

EVALUATING MITIGATION PLANS

Contact: Program Development and Operations Support Effective Date: February/20/2013

References: RCW 90.03.255, RCW 90.03.290, RCW 90.03.380, RCW 90.42.100, RCW 90.44.055, RCW 90.44.060, RCW 90.44.100, RCW 90.46, RCW 90.54.010, RCW 90.54.020, RCW 90.74, WAC 173-152, and Appendix H of the DOH/DOE Joint Review Procedures Memorandum of Understanding.

Purpose: It is Department of Ecology (Ecology) policy that adverse effects to the state’s water resources are best mitigated in-kind, in-time, and in-place. In certain situations, Ecology may accept mitigation that is out-of-kind, out-of-time, or out-of-place. This policy informs water right applicants about the requirements for mitigation plans, and guides Water Resources Program staff in evaluating mitigation plans submitted with applications for new water rights or changes to existing water rights.

Application: This policy describes procedures used to evaluate mitigation plans, the parameters of mitigation proposals, and the types of acceptable mitigation. This policy applies to all mitigation plans related to the approval or denial of water right applications under existing statutes and rules, and does not address the use of permit-exempt wells. Watershed plans that contain provisions for providing water and habitat-related offsets to streamflow depletions have been adopted in some Water Resource Inventory Areas (WRIAs), and in some instances Ecology has incorporated these provisions into instream flow and water management rules. Prospective water users in those WRIAs should consult those WRIA-specific guidance documents and rules.

Definitions2
Background.....3
Authority to Evaluate Mitigation Plans4
Mitigation Plan Requirements5
Evaluation of Mitigation Plans6
Mitigation Strategies.....9
Acceptable Mitigation10
Mitigating Impairment of Existing Water Rights11
Consultations12
Dealing With Uncertainty.....12
State Environmental Policy Act.....14
Permit Provisions.....14

Definitions

“Adaptive management” means a systematic approach for maintaining or improving resource conditions by observation and monitoring, then applying that knowledge to modify water use or mitigation actions.

“Consumptive use” of water is a use that diminishes the water source,¹ and includes such uses as:

- Transpiration by plants and animals.
- Evaporation that occurs after water has been diverted or pumped from the source.
- Conveyance losses from a reasonably efficient distribution system that do not become return flows.
- Water contained within a product or byproduct.

“Impair” or “Impairment” means to interrupt or interfere with the physical availability of water, or degrade the quality of the water, that would:

- 1) Prevent an existing water right holder from fully beneficially using the water right;
- 2) Require an existing groundwater right holder or surface water right holder to make significant modifications in order to beneficially use the water right;
- 3) For an instream flow water right established by rule, cause the flow of the stream to fall below the instream flow more frequently, for a longer duration, or by a greater amount than was previously the case; or
- 4) As provided in WAC 173-150, interrupt or interfere with a groundwater right that is withdrawn from a qualifying withdrawal facility (see WAC 173-150-030(7) and (8), 173-150-040, and 173-150-060).

“In-kind” mitigation or “water-for-water” mitigation refers to offsetting the adverse effects of a new diversion or withdrawal with an equal quantity of suitable quality water, such as through retiring or placing into the Trust Water Rights Program an existing water right with comparable consumptive quantity; discharging reclaimed water; through a stream augmentation scheme; or through cessation of a use.

“In-place” mitigation refers to measures whose benefits occur at the same location as the adverse effects of a proposal.

“In-time” mitigation refers to measures whose benefits closely mimic the quantity and timing of the adverse effects of a proposal on a water source. Staff making determinations on the adequacy of the timing of mitigation must consider the existing management framework of the watershed or basin and the effects of timing on a source.

“Mitigation” means measures that offset adverse effects on a water source to eliminate impairment and/or detriment to the public interest.

“Mitigation plan” is a written document developed by the water right applicant or through joint discussions between a water right applicant and Ecology. A mitigation plan describes the effects of a proposed water use and presents a proposal to alleviate those effects. This plan should also include any assurances needed to ensure the effectiveness of the proposed mitigation.

¹ WAC 173-500-050

“Out-of-kind mitigation” refers to mitigating for a new water use by making water quality or habitat improvements, removing fish barriers, or providing other “non-water” improvements as opposed to physically replacing the water lost through the new proposed use.

“Performance based permits” are those that outline specific goals and include conditions or criteria that must be met in order to maintain permit validity under the statutory criteria.

“Pumped flow augmentation” refers to mitigating for a new water use by augmenting streamflow with groundwater that is pumped from a nearby aquifer.

“Reclaimed water” is water derived in any part from wastewater with a domestic wastewater component that has been adequately and reliably treated, so that it can be used for beneficial purposes. Reclaimed water is not considered wastewater.

“Resource management techniques” are enhancements to the natural environment that make water available or offset the impact of a diversion or withdrawal. Creating, restoring, or enlarging ponds, wetlands, and reservoirs, or artificially recharging aquifers, are examples of resource management techniques. Resource management techniques can be acceptable forms of mitigation.

“Return flow” is water diverted or withdrawn for irrigation or other use that returns to the stream or aquifer from which it is diverted or withdrawn, or to some other stream or aquifer, or that would do so if not intercepted by some obstacle.

“Stormwater” is snow melt and rainfall that runs off surfaces such as rooftops, paved streets, highways, and parking lots.

“Stream Augmentation” refers to increasing the quantity of streamflow above what would otherwise occur.

“Wastewater” means water-carried wastes from residences, buildings, industrial and commercial establishments, or other places, together with such groundwater infiltration and inflow as may be present.

“Water banks” are a mechanism to market the transfer of surface water, groundwater, and water storage entitlements that makes water available for new uses.

Background

Water Resources Program staff frequently evaluate mitigation plans submitted with applications for new water rights or changes to existing water rights. Mitigation plans may allow Ecology to approve applications that otherwise would be denied for failure to meet statutory or permitting requirements. This policy provides guidance on evaluating and implementing mitigation plans, as well as the monitoring and reporting associated with these plans, and clarifies how Ecology reviews mitigation plans in the context of specific statutory permitting requirements.

Mitigation plans can be submitted at the same time that a new water right application or a water right change application is filed. Plans can also be submitted later if the applicant is notified that water is not

available or impairment would cause denial of the application. The Washington Water Code currently allows Ecology to approve, but not to impose mitigation for a new water right or a change to an existing water right unless agreed to or proposed by the applicant.² Water right applicants may submit mitigation proposals to support an application, such as to avoid impairment or when water would otherwise not be available. In both these cases, Ecology would be required to deny the application if an adequate mitigation plan was not proposed by the applicant and approved by Ecology.

In some areas of the state, specific rules apply with respect to the evaluation and consideration of mitigation. Some Water Resource Inventory Areas (WRIAs) have adopted watershed plans that contain provisions for providing water and habitat-related offsets to streamflow depletions. Ecology has incorporated these provisions into instream flow and water management rules (*see* WAC 173-500). Technical guidance to develop mitigation that is proportionate to the adverse effects of a proposed appropriation has been developed in some watersheds. Prospective water users in areas with adopted watershed plans should consult those WRIA-specific guidance documents and rules.

Although this policy addresses mitigation under the four part test for issuing a water right, other situations may require mitigation. For example, under WAC 173-152-050, some applications may receive priority processing if the proposed use will be nonconsumptive and substantially enhance or protect the quality of the natural environment. The nonconsumptive prong of this two-part test must be met with water-for-water mitigation, but the substantial enhancement prong may be met by other means.

Authority to Evaluate Mitigation Plans

Ecology's authority to accept mitigation plans developed in support of water right applications is found in case law and statute³.

- Mitigation plans may be submitted to propose compensatory mitigation within a watershed under RCW 90.74.
- Ecology must consider both the benefits and costs, including environmental effects, of any water impoundment or other resource management technique that is included as a component of the application under RCW 90.03.255 or RCW 90.44.055.
- Facilities that reclaim water under RCW 90.46.130 may be required to provide compensation or otherwise mitigate impairment of any existing water rights downstream from any former freshwater discharge point.
- Under SEPA substantive authority, Ecology may require mitigation to avoid adverse environmental impacts (*see* RCW 43.21C).

² See RCW 90.03.255 and 90.44.055.

³ Case Law includes:

PCHB 05-137 Squaxin Island Tribe v Miller Land & Timber; PCHB 97-146 OHA v. DOE and Battle Mt Gold Company; PCHB NO. 03-155 Burke and Coe v. DOE; and Mountainstar Resort Development LLC; PCHB NO. 01-160 Airport Communities Coalition v. Ecology & Port of Seattle; PCHB NO. 02-037 Pacific Land Partners LLC v. DOE; PCHB 03-030 Yakama Nation v DOE; PCHB 03-155 Mountainstar v DOE; PCHB 96-102 Manke Lumber Co v DOE. Statutes include RCW 90.03.255 and RCW 90.44.055.

- In 2009, Ecology and the Department of Health (DOH) modified the Memorandum of Understanding (MOU) for coordinating review and permitting procedures for public water systems. Appendix H of the MOU outlines how mitigation can be provided that meets public water system reliability criteria.
- Ecology may issue preliminary permits under RCW 90.03.290(2)(a) to require an applicant to provide information on which to base a mitigation plan.
- Mitigation plans may be offered as evidence of a water budget neutral project proposed for priority processing under WAC 173-152-050(2)(g).
- Water rights deposited in the trust water program can be used to mitigate for water resource impacts under RCW 90.42.100(2)(a).

Mitigation Plan Requirements

Mitigation plans must include a structured approach for implementing, monitoring, and maintaining the mitigation for as long as water is withdrawn or diverted. Provisions of the water right authorization will stipulate that it is the water right holder's responsibility to implement, maintain, monitor, and report on the effectiveness of the mitigation proposal.

Mitigation plans must:

- Identify the source(s) of supply for the proposed use and for the proposed mitigation water, if applicable.
- Estimate the consumptive quantity of water that will be depleted by the proposed use from the source requiring mitigation. In the case of a change application, the quantity diverted or withdrawn and used consumptively by the existing use must be established.
- Identify water rights that will be affected by the proposed diversion or withdrawal.
- Be based on a detailed hydrological analysis, which may include an analytical or numerical model.
- Evaluate the reliability of the mitigation proposal, including identification of the sources of uncertainty and how any uncertainties were accounted for.
- Provide a plan for measuring, monitoring, and reporting to ensure compliance with all permit conditions.
- Have contingency measures or an adaptive management plan that will be followed if the mitigation is determined to be inadequate following implementation.
- Identify other permits required to put the mitigation plan into effect.

Evaluation of Mitigation Plans

Ecology evaluates mitigation proposals on a case-by-case basis, relying on the information and analysis provided by the applicant and best professional judgment.

However, other factors must also be considered when deciding if a mitigation plan fully addresses statutory requirements for permitting. For example, new water rights for either surface water or groundwater must meet the four-part test of water availability, beneficial use, public interest (also referred to as being non-detrimental to the public welfare), and impairment⁴.

Ecology considers that water is not available for further appropriations when:

- Water is physically not available, including circumstances where the proposed source does not produce enough water to reliably meet the needs of the proposed beneficial use.
- Water is not legally available at a particular time or place, such as where proposed withdrawals will capture water from surface or groundwater sources that have been closed to new appropriations, or from streams where instream flows are not being met.
- Proposed diversions or withdrawals will cause impairment.

Ecology must deny an application for a new water right when water is not physically available, not legally available, or when a proposed withdrawal or diversion would cause impairment of existing water rights or be detrimental to the public interest. These same tests apply to groundwater changes and transfers, but for surface water changes and transfers the public interest test does not apply. For water right applications that are not exempt from the State Environmental Policy Act (SEPA) process, Ecology may also require mitigation to address identified environmental impacts through SEPA substantive authority. The "State Environmental Policy Act" heading below provides more detail on SEPA and the water right application process.

In certain situations, Ecology may accept mitigation that is out-of-kind, out-of-time, or out-of-place. If an existing water right may be impaired by the proposed new use or change, the owner of the potentially impaired water right can waive claims of impairment or otherwise help shape the form of mitigation. If Ecology determines an application for a water right will not impair another's right, Ecology may issue that water right even if another water right holder does not agree.

The following table indicates the types of mitigation that might be appropriate for given situations.

⁴ RCW 90.03.290(3) The department shall make and file as part of the record in the matter, written findings of fact concerning all things investigated, and if it shall find that there is water available for appropriation for a beneficial use, and the appropriation thereof as proposed in the application will not impair existing rights or be detrimental to the public welfare, it shall issue a permit stating the amount of water to which the applicant shall be entitled and the beneficial use or uses to which it may be applied: PROVIDED, That where the water applied for is to be used for irrigation purposes, it shall become appurtenant only to such land as may be reclaimed thereby to the full extent of the soil for agricultural purposes. But where there is no unappropriated water in the proposed source of supply, or where the proposed use conflicts with existing rights, or threatens to prove detrimental to the public interest, having due regard to the highest feasible development of the use of the waters belonging to the public, it shall be duty of the department to reject such application and to refuse to issue the permit asked for.

Table 1: Types of Mitigation Appropriate for Given Situations

Impairment or Circumstance	Is In-Kind, In-Time, or In-Place Mitigation Appropriate?
Impairment – to an existing Water Right	Generally in-kind, in-time, and in-place mitigation is necessary. Mitigation may not be required if water right holders that may be potentially affected waive claims of impairment of their water rights through an agreement with the project proponent.
Impairment – to a State Instream Flow Water Right	Generally, in-kind, in-time, and in-place mitigation is necessary, but in appropriate circumstances involving a benefit to the public, the state may waive impairment to an instream flow through a determination of an overriding consideration of the public interest (OCPI) determination (<i>see</i> <u>RCW 90.54.020</u>).
Impairment – to a State-Held Trust Water Right	The terms of the trust agreement determine the state’s ability to accept out-of-kind, out-of-time, or out-of-place mitigation for impacts to a trust water right.
Failure of the Public Interest test	Taken as a whole the project must be in the public interest. However, there may be instances where some aspect of a project may be contrary to the public interest, and in those instances Ecology may require mitigation for those effects. There is opportunity for out-of-kind, out-of-time, or out-of-place mitigation to meet the public interest test. In appropriate circumstances involving a benefit to the public, Ecology may make a determination of OCPI.
Failure of the Water Physically or Legally Available tests	When water is not physically and/or legally available, in-kind, in-time, and in-place mitigation must generally be provided. In appropriate circumstances involving a benefit to the public, Ecology may make a determination of OCPI.
To address adverse environmental impacts under SEPA substantive authority	Ecology may require mitigation for identified impacts through SEPA substantive authority.
To qualify as a substantial enhancement or protection of the quality of the natural environment	Some applications may be priority processed if the proposed use will be nonconsumptive and substantially enhance or protect the quality of the natural environment (<i>see</i> <u>WAC 173-152-050(2)(c)</u>). The nonconsumptive prong of this two-part test must be met with water-for-water mitigation, but the substantial enhancement prong may be met by other means.
To achieve Water Budget Neutral status	Some applications may be priority processed if impacts are offset by an equal amount of water (<i>see</i> <u>WAC 173-152-050(2)(g)</u> and <u>WAC 173-152-020(18)</u>).

Factors to consider when evaluating mitigation plans include:

- Effectiveness of the proposed mitigation
 - Will the mitigation completely offset adverse effects?
 - Will water rights provided for mitigation be protected by placing water into the Trust Water Program?
 - Does the circumstance require in-kind mitigation?

- Timing and/or quantities of mitigation
 - Will the timing and/or quantities of mitigation water eliminate impairment of existing water rights and offset adverse effects during a time of year when water is not available from surface or groundwater sources that have been closed to new appropriations, or from streams where instream flows are not being met?
 - Will the mitigation quantities be sufficient and will the mitigation be effective in-time?

- Location of mitigation
 - Will the plan mitigate where the impairment occurs?
 - Will the mitigation be effective in-place?

- Uncertainty and reliability
 - What assumptions and sources of data were used to estimate quantities, locations and timing of adverse effects of the new water use?
 - How representative are any models and assumptions used of actual site conditions?
 - How has uncertainty been accounted for to ensure the mitigation plan is successful?

- Water quality
 - Will the mitigation water be the same or better quality than the water appropriated for the proposed use?
 - Will the mitigation increase the likelihood of adverse water quality effects?

- Sustainability
 - Will mitigation schemes be self-sustaining?
 - If maintenance will be required, will an appropriate management and maintenance plan be in place?
 - Will monitoring plans, performance bonds, or assurances be in place to ensure sustainability of the mitigation?
 - What resources will be available to the applicant to ensure mitigation is maintained?

- Enforceability of the mitigation
 - Will assurances be in place in order for the mitigation to continue during the duration of the proposed water use?
 - What will be the consequences of failure of the mitigation plan?
 - Will agreements, land covenants, or other legal instruments be in place?

- Ecology workload considerations
 - What resources would Ecology require to ensure mitigation is maintained?

- Existing laws, rules, and plans
 - Are there adopted instream flows, closures, or WRIA or Watershed Plans affecting the watershed that need to be considered?
 - Are fish listed under state or federal Endangered Species Act present?
 - Will measures be in place that prohibit water provided for mitigation to be used for any other purpose?

- Review of the mitigation plan by interested parties
 - Have interested parties, such as tribes or other water right holders, had an opportunity to review and provide input on the proposed mitigation plan?
 - Was the mitigation plan adequately described in any required SEPA documentation?

Mitigation Strategies

The following are examples of mitigation strategies that may allow a new permit or change authorization to proceed. In some cases, combinations of these strategies may be necessary.

Water Right Management Strategies

- Transferring a senior water right(s) to offset approval of a junior water right.
- Placing water rights in the State Trust Water Program to offset the proposed use's effects to stream flows or to groundwater levels.
- Using permanent split-season lease agreements with an upstream water right holder to supply instream flows during dry or low flow seasons.
- Acquiring a water right(s) in exchange for approval of another water right.

If a water right or rights are acquired for use as mitigation, the mitigation plan should outline a method of protecting those rights for the duration of the proposed water use. Water rights that are acquired to offset adverse effects or in exchange for approval of a new or changed water right should be placed into the Trust Water Rights Program whenever possible to preserve the priority date and ensure protection. Generally, placing a valid water right used at the same location and at the same time of year (in-kind, in-place, and in-time) into the Trust Water Rights Program is preferred because these measures require active management only to ensure that the water is not taken without authorization. If an acquired water right cannot be protected, it may be necessary to acquire additional rights, develop an adaptive management strategy, or use a combination of other methods.

Not all water rights are equivalent, which may affect their ability to be used as mitigation. The usefulness or suitability of acquired water rights in a mitigation plan can be diminished or eliminated by many factors including:

- If the water right is an undeveloped permit or claim.
- If the water right is subject to a Family Farm Water Act provision.
- If the water right has quantities that are non-additive.
- If the water right is interruptible or has a junior priority date.

Physical Construction Strategies

- Permanent system changes that redistribute water.
- Constructing infiltration pond(s) or subsurface infiltration galleries.
- Putting augmentation facilities in place (such as constructing a pumped flow augmentation project).
- Storing surface water or groundwater for release during low flow periods.
- Removing fish barriers.

Monetary Investment Strategies

- Conservation fund to buy water rights (privately funded).
- Habitat preservation easements.

Acceptable Mitigation

A hierarchy of effectiveness influences Ecology's acceptance of various forms of mitigation. Those forms having the greatest chance of offsetting the effects from the proposed water use require the least amount of justification and analysis. Conversely, those proposals with the greatest uncertainty regarding the methods of analyses, long-term effectiveness, comparable benefits, and so on (identified under the heading "Other potential types of mitigation" below), will require greater amounts of justification and analysis and may not be acceptable.

The following list of mitigation strategies is in approximate order of acceptability (the first three preferred) and must be coupled with Ecology's authority in Table 1:

Preferred types of mitigation:

1. **In-kind, in-time, and in-place** mitigation is always preferred. If the estimated volume or timing or location of the adverse effects is uncertain, the applicant may propose water-for-water mitigation that replaces more than predicted effects. For example, the applicant could propose year-round mitigation when adverse effects may only occur seasonally. Where physical construction is involved (e.g. storage), mitigation of instream effects may be maximized out-of-time in consultation with Ecology and external stakeholders. However, if existing water rights are affected, in-time releases may be required.
2. **Water bank** mitigation and other forms of pooled mitigation may be considered for out-of-priority water use (i.e. senior rights acquired to serve junior rights). This type of mitigation can also be used to offset adverse effects of permit-exempt well use. Due to the basin-wide changes that occur with this type of mitigation, sophisticated analyses and extensive mitigation plans are typically required.
3. **Out-of-time or out-of-place** mitigation can be acceptable if it provides an equal or greater benefit to the environment (e.g. a more critical stream reach will have increased flow) than would be achieved through water-for-water or pooled mitigation. If there is uncertainty in the comparability between historical use and the new use, this uncertainty may be managed by the applicant providing a safety factor whereby more water rights than the proposed water use are acquired, or a development schedule with an adaptive management strategy that allows the applicant to prove that the mitigation works through actual implementation. Out-of-time and out-of-place mitigation plans should also be acceptable to the state Department of Fish and Wildlife (WDFW), and the concerns of other interested parties such as affected tribes or senior water right holders should be taken into account.

Other potential types of mitigation:

4. **Reclaimed water or return flows** (wastewater or storm water) can be used to augment streamflow. The effectiveness of this type of mitigation depends on the artificial maintenance of stream flows and, in the case of reclaimed water, assurances that the reclaimed water will continue to be treated to reclaimed water standards and be of appropriate quality for augmentation purposes. Therefore, it is allowed only where the water budget is well-defined, the risk of failure is very low, and there are sufficient control measures to ensure compliance as long as water is withdrawn or diverted. Wastewater or storm water releases can be considered where properly permitted and where control

measures are in place to protect water quality. Reports of Examination, and water right permits and certificates should contain provisions to ensure water withdrawals stop whenever mitigation flows are unavailable.

5. **Out-of-kind** mitigation could be a “Monetary Investment” strategy. Examples of this sort of mitigation include habitat restoration or enhancement that is protected through a restrictive covenant or easements, for as long as water is withdrawn or diverted. Because of the uncertainty regarding tradeoffs involved in this type of mitigation, the action(s) or investment(s) being offered must represent a clear and substantial benefit to the environment. Ecology should also take into account the potential cumulative impact of additional out-of-kind mitigation proposals affecting the same source. Due to the challenges in evaluating these proposals, Water Resource Program staff should consult with WDFW to seek their agreement. The concerns of other interested parties such as affected tribes or senior water right holders should be taken into account. Use of out-of-kind mitigation likely must be coupled with in-kind mitigation to be acceptable. In appropriate circumstances involving a benefit to the public, Ecology may make a determination of OCPI.
6. **Pumped flow augmentation** as mitigation is least preferred. First, because pumping the augmentation water itself typically also reduces streamflow, it is more difficult to achieve a true gain. Second, as this type of mitigation depends on a very artificial means of stream flow maintenance, and always includes long term maintenance and operation requirements, there are significant risks that this augmentation will not occur for as long as water is withdrawn or diverted. Pumped flow augmentation must not threaten the sustainable yield of the aquifer or impair other water rights, and is more acceptable as a seasonal, rather than continuous form of mitigation. Pumped flow augmentation can be allowed only where the water budget is well defined, the risk of failure is very low, and there are sufficient control measures to ensure compliance for as long as water is withdrawn or diverted. As effects to streamflow are hard to predict and difficult to measure, proposals should include recommendations to augment streamflow in quantities greater than the estimated effects, especially if the effects are very small.

Some mitigation proposals may involve mixing and matching more than one type of mitigation. Out-of-time, out-of-place, or out-of-kind mitigation may be coupled with water-for-water mitigation to avoid detriment to the public interest or perceived effects under substantive authority of the State Environmental Policy Act (SEPA). When combining different types of mitigation, the applicant may need to submit multiple applications for water right permits, applications to change existing water rights, amendments to pending applications, and SEPA studies or documents, as appropriate.

When evaluating mitigation plans it also must be recognized that some Water Resource Inventory Areas (WRIAs) have rules that differ. Specifically, where Instream Resource Protection Plans (IRPPs) have been established, requirements for issuing permits vary. “Out-of-kind” mitigation may not be an option in some basins. Due to the site specific nature of this issue, Ecology staff will need to provide specific guidance to applicants in WRIAs with adopted IRPPs.

Mitigating Impairment of Existing Water Rights

In its findings for a new water right or change authorization, Ecology will make decisions regarding the adequacy of a mitigation plan’s ability to prevent impairment of existing rights. Mitigation may not be required if the owner of the potentially impaired water right waives claims of impairment or otherwise

helps shape the form of mitigation. An applicant may consult directly with potentially affected water right holders and negotiate agreements to secure their consent to a proposed project. If an applicant pursues such negotiations, and an agreement is relied upon for issuance of a new use of water or change of use of water, Ecology will require written confirmation from the affected water right holder.

Consultations

Ecology will not render decisions on the adequacy of proposed mitigation plans until all required consultations with external stakeholders have been completed. Water Resources Program staff will consult with other agencies or entities with permitting authority or relevant expertise. Ecology will also consult with tribes in accordance with established policies and procedures and intergovernmental agreements. While acceptance of a mitigation plan by other entities is not a legal requirement for Ecology, it is preferred.

For proposals that affect instream flows, staff will consult with WDFW and affected parties and tribes. In evaluating mitigation for effects on adopted instream flows, Ecology will consider the:

- Particular instream flow.
- Quantity and location of stream reaches affected.
- Quality of the fish habitat affected.
- Fish species affected.
- Water quality effects.
- Volumes affected.
- Timing and frequency of changes to flow regimens.
- Existing watershed agreements.
- Potential reduction in flow, or losses from use of water reserved for future public water supply.
- Instream biological needs.
- Other factors as appropriate.

For proposals concerning public water systems, Ecology will consult with the Department of Health (DOH) consistent with Appendix H of the MOU between Ecology and DOH, and coordinate permitting decisions as appropriate.

For proposals where reclaimed water is proposed for mitigation purposes, the Water Resources Program will consult internally with Ecology's Water Quality Program, and externally with the generator of the reclaimed water and DOH.

Ecology will document the results of its consultations in writing, typically in its permitting decision and in its SEPA threshold determination.

Dealing With Risk and Uncertainty

Before a mitigation plan can be approved, Ecology must be confident that the plan will meet the stated objectives. Many mitigation proposals will involve some degree of uncertainty. Identifying, assessing, acknowledging, and accounting for uncertainty often will dictate what must be included in a mitigation plan and what qualifies as acceptable mitigation. Ecology must take into account whether the mitigation

actually offsets adverse effects and how easily the plan can be implemented. Ecology may deny mitigation plans that are contrary to the public interest, or that would impair existing water rights, or adversely affect water resources of the state. Where risks and uncertainty are elevated, the applicant may propose higher mitigation ratios (e.g. cessation/retirement of historical water use in an amount that is more than the full measure of the new proposed use).

Water right permitting requires managing for risk to resources and other water rights, and managing for uncertainty in the analysis of those risks and the effectiveness of proposed mitigation. For example, in many areas of the state Endangered Species Act-listed fish species are threatened, and the risks to these resources must be taken into account under the impairment or public interest tests. Various methods of analyses offer different degrees of certainty. For example, many mitigation schemes will be based on conceptual, analytical, or numeric groundwater modeling. Using models to predict the extent and timing of potential adverse effects includes some level of uncertainty. The effectiveness of a given mitigation technique or strategy can also vary. The applicant bears the responsibility of adapting their proposed project to address uncertainty.

In addition, Ecology will consider the:

- Extent and validity of water rights used for mitigation.
- Accuracy of the methods used to measure quantities of water or effects.
- Adequacy of site characterization.
- Completeness and validity of data.
- Long-term effectiveness of the mitigation.
- Concerns expressed by interested parties.
- Adequacy of financial assurances.

Adaptive Management

Due to the uncertainty inherent in mitigating water right impairment, every mitigation plan must identify actions to be taken if monitoring shows failure of any aspect of the mitigation. An adaptive management strategy that allows an applicant to prove that mitigation works during actual implementation may be appropriate when changing conditions could affect a mitigation plan. When designing an adaptive management process, observation and monitoring is essential to guide actions and produce changes to a mitigation plan. Reactions to adaptive management will typically be specific to a proposal, but may include reduction or termination of water use under specific conditions, or consideration of substitute or different mitigation methods. Formal requests to substitute different mitigation methods can be considered, however Ecology is under no obligation to approve a new or modified mitigation plan.

Financial Assurances

The objective of financial assurances is to ensure operational mitigation over the life of the project. If necessary to address uncertainty and risk, the applicant must provide financial assurances to guarantee that the applicant will have the funds to continue the mitigation in the event of a default. Financial assurances are expected to be in place as long as the underlying water right is in use, but may be required for a time frame determined by Ecology based on adaptive management or documented reduced risk(s) over time. Acceptable mechanisms may include trust funds, bonds guaranteeing performance, irrevocable letters of credit, government securities, or other proof of financial responsibility. The applicant must provide an acceptable level of financial assurance, and the water use documents must contain provisions allowing Ecology to terminate the water use if Ecology determines that mitigation is at risk due to failure to maintain financial assurances.

Performance Based Permits

To address uncertainty and risk associated with mitigated water rights, Ecology may issue performance based permits. Such permits can authorize phasing of a project or tie development limits with proof of mitigation implementation. Ecology will not issue a certificate of water right until satisfied that the mitigation is successful.

State Environmental Policy Act

As a general rule, Ecology's decisions on water right permit applications are subject to the SEPA process, though appropriations of one cubic-foot per second or less of surface water, or of 2,250 gallons per minute or less of groundwater, for any purpose, are categorically exempt from a SEPA threshold determination. This SEPA exemption covers the permit and certain activities related to the water diversion and distribution system (*see e.g.* WAC 197-11-800(4)). In addition, the legislature has enacted a substantial exemption for certain irrigation projects diverting 50 cubic feet per second or less (*see* RCW 43.21C.035).

Ecology will consider both the benefits and costs to the existing environment when evaluating an application for a new water right, water right transfer, or change to an existing water right that includes a mitigation plan or a resource management technique.⁵ To address environmental impacts for projects that are not categorically exempt from the SEPA process, Ecology may use SEPA to shape mitigation strategies, and solicit comments on mitigation plans. When not the SEPA lead agency, Ecology can submit comments to the lead agency on the adequacy of a mitigation plan. All agencies with jurisdiction may choose to require mitigation for identified impacts through their SEPA substantive authority.

If an applicant proposes a mitigation plan associated with the water right application following approval of SEPA when Ecology is not lead agency, Ecology will contact the lead agency, provide the new information, and request additional environmental review. Ecology may supplement the SEPA record if new environmental impacts are found and mitigation is proposed to address them. Ecology may use SEPA substantive authority to condition the water right decision based on the SEPA document and any comments received whether or not Ecology is the lead agency for the proposal.

Permit Provisions

Ecology will establish provisions based on the required elements of a mitigation plan and include those provisions in any Report of Examination, permit, certificate, or change authorization. These elements must address all actions necessary to implement, maintain, monitor, and report on the effectiveness of a

⁵ As required in RCW 90.03.255 and RCW 90.44.055, Ecology will "take into consideration the benefits and costs, including environmental effects, of any water impoundment or other resource management technique that is included as a component of the application. The department's consideration shall extend to any increased water supply that results from the impoundment or other resource management technique, including but not limited to any recharge of groundwater that may occur, as a means of making water available or otherwise offsetting the impact of the diversion of surface water (or withdrawal of groundwater-RCW 90.44.055) proposed in the application for the water right (or amendment in the same water resource inventory area-RCW 90.44.055), transfer, or change."

mitigation proposal for as long as water is withdrawn or diverted. These documents must also contain conditions to terminate or suspend a proposed water use if a mitigation plan ends or fails to be effective, or if there is a failure to maintain financial assurances for the mitigation. If a water use is suspended, it may not resume until the mitigation plan can be rendered effective and/or financial assurances are restored.

Every mitigation plan places some burden on Ecology to track, coordinate, and enforce the mitigation to ensure that water is available and existing water rights are not impaired. Therefore, provisions should be tailored to reduce effects on staff resources to the greatest extent possible. Some examples of provisions include:

- Stream flow measurement or groundwater level data coordinated with annual metering data submittals due on January 31st of each year.
- Periodic evaluation of mitigation adequacy and compliance with consumptive use limits for public water systems coordinated with water system plan updates due every six years.
- A structured approach for implementing, maintaining, monitoring, and reporting on the effectiveness of a mitigation proposal for as long as water is withdrawn or diverted.
- One-time performance standards (such as submittal of agreements, covenants, and trust water conveyances) under mitigation plans coordinated with permit maintenance schedules already tracked by Ecology, such as Beginning of Construction, Completion of Construction, and Proof of Appropriation, or Project Completion steps.



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Special Note: These policies and procedures illustrate existing law and encourage consistency to guide water resources program staff in administering laws and regulations. These policies and procedures are not formal administrative regulations adopted through a rule-making process. Therefore, while this policy provides general guidance, it is not intended to supersede the applicable statutes and rules or control in all situations where staff may exercise discretion as to how best to apply the law.

The policies indicate Ecology's practices and interpretations of laws and regulations at the time they are adopted and may not reflect later changes in statute or judicial findings. If you have any questions regarding a policy or procedure, please contact the department.