

Mat-Su Salmon Passage Improvement Plan



**Mat-Su Basin Salmon Habitat Partnership
2011**

This Fish Passage Improvement Plan was developed by The Nature Conservancy with assistance from the Fish Passage Working Group of the Mat-Su Basin Salmon Habitat Partnership. Partner agencies and organizations provided in-kind support. Financial support was provided by the U.S. Fish and Wildlife Service, Alaska Sustainable Salmon Fund, National Oceanic and Atmospheric Administration, The Nature Conservancy, Lovelace Charitable Trust, Wallace Research Foundation, and ConocoPhillips Alaska. Special thanks to the Alaska Department of Fish and Game for providing their culvert survey data as it was available.

Editor Corinne Smith, The Nature Conservancy
GIS Analysis Marcus Geist, The Nature Conservancy

**Mat-Su Basin Salmon Habitat Partnership
Fish Passage Working Group**

| | |
|---|--|
| Erika Amman NOAA's National Marine Fisheries Service | Allen Kemplen Alaska Department of Transportation |
| Mike Bethe Alaska Department of Fish and Game | Doug McBride U.S. Fish and Wildlife Service |
| Kenneth Bouwens Alaska Department of Fish and Game | Marty Metiva Mat-Su Resource Conservation & Development Council |
| Jeff Davis Aquatic Restoration and Research Institute | Karen Nelson US Army Corps of Engineers |
| James Hazlett Natural Resource Conservation Service | Gillian O'Doherty Alaska Department of Fish and Game |
| Neal Henslee Alaska Department of Transportation | Bill Rice U.S. Fish and Wildlife Service |
| Catherine Inman Wasilla Soil & Water Conservation District | Corinne Smith The Nature Conservancy |
| Sam Ivey Alaska Department of Fish and Game | Brad Sworts Matanuska-Susitna Borough |
| Paul Janke Alaska Department of Transportation | Brian Winnestaffer Chickaloon Village Traditional Council |
| Chuck Kaucic Matanuska-Susitna Borough | Bill Wood Natural Resource Conservation Service |

Photos on cover: Sunrise Road crossing Poddle Creek; before restoration (left) and immediately after (right)

Table of Contents

| | |
|--|----|
| Table of Contents | 2 |
| Introduction..... | 3 |
| Culverts in the Mat-Su | 5 |
| Additional Criteria for Further Prioritization..... | 13 |
| Collaborative Approaches to Improving Fish Passage | 16 |
| Recommendations..... | 20 |
| Cited and Reference Literature | 22 |
| Appendices..... | 23 |

Introduction

The Matanuska-Susitna (Mat-Su) Borough in south-central Alaska is the fastest growing region of Alaska. Located just north of Alaska's largest city, Anchorage, the Mat-Su Borough provides not only affordable housing options, but also a rural setting and diverse areas to recreate. One unfortunate consequence of those factors plus the young age of the state and the borough is that many road crossings of streams were not adequately designed or constructed prior to statehood. Rapid growth has also brought with it rapid development and some problem culverts have been installed on private property. Inadequate culverts can block salmon migration for both adults and rearing juveniles and alter spawning, rearing, and over-wintering habitat for salmon.

How Culverts Impact Salmon

The rivers and lakes of south-central Alaska support some of North America's most viable and productive salmon fisheries. Salmon migration, spawning, rearing and ultimately production in these waterbodies are dependent on connectivity of habitat. Stream crossing structures affect the movement of fish and other aquatic organisms by altering the stream physical characteristics. Migration barriers can have significant effects to fish production as access to large areas of spawning or rearing habitat can be eliminated or reduced (Gibson et al 2005; Sheer and Steel 2006). Anadromous juvenile and adult fish are highly mobile, and it's common for these fish to use different parts of a stream or watershed at different times of the year (Kahler & Quinn 1998). Adult salmon may have reduced access to spawning habitat, while young salmon have reduced access to rearing and over-wintering. Juvenile salmon can be affected in their need to move upstream and downstream to reach habitat (Davis & Davis 2012) or lower velocity flows (Cedarholm & Scarlett 82). Impeded movement of fish between habitats essential for rearing and spawning can negatively impact population status.

Stream crossing structures can impede fish migration in various ways. Undersized culverts increase stream velocity, which can be a total or partial barrier to weaker or smaller fish. Velocity can also be increased by culverts that are steeper than the natural gradient of the stream. Culverts installed improperly may have a perch at their outlet which fish cannot jump or these culverts may have too little water for fish to swim through.

Not only can inadequate culverts impede fish movement, they can potentially alter stream channel characteristics and modify habitat if they change stream flow. These changes may occur upstream or downstream of the crossing and may lead to loss of habitat or other barriers to reaching habitat.

Removing fish migration barriers and restoring connectivity has been ranked as the most important restoration activity in some prioritizations due to high cost-effectiveness and short time frame for improvement in fish populations (Roni et al 2002). Evaluation of habitat restoration techniques show that the removal or mitigation of barriers to fish movement can lead to some of the largest increases in fish production (Roni et al 2002; Scully et al 1990).

With salmon and resident fish providing the basis for a vibrant sportfishing economy in the Mat-Su Basin (Colt and Schwoerer 2009) and providing an important food source for Alaskans, the replacement of inadequate culverts can provide tangible benefits to fish and people.

The Goal of this Plan

The Matanuska-Susitna Basin Salmon Habitat Partnership formed in 2005 to address increasing impacts on salmon habitat from human use and development in the Mat-Su Basin with a collaborative, cooperative, and non-regulatory approach that would bring together diverse stakeholders. In 2008 the Mat-Su Salmon Partnership completed a Strategic Action Plan that identified road crossings, in particular culverts, as a potential threat to salmon habitat. That plan identified two main goals: preventing new barriers to migration and restoring migration at existing barriers at priority sites. This Mat-Su Salmon Passage Improvement Plan addresses the second goal by identifying priorities for restoration. This plan is intended to guide partners to areas where fish passage restoration should be focused and to provide information to help them to select projects.

The Partnership's Fish Passage Working Group (FPWG) developed the prioritization framework to identify priority culverts through a series of workshops. After draft prioritization criteria were agreed upon, The Nature Conservancy used Alaska Department of Fish and Game (ADF&G) culvert survey data to prioritize the crossings. After the FPWG agreed upon the criteria to be used, TNC completed the prioritization. The prioritization was augmented in January 2011 after ADF&G completed their database with 2010 field surveys.

This Salmon Passage Improvement Plan only includes culverts. Other structures that might impair salmon migration or habitat, like bridges and dams, have not been assessed for several reasons. First, culverts are by far the greatest impediments to fish passage in the Mat-Su. Second, no inventory exists for these other blockages with the consistency and thoroughness of the culvert inventory maintained by ADF&G. Third, natural blockages such as beaver dams can be temporary and may be providing habitat for some aquatic species while impeding movement of others.

This plan prioritizes culverts for replacement by building on the Level 1 Assessment that ADF&G uses. The prioritization framework allows additional culverts to be included as they are surveyed and is flexible so that individual partners can include additional factors to prioritize their organization's restoration work.

The plan also looks at ways for the partnership to work collaboratively to address the highest priority fish passage needs. As has been proven already, much more can be accomplished when partners combine their strengths to tackle fish passage.

Culverts in the Mat-Su

There are hundreds of stream crossings in the Mat-Su Basin. Some convey streams under roads and railroads, while others were installed for intermittent water in roadside ditches. As of Fall 2010, the Alaska Department of Fish and Game (ADF&G) had surveyed over 660 culverts in the Mat-Su Basin that they thought might convey waters where anadromous or resident fish reside or migrate. These culverts were under private driveways, borough roads, state highways, the Alaska Railroad, and trails, at a total of 518 stream crossing sites (Table 1). After the summer of 2011, ADF&G estimated that they had surveyed all borough and state roads and most of the railroad. Progress on private roads, driveways, and trails is much harder to estimate.

ADF&G assesses culverts for fish passage based on the swimming ability of juvenile Coho salmon (55mm). In the field, ADF&G measures the culvert length, width, perch, and slope and notes culvert shape, type, and condition and presence of bed material within the culvert. These criteria are then compared to a matrix to determine the likelihood that the culvert passes juvenile fish (Appendix 1). The matrix categorizes the culvert based on pipe type, gradient, constriction, perch, and backwatering. In this Level 1 assessment, the culverts are categorized as follows:

- Green – conditions may be adequate to pass juvenile fish
- Gray – conditions unlikely to pass juvenile fish, additional analysis required
- Red – conditions assumed inadequate to pass juvenile fish, additional analysis required

In the Mat-Su Basin, more than half the culverts were assumed to be inadequate to pass fish, and almost another quarter were unlikely to pass juvenile fish (Table 2). As many as 500 culverts could be impeding juvenile fish passage, thus affecting salmon populations and altering habitat. Ownership of these crossings occurs across the agencies (Table 3).

The Level 1 assessment tells us the scope of the fish passage problem but not where to focus or which culverts are likely having the greatest impact on salmon. The Mat-Su Salmon Partnership wanted to determine which inadequate culverts are priorities for replacement, so the information from the ADF&G surveys was used to examine the crossings more closely and to prioritize crossings for replacement.

Table 1. Ownership of crossing sites

| Owner | Count | Percent |
|-----------------------|-------|---------|
| Mat-Su Borough | 339 | 65% |
| State of Alaska | 94 | 18% |
| Private | 45 | 9% |
| Alaska Railroad | 33 | 6% |
| Trail (owner unclear) | 7 | 2% |
| Total | 518 | 100% |

Table 2. Level 1 Assessment of crossing sites

| Category | Count | Percent |
|----------|-------|---------|
| Green | 107 | 21% |
| Gray | 125 | 24% |
| Red | 286 | 55% |
| Total | 518 | 100% |

Table 3. Level 1 Assessment and ownership of crossing sites

| Owner | Green | Gray | Red | Count | Percent |
|-----------------------|-------|------|-----|-------|---------|
| Mat-Su Borough | 94 | 59 | 186 | 339 | 65% |
| State of Alaska | 9 | 23 | 62 | 94 | 18% |
| Private | 12 | 12 | 21 | 45 | 9% |
| Alaska Railroad | 7 | 10 | 16 | 33 | 6% |
| Trail (owner unclear) | 3 | 2 | 2 | 7 | 2% |
| Total | 104 | 127 | 287 | 518 | 100% |

Culvert Prioritization

Other prioritizations of culverts for replacement have included scoring and ranking schemes that assign scores to each barrier for a set of physical, ecological, and economic attributes. Factors typically include habitat quantity and quality, degree of barrierity, condition, and cost. Some include a benefit-cost ratio of habitat quantity or quality gained. Often these prioritizations are independent of spatial arrangement, which is a disadvantage along with their static nature (O’ Hanley & Tomberlin 2005). The actual order of replacement is often influenced by social and economic factors. Culverts are also prioritized with optimization models that look for maximum possible benefit (or minimum cost) given one or more operational and resource constraints (O’ Hanley & Tomberlin). Their disadvantage is technical complexity and need for mathematical and computer power.

For the Mat-Su Basin, we opted for a scoring and ranking scheme that utilizes the data already gathered by ADF&G. The goal of this prioritization is to identify the “worst of the worst” impediments to fish passage in the Mat-Su Basin. Using measurements from the ADF&G surveys, relative degree of impediment of red and gray culverts was assessed. Many of the other typical factors, such as habitat quantity and quality, do not exist for a basin-wide analysis.

Prioritization Criteria

The Mat-Su prioritization puts an emphasis on biological value at the crossing. Other factors, like cost, opportunity, and risk, were determined to be best used as secondary information after the initial prioritization. Four criteria were used to prioritize fish passage restoration. Culverts on non-anadromous streams and culverts assessed by ADF&G as adequate (i.e. Green) would receive low scores and not be included in the final list of culverts for replacement. Because the ADF&G Level 1 assessment is designed to identify impediments to passage of juvenile fish, extreme scores for the constriction and gradient criteria were added to highlight those culverts which may be adult impediments, too.

1. Anadromy

The prioritization was only applied to culverts on documented anadromous streams and those that are potentially anadromous. For undocumented streams, any stream segment below 1000' was assumed to be potentially anadromous. The 1000 foot contour was used in developing the Strategic Action Plan because this elevation generally corresponds with a rough geomorphic break along the Talkeetna Mountains where stream gradient increases from less than 2% in the lowland areas to greater than 4% in the Upland Complex. This break in geomorphology also affects fish distributions. Less salmon spawning and rearing occurs above this elevation with only 15% of total documented anadromous waters in the Mat-Su Basin occurring above 1000 feet. Stream segments were based on the National Hydrography Dataset and streams digitized by USFWS and TNC. Culverts on resident fish streams, as documented in the Anadromous Waters Catalog (AWC), were not prioritized.

| Anadromy | Score |
|--|-------|
| Not anadromous: stream segment > 1000' & not in AWC | 0 |
| Potentially anadromous: stream segment below 1000', not in AWC or within 50 m of AWC, on or near (33 m) of an NHD stream segment | 8 |
| Documented Anadromous: AWC # in culvert data, or on or near (50 m) an AWC stream segment as anadromous | 10 |

2. Level of blockage

ADF&G's Level 1 assessment is based on the swimming ability of a juvenile Coho (55 mm). Red culverts block juvenile fish, and gray culverts are likely to be partial or complete barriers, but more information is required to determine the level of blockage. Blockages to adult fish are not flagged in the culvert inventory though some data, like perch and pool depth, might indicate a total blockage to adults. Perch alone would not indicate if adults would travel further upstream if they could (i.e. lack of spawning habitat) or if water levels affect access, too.

| Level 1 assessment category | Score |
|-------------------------------|-------|
| Assumed not a barrier: Green | 0 |
| Assumed partial barrier: Gray | 5 |
| Assumed barrier: Red | 7 |

3. Constriction

Constriction ratio is based on the width of the culvert compared to the width of the stream as measured at ordinary high water (OHW)¹. The break points for the score were derived from stream simulation guidelines (USFS 2008) and the Level 1 assessment matrix. Culverts connected to wetland systems or lakes may have minimal or no flow and are continually backwatered. In these cases, the constriction of the culvert does not affect fish passage.

| Ratio of Culvert span to OHW | Score |
|----------------------------------|-------|
| > 1.0 or continually backwatered | 0 |
| 0.9 – 1.0 | 1 |
| 0.75 – 0.9 | 2 |
| 0.5 - 0.75 | 5 |
| 0.5 – 0.4 | 7 |
| < 0.4 | 10 |

4. Gradient

Gradient was measured in the culvert. Culverts that are embedded in the creek substrate and are retaining substrate within the pipe are likely providing resting places for juvenile salmon, so higher gradients are not necessarily an impediment to fish passage. Culverts that are not embedded retain no substrate and thus no variable flows with resting places. The break points for the score were based on the Level 1 assessment matrix.

| Gradient within culvert | Score |
|--------------------------------|-------|
| If culvert embedded < 1.0% | 0 |
| >1.0% | 2 |
| If culvert not embedded < 0.5% | 0 |
| 0.5 – 1.0% | 1 |
| 1.0 – 2.0% | 2 |
| 2.0 – 3.5% | 3 |
| 3.5 – 5% | 7 |
| >5% | 10 |

Tiers for Restoration Priority

We grouped crossings into priority tiers based on scores (criteria and total scores in Appendix 2). Using tiers instead of a prioritized list based on scores has several advantages. First, this approach also allows us to more easily add additional culverts to the prioritization as they are surveyed by ADF&G. Second, within the high priority tiers we can look at the geographic distribution of inadequate culverts to consider how best to address impacts on entire systems. Third, partners and organizations with different missions can select crossings within a tier that

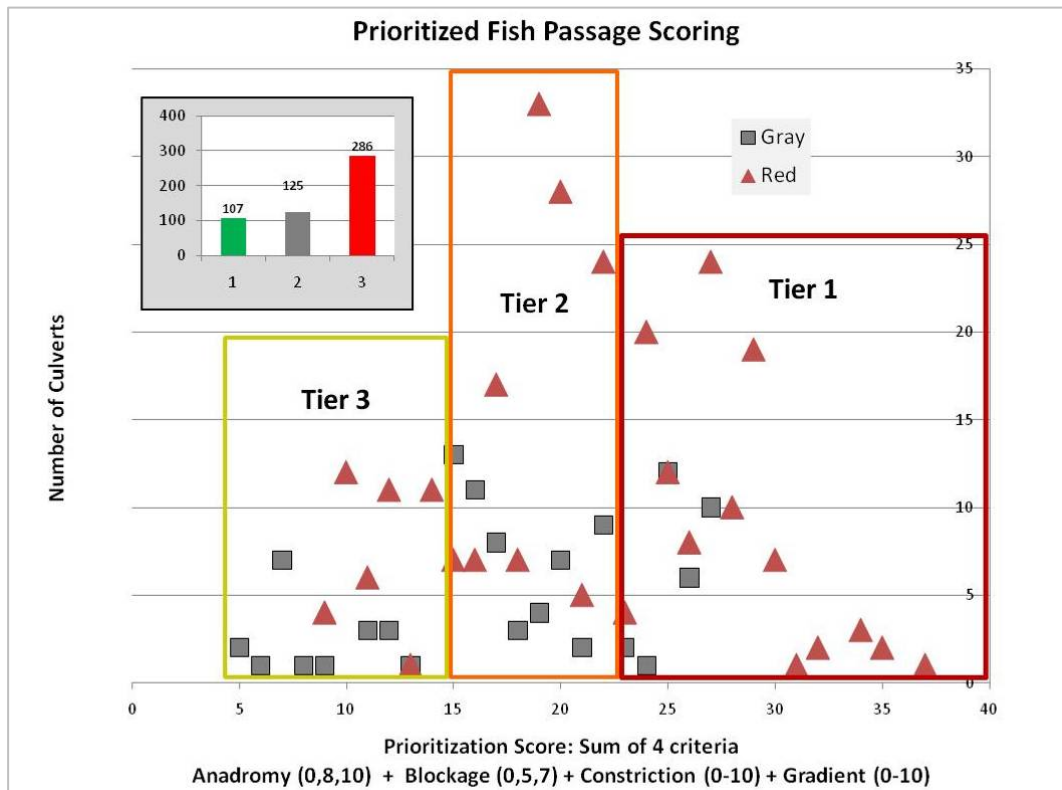
¹ Ordinary high water is defined by Alaska law as “in the non-tidal portion of a river lake, or stream: the portion of the bed(s) and banks up to which the presence and action of the non-tidal water is so common as to leave a natural line or “mark” impressed on the bank.” The full definition and a graphic are available on the state website: www.adfg.alaska.gov/index.cfm?adfg=uselicense.faqs.

meet their requirements for restoration. Break points between tiers were calculated with a Natural Breaks analysis². Tier 4 includes all green culverts or those on assumed non-anadromous streams. The four tiers are as follows:

| Tier | Score Range | Count | Percent |
|--|-------------|-------|---------|
| Tier 1 – Highest Priority for Restoration | 23 - 37 | 144 | 28% |
| Tier 2 – High Priority for Restoration | 15 - 22 | 165 | 32% |
| Tier 3 – Medium Priority for Restoration | 5 - 14 | 84 | 16% |
| Tier 4 – Assumed Adequate for Fish Passage | Not scored | 125 | 24% |

This approach illustrates that some culverts categorized as Gray with the Level 1 assessment may be a high priority for restoration compared to some Red culverts (Figure 1). For some Gray culverts, the combination of factors that impede fish passage indicate a greater likelihood that juvenile fish are not able to pass. For some Red culverts, this prioritization indicates that one factor may have automatically categorized them as Red, yet other culverts may pose much greater problems. Whereas the Level 1 assessment indicated that 76% of culverts were inadequate or assumed inadequate, the Tiered Prioritization narrows the scope to just over half the culverts (60%) as high priorities (Tiers 1 and 2) for restoration and illustrates that some inadequate culverts may be lower priority when their characteristics are compared to other inadequate culverts (Tier 3).

Figure 1. Comparison of Level 1 Assessment and Tiered Prioritization



² Natural breaks is a data classification method that partitions data into classes based on natural groups in the data distribution. This classification assigns data to classes so that the variances within classes are minimized, while the variances among classes are maximized. For more, see <http://www.cdc.gov/BRfss/maps/faqs.htm#13>.

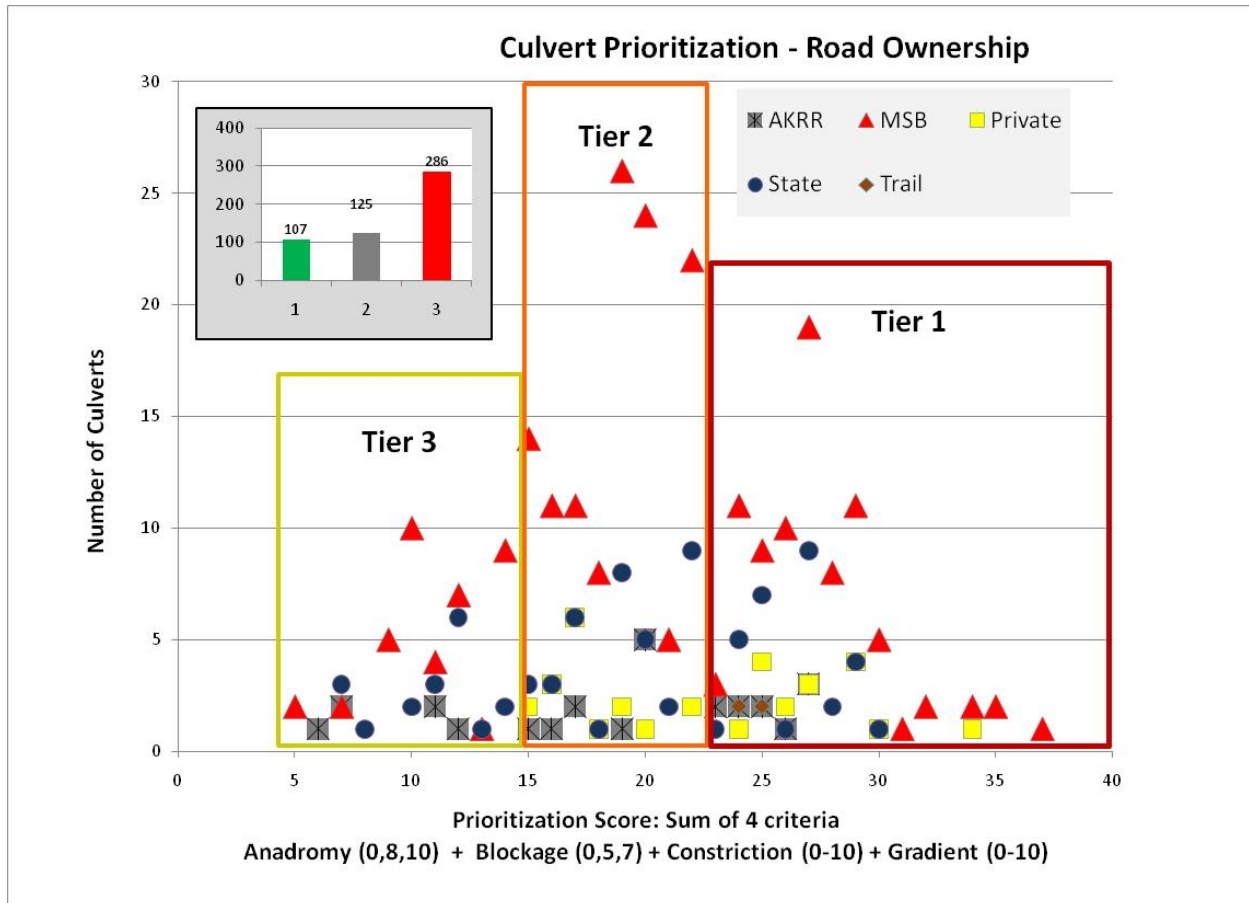
Ownership of Inadequate Culverts

The majority of crossings in Tiers 1 to 3 are on roads owned or maintained by the Mat-Su Borough (Table 4). The state has the more than a fifth, private owners own 8%, and 7% are under the Alaska Railroad. A visual representation of the distribution of ownership shows that publicly-owned culverts are distributed fairly evenly across the Tiers 1 – 3 (Figure 2). Private culverts, however, fall into Tiers 1 and 2.

Table 4. Ownership of Tiers 1 - 3

| Owner | Count | Percent |
|-----------------------|-------|---------|
| Mat-Su Borough | 245 | 62% |
| State of Alaska | 85 | 22% |
| Private | 33 | 8% |
| Alaska Railroad | 26 | 7% |
| Trail (owner unclear) | 4 | 1% |
| Total | 393 | 100% |

Figure 2. Ownership of Tiered Prioritization



Location of Inadequate Culverts

As expected, the majority of Tier 1 – 3 crossings occur in the core area of Palmer and Wasilla (Figure 3a, b, c). Tier 1 – 3 crossings are also concentrated in four other areas -- the subwatersheds in the upper Susitna Valley from Willow to the north of Trapper Creek and Talkeetna; subwatersheds along the Parks Highway corridor along the upper Chulitna River; at tributaries to the Susitna River on the Denali Highway, and the upper part of the Matanuska River watershed. There are also Tier 3 crossings in the Lake Louise area.

Figure 3a. Watersheds with Tier 1 (red) culverts

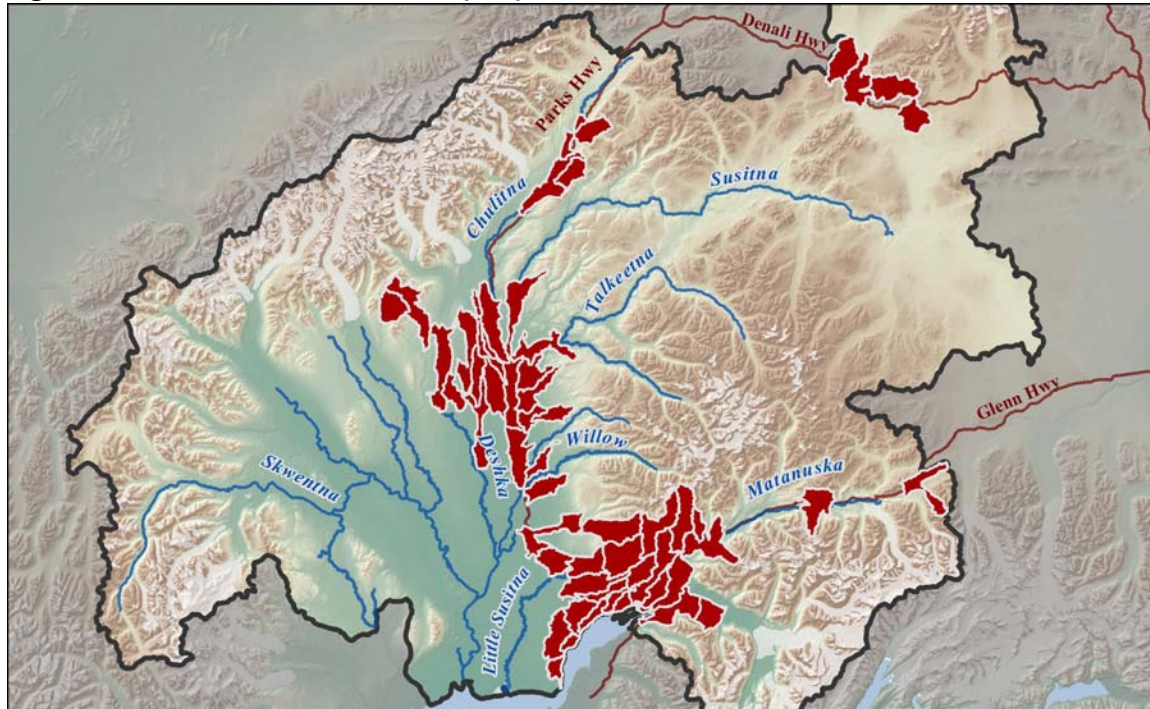


Figure 3b. Watersheds with Tier 2 (orange) culverts

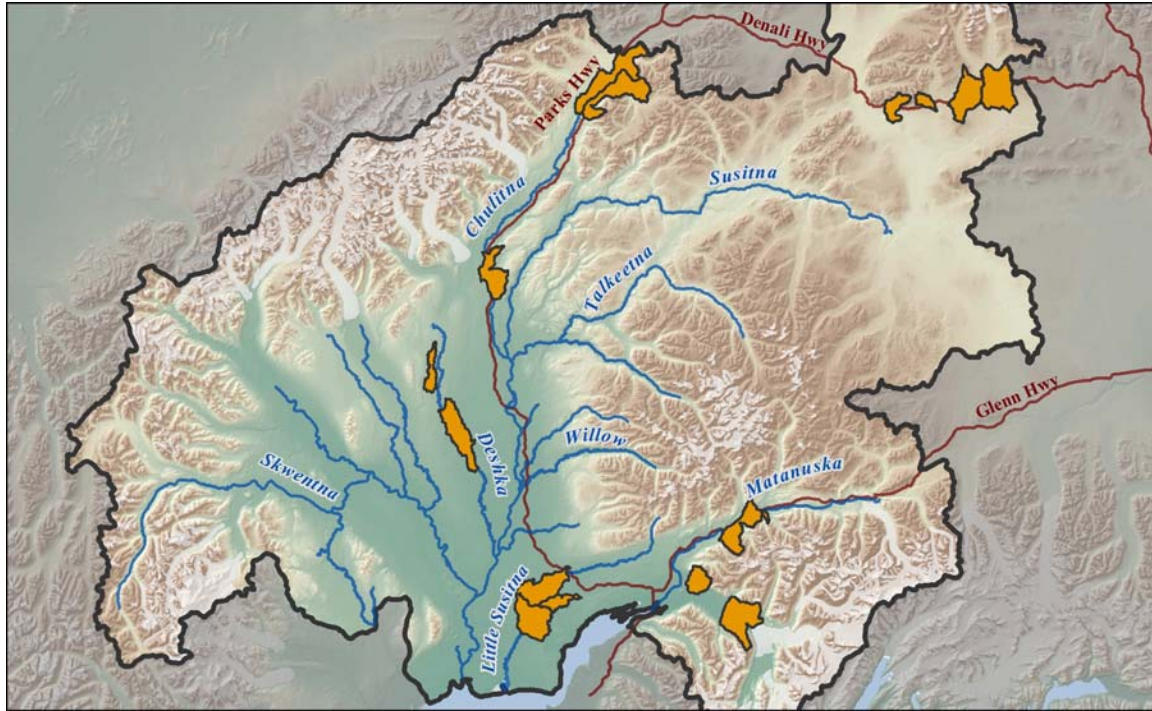
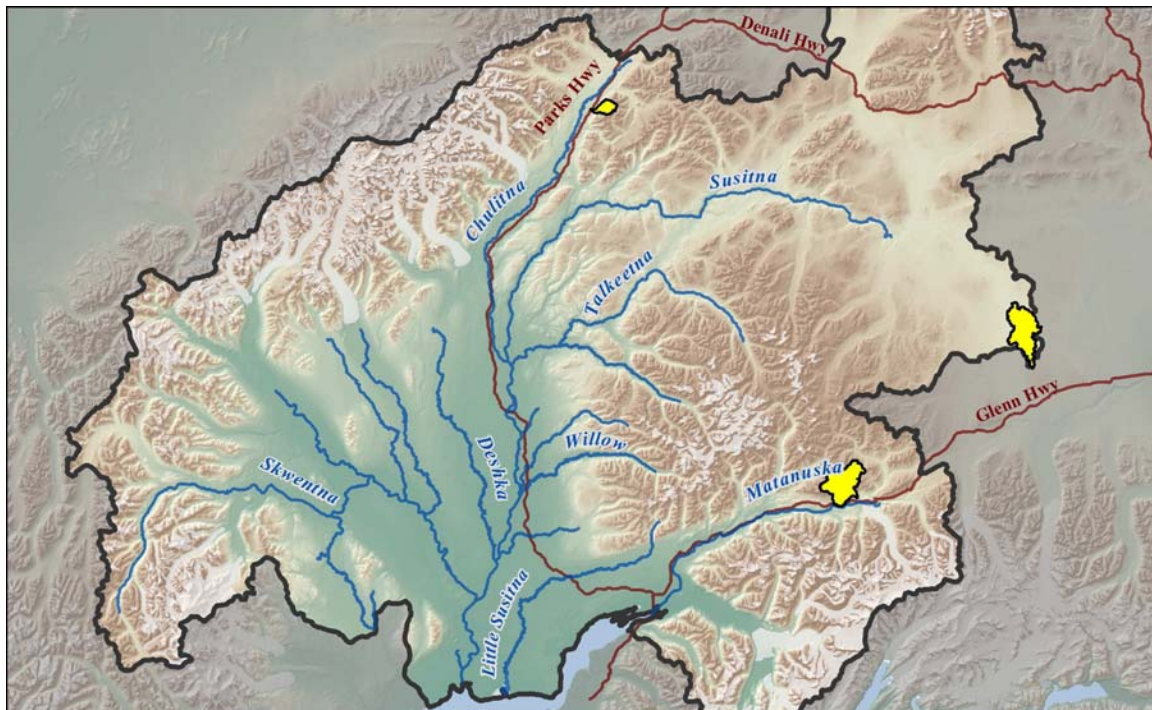


Figure 3c. Watersheds with Tier 3 (yellow) culverts



Additional Criteria for Further Prioritization

There were several criteria that we wanted to include and could not due to lack of data or inconsistency in the data. Other information could be useful to the transportation agencies and for project selection at a finer scale than this prioritization will achieve. As this prioritization developed, we noted what else we'd like to know about the stream or culvert to help inform information and science needs and for possible inclusion in a more comprehensive prioritization methodology.

Habitat Quantity and Quality

Habitat quantity and quality are included in other prioritizations and indicate the relative amount of habitat that fish cannot reach.

Habitat quantity is a typical criterion in culvert prioritizations, but its use varies. Some prioritizations look at upstream habitat, others at downstream, and others add the lengths or take the greater (Taylor and Love) or lesser of the two. Looking at habitat upstream is most important when adult salmon migration to spawning areas maybe blocked. For juvenile salmon, access to habitat upstream or downstream may be an issue at some culverts. Juvenile salmon may be absent from rearing habitat if there's a lack of adult spawning.

In addition to deciding how to include habitat quantity, we also faced a challenge with applying the criteria across the basin with the data available. In Alaska, the Anadromous Waters Catalog (AWC) delineates waters with anadromous fish, and the National Hydrographic Dataset (NHD) maps freshwater streams. In some places in the Mat-Su, the AWC and NHD are not coincident or existent, or we know from on-the-ground observation that the available dataset is incorrect. In addition, culvert point locations seldom occur on a stream segment, which makes it difficult to automate the calculation of habitat on either side of the culvert. These discrepancies made it difficult to automate a mapping calculation. Manual calculation is possible for smaller areas of interest, where there is other information to clarify stream location, but was not feasible for the entire basin. On individual streams, qualitative habitat surveys would provide the best measure.

To investigate how habitat quantity might impact the prioritization scores, we did manually calculate habitat quantity upstream in the Little Susitna River and Wasilla Creek watersheds. Little Su tributaries are not very long, so calculating habitat quantity did not change relative scores. On Wasilla Creek, we scored the culverts both as distance to the next blockage and as total distance upstream. The former calculation did not change relative scores for most culverts, as was seen with the Little Su tributary culverts, because there are several culverts along the creek that impede fish passage. When the total distance was used, then culverts lower in the creek were favored. Because so many of the culverts in the Mat-Su are barriers to juvenile salmon, not adults, total habitat may not best indicate how an inadequate culvert affects a juvenile fish's access to the habitat they need.

As with habitat quantity, data for habitat quality is not available for the entire basin. AWC does document some stream segments with lifestage information, but that type of information is not available for all streams in the catalog and the quality of that habitat is not noted. We decided that at this time, habitat quality is best collected in the field and used to prioritize a subset of crossing replacements within or between smaller watersheds.

Culvert Perch

Due to a change in how ADF&G collected perch height in 2005, we could not include perch in the prioritization for the entire basin. Perch height could help highlight Red culverts that might be adult barriers and would provide more detail to compare blockages. For all culverts surveyed from 2005 and after, perch could be included as an additional criterion for prioritizing, if it were available for culverts of interest. Of the 518 crossings, 336 were surveyed after 2005.

To see how perch might affect the prioritized scores and the overlap of gray and red culverts, we applied perch to those 336 crossings (Table 4). The break points for the score were based on the Level 1 assessment matrix with an extra point for perches (recorded as outfall height by ADF&G) that might impede adult salmon (>12"). The Fish Passage Working Group selected 12" as a minimum threshold for adult salmon barriers; additional research is required to determine what perch will block adult salmon.

Including perch increased the score of 107 (32%) of those 336 crossings (Table 4). Forty-three crossings may be impediments to adult salmon migration, and 29 others were also categorized Red by ADF&G for outfall heights greater than 4".

Not all of the perched crossings are on documented anadromous streams. Twenty-nine perched culverts are on anadromous streams (Table 5; Appendix 3) and all fall into Tier 1 or Tier 2 as priorities for restoration.

Table 4. Perch at all crossings

| Outfall height | Score | Count |
|----------------|-------|-------|
| = 0 | 0 | 229 |
| 0.1 – 4" | 1 | 35 |
| 4.1" – 12" | 2 | 29 |
| > 12" | 3 | 43 |

Table 5. Perch at anadromous crossings

| Outfall height | Tier 1 | Tier 2 |
|----------------|--------|--------|
| 0.1 – 4" | 7 | 2 |
| 4.1" – 12" | 8 | 3 |
| > 12" | 7 | 2 |

Additional Biological and Opportunity Factors

A complete fish passage database should have three kinds of information: ranking criteria and scores (see above); secondary biological factors that partners may use to prioritize further; and opportunity factors that partners may use to prioritize further or to plan projects. Secondary Biological and Opportunity factors are listed below; those in italics are in the current prioritization database. Other factors may be gathered on a smaller scale to prioritize crossings within a watershed or to design the restoration project.

Secondary Biological factors:

- Barriers upstream and downstream
- Presence of adults and/or juveniles upstream
- Species diversity or richness; may include trout
- Fish Abundance and/or status of population
- Proximity to spawning areas
- Proximity to rearing areas
- Upstream and/or downstream habitat quality or type (e.g. wetland, lake)
- Upstream and/or downstream habitat quantity
- Priority watersheds based on Salmon Watersheds Atlas (Mat-Su Salmon Partnership 2009)
- Invasive species (i.e. pike) in the watershed

Opportunity Factors:

- *Owner of road/culvert*
- *Additional culvert survey information*
 - *Perch*
 - *culvert type*
 - *culvert condition*
 - *inlet width and height*
 - *culvert length*
- Road scheduled for work in future
- Potential design and construction costs

Collaborative Approaches to Improving Fish Passage

Organizations in the Mat-Su Salmon Partnership have been working together for over 15 years to improve fish passage in the basin. One goal of this plan is to find additional ways that these existing collaborations can be enhanced to effect greater overall improvement in fish passage in the Mat-Su. The prioritization suggests partners might be effective working together in watersheds or concentrating their efforts to assist transportation agencies with repairing their culverts.

Ecosystem Approach

An ecosystem approach attempts to remove all barriers to fish passage within a watershed or adjacent watersheds and to restore more normal functioning to the streams. This opens up an entire ecosystem, ensuring that returning salmon have access to spawning areas and that juvenile fish can move throughout the ecosystem to reach unfrozen overwintering areas and productive rearing. Studies elsewhere have indicated that reducing the environmental impacts of river infrastructure networks at a watershed level provide the most effective and cost-efficient means by which to enhance fish populations and overall ecological status of river systems (Kemp & O' Hanley 2010). Partners including the Mat-Su Borough, US Fish and Wildlife Service, and The Nature Conservancy have used a watershed approach in the last four years to open up fish passage on tributaries to the Little Susitna River.

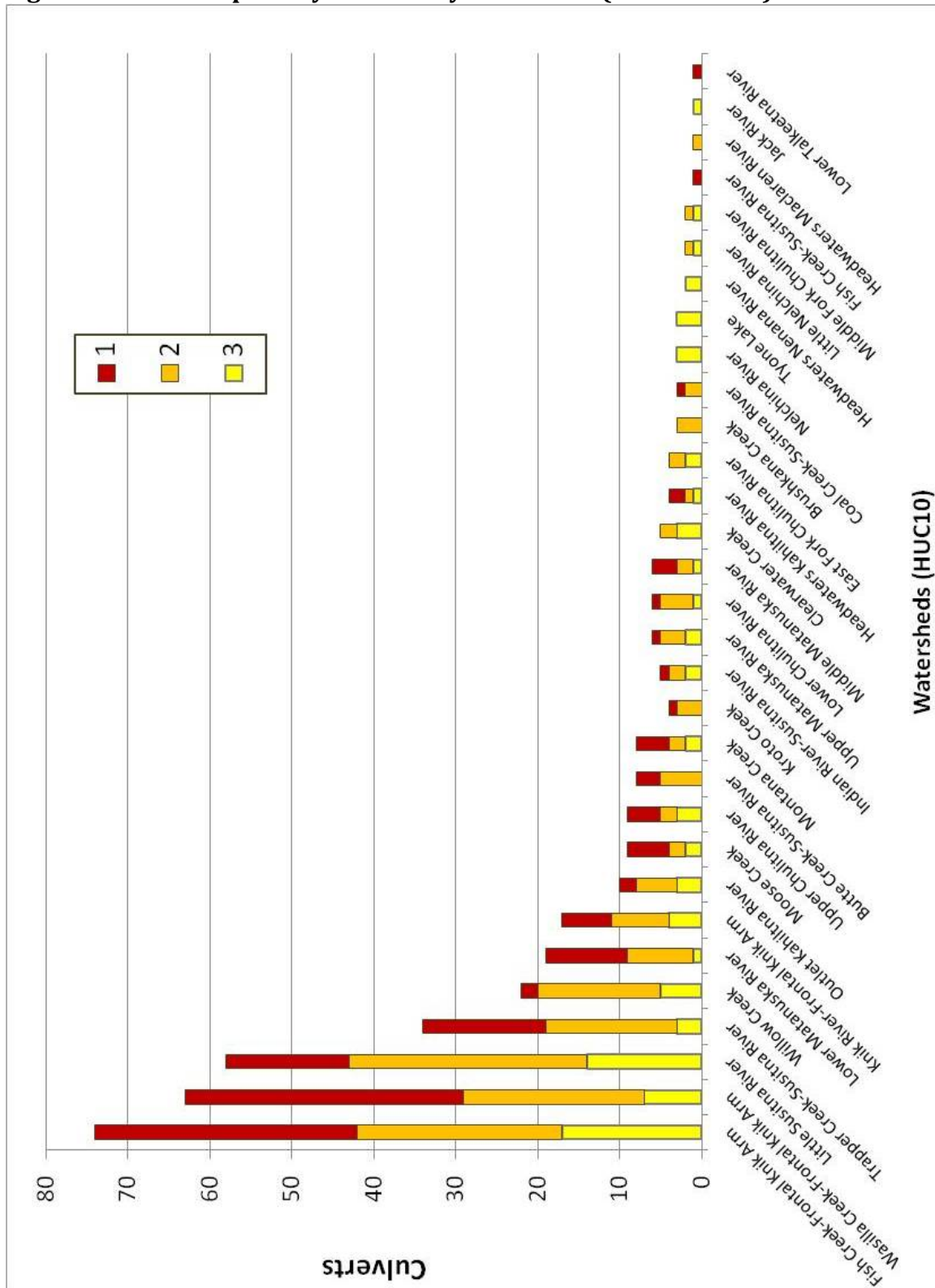
The summary of Tier 1 - 3 crossings by watershed indicates several areas where a watershed approach to improving fish passage might provide a large benefit (Figure 3; Figure 4; Table 5).

To select one or two watersheds for greater focus, we could include additional criteria that were not possible across the basin, including habitat quantity, perch, species, and opportunities. Partners can also do on-the-ground assessment of conditions, including habitat quality. Costs and landowner/culvert owner willingness will be important factors to determine where to focus.

Table 5. Potential Grouped watersheds for restoration focus

| | Watersheds (HUC 10) | Tier 1 | Tier 2 | Tier 3 | Total Tiers 1-3 |
|-------------------------|-----------------------------|---------------|---------------|---------------|----------------------------|
| Little Susitna-Big Lake | Goose Bay | 32 | 25 | 17 | 74 |
| | Little Susitna River | 15 | 29 | 14 | 58 |
| | Willow Creek | 2 | 15 | 5 | 22 |
| | Fish Creek-Big Lake | 1 | | | 1 |
| Matanuska-Knik | Matanuska-Knik Delta | 34 | 22 | 7 | 63 |
| | Lower Matanuska River | 10 | 8 | 1 | 19 |
| | Knik River-Frontal Knik Arm | 6 | 7 | 4 | 17 |
| | Upper Matanuska River | 1 | 3 | 2 | 6 |
| | Middle Matanuska River | 3 | 2 | 1 | 6 |
| Middle Susitna | Trapper Creek-Susitna River | 15 | 16 | 3 | 34 |
| | Montana Creek | 4 | 2 | 2 | 8 |
| | Indian River-Susitna River | 1 | 2 | 2 | 5 |
| | Lower Talkeetna River | 1 | | | 1 |
| Petersville | Outlet Kahiltna River | 2 | 5 | 3 | 10 |
| | Moose Creek | 5 | 2 | 2 | 9 |
| | Kroto Creek | 1 | 3 | | 4 |
| | Headwaters Kahiltna River | 2 | 1 | 1 | 4 |
| Chulitna | Upper Chulitna River | 4 | 2 | 3 | 9 |
| | Lower Chulitna River | 1 | 4 | 1 | 6 |
| | East Fork Chulitna River | | 2 | 2 | 4 |
| | Middle Fork Chulitna River | | 1 | 1 | 2 |
| Susitna Headwaters | Butte Creek-Susitna River | 3 | 5 | | 8 |
| | Clearwater Creek | | 2 | 3 | 5 |
| | Coal Creek-Susitna River | 1 | 2 | | 3 |
| | Headwaters Maclaren River | | 1 | | 1 |

Figure 4. Tier 1 - 3 priority culverts by watershed (HUC level 10)



Adult Barrier

Inadequate culverts may impede movement of juvenile fish within a stream system or block adult salmon from spawning, thus removing a stream as productive habitat. Forty-three crossings in the basin have perches greater than 12” and may pose a barrier to adult salmon. Restoration of passage at these crossings could increase the amount of available spawning habitat, which in turn could introduce juveniles to more rearing habitat in the basin. These crossings occur in watersheds with Tier 1 and Tier 2 culverts and in many cases, these culverts scored highly based on their gradient and constriction scores (Appendix 3).

To determine if these culverts are blocking significant spawning habitat, the length of habitat upstream of the crossing can be calculated with available GIS stream layers or assessed with field surveys. Where the length appears to be significant, habitat quality can be assessed in the field. With this information, partners can determine restoration needs, estimate construction costs, and determine which agencies need to be involved to restore fish passage at these crossings.

Agency Focus

The Mat-Su Salmon Partnership could focus on helping its government partners with replacing their inadequate culverts. The Mat-Su Borough owns 64% of the Tier 1 – 3 crossings and the State of Alaska owns 21%. The partnership can help these agencies in several ways.

First, they can raise funds to assist with design and construction costs. US Fish and Wildlife Service has worked with the Mat-Su Borough to provide technical expertise and construction funding for over 60 culverts in the last 15 years. The Nature Conservancy (TNC) has applied for federal grants to replace culverts on borough roads and right-of-ways. In some cases, TNC transferred the funds to the borough for the work to be contracted through the borough and in others, TNC acquired permits to replace culverts on right-of-ways. The Alaska Department of Fish and Game, Chickaloon Traditional Native Council and Natural Resource Conservation Service have all contributed to replacements on state and borough roads in the past.

Second, partners can work with the transportation agencies during their project scoping and planning phases to help identify culverts that need to be replaced. This prioritization will aid these agencies in understanding which culverts are priorities. The FPWG could work with the agencies to look at their current transportation project plans (i.e. DOT STIP, MSB CIP) for inadequate culverts that could be replaced during other road construction.

Third, partners can advocate for these agencies to have greater support from their administrations to undertake fish passage restoration projects. One strategic action of the Partnership’s plan identified education within agencies as a means to maintaining fish passage at roadways³.

³ Strategic Action 6.2.3: Educate Agencies and Private Developers about Fish Passage -- Develop a fish passage educational and outreach program for both agencies and the general public that explains the value of and legal requirements for maintaining fish passage and successful methods for achieving fish passage influence. Promote and conduct educational workshops on state-of-the-art design and status of fish passage in the Mat-Su Borough on a recurring basis.

Recommendations

This prioritization aids in reducing the number of crossings that appear to require replacement to ensure fish passage, yet many barriers remain. Recent monitoring of fish passage culvert replacements suggest that we could be more effective in selecting projects if we understood juvenile salmon distribution and habitat use better. Additional analyses and field investigations are needed to select those culverts whose replacement will have the biggest benefit to salmon populations. We will also need to seek funding to implement these fish passage priorities. The following recommendations includes the possible approaches to selecting those highest priority projects and are intended to guide the Mat-Su Salmon Partnership in next steps to improving fish passage in the Mat-Su Basin. These approaches are not mutually exclusive and multiple approaches could be taken to provide greater understanding about fish passage and bring greater efficiency and effectiveness to restoration activities.

- **Perched Culverts:** Do additional analyses and field investigations to determine which perched crossings have cut off important anadromous fish habitat, either adult spawning or juvenile rearing. For culverts surveyed after 2005, take the prioritization to the next phase by including perch. This could change the prioritization significantly for those culverts categorized as Red because of perch alone yet falling into Tier 2 or 3 in this prioritization.
 - a. Re-survey culverts surveyed prior to 2005 and identified as Red due to perch. Reassess how the inclusion of perch affects culvert prioritization scores.
 - b. As possible, use GIS to delineate potential habitat above these perched culverts and use expert opinion to identify potential replacement projects. LiDAR data for the Mat-Su should make this task more feasible than existing datasets do.
 - c. Field investigate to confirm quantity and determine quality of habitat and relative abundance of juvenile salmon upstream of perched culverts to indicate if an adult barrier exists.

 - **Ecosystem Approach:** Based on this prioritization, pick watershed(s) to start planning an ecosystem-scale fish passage program for the next 4 – 5 years.
 - a. Choose watersheds based on stream types, habitat quality, species affected, potential benefits, and opportunities. Also look for small streams where a series of inadequate culverts may trap juvenile fish in small sections of streams, creating greater densities and blocking access to additional habitat, possibly of higher quality for rearing and overwintering.
 - b. Field investigate to determine quantity and quality of habitat inaccessible due to inadequate culverts, including perched culverts that block adult migration and all culverts that impede juvenile movement upstream and downstream.
-

- **Agency Focus:**
 - a. Add generalized cost estimates to prioritization based on stream size, ownership and road surface
 - b. Review borough and state transportation plans for overlap with watersheds with higher number of Tier 1 – 2 crossings
 - c. Work with agencies to determine which projects are feasible

- **Watershed Study:** Pick a watershed to study how culverts affect juvenile distribution and ecosystem functioning within a watershed. Choose based on stream types, habitat quality, species affected, and opportunities.
 - a. FWS completed a spawning distribution study and is currently undertaking a juvenile coho salmon tagging study in the Big Lake watershed to investigate their migration and habitat use, including overwintering areas. These data will provide input into an optimization model to better prioritize culvert replacement in this area.
 - b. Field investigate habitat variables to better understand how culverts affect juvenile and adult fish movement and juvenile distribution and ecosystem functions, such as sediment transport and flood control. Additional analyses should incorporate some type of biotic measure (e.g. PIT tags, catch-per-unit-trap, mark recapture, etc.)

- **Funding:** Develop a long-term funding plan for fish passage restoration in the Mat-Su.
 - a. This might include agreements between the various organizations on roles and responsibilities.
 - b. Identify potential funding, both private and public, for fish passage restoration from 2013- 2018 (including grants, STIPs, foundations, etc.). Create a calendar and partner responsibility list for applying for funds.
 - c. Prepare an overall fish passage restoration project description that can be used as a basis for preparing proposals.

Cited and Reference Literature

- Cedarholm, CJ and WJ Scarlett. 1982. Seasonal immigrations of juvenile salmonids into four small tributaries of the Clearwater River, Washington, 1977-1981. In *Salmon and Trout Migratory Behavior Symposium*, 3-5 June 1981. Edited by EL Brannon and EO Salo. School of fisheries, University of Washington, Seattle, WA.
- Copper River Watershed Project. 2011. *Prioritizing High Priority Fish Passage Improvement Projects in the Copper River Watershed*. Copper River Watershed Project: Cordova, Alaska.
- Colt, S and T Schwoerer. 2009. *Economic Importance of Sportfishing in the Matanuska-Susitna Borough*. Prepared for Matanuska-Susitna Borough Economic Development Department by Institute of Social and Economic Research, Anchorage, AK.
- Davis, JC and GA Davis. 2012. The influence of stream crossing structures on the distribution of rearing juvenile Pacific salmon. *Society for Freshwater Science*, In Press.
- Everest, JH., JR Sedell, GH Reeves, and MD Bryant. 1991. Planning and evaluating habitat projects for anadromous salmonids. *American Fisheries Society Symposium* 10:68-77.
- Gibson et al. 2005 Loss of fish habitat as a consequence of inappropriately constructed stream crossings. *Fisheries* 30:1-17.
- Kahler TH and TP Quinn. 1998. *Juvenile and Resident Salmonid Movement and Passage through culverts*. Final Research Report, Research Project T9903, Task 93. For Washington State Transportation Commission and US Dept of Transportation. School of fisheries, University of Washington, Seattle, WA.
- Kemp PS and JR O' Hanley. 2010. Procedures for evaluating and prioritizing removal of fish passage barriers: a synthesis. *Fisheries Management and Ecology* 17:297-322.
- Mat-Su Salmon Partnership. 2008. *Conserving Salmon in the Mat-Su Basin: The Strategic Action Plan of the Mat-Su Basin Salmon Habitat Partnership*. The Nature Conservancy: Anchorage, Alaska.
- O' Hanley JR and D Tomberlin. 2005. Optimizing the removal of small fish passage barriers. *Environmental Modeling and Assessment* 10:85-98.
- Roni, P, TJ Beechie, RE Bilby, FE Leonetti, MM Pollock, and GR Pess. 2002. A review of stream restoration techniques and a hierarchical strategy for prioritizing restoration in Pacific Northwest watersheds. *North American Journal of Fisheries Management* 22:1-20.
- Scully, RJ, Leitzinger EF, and CE Petrosky. 1990. *Idaho habitat evaluation for off-site mitigation record*. Portland, OR: Bonneville Power Administration, Annual Report 1988, Contract No DE-A179-84BP133881, 76 pp.
- Sheer and Steel. 2006. Lost watersheds: barriers, aquatic habitat connectivity, and salmon persistence in the Willamette and Lower Columbia River basins. *Transactions of the American Fisheries Society* 135:1654-1669.
- Taylor, RN and M Love. 2003. Part IX Fish Passage Evaluation at Stream Crossings from California *Salmonid Stream Habitat Restoration Manual*.
- USFS. 2008. *Stream Simulation: An Ecological Approach To Providing Passage for Aquatic Organisms at Road-Stream Crossings*. Forest Service Stream-Simulation Working Group, National Technology and Development Program, San Dimas, CA.

Appendices

1. Alaska Department of Fish and Game Level 1 Assessment of Fish Passage
2. Prioritized Crossing Sites in the Mat-Su with Criteria Scores
3. Perched Crossing Sites in the Mat-Su with Criteria Scores

**Appendix 1: Alaska Department of Fish and Game Level 1
Assessment of Fish Passage**

ADFG Juvenile Salmonid Fish Passage Assessment Criteria

| | Green | Gray | Red |
|-----------------------|--|---|---|
| Structure Type | Conditions may be adequate to pass juvenile fish | Conditions unlikely to pass juvenile fish, additional analysis required | Conditions assumed inadequate to pass juvenile fish, additional analysis required |
| 1 | Installed at channel gradient (+/- 1% slope), AND culvert span to OHW width ratio greater than or equal to 0.75 OR fully backwatered | Structure not installed at channel gradient (+/- 1%), OR culvert span to OHW width ratio of 0.5 to 0.75 | Culvert span to OHW width ratio less than 0.5 |
| 2 | Culverts (all span widths) with 2 X 6 inch corrugations or greater, not embedded. | Culvert gradient 1.0 to 2.0%, OR less than or equal to 4-inch outfall hgt., OR culvert span to OHW width ratio of 0.5 to 0.75 | Culvert gradient greater than 2.0%, OR outfall hgt. greater than 4 inches, OR span to OHW width ratio less than 0.5 |
| 3 | Pipe arch or circular CMP (span width greater than 4 feet), less than 2 X 6 inch corrugations, not embedded | Culvert gradient 0.5 to 2.0%, OR less than or equal to 4-inch outfall hgt., OR culvert span to OHW width ratio of 0.5 to 0.75 | Culvert gradient greater than 2.0%, OR outfall hgt. greater than 4 inches, OR culvert span to OHW width ratio less than 0.5 |
| 4 | Circular CMP (span width less than or equal to 4 feet), less than 2 X 6 inch corrugations, not embedded | Culvert gradient 0.5 to 1.0%, OR less than or equal to 4-inch outfall hgt., OR culvert span to OHW width ratio of 0.5 to 0.75 | Culvert gradient greater than 1.0%, OR outfall hgt. greater than 4 inches, OR span to OHW width ratio less than 0.5. |
| 5 | Box culverts, culverts with non-standard configurations or materials, baffled, or multiple structure installations | All | |

1: These criteria are not design standards, but rather indicate whether the structure is likely to provide fish passage for juvenile salmonids based on a one-time evaluation.

2: Ordinary high water (OHW) is the mean stream width measured either upstream or downstream of the culvert beyond the hydraulic influence of the culvert. The OHW mark is the elevation on the bank where the ordinary action of stream flows leaves a natural line on the bank as indicated by erosion, changes in soil characteristics, destruction of terrestrial vegetation, or other distinctive physical characteristics.

3: An embedded culvert must have 100% bedload coverage. Circular culverts must be embedded at least 20% of the diameter. A pipe-arch must be embedded so that the mean bedload depth is greater than or equal to the vertical distance from the bottom of the pipe to the point of maximum horizontal dimension of the culvert (haunch height) or is 1 foot deep, whichever is greater.

4: A culvert is considered backwatered if the elevation of the tailwater control exceeds the elevation of the invert at both the outlet and inlet of the culvert. Culvert gradient, span to OHW ratio, and outfall height criteria are not considered in the assessment of fish passage in backwatered culverts. A culvert is not backwatered if a hydraulic jump occurs within the barrel.

5. Outfall height is the difference in water surface elevation in the outlet and the elevation of the tailwater surface.

Appendix 2: Prioritized Crossing Sites in the Mat-Su with Criteria Scores

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block-age | Constri-ction | Gradi-ent | Criteria Scores for Prioritization | |
|-----------|-----------------------------|--|------------------------------|----------|-----------|-----------|-----------|---------------|-----------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20501051 | | Unk (Connects pond to marsh) | PHILLIPS DRIVE | 61.611 | -149.639 | 10 | 7 | 10 | 10 | 37 | 1 |
| 20501233 | | Eska Creek | Suzanna Street | 61.582 | -149.571 | 8 | 7 | 10 | 10 | 35 | 1 |
| 20400592 | | Trib Wasilla Ck | Eska Road | 61.739 | -148.906 | 8 | 7 | 10 | 10 | 35 | 1 |
| 20401363 | 247-50-10260-2019-3041 | | private drive (near Hyer Rd) | 61.576 | -149.295 | 10 | 7 | 10 | 7 | 34 | 1 |
| 20501086 | | Connects Nekleson and unnamed lakes | BRITTANY DRIVE | 61.577 | -149.729 | 10 | 7 | 10 | 7 | 34 | 1 |
| 20401288 | | Seymore Lake Drainage | Home Built Circle | 61.627 | -149.283 | 10 | 7 | 10 | 7 | 34 | 1 |
| 20501055 | | Unk Trib to Little Susitna | MEADOW LAKES DRIVE | 61.598 | -149.678 | 8 | 7 | 10 | 7 | 32 | 1 |
| 20501207 | | Bodenberg Ck | Palmer Fishhook Rd | 61.747 | -149.232 | 10 | 7 | 5 | 10 | 32 | 1 |
| 20501148 | | NULL | MOOSE MEADOWS RD | 61.678 | -149.405 | 10 | 7 | 7 | 7 | 31 | 1 |
| 20401266 | 247-50-10200-2071-3025-403C | | driveaway at Bodenber | 61.573 | -149.036 | 10 | 7 | 10 | 3 | 30 | 1 |
| 20400628 | | Caswell Ck | Old Glenn Highway | 61.474 | -149.170 | 8 | 7 | 5 | 10 | 30 | 1 |
| 20501466 | | Tributary Wasilla Creek u/s of Wright Lk | Hidden Hills Rd | 61.989 | -149.997 | 10 | 7 | 10 | 3 | 30 | 1 |
| 20401340 | | Trib Wasilla Creek | Bonnie | 61.647 | -149.190 | 10 | 7 | 10 | 3 | 30 | 1 |
| 20401330 | 247-50-10260-2019-3066-4025 | | Seagull Drive | 61.616 | -149.212 | 10 | 7 | 10 | 3 | 30 | 1 |
| 20501402 | 247-41-10200-2081-3194-401C | | Petersville Rd | 62.337 | -150.564 | 10 | 7 | 10 | 3 | 30 | 1 |
| 20501493 | | Unk Trib to Cache Ck | Petersville Rd | 62.490 | -150.985 | 10 | 7 | 10 | 3 | 30 | 1 |
| 20401273 | 247-50-10300-2080 | | Driveway | 61.625 | -149.314 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501383 | | Question Ck | Parks Highway | 62.867 | -149.853 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501419 | 247-41-10200-2300-3011 | | Talkeetna Spur | 62.222 | -150.087 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501424 | 247-41-10200-2226 | | PARKS HIGHWAY | 62.044 | -150.060 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501429 | 247-41-10100-2231-3018 | | PARKS Highway | 61.646 | -149.876 | 10 | 7 | 5 | 7 | 29 | 1 |
| 20501156 | | Crocker Ck | SETTLERS BAY DRIVE | 61.512 | -149.629 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501223 | | O'Brian Ck | Royal Lane | 61.484 | -149.683 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501173 | | Goose Ck | Cameo | 61.422 | -149.919 | 10 | 7 | 5 | 7 | 29 | 1 |
| 20501167 | | Connects Cornelius and Neklason Lakes | Arthur Circle | 61.688 | -149.957 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20401268 | 247-50-10300-2054 | | Engstrom Road | 61.629 | -149.261 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20401359 | 247-50-10260-2019-3038 | | Fireweed Road | 61.567 | -149.313 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20401302 | 247-50-10300 | | Marble Way | 61.542 | -149.523 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20401315 | 247-50-10260-2019-3020 | | Old Matanuska Rd | 61.548 | -149.229 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20401263 | 247-50-10200-2071-3025 | | private drive - Goodrich | 61.570 | -149.040 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501077 | | Little Meadow Creek | RIDGECREST RD | 61.573 | -149.693 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501526 | | Buddy Ck | Unnamed Primitive Rd | 62.140 | -149.987 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501494 | | Unk Trib to Cache Ck | Petersville Rd | 62.514 | -150.914 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20501213 | | Trib to Little Su | Palmer Fishhook Rd | 61.775 | -149.204 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20401260 | 247-50-10200-2071-3023 | | Private Drive | 61.566 | -149.043 | 10 | 7 | 10 | 2 | 29 | 1 |
| 20400600 | | NULL | Knik River Rd | 61.463 | -148.860 | 8 | 7 | 10 | 3 | 28 | 1 |
| 20400601 | | NULL | Knik River Rd | 61.457 | -148.840 | 8 | 7 | 10 | 3 | 28 | 1 |
| 20501413 | 247-41-10200-2291-3025 | | PARKS Highway | 62.217 | -150.230 | 10 | 7 | 10 | 1 | 28 | 1 |
| 20501431 | 247-50-10330-2050-3050-401S | | PARKS HIGHWAY | 61.578 | -149.730 | 10 | 7 | 10 | 1 | 28 | 1 |
| 20501459 | | Unk Trib to Susitna R | Bradley | 62.281 | -150.179 | 8 | 7 | 10 | 3 | 28 | 1 |
| 20501258 | | Trib to Lake Ck | Zero Lakes Rd | 61.672 | -149.824 | 8 | 7 | 10 | 3 | 28 | 1 |
| 20501105 | | Meadow Creek | BEAVER LAKE RD | 61.563 | -149.826 | 10 | 7 | 10 | 1 | 28 | 1 |
| 20500568 | 247-41-10100-2379 | | Fish Hook Rd | 61.751 | -149.233 | 10 | 7 | 10 | 1 | 28 | 1 |
| 20501192 | | Connects 2 Lakes | Lancaster | 61.473 | -149.959 | 8 | 7 | 10 | 3 | 28 | 1 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block-age | Constri-ction | Gradi-ent | Criteria Scores for Prioritization | |
|-----------|-----------------------------|---------------------------------------|--------------------------------|----------|-----------|-----------|-----------|---------------|-----------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20501143 | | Crocker Creek | SETTLERS BAY DRIVE | 61.501 | -149.620 | 10 | 7 | 10 | 1 | 28 | 1 |
| 20401262 | 247-50-10200-2071 | Bodenberg Ck | private drive | 61.564 | -149.041 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20401264 | 247-50-10200-2071-3025-403C | Bodenberg Ck | private drive - Goodrich | 61.570 | -149.039 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20401309 | 247-50-10260-2035 | Rabbit Slough | Alaska Railroad | 61.538 | -149.234 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20401310 | 247-50-10260 | Rabbit Slough | Alaska Railroad | 61.535 | -149.235 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20401312 | 247-50-10260 | Rabbit Slough | Glenn Highway | 61.535 | -149.252 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20401278 | 247-50-10300 | Cottonwood Ck | Palmer Wasilla Highway | 61.583 | -149.396 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20401301 | 247-50-10300 | Cottonwood Ck | Riverdell | 61.532 | -149.528 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20400590 | 247-50-10220-2109-3012 | NULL | Glenn Highway | 61.724 | -148.830 | 10 | 7 | 0 | 10 | 27 | 1 |
| 20400593 | | NULL | Jone Village Rd | 61.733 | -148.919 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20501384 | | Trib to PASS Ck | Parks Highway | 62.908 | -149.719 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20501416 | | MONTANA LAKES | PARKS Highway | 62.139 | -150.051 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20401279 | 247-50-10300 | Cottonwood Ck | Parks Highway | 61.575 | -149.404 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20501092 | | | BIRCH RD | 61.576 | -149.775 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20501130 | | | BEAVER LAKE RD | 61.573 | -149.839 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20501146 | | | SNUFFY'S RD | 61.652 | -149.597 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20501456 | | Unk Trib to Susitna | Bradley | 62.303 | -150.179 | 8 | 7 | 10 | 2 | 27 | 1 |
| 20501513 | | Unk Trib to Susitna R | Saunders | 62.307 | -150.185 | 8 | 7 | 10 | 2 | 27 | 1 |
| 20501516 | | Unk Trib to Trapper Ck | Susitna River Rd | 62.315 | -150.198 | 8 | 7 | 10 | 2 | 27 | 1 |
| 20501485 | | Unk trib to Moose Ck | Petersville Rd | 62.320 | -150.463 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20501236 | | Upper Willow Ck | Upper Willow Rd | 61.773 | -149.330 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20401303 | 247-50-10300 | Cottonwood Creek | Eldlund | 61.554 | -149.488 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20501060 | | Rainbow Lake Drainage | KAREN STREET | 61.599 | -149.622 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20500569 | 247-41-10100 | Tributary to Little Susitna | Fish Hook Road | 61.758 | -149.228 | 10 | 7 | 7 | 3 | 27 | 1 |
| 20401339 | | Wasilla Creek tributary @ Wright Lake | N. Bonnie Dr. | 61.643 | -149.194 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20401265 | 247-50-10200-2071-3025 | Tributary Bodenber Creek | private drive - north of Good | 61.572 | -149.042 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20501882 | | | Wolf Road | 61.576 | -149.840 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20400587 | | Muddy Creek | Glenn Highway | 61.796 | -147.997 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20501803 | | Unnamed Tributary to Susitna River | Alaska Railroad | 62.044 | -150.071 | 10 | 5 | 10 | 2 | 27 | 1 |
| 20500276 | | Unk | Denali Highway | 63.193 | -147.618 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20500282 | | Waterfall Ck | Denali Highway | 63.033 | -147.183 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20501469 | | Unk | Malaspina | 62.144 | -149.921 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20501473 | | Unk | Oil Well Rd | 62.182 | -150.517 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20401292 | 247-50-10300-2022 | Tributary to Cottonwood Creek | Redoubt | 61.530 | -149.525 | 10 | 7 | 10 | 0 | 27 | 1 |
| 20401820 | | Glacial Fan Creek | Glenn Highway | 61.816 | -147.468 | 0 | 7 | 10 | 10 | 27 | 1 |
| 20401329 | 247-50-10260-2019-3066 | trib Wasilla Ck (Walby Ck) | private drive | 61.612 | -149.238 | 10 | 5 | 10 | 1 | 26 | 1 |
| 20501393 | 247-41-10200-2381-3007-4025 | Unk Trib | Parks Highway | 62.393 | -150.263 | 10 | 7 | 7 | 2 | 26 | 1 |
| 20501038 | | | SHORTY STREET | 61.666 | -149.339 | 8 | 7 | 10 | 1 | 26 | 1 |
| 20501082 | | | AIROLO DRIVE | 61.582 | -149.725 | 10 | 7 | 2 | 7 | 26 | 1 |
| 20501435 | 247-50-10330-2050 | Meadow Ck | BEAVER LAKE RD | 61.563 | -149.825 | 10 | 5 | 10 | 1 | 26 | 1 |
| 20501409 | 247-41-10200-2341 | TRAPPER Ck | Susitna River Rd | 62.315 | -150.219 | 10 | 7 | 7 | 2 | 26 | 1 |
| 20401354 | 247-50-10260-2019-3041-4013 | Trib Wasilla Ck | Lower Rd - near Hyer Rd | 61.579 | -149.293 | 10 | 5 | 10 | 1 | 26 | 1 |
| 20501188 | | Unk | Karsten Drive | 61.594 | -149.582 | 8 | 7 | 10 | 1 | 26 | 1 |
| 20401284 | 247-50-10300-2012 | Cottonwood Slough | driveway - 2540 Trapline Drive | 61.526 | -149.515 | 10 | 5 | 10 | 1 | 26 | 1 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block-age | Constri-ction | Gradi-ent | Criteria Scores for Prioritization | |
|-----------|-----------------------------|------------------------------------|-----------------------------|----------|-----------|-----------|-----------|---------------|-----------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20401337 | 247-50-10260-2019 | Wasilla Creek | Fishhook Road | 61.643 | -149.198 | 10 | 7 | 7 | 2 | 26 | 1 |
| 20400591 | | Eska Creek | Jone Village Road | 61.728 | -148.911 | 8 | 5 | 10 | 3 | 26 | 1 |
| 20401322 | 247-50-10260-2019-3020 | Spring Creek | Nelson Road | 61.548 | -149.264 | 10 | 5 | 10 | 1 | 26 | 1 |
| 20501463 | | Unk. Trib to Talkeetna R. | Cummings | 62.344 | -150.066 | 8 | 7 | 10 | 1 | 26 | 1 |
| 20501807 | | Unnamed Tributary to Sustina River | Alaska Railroad | 62.454 | -150.118 | 10 | 7 | 7 | 2 | 26 | 1 |
| 20401316 | 247-50-10260-2019-3020 | Spring Ck | Alaska Railroad | 61.548 | -149.229 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20401323 | 247-50-10260-2019-3030 | Trib Spring Ck | Parks Highway | 61.556 | -149.250 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20401317 | 247-50-10260-2019-3030 | Spring Ck | private | 61.551 | -149.262 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20401325 | 247-50-10260-2019-3020 | Spring Ck | Glenn Highway | 61.553 | -149.249 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20401308 | 247-50-10300 | Cottonwood Ck | Trail near Palmer Elks | 61.609 | -149.292 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20501422 | | NULL | PARKS Highway | 62.156 | -150.100 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20501428 | | Trib TO LAKE Ck | PARKS Highway | 61.659 | -149.935 | 10 | 7 | 5 | 3 | 25 | 1 |
| 20501047 | | Unk Trib | SUNRISE RD | 61.650 | -149.564 | 10 | 7 | 5 | 3 | 25 | 1 |
| 20501430 | 247-50-10330-2050-3025 | Unk Trib | PARKS HIGHWAY | 61.584 | -149.743 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20501434 | 247-50-10330-2050-3030 | Lucille Ck | Big Lake Rd | 61.561 | -149.778 | 10 | 7 | 5 | 3 | 25 | 1 |
| 20501153 | | Unk Trib to Nancy Ck | TRAIL | 61.591 | -149.741 | 10 | 7 | 5 | 3 | 25 | 1 |
| 20501490 | | Unk Trib to Peters Ck | Petersville Rd | 62.479 | -150.747 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20501512 | | Unk trib to Peters Ck | Petersville Road | 62.384 | -150.724 | 10 | 7 | 5 | 3 | 25 | 1 |
| 20501418 | 247-41-10200-2300-3011-4008 | Unk Trib | Talkeetna Spur | 62.211 | -150.078 | 10 | 7 | 5 | 3 | 25 | 1 |
| 20501221 | | Trib to Nancy Ck | Driveway | 61.689 | -149.957 | 10 | 7 | 7 | 1 | 25 | 1 |
| 20501238 | | Shirley Lake outlet | Willow Creek Parkway | 61.758 | -150.107 | 10 | 7 | 7 | 1 | 25 | 1 |
| 20401271 | 247-50-10300 | Anderson Lake outlet | | 61.623 | -149.324 | 10 | 7 | 5 | 3 | 25 | 1 |
| 20401304 | 247-50-10300 | Cottonwood Creek | Fern | 61.563 | -149.450 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20401261 | 247-50-10200-2071-3023 | Bodenberg Creek | private drive | 61.564 | -149.043 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20501799 | | Question Creek | Alaska Railroad | 62.196 | -150.088 | 8 | 5 | 10 | 2 | 25 | 1 |
| 20501420 | 247-41-10200-2320-3010 | EXITS FISH LAKE | TALKEETNA SPUR | 62.255 | -150.081 | 10 | 5 | 10 | 0 | 25 | 1 |
| 20501404 | | Unamed Trib | Oil Well Rd | 62.238 | -150.439 | 8 | 7 | 10 | 0 | 25 | 1 |
| 20501193 | | Unk Trib to Fish Ck | Lewis Loop | 61.455 | -149.809 | 8 | 7 | 10 | 0 | 25 | 1 |
| 20401338 | | Trib Wasilla Creek | Fishhook Road | 61.642 | -149.196 | 10 | 7 | 7 | 1 | 25 | 1 |
| 20401270 | | Cottonwood Ckk NW Neklason Lk | Camp Challenge Trail | 61.633 | -149.274 | 0 | 7 | 10 | 7 | 24 | 1 |
| 20401274 | | outlet stream Wolf Lake | Driveway | 61.626 | -149.312 | 0 | 7 | 10 | 7 | 24 | 1 |
| 20400589 | | NULL | Glenn Highway | 61.803 | -148.070 | 0 | 7 | 7 | 10 | 24 | 1 |
| 20400626 | | NULL | Old Glenn Highway | 61.474 | -149.189 | 0 | 7 | 7 | 10 | 24 | 1 |
| 20501377 | | Trib of Little Honolulu Ck | Parks Highway | 63.059 | -149.553 | 0 | 7 | 10 | 7 | 24 | 1 |
| 20501403 | | Unk Trib | Oil Well Rd | 62.283 | -150.423 | 0 | 7 | 10 | 7 | 24 | 1 |
| 20501449 | | Meadow Ck | CHURCH RD | 61.604 | -149.511 | 8 | 7 | 7 | 2 | 24 | 1 |
| 20501054 | | | MEADOW LAKES LOOP | 61.612 | -149.646 | 8 | 7 | 2 | 7 | 24 | 1 |
| 20501094 | | | LARAE RD | 61.580 | -149.746 | 10 | 7 | 5 | 2 | 24 | 1 |
| 20500294 | | Unk | Denali Highway | 63.145 | -147.532 | 0 | 7 | 10 | 7 | 24 | 1 |
| 20500315 | | Windy Ck | Clear Water Creek Access Rd | 63.114 | -147.507 | 0 | 7 | 10 | 7 | 24 | 1 |
| 20501461 | | Unk | Caswell Lakes Rd | 62.001 | -149.956 | 0 | 7 | 10 | 7 | 24 | 1 |
| 20501483 | | Unk Trib to NineMile Ck | Petersville Rd | 62.311 | -150.374 | 10 | 7 | 7 | 0 | 24 | 1 |
| 20501216 | | Trib to Little Su | Palmer Fishhook Rd | 61.778 | -149.204 | 0 | 7 | 7 | 10 | 24 | 1 |
| 20501204 | | Unk - drains marsh | Bike Path | 61.581 | -149.573 | 8 | 5 | 10 | 1 | 24 | 1 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block-age | Constri-ction | Gradi-ent | Criteria Scores for Prioritization | |
|-----------|-----------------------------|-----------------------------|-----------------------------|----------|-----------|-----------|-----------|---------------|-----------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20401887 | | Packsaddle Creek | Lee Drive | 61.805 | -147.982 | 0 | 7 | 7 | 10 | 24 | 1 |
| 20501155 | | Lucille Creek | BAILEY AVENUE | 61.570 | -149.510 | 10 | 7 | 7 | 0 | 24 | 1 |
| 20501417 | 247-41-10200-2300-3011-4006 | Answer Ck | TALKEETNA SPUR | 62.202 | -150.067 | 10 | 7 | 5 | 2 | 24 | 1 |
| 20501222 | | O'Brian Ck | Rubacaba Railroad | 61.493 | -149.660 | 10 | 7 | 5 | 2 | 24 | 1 |
| 20501165 | | | Railroad | 61.658 | -149.937 | 10 | 7 | 5 | 2 | 24 | 1 |
| 20501795 | | | Alaska Railroad | 62.991 | -149.630 | 0 | 7 | 7 | 10 | 24 | 1 |
| 20401307 | 247-50-10300 | Cottonwood Ck | Bogard Rd | 61.614 | -149.291 | 10 | 5 | 7 | 1 | 23 | 1 |
| 20501426 | | GREYS Ck | PARKS Highway | 61.896 | -150.078 | 10 | 7 | 5 | 1 | 23 | 1 |
| 20501139 | | Little Meadow Ck | Alaska Railroad | 61.586 | -149.670 | 10 | 7 | 5 | 1 | 23 | 1 |
| 20501159 | | Unk | Railroad | 61.582 | -149.594 | 8 | 7 | 5 | 3 | 23 | 1 |
| 20501172 | | Connects 2 Lakes | Bryant | 61.473 | -149.960 | 8 | 7 | 7 | 1 | 23 | 1 |
| 20401170 | | trib to Moose Ck | Buffalo Mine Rd | 61.730 | -149.040 | 10 | 5 | 5 | 3 | 23 | 1 |
| 20400583 | | NULL | Glenn Highway | 61.850 | -147.388 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20400627 | | NULL | Old Glenn Highway | 61.474 | -149.175 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20400597 | | NULL | Knik River Rd | 61.488 | -148.903 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20500570 | | NULL | Fish Hook Rd | 61.772 | -149.209 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501414 | 247-41-10200-2291 | RABIDUEX Ck | PARKS Highway | 62.190 | -150.210 | 10 | 5 | 7 | 0 | 22 | 2 |
| 20501427 | 247-41-10100-2231-3050 | NANCY Ck | PARKS Highway | 61.687 | -149.970 | 10 | 5 | 0 | 7 | 22 | 2 |
| 20501080 | | | CANNON DRIVE | 61.588 | -149.723 | 10 | 5 | 7 | 0 | 22 | 2 |
| 20501154 | | Lucille Ck | FOOTHILLS BOULEVARD | 61.562 | -149.571 | 10 | 5 | 7 | 0 | 22 | 2 |
| 40500274 | | Unk | Denali Highway | 63.227 | -147.729 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501470 | | Unk. Trib of Birch Ck. | Mastodon | 62.283 | -149.951 | 10 | 5 | 5 | 2 | 22 | 2 |
| 20501462 | | Caswell Ck | Caswell Lakes Rd | 62.008 | -149.986 | 10 | 5 | 5 | 2 | 22 | 2 |
| 20501398 | 247-41-10200-2081-3194 | Seventeen Mile Ck | Petersville Rd | 62.337 | -150.574 | 10 | 7 | 5 | 0 | 22 | 2 |
| 20501157 | | Unk Trib to Little Su | Armstrong | 61.632 | -149.780 | 10 | 5 | 0 | 7 | 22 | 2 |
| 20401198 | | MCKoberts Ck | Maud Rd | 61.585 | -148.987 | 10 | 5 | 5 | 2 | 22 | 2 |
| 20401290 | 247-50-10300-2012 | Cottonwood Slough | Fairview Loop | 61.528 | -149.507 | 10 | 7 | 2 | 3 | 22 | 2 |
| 20501385 | | Tributary to Lily Creek | Denali Highway | 62.662 | -150.226 | 8 | 7 | 7 | 0 | 22 | 2 |
| 20501876 | | Colter Creek | Driveway off Sitze Road | 61.658 | -149.497 | 10 | 5 | 5 | 2 | 22 | 2 |
| 20501479 | | Unk Trib to Rabideux Ck | Petersville Rd | 62.317 | -150.309 | 8 | 7 | 5 | 2 | 22 | 2 |
| 20501499 | | Unk Trib to Peters Ck | Petersville Rd | 62.498 | -150.768 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501214 | | Trib to Fishhook Ck | Palmer Fishhook Rd | 61.773 | -149.272 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20401191 | | trib to Friday Ck | Knik River Rd | 61.435 | -148.782 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20401169 | | trib to Moose Ck | Buffalo Mine Rd | 61.710 | -149.092 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501254 | | trib to Willow Ck | Willow Fishhook Rd | 61.764 | -149.474 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501255 | | trib to Willow Ck | Willow Fishhook Rd | 61.769 | -149.433 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20401269 | | Neklason Lake Tributary | Twin Lakes Drive | 61.632 | -149.264 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20401848 | | Tributary to Wasilla Creek | Driveway off Oceanview Road | 61.719 | -149.104 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20401879 | | Packsaddle Creek | Victory Road | 61.801 | -147.986 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501376 | | Herdage Creek | Parks Highway | 63.134 | -149.493 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501392 | 247-41-10200-2381-3051 | Tributary to Chulitna River | Parks Highway | 62.454 | -150.273 | 10 | 7 | 5 | 0 | 22 | 2 |
| 20500281 | | Alpine Ck | Denali Highway | 63.042 | -147.248 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501212 | | Trib to Little Su | Palmer Fishhook Rd | 61.770 | -149.212 | 0 | 7 | 5 | 10 | 22 | 2 |
| 20501217 | | Trib to Little Su | Palmer Fishhook Rd | 61.776 | -149.213 | 0 | 7 | 5 | 10 | 22 | 2 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block-age | Constri-ction | Gradi-ent | Criteria Scores for Prioritization | |
|-----------|------------------------|--|-------------------------------|----------|-----------|-----------|-----------|---------------|-----------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20501232 | | Coal Ck | Sushana Rd | 61.662 | -149.467 | 10 | 7 | 5 | 0 | 22 | 2 |
| 20501387 | | Unk Trib | Parks Highway | 62.509 | -150.259 | 10 | 5 | 5 | 1 | 21 | 2 |
| 20501442 | 247-41-10100-2231-3080 | LILLY Ck | Old Parks Highway | 61.707 | -150.000 | 10 | 5 | 5 | 1 | 21 | 2 |
| 20501050 | | | SUNRISE RD | 61.650 | -149.568 | 10 | 7 | 1 | 3 | 21 | 2 |
| 20501074 | | | BEVERLY LAKE RD | 61.616 | -149.566 | 0 | 7 | 7 | 7 | 21 | 2 |
| 20501492 | | Rambler Ck | Petersville Rd | 62.492 | -150.979 | 0 | 7 | 7 | 7 | 21 | 2 |
| 20401289 | 247-50-10300-2039 | Tributary to Cottonwood Creek | East Larch Drive | 61.601 | -149.342 | 10 | 7 | 2 | 2 | 21 | 2 |
| 40500292 | | Unk | Denali Highway | 63.276 | -147.925 | 0 | 7 | 7 | 7 | 21 | 2 |
| 20401327 | 247-50-10260-2019 | Wasilla Ck | Bogard Rd | 61.614 | -149.242 | 10 | 5 | 5 | 0 | 20 | 2 |
| 20401360 | 247-50-10260-2019-3038 | Wasilla Ck | Alaska Railroad | 61.566 | -149.313 | 10 | 5 | 5 | 0 | 20 | 2 |
| 20401333 | | Trib Wasilla Ck | N 49th State Street | 61.616 | -149.209 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20500567 | | NULL | Fish Hook Rd | 61.713 | -149.234 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501382 | | Coal Ck Trib | Parks Highway | 62.877 | -149.814 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501425 | 247-41-10200-2190 | CASWELL Ck | PARKS Highway | 61.948 | -150.055 | 10 | 5 | 5 | 0 | 20 | 2 |
| 20501048 | | | DAN JOE STREET | 61.662 | -149.594 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501049 | | | SUNRISE RD | 61.651 | -149.586 | 8 | 7 | 2 | 3 | 20 | 2 |
| 20501066 | | | JOLLY ROGER DRIVE | 61.632 | -149.609 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501085 | | | PARKS HIGHWAY | 61.577 | -149.728 | 10 | 7 | 0 | 3 | 20 | 2 |
| 20501467 | | Unk | Makuskin | 62.147 | -149.913 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501181 | | side slough of Willow Ck | Creekside | 61.766 | -149.995 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501182 | | Rainbow Lk to Long Lk connex. | Crystal Lake Rd | 61.707 | -150.085 | 10 | 7 | 0 | 3 | 20 | 2 |
| 20501160 | | Wetland connector | Railroad | 61.584 | -149.648 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20401234 | | Trib to Knik R | Unnamed Side Rd | 61.455 | -148.838 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501246 | | Trib to Willow Ck | Willow Fishhook Rd (offshoot) | 61.764 | -149.582 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20401357 | | Tributary to Wasilla Creek u/s of Wight Lak Bains Jordan | | 61.653 | -149.189 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20401299 | 247-50-10300-2001 | Tributary to Lucy Creek | Lucy Lake Road | 61.514 | -149.574 | 10 | 5 | 5 | 0 | 20 | 2 |
| 20401328 | 247-50-10260-2019-3066 | Walby Creek (Wasilla Creek tributary) | Colony Schools Drive | 61.613 | -149.236 | 10 | 5 | 5 | 0 | 20 | 2 |
| 20401334 | 247-50-10260-2019-3066 | Trib Wasilla Creek | Trunk Road | 61.608 | -149.244 | 10 | 5 | 5 | 0 | 20 | 2 |
| 20501084 | | Little Meadow Creek | BRITTANY DRIVE | 61.578 | -149.730 | 10 | 5 | 5 | 0 | 20 | 2 |
| 20501126 | | Unknown | Ballard Rd. | 61.556 | -149.783 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501802 | | Unnamed Tributary of Susitna River | Alaska Railroad | 62.100 | -150.069 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501808 | | Unnamed Tributary of the Susitna River | Alaska Railroad | 62.503 | -150.102 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20500275 | | Unk | Denali Highway | 63.213 | -147.672 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501520 | | Unk | Silver Salmon Drive | 61.994 | -149.963 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501497 | | Unk trib to Peters Ck | Petersville Rd | 62.537 | -150.841 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501210 | | Trib to Little Su | Palmer Fishhook Rd | 61.764 | -149.221 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501241 | | Trib to Willow Ck | Willow Fishhook Rd | 61.765 | -149.615 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501244 | | Trib to Willow Ck | Willow Fishhook Rd | 61.764 | -149.588 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501218 | | Fishhook Ck | Palmer Fishhook Rd | 61.776 | -149.279 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501152 | | Trib to Willow Ck | Alaska Railroad | 61.591 | -149.741 | 10 | 7 | 0 | 3 | 20 | 2 |
| 20501245 | | Shorty Ck | Willow Fishhook Rd | 61.765 | -149.582 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501251 | | Tributary to Chulitna River | Willow Fishhook Rd | 61.762 | -149.490 | 0 | 7 | 10 | 3 | 20 | 2 |
| 20501388 | 247-41-10200-2381-3060 | NULL | PARKS HIGHWAY | 62.474 | -150.271 | 10 | 7 | 2 | 1 | 20 | 2 |
| 20400586 | | | Glenn Highway | 61.798 | -147.991 | 0 | 7 | 5 | 7 | 19 | 2 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block-age | Constri-ction | Gradi-ent | Criteria Scores for Prioritization | |
|-----------|------------------------|--|-------------------------------|----------|-----------|-----------|-----------|---------------|-----------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20400588 | | NULL | Glenn Highway | 61.731 | -148.797 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20400599 | | NULL | Knik River Rd | 61.469 | -148.869 | 0 | 7 | 2 | 10 | 19 | 2 |
| 20501381 | | Unk Trib | Parks Highway | 62.876 | -149.818 | 0 | 7 | 5 | 7 | 19 | 2 |
| 20501394 | 247-41-10200-2341 | Trapper Ck | Parks Highway | 62.328 | -150.241 | 10 | 7 | 2 | 0 | 19 | 2 |
| 20501053 | | | MEADOW LAKES LOOP | 61.611 | -149.641 | 10 | 5 | 1 | 3 | 19 | 2 |
| 20501073 | | | WYOMING DRIVE | 61.625 | -149.587 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501095 | | | HAWK LANE | 61.585 | -149.781 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501116 | | | PRIVATE off LAKES BOULEVARD | 61.542 | -149.949 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501145 | | | SNUFFY'S RD | 61.651 | -149.602 | 0 | 7 | 5 | 7 | 19 | 2 |
| 20501460 | | Question Ck. | Barge Rd | 62.228 | -150.052 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501514 | | Caswell Ck | Shaman | 62.018 | -149.948 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501480 | | Nine Mile Ck | Petersville Rd | 62.313 | -150.348 | 10 | 5 | 2 | 2 | 19 | 2 |
| 20501481 | | Unk Trib to NineMile Ck | Petersville Rd | 62.310 | -150.362 | 8 | 7 | 2 | 2 | 19 | 2 |
| 20501498 | | Trib to Peters Ck | Petersville Rd | 62.535 | -150.824 | 0 | 7 | 5 | 7 | 19 | 2 |
| 20501208 | | Unk Trib to Little Su | Palmer Fishhook Rd | 61.759 | -149.226 | 0 | 7 | 2 | 10 | 19 | 2 |
| 20501190 | | | Kenny Boulevard | 61.773 | -149.987 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501197 | | | Mack Rd | 61.577 | -149.512 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20401355 | 247-50-10260-2019-3041 | Trib Wasilla Ck | Lower Rd - near Hyer Rd | 61.578 | -149.287 | 10 | 5 | 2 | 2 | 19 | 2 |
| 20400594 | | Tributary to Eska Creek | Eska Mine Road | 61.733 | -148.915 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20101821 | | Old Man Creek. | Glenn Highway | 61.990 | -147.023 | 0 | 7 | 2 | 10 | 19 | 2 |
| 20401790 | | Connects ponds to Trail Lake | Alascom Drive | 61.842 | -147.342 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20401791 | | | Alascom Drive | 61.851 | -147.354 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501823 | | | Jolly Roger Drive | 61.633 | -149.609 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501071 | | Fuller Lake Drainage | PITTMAN ROAD | 61.605 | -149.632 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501800 | | Sunshine Creek | Alaska Railroad | 62.176 | -150.077 | 0 | 7 | 10 | 2 | 19 | 2 |
| 40500273 | | Unk | Denali Highway | 63.279 | -148.053 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20500280 | | Raft Ck | Denali Highway | 63.050 | -147.275 | 0 | 7 | 2 | 10 | 19 | 2 |
| 20500286 | | Unk | Denali Highway | 63.093 | -146.677 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501489 | | Unk Trib to Peters Ck | Petersville Rd | 62.471 | -150.723 | 10 | 5 | 1 | 3 | 19 | 2 |
| 20401176 | | Trib to Knik River | Clare Way | 61.478 | -148.892 | 0 | 7 | 5 | 7 | 19 | 2 |
| 20401235 | | trib to Moose Ck | side road off Buffalo Mine Rd | 61.710 | -149.093 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20401171 | | Premier Ck | Buffalo Mine Rd | 61.711 | -149.090 | 0 | 7 | 5 | 7 | 19 | 2 |
| 20501248 | | Trib to Willow Ck | Willow Fishhook Rd | 61.765 | -149.555 | 0 | 7 | 2 | 10 | 19 | 2 |
| 20501250 | | Francie Ck | Willow Fishhook Rd | 61.765 | -149.521 | 0 | 7 | 10 | 2 | 19 | 2 |
| 20501253 | | trib to Willow Ck | Willow Fishhook Rd | 61.764 | -149.475 | 0 | 7 | 5 | 7 | 19 | 2 |
| 20501187 | | Fishhook Ck | Gold Chord Rd | 61.781 | -149.278 | 0 | 7 | 5 | 7 | 19 | 2 |
| 20501433 | 247-41-10100-2231-3080 | LILLY Ck | BUCKINGHAM | 61.704 | -150.003 | 10 | 5 | 0 | 3 | 18 | 2 |
| 20501114 | | | HORSESHOE LAKE RD | 61.560 | -149.933 | 0 | 5 | 10 | 3 | 18 | 2 |
| 20501131 | | | UNKNOWN | 61.589 | -149.821 | 0 | 5 | 10 | 3 | 18 | 2 |
| 20501144 | | Unk | SNUFFY'S RD | 61.652 | -149.606 | 0 | 7 | 1 | 10 | 18 | 2 |
| 20500279 | | | Denali Highway | 63.093 | -147.480 | 0 | 7 | 10 | 1 | 18 | 2 |
| 20501215 | | Trib to Fishhook Ck | Old Palmer Fishhook Rd | 61.774 | -149.272 | 0 | 7 | 10 | 1 | 18 | 2 |
| 20501247 | | Trib to Willow Ck | Willow Fishhook Rd | 61.765 | -149.572 | 0 | 7 | 10 | 1 | 18 | 2 |
| 20401336 | 247-50-10260-2019-3076 | Carnegie Creek- Tributary to Wasilla Creek | Fishhook Road | 61.636 | -149.191 | 10 | 7 | 0 | 1 | 18 | 2 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block-age | Constri-ction | Gradi-ent | Criteria Scores for Prioritization | |
|-----------|----------------------------------|---|--------------------------------|----------|-----------|-----------|-----------|---------------|-----------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20501052 | | Drainage | DEAN DRIVE | 61.613 | -149.646 | 0 | 7 | 10 | 1 | 18 | 2 |
| 20501209 | | Trib to Little Su | Palmer Fishhook Rd | 61.762 | -149.224 | 0 | 7 | 1 | 10 | 18 | 2 |
| 20401275 | | outlet stream Wolf Lake | | 61.628 | -149.309 | 0 | 7 | 10 | 0 | 17 | 2 |
| 20401294 | 247-50-10300-2022 | Trib Cottonwood Ck | | 61.530 | -149.520 | 10 | 5 | 2 | 0 | 17 | 2 |
| 20501410 | 247-41-10200-2291-3049 | Unk Trib | Parks Highway | 62.285 | -150.248 | 10 | 5 | 0 | 2 | 17 | 2 |
| 20501423 | | Twister Ck | TALKEETNA SPUR | 62.310 | -150.104 | 0 | 7 | 10 | 0 | 17 | 2 |
| 20501028 | | | EDGERTON PARKS RD | 61.693 | -149.316 | 0 | 7 | 0 | 10 | 17 | 2 |
| 20501037 | | | WELCH WAY | 61.664 | -149.335 | 0 | 5 | 10 | 2 | 17 | 2 |
| 20501117 | | | PRIVATE/ LAKES BOULEVARD | 61.540 | -149.951 | 0 | 7 | 10 | 0 | 17 | 2 |
| 20501133 | | | Driveway off CHERRYWOOD DR | 61.550 | -149.783 | 0 | 7 | 10 | 0 | 17 | 2 |
| 20501135 | | | Driveway off CHERRYWOOD DR | 61.550 | -149.785 | 0 | 7 | 10 | 0 | 17 | 2 |
| 20500283 | | Unk | Denali Highway | 63.046 | -147.001 | 0 | 7 | 7 | 3 | 17 | 2 |
| 20501464 | | Unk | Hidden Hills Rd | 61.989 | -149.960 | 0 | 7 | 7 | 3 | 17 | 2 |
| 20501478 | | Unk. Trib to Rabideux Ck | Petersville Rd | 62.317 | -150.290 | 10 | 5 | 0 | 2 | 17 | 2 |
| 20401286 | 247-50-10300-2012 | Cottonwood Slough | Trapline Drive | 61.526 | -149.515 | 10 | 7 | 0 | 0 | 17 | 2 |
| 20501137 | | Crooked Lake Outflow | PAPOOSE TWINS ROAD | 61.513 | -150.067 | 10 | 5 | 2 | 0 | 17 | 2 |
| 20401881 | | Tributary to Wasilla Creek | Samovar Way | 61.719 | -149.103 | 0 | 7 | 0 | 10 | 17 | 2 |
| 20401326 | 247-50-10260-2019 | Wasilla Creek | Palmer Wasilla Highway | 61.599 | -149.251 | 10 | 5 | 2 | 0 | 17 | 2 |
| 20501436 | 247-50-10330-2050-3019-4011-5011 | LYNDA LAKE PORTAGE | BEAVER LAKE RD | 61.570 | -149.841 | 10 | 5 | 1 | 1 | 17 | 2 |
| 20501076 | | | KALMBACH LAKE DRIVE | 61.615 | -149.588 | 0 | 5 | 10 | 2 | 17 | 2 |
| 20500293 | | Unk | Denali Highway | 63.207 | -147.653 | 0 | 7 | 0 | 10 | 17 | 2 |
| 20500288 | | Unk | Denali Highway | 63.109 | -146.587 | 0 | 7 | 0 | 10 | 17 | 2 |
| 20501081 | | | Alaska Railroad | 61.588 | -149.722 | 10 | 7 | 0 | 0 | 17 | 2 |
| 20401259 | | Bodenberg Creek | Driveway off Old Glenn Highway | 61.576 | -149.042 | 0 | 7 | 10 | 0 | 17 | 2 |
| 20401341 | | Tributary Wasilla Creek | Falk Road | 61.657 | -149.217 | 0 | 7 | 10 | 0 | 17 | 2 |
| 20501851 | | Tributary to the East fork of the Chulitna Ri | Parks Highway | 63.128 | -149.454 | 0 | 7 | 0 | 10 | 17 | 2 |
| 20501809 | | Unnamed Tributary to Susitna River | Alaska Railroad | 62.504 | -150.104 | 0 | 7 | 10 | 0 | 17 | 2 |
| 20401311 | | Spring Ck | | 61.544 | -149.252 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20401313 | | Trib Rabbit Slough | Alaska Railroad | 61.542 | -149.232 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20501411 | | Unk Trib | Parks Highway | 62.270 | -150.243 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20501070 | | Cloudy Lake Drainage | Driveway off DOUBLE BOTHER | 61.616 | -149.626 | 8 | 5 | 0 | 3 | 16 | 2 |
| 20501090 | | | LITTLE MEADOW CREEK RD | 61.575 | -149.736 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20501096 | | | HAWK LANE | 61.586 | -149.797 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20500316 | | Unk | Clear Water Creek Access Rd | 63.113 | -147.509 | 0 | 7 | 7 | 2 | 16 | 2 |
| 20501465 | | | Hidden Hills Rd | 61.989 | -149.979 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20501472 | | Unk Trib to Chijuk | Oil Well Rd | 62.106 | -150.526 | 0 | 7 | 7 | 2 | 16 | 2 |
| 20501502 | | Trib to Deep Ck | Petersville Rd | 62.432 | -150.703 | 10 | 5 | 0 | 1 | 16 | 2 |
| 20401272 | | King Lake outlet | Sierra Street | 61.621 | -149.344 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20401886 | | Tributary to Eska Creek | Unknown road | 61.732 | -148.926 | 0 | 7 | 7 | 2 | 16 | 2 |
| 20401845 | | Tributary to Fish Lake | Fish Lake Road | 61.783 | -148.555 | 0 | 7 | 2 | 7 | 16 | 2 |
| 20500277 | | Unk | Denali Highway | 63.141 | -147.535 | 0 | 7 | 2 | 7 | 16 | 2 |
| 20501508 | | Unk trib to TwentyMile Ck | Petersville Road | 62.355 | -150.669 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20501206 | | Unk Trib to Little Su | Palmer Fishhook Rd | 61.736 | -149.233 | 0 | 7 | 7 | 2 | 16 | 2 |
| 20501256 | | Craigie Ck | Willow Fishhook Rd | 61.776 | -149.397 | 0 | 7 | 7 | 2 | 16 | 2 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block-age | Constric- tion | Gradi- ent | Criteria Scores for Prioritization | |
|-----------|-------------------|-------------------------|-------------------------|----------|-----------|-----------|-----------|----------------|------------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20501374 | | Fourth of July Creek | Parks Highway | 63.206 | -149.328 | 0 | 5 | 10 | 1 | 16 | 2 |
| 20401319 | | Trib Spring Ck | Glenn Highway | 61.544 | -149.251 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20401362 | | Trib Wasilla Ck | private drive | 61.653 | -149.189 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20500603 | | NULL | Lake Louise Rd | 62.300 | -146.589 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20500604 | | NULL | Lake Louise Rd | 62.277 | -146.548 | 0 | 7 | 5 | 3 | 15 | 3 |
| 20400602 | | NULL | Knik River Rd | 61.508 | -148.998 | 0 | 7 | 5 | 3 | 15 | 3 |
| 20501063 | | | DRIVEWAY off PITTMAN RD | 61.616 | -149.620 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20501075 | | | BEVERLY LAKE RD | 61.616 | -149.565 | 0 | 7 | 1 | 7 | 15 | 3 |
| 20501097 | | | HAWK LANE | 61.585 | -149.761 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20501107 | | | HORSESHOE LAKE RD | 61.566 | -149.909 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20501108 | | | HORSESHOE LAKE RD | 61.566 | -149.912 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20501109 | | | HORSESHOE LAKE RD | 61.566 | -149.916 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20501118 | | | LAKES BOULEVARD | 61.564 | -149.892 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20501115 | | | HORSESHOE LAKE RD | 61.585 | -149.933 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20501132 | | | VICTOR RD | 61.590 | -149.820 | 0 | 5 | 10 | 0 | 15 | 3 |
| 40501797 | | Inlet to Summit Lake | Alaska Railroad | 63.312 | -149.158 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20500285 | | Unk | Denali Highway | 63.054 | -146.766 | 0 | 7 | 5 | 3 | 15 | 3 |
| 20501252 | | trib to Willow Ck | Willow Fishhook Rd | 61.763 | -149.482 | 0 | 7 | 5 | 3 | 15 | 3 |
| 20100582 | | | Glenn Highway | 61.907 | -147.305 | 0 | 5 | 10 | 0 | 15 | 3 |
| 20501211 | | Trib to Little Su | Palmer Fishhook Rd | 61.769 | -149.216 | 0 | 7 | 5 | 3 | 15 | 3 |
| 20401880 | | Packsaddle Creek | Victory Road | 61.800 | -147.986 | 0 | 7 | 1 | 7 | 15 | 3 |
| 20501380 | | Unk Trib | Parks Highway | 62.878 | -149.805 | 0 | 7 | 0 | 7 | 14 | 3 |
| 20501067 | | | PITTMAN RD | 61.620 | -149.624 | 0 | 7 | 5 | 2 | 14 | 3 |
| 20501099 | | | VICTOR RD | 61.590 | -149.819 | 0 | 7 | 5 | 2 | 14 | 3 |
| 20501120 | | | LAKES BOULEVARD | 61.563 | -149.848 | 0 | 7 | 5 | 2 | 14 | 3 |
| 20501147 | | | MOOSE MEADOWS RD | 61.683 | -149.409 | 0 | 7 | 7 | 0 | 14 | 3 |
| 40500290 | | Unk | Denali Highway | 63.299 | -148.150 | 0 | 7 | 0 | 7 | 14 | 3 |
| 20501471 | | Buddy Ck | Montana Cr Rd | 62.136 | -149.940 | 0 | 7 | 7 | 0 | 14 | 3 |
| 20501515 | | Caswell Ck | Shaman | 62.019 | -149.948 | 0 | 7 | 5 | 2 | 14 | 3 |
| 20501249 | | Trib to Willow Ck | Willow Fishhook Rd | 61.765 | -149.550 | 0 | 7 | 5 | 2 | 14 | 3 |
| 20400584 | | Trail Creek | Alascom Drive | 61.847 | -147.349 | 0 | 7 | 5 | 2 | 14 | 3 |
| 20401844 | | Trib to Fish Lake | Fish Lake Road | 61.791 | -148.537 | 0 | 7 | 5 | 2 | 14 | 3 |
| 20501379 | | Pass Ck | Parks Highway | 62.911 | -149.714 | 0 | 5 | 7 | 1 | 13 | 3 |
| 20501491 | | Unk Trib to Peters Ck | Petersville Rd | 62.485 | -150.764 | 0 | 7 | 5 | 1 | 13 | 3 |
| 20400585 | | NULL | Glenn Highway | 61.794 | -147.930 | 0 | 5 | 5 | 2 | 12 | 3 |
| 20400598 | | NULL | Knik River Rd | 61.479 | -148.889 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20501375 | | Hardage Ck | Parks Highway | 63.134 | -149.448 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20501378 | | Granite Ck | Parks Highway | 62.977 | -149.632 | 0 | 5 | 5 | 2 | 12 | 3 |
| 40500291 | | Unk | Denali Highway | 63.301 | -148.132 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20400595 | | Tributary to Knik River | Knik River Road | 61.506 | -148.969 | 0 | 5 | 5 | 2 | 12 | 3 |
| 20500284 | | Unk | Denali Highway | 63.054 | -146.772 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20501503 | | Trib to Deep Ck | Petersville Rd | 62.431 | -150.707 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20501239 | | Trib to Willow Ck | Willow Fishhook Rd | 61.772 | -149.807 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20501240 | | Trib to Willow Ck | Willow Fishhook Rd | 61.769 | -149.713 | 0 | 7 | 2 | 3 | 12 | 3 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block- age | Constri- tion | Gradi- ent | Criteria Scores for Prioritization | |
|-----------|-----------------------------|------------------------------------|------------------------------|----------|-----------|-----------|------------|---------------|------------|------------------------------------|------|
| | | | | | | | | | | Score | Tier |
| 20501257 | | Upper Willow Ck | Willow Fishhook Rd | 61.768 | -149.336 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20401346 | | Tributary to Wasilla Creek | East Oceanview Rd. | 61.718 | -149.104 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20501850 | | Herdage Creek | Parks Highway | 63.134 | -149.449 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20501793 | | Unnamed Tributary to Susitna River | Alaska Railroad | 62.450 | -150.120 | 0 | 7 | 2 | 3 | 12 | 3 |
| 20401044 | | | RIDGEVIEW DRIVE | 61.632 | -149.400 | 0 | 7 | 1 | 3 | 11 | 3 |
| 20501100 | | | SHORELINE COURT | 61.589 | -149.821 | 0 | 7 | 2 | 2 | 11 | 3 |
| 20501104 | | | ASHLEY RD | 61.576 | -149.800 | 0 | 5 | 5 | 1 | 11 | 3 |
| 20501123 | | | BIG LAKE STATE RECREATION PA | 61.547 | -149.854 | 0 | 5 | 5 | 1 | 11 | 3 |
| 20500287 | | Unk | Denali Highway | 63.102 | -146.669 | 0 | 7 | 2 | 2 | 11 | 3 |
| 20501405 | | Unk Trib | Oil Well Rd | 62.228 | -150.445 | 0 | 5 | 5 | 1 | 11 | 3 |
| 20501166 | | NULL | Railroad | 61.674 | -149.964 | 0 | 7 | 2 | 2 | 11 | 3 |
| 20101822 | | Eureka Creek | Glenn Highway | 61.926 | -147.220 | 0 | 7 | 1 | 3 | 11 | 3 |
| 20501798 | | Unnamed Trib to Susitna River | Alaska Railroad | 62.301 | -150.108 | 0 | 7 | 2 | 2 | 11 | 3 |
| 20500605 | | NULL | Lake Louise Rd | 62.272 | -146.536 | 0 | 7 | 1 | 2 | 10 | 3 |
| 20501415 | | Unk Trib | PARKS Highway | 62.180 | -150.187 | 0 | 7 | 0 | 3 | 10 | 3 |
| 20501029 | | | EDGERTON PARKS RD | 61.693 | -149.321 | 0 | 7 | 0 | 3 | 10 | 3 |
| 20501030 | | | EDGERTON PARKS RD | 61.693 | -149.306 | 0 | 7 | 0 | 3 | 10 | 3 |
| 20401043 | | | BLACK BEAR DRIVE | 61.624 | -149.394 | 0 | 7 | 1 | 2 | 10 | 3 |
| 20501062 | | | PITTMAN RD | 61.616 | -149.620 | 0 | 7 | 0 | 3 | 10 | 3 |
| 20501121 | | | BIG LAKE STATE RECREATION PA | 61.548 | -149.854 | 0 | 7 | 2 | 1 | 10 | 3 |
| 20501138 | | Crooked Lake Outflow | PAPOOSE TWINS RD | 61.513 | -150.051 | 0 | 7 | 0 | 3 | 10 | 3 |
| 20401296 | | Trib Lucy Ck | Cardiff | 61.523 | -149.571 | 0 | 7 | 1 | 2 | 10 | 3 |
| 20501468 | | Unk | Malaspina | 62.160 | -149.933 | 0 | 7 | 0 | 3 | 10 | 3 |
| 20501396 | | unnamed Trib | Petersville Rd | 62.312 | -150.392 | 0 | 7 | 2 | 1 | 10 | 3 |
| 20501504 | | Trib to Peters Ck | Petersville Rd | 62.390 | -150.723 | 0 | 7 | 0 | 3 | 10 | 3 |
| 20400596 | | NULL | Knik River Rd | 61.490 | -148.912 | 0 | 7 | 0 | 2 | 9 | 3 |
| 20501149 | | | MOOSE MEADOWS RD | 61.675 | -149.413 | 0 | 7 | 0 | 2 | 9 | 3 |
| 20501150 | | | MOOSE MEADOWS RD | 61.673 | -149.418 | 0 | 7 | 0 | 2 | 9 | 3 |
| 20401295 | | Trib Lucy Ck | Cardiff | 61.525 | -149.571 | 0 | 5 | 1 | 3 | 9 | 3 |
| 20501496 | | Long Ck | Petersville Rd | 62.533 | -150.850 | 0 | 7 | 0 | 2 | 9 | 3 |
| 20100580 | | Little Nelchina River | Glenn Highway | 61.988 | -147.014 | 0 | 5 | 2 | 1 | 8 | 3 |
| 20501386 | | Unk Trib | Parks Highway | 62.639 | -150.224 | 0 | 5 | 0 | 2 | 7 | 3 |
| 20501438 | | Unk Trib | KENLAR RD | 61.578 | -149.753 | 0 | 5 | 0 | 2 | 7 | 3 |
| 20501122 | | | BIG LAKE STATE RECREATION PA | 61.547 | -149.854 | 0 | 5 | 2 | 0 | 7 | 3 |
| 20100581 | | Startup Creek | Glenn Highway | 61.906 | -147.300 | 0 | 5 | 1 | 1 | 7 | 3 |
| 20501878 | | Tributary To Little Susitna | Runyon Circle | 61.694 | -149.295 | 0 | 5 | 0 | 2 | 7 | 3 |
| 20501796 | | 4th of July Creek | Alaska Railroad | 63.206 | -149.332 | 0 | 5 | 0 | 2 | 7 | 3 |
| 20501804 | | Unnamed Tributary to Susitna River | Alaska Railroad | 62.417 | -150.122 | 0 | 5 | 0 | 2 | 7 | 3 |
| 20501162 | | Unk | Railroad | 61.595 | -149.756 | 0 | 5 | 0 | 1 | 6 | 3 |
| 20501151 | | | MOOSE MEADOWS RD | 61.671 | -149.421 | 0 | 5 | 0 | 0 | 5 | 3 |
| 20501883 | | | Tamarack Road | 61.531 | -149.866 | 0 | 5 | 0 | 0 | 5 | 3 |
| 20401331 | 247-50-10260-2019-3066-4022 | Trib Wasilla Ck | N 49th State Street | 61.614 | -149.209 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401335 | 247-50-10260-2019 | Wasilla Ck | private drive | 61.632 | -149.200 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401352 | 247-50-10260-2019 | Wasilla Ck | Hyer Rd | 61.575 | -149.295 | 10 | 0 | 0 | 0 | 0 | 4 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block- age | Constri- tion | Gradi- ent | Total Score | Tier | Criteria Scores for Prioritization | |
|-----------|----------------------------------|---------------------------|----------------------------|----------|-----------|-----------|------------|---------------|------------|-------------|------|------------------------------------|---|
| | | | | | | | | | | | | | |
| 20401358 | 247-50-10260-2019 | Wasilla Ck | Nelson Rd | 61.552 | -149.299 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20401361 | 247-50-10260-2019-3038 | Trib Wasilla Ck | Parks Highway | 61.567 | -149.311 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20401342 | | Trib Wasilla Ck | Bush Rd | 61.657 | -149.215 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20401324 | | Trib Spring Ck | Glen Highway | 61.554 | -149.240 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20401318 | 247-50-10260-2019-3030 | Spring Ck | private | 61.552 | -149.268 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501412 | 247-41-10200-2291-3041 | Unk Trib | Parks Highway | 62.243 | -150.253 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501421 | 247-41-10200-2230 | Goose Ck | PARKS Highway | 62.061 | -150.060 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501450 | | Meadow Ck | Lucille Rd | 61.617 | -149.448 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20401455 | 247-50-10260-2019-3030 | Spring Ck | Parks Highway | 61.556 | -149.250 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501056 | | Laylen Lake Drainage | SKYVIEW DRIVE | 61.600 | -149.692 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501057 | | Laylen Lake Drainage | CAROUSEL WAY | 61.599 | -149.693 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501432 | 247-50-10330-2050-3050 | Little Meadow Ck | PARKS HIGHWAY | 61.576 | -149.725 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501079 | | | FOREST LAKE DRIVE | 61.578 | -149.725 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501087 | | | BRITTANY DRIVE | 61.576 | -149.728 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501089 | | | BIKE PATH | 61.584 | -149.743 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501437 | 247-50-10330-2050-3050 | LITTLE MEADOW Ck | KENLAR RD | 61.569 | -149.760 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501098 | | | DELOY RD | 61.599 | -149.770 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501448 | 247-41-10100-2150-3070 | Unk Trib | HORSESHOE LK RD | 61.567 | -149.917 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501447 | | Unk Trib | HORSESHOE LK RD | 61.581 | -149.923 | 8 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501119 | | | LAKES BOULEVARD | 61.563 | -149.856 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501127 | | | WALNUT WOOD DRIVE | 61.554 | -149.785 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501128 | | | BEECHWOOD CIRCLE | 61.553 | -149.789 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501134 | | | Driveway off CHERRYWOOD DR | 61.550 | -149.784 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501136 | | | PAPOOSE TWINS RD | 61.514 | -150.086 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501445 | | Lucille Ck | VINE RD | 61.562 | -149.601 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501446 | | Lucille Ck | LAKE LUCILLE RD | 61.573 | -149.500 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20500278 | | Unk | Denali Highway | 63.105 | -147.512 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501521 | | Unk. Trib to Willow Ck | Stinson Rd | 61.772 | -150.062 | 8 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501524 | | Twister Ck | Talkeetna Spur | 62.310 | -150.015 | 8 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501457 | | Unk Trib to Susitna | Bradley | 62.302 | -150.179 | 8 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501517 | | Unk Trib to Trapper Ck | Susitna River Rd | 62.315 | -150.204 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501458 | | Unk Trib to Susitna R | Bradley | 62.278 | -150.179 | 8 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501407 | | Unk Trib TO TRAPPER Ck | Susitna River Rd | 62.316 | -150.221 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501395 | 247-41-10200-2081-3100-4136-5027 | TRIB TO NINE MILE Ck | Petersville Rd | 62.310 | -150.369 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501397 | 247-41-10200-2081-3100-4167-5045 | Gate Ck | Petersville Rd | 62.324 | -150.518 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501474 | | Unk | Oil Well Rd | 62.192 | -150.495 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501495 | | Long Ck | Petersville Rd | 62.529 | -150.870 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501501 | | Deep Ck | Petersville Rd | 62.443 | -150.700 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501505 | | Unk trib to Kroto Ck | Petersville | 62.341 | -150.606 | 8 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501506 | | Unk trib to Kroto Ck | Petersville | 62.353 | -150.649 | 8 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501401 | 247-41-10200-2081-3181 | Twenty Mile Ck | Petersville Rd | 62.354 | -150.663 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501406 | 247-41-10200-2081-3100-4155-5008 | unnamed Trib | Oil Well Rd | 62.213 | -150.473 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501509 | | Unk trib to TwentyMile Ck | Petersville Road | 62.359 | -150.692 | 0 | 0 | 0 | 0 | 0 | 4 | | 4 |
| 20501399 | 247-41-10200-2053-3150-4060-502c | Kenny Ck | Petersville Rd | 62.364 | -150.703 | 10 | 0 | 0 | 0 | 0 | 4 | | 4 |

| Criteria Scores for Prioritization | | | | | | | | | | | |
|------------------------------------|---------------------------------------|------------------------------|--------------------------------|----------|-----------|-----------|------------|---------------|------------|-------------|------|
| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block- age | Constri- cion | Gradi- ent | Total Score | Tier |
| 20501400 | 247-41-10200-2053-3150-4060-5026-6011 | Trib TO KENNY Ck | Petersville Rd | 62.368 | -150.714 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501183 | | Unk Trib to Little Su | Driveway | 61.682 | -149.286 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501184 | | NULL | Driveway on Elk Ranch | 61.686 | -149.298 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501203 | | O'Brian Ck | O'Grady Drive | 61.489 | -149.673 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501242 | | Trib to Willow Ck | Willow Fishhook Rd | 61.764 | -149.598 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501243 | | Trib to Willow Ck | Willow Fishhook Rd | 61.764 | -149.596 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501189 | | Connects pond to Nancy Lake | Kime Lane | 61.697 | -149.997 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501042 | | | COLES RD | 61.664 | -149.382 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501041 | | | COLES RD | 61.664 | -149.385 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401291 | 247-50-10300-2012 | Cottonwood Slough | Surrey Rd | 61.522 | -149.527 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401230 | | Trib to Cottonwood Ck | Surrey Rd | 61.524 | -149.529 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401231 | | Cottonwood Ck | Surrey Rd | 61.525 | -149.530 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401267 | 247-50-10300-2054 | Cottonwood Ck | Settlement Rd | 61.632 | -149.243 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401297 | | Trib Lucy Ck | Lupine | 61.522 | -149.571 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401298 | | | Starflower | 61.522 | -149.571 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501237 | | Connects marshes | Vienna Woods Access | 61.582 | -149.572 | 8 | 0 | 0 | 0 | 0 | 4 |
| 20501219 | | Unk lake outlet | Point MacKenzie Rd | 61.314 | -150.030 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501224 | | Crocker Ck | Settlers Bay Drive | 61.496 | -149.613 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501158 | | Wetland | Railroad | 61.581 | -149.573 | 8 | 0 | 0 | 0 | 0 | 4 |
| 20501220 | | Wetland | Parks Highway | 61.580 | -149.573 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501039 | | | SCHWALD RD | 61.659 | -149.433 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501046 | | | SITZE RD | 61.653 | -149.499 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401347 | | | ATV Trail | 61.720 | -149.118 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401344 | 247-50-10260-2019-3120 | Wasilla Ck | Murphy Rd | 61.718 | -149.121 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501444 | 247-50-10330-2050-3050-4027 | Unk Trib | MEADOW LAKE RD | 61.591 | -149.666 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501205 | | Unk | Bike Path | 61.581 | -149.594 | 8 | 0 | 0 | 0 | 0 | 4 |
| 20401348 | 247-50-10260-2019 | Wasilla Ck | Falk Rd | 61.655 | -149.201 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401343 | 247-50-10260-2019-3120 | Wasilla Ck | Murphy Rd | 61.710 | -149.119 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401300 | 247-50-10300 | Cottonwood Ck | Fairview Loop | 61.527 | -149.527 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401349 | 247-50-10260-2019-3087 | Spring Creek | Crabb Circle | 61.661 | -149.193 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401350 | 247-50-10260-2019 | Wasilla Creek | Crabb Circle | 61.661 | -149.188 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401285 | 247-50-10300-2012 | Cottonwood Slough | driveway - Trapline Drive | 61.526 | -149.515 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401283 | 247-50-10300-2012 | Cottonwood Slough | driveway - Trapline Drive | 61.526 | -149.514 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401885 | | Cottonwood Slough | Trapline Drive | 61.526 | -149.514 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401282 | 247-50-10300-2012 | Cottonwood Slough | driveway - 2450 Trapline Drive | 61.526 | -149.512 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401280 | 247-50-10300-2012 | Cottonwood Slough | Snowshoe Road | 61.526 | -149.511 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401281 | 247-50-10300-2012 | Cottonwood Slough | driveway - 2420 Trapline Drive | 61.526 | -149.512 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401306 | 247-50-10300 | Cottonwood Creek | North Shoreline Drive | 61.595 | -149.340 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401277 | 247-50-10300 | Cottonwood Creek | Seward Meridian Road | 61.596 | -149.360 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401305 | 247-50-10300 | Cottonwood Creek | Glennwood | 61.570 | -149.422 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401353 | 247-50-10260-2019-3041 | Trib Wasilla Ck | Hyer Rd | 61.576 | -149.295 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20401332 | | Trib Wasilla Creek | Seagull Drive | 61.616 | -149.208 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401293 | 247-50-10300-2022 | Tributary to Cottonwood Crrk | Harness | 61.531 | -149.518 | 10 | 0 | 0 | 0 | 0 | 4 |
| 20501059 | | Rainbow Lake Drainage | LAKEVIEW CIRCLE | 61.593 | -149.629 | 0 | 0 | 0 | 0 | 0 | 4 |

| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anad-romy | Block- age | Constri- ction | Gradi- ent | Total Score | Criteria Scores for Prioritization | |
|-----------|------------------------|------------------------------------|--------------------------------|----------|-----------|-----------|------------|----------------|------------|-------------|------------------------------------|------|
| | | | | | | | | | | | Score | Tier |
| 20501061 | | Meadow Creek | PITTMAN ROAD | 61.594 | -149.632 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501140 | | Lucille Creek | JOHNSONS ROAD | 61.553 | -149.708 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401789 | | Connects pond to Knob Lake | Alascom Drive | 61.837 | -147.333 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401314 | | Tributary to Rabbit Slough | Old Matanuska Road | 61.542 | -149.231 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401321 | 247-50-10260-2019-3030 | Spring Creek | Nelson Road | 61.549 | -149.273 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401320 | 247-50-10260-2019-3032 | Spring Ck | Nelson Rd | 61.549 | -149.280 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501040 | | Nurse Creek | HOLOBINKO ROAD | 61.659 | -149.419 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401287 | 247-50-10300 | Cottonwood Creek | Caribou | 61.623 | -149.314 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501453 | 247-50-10360 | Goose Creek | Point Mckenzie Road | 61.426 | -149.873 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501451 | | Goose Creek | Point Mckenzie Road | 61.426 | -149.872 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501452 | | Goose Creek | Point Mckenzie Road | 61.426 | -149.871 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501276 | | outlet stream Orchid Lake | West Lakes Boulevard | 61.566 | -149.892 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501113 | | Horseshoe Lake.Outlet. | HORSESHOE LAKE ROAD | 61.562 | -149.944 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501111 | | Horseshoe Lake Outlet | HORSESHOE LAKE ROAD | 61.581 | -149.924 | 8 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501112 | | Horseshoe Lake Inlet | HORSESHOE LAKE ROAD | 61.569 | -149.948 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501064 | | Drainage | COVE DRIVE | 61.634 | -149.613 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501065 | | | JOLLY ROGER DRIVE | 61.633 | -149.611 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401884 | | Wasilla Creek | Tributary Avenue | 61.588 | -149.252 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501817 | | Moose Lick Creek | East Alberta Circle | 61.693 | -149.299 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501819 | | Government Creek | Edgerton Park Road | 61.693 | -149.310 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501841 | | Moose Lick creek | Moose Lick Circle | 61.694 | -149.300 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501818 | | Tributary To Little Susitna River | East Alberta Circle | 61.693 | -149.295 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501846 | | Tributary To Little Susitna River | Russett Road. | 61.684 | -149.300 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401810 | | Tributary To Carniege Creek | Babcock Drive | 61.638 | -149.194 | 10 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501068 | | Colter Creek | DRIVEWAY off SITZE RD | 61.656 | -149.499 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501069 | | Colter Creek | Driveway off SITZE ROAD | 61.657 | -149.498 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20401843 | | Trib to Fish Lake | N Fish Lake Rd | 61.788 | -148.548 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501792 | | | Alaska Railroad | 63.085 | -149.550 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501794 | | | Alaska Railroad | 62.997 | -149.628 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501801 | | Montana Creek side channel | Alaska Railroad | 62.106 | -150.069 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501805 | | Unnamed Tributary to Susitna River | Alaska Railroad | 62.435 | -150.124 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501806 | | | Alaska Railroad | 62.440 | -150.123 | 8 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501877 | | Twister Creek | Talkeetna AKRR Depot Access Rc | 62.313 | -150.104 | 8 | 0 | 0 | 0 | 0 | 0 | 4 |
| 20501500 | | Unk Trib to Peters Ck | Petersville Rd | 62.486 | -150.766 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |

Appendix 3: Perched Crossing Sites in the Mat-Su with Criteria Scores

| Criteria Scores for Prioritization | | | | | | | | | | | | | | | |
|------------------------------------|-----------------------------|------------------------------------|----------------------|----------|------------|----------|----------|--------------|----------|-------------|------|----------------------|-----------------|----------|---|
| site code | AWC Stream Number | Stream Name | Road Name | Latitude | Longitude | Anadromy | Blockage | Construction | Gradient | Total Score | Tier | Perch (inches) score | New Total Score | New Tier | |
| 20501232 | | Coal Ck | Sushana Rd | 61.66169 | -149.46677 | 10 | 7 | 5 | 0 | 22 | 2 | 62.40 | 3 | 25 | 1 |
| 20401260 | 247-50-10200-2071-3023 | Tributary to Bodenber Creek | Private Drive | 61.56648 | -149.04286 | 10 | 7 | 10 | 2 | 29 | 1 | 32.16 | 3 | 32 | |
| 20501417 | 247-41-10200-2300-3011-4006 | Answer Ck | TALKEETNA SPUR | 62.20234 | -150.06689 | 10 | 7 | 5 | 2 | 24 | 1 | 29.28 | 3 | 27 | |
| 20501172 | | Connects 2 Lakes | Bryant | 61.47315 | -149.95956 | 8 | 7 | 7 | 1 | 23 | 1 | 25.32 | 3 | 26 | |
| 20501402 | 247-41-10200-2081-3194-4016 | SEVENTEEN MILE Ck Trib | Petersville Rd | 62.33683 | -150.56422 | 10 | 7 | 10 | 3 | 30 | 1 | 22.20 | 3 | 33 | |
| 20501213 | | Trk to Little Su | Palmer Fishhook Rd | 61.77467 | -149.20396 | 10 | 7 | 10 | 2 | 29 | 1 | 18.96 | 3 | 32 | |
| 20501493 | | Unk Trib to Cache Ck | Petersville Rd | 62.49026 | -150.98520 | 10 | 7 | 10 | 3 | 30 | 1 | 17.40 | 3 | 33 | |
| 20400592 | | Eska Creek | Eska Road | 61.73853 | -148.90602 | 8 | 7 | 10 | 10 | 35 | 1 | 15.36 | 3 | 38 | |
| 20501081 | | | Alaska Railroad | 61.58806 | -149.72222 | 10 | 7 | 0 | 0 | 17 | 2 | 12.72 | 3 | 20 | |
| 20501388 | 247-41-10200-2381-3060 | Tributary to Chulitna River | PARKS HIGHWAY | 62.47444 | -150.27147 | 10 | 7 | 2 | 1 | 20 | 2 | 11.40 | 2 | 22 | |
| 20501392 | 247-41-10200-2381-3051 | Tributary to Chulitna River | Parks Highway | 62.45379 | -150.27282 | 10 | 7 | 5 | 0 | 22 | 2 | 10.44 | 2 | 24 | 1 |
| 20501143 | | Crocker Creek | SETTLERS BAY DRIVE | 61.50106 | -149.62028 | 10 | 7 | 10 | 1 | 28 | 1 | 9.84 | 2 | 30 | |
| 20501463 | | Unk. Trib to Talkeetna R. | Cummings | 62.34392 | -150.06609 | 8 | 7 | 10 | 1 | 26 | 1 | 9.24 | 2 | 28 | |
| 20501479 | | Unk Trib to Rabideux Ck | Petersville Rd | 62.31733 | -150.30853 | 8 | 7 | 5 | 2 | 22 | 2 | 9.12 | 2 | 24 | 1 |
| 20401338 | | Trib Wasilla Creek | Fishhook Road | 61.64203 | -149.19631 | 10 | 7 | 7 | 1 | 25 | 1 | 8.40 | 2 | 27 | |
| 20501494 | | Unk Trib to Cache Ck | Petersville Rd | 62.51407 | -150.91388 | 10 | 7 | 10 | 2 | 29 | 1 | 7.80 | 2 | 31 | |
| 20501165 | | | Railroad | 61.65770 | -149.93669 | 10 | 7 | 5 | 2 | 24 | 1 | 5.76 | 2 | 26 | |
| 20501193 | | Unk Trib to Fish Ck | Lewis Loop | 61.45493 | -149.80894 | 8 | 7 | 10 | 0 | 25 | 1 | 5.52 | 2 | 27 | |
| 20501192 | | Connects 2 Lakes | Lancaster | 61.47297 | -149.95947 | 8 | 7 | 10 | 3 | 28 | 1 | 4.44 | 2 | 30 | |
| 20501420 | 247-41-10200-2320-3010 | EXITS FISH LAKE | TALKEETNA SPUR | 62.25486 | -150.08141 | 10 | 5 | 10 | 0 | 25 | 1 | 4.20 | 2 | 27 | |
| 20501152 | | Unnamed Trib | Alaska Railroad | 61.59139 | -149.74056 | 10 | 7 | 0 | 3 | 20 | 2 | 3.96 | 1 | 21 | |
| 20501404 | | Unk Trib to Peters Ck | Oil Well Rd | 62.23787 | -150.43933 | 8 | 7 | 10 | 0 | 25 | 1 | 2.76 | 1 | 26 | |
| 20501489 | | Tributary to Cottonwood Creek | Petersville Rd | 62.47121 | -150.72270 | 10 | 5 | 1 | 3 | 19 | 2 | 2.52 | 1 | 20 | |
| 20401292 | 247-50-10300-2022 | O'Brian Ck | Redoubt | 61.53035 | -149.52456 | 10 | 7 | 10 | 0 | 27 | 1 | 2.52 | 1 | 28 | |
| 20501222 | | Unk Trib to Little Susitna | Rubacaba | 61.49331 | -149.65999 | 10 | 7 | 5 | 2 | 24 | 1 | 2.52 | 1 | 25 | |
| 20501207 | | Unnamed Tributary to Sustina River | Palmer Fishhook Rd | 61.74695 | -149.23218 | 10 | 7 | 5 | 10 | 32 | 1 | 2.28 | 1 | 33 | |
| 20501807 | | Buddy Ck | Alaska Railroad | 62.45379 | -150.11838 | 10 | 7 | 7 | 2 | 26 | 1 | 1.08 | 1 | 27 | |
| 20501526 | | trib to Moose Ck | Unnamed Primitive Rd | 62.14034 | -149.98660 | 10 | 7 | 10 | 2 | 29 | 1 | 1.08 | 1 | 30 | |
| 20401170 | | | Buffalo Mine Rd | 61.73028 | -149.04044 | 10 | 5 | 5 | 3 | 23 | 1 | 1.08 | 1 | 24 | |