Today’s Topic: Environmental Impacts and Mitigation

Objectives:

• Learn about approaches to evaluate environmental impacts relevant to low-carbon energy projects
• Gain insight into how to proactively consider potential environmental impacts early in project planning so they can be avoided or reduced
• Gain insight into effective strategies for mitigating environmental impacts

Please note this meeting is being recorded; the recording and all slides will be posted to Ecology's project website
Agenda

• State Approaches to Environmental Impacts and Mitigation
• Advisory Board Perspectives on Environmental Impacts and Mitigation
• Advisory Board Discussions: Environmental Impacts
• Break (3:15)
• Advisory Board Discussions: Mitigation
• Public Comment (4:15)
• Wrap up and Next Steps (Adjourn at 4:30)
Participating Effectively via Zoom

• To reduce background noise, please mute yourself when you are not speaking
• Advisory Board members please show your video
• If you have questions or ideas to share during presentations, please chat them to the group, and we can address them during the Q&A and discussion time
• During discussions, please let us know you’d like to jump in by “raising your hand”
Public Participation

- Members of the public will be muted, off video, and off chat until public comment
- Members of the public may observe breakout discussions
- There will be an opportunity for 2-minute public comments at the end of the meeting. At that time, members of the public who would like to comment should raise their hands if they would like time to speak
- You may also submit comments at the e-comment site: [https://sea.ecology.commentinput.com/?id=tiufU](https://sea.ecology.commentinput.com/?id=tiufU)
Proposed Topic Schedule (May-Aug)

- May 11: Improving Consultation and Engagement with Tribes
- June 8: Environmental Impacts and Mitigation
- July 13: Appeals Process; Financial Support and Funding
- August 10: Environmental Justice and Community Engagement
G. Analysis and Mitigation

What are concerns about analytical methods and mitigation for issues related to siting and permitting low-carbon facilities (e.g., habitat, GHG emissions, vessel traffic, land use)?

What would provide more clarity for addressing these issues?
# Environmental Impacts and Mitigation

## Key Issues
- Lack of data, methodologies, and guidance on emerging and/or complex impacts
- Best available science not available or not used
- Long and unpredictable review and permitting processes, especially if new issues emerge
- Site-specificity of impacts and mitigation options (e.g., makes guidance challenging)
- Mitigation of some environmental and cultural impacts is not possible or very difficult
- Lack of local government lead agency capacity and expertise
- Overlapping regulatory and/or management jurisdictions (local, state, federal)
- Lack of consistent impact analysis and mitigation determination across lead agencies

## Key Topics
- Vessel traffic and marine species
- Migratory species (aquatic and terrestrial)
- Endangered species and habitat
- Greenhouse gas emissions
- Cumulative impacts

## Potential Solutions
- Accessible and transparent state-level analysis and methodologies
- Early consultation to identify issues and avoid impacts
- Greater attention to mitigation in planning and pre-application phases
- Greater use/Scope of mitigation banks
Upcoming Meetings

• Presentation at May 17 ATNI meeting
• Tribal Forum being discussed for July
• Public Information Meetings:
  – May 26, 2-4 PM
  – June 16, 2-4 PM
• Distribution of public meetings flyer
Poll Reminder

Low-Carbon Energy Siting Advisory Board Feedback

Thank you for participating in the Low-Carbon Energy Siting Study Advisory Board meetings. We hope that you have found the meetings to be productive, engaging, and insightful.

We want to hear your feedback so we can keep improving our facilitation of the meetings to make them even more productive in the future. Please fill this quick survey and let us know your thoughts (your answers will be anonymous).

- tcbeierle@gmail.com (not shared) Switch account

* Required

Advisory Board meetings have been productive and insightful *

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Strongly Disagree

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Strongly Agree
Quick Ice Breaker

• What summer activity are you looking forward to the most?

Please use Zoom chat to respond
State Approaches to Environmental Impacts and Mitigation
Growth Management Act and SEPA Planning Options Overview

• **Habitat Protection Planning**, Michael Garrity and Michael Ritter, Washington Department of Fish and Wildlife

• **SEPA Elements of the Environment and Mitigation**, Diane Butorac, Ecology
Solar Energy Siting

Michael Garrity
Energy, Water & Major Projects Division Manager
Habitat Program

Michael Ritter
Statewide Technical Lead, Wind & Solar/Area Habitat Biologist (Benton & Franklin Counties)
Habitat Program
WDFW supports WA’s renewable energy goals, which include substantial solar energy resources.

Reducing the magnitude of climate change is good for fish and wildlife.

Deploying significant solar resources can be compatible with protecting wildlife habitat.

Policies and practices can avoid, minimize, and mitigate habitat impacts.
• 42 Solar Projects proposed to date
  • > 54,000 acres
  • > 84 square miles
• 8 Wind Projects
• Solar Projects are:
  • operational (2)
  • construction (1)
  • in permitting (6)
  • proposed/potential (34)

• 93% of projects are in Columbia Plateau ecoregion

• 80% of eastern WA projects have NOT initiated permitting, but many have spent several years in pre-permitting work, which includes working with WDFW

• Wind Projects are:
  • proposed/potential (8)
  • 6 in Columbia Plateau Ecoregion
  • 2 in western WA
Shrubsteppe: a degraded baseline, fragmentation, fires, loss of functions and values

**Only 40% remains** of the 10.4 million acres of eastern Washington’s shrubsteppe habitat remains relative to the mid-1800s (Dobler et al 1996)

**Development continues.** Washington's’ shrubsteppe is attractive for development thanks to abundant sunshine, rural landscapes, transmission infrastructure, expanding agriculture, and a growing demand for carbon-free energy.

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*Figure 4. Historical (top) vs. current (bottom) shrubsteppe and steppe in eastern Washington (53). Green = forest; brown = shrubsteppe/steppe; tan = agriculture; yellow = Columbia Plateau ecoregional boundary.*
WDFW’s Role

Pre-permitting, permitting, Technical Advisory Committee

- Provide Priority Habitat and Species Maps and information

- Provide Technical Expertise and Recommendations to Project and consultants
  - Pre-permitting meetings
    - Survey protocols for habitats and species
    - Best Available Science
    - Document review and comment

- Provide Technical Expertise and Recommendations to Permitting Authority
  - County - SEPA
  - EFSEC - SEPA
Solar projects on shrubsteppe habitat can impact ecological functions and values and can be a significant impact on an increasingly rare ecosystem.

Fencing in thousands of acres can create landscape level impacts to connectivity corridors and impacts to resident, migratory, and special status species such as sage grouse, sharp-tailed grouse, pygmy rabbits, and elk and mule deer.
Siting

• Primarily driven by ability to acquire leases, distance to substation, economics = mitigate impacts to habitats and species. What happened to avoid?

• Impacts to native habitats range from 0 to > 90%

• Impacts to sensitive species can not be mitigated

• Landscape and cumulative impacts of not just solar
  • Agricultural expansion
  • Rural residential growth
The Technology

- Types of solar
  - Reflective, concentrating panels (not PV)
  - Community solar, solar parks (PV)
  - Industrial-scale PV

- What is being proposed in WA?
  - Mostly industrial solar with bi-facial panels on tracking system
WDFW is working to be part of the solution

- Identifying opportunities for low- and no-impact solar generation
  - E.g., placing solar on existing infrastructure and working landscapes

- WDFW is looking to “walk the talk” through adding solar to our own facilities
What WDFW is doing in policy/planning arenas

- Working toward statewide guidance using:
  - Refining internal DFW databases
  - Preparing for siting conversations, including “least conflict solar” forum
  - Hope/except to build on least conflict outcome through guidelines, local programmatic approaches
- Increasing internal capacity
Discussion?
SEPA

State Environmental Policy Act (SEPA)

Process for state and local agencies to identify environmental impacts likely to result from projects and decisions such as:

• Issuing permits for private projects
• Constructing public facilities
• Adopting regulations, policies, or plans
SEPA Environmental Impacts

• Environmental impacts are the effects or consequences of action upon the elements of the environment

• The SEPA environmental checklist describes the elements of the environment to be evaluated during an environmental review
SEPA Elements of the Environment

Natural Environment

- Earth
- Air
- Water
- Plants
- Animals
- Energy and natural resources
SEPA Elements of the Environment

**Built Environment**
- Environmental health
- Land and shoreline use
- Housing
- Aesthetics
- Light and glare

- Recreation
- Historic and cultural preservation
- Transportation
- Public services
- Utilities
Clean Energy Projects

• Impacts for each project would be evaluated specific to the proposal and the location

• The following slides note the areas where concerns have been raised for clean energy projects, but this does not imply other resources are not potentially affected and the list is not all-inclusive
Air

- Air quality, including **greenhouse gases**
- Odor
- Climate
Plants and Animals

- Habitat for and numbers or diversity of species of plants, fish, or other wildlife
- Threatened and endangered species
- Migration routes
Earth

- Geology
- Soils
- Topography
- Unique physical features
- Erosion/enlargement of land area
Water

- Surface water movement/quantity/quality
- Runoff/absorption/stormwater
- Floods
- Groundwater movement/quantity/quality
- Public water supplies
Energy and Natural Resources

• Amount required/rate of use/efficiency
• Source/availability
• Nonrenewable resources
• Conservation and renewable resources
• Scenic resources
Environmental Health

• Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials

• Noise

• Contamination

• Risk of explosion
Land and Shoreline Use

- Land Use
- Agricultural crops
- Forest land
- Critical areas
Land Use

• Aesthetics
• Housing
• Recreation
• Light and glare
Historic and Cultural Preservation

- Tribal historic or cultural resources
- Historic buildings or structures
Transportation

• Transportation systems
• Vehicular traffic
• Waterborne, rail, and air traffic
• Parking
• Movement of people or goods
Public Services and Utilities

• Fire and police protection
• Schools
• Communications
• Utilities
Tribal Resources and Environmental Justice

• SEPA can be used to evaluate Tribal treaty resources, which can vary by the different elements of the environment

• SEPA can be used to evaluate environmental justice concerns if there are potentially disproportionate impacts to vulnerable populations and overburdened communities
Impacts and Mitigation

SEPA lead agencies:

• Evaluate probable impacts to environmental resources
• Determine whether a proposal’s impacts are likely to be significant
• Consider if an applicant can mitigate adverse effects to resources
Mitigation in SEPA

Mitigation means:

- Avoiding
- Minimizing
- Restoring
- Reducing over time
- Compensating
- Monitoring and taking corrective action
Mitigation

• Specific to the probable impacts from a project
• Varies based on the project and site
• Mitigation is proposed during the environmental review process, but not finalized or required until the permitting process
State Environmental Policy Act

Links:

Washington Administrative Code (WAC) 197-11

Revised Code of Washington (RCW) 43.21C
Thank you!
Questions?
Advisory Board Perspectives on Environmental Impacts and Mitigation
Environmental Impacts and Mitigation

• Adam Maxwell, Audubon Washington
• Rebecca Ponzio, Washington Environmental Council
Advisory Board Discussions: Environmental Impacts
Breakout Sessions

• ~30-minute small group discussions followed by report-outs

• Members of the public invited to observe breakouts

• Please do not click “Close Breakout Room” button
Breakout Sessions: Discussion Questions

• What would help developers, Tribes, and stakeholders understand significant environmental impacts early so they can be avoided or reduced?

• How should understanding of cumulative impacts be developed and considered in project decisions?
Advisory Board
Discussions: Mitigation
Mitigation in SEPA

Mitigation means:

• Avoiding
• Minimizing
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• Compensating
• Monitoring and taking corrective action
Breakout Sessions

- ~30-minute small group discussions followed by report-outs
- Members of the public invited to observe breakouts
- Please do not click “Close Breakout Room” button
Breakout Sessions: Discussion Questions

• What are the most valuable and effective ways to mitigate environmental impacts to a level of non-significance?

• How can mitigation strategies be developed most effectively?
Instructions for Public Comment

- Members of the public that are interested in making 2-minute statements are invited to do so.
- Please use Zoom to raise your hand if you would like to make a statement, and you will be unmuted.
- Please introduce yourself.
- To the extent possible, please frame remarks as comments rather than questions.
- Written statements can be sent to the e-comment site: https://sea.ecology.commentinput.com/?id=tiufU
Wrap Up & Next Steps
Wrap Up and Next Steps

- Follow-up from today
- Next Meeting: June 8, Improving Consultation and Engagement with Tribes