ARTICLE 5-11 HYDROLOGIC PROTECTION AREAS

Sec. 5-11-1 Establishment of Hydrologic Protection Areas

A. **Generally.** This Section establishes hydrologic protection areas ("HPAs"), which are intended to avoid, minimize, and / or mitigate the impacts of waterfront development on waterbodies, in terms of pollution levels, sedimentation, and impacts to fish and wildlife habitat. All development within HPAs is subject to the standards of this Article.

B. **Hydrologic Protection Areas Established.** Hydrologic Protection Areas are established as provided in Table 5-11-1, *Hydrologic Protection Areas*.

Table 5-11-1
Hydrologic Protection Areas

Type of Waterbody	Hydrologic Protection Area
Lakes	Existing Lots: 25 ft. landward from ordinary high water mark ("OHWM") New Subdivisions: 45 ft. landward from OHWM
Spokane River; Coeur d'Alene River	Existing Lots: 25 ft. landward from ordinary high water mark ("OHWM") New Subdivisions: 45 ft. landward from OHWM
Class I Streams	75 ft. landward from OHWM
Class II Streams	30 ft. landward from OHWM
Drainageways	15 ft. landward from edge of drainageway (need to define edge of drainage way)
Wetlands	50 ft., but may be reduced to 25 ft. as determined by design professional and approved by County based on wetland analysis

Sec. 5-11-2 Applicability of Hydrologic Protection Areas

A. **Generally.** Section 5-11-1, *Establishment of Hydrologic Protection Areas*, establishes hydrologic protection areas ("HPAs") that apply to all properties within unincorporated Kootenai County that include or abut the resource areas listed in Section 5-11-1.

B. **Alternative Standards.** Hydrologic protection areas are not off limits to use and development. This Article provides ~~several alternative~~ standards for development ~~which are intended to create flexibility for property owners to utilize land~~ within the HPA ~~for development and activity~~, while still promoting the objectives of the HPA. ~~Several alternatives~~ Standards are provided for development in each of three different contexts:

1. Within the HPA on existing lots (Section 5-11-4 , *Development within Hydrologic Protection Areas on Existing Lots*);
2. In new subdivisions (Section 5-11-5, *Subdivision of Land that Includes Hydrologic Protection Areas*); and

3. For water-dependent uses (*e.g.*, marinas) (Section 5-11-6, *Water Dependent Uses in Hydrologic Protection Areas*)

Sec. 5-11-3 Preferred Design Approach

The conditions around waterbodies and wetlands within Kootenai County vary considerably. However, the preferred design approach to promote the interrelated objectives of the Hydrologic Protection Area ("HPA") is the protection and / or re-establishment of native vegetation (particularly native riparian forest) and large organic debris within the HPA.

Sec. 5-11-4 Development within Hydrologic Protection Areas on Existing Lots

A. **Generally.**

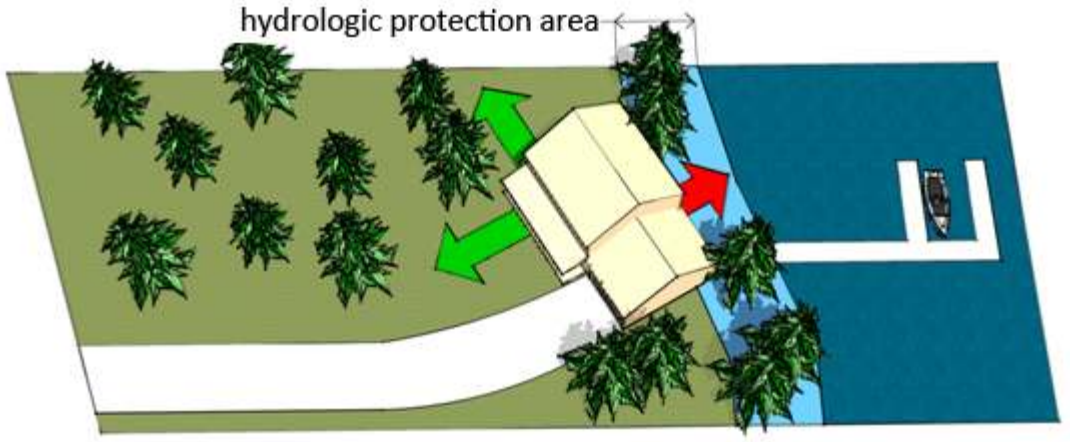
1. The preferred design approach detailed in Section 5-11-3, *Preferred Design Approach*, may not be viable for some existing lots due to their geometry, geology, soil types, or existing ~~disturbed~~ condition.
2. This Section provides ~~several alternative~~ standards for development within the HPA on existing lots.
3. The standards of this Section include ~~three~~ two development options, each of which includes three components:
    a. Thresholds which must be met in order to utilize the development option; and
    b. Substantive standards regarding how the development option applies; and
    c. Additional plans (*e.g.*, landscape plan and stormwater management plan) which are required for each development option.

B. **Option #1.** Option #1 is the implementation of the preferred design approach, which avoids and minimizes development impacts to the HPA and the waterbody.

1. *Thresholds*. Option #1 is allowed for all shoreline development on existing lots.
2. *Standards*.
    a. If an existing principal building is located within or partially within the HPA, it will be considered "conforming" (as opposed to “nonconforming”) for the purposes of this ULUC if it was legally constructed. Such buildings may be expanded:
        i. Horizontally, according to the applicable setback and lot cover standards of the district in which the building is located, provided that the expanded area of the building is not located within the

HPA. *See* Figure 5-11-4A, *Illustrative Horizontal Expansion of Existing Building*.

Figure 5-11-4A
Illustrative Horizontal Expansion of Existing Building



Expansion of the home is allowed in the direction of the green arrows, but not in the direction of the red arrow, which encroaches further into the hydrologic protection area.

ii. Vertically, according to the applicable height standards of the district in which the building is located, provided that existing vegetative cover and BMPs within the HPA are protected from construction impacts.

b. New principal buildings, new accessory buildings that are larger than 100 sf. in floor area, and new accessory structures that cover more than 100 sf. of land (except as provided in subsection B.2.d., below) shall not be constructed or installed within the HPA.

c. Existing accessory buildings within the HPA may be maintained but not expanded. One accessory building that is 100 sf. in floor area or smaller, or one accessory structure that covers 100 sf. or less (in addition to what is allowed pursuant to subsection B.2.d., below) may be constructed or installed within the HPA if there is no existing accessory building or structure (other than structures allowed by subsection B.2.d., below) within the HPA.

d. Walkways which do not exceed six feet in width (including the path surface and supporting structures, such as retaining walls), stairway landings which do not exceed 36 square feet in surface area (including horizontal components of support structures), and trams may be constructed in the HPA, provided that:

ii. Not more than two access types (*e.g.*, a stairway and a tram) or routes (*e.g.*, two separate paths) traverse the HPA;

iii. The disturbance to the ground and vegetative cover is minimized;

iv. Impervious surfaces, if used, are disconnected from other impervious surfaces outside of the HPA (grates may be acceptable for this purpose), such that walkways and tram routes do not become drainage channels for areas outside of the HPA; and

v. The design minimizes erosion and sedimentation, or runoff from the walkway, stairway, stairway landing, and / or tram is directed to BMPs before it reaches the waterbody.

e. Fences are allowed within the HPA in locations that abut public access easements to the shoreline.

f. Retaining walls are not allowed, except as necessary to implement subsection B.2.d., above.

3. *Additional Plans.* No additional plans are required for the exercise of Option #1.

C. **Option #2.** Option #2 involves development activity within the HPA that substitutes other BMPs to mitigate impacts in lieu of the preferred design approach ~~active enhancement of the function of the HPA and the augmentation of buffers outside of the HPA~~.

1. *Thresholds*. Option 2 is allowed if any one or more of the following conditions exist:

a. The property is an existing buildable lot that is developed with an existing principal building that is located within the HPA.

b. The property is an existing buildable lot that does not have sufficient width and / or lot depth to create a building envelope that is at least 30 feet in depth (front building line to rear building line), and either 50 feet in width or 15 feet less than the lot width (whichever is less), after application of:

i. The setback requirements of the district in which it is located (including application of flexible standards in the EN district); and

ii. The HPA requirements of Section 5-11-1, *Establishment of Hydrologic Protection Areas*.

c. The property is an existing buildable lot with topographic, geologic, and / or soil constraints that favor development within the HPA because:

i. Construction outside of the HPA would create more significant erosion or instability problems than construction within the HPA; and / or

ii. Construction outside of the HPA would involve substantially more cut and fill than construction within the HPA, due to topographic or soil conditions.

d. ~~Unusual c~~ Conditions of the property (e.g., a combination of its geometry, topography, geology, prior disturbances, etc.) materially exacerbate conditions with respect to sediment, nutrient, and / or pollutant loading, or such conditions of the property result in the HPA providing substandard or ineffective water quality benefits and development within the HPA will allow for the implementation of BMPs that will create a material net benefit with respect to water quality upon completion of the proposed construction.

2. *Standards*. The following standards apply:

a. Shoreline stabilization and revegetation of the HPA with native species are allowed and encouraged (site disturbances may be subject to the standards of Article 5-2, *Site Disturbances*).

b. New principal buildings, new accessory buildings, and expansions of existing buildings are allowed within the HPA, provided that:

i. The lot cover limitations of the district (*see, e.g.*, Section 3-2-2, *General Development Standards for EN Districts*) are not exceeded (application of Section 3-2-9, *Alternative Standards for Lot Coverage*, is not allowed)

ii. Not more than 7.5 percent of the maximum allowed area of lot cover for the lot is located within the HPA;

iii. The width of the HPA is reduced by not more than 60 percent of the width set out in Section 5-11-1, *Establishment of Hydrologic Protection Areas*;

iv. All other areas within the HPA, except for allowed fences, walkways, stairway landings, trams, and existing beaches (if present) are planted and maintained with native trees and groundcovers typical of a riparian forest ecosystem; and

v. Appropriate best management practices ("BMPs") are selected and installed which will detain and treat the first ½ inch of runoff from disturbed areas of the site before it reaches the waterbody.

c. Walkways which do not exceed six feet in width (including the path surface and supporting structures, such as retaining walls), stairway landings which do not exceed 36 square feet in surface area (including

horizontal components of support structures), and trams may be constructed in the HPA, provided that:

i. Not more than two access types (*e.g.*, a stairway and a tram) or routes (*e.g.*, two separate paths) traverse the HPA;

ii. The disturbance to the ground and vegetative cover is minimized;

iii. Impervious surfaces, if used, are disconnected from other impervious surfaces outside of the HPA (grates may be acceptable for this purpose), such that walkways and tram routes do not become drainage channels for areas outside of the HPA; and

iv. The design minimizes erosion and sedimentation, or runoff from the walkway, stairway, stairway landing, and / or tram is directed to BMPs before it reaches the waterbody.

d. Fences are allowed within the HPA in locations that abut public access easements to the shoreline.

e. Retaining walls are ~~not~~ allowed, ~~except~~ as necessary to implement the stormwater management plan and landscape plan required in subsection C.3. below. ~~C.2.b.v. and C.2.c., above.~~

f. Existing accessory buildings within the HPA may be maintained but not expanded. One accessory building that is 100 sf. in floor area or smaller, or one accessory structure that covers 100 sf. or less (in addition to what is allowed pursuant to subsection B.2.d., below) may be constructed or installed within the HPA if there is no existing accessory building or structure (other than structures allowed by subsection B.2.d., below) within the HPA.

3. *Additional Plans*. A stormwater management plan and landscape plan are required. In addition to the general requirements for such plans, the plans shall include documentation regarding how the property meets the required thresholds, how the design of the development improves the stormwater detention and treatment function of the HPA, and how the landscape and stormwater BMPs will be monitored and maintained to ensure their long-term effectiveness.

~~D.**Option #3.** Option #3 involves the installation of structural best management practices to offset the impacts of development within the HPA.~~

~~1. *Thresholds.* Option 3 is allowed if any one or more of the following conditions exist:~~

~~a.The property is an existing buildable lot that is developed with an existing principal building that is located within the HPA, and the application of~~

Option #2 is not practical or is likely to produce a lesser contribution to water quality improvement than the application of Option #3.

b.The property is a vacant existing buildable lot that:

i.Does not have sufficient width and / or lot depth to create a building envelope that is at least 30 feet in depth (front building line to rear building line), and either 50 feet in width or 15 feet less than the lot width (whichever is less), after application of:

a. The setback requirements of the district in which it is located (including application of flexible standards in the EN district); and

b. The HPA requirements of Section 5-11-1, *Establishment of Hydrologic Protection Areas*; and

ii.The application of Option #2 is not practical or is likely to produce a lesser contribution to water quality improvement than the application of Option #3.

c.The property is an existing buildable lot on which:

i.The application of Option #2 is not practical or is likely to produce a lesser contribution to water quality improvement than the application of Option #3; and

ii.Topographic, geologic, and / or soil constraints favor development within the HPA because either:

a. Construction outside of the HPA would create more significant erosion or instability problems than construction within the HPA; or

b. Construction outside of the HPA would involve substantially more cut and fill than construction within the HPA, due to topographic or soil conditions.

d.Unusual conditions of the property (e.g., a combination of its geometry, topography, geology, prior disturbances, etc.) materially exacerbate conditions with respect to sediment, nutrient, and / or pollutant loading, and development within the HPA will allow for the implementation of structural BMPs within the HPA which are demonstrated to be the optimal way to create a material net benefit with respect to water quality upon completion of the proposed construction.

2. *Standards.* The following standards apply:

~~a.Shoreline stabilization and revegetation of the HPA with native species are allowed and encouraged (site disturbances may be subject to the standards of Article 5-2, *Site Disturbances*)~~

~~b.New principal buildings, new accessory buildings, and expansions of existing buildings are allowed within the HPA, provided that:~~

~~i.The lot cover limitations of the district (*see, e.g.*, Section 3-2-2, *General Development Standards for EN Districts*) are not exceeded (application of Section 3-2-9, *Alternative Standards for Lot Coverage*, is not allowed);~~

~~ii.Appropriate best management practices ("BMPs") are selected and installed which will detain and treat the first 1 inch of runoff from disturbed areas of the site before it reaches the waterbody.~~

~~3. *Additional Plans*. A stormwater management plan and landscape plan are required. In addition to the general requirements for such plans, the plans shall include documentation regarding how the property meets the required thresholds, how the design of the development improves the stormwater detention and treatment function of the HPA, and how the landscape and stormwater BMPs will be monitored and maintained to ensure their long-term effectiveness.~~

Sec. 5-11-5 Subdivision of Land that Includes Hydrologic Protection Areas

Comment: This section not reviewed by CLPOA. The lack of comment should not be considered an endorsement of its content.

A. **Generally.** Subdivisions that are created after the effective date shall be designed according to the standards of this Section if the parcel proposed for development includes one or more hydrologic protection areas ("HPAs").

B. **Option #1.** Option #1 allows new buildable lots to be created that extend into or across the new subdivision HPA.

1. *Thresholds*. No new buildable lots shall be created which extend into or across the new subdivision HPA unless the areas of the lot that are graded for development (*e.g.*, for access and building construction) have a slope of less than 25 percent prior to grading.

2. *Standards*. New buildable lots that extend into or across the HPA pursuant to this option may be developed as follows:

a. New principal buildings, and new accessory buildings that are larger than 100 sf. in floor area, shall not be constructed or installed within the HPA.

b. One accessory building that is 100 sf. in floor area or smaller may be constructed or installed within the HPA.

c. Walkways and stairways which do not exceed six feet in width (including the path surface and supporting structures, such as retaining walls), stairway landings which do not exceed 36 square feet in surface area (including horizontal components of support structures), and trams may be constructed in the HPA, provided that:

i. Not more than two access types (*e.g.*, a stairway and a tram) or routes (*e.g.*, two separate paths) traverse the HPA;

ii. The disturbance to the ground and vegetative cover is minimized;

iii. Impervious surfaces, if used, are disconnected from other impervious surfaces outside of the HPA (grates may be acceptable for this purpose), such that walkways and tram routes do not become drainage channels for areas outside of the HPA; and

iv. The design minimizes erosion and sedimentation, or runoff from the walkway, stairway, stairway landing, and / or tram is directed to BMPs before it reaches the waterbody.

d. Fences are allowed within the HPA.

e. Retaining walls are not allowed, except as necessary to implement subsection B.2.c., above.

3. *Additional Plans*. No additional plans are required for the exercise of Option #1.

C. **Option #2.** Option #2 does not allow buildable lots to be created that extend into or across the subdivision HPA.

1. *Thresholds*. No buildable lots are located within the HPA (for example, because the condition for the application of Option #1 cannot be met due to topographic constraints).

2. *Standards*.

a. An area with a minimum width of the subdivision HPA shall be shown as a common vegetated / resource element tract on the subdivision plat.

b. Walkways and stairways which do not exceed six feet in width (including the path surface and supporting structures, such as retaining walls), stairway landings which do not exceed eight square feet in any dimension (including horizontal components of support structures), and trams may be constructed in the HPA, provided that:

i. Not more than one access point is provided per 600 linear feet of shoreline;

ii. The disturbance to the ground and vegetative cover is minimized;

iii. Impervious surfaces, if used, are disconnected from other impervious surfaces outside of the HPA (grates may be acceptable for this purpose), such that walkways and tram routes do not become drainage channels for areas outside of the HPA; and

iv. The design minimizes erosion and sedimentation, or runoff from the walkway, stairway, stairway landing, and / or tram is directed to BMPs before it reaches the waterbody.

c. One accessory building that is equal to or less than 100 sf. in floor area may be located within the HPA common vegetated / resource element tract for minor subdivisions.

d. One accessory building that is equal to or less than 200 sf. in floor area may be located within the HPA common vegetated / resource element tract for major subdivisions.

3. *Additional Plans.* A stewardship plan is required for the subdivision, which must address the long-term maintenance of landscaping and structures within the common vegetated / resource element tract within the HPA. *See* Sec. 7-6-4, *Stewardship Plans*.

Sec. 5-11-6 Water Dependent Uses in Hydrologic Protection Areas

A. **Generally.** Marinas and other comparable water-dependent uses are permitted within Hydrologic Protection Areas ("HPAs") according to the standards of this Section.

B. **Best Management Practices.** Runoff from paved surfaces landward of the shoreline shall be directed to best management practices ("BMPs") for detention and treatment prior to discharge into the waterbody. The detention and treatment system should route the runoff through more than one BMP, and treatment BMPs shall be located outside of areas of special flood hazard whenever feasible.

C. **Stabilization of Shorelines.**

1. Shorelines which are subject to wave action shall be stabilized with vegetation. Structural stabilization may be used in areas where vegetation cannot be established, or will be insufficient to stabilize the shoreline given the degree of anticipated or actual wave action. Shoreline stabilization activities conducted below the high water mark are regulated by other agencies and are not within the purview of this Code.

2. Gabions, riprap, and sloping revetments shall be used instead of bulkheads where feasible.

3. New bulkheads shall not be installed if they will accelerate scouring or downstream erosion. However, existing marinas which utilize bulkheads may repair, replace, redesign, and / or expand the use of bulkheads within the marina, provided that the extent of downstream scouring or erosion is not increased.

D. **Location of Water Access.** The location of the access to the water shall be selected and designed to minimize adverse impacts to the waterbody from erosion or pollutants. This may include disconnecting impervious access routes from impervious surfaces outside of the HPA and diverting runoff to BMPs.

E. **Boat Maintenance and Fish Cleaning Areas.**

1. If areas are provided for boat maintenance, they shall be located outside of areas of special flood hazard, and, if possible, outside of the HPA. Runoff from boat maintenance areas shall be directed to BMPs prior to discharge into a water body.
2. Fish cleaning areas shall be provided and posted. Such areas shall include containers for disposal of fish waste.

Sec. 5-11-7 Construction and Maintenance Activities in Hydrologic Protection Areas

A. **Generally.** Prior to, during, and after construction operations, stream beds and streamside vegetation and/or existing landforms and physical characteristics shall be protected and maintained in their natural (or pre-construction) state (except in instances of ecological restoration or as permitted in Sec. 5-11-4) in order to protect property, maintain water quality and aquatic habitat within hydrologic protection areas. As used in this subsection, the phrase "physical characteristics" does not include structures which are approved for construction, repair, fortification, modification, or removal.

B. **Limitations on Use of Mechanical Earth-Moving Equipment.** In general, heavy construction equipment is not allowed in the hydrologic protection area. However, the following uses of heavy construction equipment in hydrologic protection areas are allowed:

1. Without a site disturbance permit, as follows:

   a. Where the intrusion into the hydrologic protection area is restricted to a boom or other comparable device, and the machine is not used for grading or excavation (*e.g.*, the extension of the arm of a grapple skidder or a backhoe bucket into the hydrologic protection area to facilitate debris removal).

   b. For the purpose of removing critically damaged structures or debris created or deposited by wildfire, flooding, or other natural disaster.

   c. During firefighting or other emergency operations, as necessary to protect life and property.

2. With a site disturbance permit, as follows:

   a. At identified and permitted stream or river crossings.

   b. For the purposes of constructing permitted buildings and structures.

   c. In ~~highly unusual~~ circumstances where:

      i. It is demonstrated by clear and convincing evidence submitted by a design professional that:

         a. Such activity is necessary because ~~due to the highly unusual circumstances,~~ there are no other reasonable alternatives;

         b. There will be no long-term negative effects to the site or surrounding area or bodies of water, and;

         c. The re-establishment of the buffers or implementation of BMPs within the hydrologic protection area will provide equal or improved nutrient and sediment removal compared to its preconstruction state~~; and~~.

         d. ~~The end result will be consistent with the purposes of this Chapter; and~~ *Comment: Statement conflicts with express language in the Purpose section of the Chapter.*

      ii. A site disturbance plan is provided specifically for the re-establishment of the affected hydrologic protection area buffers and / or implementation of BMPs.

   d. For the purposes of maintenance, repair and / or replacement of existing structures or improvements.

   e. For the purposes of remediating erosion, structural integrity, or bank stabilization problems, where:

      i. It is demonstrated by a design professional that:

         a. Such activity is necessary because there are no other reasonable alternatives;

         b. There will be no long-term negative effects to the site or surrounding area or bodies of water;

         c. The re-establishment of the buffers or implementation of BMPs within the hydrologic protection area will provide equal or improved nutrient and sediment removal compared to its preconstruction state;

         d. The improvement/work proposed is the minimum necessary in order to control or remediate the erosion, structural integrity, or bank stabilization problem or complete the necessary maintenance, repair or replacement, and;

e. The problem which the improvement / work proposed is intended to remedy is not the result of any unpermitted actions of the current or previous property owners occurring on or after January 1, 1997, or if it is, appropriate corrective action must be identified by the design professional and included as part of the work. ~~such actions are corrected, including removal of unpermitted improvements and stabilization / revegetation of the site of those improvements; and~~ The impact on water quality of removal of such improvements and other water quality considerations shall be paramount in determining whether any such improvements should be removed in each specific circumstance.

f. ~~The end result will be consistent with the purposes of this Chapter; and~~ *Comment: Statement conflicts with express language in the Purpose section of the Chapter.*

ii. A site disturbance plan is provided specifically for the re-establishment of hydrologic protection area buffers ~~the affected stream protection buffer or the shoreline protection buffer~~ and / or implementation of BMPs.; and

iii. ~~Jurisdictional agencies have been provided the opportunity to review and comment.~~ *Comment: Is covered by subsection D. below.*

f. For the improvement of existing water or shoreline access to Americans with Disabilities Act ("ADA") accessibility standards, where:

i. Compliance with such standards is required by law or is necessary to provide a reasonable accommodation to the property owner; and

ii. The extent of the disturbance is no more than necessary to construct the minimum required improvement.

g. For the purpose of implementing an approved wildfire mitigation plan, provided that it is demonstrated that the use of hand-held tools for such purposes is not practicable, and that soils will be restored after thinning activities are completed.

h. For the approved construction, maintenance, or improvement of public boat ramps or public or approved public or private marina or dock facilities, including for the construction or installation of BMPs to control runoff of sediments, nutrients, petrochemicals and other pollutants associated with such facilities.

i. For the purpose of carrying out ecological remediation or restoration activities (*e.g.*, hydrological reconnection of riparian areas to waterbodies, dechannelization, habitat restoration, etc.) that are approved (or required) by the United States, the State of Idaho, or Kootenai County.

C. **Timing and Extent of Disturbances.**

1. When disturbance is necessary within hydrologic protection areas, it shall be done in such a manner as to minimize lake shore and / or river bank vegetation and / or channel disturbance. The extent of such disturbance shall be clearly indicated in the proposed and approved plans.

2. For non-emergency work, the Director may limit the dates during which major construction may occur, in order to reduce the impacts of construction on the abutting water bodies due to rainfall and / or high water flow.

3. The Director does not have authority over the work of State and Federal agencies.

D. **Additional Technical Review and Referral.**

1. Prior to authorizing work within a hydrologic protection area, the Director may consult with the Idaho Department of Fish and Game, or other agency or agencies as the Director considers appropriate, in order to determine whether the timing or nature of the project will have an adverse impact on the environment.

2. The Director may also request an expert opinion from a design professional regarding any permitted or proposed work within a hydrologic protection area at any time. The cost of such a second opinion shall be borne by the County.

E. **Stream and River Crossings.**

1. When streams or rivers must be crossed, adequate structures to carry water flow shall be installed. Crossings and their approaches shall be at right angles to the channel or otherwise configured to minimize the disturbance within the ~~stream protection buffer or shoreline protection buffer.~~ hydrologic protection area.

2. Construction of hydraulic structures in river channels shall conform to the requirements of I.C. § 42-3801, *et seq*. ("Stream Channel Protection Act").

3. All temporary crossings shall be removed immediately after use.

F. **Protection of Trees and Vegetation.**

1. Shading, wildlife cover, and water filtering effects of vegetation shall be maintained along all stream protection buffers and shoreline protection buffers adjacent to lakes, rivers and streams as outlined in the Idaho Forest Practices Act ("IFPA"), I.C. § 38-1301, *et seq.*, and the Rules Pertaining to the Idaho Forest Practices Act, IDAPA 20.02.01 ("IFPA Rules").

2. Large organic debris ("LOD") shall be maintained along all stream protection buffers (but not shoreline protection buffers) as outlined in the IFPA and the IFPA Rules.