

## Meander Lines

by  
Matt Gotham

Although they are often misinterpreted, meander lines, in general, do not constitute boundary lines and were run for surveying and mapping purposes only. In this essay, I will explore the purpose of meander lines; the difference between meander lines and boundary lines; and, finally, talk about the differences in the General Instructions to Deputy Surveyors of 1815, 1833, and 1850.

Meander lines were run along the considerable bodies of water of Michigan in order to determine quantity when sections were made fractional by these bodies of water.<sup>1</sup> A formal definition is also given as, “A traverse of a body of water for the purpose of determining the size and location of the body of water.”<sup>2</sup>

Michigan Courts have defined meander lines in similar ways. In a 1972 decision the Michigan Supreme Court defined a meander line as “...a surveyor’s line...upon which titles to Michigan real estate were originally patented to individual owners by the United States.” They said the meander line is merely a means of computing the acreage in the uplands.<sup>3</sup>

A 1959 Michigan Supreme Court decision states that meander lines were run for the purpose of getting the general contour of the body of water and also in order to determine the price to be paid when the government sold land along the body of water.<sup>4</sup>

Although each source reports the purpose of a meander line slightly differently, they all state that a meander line and a boundary line are two very different things. In fact, it has been decided again and again by courts all over the country that a meander line is not a boundary line.<sup>5</sup>

Certain texts and opinions can be misleading, though. In many states and in the case of the Great Lakes in Michigan, the high water mark is said to be the boundary line of the riparian owners.<sup>6</sup> The Manual of Instructions of 1973 states that meander lines were supposed to be run at the high water mark of the body of water at the time of the survey<sup>7</sup>, so then would the meander line not be the boundary line?

Generally this is not true for a number of reasons: first, although the meander line was supposed to be run at high water mark, natural obstacles or carelessness, or both, often caused the surveyor to deviate from the high water mark. Secondly, even if the original surveyor had very carefully followed the high water mark, shorelines have the tendency to change a great deal over time. Today, it is most likely that the meander line is some distance away from the current high water mark.

On inland lakes and streams in Michigan, the boundary line goes to the center of the body of water<sup>8</sup>, so the meander line should, in no way, shape, or form, be misinterpreted as a boundary line. The courts have also made decisions regarding the Great Lakes. The meander line of the Great Lakes is merely one of description, and those with land abutting these lakes own to the water's edge, formally described as the high water mark, and their ownership is subject to accretion and reliction.<sup>9</sup>

There is, however, one major exception to the rule that a meander line is not a boundary line. “In the case of a gross error or fraud in running the meander line, courts have been generally inclined to regard the so-called meander line as a fixed boundary and not a meander line.”<sup>10</sup> These are the instances in which the original government plat is wrong in the location of the meander lines. Though one cannot know for certain, it is probable that the original surveyor, for whatever reason, did not physically run the meander line, but instead used his “best guess” when drawing the plat.

After considering the acreage between the meander line and the true shoreline, the circumstances of the original survey, and the type and value of the land, the courts will determine whether or not an error was made. If they decide that the meander line was fraudulent, they generally decide in one of two ways. First, they will hold the original meander line as a boundary line, and, second, they will extend the lots to the nearest eighth line.<sup>11</sup>

In both cases, the government owns the land between the old meander line or the new boundary, being the eighth line, and the shore, and therefore can resell that portion of land.<sup>12</sup>

The deputy surveyors laid out these meander lines in accordance with instructions given to them by the Surveyor General. The first set of instructions was issued in 1815, and additional manuals were sent out periodically after enough questions had been raised to warrant another edition. The three main sets of instructions are those of 1815, 1833, and 1850.

The instructions for meandering in the 1815 Manual are quite brief. They direct the surveyor to traverse along the course of all navigable rivers which bound or pass through the section being surveyed. The surveyor is instructed to note where the river intersects any section or township lines, the distance from these points to the section corners, and the distance from the commencement of the course where the surveyor is meandering the river. The 1815 Instructions make no mention of the meandering of lakes.<sup>13</sup>

The 1833 Instructions are much more in depth and specific than the 1815 Instructions. They again instruct the deputy surveyor to meander all navigable rivers in his district, but in addition, they direct the surveyor to meander all navigable bayous flowing from or into the rivers, lakes and deep ponds, and islands which are fit for cultivation.<sup>14</sup>

Under this set of instructions, the surveyor must also note any streams flowing into the river, bayou, or lake being meandered and the width of that stream at the mouth. The surveyor must also locate and note any rapids, falls, smaller islands or bars. The 1833 Instructions also direct the surveyor to measure a line from any meandered lake or pond that is entirely within a section to a section corner or a quarter corner.<sup>15</sup>

The 1833 Manual also designates that, when looking downstream, the sides of the stream will be termed “Right bank” and “Left bank.” One of the most important additions to this set of instructions is the directions to include the meander information on the plat.<sup>16</sup>

The instructions of 1850 are, for the most part, the same as the instructions of 1833.<sup>17</sup> One small change is that instead of saying lakes of significant magnitude, the instructions specify the size of the lakes to be meandered to be forty acres or more.<sup>18</sup> The 1850 instructions are also more detailed in explaining what to do in the case of obstacles and other problems which may be encountered.<sup>19</sup>

The last major difference between the instructions of 1833 and 1850 is that the later instructions gave an alternate method of meandering. This method utilizes a solar compass and chain to essentially take angles and distances to different points along a stream.<sup>20</sup>

After taking an in-depth look at the purpose of a meander line, the difference between a meander line and a boundary line, and the differences between the 1815, 1833, and 1850 Instructions for meandering, we can see that although they are often misinterpreted, meander lines, in general, do not constitute boundary lines and were run for surveying and mapping purposes only.

## NOTES

1. Thomas M. Cooley, The Judicial Function of Surveyors (The Utah Council of Land Surveyors), [http://www.ucls.org/new\\_site/articles/judicial-function.htm](http://www.ucls.org/new_site/articles/judicial-function.htm).
2. Walter G. Robillard, Donald A. Wilson, and Curtis M. Brown, Brown's Boundary Control and Legal Principles (Hoboken, New Jersey: John Wiley and Sons, Inc. 2003), 441.
3. Pigorsh v. Fahner, 386 Mich. 508, Lexis 198, [http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?\\_m=129391ae18b010837f0b29d6077dd9e8&\\_docnum=2&wchp=dGLbVlz-zSkVA&\\_md5=7f944774573e590cbe162378866168e3](http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?_m=129391ae18b010837f0b29d6077dd9e8&_docnum=2&wchp=dGLbVlz-zSkVA&_md5=7f944774573e590cbe162378866168e3)
4. Poch v. Urlaub, 357 Mich. 261, Lexis 302, [http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?\\_m=129391ae18b010837f0b29d6077dd9e8&\\_docnum=4&wchp=dGLbVlz-zSkVA&\\_md5=8fca6b39c46f03de64266eb1bae4b76a](http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?_m=129391ae18b010837f0b29d6077dd9e8&_docnum=4&wchp=dGLbVlz-zSkVA&_md5=8fca6b39c46f03de64266eb1bae4b76a).
5. Poch v. Urlaub.
6. Ray Hamilton Skelton, The Legal Elements of Boundaries and Adjacent Properties (Indianapolis, IN: The Bobbs-Merrill Company, 1930), 318.
7. Curtis M. Brown, Walter G. Robillard, and Donald A. Wilson, Evidence and Procedures in Boundary Location (New York, NY: John Wiley and Sons, Inc., 2002), 260.
8. Cooley.
9. Farabaugh v. Rhode, 305 Mich. 234, Lexis 361, [http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?\\_m=129391ae18b010837f0b29d6077dd9e8&\\_docnum=8&wchp=dGLbVlz-zSkVA&\\_md5=05c8aa43de0db3beba306945e3f982fd](http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?_m=129391ae18b010837f0b29d6077dd9e8&_docnum=8&wchp=dGLbVlz-zSkVA&_md5=05c8aa43de0db3beba306945e3f982fd).
10. Walter G. Robillard and Lane J. Bouman, Clark on Surveying and Boundaries (The Michie Company, 1992), 351.
11. Ibid, 353.
12. Ibid.
13. Ralph Moore Berry, Special Instructions to Deputy Surveyors in Michigan, 1808-1854 (Lansing, Michigan: Michigan Museum of Surveying, 1990), 36.
14. Ibid., 172.
15. Ibid.

16. Ibid., 173.
17. John G. McEntyre, Land Survey Systems (New York, NY: John Wiley and Sons, Inc., 1978) 106.
18. Ralph Moore Berry, Special Instructions to Deputy Surveyors in Michigan, 1808-1854 (Lansing, Michigan: Michigan Museum of Surveying, 1990), 367.
19. Ibid., 368.

## REFERENCES

- Berry, Ralph Moore, Special Instructions to Deputy Surveyors in Michigan, 1808-1854. Lansing, Michigan: Michigan Museum of Surveying, 1990.
- Brown, Curtis M., Walter G. Robillard, and Donald A. Wilson, Evidence and Procedures in Boundary Location. New York, NY: John Wiley and Sons, Inc., 2002.
- Cooley, Thomas M., The Judicial Function of Surveyors. The Utah Council of Land Surveyors, [http://www.ucls.org/new\\_site/articles/judicial-function.htm](http://www.ucls.org/new_site/articles/judicial-function.htm).
- Farabaugh v. Rhode, 305 Mich. 234, Lexis 361, [http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?\\_m=129391ae18b010837f0b29d6077dd9e8&\\_docnum=8&wchp=dGLbVlz-zSkVA&\\_md5=05c8aa43de0db3beba306945e3f982fd](http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?_m=129391ae18b010837f0b29d6077dd9e8&_docnum=8&wchp=dGLbVlz-zSkVA&_md5=05c8aa43de0db3beba306945e3f982fd).
- McEntyre, John G., Land Survey Systems. New York, NY: John Wiley and Sons, Inc., 1978.
- Pigorsh v. Fahner, 386 Mich. 508, Lexis 198, [http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?\\_m=129391ae18b010837f0b29d6077dd9e8&\\_docnum=2&wchp=dGLbVlz-zSkVA&\\_md5=7f944774573e590cbe162378866168e3](http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?_m=129391ae18b010837f0b29d6077dd9e8&_docnum=2&wchp=dGLbVlz-zSkVA&_md5=7f944774573e590cbe162378866168e3).
- Poch v. Urlaub, 357 Mich. 261, Lexis 302, [http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?\\_m=129391ae18b010837f0b29d6077dd9e8&\\_docnum=4&wchp=dGLbVlz-zSkVA&\\_md5=8fca6b39c46f03de64266eb1bae4b76a](http://0-web.lexis-nexis.com.libcat.ferris.edu/universe/document?_m=129391ae18b010837f0b29d6077dd9e8&_docnum=4&wchp=dGLbVlz-zSkVA&_md5=8fca6b39c46f03de64266eb1bae4b76a).
- Robillard, Walter G., Donald A. Wilson, and Curtis M. Brown, Brown's Boundary Control and Legal Principles. Hoboken, NJ: John Wiley and Sons, Inc., 2003
- Robillard, Walter G. and Lane J. Bouman, Clark on Surveying and Boundaries. The Michie Company, 1992.
- Skelton, Ray Hamilton, The Legal Elements of Boundaries and Adjacent Properties. Indianapolis, IN: The Bobbs-Merrill Company, 1930.