,320 gallons or is located where a discharge could reach a navigable waterbody. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 4 | Implement grading and excavation techniques that minimize soil disturbance and compaction, such as level grading or cut-and-fill operations with minimal earthmoving. | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Avoid creating potentially unstable slopes during excavation and blasting operations. | Select descriptor. | Enter supporting rationale or notes. |
| 6 | Minimize vegetation removal. Where vegetation or trees are removed, leave root systems intact to minimize soil disturbance and prevent erosion. | Select descriptor. | Enter supporting rationale or notes. |
| 7 | Surface access roads, on-site roads, and parking lots with aggregate with hardness sufficient to prevent vehicles from crushing the aggregate and causing excessive dust or compacted soil conditions. | Select descriptor. | Enter supporting rationale or notes. |
| 8 | Develop an Emergency Response Plan that includes measures to address project-specific geologic hazards, such as landslides or seismic events. | Select descriptor. | Enter supporting rationale or notes. |
| 9 | Utilize weight dispersion mats or weight dispersion equipment in sensitive areas to reduce disturbances to native soil structure and vegetation. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities with co-located BESS* |  |  |
| 10 | Implement secondary spill and leak containment measures around BESS components for all battery types to prevent or minimize the spread of hazardous materials in the event of a failure. Examples include reinforced storage facilities and containment barriers to contain spills and leaks. | Select descriptor. | Enter supporting rationale or notes. |
| 11 | Include spill response measures for BESS failure in the Emergency Response Plan and stormwater pollution prevention plan (SWPPP). | Select descriptor. | Enter supporting rationale or notes. |
| 12 | Develop and implement water quality and soil monitoring plans to monitor for contaminants in the event of a BESS failure. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities combined with agricultural land use* |  |  |
| 13 | Integrate soil conservation practices into the management of agricultural activities, such as employing no-till farming techniques around wind turbines to maintain soil structure, lessen erosion risks, and support soil fertility. | Select descriptor. | Enter supporting rationale or notes. |
| 14 | Use cover crops with robust root systems to enhance soil health. | Select descriptor. | Enter supporting rationale or notes. |
| 15 | Optimize facility design to address planting requirements like sunlight penetration. | Select descriptor. | Enter supporting rationale or notes. |
|  | Air Quality and Greenhouse Gases (SEPA checklist Section B.2) |  |  |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 1 | Surface access roads, on-site roads, and parking lots with aggregate with hardness sufficient to prevent vehicles from crushing the aggregate and causing excessive dust. | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Minimize vehicle and equipment exhaust emissions by:   * Using efficient transportation routing. * Using hybrid or zero-emission equipment, electric maintenance trucks or service vehicles, and/or latest-model-year vehicles and equipment. * Maintaining vehicles and equipment in good condition. * Limiting engine idling time and shutting down equipment when not in use. * Encouraging carpooling among construction workers to minimize construction-related traffic and associated emissions. * Using ultra-low-sulfur diesel fuel with a sulfur content of 15 parts per million or less for all diesel engines. * Applying add-on pollution control technologies to construction generators. | Select descriptor. | Enter supporting rationale or notes. |
| 3 | Implement best management practices (BMPs) identified in the “Guide to Handling Fugitive Dust from Construction Projects,” as published by the Associated General Contractors of Washington or updated guidance recommended by the local air agency. Example measures to minimize fugitive dust emissions include:   * Monitor wind speeds and suspend all soil disturbance activities and travel on unpaved roads during periods of high winds. * Use water, water-based environmentally safe dust suppression materials, or other fugitive dust-abatement measures for dust control in compliance with state and local regulations. * Cover construction materials that could be a source of fugitive dust during transportation or storage. * Limit traffic speeds on unpaved roads. | Select descriptor. | Enter supporting rationale or notes. |
| 4 | Use offsets to reduce the amount of greenhouse gases (GHGs) in the atmosphere. Offset projects result in GHG reductions that are real, permanent, quantifiable, verifiable, and enforceable. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities combined with agricultural land use* |  |  |
| 5 | During operations in high wind and dry conditions, limit the amount of soil or unpaved surface disturbances and use wind barriers or covers to minimize windblown dust. | Select descriptor. | Enter supporting rationale or notes. |
| 6 | Consider ways to reduce air emissions during agricultural operations, such as through maintaining equipment in good condition, reducing the number of passes by equipment, and integrating advanced technologies to reduce equipment operation overlap. | Select descriptor. | Enter supporting rationale or notes. |
|  | Water Resources (SEPA checklist Section B.3) |  |  |
|  | **Required measures** |  |  |
| 1 | Develop a stormwater pollution prevention plan (SWPPP). | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Develop a SPCC Plan if the project has an aggregate storage capacity of oil greater than 1,320 gallons or is located where a discharge could reach a navigable waterbody. | Select descriptor. | Enter supporting rationale or notes. |
| 3 | Develop a water quality monitoring and protection plan. | Select descriptor. | Enter supporting rationale or notes. |
| 4 | Impacts to both jurisdictional and non-federally regulated wetlands require a wetland mitigation plan developed in accordance with *Wetland Mitigation in Washington State.* | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Restore pre-construction contours, decompact soil, and replant native hydrophytic vegetation in surface waters and wetlands in temporarily disturbed areas. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 6 | Use highly visible fencing/flagging around streams, wetlands, and buffers to prevent unnecessary disturbance in sensitive areas and minimize the potential for downstream water quality impacts. | Select descriptor. | Enter supporting rationale or notes. |
| 7 | Manage runoff from panel-washing activities, and stormwater runoff from buildings, parking areas, and access roads. Properly maintain on-site sanitary wastewater systems to minimize water quality impacts on surface waters and wetlands from potential contaminants. | Select descriptor. | Enter supporting rationale or notes. |
| 8 | Minimize impacts to water quality by working below the ordinary high water mark during the dry season when no rain is predicted. | Select descriptor. | Enter supporting rationale or notes. |
| 9 | Implement water conservation techniques, including for dust control and panel washing. Consider using soil stabilizers to reduce water needs for dust suppression. Avoid use of polyacrylamide dust-control methods where there is potential for it to enter surface waters. | Select descriptor. | Enter supporting rationale or notes. |
| 10 | If construction occurs near or within groundwater recharge areas, monitor activities to reduce the potential for contamination. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities with co-located BESS* |  |  |
| 11 | Implement secondary spill and leak containment measures around BESS components for all battery types to prevent or minimize the spread of hazardous materials in the event of a failure. Examples include reinforced storage facilities and containment barriers to contain spills and leaks. | Select descriptor. | Enter supporting rationale or notes. |
| 12 | Include spill response measures for BESS failure in the Emergency Response Plan and SWPPP. | Select descriptor. | Enter supporting rationale or notes. |
| 13 | Develop and implement water quality and soil monitoring plans to monitor for contaminants in the event of a BESS failure. | Select descriptor. | Enter supporting rationale or notes. |
|  | Biological Resources (SEPA checklist Sections B.4 and B.5) |  |  |
|  | **Required measures** |  |  |
| 1 | Where in-water work cannot be avoided, minimize impacts to aquatic species by working within the WDFW- and USACE-recommended in-water work windows, following applicable design guidelines (e.g., WDFW Water Crossing Design Guidelines). | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Implement a Wildlife Habitat Management Plan to avoid and minimize impacts to achieve no net loss of habitat functions and values. Develop the plan in coordination with WDFW and other applicable agencies. | Select descriptor. | Enter supporting rationale or notes. |
| 3 | Implement a Bird and Bat Conservation Strategy and Avian Protection Plan in consultation with USFWS and WDFW. | Select descriptor. | Enter supporting rationale or notes. |
| 4 | Implement a Vegetation Management Plan. | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Implement a Fire Prevention and Response Plan. | Select descriptor. | Enter supporting rationale or notes. |
| 6 | Impacts to both jurisdictional and non-federally jurisdictional wetlands require a wetland mitigation plan developed in accordance with *Wetland Mitigation in Washington State.* | Select descriptor. | Enter supporting rationale or notes. |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 7 | Designate a qualified biologist to be responsible for overseeing compliance with all measures related to the protection of ecological resources throughout all project phases, particularly in areas requiring avoidance or containing sensitive biological resources, such as special-status species and important habitats. | Select descriptor. | Enter supporting rationale or notes. |
| 8 | Follow WDFW’s BMPs in *Guidelines for Utility-scale Solar & Onshore Wind Energy Development in Washington State.* | Select descriptor. | Enter supporting rationale or notes. |
| 9 | Consult WDFW’s guidelines and other appropriate federal, state, and local agencies for spatial and temporal buffers during construction and operations activities. Any buffers established would be based on site-specific factors determined during coordination with WDFW and other appropriate agencies. | Select descriptor. | Enter supporting rationale or notes. |
| 10 | Conduct seasonally appropriate walkthroughs prior to any ground-disturbing activity to ensure that important or sensitive species or habitats are not present in or near facility sites. Conduct walkthroughs by a qualified biologist or team of biologists and include federal agency representatives, state natural resource agencies, and Tribal staff, as appropriate. | Select descriptor. | Enter supporting rationale or notes. |
| 11 | Implement measures to protect bats, including curtailment (by slowing, stopping, or changing the direction of blade rotation) when bats are likely to be present (e.g., nighttime, seasonal, or other depending on the site) and lowering cut-in speeds to at least less than 5 meters per second. | Select descriptor. | Enter supporting rationale or notes. |
| 12 | Reduce raptor use of the site by minimizing road cuts and maintaining either no vegetation or nonattractive plant species around the turbines. | Select descriptor. | Enter supporting rationale or notes. |
| 13 | Avoid surface water or groundwater withdrawals that have potential to affect sensitive habitats (e.g., riparian habitats) and any habitats occupied by special-status species. | Select descriptor. | Enter supporting rationale or notes. |
| 14 | Avoid causing changes in surface water or groundwater quality (e.g., chemical contamination, increased salinity, increased temperature, decreased dissolved oxygen, and increased sediment loads) or flow that result in the alteration of terrestrial plant communities or communities in wetlands, springs, seeps, intermittent streams, perennial streams, and riparian areas (including alterations of cover and community structure, species composition, and diversity). | Select descriptor. | Enter supporting rationale or notes. |
| 15 | Employ noise reduction devices to minimize impacts on wildlife, especially special-status species. Avoid evening and nighttime construction activities to limit the impacts of construction noise on wildlife. | Select descriptor. | Enter supporting rationale or notes. |
| 16 | Manage for low-maintenance vegetation (e.g., native shrubs, grasses, and forbs) and invasive species control, minimizing the use of herbicides near sensitive habitats, including aquatic habitat and wetlands, and using only approved herbicides consistent with all regulations and safe application guidelines. | Select descriptor. | Enter supporting rationale or notes. |
| 17 | Discourage the use of rodenticides to control rodent burrowing around turbine towers. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities combined with agricultural land use* |  |  |
| 18 | Minimize use of artificial ground covers such as gravel that require application of herbicides and are not compatible with crops or pollinator plants. | Select descriptor. | Enter supporting rationale or notes. |
| 19 | Select pollinator plants that are native to the area and compatible with wind facilities. Coordinate with WDFW and other applicable agencies to balance pollinator and avian use of the site. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Mitigation measures for potential significant impacts** |  |  |
| 20 | In coordination with WDFW and other applicable agencies, develop wildlife/habitat management and mitigation plans and mitigation measures. Use the most current WDFW *Guidelines for Utility-scale Solar & Onshore Wind Energy Development in Washington State* mitigation strategies for temporary and permanent impacts to wildlife and habitat.   * Compensatory mitigation ratios and strategies in the WDFW guidelines provide baseline guidance, but these ratios may be adjusted on a project-by-project, site-specific basis or if specific mitigation recommendations have already been published by WDFW (e.g., Oregon white oak, ferruginous hawk). Such determinations would be based on best available science and the specific conditions of the site, considering the impacted habitat types, affected wildlife species, and mitigation areas. * The compensatory mitigation strategies and ratios for permanent impacts may be higher for some types of sensitive habitats and species. For example, impacts to shrubsteppe habitat may be higher because such a large percentage of the shrubsteppe landscape in Washington has already been lost. | Select descriptor. | Enter supporting rationale or notes. |
| 21 | Implement measures for operational monitoring and adaptive management, including, where appropriate, establishing a technical advisory committee to advise on adaptive management measures. | Select descriptor. | Enter supporting rationale or notes. |
|  | Energy and Natural Resources (SEPA checklist Section B.6) |  |  |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
| 1 | Minimize transportation and equipment fuels use by:   * Encouraging carpooling or electric vehicle use by work crews or setting up ridesharing or shuttle programs * Using alternative fuel, electric, or latest-model-year vehicles as facility service vehicles * Limiting engine idling time and shutting down equipment when not in use | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Minimize impacts to aggregate resources by reusing suitable excavated materials, identifying and securing commitments from commercial suppliers, and scheduling facility construction to avoid simultaneous large demands on aggregate resources by other local projects. | Select descriptor. | Enter supporting rationale or notes. |
|  | Environmental Health and Safety (SEPA checklist Section B.7.a) |  |  |
|  | **Required measures** |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 1 | If the project has an aggregate storage capacity of oil greater than 1,320 gallons or is located where a discharge could reach a navigable water body, an SPCC Plan is required to prevent spills during construction and operation and to identify measures to expedite the response to a release if one were to occur. | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Implement an Emergency Response Plan to address worker health and safety and a Fire Prevention and Response Plan to address fire safety. Develop plans in coordination with local fire and emergency service providers. The plans must meet applicable laws/codes, such as the following:   * [Washington Administrative Code (WAC) 463-60-352(2) through 463-60-352(4)](https://app.leg.wa.gov/WAC/default.aspx?cite=463-60-352),[[4]](#footnote-5) which address fire and explosion, hazardous materials release, and safety standards compliance * WAC 463-60-352(6), which describes emergency plans to ensure public safety and environmental protection * International Fire Code | Select descriptor. | Enter supporting rationale or notes. |
| 3 | Implement a Hazardous Materials and Waste Management Plan to address the selection, transport, storage, and use of chemicals and hazardous materials during construction, operation, and decommissioning. | Select descriptor. | Enter supporting rationale or notes. |
| 4 | Implement a Vegetation Management Plan to reduce wildfire fuel loads and prevent the establishment of non-native, invasive species on the facility site and along gen-tie line rights-of-way and roads. | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Implement a Health and Safety Plan to inform employees and others on site about what to do in case of emergencies, including rapid shutdown procedures, the locations of fire extinguishers and nearby hospitals, telephone numbers for emergency responders, first aid techniques, and readily accessible Material Safety Data Sheets for all on-site hazardous materials. Include other Occupational Safety and Health Administration (OSHA) measures to address issues such as crane and hoist safety, electrical safety, fall prevention, lockout/tagout, heat/cold stress, and personal protective equipment. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities with co-located BESS* |  |  |
| 6 | Implement fire protection, prevention, and detection measures and design features in accordance with National Fire Protection Association (NFPA) 855, including requirements for providing redundant separate methods of BESS failure detection. | Select descriptor. | Enter supporting rationale or notes. |
| 7 | Implement a detailed Emergency Response Plan specific to BESS operations to mitigate the consequences of potential damage or failure of battery management systems, and include protocols for containment, cleanup, and remediation in the event of soil contamination or environmental incidents. | Select descriptor. | Enter supporting rationale or notes. |
| 8 | A hazard mitigation analysis may be required as part of NFPA 855 to evaluate any potential adverse interaction between the various energy systems and technologies. | Select descriptor. | Enter supporting rationale or notes. |
| 9 | NFPA 855 requires an operations and maintenance manual be provided to both the BESS owner (or the authorized agent) and the system operator before the system is put into operation and specifies what is to be included in the manual. This includes requirements for system maintenance, training programs, and safety protocols for personnel involved in BESS operations and maintenance. Routine maintenance can help detect issues early, prevent failures, and minimize the risk of environmental contamination. | Select descriptor. | Enter supporting rationale or notes. |
|  | Recommended measures for construction, operation, and decommissioning |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 10 | Coordinate with DNR and the U.S. Forest Service and monitor wildfire activity during project construction/decommissioning and operation. If necessary, modify or cease activities, change the schedule, or remove equipment. | Select descriptor. | Enter supporting rationale or notes. |
| 11 | Minimize potential for ignition by:   * Using diesel construction vehicles instead of gasoline vehicles to prevent potential ignition by catalytic converters * Prohibiting vehicles from idling in grassy areas * Restricting the use of high-temperature equipment in grassy areas * Equipping construction vehicles with fire extinguishers, spark arrestors, and heat shields, as appropriate * Restricting smoking to designated areas of the site as weather conditions permit | Select descriptor. | Enter supporting rationale or notes. |
| 12 | Equip power transformers with an oil-level monitoring system. A decrease in oil level would be sensed by this system, and an alarm message would be sent to the central alert system. | Select descriptor. | Enter supporting rationale or notes. |
| 13 | Implement lightning protection measures and grounding systems to protect facility equipment, as well as reduce the potential for wildfires. | Select descriptor. | Enter supporting rationale or notes. |
| 14 | If blasting is conducted, clear vegetation from the evacuation zone and prepare water spray trucks and fire suppression equipment for use. | Select descriptor. | Enter supporting rationale or notes. |
| 15 | Coordinate with the local fire marshal and applicable fire response agencies to ensure water is available during construction and operations for fire response. Water supply for firefighting may include water trucks, on-site wells, or other water storage, such as water cisterns. | Select descriptor. | Enter supporting rationale or notes. |
| 16 | Conduct regular maintenance and testing for wind turbine generators, including electrical systems and safety devices for fire detection, automatic switch-off, and fire extinguishing systems in the nacelle of each wind turbine. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities combined with agricultural land use* |  |  |
| 17 | Coordinate with agricultural operators to establish acceptable agricultural practices on the facility site during construction, operations, and decommissioning to protect the health and safety of employees. Review and incorporate applicable measures for agricultural practices developed by OSHA and the National Association of State Public Health Veterinarians. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Mitigation measures for potential significant impacts** |  |  |
| 18 | Use predictive digital monitoring and systems. | Select descriptor. | Enter supporting rationale or notes. |
| 19 | Coordinate with the local fire marshal, or equivalent authority, and DNR wildfire management staff on training for employees in wildfire response. | Select descriptor. | Enter supporting rationale or notes. |
|  | Noise and Vibration (SEPA checklist Section B.7.b) |  |  |
|  | **Required measures** |  |  |
| 1 | Implement a worker hearing protection program for work areas with noise in excess of 85 A-weighted decibels per OSHA standard 1910.95(c)(1). | Select descriptor. | Enter supporting rationale or notes. |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
| 2 | Implement noise reduction measures during construction, including:   * Notify potentially affected residents in advance of noisy activities, such as blasting or pile driving, before and during the construction period. * Post warning signs at high-noise areas. * Schedule construction activity during normal working hours on weekdays. * Limit possible evening shift work to low-noise activities, such as welding, wire pulling, and similar activities. * Maintain tools and equipment in good operating order according to manufacturer specifications. * Ensure all heavy trucks and internal combustion engines are properly maintained and equipped with noise-control (e.g., muffler) devices, in accordance with manufacturer specifications. * Limit noise-producing signals, such as horns, whistles, or alarms, to safety warning purposes only. Prohibit nighttime (10 p.m. to 7 a.m.) blasting. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Mitigation measures for potential significant impacts** |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 3 | If project-specific construction noise modeling indicates potential significant impacts to noise-sensitive receptors, implement a Construction Noise Management Plan to reduce noise impacts. | Select descriptor. | Enter supporting rationale or notes. |
| 4 | If project-level noise analysis for receiving properties indicates environmental designation for noise abatement (EDNA) threshold exceedances or an increase of 5 dBA over ambient noise levels in quiet rural areas, use noise reduction measures to reduce operations noise levels. These could include:   * Manufacturer-provided acoustical enclosures for mechanical equipment * Acoustical barriers designed for a particular source or group of sources using acoustically rated materials * Low noise trailing edge (LNTE) technology and noise-reduced operation models for turbines | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Establish a noise complaint resolution process and hotline. | Select descriptor. | Enter supporting rationale or notes. |
| 6 | If project-specific construction vibration modeling indicates potential significant impacts to existing structures, implement a Construction Vibration Management Plan to reduce the potential for building damage. Measures and controls should be identified based on project-specific design and may include, but are not limited to, the following:   * Installing cast-in-place concrete piles to minimize vibration. * Vibrating piles into place and installing shrouds around the pile-driving hammer. * Using nonvibratory, excavator-mounted compaction wheels and small, smooth drum rollers for final compaction of asphalt base and asphalt concrete. If needed to meet compaction requirements, use smaller vibratory rollers to minimize vibration levels during repaving activities where needed to meet vibration standards. * Using active or passive vibration isolation systems for equipment that may produce high levels of vibration. * Implementing a vibration, crack, and line and grade monitoring program for identified historic buildings in coordination with a geotechnical engineer and qualified architectural historian. * During blasting, calculating and maintaining the weight of explosives necessary to ensure that vibrations from blasting do not exceed a performance standard of 0.5 peak particle velocity (PPV) inches/second for conventional construction and 0.12 PPV inches/second for historic structures. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities with co-located BESS* |  |  |
| 7 | If project-level noise analysis identifies noise level exceedances, additional measures include:   * Acoustical enclosures or barriers for BESS containers * Utilizing a dispersed or distributed layout of BESSs | Select descriptor. | Enter supporting rationale or notes. |
|  | Land Use (SEPA checklist Section B.8) |  |  |
|  | **Mitigation measures for potential significant impacts** |  |  |
| 1 | When natural resource lands of long-term commercial significance are converted, co-locate natural resource land uses, including agriculture, with onshore wind projects. | Select descriptor. | Enter supporting rationale or notes. |
|  | Aesthetics and Visual Quality (SEPA checklist Section B.10 and B.11) |  |  |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
| 1 | Mulch and spread slash from vegetation removal to cover fresh soil disturbances (preferred) or bury it in previously disturbed areas. Segregate topsoil from cut/fill activities and spread on freshly disturbed areas to reduce color contrast and aid rapid revegetation. Do not leave piles in sensitive viewing areas. | Select descriptor. | Enter supporting rationale or notes. |
| 2 | Minimize signage. Paint or coat reverse sides of signs to reduce color contrasts with the existing landscape. | Select descriptor. | Enter supporting rationale or notes. |
| 3 | Paint structures before or immediately after installation. Use materials and surface treatments that repeat and/or blend with the existing landscape. | Select descriptor. | Enter supporting rationale or notes. |
| 4 | In compliance with FAA requirements, select colors for turbines to reduce visual impact and apply uniformly to tower, nacelle, and rotor, unless gradient or other patterned color schemes are used. | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Use non-reflective materials or non-specular finishes and coatings on facilities to prevent glare. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Mitigation measures for potential significant impacts** |  |  |
| 6 | Consult with permitting agencies to develop visual mitigation strategies, which may include measures identified above and other actions to align with local plans. | Select descriptor. | Enter supporting rationale or notes. |
|  | Recreation (SEPA checklist Section B.12) |  |  |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 1 | Notify recreationists of construction activities by means that would include posting signage, online postings, and press releases. Include a description of the project, expected hours of construction, and potential impacts on the recreational experience. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities combined with agricultural land use* |  |  |
| 2 | Offer agritourism activities where agriculture use is co-located. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Mitigation measures for potential significant impacts** |  |  |
| 3 | Provide new opportunities for recreational activities. Facilities could be designed with biking or hiking trails, wildlife viewing areas, or be open to hunting during portions of the year.   * Engage with land managers and statewide and local interest groups dedicated to conserving natural resources and recreation (for example, trail associations and environmental advocacy groups) regarding mitigation. | Select descriptor. | Enter supporting rationale or notes. |
| 4 | If segmentation of existing recreational facilities (such as a severed trail connection) cannot be avoided, develop an alternate linkage to connect the remaining segments. | Select descriptor. | Enter supporting rationale or notes. |
|  | Historic and Cultural Resources (SEPA checklist Section B.13) |  |  |
|  | **Required measures** |  |  |
| 1 | The significance of impacts to Tribal rights, interests, and resources can be understood only from within the cultural context of an affected Tribe. This will depend on the project and the federally recognized Tribes potentially affected. Accordingly, the impact assessment, determinations of significance or non-significance, and development of mitigation would be done with engagement and in consultation with potentially affected Tribes. | Select descriptor. | Enter supporting rationale or notes. |
| 2 | A developer must develop an Inadvertent Discovery Plan. In the event that unrecorded archaeological resources are identified during project construction or operation, work within 30 meters (100 feet) of the find must be halted and directed away from the discovery until it can be assessed in accordance with steps in the Inadvertent Discovery Plan. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Mitigation measures for potential significant impacts** |  |  |
| 3 | Implement training/educational programs for workers. Incorporate adaptive management protocols in plans to address changes over the life of the project, should they occur. | Select descriptor. | Enter supporting rationale or notes. |
| 4 | If a project requires federal permits or affects federal lands, mitigation measures would be developed in consultation with Tribes under Section 106 of the National Historic Preservation Act to avoid, reduce, or mitigate the potential for adverse impacts on significant cultural resources, if present. Section 106 consultations between the federal agencies, DAHP, affected federally recognized Tribes, and other consulting parties would be required. | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Address impacts to cultural resources by following the best available guidance and strategies developed by federal, Tribal, and state governments, including, but not limited to, compensatory mitigation, formalized ongoing consultation between the state and Tribes to address new concerns and monitor long-term mitigation, and the development and maintenance of new technologies and geospatial analysis that help identify and avoid historic and cultural resources. | Select descriptor. | Enter supporting rationale or notes. |
|  | Transportation (SEPA checklist Section B.14) |  |  |
|  | **Required measures** |  |  |
| 1 | Implement a Transportation Management Plan in coordination with WSDOT and/or the local jurisdiction for traffic management during construction and for access approaches from rights-of-way. Examples of items to address include the following:   * Evaluation of alternative transportation modes, including rail or waterway freight * Routes and haul schedules, including evaluation of the routes for bridges, grade crossings, and potential overhead obstructions * The transport of main assembly cranes, transport of turbine components, and other large pieces of equipment and acceleration, deceleration, and turn lanes on routes with site entrances * Advance notice to adjacent landowners and residents of construction to reduce access disruptions * How lane closures would occur and how evacuation procedures would be followed in the event of an emergency * Minimizing hazards and congestion on local traffic flow * Proximity to rail crossings and coordination with railway operators | Select descriptor. | Enter supporting rationale or notes. |
| 2 | If a Haul Route Agreement is needed, coordinate with the local jurisdiction to identify a qualified third-party engineer who would document road conditions prior to construction and again after construction is complete. Ensure post-construction road restoration to conditions as good or better than pre-construction. | Select descriptor. | Enter supporting rationale or notes. |
| 3 | Ensure that fill brought to a facility site would be suitable for its intended use and delivered in accordance with the Transportation Management Plan. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
| 4 | To minimize impacts on local commuters related to the daily commute of construction workers, include local road improvements, provide multiple site access locations and routes, stagger work schedules for different work functions, shift work hours to facilitate off-peak commuting times, or implement a ridesharing or shuttle program. | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Incorporate inspection and monitoring measures into facility planning to monitor and respond to transportation impacts during construction, operations, and decommissioning. | Select descriptor. | Enter supporting rationale or notes. |
|  | Public Services and Utilities (SEPA checklist Section B.15 and B.16) |  |  |
|  | **Required measures** |  |  |
|  | *Utility-scale onshore wind facilities* |  |  |
| 1 | Conform to all applicable building and fire code requirements pertaining to setback distances for public safety related to turbine failure or blade throw. | Select descriptor. | Enter supporting rationale or notes. |
| 2 | In coordination with relevant authorities, develop plans and procedures to reduce risks specific to the project and regional conditions, including:   * Fire Prevention and Response Plan, where required * Hazardous Materials and Waste Management Plan * SPCC Plan * Site Security Plan * Emergency Response Plan, including medical response procedures | Select descriptor. | Enter supporting rationale or notes. |
| 3 | Implement measures to reduce utility service interruptions and conflicts, including, but not limited to, the following:   * Mark and locate all underground utilities within the construction footprint prior to ground-disturbing construction activities. * Consult and coordinate with utility providers on design standards for utility connections and specify the extent and timing of proposed construction activities. * Ensure advance notification to residents and businesses where service interruptions may occur because of construction. | Select descriptor. | Enter supporting rationale or notes. |
|  | *Facilities with co-located BESS* |  |  |
| 4 | When a battery reaches its end of life, follow Ecology’s guidance for managing universal waste, which includes:   * Sending the battery off site for recycling. Disposal is prohibited. * Storing lithium-ion batteries properly to prevent breakage and release of toxics to the environment. * Labeling waste containers. * Tracking accumulation start dates, as universal waste cannot be stored on site for more than 1 year. * Training employees in proper handling and emergency procedures. * Meeting the large quantity handler requirements if the site accumulates 11,000 pounds or more of universal waste at any time. This will depend on the size of the BESS. | Select descriptor. | Enter supporting rationale or notes. |
| 5 | Incorporate BESS considerations into the project’s Fire Prevention and Response Plan. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Recommended measures for construction, operation, and decommissioning** |  |  |
| 6 | Recycle all components of a facility that have the potential to be used as raw materials in commercial or industrial applications. | Select descriptor. | Enter supporting rationale or notes. |
|  | **Mitigation measures for potential significant impacts** |  |  |
| 7 | Include a turbine blade end-of-life stewardship plan as part of the Decommissioning Plan. The plan would include:   * Expected quantities and types of solid waste the onshore wind energy facility would generate, including but not limited to turbine blade waste * Expected destinations for waste * Specialized procedures for handling, transporting, management, and disposal of potentially hazardous materials | Select descriptor. | Enter supporting rationale or notes. |
| 8 | Coordinate with local fire departments and emergency management departments to provide specialized training and equipment caches during project operations. | Select descriptor. | Enter supporting rationale or notes. |
| 9 | Maintain at least one water truck with sprayers for each 1 to 2 miles of access road for construction during the fire season. Install fire station boxes with shovels, water tank sprayers, and other firefighting equipment at multiple locations along roadways during the fire season. | Select descriptor. | Enter supporting rationale or notes. |
| 10 | Where not already required, develop a site-specific Fire Prevention and Response Plan. | Select descriptor. | Enter supporting rationale or notes. |
| 11 | Coordinate with local emergency responders to fund training and equipment to address fire risks. | Select descriptor. | Enter supporting rationale or notes. |

1. https://apps.ecology.wa.gov/publications/summarypages/2506003.html [↑](#footnote-ref-2)
2. https://app.leg.wa.gov/RCW/default.aspx?cite=43.21C.538 [↑](#footnote-ref-3)
3. https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance [↑](#footnote-ref-4)
4. https://app.leg.wa.gov/WAC/default.aspx?cite=463-60-352 [↑](#footnote-ref-5)