

02014-32

Welles Comment

**Subject:** FW: Info for 2014-32  
**Attachments:** Ordinance 2014-32.doc; ATT00001.htm; Figure 1 Ord 2014-32.pdf; ATT00002.htm; Figure 2 Ord 2014-32.pdf; ATT00003.htm

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**To:** "Blankenship, Johni" <[JBlankenship@kpb.us](mailto:JBlankenship@kpb.us)>  
**Subject:** Info for 2014-32

Good Afternoon Johni;

I've been visiting and studying on the proposed property exchange involved with Ordinance 2014-32. It looks to me as though we are taking hold of the tail of a much bigger tiger than it appears in the ordinance.

I'd like to share these findings with my peers on the Assembly. Would you send it out to them in what ever manner seems appropriate which I suppose would either be as a Laydown for tomorrow or just as an email? It doesn't matter to me. But I thought I'd try to get it out as tomorrow appears to be shaping up as busy!

Sincerely,

Stan Welles

## Ordinance 2014-32 Issues

Respectfully;

I'd like to submit that this Ordinance deals with a much bigger issue than perhaps any of us realize.

But fortunately it divides easily into two issues:

1. The Keohane exchange, and
2. An unrealistic attempt to drain a huge area of wetlands.

### **I. - Keohane Exchange:**

To date, the Borough has not done any dirt work or touched the Keohane property in any way. Years ago the Keohane family excavated gravel from the 4.3 acres in question making that natural water catch-point even lower than it already was. It has always been the low point in that area.

Now, due to the second issue and the ditching along Karluk there has been an increase in the flow of water westward toward K-Beach road and Cook Inlet. However, as mentioned in the Mayor's October 2, 2014 Memorandum, "A pipe was installed under K-Beach Road making it possible to mechanically pump water to the Cook Inlet - - -."

I'd like to submit that that pipe and pumping are of significant and adequate benefit to the Keohanes as that low ground never had nor will have any other benefit other than to be a wetland and that the pumping will insure that the water level never exceeds the predetermined amount.

At the same time, there are two very significant reasons for not transferring the approximately 1.84 acre Parcel #05536019 to the Keohanes:

1. The Keohanes have been adequately compensated and
2. The **Summary Evaluation**, dated January 12, 2015 presented by Marcus Mueller calls for a major construction project on that parcel installing a 6 foot diameter corrugated metal pipe from the highway via deep vertical manhole steps to the beach including probable back drilling from the beach. (Refer to the two maps in the **Summary Evaluation**.) Both the original installation and subsequent maintenance will require access to essentially that entire parcel for heavy equipment. I walked that full lot Friday, 1/18/2015. The magnitude of this project reminds me of the drainage maintenance project being completed in Anchorage near the intersection of Postmark Dr. and Northern Lights Blvd. On the Tony Knowles walkway.

### **II. - Wetlands drainage:**

The green area of Figure 1 shows our Borough's attempt to drain hundreds of acres of wetland with a few paltry drainage ditches along roads such as Karluk Avenue, Buoy Avenue, etc. that were dug in 2014. The water from each of these ditches runs westward toward K-Beach Road and the Cook Inlet. At K-Beach Road it turns south and currently pools in a ditch along K-Beach Road. It has already started a seep at the beach west of the end of Buoy Avenue. The soil below K-Beach Road and west to the beach is forty feet of sand, excellent for percolation, which doesn't bode well as we'll see in a moment.

## Ordinance 2014-32 Issues

It seems to me that with our rotation of Borough Administrations a lot of history has been lost. The wetlands roughly define the gas fields. As the gas was being pumped out vacuum compressors were installed to suck the remaining gas out. As the gas was removed, the standing water level receded below the ground surface except when there was lots of rain or snow melt. I talked with a fellow who helped install one of those first compressors and that had hunted ducks on the standing water ponds north of the Yragui Airpark (Red outline of Figure 2) prior to the water level receding.

With the gas pumped out, the wetlands became relatively dry and sold for development! They were still wetlands and flooded with heavy rains or snowmelt. I thought we had Borough restrictions on development of wetlands?

Subsequent to the gas being pumped out, it is my understanding that that same gas field is periodically used for gas storage. So when gas is pumped back into that field the water level rises and aggravates the flooding problem!

Now that residences have developed in the wetlands, sewage is flooded out when flooding occurs. It, of course, moves with the water westward toward K-Beach Road. Since there is sand and good percolation, as pointed out earlier, how long will it be before residential water wells located between K-Beach Road and the beach become contaminated?

Given the huge wetlands area attempting to be drained, I doubt that the proposed 6 foot corrugated metal pipe will be anywhere near enough capacity.

And with water always standing in the ditch along K-Beach Road, percolation and seepage through the sand produces the identical problems that Homer has along Kachemak Drive. Accelerated beach erosion and contaminated water wells being two big candidate problems.

It seems to me that we are taking hold of the tail of a much bigger tiger than we realize! I don't know what the answer is but here are some options that we might want to pursue economic analysis of:

1. Stop wetland development. Compare costs of buying back lots in the affected wetland with that of the cost of adequate drainage.
2. Adequate drainage should preclude percolation under K-Beach Road and provide sufficient flow capacity for say a ten-year average flow-rate shouldn't it?
3. Do not use the gas field for gas storage coupled with either of the above.

What would such a drainage system look like? If we are going to turn the flow at the end of each road (i.e. Karluk, Buoy, etc.) south paralleling K-Beach Road than lining the ditch would be required to prevent percolation.

Frankly, given the vast area of wetland to be drained especially if we are going to use the gas field for gas storage from time-to-time, than I suspect that computer hydrology modeling will show that one 6 foot corrugated metal pipe will not be adequate. I could easily expect that it would take one at each road running straight to the beach to handle the flow.

Respectfully,  
Stan Welles