

## Naming Rationale

Label-wise, the goal of the map is to illuminate the various landforms of Michigan, of which many residents are quite unaware. It should inform them of existing toponyms, as well as provide new toponyms for noteworthy features which don't seem to have any.

Landform toponyms can be approached from a folk or a technical perspective. A local might refer to the Yellow Hills that lay beside the Green Plain, whereas a physical geographer would recognize the glacial origins of these features and have good reason to call them the Yellow Moraine, next to the Green Glacial Lake Plain.

My chosen perspective is folk toponymy. However, for many features in Michigan such names are lacking or poorly-attested, whereas technical names are much more common (experts think about landforms much more than other residents). Therefore I have sometimes borrowed from the list of technical names, modifying them at times to be more folk-like.

For some features, the sources I have disagree as to their name or extent. I have done my best to mediate disputes. Other features have names that appear only on a single source, invented by mapmakers who saw landforms languishing in anonymity. I have propagated these names where they seemed sensible to me, and coined some of my own. All toponyms have to start somewhere.

The result is a mixture of folk and technical, existing and newly-coined. Another cartographer would, given the same starting materials, produce a different result. I hope though, that my decisions seem *justifiable* and *sound*.

## Sources

I have compiled notes and sources for every label on the map:

[https://docs.google.com/spreadsheets/d/13TB6Oc\\_Bs9mPV7sBdNrlvAzayw5r43PEqwLpO3ODogU/edit?usp=sharing](https://docs.google.com/spreadsheets/d/13TB6Oc_Bs9mPV7sBdNrlvAzayw5r43PEqwLpO3ODogU/edit?usp=sharing)

Some sources are abbreviated in the spreadsheet as follows:

- BGN = United States Board on Geographic Names. <http://geonames.usgs.gov/>
- DPH = Daniel P. Huffman, meaning that I coined or modified the name.
- ERMI = Erwin Raisz & Christopher Mills. 1968. *Landforms of Michigan*.  
<http://www.davidrumsey.com/luna/servlet/s/r99ey5>
- ERUS = Erwin Raisz. 1957. *Landforms of the United States*.  
<http://www.davidrumsey.com/luna/servlet/s/825ozj>

- JV = Jethro Otto Veatch. "Natural Land Divisions of Michigan." Found in *They Need Not Vanish: A Discussion of the Natural Resources of Michigan*. 1942. p 120.  
[http://www.michigan.gov/documents/deq/They\\_Need\\_Not\\_Vanish\\_Copt\\_309382\\_7.pdf](http://www.michigan.gov/documents/deq/They_Need_Not_Vanish_Copt_309382_7.pdf)
  - I don't presently have access to it, but I believe that this is the same map that is found in the Veatch's 1930 "Natural geographic divisions of land." *Papers of the Michigan Academy of Sciences, Arts and Letters*, 14, 417–432.
- RS = Randall J. Schaetzel, et al. 2013. "Mapping the Physiography of Michigan with GIS" *Physical Geography* doi: 10.1080/02723646.2013.778531
- WF = William R. Farrand, *The Glacial Lakes around Michigan*.  
[http://www.michigan.gov/documents/deq/GIMDL-BU04pixs\\_216120\\_7.pdf](http://www.michigan.gov/documents/deq/GIMDL-BU04pixs_216120_7.pdf)

| Features                 | Source 1  | Source 2  | Source 3  | Notes   |
|--------------------------|---|---|---|---|
| <b>Bays (22)</b>         |   |   |   | Labeled most every one that seemed large enough to fit a label in   |
| Anchor Bay               | BGN   |   |   |   |
| Au Train Bay             | BGN   |   |   |   |
| Bete Grise Bay           | BGN   |   |   |   |
| Big Bay de Noc           | BGN   |   |   |   |
| Good Harbor Bay          | BGN   |   |   |   |
| Grand Traverse Bay       | BGN   |   |   |   |
| Green Bay                | BGN   |   |   |   |
| Hammond Bay              | BGN   |   |   |   |
| Huron Bay                | BGN   |   |   |   |
| Keweenaw Bay             | BGN   |   |   |   |
| Little Bay de Noc        | BGN   |   |   |   |
| Little Traverse Bay      | BGN   |   |   |   |
| Oronto Bay               | BGN   |   |   |   |
| Potagannissing Bay       | BGN   |   |   |   |
| Saginaw Bay              | BGN   |   |   |   |
| Siskiwit Bay             | BGN   |   |   |   |
| St. Martin Bay           | BGN   |   |   |   |
| Sturgeon Bay             | BGN   |   |   |   |
| Tahquamenon Bay          | BGN   |   |   |   |
| Thunder Bay              | BGN   |   |   |   |
| Whitefish Bay            | BGN   |   |   |   |
| Wild Fowl Bay            | BGN   |   |   |   |
| <b>Dunes (5)</b>         |   |   |   | Labeled those dunefields which were large enough to clearly appear on the map   |
| Grand Sable Dunes        | BGN   |   |   |   |
| Ludington Dunes          | <a href="https://www.micj">https://www.micj</a>   | <a href="https://books.google.com/books?id=W">https://books.google.com/books?id=W</a> |   | Ludington & Nordhouse part of Big Sable Complex, but have different names according to state and a book from UofM press   |
| Nordhouse Dunes          | <a href="https://www.micj">https://www.micj</a>   | <a href="https://books.google.com/books?id=W">https://books.google.com/books?id=W</a> |   | Ludington & Nordhouse part of Big Sable Complex, but have different names according to state and a book from UofM press   |
| Silver Lake Dunes        | <a href="http://www.think">http://www.think</a>   | <a href="http://www.lakemichigansanddunes.co">http://www.lakemichigansanddunes.co</a> |   | Local tourism authorities use this name   |
| Sleeping Bear Dunes      | BGN   |   |   |   |
| <b>Falls (19)</b>        | <a href="http://www.world">http://www.world</a>   | <a href="http://www.gowa">http://www.gowa</a>   | <a href="http://www.michigan">http://www.michigan</a> | There are hundreds. Picked out major ones from tourist sites; added on some taller ones that are less popular from the Waterfall Database (except Jasper, which is a "trickle") |
| Agate Falls              | BGN   |   |   |   |
| Bond Falls               | BGN   |   |   |   |
| Bridalveil Falls         | BGN   |   |   |   |
| Cascade Falls            | BGN   |   |   |   |
| Eighty Foot Falls        | BGN   |   |   |   |
| Gorge Falls              | BGN   |   |   |   |
| Houghton Falls           | BGN   |   |   |   |
| Laughing Whitefish Falls | BGN   |   |   |   |
| Lower Falls              | BGN   |   |   |   |
| Miners Falls             | BGN   |   |   |   |
| Munising Falls           | BGN   |   |   |   |
| Plumbago Falls           | BGN   |   |   |   |
| Potawatomi Falls         | BGN   |   |   |   |
| Sable Falls              | BGN   |   |   |   |
| Spray Falls              | BGN   |   |   |   |
| St. Marys Falls          | BGN   |   |   | Not major in size or volume, but widely known; gives its name to two cities and one of the busiest shipping locks in the world  |
| Superior Falls           | BGN   |   |   |   |
| Tahquamenon Falls        | <a href="http://www.michigandnr.com/parksandtrails/Details.asp">http://www.michigandnr.com/parksandtrails/Details.asp</a> |   |   | Widely-used name for Upper & Lower Falls together   |
| Upper Falls              | BGN   |   |   |   |
| <b>Islands (23)</b>      |   |   |   | Labeled islands as large or larger than North Fox (selected by eye, not measured)   |

| <b>Features</b>    | Source 1 | Source 2 | Source 3 | Notes  |
|--------------------|----------|----------|----------|--|
| Beaver Archipelago | BGN      |          |          |  |
| Beaver Island      | BGN      |          |          |  |
| Big St. Martin I.  | BGN      |          |          |  |
| Bois Blanc I.      | BGN      |          |          |  |
| Drummond Island    | BGN      |          |          |  |
| Garden I.          | BGN      |          |          |  |
| Grand I.           | BGN      |          |          |  |
| High I.            | BGN      |          |          |  |
| Hog I.             | BGN      |          |          |  |
| Isle Royale        | BGN      |          |          |  |
| Les Cheneaux Is.   | BGN      |          |          |  |
| Lime I.            | BGN      |          |          |  |
| Mackinac I.        | BGN      |          |          |  |
| Manitou I.         | BGN      |          |          |  |
| Marquette I.       | BGN      |          |          |  |
| Neebish I.         | BGN      |          |          |  |
| North Fox I.       | BGN      |          |          |  |
| North Manitou I.   | BGN      |          |          |  |
| South Fox I.       | BGN      |          |          |  |
| South Manitou I.   | BGN      |          |          |  |
| St. Martin I.      | BGN      |          |          |  |
| Sugar Island       | BGN      |          |          |  |
| Summer I.          | BGN      |          |          |  |
|                    |          |          |          |  |
| <b>Lakes (58)</b>  |          |          |          | Labeled lakes above 2.8 sqmi, excepting a few small dam ponds and other long linear artificial lakes |
| Bear Lake          | BGN      |          |          |  |
| Black L.           | BGN      |          |          |  |
| Bond Falls Flowage | BGN      |          |          |  |
| Brevoort Lake      | BGN      |          |          |  |
| Burt Lake          | BGN      |          |          |  |
| Crooked Lake       | BGN      |          |          |  |
| Crystal Lake       | BGN      |          |          |  |
| Douglas Lake       | BGN      |          |          |  |
| Duck Lake          | BGN      |          |          |  |
| Elk Lake           | BGN      |          |          |  |
| Fletcher Pond      | BGN      |          |          |  |
| Glen L.            | BGN      |          |          |  |
| Grand Lake         | BGN      |          |          |  |
| Green Lake         | BGN      |          |          |  |
| Gull Lake          | BGN      |          |          |  |
| Gun Lake           | BGN      |          |          |  |
| Hamlin Lake        | BGN      |          |          |  |
| Higgins Lake       | BGN      |          |          |  |
| Houghton Lake      | BGN      |          |          |  |
| Hubbard L.         | BGN      |          |          |  |
| Indian L.          | BGN      |          |          |  |
| Lac Vieux Desert   | BGN      |          |          |  |
| Lake Bellaire      | BGN      |          |          |  |
| Lake Charlevoix    | BGN      |          |          |  |
| Lake Erie          | BGN      |          |          |  |
| Lake George        | BGN      |          |          |  |
| Lake Gogebic       | BGN      |          |          |  |
| Lake Huron         | BGN      |          |          |  |

| Features                            | Source 1  | Source 2  | Source 3  | Notes  |
|-------------------------------------|---|---|---|--|
| Lake Independence                   | BGN   |   |   |  |
| Lake Leelanau                       | BGN   |   |   |  |
| Lake Macatawa                       | BGN   |   |   |  |
| Lake Margrethe                      | BGN   |   |   |  |
| Lake Michigamme                     | BGN   |   |   |  |
| Lake Michigan                       | BGN   |   |   |  |
| Lake Missaukee                      | BGN   |   |   |  |
| Lake Mitchell                       | BGN   |   |   |  |
| Lake Paradise                       | BGN   |   |   |  |
| Lake Skegemog                       | BGN   |   |   |  |
| Lake St. Clair                      | BGN   |   |   |  |
| Lake St. Helen                      | BGN   |   |   |  |
| Lake Superior                       | BGN   |   |   |  |
| Long Lake [East]                    | BGN   |   |   |  |
| Long Lake                           | BGN   |   |   |  |
| Manistique L.                       | BGN   |   |   |  |
| Michigamme Reservoir                | BGN   |   |   |  |
| Milakokia Lake                      | BGN   |   |   |  |
| Mullett Lake                        | BGN   |   |   |  |
| Munuscong Lake                      | BGN   |   |   |  |
| Muskegon Lake                       | BGN   |   |   |  |
| Otsego Lake                         | BGN   |   |   |  |
| Peavy Pond                          | BGN   |   |   |  |
| Platte Lake                         | BGN   |   |   |  |
| Portage L. [Upper Peninsula]        | BGN   |   |   |  |
| Portage Lake [Lower Peninsula]      | BGN   |   |   |  |
| South Manistique Lake               | BGN   |   |   |  |
| Torch Lake                          | BGN   |   |   |  |
| Walloon Lake                        | BGN   |   |   |  |
| White Lake                          | BGN   |   |   |  |
|                                     |   |   |   |  |
| <b>Miscellaneous (2)</b>            |   |   |   |  |
| Jack Pines Delta                    | <a href="http://www.nemc">http://www.nemc</a>   | <a href="http://www.north">http://www.north</a>   | <a href="https://www.msu.edu">https://www.msu.edu</a> | RS calls this the Au Sable Delta, but in personal email mentions that Jack Pines Delta is the local name, which other sources support                              |
| St. Clair Flats                     | BGN   |   |   | BGN's definition only covers US, but have labeled the whole delta, including Canada portion.   |
|                                     |   |   |   |  |
| <b>Moraines &amp; Drumlins (11)</b> |   |   |   |  |
| Charlevoix Drumlins                 | DPH   | RS  |   | There are many moraines; have only marked a few that are prominent, especially which form visibly well-defined linear features on the map                          |
| Defiance Moraine                    | WF  | <a href="http://en.wikipedia.org/wiki/Fort_Wayne_Moraine#/media/File:Moraine_Composite.jpg">http://en.wikipedia.org/wiki/Fort_Wayne_Moraine#/media/File:Moraine_Composite.jpg</a> |   | New name. Location from RS "Antrim-Charlevoix Drumlin Fields," but took only central, most drumlin-looking zone. Named for nearby lake/city.                       |
| Iron River Drumlins                 | DPH   | RS  |   | New name, modified from RS "Iron River Drumlin Field." The Iron River flows through said drumlins.   |
| Kalamazoo Moraine                   | <a href="http://geo.msu.e">http://geo.msu.e</a> | <a href="http://pubs.usgs">http://pubs.usgs</a>   | WF  |  |
| Leelanau Drumlins                   | DPH   | RS  |   | New name. Location from RS "Antrim-Charlevoix Drumlin Fields," but renamed for peninsula within which drumlins are contained                                       |
| Menominee Drumlins                  | DPH   | RS  |   | New name. Location from RS "Menominee Drumlin Fields." His definitions stop at MI border, but DEM shows clear extent into WI. Named for river bisecting the field. |
| Munising Moraine                    | RS  | <a href="http://gsabulletin.gsapubs.org/content/">http://gsabulletin.gsapubs.org/content/</a>   |   | Map in 2nd source suggests it extends east, but it's quite broken up. Only labeled major section that forms coherent single feature.                               |
| Onaway Drumlins                     | DPH   | RS  |   | New name, modified from RS "Onaway Drumlin Field." The settlement of Onaway is in the middle of the field  |
| Port Huron Moraine                  | WF  | <a href="http://geography.uwo.ca/research/grea">http://geography.uwo.ca/research/grea</a>   |   | Continues throughout much of the state; labeled 3 notable sections.  |
| Southeastern Interlobate            | RS  |   |   | Combination of RS's regions "Southeastern Interlobate Core" & "Southeastern Interlobate Rim"   |
| West Branch Moraine                 | WF  | RS  |   |  |
|                                     |   |   |   |  |
| <b>Passages (4)</b>                 |   |   |   |  |
| Manitou Passage                     | BGN   |   |   |  |
| North Channel                       | BGN   |   |   |  |
| South Channel                       | BGN   |   |   |  |
| Straits of Mackinac                 | BGN   |   |   |  |

| Features                          | Source 1  | Source 2  | Source 3  | Notes   |
|-----------------------------------|---|---|---|---|
| <b>Peaks (8)</b>                  |   |   |   | Elevations are sometimes disputed, since these peaks are not painstakingly surveyed. GNIS elevations appear outdated and I do not trust them.   |
| Briar Hill 1706ft                 | BGN   | <a href="http://www.peakbagger.com/peak.aspx?pid=6481">http://www.peakbagger.com/peak.aspx?pid=6481</a>                       |   |   |
| Government Peak 1850ft            | BGN   | <a href="http://peakbagger.com/peak.aspx?pid=58313">http://peakbagger.com/peak.aspx?pid=58313</a>                             |   |   |
| Ives Hill 1549ft                  | BGN   | <a href="http://www.peakbagger.com/peak.aspx?pid=43644">http://www.peakbagger.com/peak.aspx?pid=43644</a>                     |   |   |
| Mt. Arvon 1979ft                  | BGN   |   |   | Elevation in GNIS description   |
| Mt. Benison 1581ft                | BGN   | <a href="http://peakbagger.com/peak.aspx?pid=20170">http://peakbagger.com/peak.aspx?pid=20170</a>                             |   |   |
| Mt. Curwood 1978ft                | BGN   | <a href="http://www.peakbagger.com/peak.aspx">http://www.peakbagger.com/peak.aspx</a>   |   | NAVD88 elevation  |
| Mt. Horace Greeley 1540ft         | BGN   | <a href="http://peakbagger.com/peak.aspx?pid=6472">http://peakbagger.com/peak.aspx?pid=6472</a>                               |   |   |
| Summit Peak 1958ft                | <a href="http://porcupiner">http://porcupiner</a>   | <a href="http://www.sumr">http://www.sumr</a>   | <a href="http://www.michigan">http://www.michigan</a>   | 3rd tallest mountain in state. Not in GNIS for some reason.   |
| <b>Peninsulae (6)</b>             |   |   |   |   |
| Abbaye Peninsula                  | BGN   |   |   |   |
| Garden Peninsula                  | BGN   |   |   |   |
| Keweenaw Peninsula                | BGN   |   |   |   |
| Leelanau Peninsula                | BGN   |   |   |   |
| Old Mission Peninsula             | <a href="http://www.oldm">http://www.oldm</a>   | <a href="https://www.law">https://www.law</a>   | <a href="http://www.omphistor">http://www.omphistor</a> | Widely recognized in the wine world   |
| Stonington Peninsula              | <a href="http://www.fs.us">http://www.fs.us</a>   | <a href="http://www.visitescanaba.com/monarc">http://www.visitescanaba.com/monarc</a>   |   | Lots of vacation rentals also describe their properties as on the "Stonington Peninsula"  |
| <b>Plains &amp; Lowlands (20)</b> |   |   |   |   |
| Algonquin Plain                   | DPH   | RS  |   | New name. Modified from RS "Algonquin Lake Plain."  |
| Baraga Plains                     | BGN   | RS  |   |   |
| Bessemer Plains                   | RS  |   |   |   |
| Cadillac Plain                    | ERUS  |   |   |   |
| Chippewa Clay Plains              | RS  | JV  |   |   |
| Escanaba Lowland                  | ERMI  |   |   |   |
| Gun Plains                        | BGN   |   |   | Extent not attested. There is a clear flat valley along the Gun River at BGN point that extends to the Kalamazoo R., and is within "Gun Plain Township."                                      |
| High Plains                       | ERUS  | <a href="http://geo.msu.edu/extra/geogmich/grayling_fingers.html">http://geo.msu.edu/extra/geogmich/grayling_fingers.html</a> |   |   |
| Keweenaw Lowland                  | <a href="http://www.michi">http://www.michi</a>   | <a href="http://www.nrcs.usda.gov/Internet/FSE">http://www.nrcs.usda.gov/Internet/FSE</a>                                     |   | Described as being on southeast half of the peninsula, contrary to map at <a href="http://geo.msu.edu/extra/geogmich/copperrange.html">http://geo.msu.edu/extra/geogmich/copperrange.html</a> |
| Kingston Plains                   | BGN   | <a href="http://frankjhutton.blogspot.com/2012/">http://frankjhutton.blogspot.com/2012/</a>                                   |   | Widely-attested, but extent unclear. Have focused on small flat area at BGN's coordinates that includes a lot of deforested land  |
| Lansing Plains                    | DPH   | RS  |   | New name. Modified from RS "Lansing Loamy Plains."  |
| Mancelona Plain                   | <a href="http://geography">http://geography</a>   | JV  | RS  |   |
| Manistee Plain                    | ERUS  | JV  |   |   |
| Maumee Plain                      | DPH   | RS  |   | New name. Modified from RS "Maumee Lake Plain"  |
| Muskegon Plains                   | ERUS  |   |   |   |
| Ontonagon Clay Plains             | RS  | JV  |   |   |
| Saginaw Lowlands                  | RS  |   |   | Area is also widely known as Saginaw Valley, but "Valley" doesn't seem quite the right descriptor, geographically   |
| St. Joseph Plains                 | DPH   |   |   | New name, after the river that drains area. Region is JV's "Branch Sandy Plains" & "Kalamazoo Sandy Plains" or RS's "Union Streamlined Plains" + "Three Rivers Lowlands."                     |
| Western Lowland                   | <a href="http://geo.msu.edu/extra/geogmich/copperrange.html">http://geo.msu.edu/extra/geogmich/copperrange.html</a> |   |   | Map also includes "Keweenaw Lowland," but note above that I located it elsewhere  |
| Yellow Dog Plains                 | BGN   | RS  |   |   |
| <b>Points (20)</b>                |   |   |   | No good quantitative way to do this. Just eyeballed what appeared to be the most pointy or prominent  |
| Biddle Point                      | BGN   |   |   |   |
| Big Bay Point                     | BGN   |   |   |   |
| Keweenaw Point                    | BGN   |   |   |   |
| Laughing Fish Point               | BGN   |   |   |   |
| Lighthouse Point                  | BGN   |   |   |   |
| North Pt.                         | BGN   |   |   |   |
| Old Mission Point                 | BGN   |   |   |   |
| Peninsula Point                   | BGN   |   |   |   |
| Point Abbaye                      | BGN   |   |   |   |
| Point au Gres                     | BGN   |   |   |   |
| Point Detour                      | BGN   |   |   |   |

| Features            | Source 1  | Source 2  | Source 3  | Notes   |
|---------------------|---|---|---|---|
| Point Huron         | BGN   |   |   |   |
| Point Lookout       | BGN   |   |   |   |
| Pointe aux Barques  | BGN   |   |   |   |
| Pointe Mouille      | <a href="http://www.chart">http://www.chart</a>   | <a href="http://www.michi">http://www.michi</a>         | BGN   | BGN spells it "Point" but lists "Pointe" as alternate. NOAA chart uses "Pointe," and state government calls local game area "Pointe"  |
| Sand Point          | BGN   |   |   |   |
| Seul Choix Point    | BGN   |   |   |   |
| Tawas Point         | BGN   |   |   |   |
| Waugoshance Point   | BGN   |   |   |   |
| Whitefish Pt.       | BGN   |   |   |   |
|                     |   |   |   |   |
| <b>Ranges (7)</b>   |   |   |   | Many have alternate names w/ "iron" in them. Menominee Range vs Menonminee Iron Range. Used shorter names; "iron" is more about commercial value than natural features          |
| Arvon Range         | <a href="http://www.michi">http://www.michi</a>   | <a href="https://roadtrippe">https://roadtrippe</a>     | <a href="http://www.amielucas">http://www.amielucas</a>     | The few sources all copy each other, and all erroneously call Mts. Arvon/Curwood part of the Hurons. But there does kinda seem to be a range on the edge of the highland.       |
| Copper Range        | <a href="http://www.pasty">http://www.pasty</a>   | <a href="http://www.midco">http://www.midco</a>         | RS  |   |
| Gogebic Range       | BGN   | <a href="https://books.google">https://books.google</a> | <a href="http://www.feivelife.c">http://www.feivelife.c</a> | GNIS point is only at far west end of range. Additional sources confirm extent.   |
| Huron Mountains     | BGN   |   |   | Some sites claim the Hurons to extended out to Mt. Arvon  |
| Marquette Range     | <a href="http://www.midco">http://www.midco</a>   | <a href="http://www.michi">http://www.michi</a>         | <a href="http://geo.msu.edu/e">http://geo.msu.edu/e</a>     | Sources give wildly different boundaries. Played it conservatively. All seem to agree that it's at least the area from Negaunee to Lake Michigamme.                             |
| Menominee Range     | <a href="https://books.google">https://books.google</a>   | <a href="http://www.ency">http://www.ency</a>           | <a href="http://menomineeran">http://menomineeran</a>       | Book from 1890s gives description of range on p18; most maps show range as only in MI, but appears to have include a bit of WI around Florence. The DEM supports this.          |
| Porcupine Mts       | BGN   |   |   |   |
|                     |   |   |   |   |
|                     |   |   |   |   |
| <b>Rivers (16)</b>  |   |   |   | All rivers which were considered prominent enough to appear in North American Atlas data  |
| Au Sable R.         | BGN   |   |   |   |
| Brule R.            | BGN   |   |   |   |
| Detroit R.          | BGN   |   |   |   |
| Flint R.            | BGN   |   |   |   |
| Grand R.            | BGN   |   |   |   |
| Kalamazoo R.        | BGN   |   |   |   |
| Manistee R.         | BGN   |   |   |   |
| Menominee R.        | BGN   |   |   |   |
| Michigamme R.       | BGN   |   |   |   |
| Muskegon R.         | BGN   |   |   |   |
| Saginaw R.          | BGN   |   |   |   |
| Shiawassee R.       | BGN   |   |   |   |
| St. Clair R.        | BGN   |   |   |   |
| St. Joseph R.       | BGN   |   |   |   |
| St. Marys R.        | BGN   |   |   |   |
| Tittabawassee R.    | BGN   |   |   |   |
|                     |   |   |   |   |
|                     |   |   |   |   |
| <b>Uplands (17)</b> |   |   |   |   |
| Allegan Hills       | RS  |   |   | Part of the Valparaiso Moraine, but the moraine's ridge is not really so clear as the Kalamazoo's, so I've split this into component hill regions as RS did                     |
| Battle Creek Hills  | RS  |   |   |   |
| Briar Hills         | <a href="http://www.fs.usda.gov/recarea/hmnmf/recarea/?recid=18786&amp;actid=63">http://www.fs.usda.gov/recarea/hmnmf/recarea/?recid=18786&amp;actid=63</a> |   |   |   |
| Cadillac Uplands    | DPH   | RS  |   | New name, modified from RS's "Cadillac Morainic Uplands"  |
| Emmet Uplands       | DPH   | RS  |   | New name. Region is RS's "Brutus-Levering Island" & JV's "Emmet Sandy Plateau." Seems neither prominent nor flat enough to be a "plateau." Named for Emmet County.              |
| Fruit Ridge         | <a href="http://www.fruitridgemarket.com/about-the-ridge/">http://www.fruitridgemarket.com/about-the-ridge/</a>   |   |   |   |
| Grayling Fingers    | RS  |   |   | That's a pretty great name.   |
| Hillsdale Highlands | RS  |   |   |   |
| Irish Hills         | BGN   | RS  |   |   |
| Montcalm Hills      | DPH   | RS  |   | New name, modified from RS's "Montcalm Rolling Hills"   |
| Munuscong Upland    | DPH   | RS  |   | New name, modified from RS's "Kinross Island," at RS's suggestion in email  |
| Peshekee Highlands  | RS  | <a href="http://www.midn">http://www.midn</a>           | <a href="http://blog.jacobemer">http://blog.jacobemer</a>   | Many sources mistakenly call this part of the Hurons. Have taken a narrower area that RS's shape  |
| St. Joseph Hills    | DPH   | RS  |   | New name. RS calles these "Southwestern Hills." Have renamed for St. Joseph river in the area. Part of Valparaiso Moraine, but again not named this as larger feature not clear |
| Sturgis Hills       | RS  |   |   | DEM suggests these extend south of state border   |

| Features             | Source 1 | Source 2  | Source 3  | Notes  |
|----------------------|----------|---|---|--|
| Trap Hills           | BGN      | <a href="http://www.north">http://www.north</a> | <a href="http://www.backpack">http://www.backpack</a> | Extent disputed a bit  |
| Udell Hills          | BGN      |   |   |  |
| Ward Hills           | BGN      |   |   |  |
| <b>Wetlands (17)</b> |          |   |   | Wetland boundaries from National Atlas 1m scale shapefile: <a href="http://nationalmap.gov/small_scale/mld/1lakesp.html">http://nationalmap.gov/small_scale/mld/1lakesp.html</a> |
| Bear Creek Swamp     | BGN      |   |   |  |
| Bursaw Marsh         | BGN      |   |   | BGN classifies this as a "lake," but the name and appearance are of a wetland  |
| Cranberry Lake Bog   | BGN      |   |   |  |
| Creighton Marsh      | BGN      |   |   |  |
| Cyr Swamp            | BGN      |   |   |  |
| Dead Stream Swamp    | BGN      |   |   |  |
| Driggs Marsh         | BGN      |   |   |  |
| Durrow Marsh         | BGN      |   |   |  |
| Gogomain Swamp       | BGN      |   |   |  |
| Green Swamp          | BGN      |   |   |  |
| Haymarsh Swamp       | BGN      |   |   |  |
| Long Swamp           | BGN      |   |   |  |
| Sigma Swamp          | BGN      |   |   |  |
| Smokey Hollow Swamp  | BGN      |   |   |  |
| Summerby Swamp       | BGN      |   |   |  |
| Tahquamenon Wetlands | DPH      | JV  |   | New name. #39 on 2nd source supports this a bit. Vast unnamed area of wetlands east of The Spreads. Named for the Tahquamenon River, which drains it.                            |
| The Spreads          | BGN      |   |   | Boundaries unclear. GNIS gives 4 points N & NE of Seney. National Atlas Viewer topo layer gives multiple labels, too, extending farther east than BGN, to NE of McMillan         |