

**Carla Weinheimer and Peggy DesAutels co-owners 11443 S Lake Michigan Drive, Empire, MI**  
**Supplemental Public Comment April 27, 2022**  
**South Bar Lake Drainage Scope Options**

After listening in on the April 14 South Bar Lake Drainage Scope Options presentation by the engineer and hearing/reading the public comments on these options, we would like to supplement our earlier comments. As the existing drain is partly located on our property and has been located there since before our family purchased the property in the late 1960's, we have a particular interest in the outcome of this project.

We have a strong preference for **Options 1** for the following reasons:

- It has the lowest construction cost and will likely have the lowest maintenance cost since it uses gravity instead of a pump to move the water. The reliance on gravity in lieu of a pump will also mitigate the flood risk that might occur with a pump failure.
- It places the outlet on public land where public maintenance and access can be more easily achieved than on private land.
- It places the new "lake control structure" on public land in an out-of-the-way area in the Empire Beach Park.
- It has the environmental benefit of restoring water circulation at the south end of South Bar Lake, mitigating the amount of stagnant water that collects.
- It has an outlet into Lake Michigan in a location where the Village has already installed a significant rip-rap structure at the lake edge; the Option 1 outlet design does not change the shoreline condition in that location.
- It will allow the private drive and public utilities to be reconstructed without a culvert thereby stabilizing an area that has been prone to significant erosion and allowing for the natural dune to rebuild itself in the existing outlet location.

**Option 2** has many of the advantages noted in Option 1 above except that it is more expensive to construct and has higher long-term maintenance costs and risks.

**Option 3** would allow the private drive to be reconstructed on our property without a culvert thereby stabilizing an area that has been prone to significant erosion and allowing for the natural dune to rebuild itself in the existing outlet location. It is, however, the most expensive option and may have an inherent risk associated with any pipe blockage that may occur.

We have serious concerns about **Option 4**. The pump by-pass structure included in this option was described in the meeting as providing “a volcano” of water when it is in operation and as having an 8” pipe sticking up through a rip-rap structure adjacent to a new culvert under the private drive. This will have a significant impact on our property.

- It will attract beach-walkers to come play with/in it (on our private property).
- It will require maintenance.
- It is unclear how the “volcano” of water will find its way to Lake Michigan across a sand bar that may be created by wave and wind action at the beach.
- It will potentially cause wind-driven water from the “volcano” to impact the private drive either in the form of erosion or ice build-up.
- It may cause flooding if the pump fails.
- It may be challenging to successfully engineer a driveway with a culvert, a by-pass pump system, and underground public utilities within the narrow strip of dune at the existing outlet, particularly because the driveway area is impacted heavily by wave action from Lake Michigan.

For all the reasons we have outlined above we have a strong preference for Option 1. We do, of course, expect that there will be no damage to our property regardless of the option chosen.