

Agenda Item N. 3.

Committee Lands

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Kenai
Watershed
Forum

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*Working together for healthy watersheds
through Research, Education and Restoration*

3/31/08

Assembly Members,

RE: 2008-03

I regret not being able to attend tomorrow's assembly meeting as I am out of state. Please accept these written comments for your consideration of Ordinance 2008-03;
AN ORDINANCE AMENDING KPB 14.40 AND KPB 20.16 TO REQUIRE SPECIAL PERMIT CONDITIONS FOR THE DESIGN AND CONSTRUCTION OF ANADROMOUS WATERBODY CROSSINGS AND RIGHTS-OF-WAY ACCESSING WATERBODIES.

Perspective – this ordinance affects a very small percentage of plats. According to the planning department analysis, there are only one or two newly platted (on paper) road crossings of salmon-streams per year. There are a similar number of actual construction projects across salmon streams per year. Though the number of salmon-stream crossings per year is small, without improvements to road construction practices, we will continue to see numerous, yet unnecessary problems. Fixing these problems will come at a real expense to the KPB at some point in the future.

Scope of problem – a single road crossing that is improperly constructed can block miles of upstream salmon habitat. Upon examining almost all of the culverts placed in salmon bearing streams within the Kenai Peninsula Borough, it has been determined that at-least one third of them block the migration of juvenile salmon. When crossings are constructed with culverts they are all destined to fail – all culverts eventually fail. When they fail, they are expensive to repair and are often done quickly under emergency conditions. *This ordinance improves the construction criteria such that the likelihood of road failure will be greatly diminished. What is good for fish is good for roads!*

A Specific Example

For brevity, I offer a single example of how this ordinance will improve existing conditions with improved construction criteria. Please remember that there are dozens of examples similar to this that the Kenai Watershed Forum has already addressed, at a cost of well over \$1M. In the mid to late 90's, Raven Road on Bean Creek in Cooper Landing, underwent a construction upgrade to bring the road onto the KPB maintenance system. To meet maintenance standards, the road needed to be widened and a crib bridge over Bean Creek was replaced with a culvert. To replace the crib bridge, a three-foot diameter

culvert was installed and at the time of installation, was not a barrier to the migration of fish. It met all local and state permit requirements and came onto the KPB system.

By 2004, because the culvert was too small for the stream, the downstream side of the culvert had eroded the streambed such that a 2-foot waterfall formed at the culvert's outlet and was blocking the migration of juvenile King Salmon headed for nursery grounds – now in violation of State Law. In 2006, the Kenai Watershed Forum fixed this site by removing the 3' culvert and replacing it with an 8' culvert, at a cost of over \$80k. Had it been done properly in the 1990s and in today's dollars, the cost difference between the 60 foot long 3' diameter and the 8' diameter culverts would have been ~ \$8,000 and the road would not have needed to be closed for a week. The adage of it is cheaper to do it right the first time holds up time after time. In this typical case, doing it right the first time means 10% of the cost of the do-it-over project.

To meet the 100 year flood criteria, as written in this ordinance, the project would have required the 8' diameter culvert been installed the first time. The criteria in this ordinance will reduce the future maintenance liability for the KPB and roads will last longer before major maintenance is necessary.

Alternatives Considered

The planning commission supported this ordinance as introduced on Jan. 22, 2008. The road service area board held a 3-hour work session to explore options. Most of the work session time was devoted to alternatives to requiring engineered design plans. However after much discussion, it was determined that requiring engineered designs would not create an undue burden and that the alternatives to engineering would be complicated and difficult for the road service area inspectors to implement. An alternative to construction prior to final plat was discussed, requiring that the crossing be constructed anytime the RSA applicant's proposed working within a certain distance of a platted crossing.

Kenai Watershed Forum's Opinion

Ordinance 2008-03 should be passed. It has meaningful provisions that will improve a situation that needs attention, most notably an engineer design that will meet a 100-year flood event. This ordinance will result in better roads that have less harmful impacts to Salmon bearing streams. The ordinance (c) should be amended to require **both** construction prior to final plat for those cases where newly platted stream crossings are required to provide access **and** require construction of a stream crossing within the right-of-way anytime an applicant to the road service area proposes construction within 250 feet of an existing platted crossing of an anadromous stream.

Thank you,

Robert Ruffner
Executive Director