

## **REASONS FOR OPPOSING KENAI PENINSULA BOROUGH PROPOSED ORDINANCE 2016-19-36**

The 4.3 acre former barrow pit of the 9.2 acre “Keohane parcel”, owned by Paula and Timothy Keohane, at the intersection of Karluk Avenue and K-Beach Road should not be obtained nor reserved in any way for a short or long-term storm water runoff (SWR) retention or leaching basin for the following reasons:

A. The approximately 3 million gallon capacity of the depression is, hydrologically speaking, a veritable thimble. Its relatively small capacity is quickly reached and exceeded as demonstrated in the fall of 2013.

B. During flood events the basin will already be significantly filled by elevated ground water before SWR is diverted to it, as it was in 2013. Thus the basin will already be significantly compromised, with several feet of standing water, at the time its entire, yet very modest capacity is most needed.

C. Diverting millions of gallons of SWR into the basin will only exacerbate severe high ground water problems in the surrounding neighborhood as the enormous hydrostatic pressures of the heavy body of water pushes outward in all directions, toward neighboring residential properties (and their basements, crawlspaces, structural footings, and septic systems) as well as DOT’s K-Beach Road bed which will already be saturated to capacity.

D. Has the proposed SWR retention basin been properly engineered? NO. Is the SWR retention basin to be lined with an impermeable membrane to stop infiltration from further elevating local ground water levels and damaging neighboring properties? NO. Are neighboring property owners aware of the risks the unengineered, unlined SWR retention basin presents to them and that it effectively serves to leach its load into surrounding sediments further increasing already critically high ground water levels in nearby residential areas and potentially accelerating erosion along the densely populated bluff face? NO.

E. In 2013 the Borough administration justified the use of the basin as an emergency, stop-gap measure and vowed to seek a permanent drainage solution once the emergency passed. Does this ordinance not renege on that promise made to local residents and DOT? YES. Does this not merely “kick the can down the road” and put off the day of reckoning by continuing to rely on this most unreliable and destructive retain, leach, and pump SWR management strategy - making the expediency permanent? YES.

F. Are adjacent bluff property owners likely to continue to allow the Borough to pump SWR across their properties when the basin cannot leach its load fast enough and is overwhelmed as it was in 2013? MAYBE. And even if they do, will they not likely seek a lucrative compensation deal for rendering a perceived public service during an emergency just as the Keohanes are now? MAYBE. Does this set a fiscally and morally unsound precedent? DEFINITELY.

G. Kenai Peninsula Borough municipal code 14.06.170 explicitly defines road construction standards, in regard to drainage and culverts.

*“Roads shall be constructed to prevent ponding of runoff waters in roadside ditches. Drainage ditches shall be constructed such that runoff waters shall be conveyed to natural drainage courses, ditches or waterways, or other man-made drainage courses. Outfalls shall be constructed to prevent excessive siltation of riparian habitats, channel erosion, or other damage to public or private property. The RSA board may require an engineering analysis and design for locations susceptible to flooding, siltation or other natural conditions potentially damaging to the right-of-way, adjacent property, or water courses and water bodies.”*

Accordingly, the Borough administration is deliberately violating its own municipal code (law) by, 1. Intentionally allowing SWR to pond in roadside ditches throughout the entire 2013 K-Beach flood area; 2. Intentionally preventing the conveyance of SWR to natural or man-made drainage courses and outfalls; and 3. Intentionally withholding engineering analysis and design from locations that have historically proven to be susceptible to flooding, consequently causing damage to adjacent property.

Keep in mind that 14.06.170 does not allow for roadside SWR to be conveyed to drainage galleries, leach fields, nor retention ponds for the purpose of percolating SWR into the ground - though it is common practice by the Borough's RSA.

Even though the case could be made that these are sound and practical engineering practices in certain circumstances, they assuredly are not in areas that suffer from recurring high ground water. Employing such engineering structures in hydrologically unsuitable places is not only ineffective but only serves to compound the high ground water problem further. The proposed KPB ordinance 2016-19-36 intention to direct roadside SWR to the Keohane basin is in direct violation of 14.06.170 and will expose the Borough to legal challenge(s) with a high potential for incurring substantial legal costs and damages.

H. The Borough administration has assured K-Beach residents they have data indicating that flooding on the magnitude of the 2013 K-Beach flood occurs only once every 30 years which they contend does not justify constructing a K-Beach SWR drainage network. If that is so, then why are they actively seeking a drainage easement on the Keohane property when a flood recurrence is deemed unlikely in the short and long-term? The logic is faulty and inconsistent.

I. The Keohane's basin is situated beside the Karluk Avenue right-of-way (ROW). SWR conveyed along Karluk Avenue can only with much difficulty go anywhere but into the Keohane's basin since it slopes into the ROW. No elevated buffer strip was retained between it and the basin. Mining up to or into the ROW made the excavated basin more prone to flooding. Owners of the parcel assume the liability of the excavated basin which permanently altered the natural topography and drainage of the area.

J. Furthermore, acquiring an easement on the Keohane's basin would not be advantageous without the consent of AK DOT to continue to reserve use of the small emergency pipe that was jacked under the K-Beach road bed during the 2013 flood emergency as well as securing consent of private land owners on the west side of K-Beach Road situated between the highway and Cook Inlet to reserve use of their properties. Securing and maintaining consent of all three parties indefinitely would be a most tenuous arrangement at best.

Notably in the aftermath of the 2013 flooding, both AK DOT and property owner Arthur "Chuck" Robinson, who allowed drainage hoses to be laid across his property, have informed the Borough that the generous allowances they made during the emergency were one time allowances. Both also expressed hope and sought assurance the Borough was indeed expediting plans for a permanent SWR drainage solution, a permanent drainage structure, rather than continuing to rely on the stop-gap measures that necessitated their involvement in 2013.

I ardently urge the defeat of proposed ordinance 2016-19-36 and the initiation of planning for permanent drainage structures to alleviate future flooding by transporting SWR under K-Beach Road which currently acts as an impenetrable dam.

The K-Beach flood area, not coincidentally, is a network of roads conspicuously lacking outfalls to relatively close natural water bodies. There are none between Dog Fish Avenue and Chine Circle, a distance of 3.4 miles. K-Beach Road clearly acts as a dam to SWR from the vast residential areas behind it. Even the Dog Fish and Chine culverts that bookend this area are considered undersized and cannot reliably be expected to handle large volumes of SWR, a point of great concern that DOT has expressed more than once to Borough administrators.

Respectfully,

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