

## Downloading LiDAR For North Dakota—Ordering

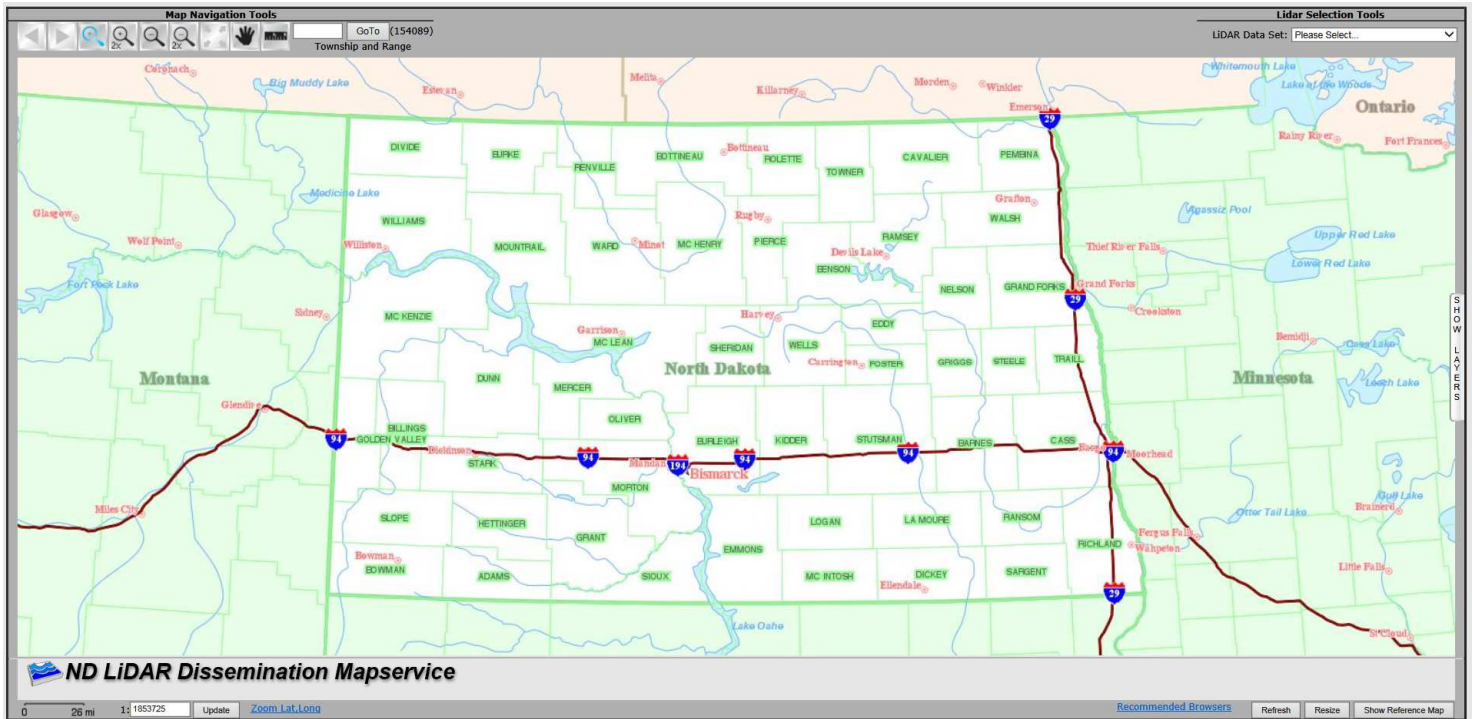
### Requesting Data

LiDAR data can be downloaded for a large part of North Dakota from the ND LiDAR Dissemination Mapservice.

To get started first navigate to their website: <http://lidar.swc.nd.gov/>

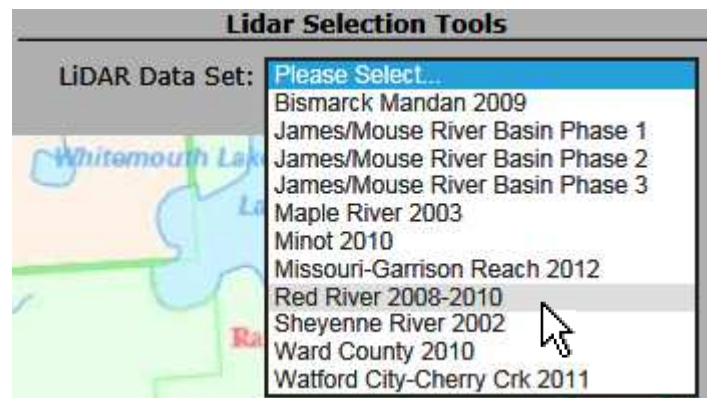
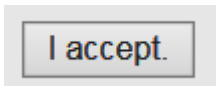
For the downloading process it is recommended to use Microsoft Internet Explorer.

Once on the website it should look similar to the image below:



Once on the website there are several steps to request LiDAR data to be downloaded.

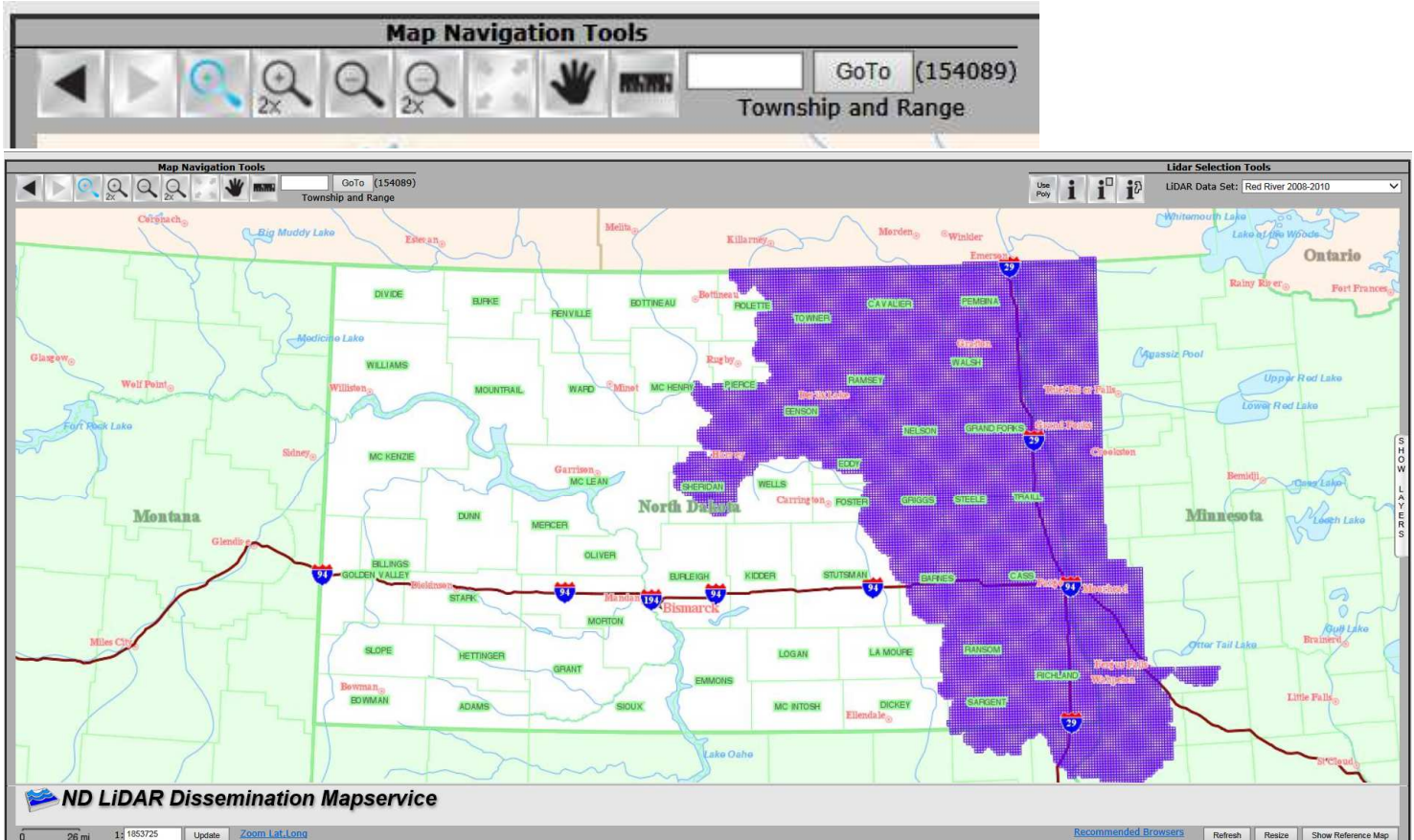
1. Select the LiDAR Data Set to be downloaded. These options are located in the top right corner of the website. This example will use Red River 2008-2010.
2. After selecting the data set a window will appear with a disclaimer that must be accepted to download the data. Read the disclaimer and if you agree click "I accept"



## Downloading LiDAR For North Dakota—Ordering

3. After accepting the disclaimer, the data outlines will appear on the map. This is a good indicator of where the data is available and if the LiDAR Data Set has to be adjusted.

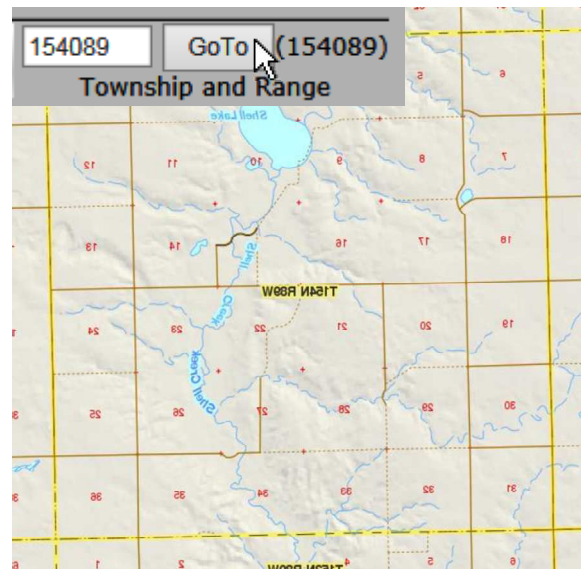
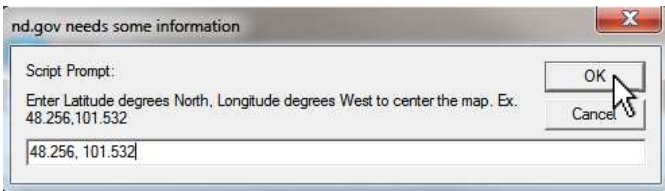
4. Using the navigation tools on the top left corner of the website locate the area to download the LiDAR from. To identify what each of the tools do, mouse over them and it will display what each one does.



5. If the township and range is known it can be entered in the box to the right of the navigation tools and by clicking "GoTo" will zoom into that area.

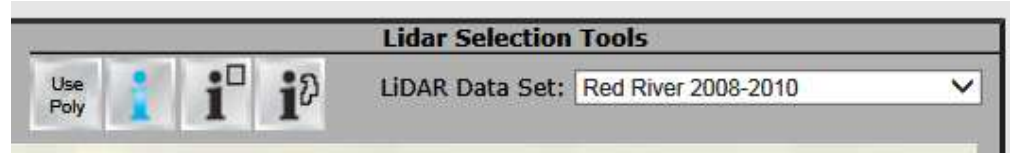
\*Note: After zooming in the Township and Section ID's will appear on the map to help identify an area.

6. If the Lat, and Lon are known for a point they may also be entered in by going to the bottom of the page.



## Downloading LiDAR For North Dakota—Ordering

7. After zooming in the area has to be selected using the LiDAR selection tools on the top right corner of the website.



Use to get information about the active layer.



Use to select an area by a square.

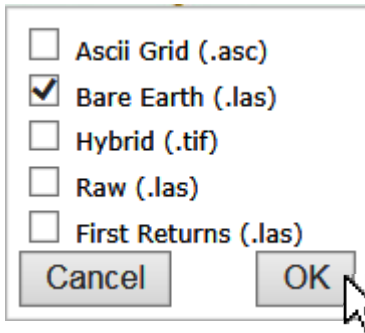


Use to select an area by a hand drawn polygon.



Use Poly if a specific area needs to be downloaded. This may be used to download individual counties, townships, or sections at a time.

8. When the area is selected to download, another window will appear asking to select the type of file to download.



To utilize this within ADMS:

- Select the "Bare Earth (.las)" files
- Click "OK."

After clicking "OK" a window will appear with each of the tiles to download. They can be downloaded individually by clicking [Get](#) or using an ftp grower such as FileZilla.

The number of links will changed depending on the size of the selection.

If a large number of tiles need to be downloaded it is recommended to connect to the ftp site.

| Grid Name                | Bare Earth          |
|--------------------------|---------------------|
| <a href="#">06045372</a> | <a href="#">Get</a> |
| <a href="#">06065370</a> | <a href="#">Get</a> |
| <a href="#">06065372</a> | <a href="#">Get</a> |
| <a href="#">06045370</a> | <a href="#">Get</a> |

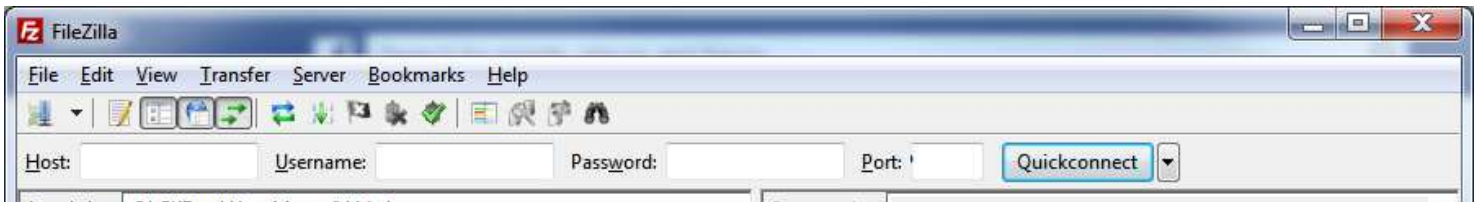




## Downloading LiDAR For North Dakota—FileZilla

FileZilla is a free FTP client. This will allow for a bulk download of files from the FTP site. This a recommended software, but others may be used.

1. Follow the previous steps to order/select the data to download.
2. Download a copy of FileZilla. It available at: <https://filezilla-project.org/>
3. After the download and installation of FileZilla open up the software.
4. To Connect to the ND site a Host, Username, and Password are needed.



5. The Host, Username, and Password are located on the information panel after the data is selected.

**ftp://lidar.swc.nd.gov** ← using the following credentials.

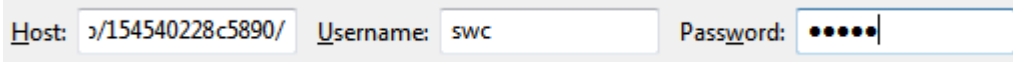
**username = swc**  
**password = water**

Once Connected, goto the following path  
**/temp/154540228c5890/**

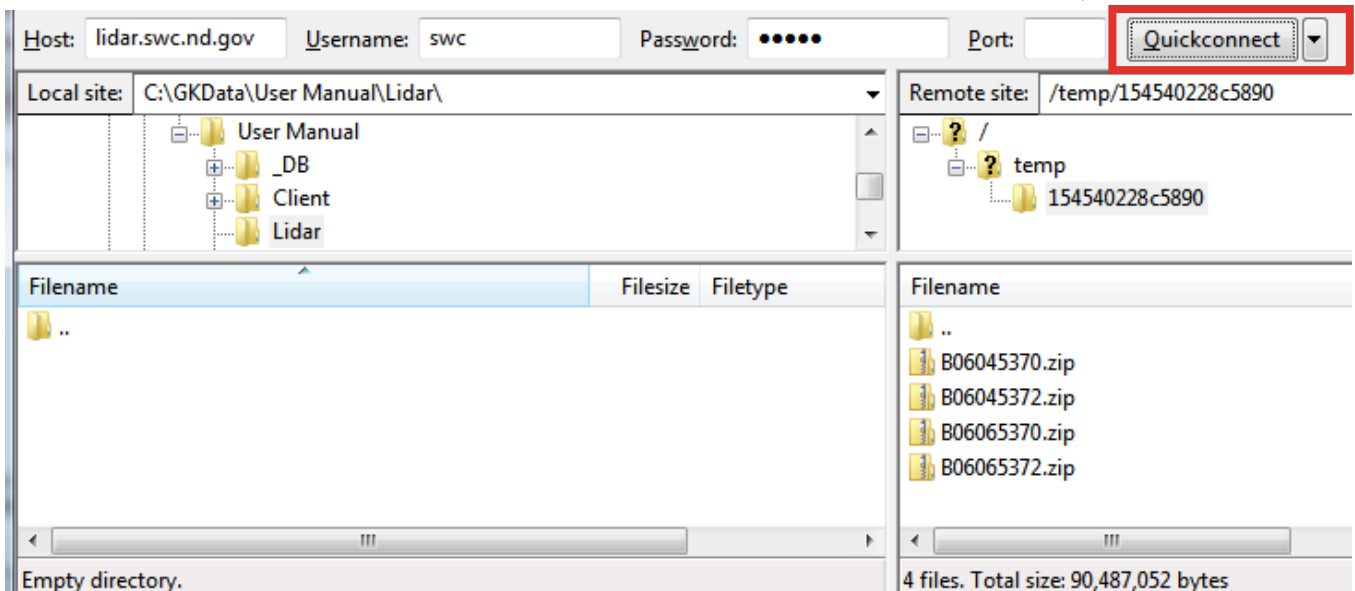
The Host will be <ftp://lidar.swc.nd.gov> followed by </temp/154540228c5890/>

These will have to be copied and pasted separately into FileZilla. The last part of the address will change for every order.

The username = swc and password = water. These will not change.

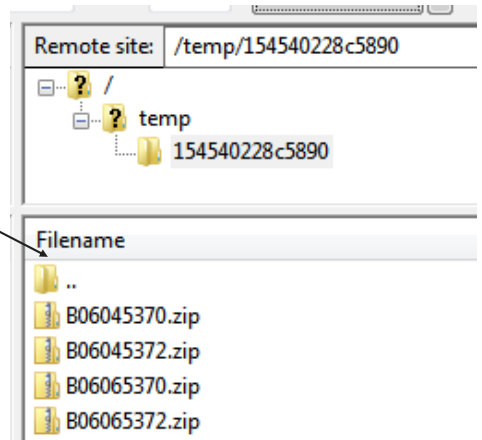


6. After this information is entered click Quickconnect.

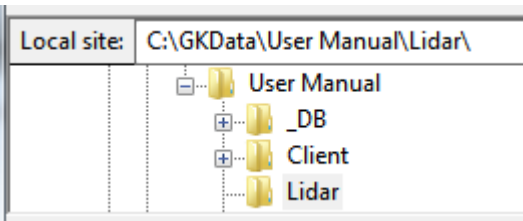


## Downloading LiDAR For North Dakota—FileZilla

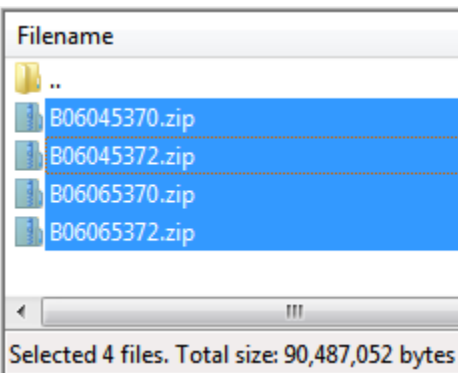
After connecting the files should be visible on the right side of the screen and will show up as \*.zip files.



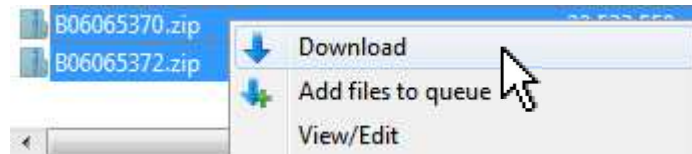
7. Using the Local site window on the left browse to the location where the \*.zip files will be saved to.



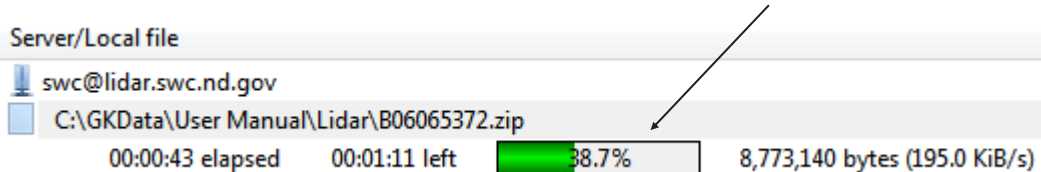
8. After connecting to the remote site and browsing to the location on the local computer select the \*.zip LiDAR files to download.



9. After the files are selected:  
Right Click—Select “Download”



10. The files will start to transfer and the progress can be viewed on the bottom window.



**\*It is recommended that before proceeding install 7-zip on your computer.**  
<http://www.7-zip.org/>

11. After the files have finished downloading browse to the location where they were saved.
12. Select all of them.
13. Right Click and Go 7-zip>Extract Here (7-zip must be installed for this to work).
14. The \*.las files will now show up in the same folder and can be imported into ADMS as elevation data. After extraction the \*.zip files may be deleted to save space.

**\*For detailed instructions on FileZilla visit:**  
<https://wiki.filezilla-project.org/Tutorial>