



# MEMORANDUM

## Oregon Department of Fish and Wildlife

**DATE:** April 4, 2012

**TO:** Oregon Fish and Wildlife Commission

**FROM:** Mike Gray, District Fish Biologist, Charleston Field Office  
Greg Apke, Fish Passage Coordinator, Salem HQ

**SUBJECT:** Johnson Creek Dam Fish Passage Waiver Application—Benefit Analysis

The Johnson Creek Sub-District of the Bandon Cranberry Water Control District (“Applicants”) first submitted a Fish Passage Waiver Application for the proposed Johnson Creek Dam (JCD) on June 14, 2007. Due to a deficient mitigation benefit, that application was withdrawn. Applicants developed another mitigation package and re-submitted the current Fish Passage Waiver Application on April 29, 2011. Following is the present benefit analysis prepared by staff:

### **Johnson Creek – Waiver Site**

#### *Habitat*

Johnson Creek is a direct Pacific Ocean tributary with its mouth immediately south of the City of Bandon, Oregon (Figure 1). Applicants first proposed a dam in the early 1990’s, to improve water storage to be used in growing and harvesting cranberries. Later, water storage for municipal use by the City of Bandon was also added to the proposal. The proposed dam site is located approximately 2.6 miles upstream of Highway 101 and over 3.5 miles above the confluence with the Pacific Ocean, in the NW corner of section 9, Township 29 S, Range 4 W (W.M.). ODFW has estimated that 10 to 15% of the watershed is upstream of the proposed dam site. The natural fish habitat upstream of the proposed dam site is estimated to be 1.07 miles of mainstem and 0.7 miles of tributary (unnamed) habitat, for a total of 1.77 miles.

Johnson Creek’s geology and substrates are typical of short, direct-ocean tributaries in this area of the Oregon coast. These streams have soft, sandstone-type geologies predominantly composed of sand and fine sediments, with limited gravel. The ODFW Aquatic Inventory survey conducted in 2003 on a 585-meter reach upstream of the Highway 101 Bridge (Figure 1) noted substrate which was 68% sand and 30% silt/organics. Gravel deposits are extremely limited in the stream below the proposed dam site, and tend to be small pea gravels where found. Coastal cutthroat trout persist in streams of this habitat type, however suitable spawning gravels for larger anadromous salmonids (e.g. coho salmon or winter steelhead) are lacking in the lower basin below the proposed dam site. A combination of the local geology and land use activities contribute to the excessive fine sediments and a lack of exposed gravels. In addition, existing mainstem barriers preclude the recruitment of gravels to the lower reaches of Johnson Creek.

The Aquatic Inventory survey also noted a low volume of large wood in the lower basin. Riparian trees were primarily small hardwoods in the 3-15 cm (1.5 to 6") diameter category. Pools were sparse, with a distance of 16.2 channel widths between pools. Only two pools with depth greater than 1 meter were identified in this reach. Evidence of beaver activity was observed.

Observations of a half-mile reach upstream of the proposed dam site revealed substrates with larger gravels (grape to baseball size) and less silt/sand than in the lower basin. Gravels suitable for coho salmon spawning were present. We estimate that there is approximately 1.0 mile of coho habitat above the proposed JCD, although a complete survey has not been done. Riparian trees in this upper reach were a mix of hardwoods and conifers. Moderate levels of large wood were present in the active channel. Beaver dams were observed in this reach. The watershed character in this reach was forested, with a conifer overstory and deciduous tree/shrub understory. This portion of the Johnson Creek watershed has some logged units, but generally less disturbance in the riparian corridor and uplands than lower in the watershed. In 2002, a preliminary categorization by District staff of the habitat from the proposed dam site to a point approximately ¼ to ½ mile upstream placed this habitat in "Category 4" under ODFW's Habitat Mitigation Policy (OAR 635, Division 415). The basis for this assessment was a determination that the habitat was "Important", but not limited on a physiographic basis, nor did it fit the definitions of "Irreplaceable", "Essential", or "Limited" (necessary for Categories 1, 2, or 3).

The unnamed tributary enters Johnson Creek a short distance above the JCD site. Just above this confluence, on the tributary is the culvert of a remnant road bed. This culvert is very steep and impassable, matching the stream gradient in the lower end of the tributary. The riparian habitat along the tributary is a mix of alder and blackberry riparian cover in the lower end to relatively open/disturbed ground in the upper end, having predominately invasives like gorse and blackberry. Small resident cutthroat were observed in the tributary above the steep culvert, but the stream width was small (< 3 feet) and pool habitat was marginal.

#### *Artificial Obstructions*

Fish passage impediments exist in Johnson Creek (Figure 2). Beginning at the mouth of Johnson Creek at the Pacific Ocean, there is a round metal culvert under Beach Loop Drive that is not a barrier to fish passage. Extreme high tides and storm surges back water from the ocean through this culvert. Passage has been known to be partially blocked at this culvert in the past, when driftwood from the Pacific Ocean has been deposited in the culvert outlet. A trash rack was constructed a few years ago, to reduce plugging by driftwood.

Continuing upstream, a concrete box culvert passes under Highway 101; this culvert is also not a barrier to fish passage. The next culvert upstream, at Chandler Road is not identified as a barrier to fish passage. The culvert at Rosa Road, has a 3-foot vertical drop at the outlet and is a partial to full barrier at most flows. Upstream of the Rosa Road crossing, a water storage dam for cranberry irrigation ("Stolz Dam") is located approximately 0.38 miles downstream of the proposed dam site. Stolz Dam has a spill-tube culvert with an estimated 8 to 10-foot vertical drop, creating a fish passage barrier (Figure 3). This type of dam/spill tube culvert arrangement is very prevalent with cranberry operations in this part of the State. The next upstream barrier, also a water storage dam for cranberry irrigation ("Evans Dam" or "Bauge Dam", aka "Pflugstad Dam"), is located approximately 0.25 miles upstream of the proposed dam site, and has this same spill-tube type configuration. Evans Dam would be inundated by the reservoir impounded if the JCD is installed.

There are also artificial obstructions on the tributaries of Johnson Creek, although the first is not pertinent to the Fish Passage Waiver mitigation analysis. On “North Fork” Johnson Creek (local name, also listed as “Rosa Creek” on some maps) there is a culvert under Chandler Road, which is a partial barrier. This tributary has its confluence with Johnson Creek approx. 0.57 miles below Rosa Road. In addition to the North Fork Johnson Creek, there is another tributary that joins Johnson Creek just upstream of the proposed dam. There is a high-gradient culvert near its mouth which is a complete barrier; this site would also be inundated by the JCD reservoir, and is thus considered in this analysis.

#### *Native Migratory Fish*

Native migratory fish (NMF) presently or historically occurring in Johnson Creek are coastal cutthroat trout, coho salmon, and Pacific lamprey (Table 1). Winter steelhead were likely to have been present historically, but have not been observed in recent times nor do anecdotal accounts refer to steelhead. Surveys conducted since 1990 have recorded cutthroat trout, coho fry, cottid species (sculpins), threespine stickleback, and lamprey. “Lamprey” noted in surveys could be either Pacific lamprey or Western brook lamprey; those observed above Rosa Road and Stolz Dam are most likely resident brook lamprey due to barriers.

Long-time residents say that “silvers” (coho salmon) were historically present. Surveys in the 1990’s did not find juvenile coho in the system, and it was believed that coho were no longer present in the basin due to habitat alteration and barriers. The ODFW Aquatic Inventory survey in 2003 found two coho juveniles in the lower basin near Highway 101 and habitat suitable for coho salmon production (although inaccessible) was observed in the upper basin above the JCD site in 2006.

Anadromous fish (e.g. coho salmon, searun cutthroat, and Pacific lamprey) cannot presently access the JCD waiver site and upstream due to downstream barriers. However, this net benefit analysis must consider artificial barriers downstream as potentially rectifiable at a future “trigger” event. Cutthroat of the resident life history are in the upper reach; both searun and resident life histories of cutthroat can be expressed in the lower basin below Stolz Dam.

#### **Mitigation Sites**

In the passage waiver application, four mitigation measures are described. All four measures involve restoring or improving fish passage at existing culverts on Blair Creek, a tributary of the North Fork Coquille River at section 35, Township 27 S, Range 12 W (W.M.). When the Applicant’s 2007 fish passage waiver application was under development, they requested a clarification of the eligible area deemed to be “in-proximity” under fish passage OARs. Due to evidence that coho salmon were historically present in Johnson Creek and currently present on an intermittent basis, they were included in the NMF required for mitigation. Due to habitat conditions in Johnson Creek, including sedimentation and poor substrate in the lower basin and numerous fish passage barriers that were unlikely to encounter “triggers” to fish passage requirements in the near future, the Applicant sought mitigation sites elsewhere. ODFW determined that watersheds within the OWRD South Coast Drainage Basin would be eligible based on the OARs, but recommended mitigation options be developed adjacent (North or South) of the JC basin.

#### Blair Creek *Habitat*

Blair Creek is a tributary of the North Fork Coquille River near Coquille, Oregon (Figure 4). The habitat condition of lower Blair Creek is fair. This lower reach (~0.10 miles or ~ 6.2% of the overall stream mileage) runs through rural residential and pasture land is incised and is downcut. There is significant soil disturbance, bank erosion, and sparse riparian vegetation in certain sections of this reach due to cattle grazing. Riparian trees are primarily deciduous, and shading is also provided by hillslopes in some reaches. Spawning gravels are present in the lower reaches of Blair Creek, although sediment is prevalent in the substrate composition.

The upper reaches of Blair Creek and its tributary would provide the best habitat of the proposed mitigation. Suitable habitat for spawning and rearing of all NMF currently and historically present in Blair Creek is present nearly to the headwaters of the watershed (if it were accessible; see *Artificial Obstructions* below). Although this area has been logged, riparian buffers are present and favorable fish habitat components are still in place. ODFW maps indicate that Blair Creek has been surveyed for the end of fish use, which is at approximately rm 1.5, with an additional distance of approximately 0.6 miles of fish use on the upper tributary.

### *Artificial Obstructions*

There are four known culverts located in Blair Creek, and all are proposed for improvement as part of the mitigation. No other barriers have been identified on Blair Creek. The culverts are located where Lee Valley Road (a Coos County road, crossing at rm 0.04), a dirt farm road on the Liles' property (rm 0.23), and a gravel forest road on Plum Creek Timber Company property (rm 0.77) cross Blair Creek. The fourth culvert is on a tributary that conflues with Blair Creek a short distance above the Plum Creek culvert. The barrier is at rm 0.15 on that tributary.

The Lee Valley Road culvert (Mitigation #1) is nearly a complete barrier. There is a three-foot jump under most flow conditions at the outfall. Although this jump is reduced at higher flows, velocities through the culvert are much higher at these flows. Adult salmonids can only negotiate this barrier under rare, ideal flow conditions. Juvenile salmonids and Pacific lamprey are not expected to pass upstream at this culvert under any flow conditions. This culvert has many years of serviceable life left and there are presently no plans to replace it in the foreseeable future according to the Coos County Roadmaster because they are presently experiencing economic difficulties.

The short culvert on the Liles' property (Mitigation #2) is set on a relatively flat slope, with only a slight jump required for fish. It is likely passable to fish under some circumstances, although it is undersized relative to the active channel width in the vicinity. This undersized condition is likely to create a velocity barrier at moderate to higher flows, and also puts the culvert at risk of plugging and washout. Also, the stream channel immediately below the culvert turns a 90-degree direction and the outfall is lined with broken concrete. The slight perching is potentially a barrier to Pacific lamprey upstream passage.

The Plum Creek culvert (Mitigation #3) is a complete barrier to fish passage. A five-foot drop at the outfall and an inadequate jump pool below this precludes upstream passage of all NMF species at all life stages.

The culvert on the unnamed tributary (Mitigation #4) is perched with an inadequate jump pool, precluding upstream passage of all NMF species at all life stages at any flow conditions.

As provisions of a mitigation agreement, these four culvert replacement (mitigation) projects will be designed consistent with ODFW fish passage design criteria identified in OAR 635-412-0035 and will be completed prior to completion of or by the end of the same in-water work period as the construction of the JCD, as required in OAR 635-412-0025 (10).

#### *Native Migratory Fish*

Cutthroat trout, Pacific lamprey, coho salmon, and winter steelhead are NMF known to be present, or to have been historically present, in Blair Creek (Table 2). Current or historic presence of Western brook lamprey is unknown. Cutthroat present in Blair Creek upstream of the Lee Valley Road culvert are likely expressing the resident life history form, although searun cutthroat may be able to make the jump at higher flows on rare occasions. Pacific lamprey are likely only present in the creek downstream of the Lee Valley Road culvert due to passage conditions. Coho salmon and winter steelhead, if they can pass the Lee Valley Road culvert, are likely to pass the Liles' culvert; however, they cannot presently pass above the Plum Creek culvert.

#### **Conclusions**

Table 3 summarizes the benefit analysis for this passage waiver application. The net benefit analysis assumes the benefit of providing fish passage at the proposed Johnson Creek Dam (or lost habitat if passage is not provided) versus the benefit to the same NMF species by implementing the proposed mitigation measures. If the analysis is strictly based on distance of stream habitat accessed (miles) by mitigation measures versus distance of stream habitat blocked (miles) by installation of the JCD, the mitigation would provide a benefit (2.06 mi – 1.77 mi = 0.29 mi gain). However, the benefit analysis is not as simple as comparing distances because: (1) partial passage currently exists at one of the mitigation sites, and (2) the quality of the habitat accessed by the mitigation actions must be compared to that above the waiver location.

If passage were not provided at the JCD, an estimated total distance of 1.77 miles would be made inaccessible for NMF, were they able to get to the base of the dam by passing existing, downstream barriers in Johnson Creek. It is estimated that within this distance there is 1.0 mile of suitable coho habitat (observed, but unsurveyed). If installed without passage, the JCD would be a complete barrier. While much of the mainstem Johnson Creek habitat above the JCD site is good quality and having components suitable for coho and cutthroat, the unnamed tributary has a very steep culvert and stream gradient just above its confluence with Johnson Creek, and the stream is small with marginally-sized pool habitat above the culvert. This tributary would continue to be blocked to passage of NMF, regardless of the JCD project.

For the mitigation analysis, ODFW end-of fish-use was assessed at approximately 1.5 miles on main Blair Creek, with an additional distance of approximately 0.6 miles of fish use on the upper tributary. The four culverts proposed for mitigation in Blair Creek would improve passage for a total distance of approximately 2.1 miles. The Lee Valley Road culvert (Mitigation #1) is nearly a complete barrier, but some adults may pass under extremely limited conditions; we judged it to be  $\leq 5\%$  passable in terms of numbers of adults and amount of time passable. Coho salmon have been observed jumping and failing at this outfall during late fall/winter flows. Remediation of the Lee Valley Road culvert, being the lowest barrier in the basin, is crucial to the effectiveness of the other mitigation measures upstream.

The Liles culvert (Mitigation #2) is not a complete barrier, except for lamprey upstream passage. Several factors including the perched elevation, undersized pipe for the stream width, lack of jump pool and broken concrete at outlet, and 90-degree turn in the stream channel below the

outlet make for poor passage conditions at this culvert under some flow levels. Although passable at some flows, it is likely that flow velocities in the pipe create a passage barrier at higher to moderate flows. Habitat quality (~0.10 miles) is degraded in the reaches just above and below the culvert, primarily due to livestock use. Improvement of the habitat in this reach could improve the overall value of the mitigation package, but was not required to arrive at the net benefit attainment.

The Plum Creek culvert (Mitigation #3) is a complete barrier due to its perch height and lack of jump pool. Some of the highest habitat quality in the Blair Creek watershed is above this culvert in main Blair Creek and the tributary having the barrier (Mitigation #4). Remediation of this crossing would provide fish access to approximately 0.73 miles of habitat in main Blair Creek plus the first 0.15 miles of the tributary, up to the barrier at Mitigation #4 (total 0.88).

With end-of-fish-use assessed at 0.6 miles up the tributary, remediation of the Mitigation #4 culvert would result in 0.45 miles of additional fish access. Being undersized and perched, this is also assessed as a complete barrier.

In summary, the proposed mitigation actions would provide a net benefit for all native migratory fish in terms of total mileage accessed, as compared to providing passage at the JCD, keeping in mind that mileages to end-of-fish-use are approximate. Department staff recommends that a fish passage waiver be granted. When considering habitat quality between the waiver basin and mitigation basin, both basins have sections with “moderate to good” stream and riparian condition, as well as sections of “poor to marginal habitat” for NMF. Johnson Creek has existing barriers that preclude passage to the JCD site, plus barriers in tributaries. Restoring and protecting the riparian habitat in Blair Creek in the reach immediately above and below Mitigation #2 would improve the mitigation package, but is not required to arrive at a net benefit determination.

The Applicant does not have permission from the landowner to take the extra measures of planting and fencing due to the inability to control wildlife damage ( i.e. deer and/or elk browsing the plantings and damaging the fence.) However, the Applicant would agree to suggest that the property owners (Liles) talk with the local watershed council about performing these habitat improvement measures as a separate effort. Department staff believes that implementing the proposed mitigation actions would provide a net benefit for all appropriate native migratory fish, with or without the riparian habitat improvement recommendation,.

### **Consistency with Oregon Coast Coho Conservation Plan**

As described in the Oregon Coast Coho Conservation Plan (Plan), Oregon has adopted the population structure developed by the NOAA Technical Recovery Team for the Oregon Coast ESU. Twenty-one populations of coho have persisted through hundreds of generations and are classified as “Independent” populations (e.g. Coos population, Coquille population). Numerous smaller, “Dependent” populations along the Oregon Coast are believed to have persisted only due to the proximity to the larger Independent populations. In times of low abundance and marine survival, the Dependent populations likely waned, rebounding due to the tendency for individual coho salmon to stray and pioneer non-natal streams.

Due to the size of the watershed, its geology and substrates, and other environmental conditions, Johnson Creek coho salmon likely persisted in historic times due to the presence of adjacent Independent populations, and was thus a Dependent population. Evidence indicates that coho

salmon only occasionally enter Johnson Creek to reproduce in current times. Present habitat conditions and barriers inhibit natural production of coho salmon.

Watersheds with Dependent populations on the South Coast of Oregon may not be accessible in all years due to the timing of fall rains, other environmental conditions, or annual fish abundance. If those rains come late, coho salmon are not attracted to or cannot ascend the small coastal streams that can be bar-bound or have minimal passage flows. These streams may not have significant spawner escapement in years of low marine survival, or in-basin environmental conditions may virtually eliminate a rearing cohort.

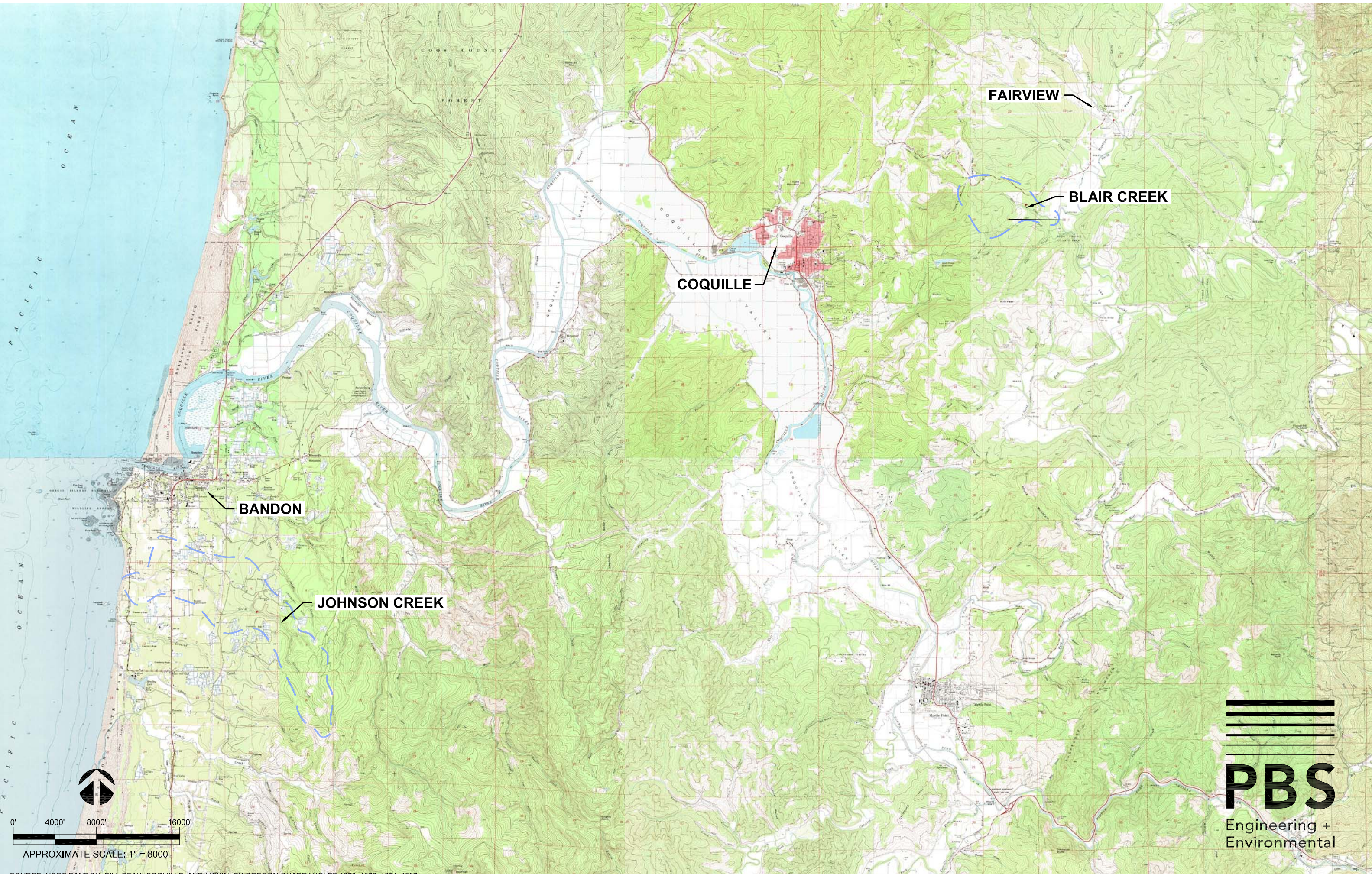
The Plan does not establish specific goals for abundance or miles of high quality habitat for Dependent populations, focusing instead on measurable goals toward a Desired Status of the Independent populations, and an overall trend in habitat conditions for Dependent coho populations.

In the absence of a persistent coho population in Johnson Creek, actions that occur to improve habitat conditions toward a re-establishment of consistent coho returns would be an improving trend and consistent with the goal for a Dependent population. Even if there were a present population of coho in Johnson Creek, given existing barriers the proposed waiver action (i.e., constructing a dam without passage) would not preclude access to any habitat to which coho currently have access. Mitigation actions proposed in the Fish Passage Waiver Application would result in a net benefit for coho salmon in an adjacent Independent population (Coquille Basin), even though access to historic habitat in upper Johnson Creek would remain blocked. Mitigation actions for modified flows, water quality impacts, the dam footprint, and habitat inundation, which would possibly be required for other regulatory purposes, may further benefit NMF. The benefits for these possible mitigation actions are not considered in this Fish Passage Waiver net benefit analysis.

As indicated in its Executive Summary, the Plan "...does not propose new land-use regulations, maintains existing regulatory programs, and enhances support for non-regulatory cooperative conservation." Development of the proposed JCD will require the Applicants to proceed through multiple regulatory processes. Oregon Revised Statutes and Oregon Administrative rules set forth the laws, rules, and procedures that allow for a waiver of fish passage if the applicant meets requirements. If the project meets State, Federal, and local permitting requirements and proceeds to construction, it will be consistent with the Coho Conservation Plan. In addition, the Applicant will be required to meet Federal ESA standards; the granting of a Fish Passage Waiver by the Commission does not purport to authorize the take of a Federally-listed species.

**Figure 1. Map of Johnson Creek and Blair Creek.**





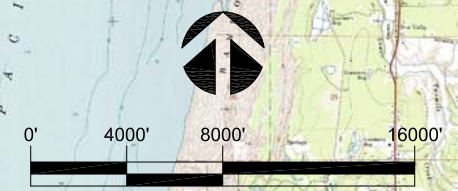
**FAIRVIEW**

**BLAIR CREEK**

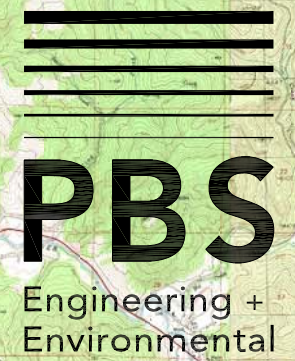
**COQUILLE**

**BANDON**

**JOHNSON CREEK**

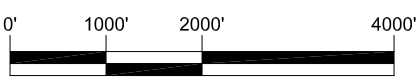
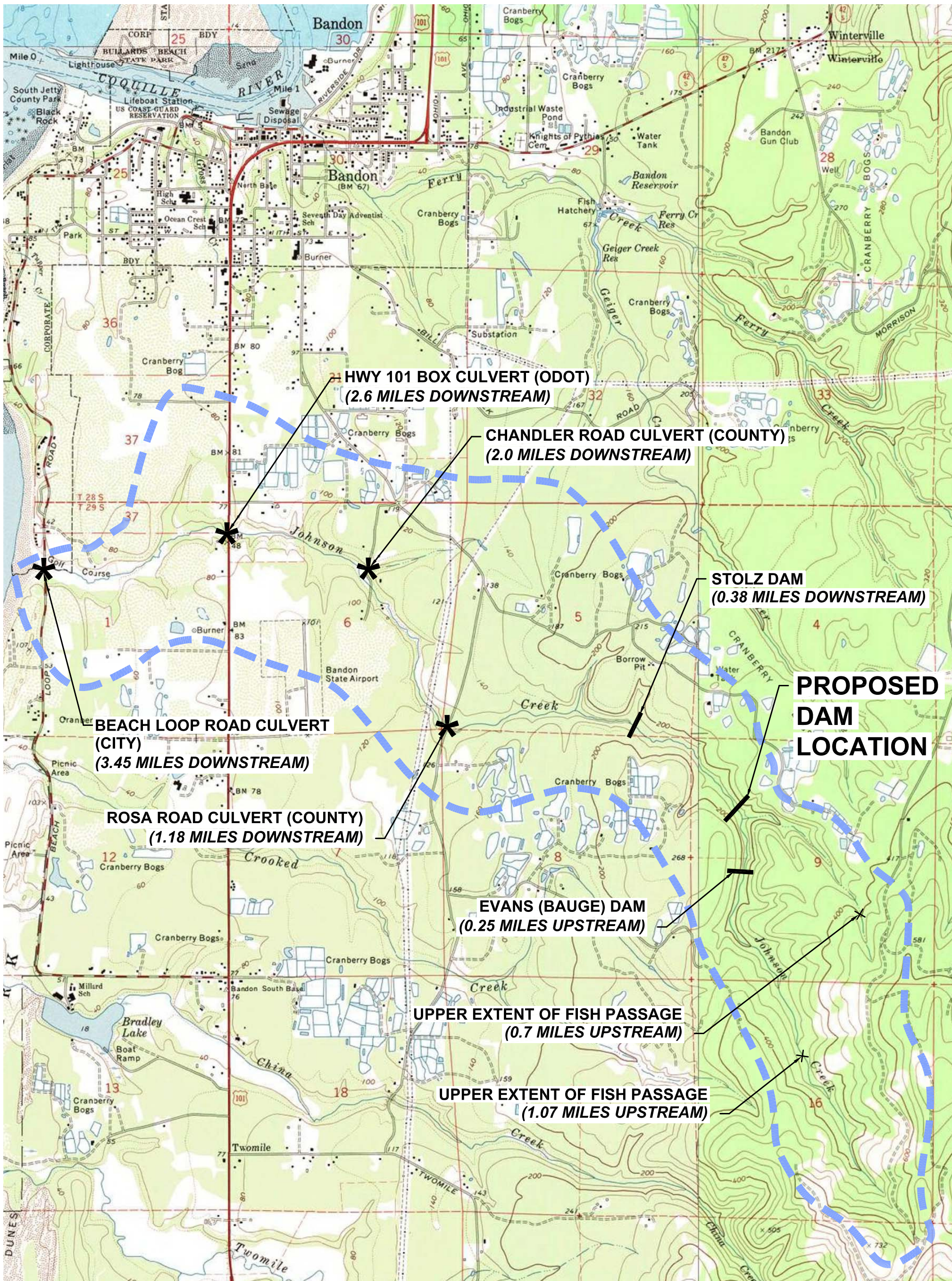


APPROXIMATE SCALE: 1" = 8000'



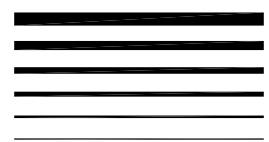
SOURCE: USGS BANDON, BILL PEAK, COQUILLE, AND MCKINLEY OREGON QUADRANGLES 1970, 1970, 1971, 1987

**Figure 2. Map of Johnson Creek Basin, Including Passage Barriers and JCD Site.**



SCALE: 1" = 2,000'

SOURCE: USGS BANDON, OR QUADRANGLE 1970



**PBS**

Engineering +  
Environmental

**Table 1. Current Status of Native Migratory Fish in Johnson Creek.**

	Federal ESA	State ESA	State Sensitive Species List	2005 Native Fish Status Review	Currently at or above JCD?
Cutthroat	Not Listed <sup>1</sup>	Not Listed	Not Listed	Not at Risk	Yes
Coho	Listed <sup>2</sup>	Not Listed	Vulnerable	Not at Risk	No
Pac. Lamprey	Not Listed <sup>1</sup>	Not Listed	Vulnerable	At Risk	No

<sup>1</sup> Species of concern for US Fish and Wildlife Service

<sup>2</sup> Status is Threatened by Federal determination

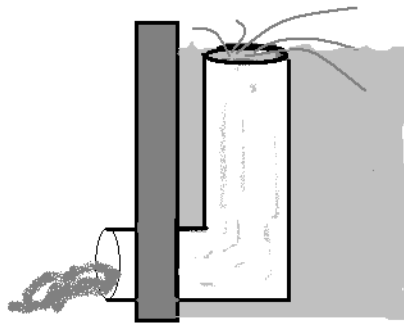
**Table 2. Current Status of Native Migratory Fish in Blair Creek.**

	Federal ESA	State ESA	State Sensitive Species List	2005 Native Fish Status Review
Cutthroat	Not Listed <sup>1</sup>	Not Listed	Not Listed	Not at Risk
Coho	Listed <sup>2</sup>	Not Listed	Vulnerable	Not at Risk
Pac. Lamprey	Not Listed <sup>1</sup>	Not Listed	Vulnerable	At Risk
Winter Steelhead	Not Listed	Not Listed	Vulnerable	Potentially At Risk

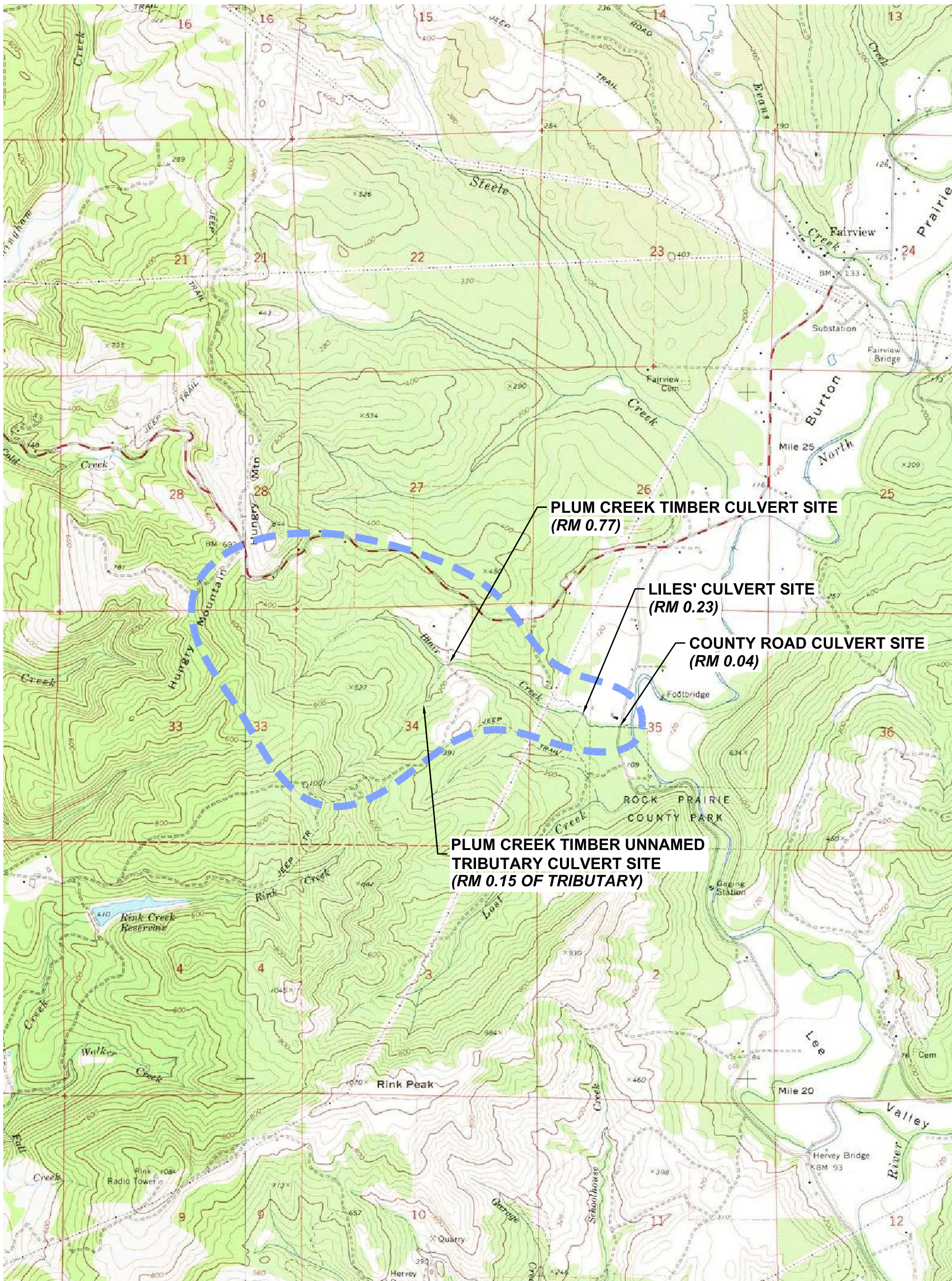
<sup>1</sup> Species of concern for US Fish and Wildlife Service

<sup>2</sup> Status is Threatened by Federal determination

**Figure 3. “Spill-tube” Type Dam Operated by Cranberry Growers (e.g. “Stolz” and “Evans” Dams).**



**Figure 4. Map of Blair Creek with Passage Barriers (Mitigation sites) Identified.**

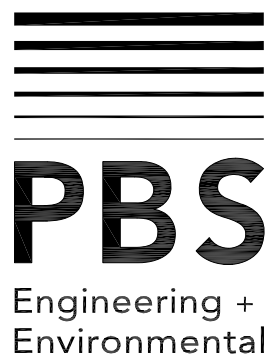


**PROPOSED BLAIR CREEK MITIGATION PROJECT LOCATIONS**



SCALE: 1" = 2,000'

SOURCE: USGS COQUILLE AND MCKINLEY, OR QUADRANGLES 1971, 1975, 1987



**Table 3.**  
**Johnson Creek Dam--Fish Passage Waiver Benefit Analysis**  
 Comparison of Stream Reaches Lost and Stream Reaches Improved

4/4/2012

<b>LOST</b>	<b>End of Stream</b>	<b>End of Fish Use Above Obstruction (mi.)</b>	<b>Comments</b>
<b>Johnson Creek Mainstem</b>	2.1	1.07	Dam site and habitat above are presently inaccessible to anadromous fish due to downstream barriers.
<b>Johnson Creek Tributaries</b>	0.9	0.7	Steep culvert at mouth; isolated resident CT above; moderate to poor riparian cover and marginal pool habitat in this tributary;
		<b>Total Lost-- 1.77</b>	

<b>IMPROVED</b>	<b>Improved Access Mileage</b>	<b>Barrier Status</b>	<b>End of Fish Use</b>	<b>Comments</b>
<b>Blair Creek</b>				
Lee Valley— site @ rm 0.04	<b>0.19</b>	Nearly complete barrier; complete barrier to juv. fish and lamprey;		Three-ft drop at outlet; barrier at most flows; especially to juvenile NMF and adult Pacific lamprey. Adult coho observed failing this jump and velocity.
Liles— site @ rm 0.23	<b>0.54</b>	Passable at some flows		Not a complete barrier, but undersized; slight perching; some habitat poor in this area due to heavy cattle grazing; riparian improvements in this reach could improve the overall value of the mitigation package.
Plum Creek— site @ rm 0.77	<b>0.88</b>	Impassable	<b>~ 1.5 on Blair</b>	Five-ft. drop at outlet; no jump pool;; good habitat upstream of this culvert;
Unnamed Blair Trib.— site @ rm 0.15 of trib.	<b>0.45</b>	Impassable	<b>~0.6 on Trib.</b>	Culvert undersized and perched; complete barrier.
<b>Blair total</b>	<b>2.06</b>			Combination of barrier removals will access a total of 1.46 miles of stream on Blair Creek and 0.6 miles on unnamed tributary.
				<b>Total Lost-- 1.77 miles</b>
				<b>Total Gained-- 2.06 miles</b>