

GIS News
Sept/Oct 2014

IN THIS ISSUE

Embracing GIS

by Aleesha Erickson, GIS Coordinator for the City of Minot, ND

GIS is everywhere. What does it mean you ask? A Geographic Information System in short is "computerized mapping". It helps us answer questions and solve problems by looking at data geographically in a way that's easy to understand and share. Most people probably think to themselves, "I don't use it", but they do. If you have ever used Google Maps or Google Earth, you are using a basic form of GIS. Without even thinking, tens of millions of people access directions and look up businesses from a gps unit or their smart phone every day. GPS gives you a location, while GIS can relate data about that location. For example, if you are hiking in a forest alone and get hurt, your cellphone can give gps coordinates to emergency responders so they can find you. GIS allows the responders to know which hospital is nearest your location in case it is an emergency.

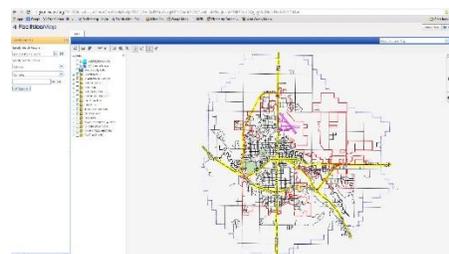
So Now What You Ask

The City of Minot has developed a GIS map that can be handy for many reasons. It is free and available to the public as well as city employees. The intent of this newsletter is to inform people of what information the GIS map can provide and also to demonstrate how to access that information as it can be somewhat intimidating at first.

The [Property Map](#) (as it has been referred to for years) can be found on the Engineering website under the GIS tab on the left side – **this is the GIS interactive map**. It can also be accessed from the City of Minot home page under the I Want To tab and then select View City Maps → City of Minot Property Map.

The mapping software works best with **Google Chrome** or **Firefox** as your browser. There have been some known issues with Internet Explorer that the software company is trying to find fixes for.

The Property Map should look like the picture below when it loads:



Election Day 2014

With many new residents in the City of Minot, many people are left wondering where they should vote. See how GIS can help solve that question. pg. 4

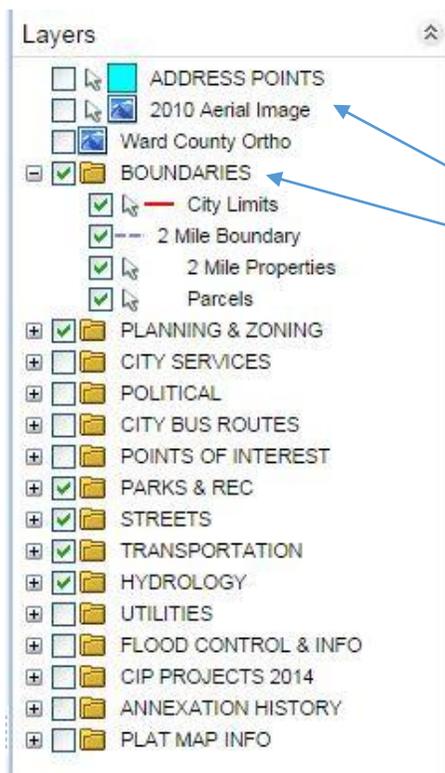
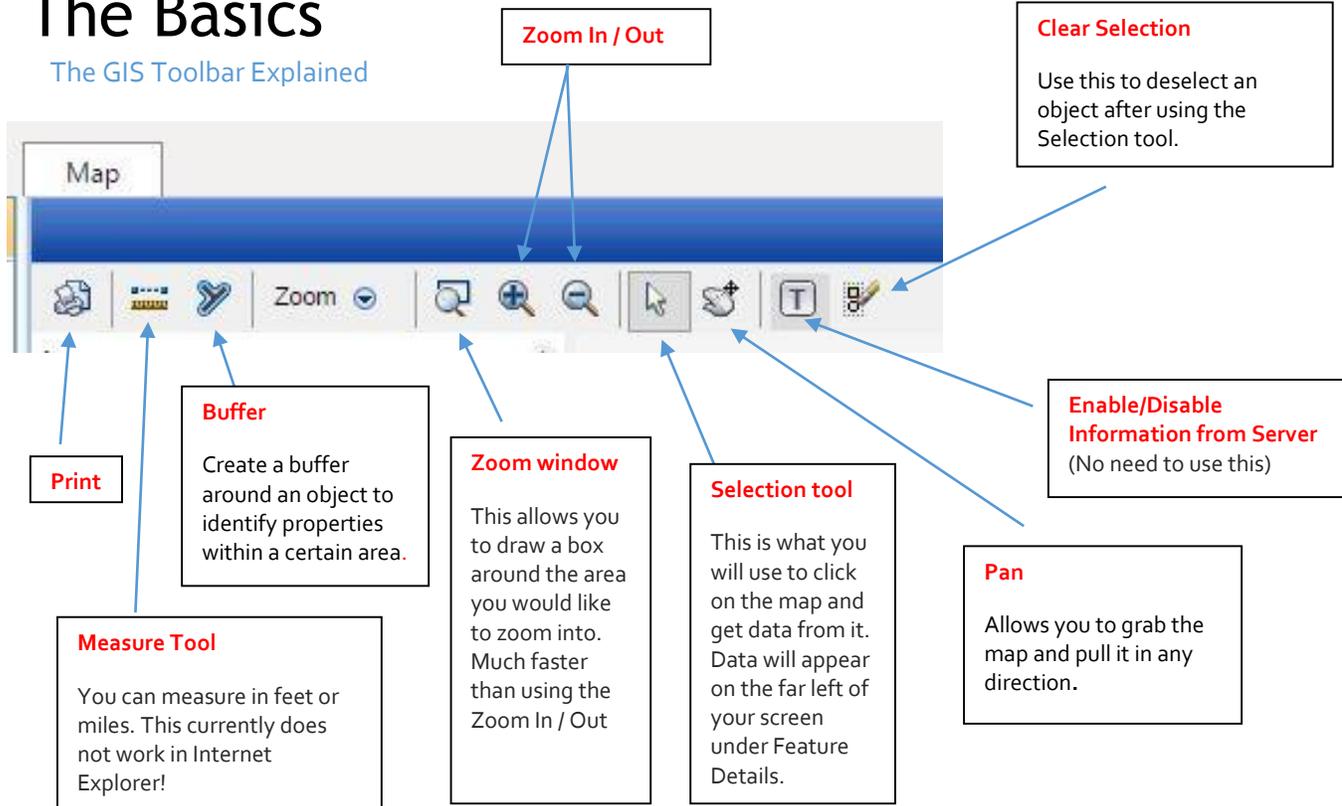


Flood Protection Plan

It's been 3 years since the historic flood of 2011. Some people are wondering where the proposed levees will be in relation to their property. The GIS map can help answer this question. pg. 5

The Basics

The GIS Toolbar Explained



Working With the Legend

Some data is in a layer by itself, while other layers of data are stored within folders. Here the + sign next to the folder for BOUNDARIES was clicked to expand the folder and show the layers of data within it.

You can choose which info you would like to see by checking or unchecking the box in front of the layer.

***Note: In order to display a layer within a folder, the folder itself must also be checked.** In the example to the left, if you were to uncheck the box next to BOUNDARIES, you would not see the city limits, 2 mile boundary, 2 mile properties or parcels on the map even though they are checked.

Finding an Address

Search Features

Specify Search Feature

Address Points Search

Specify Search Criteria

Address

Starts with

315

Submit

If you are looking for a specific address and don't want to zoom in and pan around until you find it, you can use the Search Feature located to the left of the Legend.

The default layer for searching is already set to Address Points. This layer contains address points in the city limits as well as the 2 mile jurisdiction.

The next box containing the search criteria will stay as Address, but the box below it should be changed to **Starts With** rather than Contains. This will help eliminate unnecessary addresses in the search results.

I.e. If you search for house number 315, you now will not get house numbers 1315, 2315, 3315, etc...

Below the Starts with box, **enter just the house number you are searching for**. Many times there is more than one space between the house number and the rest of the address and the search is space specific so it is best to just enter the house number. Hit Submit.

Search Features

Feature Details

Address Points Details (26)

Address

- ▶ 315 11TH AVE SW
- ▶ 315 16TH ST NW
- ▶ 315 17TH AVE SE
- ▶ 315 17TH ST SE
- ▶ 315 18TH AVE SW
- ▶ 315 20TH AVE NW
- ▶ 315 20TH AVE SE
- ▶ 315 20TH ST NW
- ▶ 315 28TH AVE SW
- ▶ 315 31ST AVE SW
- ▶ 315 3RD AVE NW
- ▶ 315 3RD AVE SW
- ▶ 315 3RD ST NW
- ▶ 315 3RD ST SE
- ▶ 315 4TH ST NW
- ▶ 315 7TH AVE NW

As you can see, we now found 26 addresses that have a house number of 315.

Let's assume we are looking for 315 18th Ave SW. We see that it is 5th in our list of results. To go to that property, simply click on the address (not on the arrow to the left of it).

The map should now zoom in and you should see a small blue dot on the lot you were searching for. Now you can use the **Selection Tool** to click on the lot and all the data attached to that lot will show on the far left of your screen.





Congratulations, you now know the basics of how to operate the GIS Map!

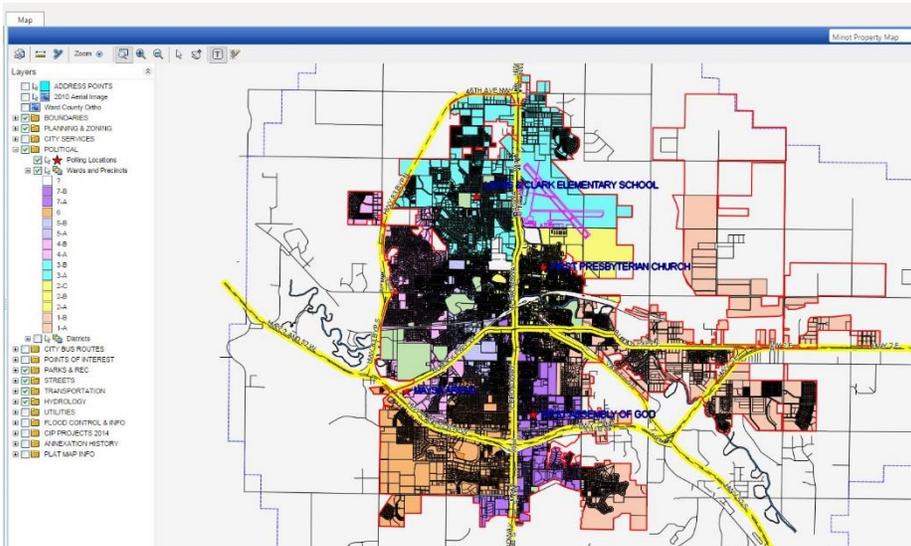
Election Day

Where Do I Vote?

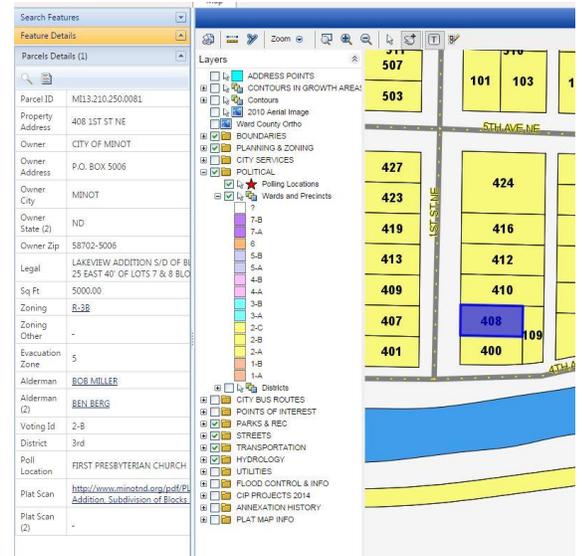
Minot has had a large influx of new residents in the past few years thanks to the booming oil industry in the Bakken. Along with that there have been many new areas of housing development along with ward and legislative district boundary changes after the last census. Many of these new residents don't know where they should vote. This may be one of the reasons for such low voter turnout in the last election.

The City of Minot GIS map can help to answer this question. It is also useful for a resident to find out who their Aldermen are and how to contact them should they have the need.

If you open the [Property Map](#), you will notice a folder in the legend called POLITICAL. Simply check the box next to that folder and your map should then look like the picture below (you may want to click the + next to the folder name so you can see what the colors represent).



The parcels are now colored according to which Ward they are in. You can search for an address or zoom into an area. Once again, use the Selection Tool to click on a property. The example below shows the info for 408 1st St NE.



If you notice, the Aldermen names are in blue text and underlined. This means they are hyperlinked. If you click on one of the Aldermen names, it will take you to the city webpage where you can find contact information for all the Aldermen.

Here you will also find the polling location where that resident should vote. In this case, they vote at First Presbyterian Church.

Future Flood Protection

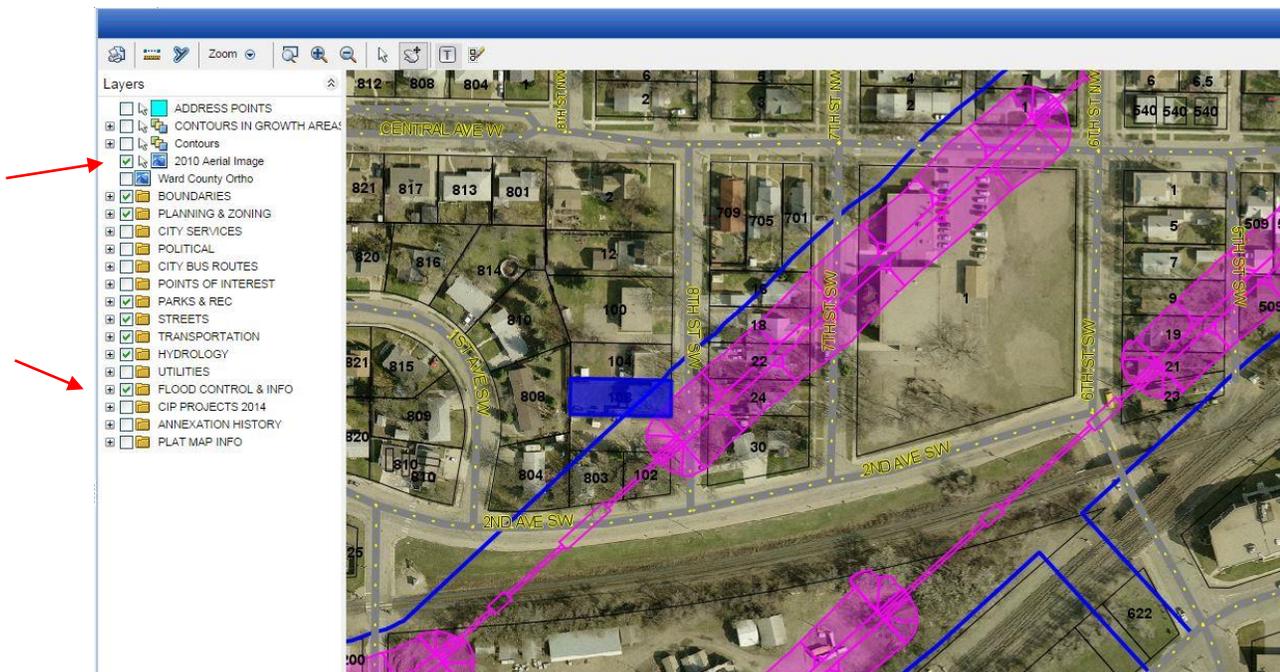
Where Will the New Levees Be in Relation to My Property?

It has been just a little over 3 years since the waters of the Souris River poured over the banks and inundated Minot. Concept plans for new levee protection have been designed and presented to the public at various meetings. Still, many homeowners aren't exactly sure where the new levees will be in relation to *their* property. Most people tend to know the new levee is will be in their area, but they aren't sure where exactly.

To date, the City has purchased slightly more than 100 homes that are in the footprint of the new flood protection plan. With around 200 more homes yet to possibly purchase, there are still many people with questions. Most have seen paper maps that have a blurred aerial image under a levee and can't tell where their property is.

The Property Map is very useful for demonstrating where the levee will be (or not be) on a property.

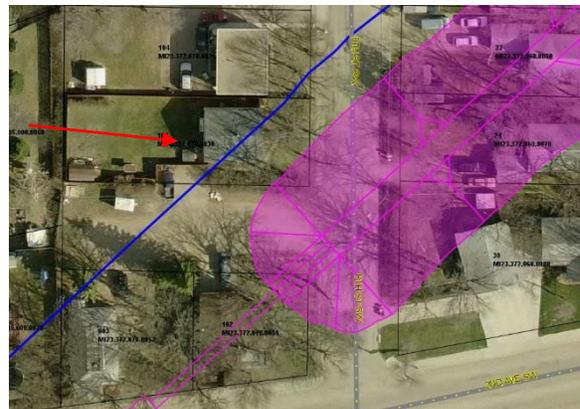
Once the [Property Map](#) is open, look for the folder in the legend called **FLOOD CONTROL & INFO** and check the box next to the folder. This will turn on the layers for the new levee outline (magenta) and also the Right-Of-Way area (between levee and the blue line) that will be needed to allow access to work on the levee. Remember, you can click the + next to the folder to expand it and see what the data layers are. You can now do a search for a particular address or zoom into an area of interest. Once you have zoomed in, check the layer in the legend called 2010 Aerial Image. You will now have the footprint of the proposed levees overlaid on a very legible aerial image. Below is an example of what the map should resemble.



You can continue to zoom in with very good clarity.

Use the Deselect tool to remove the blue box on the property.

The image to the right shows the area of the highlighted lot in the above picture when zoomed in closer. It is clear to see that the proposed levee would be on a very small piece of this property, but the house itself is clearly within the right-of-way area.



Ending Thoughts

Hopefully this newsletter has been able to clarify what GIS is and what it can do. It can be a very useful tool and is becoming more and more a part of everyday life. GIS technology has become so ingrained in our everyday lives that most people don't even realize they are using it. Just remember the next time you punch a destination in your Garmin or your car breaks down and you grab your cellphone to search for the nearest tow truck – you are using GIS!



The City's GIS is constantly changing with the addition of more data layers and better layout. It is still a work in progress but it continues to improve. Input and feedback are not only appreciated but necessary in order to make it useful to a wide range of people. If you have questions on how something works, or suggestions for something you would like to see on the map, feel free to contact the GIS Coordinator:

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**Something you
want to see in the
next newsletter?**

Send your ideas to

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