## **Limitations to this Study**

**Unfortunately**, for a number of reasons, we will never be able to know the entire story of sand mining in the Indiana Dunes region.

Accuracy of USGS topographic maps:

- Lack of detail on the early 15-minute topographic maps
  - Because four-times the area was squeezed onto the same size map, small features (hills and/or depressions) simply couldn't be included on the map.
  - There are areas (especially on the Tolleston map) where there are no contour lines where hills did exist. It appears that the map makers (in the era before aerial photography) just didn't get to those areas to survey them.
- Not all changes to topography are noticed by map makers—even today.
  - For instance, as noted in Chapter 5, a rather high and steep dune is shown on the 2013 *Gary Quadrangle* map in the middle of a trailer park. Actually, the dune was mined away about 40 years ago, but has remained on all the USGS maps since then.

Lack of written or photographic records:

- Some mining was done without knowledge or permission of the property owner and so no records were ever made.
- Building contractors believed that the issuance of a building permit allowed them to remove the sand on a property in order to build the house, store, or industry at street level. Thus no record of sand removal was ever made.
- Much sand mining was done through private contracts or leases, which may not have required a sand mining permit. The only records were the contracts, which were in private hands.
- Many of the old municipal and county records have been discarded.

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**Fortunately**, however, much written and photographic information about sand mining in the Indiana Dunes region does exist and is included in this report.