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## **POLICY 5408**

**See Also:** PRO 5408

**Approved by:** /S/ Joe Stohr

### **POL-5408 ADDRESSING THE RISKS OF CLIMATE CHANGE**

This policy applies to all WDFW employees and volunteers. However, if policies or procedures are in conflict with or are modified by a bargaining unit agreement, the agreement language shall prevail.

#### **Preamble**

1. The earth's climate is changing, and Washington is experiencing changes consistent with those observed globally. The 2013 State of Knowledge Report on Climate Change in Washington State<sup>i</sup> states that these changes include increasing temperatures, a longer frost-free season, decreased spring snowpack, earlier peak streamflows in many rivers, warming stream temperatures, rising sea levels and changes in ocean chemistry.
2. These shifts are projected to accelerate in coming years, and are expected to fundamentally alter certain ecological processes and create challenges for the survival of imperiled species and the integrity of vulnerable ecosystems, including nearshore and marine habitats, arid lands, freshwater systems and montane habitats.
3. The impacts from climate change also have the potential to significantly affect the performance of infrastructure such as hatcheries, culverts and bridges, roads and boat ramps
4. In order to further WDFW's mission - "to preserve, protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities" - the agency should establish a systematic approach to evaluating risks to climate-sensitive activities and integrating appropriate response into decision-making, project design and implementation.
5. These challenges are best addressed from an ecosystem based management perspective, applying tools from the Conservation Initiative. For example, it may require the agency to re-examine existing strategies for managing its own resources, and how we influence or inform technical assistance related to managing hydropower, water storage, renewable energy sources, and other major infrastructure responses to climate change.
6. Finally, the Agency should not allow the uncertainty inherent in modeling climate change to lead to inaction. We must evaluate risks and make informed decisions

about our investments and the future of fish and wildlife and their habitat in spite of the uncertainty associated with projecting future conditions on the landscape.

### **Purpose and Scope**

The purpose of this policy is to establish aspirational goals and provide guidance for managing risks to agency investments due to current and potential future impacts of climate change. This policy applies to each of the activity areas described in the Policy Section, when those activities are determined to be climate sensitive.

This policy also serves to demonstrate WDFW leadership on the issue of climate change, specifically in terms of supporting the science necessary to understand the risks, proactively responding to those risks, and taking steps to reduce our own carbon footprint and contribution to greenhouse gas emissions.

### **Definitions:**

**Adaptation:** Adjustment in natural or human systems in response to actual or expected climatic changes, which minimizes harm or takes advantage of beneficial opportunities.

**Carbon sequestration:** The removal and storage of carbon from the atmosphere in carbon sinks (such as oceans, forests or soils) through physical or biological processes, such as photosynthesis.

**Climate-sensitive:** Climate-sensitive investments and activities are those that are affected by climatic factors such as temperature and precipitation and extreme weather events, as well as climate-driven processes such as water temperature, streamflow, sea-level rise, ocean acidification and wildfire, and plant community succession.

**Mitigation:** A human intervention to reduce the sources or improve the uptake (sinks) of greenhouse gases.

**Resilience:** the ability of a system to absorb some amount of change and recover quickly, and if necessary, transform itself in order to continue to be able to function and provide essential services.

## **Principles for Climate Smart Conservation<sup>ii</sup>**

These principles are adapted from the “Climate Smart” Conservation guidebook, developed by an expert workgroup of scientists and adaptation practitioners (see endnote). They articulate elements of successful conservation which are particularly relevant from a climate adaptation perspective and represent features of a “climate-ready” organization. WDFW will apply these principles in our day to day work throughout the organization.

### **A. Invest in needed capacity.**

Climate change is a unique challenge that requires WDFW to invest in appropriate training, tools, and science in order to effectively address climate change impacts and associated risks.

### **B. Embrace forward looking goals.**

Our conservation initiatives and goals focus on future, rather than past climatic and ecological conditions; strategies take a long view, but account for near term conservation challenges and needed transition strategies.

### **C. Consider broader landscape context.**

We aim to design on the ground actions in the context of broader geographic scales to account for likely shifts in species distributions, to sustain ecological processes and connectivity and to promote collaboration.

### **D. Manage for interactions of multiple stressors**

Impacts from changing climate are often first felt through their effect on ecological disturbance (wildfire, flooding, drought, insect and disease). We strive to manage ecosystems for resilience to these large scale disturbances and the interactions between them.

### **E. Adopt strategies robust to uncertainty.**

We adopt strategies and actions that provide benefit across a range of possible future conditions to account for uncertainties in future climatic conditions and in ecological and human responses to climate shifts.

### **F. Account for climate influence on project success.**

We consider how foreseeable climate impacts may compromise project success and generally avoid investing in efforts likely to be undermined by climate-related changes, unless part of an intentional strategy.

### **G. Employ agile and informed management.**

We practice continuous learning and dynamic adjustment in our approach to resource management to accommodate uncertainty, take advantage of new knowledge and cope with rapid shifts in climatic, ecological, and socioeconomic conditions.

### **H. Safeguard people and nature.**

We adopt strategies and actions that enhance the capacity of ecosystems to reduce climate vulnerabilities for people as well as wildlife (within the limits of Title 77), and to sustain the benefits natural ecosystems provide to both.

## **POLICY STATEMENT**

### **WDFW will manage its operations and assets so as to better understand, mitigate and adapt to the impacts of climate change.**

Subject to available funds and statutory authority, WDFW will pursue the following aspirational goals in order to assess the risks that climate change poses to climate-sensitive investments in the following activity areas, and modify projects as necessary and feasible to minimize those risks, as indicated in the descriptions

#### **1. Strategic Planning**

**Agency strategic plans and business plans will consider climate change impacts as appropriate when developing and prioritizing strategies and actions.**

#### **2. Resource Planning**

**WDFW will assess climate change impacts in the context of other conservation threats or stressors, where relevant, and include appropriate response actions in all resource planning initiatives and documents.**

Resource Planning covered by this policy includes wildlife area management plans, habitat conservation plans, the State Wildlife Action Plan, species recovery plans, game management plans, hatchery management plans, harvest management plans and salmon recovery initiatives.

### 3. Agency Facilities and Infrastructure

**A. The Agency will address climate impacts related to new infrastructure, and implement siting, design, and construction, where practical, so as to a) avoid or minimize anticipated climate change impacts, and b) reduce greenhouse gas emissions**

**B. The Agency will also assess climate impacts on existing facilities and infrastructure, and, where practical, modify them to a) avoid or minimize anticipated climate-change impacts, and b) reduce greenhouse gas emissions.**

Agency infrastructure includes all buildings, facilities and equipment, roads and bridges, culverts, and boat ramps constructed or maintained by WDFW.

### 4. Land Acquisition

**WDFW will incorporate the following actions into procedures and guidance for implementing the Lands 20/20 process, which guides WDFW in evaluating any additions or changes to its lands portfolio:**

A) WDFW will assess how current habitat values associated with proposed acquisitions may be impacted by climate change over time, and factor that information into Department decisions.

B) WDFW will identify landscape or site-level characteristics that support long-term ecosystem resilience and factor that information into Department decisions.

Land Acquisition includes activities to develop and prioritize proposed new land acquisitions or conservation easements.

### 5. Land Management

**WDFW will assess how climate change will impact land management objectives and factor findings into decisions, including prioritization of activities and project designs. WDFW will integrate climate considerations as appropriate into the Restoration Pathway, the framework used to guide roles and process for restoration projects.**

Land management includes both day-to-day management activities and habitat improvement projects on WDFW-owned lands, or other projects for which WDFW plays a lead role. Culvert replacements on agency lands are considered Infrastructure (rather than habitat improvement or restoration) for the purposes of this policy.

## 6. Technical Assistance

**WDFW will incorporate guidance on minimizing or developing appropriate responses to climate-change impacts to fish and wildlife habitats into technical assistance activities.**

Technical assistance covered by this policy includes written guidance (such as the water crossing guidelines, PHS management recommendations and mitigation guidelines), as well as on-site consultations with private landowners, local governments, tribes and others.

## 7. Grants

**WDFW will require, as appropriate, that grant proposals for funds awarded by WDFW explain how the project will assess and account for climate change impacts that may adversely affect the project's success or potential to impact WDFW infrastructure.**

This policy covers habitat conservation or restoration grant programs controlled by WDFW, including the Estuary and Salmon Restoration Program, and the National Estuary Program restoration grants, as well as other grant programs where WDFW has a lead role.

## 8. Outreach

**A) WDFW will incorporate this policy in its communication with other agencies, organizations and the public, and specifically seek to:**

- (1). inform the public and other agencies about the risks climate change poses to fish and wildlife resources, and
- (2). advocate for addressing the risks of climate change in collaborative investments (i.e., lands, facilities and planning initiatives)

**B) WDFW will proactively advance policy that addresses impacts to fish and wildlife from large-scale efforts to mitigate or adapt to climate change, such as policy related to large-scale climate resiliency infrastructure or large-scale low-carbon energy infrastructure.**

Outreach includes both formal agency outreach such as agency websites, publications and public meetings, as well as outreach conducted as part of collaborative processes with conservation partners and stakeholders.

## 9. Regulatory Processes

**The Agency Climate Change Coordinator will work with a team of program representatives to determine how climate change affects agency regulatory programs and determine if any program modifications are needed to manage risks.**

Regulatory processes include HPA regulatory program and others to be defined.

## 10. WDFW Carbon Footprint

**A) WDFW will assess greenhouse gas (GHG) emissions from agency activities and identify and implement practicable opportunities for reduction.**

**B) WDFW will report periodically to EMT on agency GHG emissions, trends, progress towards achieving statutory goals and opportunities for improvement.**

This applies to greenhouse gasses emitted as a result of any and all WDFW activities, including transportation, energy use in facilities and facility design and siting.

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<sup>i</sup> Climate impacts Group, “*Washington State of Knowledge Report – Climate Change Impacts and Adaptation in Washington State: Technical Summaries for Decision Makers*”, Seattle, WA (2013)

<sup>ii</sup> Stein, B.A., P. Glick, N. Edelson, and A. Staudt [eds]., “Climate Smart Conservation; putting adaptation principles into practice”, 2014, National Wildlife Federation, Washington DC.