Monitoring and Adaptively Managing FWHCAs: Best Practices

- Utilize reports from PHS on the Web. Encourage permit applicants to generate a report for their property early—often before the pre-application meeting. If there is a “hit,” require a report to be generated. Understand the caveats and limitations of the PHS on the Web report.

- Reach out to your WDFW Regional Habitat Biologist if you need help identifying appropriate ways to protect ecosystem functions for fish and wildlife.

- When tracking most FWHCA critical areas (e.g., riparian management zones) within historically forested ecoregions, record the square feet of canopy cover and impervious or semi-pervious surface within delineated critical areas. Ensure no let loss of native canopy cover pre- and post-project and no net increase in impervious or semi-pervious surfaces within delineated critical areas.

- Remotely monitor change within FWHCA critical areas using High Resolution Change Detection. The only requirement is having accurate GIS delineations of FWHCA critical areas.

Requirements and Definitions

GMA (RCW 36.70A) Requirements

- **060(2)** Each county and city shall adopt development regulations that protect critical areas...

- **172(1)** In designating and protecting critical areas under this chapter, counties and cities shall include the best available science in developing policies and development regulations to protect the functions and values of critical areas. In addition, counties and cities shall give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

FWHCA Protection Standard: No Net Loss [WAC 365-196-830](#)

- **(4)** “Although counties and cities may protect critical areas in different ways or may allow some localized impacts to critical areas, or even the potential loss of some critical areas, development regulations must preserve the existing functions and values of critical areas. If development regulations allow harm to critical areas, they must require compensatory mitigation of the harm. Development regulations may not allow a net loss of the functions and values of the ecosystem that includes the impacted or lost critical areas.”

- **(8)** “Local governments may develop and implement alternative means of protecting critical areas from some activities using best management practices or a combination of regulatory and nonregulatory programs. (a) When developing alternative means of protection, counties and cities must assure no net loss of functions and values and must include the best available science.”

FWHCA Protection Standard: Viable Populations [WAC 365-190-130](#)

- **(1)** “Fish and wildlife habitat conservation’ means land management for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created. This does not mean maintaining all individuals of all species at all times, but it does
mean **not degrading or reducing populations or habitats so that they are no longer viable over the long term.**

**FWHCA Minimum Protection Guidelines WAC 360-190-130**

**How to protect:** (1) “Designating [fish and wildlife habitat conservation] areas is an important part of land use planning for appropriate development densities, urban growth area boundaries, open space corridors, and incentive-based land conservation and stewardship programs.”

**What to protect**

1. **Primary Association Areas:** (2) “[FWHCAs] that must be considered for classification and designation include (a) Areas where endangered, threatened, and sensitive species have a primary association…(4)(a)… Counties and cities should identify and classify seasonal ranges and habitat elements where federal and state listed endangered, threatened and sensitive species have a primary association and which, if altered, may reduce the likelihood that the species will persist over the long term. Counties and cities should consult [WDFW’s] current [PHS] information… Additional information is also available from [DNR NHP and Aquatics]…”

2. **Habitats of Local Importance:** (2) “[FWHCAs] that must be considered for classification and designation include…(b) Habitats and species of local importance, as determined locally…(4)(b)…Counties and cities should identify, classify and designate locally important habitats and species. Counties and cities should consult [WDFW’s] current [PHS] information…While these priorities are those of [WDFW], they should be considered by counties and cities as they include the best available science. …Similarly, the [DNR’s NHP] can provide a list of high quality ecological communities and systems and rare plants.”

**Online Resources and Tools**

**WDFW PHS List:** https://wdfw.wa.gov/species-habitats/at-risk/phs/list
- Spreadsheet with county-by-county distribution of PHS species and habitats

**WDFW PHS Maps:** https://wdfw.wa.gov/species-habitats/at-risk/phs/maps;
1. **PHS on the Web**: A project-level screening tool.
2. **Map of WDFW Regional Biologists**: Get contact information for your local biologist.
3. **Custom GIS data** from WDFW (qualified entities can get locations of sensitive species).
4. **Site-Potential Tree Height Map**: Tool for determining the recommended width of the riparian management zone.

**WDFW PHS Management Recommendations:**
- PHS Riparian: Volume 1 (science) and Volume 2 (management recommendations)
- Landscape Planning for Washington’s Wildlife: Managing for Biodiversity in Developing Areas
- Land Use Planning for Salmon, Steelhead and Trout


**USFWS**
1. Information for Planning and Consulting (IPaC) https://ecos.fws.gov/ipac/
2. Bald and Golden Eagle Permit Recommendation Tool
DNR Natural Heritage Program

1. Washington rare plant species list: [www.dnr.wa.gov/NHPlists](http://www.dnr.wa.gov/NHPlists)
2. Field Guide to Rare Plants of Washington: [https://www.dnr.wa.gov/NHPfieldguide](https://www.dnr.wa.gov/NHPfieldguide)
   - NatureServe Descriptions: [https://explorer.natureserve.org](https://explorer.natureserve.org)
   - USNVC Descriptions: [http://usnvc.org/explore-classification](http://usnvc.org/explore-classification)
5. NHP GIS dataset: [https://data-wadnr.opendata.arcgis.com/search?groupIds=266f0b3bd014f5ab2a96ad4ea358a28](https://data-wadnr.opendata.arcgis.com/search?groupIds=266f0b3bd014f5ab2a96ad4ea358a28)
6. NHP Wetland of High Conservation Value map viewer: [www.dnr.wa.gov/NHPwetlandviewer](http://www.dnr.wa.gov/NHPwetlandviewer)

What WDFW Looks for in a Local Government’s CAO Update

CAO Evaluation Form

Just Starting with Monitoring & Adaptive Management of your CAO? Here are some Questions a Local Government can Ask of Itself1

1. *How Robust is our Code with Respect to Identifying and Protecting FWHCAs?*
   a. Does our code give us the authority to require adequate protection (avoiding, minimizing, and offsetting harm) and monitoring of FWHCAs?
   b. Does our code require the identification and delineation of FWHCAs associated with (i) listed species (state and federal), (ii) PHS Priority Species, (iii) habitats and species of local importance, and (iv) habitat for populations of species that may not be viable?

2. *How Prepared are We for Monitoring?*
   a. Can we readily identify (a) permits that impact FWHCAs, (b) permits for which compensatory mitigation is required, and (c) when required mitigation monitoring reports are due?
   b. Before approval, do we have reliable ways to quantify: (i) The degree of harm expected by a proposed project, and (ii) the degree of lift expected by proposed offsets?
   c. After a project is completed, do we have reliable ways to quantify actual harm and lift?

3. *Permit Implementation (our responsibilities): Did We Issue Complete and Fully Compliant Permits?*
   a. Does the permit identify the critical areas and the ecosystem functions to be protected?
   b. Does the permit specify how the applicant can comply with code requirements to (i) identify FWHCAs, (ii) delineate FWHCAs, (iii) protect (avoid, minimize and offset harm to) FWHCAs?
   c. Does the permit clearly state and quantify the work authorized, the impacts authorized, the offsets required, and the monitoring reports required?
   d. If a variance is granted, is the reason stated? Is it clear that no net loss is still required?
   e. Were all the required reports, documents, and information submitted prior to inspection?
   f. Did the inspector have all the needed information at the time of the inspection?

4. *Permit Implementation (permittee’s responsibilities—understanding that it’s our responsibility to ensure they carried out their responsibilities): Did the Permittee Comply with the Permit?*
   a. Did the permittee submit all required reports, documents, and information?

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1 Adapted from Department of Commerce’s *Critical Areas Handbook*, Chapter 7, page 9.
b. Did the permittee accurately identify and delineate FWHCA boundaries to avoid harm?
c. Did the permittee abide by conditions designed to minimize harm?
d. Did the permittee implement the offsets as required?

5. Permit Effectiveness Monitoring: Is the Permit System Working as Intended over time?
   a. Does our permitting system result in FWHCAs that are accurately and consistently identified and delineated?
   b. Does our permitting system result in FWHCA protection measures (e.g., buffers) that are accurately and consistently applied?
   c. Are permit conditions designed to protect FWHCAs maintained over time?

6. Permit Validation Monitoring: Is the Permitting System Bringing About the Intended on-the-ground Outcomes? (Note: this is typically done after implementation and effectiveness monitoring.)
   a. At a jurisdiction scale, have we cumulatively achieved no net loss of ecosystem functions?
   b. Have we maintained at-risk species’ populations (especially for anadromous species)?