CHAPTER 5 – EXISTING LAND COVER AND USE

Prior to establishing goals and determining future land uses, a community must have an accurate assessment of existing land uses. This chapter presents information on both the types and location of existing land uses. The process identifies both urban built-up land uses such as residential and commercial, along with natural land cover types like forests and beaches. As a result the final map presented in this chapter is a hybrid that combines land cover and land use.

General Land Division Patterns

As development occurs, larger tracts of land are subdivided into smaller parcels. Therefore, studying the existing pattern of land divisions is one way to analyze the status of land use and development. The Mackinaw State Forest and Thompson's Harbor State Park account for 10,170 acres in Krakow Township, see **Figure 5.1**. These lands are located in the northern half of the Township. Nearly 74 percent of the Township's land base is in private ownership, which consists primarily of large tracts of hunting lands and farmlands with small lot subdivisions concentrated around inland lakes. A portion of the Presque Isle Harbor Association is located in Section 24 of the T33N-R7E. **Figure 5.2** displays ownerships that are 35 acres and larger. As can be seen over 90 percent of the land area in Krakow Township is classified as large tracts. However, while large tract owners hold 90 percent of the land area, they account for only 23 percent of the parcels. In other words, small tract owners account for 77 percent of the parcels, yet own only 10 percent of the Township's land area.

Land Cover and Use

The existing cover/land use was mapped in 2012. The map of existing land use, shown as **Figure 5.3**, illustrates the distribution of land uses throughout the Township. Michigan Resource Information Systems (MIRIS) land cover/use classification categories were used to map the existing land use. The map represents an update of 1995 land cover use map from the County's master plan. The map was updated with 2012 digital aerial imagery acquired from the USDA. Updated information was computerized to produce the existing land use map and statistics. Ancillary digital map data including parcels, soils, national wetlands inventory and gas wells were used to refine the update. **Table 5.1** presents the land uses, showing the number of acres and percent of the Township in each of the land use categories. Each of the land use categories is discussed later in this chapter.

Residential

As can be seen on the Existing Land Cover/Use Map (**Figure 5.3**) and **Table 5.1**, residential use ranks sixth the amount of land currently in this use. Residential use occupies 3.7 percent (1,389 acres) of the land in the Township. Residential development is concentrated along Grand Lake and Long Lake. The balance is located on large and small tracts that are scattered throughout the Township.

Commercial

Commercial uses are located along US-23. Commercial uses account for less than 0.1 percent of the township's land area.

Table 5.1 Existing Land Use Statistics Krakow Township		
Land Use Category	**Number of Acres**	**Percent of Township**
Residential	1,388.3	3.7%
Commercial	18.7	0.05%
Industrial/Extractive/Utilities	230.5	0.6%
Institutional/Recreation	10.3	0.03%
Farmland	3,870.8	10.0%
Non-forested Uplands	1,645.5	4.2%
Upland Forest	13,709.7	35.3%
Lowland Forest	13,247.1	34.1%
Non-forested Wetlands	1,496.0	3.8%
Water	3,046.5	7.8%
Beaches	183.5	0.5%
TOTAL	38,846.8	100.0%
Source: Northeast Michigan Council of Governments		

Extractive
Land in this use category covers 0.6 percent or 230 acres of the Township. This category includes several sand and gravel pits,

Institutional and Recreation
This category includes institutional and recreational uses, which cover less than one tenth of one percent (10.3 acres) of the Township's land area. Included in this category are the Township hall, public access and parks.

Farmland
Agricultural lands currently comprise approximately 3,871 acres or 10 percent of the Township. Farmland is concentrated in the southwest and west central parts of the Township.

Non-forested Uplands
The non-forested land category is the third most prominent land cover type in the Township. This category consists of herbaceous open and shrub land. As shown in **Table 5.1**, 1,646 acres or four percent of the Township is in the non-forested category. A majority of the non-forest areas are old farm fields.

Upland Forest
The forested lands are the predominant land cover in the Township and account for 69 percent or 26,957 acres of the Township. Upland forests cover 13,710 acres or 35 percent of the Township. Of the forested lands, aspen-birch forests comprise over one third of the upland forested lands, (8,690 acres). Northern hardwoods include species such as sugar maple, red maple, American beech, basswood and yellow birch. Bigtooth aspen, quaking aspen, white

birch, white pine, balsam fir and red maple are the primary tree species found in the aspen-birch type. White and red pine trees are found in the pine forest category.

Lowland Forests and Wetlands

Wetlands are defined as land that has sufficient water at, or near, the surface to support wetland or aquatic vegetation. These areas are commonly referred to as swamps, marshes and bogs. The wetland category comprises non-forested types such as lowland brush (tag alder and willow), sphagnum bogs, emergent vegetation in lakes and beaver floodings and wet meadows. Non-forested wetlands account for 1,496 acres or 3.8 percent of the Township.

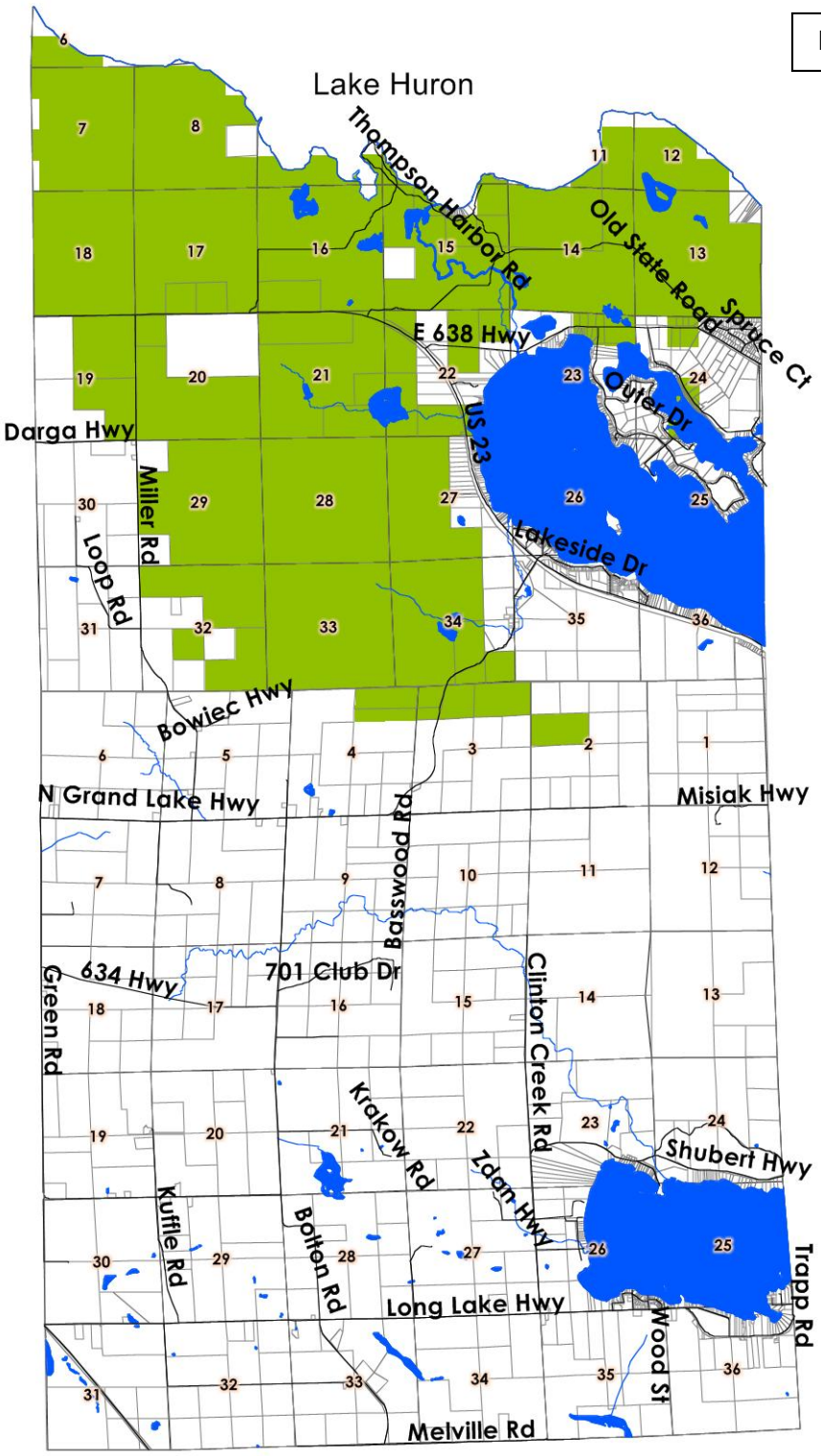
Since the scope of the project did not allow for extensive field surveys typically part of a traditional forest inventory, ancillary data such as USDA hydric soils, National Wetlands Inventory, and USGS topographic data was used to help delineate upland versus lowland forest. Given this limitation, the forest cover mapping should be used for general planning purposes and in conjunction with other supporting information. Lowland forests occupy slightly over 34 percent or 13,247 acres of the Township. Lowland forests include lowland hardwoods like elm, black ash, red maple, balsam poplar, and quaking aspen. Lowland conifers, such as northern white cedar, black spruce, balsam fir, white spruce and eastern tamarack are estimated to cover around 6,757 acres.

Two of the most important functions of wetlands and lowland forests are water quality protection and ecological corridors. As can be noted on the Existing Land Use Map, the wetland areas are found adjacent to water features. The network of wetlands receives surface water and subsurface water discharge, creating the many streams and creeks that in turn flow into the area lakes. The interconnected resources exemplify how activities distant from major water bodies can still have an impact on the water quality.

Water

Nearly eight percent (3,046 acres) of the township is water. The high percentage is attributed to Long Lake and Grand Lake. Smaller lakes (Clinton, Duck, Mindack, and Trapp Lakes) and many ponds and floodings are mapped as part of the inventory. Of course, if Lake Huron were included the acreage would be much higher. In some instances if water areas are covered with emergent wetland vegetation such as cattails and reeds, those sites are mapped as non-forested wetlands and not open water.

Public Lands Map Figure 5.1



Krakow Township 2014 Master Plan

BASE MAP

Map layers

- PARCELS
- WATER FEATURES
- ROADS

Public Lands

- State of Michigan

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Miles

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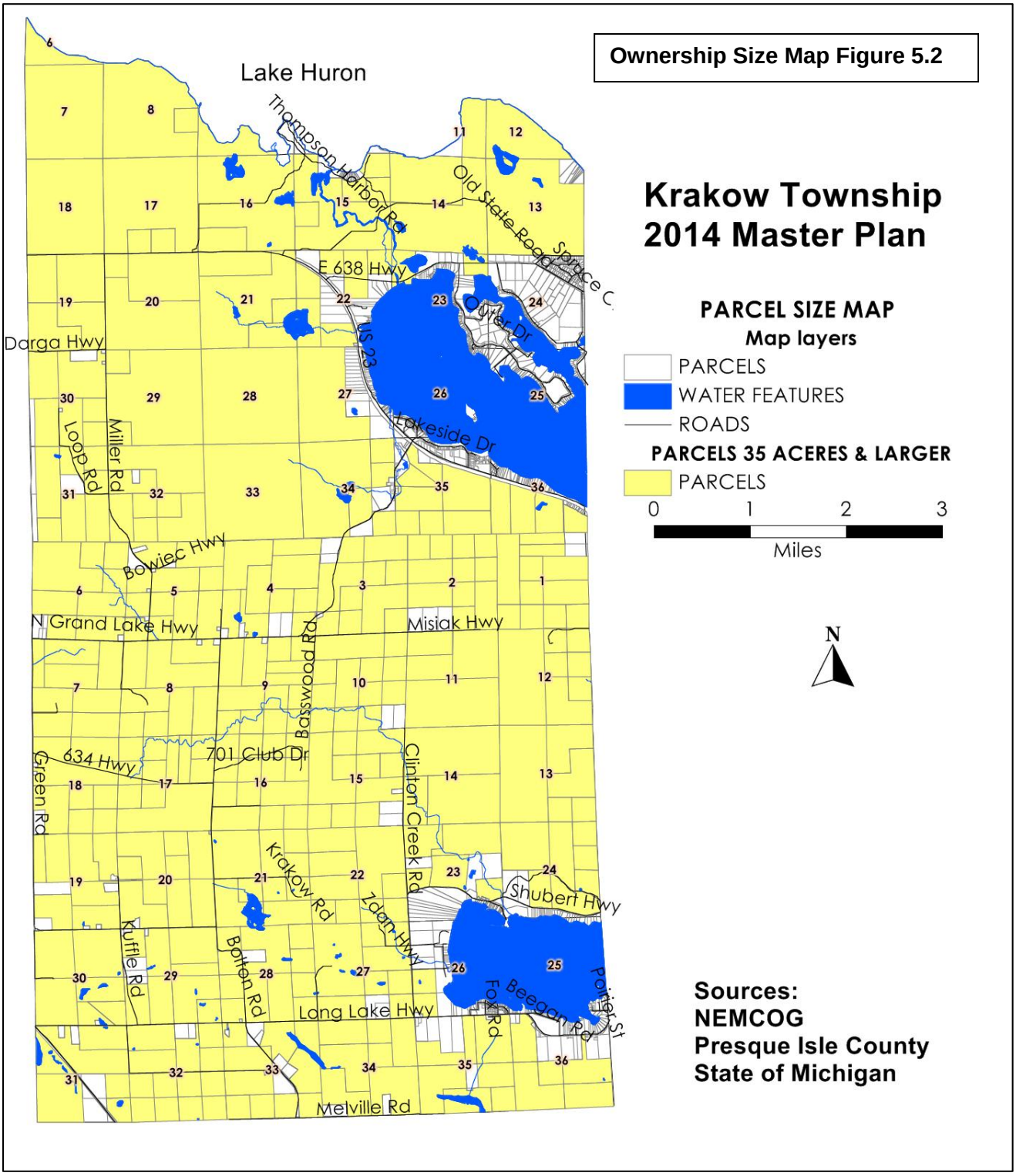
Sources:
NEMCOG
Presque Isle County
State of Michigan

Ownership Size Map Figure 5.2



Land Cover/Use map Figure 5.3