

A concern, an example and a responsibility;

Do you remember the 6 ft. diameter corrugated metal pipe (CMP) that was presented to us in the January 20, 2015 meeting that was to be placed under K-Beach road?

The description and details were given in a letter, dated January 12, 2015, from Project Manager Scott Curtin of our Capital Projects Department addressed to Marcus Mueller, our Land Management Officer. It was given to us in the context of Ordinance 2014-32 that relates to the Keohane/Borough property exchange.

Did you know that the Department of Transportation had given the Borough a year to complete that installation? That was of considerable *concern* so I visited Carl High of the DOT. He confirmed that that was so. He went on to say that he thought there was some talk of the Borough requesting an extension but, as a member of the review team, he hadn't seen anything come through as of yet.

Carl expressed concern as to whether the 6 ft CMP would be adequate. I described the proposed feasibility study. He liked the idea. I also described the proposed Technical Working Group that would involve hydrologists, engineers and such technical related folks as would be relevant to peer review the hydrological, hydraulic analyses to date along with each of the issues that have come up. He liked that idea saying he would like for DOT to be involved. I said I'm sure they would be welcomed!

In a subsequent visit with Pat Malone, Pat said the preliminary estimate for the CMP work had been \$1.5 million and that yes they were planning to put in a request for extension.

I asked Pat if he knew whether or not any hydrological and hydraulic analysis had been done to size the 6 ft CMP. He said that he didn't know of any.

EXAMPLE:

May I suggest a way that I think would be helpful to all both financially and functionally?

The March 3, 2015 Kinney Hydrology and Hydraulic Analysis showed how that the 7th Street Drainage Ditch that that analysis supported would substantially

unload, hence reduce the expense of, the 6 ft CMP that is proposed to go under K-Beach.

I would like to suggest that the proposed Feasibility Study would be an excellent *example* of help to all:

- By demonstrating 'Good Will' intent to justify extension of DOT's request for completion of K-Beach road's drainage relief and
- The Feasibility Study would surface and evaluate all of the alternatives,
- Leading to analytical guidance for both the optimum financial and functional solutions.

RESPONSIBILITY:

My friends, let's go back in time and take a bird's view of the K-Beach loop area. As we can currently see vestiges of, and as Guy Tay' testified to us in a prior meeting; there were many natural drainages leading to the Kenai River and to Cook Inlet. Though the area appeared to be very flat, the drainages all testified to the slope of the area.

As homes, roads and subdivisions went in; those natural drainages have become disrupted and/or blocked leading in more recent years to, as Pat Malone shared with me, having to try to drain water uphill! I sympathized with him because of course that doesn't work and such a plight has led to having to use road ditches as drainage-galleries where water stagnates and, as we've recently seen, leads to coli-form bacteria.

In spite of the presence of a multitude of natural drainages, there appears to be a historical assumption that the area was too flat for drainage ditches to be effective as illustrated further by Henry Knackstedt's April 14, 2015 letter response to residents' request for culverts at the Lori Jo-Scott intersection. Therein it was stated that "Slopes calculate to be less than one-tenth of one percent. Installation of cross culverts won't cause harm, but it does not appear that they would be of much benefit either."

Jim Munter's April 23, 2015 letter to DNR confirms "a gradient of between 0.05 and 0.10 percent down the thalweg of the drainageway. This is low, but would definitely allow flow, especially during and following significant rainfall events. The absence of culverts means that the backwater from a 3-ft-thick roadbed

could extend 1,500 to 3,000 feet upgradient, affecting many residential properties.”

And this was what was happening until Ted Scroggins rented a 4”, high volume pump. He and the neighbors, sharing gas costs, ran the pump day and night with the effluent being pumped over the Lori Jo/Scott intersection.

Ted also rented a 1 ½”, high pressure pump to pump the water from his south side of Scott westward over Lori Jo to the same downward slope outflow of the 4” diameter, high volume pump. Both flows continued unimpeded down the original, natural thalweg.

So, such natural history of drainages and boots-on-the-ground encourage that we really ought to have a drainage engineer on board. Respectfully, I submit that we have made the wrong drainage assumptions over the years. Respectfully, I submit that we are *responsible*.

Humbly and respectfully, this poor engineer is fully persuaded that our use of roads-as-dams across natural drainageways is in violation of State DNR Regulation 11 AAC 93.035 and our use of road drainages as drainage-galleries is in violation of our code 14.06.170.

May I submit that these folks, fellow taxpayers, many first time home-owners, this minority among us have lost hundreds of thousands of dollars in home values? And if I’m not mistaken, we have increased their home assessments during all this time since 2012? I don’t think a Flood Plane Service Area tax penalty is in any way the right thing to impose upon this suffering minority among us! First, I believe we owe it to them to make their suffering right. I submit that we owe them restitution in the form of bringing their drainages into compliance with our code which, in turn, would bring us into compliance with State DNR Regulations.

Respectfully,

Stan Welles