State of Wyoming – Webinar Training (Broadband Maps)

PREPARED FOR THE STATE OF WYOMING/LIGHTBOX
MARCH 28, 2023

VERSION 1.0

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2.1 INTRODUCTION

Orient the users on the map

Starting with the top and left-hand side:

- **Title**
  - This map has been built to portray broadband coverage for the State of Wyoming

- **Static Legend (map description box)**
  - This is an example of some of the key data layers contained within this map
  - Location Points are individual premises (houses, buildings) and each one has been color-coded based on its internet speed serviceability range.
  - Funding data (such as FCC USAC and USDA ReConnect) have been added to the map and have been color-coded based on its internet speed serviceability range.
- **Map Description**
  - This description conveys several pieces of information such as:
    - Purpose of the map
    - Information on how to use the features in the map and what they do
    - Business rules of how the serviceability categories were determined based on speed (e.g., served means that location has a speed equal to or greater than 100 Mbps down and 20 Mbps per up)
    - **NOTE:** Excluding some wireless and satellite coverage

Move over the far right-hand side (3 icons)

![Legend](image)

*Use the Legend to view the legend for all visible layers*

- Whatever layers are visible on the screen will appear within this legend

![Layer List](image)

*Use the Layer List to turn data layers on/off*

- This allows a user to have control and turn layers on/off
- If a layer is greyed out – it means that a user has to zoom in closer in order to see the data (e.g., Locations)

![Satellite Imagery](image)

*Use the base map Gallery to turn on satellite imagery or change the underlying base map*

Navigate to left-hand side of the map

![Zoom](image)

*Zoom allows a user to go in and out of the map OR use mouse scroll wheel to do this*

![Home Button](image)

*Default extent (or the home button) – if you want to return to see entire State – you select this icon*

![My Location](image)

*My location icon – if you select this – map will ask to use browser location and find you on the map (shortcut to having to type in your address)*
• Search bar
  o “All” will search for all 5 types of geography (address or place, counties, tribal lands, house districts, senate districts)

![Search bar](image)

• Example inputs with ALL
  o Address = “222 E Collins Dr, Casper, WY, 82601, USA”
    ▪ Type in 222 E COLLINS, and show the type-ahead capability to the tool
    ▪ Type rest of address and show that it finds one record
    ▪ Do not select record – this will occur later
    ▪ NOTE: Short forms for directions and street types are recommended
  o County “Natrona”
    ▪ Type “Natrona”
    ▪ If you scroll down - county is listed at the bottom
  o Tribal Lands = “Wind River Reservation”
    ▪ Type “Wind River Reservation”
    ▪ If you scroll down – Tribal Land is listed at the bottom
  o House District “HD-12”
    ▪ Type “HD-12”
    ▪ If you scroll down – House District is listed at the bottom
  o Senate District “SD-12”
    ▪ Type “SD-12”
    ▪ If you scroll down – Senate District is listed at the bottom
2.2 **Map Orientation**

- Select a **County boundary**

  - Each boundary has a popup window that displays information
  - For a county – you see the following:
    - # of locations by the serviceability levels (served, underserved, unserved)
    - Total # of locations in that county
    - % of locations which are unserved/underserved
• Select a **Federal Fund boundary**
  o Federal funding boundaries have been added to the map as per legend
    ▪ USDA ReConnect

---

<table>
<thead>
<tr>
<th>USDA ReConnect Loan and Grant Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant Name: All West / Wyoming Inc.</td>
</tr>
<tr>
<td>Program Type: ReConnect Program - FY2019</td>
</tr>
<tr>
<td>Funding Category: 100% Grant</td>
</tr>
<tr>
<td>Service Area Type: PFSA</td>
</tr>
<tr>
<td>Application Name: 101000148</td>
</tr>
<tr>
<td>Grant Amount Requested: $4,795,809.00</td>
</tr>
<tr>
<td>Loan Amount Requested: $0.00</td>
</tr>
</tbody>
</table>

• Zoom into an area where there is a USDA ReConnect boundary
  o View cluster of points
  o Zoom in further
  o Select an address
  o Address should be flagged as Served
Map 2 – Wyoming Broadband Grant Application/Challenge Map:
https://lightbox-wy.maps.arcgis.com/apps/webappviewer/index.html?id=d399bb5329b64103a630880e40ece3f2

NOTE:
- This map is credentialed (i.e., you require a username and password to access)
- If you require credentials and have not received them yet, please contact the Wyoming Business Council:
  - Broadbandoffice@wyo.gov
3.1 INTRODUCTION

Orient the users on the map

Start with the top and left-hand side:

- **Title**
  - This map has been built for Wyoming ISPs to extract data from the map to submit for applications

- **Static Legend (map description box)**
  - This is an example of some of the data layers contained within this map
  - Location Points are individual premises (houses, buildings) and each one has been color-coded based on its internet speed serviceability range.
  - Funding data (such as FCC USAC and USDA ReConnect) have been added to the map and have been color-coded based on its internet speed serviceability range.

- **Map Description**
  - This description conveys a number of pieces of information such as:
    - Purpose of the map
    - Information on how to use the features in the map and what they do
    - Business rules of how the serviceability categories were determined based on speed (e.g., served means that location has a speed equal to or greater than 100 Mbps down and 20 Mbps per up)
    - **NOTE: Excluding some wireless and satellite coverage**

Move over the far right-hand side (6 icons)

- **Use the Legend to view the legend for all visible layers**

  - Whatever layers are visible on the screen will appear within this legend

- **Use the Layer List to turn data layers on/off**

  - This allows a user to have control and turn layers on/off
  - If a layer is greyed out – it means that a user has to zoom in closer in order to see the data (e.g., Locations)
Use the Select Eligible Locations button to extract data from the map

Use the Filter By County button to zoom in to a specific county of interest

Use the Print button to create an export of the map (e.g., pdf, jpeg)

Use the base map Gallery to turn on satellite imagery or change the underlying base map

Navigate to left-hand side of the map

Zoom allows a user to go in and out of the map OR use mouse to do this

Default extent (or the home button) – if you want to return to see entire State – you select this icon

My location icon – if you select this – map will ask to use browser location and find you on the map (shortcut to having to type in your address)

Query button allows you to learn high level information at the county or tribal lands

<table>
<thead>
<tr>
<th>Search</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counties</td>
<td></td>
</tr>
<tr>
<td>Tribal Lands</td>
<td></td>
</tr>
</tbody>
</table>
- Search bar

- Example inputs with ALL
  - Address = “222 E Collins Dr, Casper, WY, 82601, USA”
    - Type in 222 E COLLINS, and show the type-ahead capability to the tool
    - Type rest of address and show that it finds one record
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    - NOTE: Short forms for directions and street types are recommended
  - County “Natrona”
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    - If you scroll down – House District is listed at the bottom
- Senate District “SD-12”
  - Type “SD-12”
  - If you scroll down – Senate District is listed at the bottom

3.2 **Map Orientation**

- Select a **County boundary**

```
Natrona County

- Served Locations: 29,882
- Underserved Locations: 744
- Unserved Locations: 3,426
- Total Locations: 34,052
- Eligible for Funding %: 12.25%
- FIPS Code: 56025
- Download Link: [Download All County Locations](#)
```
Each boundary has a popup window that displays information

For a county – you see the following:
- # of locations by the serviceability levels (served, underserved, unserved)
- Total # of locations in that county
- % of locations which are unserved
- A download link will be available if locations are present for that county

- **Select a Federal Fund boundary**
  - Federal funding boundaries have been added to the map as per legend
    - USDA ReConnect

---

**USDA ReConnect Loan and Grant Program**

<table>
<thead>
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</tr>
<tr>
<td>Loan Amount Requested</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

- **Zoom into an area where there is a USDA ReConnect boundary**
  - View cluster of points
  - Zoom in further
  - Select an address
    - Address should be flagged as Served
Filtering (show only wanted records)

- If you are interested in just looking at specific types of properties
- Open table view (i.e., use the arrow at the bottom of the screen)

- Select Options

- Select Filter
• The following window pops up:

- Add expression  +  Add set

Display features in the layer that match the following expression

Without filter expressions defined, this query task will list all features in the specified data source.

  OK  Cancel

• Select Add expression

• Fill out the following:

- Add expression  +  Add set

Display features in the layer that match the following expression

<table>
<thead>
<tr>
<th>Serviceability (String)</th>
<th>is any of</th>
</tr>
</thead>
<tbody>
<tr>
<td>selected</td>
<td></td>
</tr>
</tbody>
</table>

Search

- Underserved
- Unserved

  OK  Cancel

• Select OK button
• Previous view of map (before filter)
• Current view of map (after filter) showing just one type (underserved)

• If you want to remove the filter – return to filter screen and select the X beside the query
3.3 **Download Locations for Whole County**

- From any Zoom level click on a county of interest.
• If locations are available for that county a link will be present at the bottom of the Pop-up card

• Selecting the link will launch a new page where the CSV of locations for that county can be downloaded
The CSV file will contain fields required for submitting records for the following Wyoming workflows:

- Challenge submission
  - NOTE: The fields at the end of the table named Challenge * need to be retained and populated before submitting to the Wyoming Business Council

- Grant Application submission
  - NOTE: The fields at the end of the table named Challenge * can be removed before submitting to the Wyoming Business Council
3.4 **DOWNLOAD LOCATIONS BY SELECTION**

Example area *(651 CASA QUINTA AVE GILLETTE WY 82716-2164)*
- Use Select Eligible Locations tool

- Turn on Locations layer
• Select the option that you wish to use by going to the drop-down arrow on the Select button
  o Select by rectangle
  o Select by polygon
  o Select by lasso

• Example: Select by lasso (select the points on the screen)
  o NOTE: The # of locations is reported beside Locations layer (e.g., 13)
• Select ellipsis (…) to see menu

• Select “View in Attribute Table”
• Selected data will appear in the table at the bottom of the screen (NOTE: notice how count 13 is the same as 13 features reported by table)
  o NOTE: If the number of records in the Select Eligible Locations does not match the number of selected records in the attribute table (bottom) – zoom backwards one zoom level to get the numbers to match so that these are extracted to the CSV file

• Select Export selected to CSV

• The following message should appear:

Export to CSV  

Export data to CSV file?  

OK  Cancel
• CSV file will download

• The CSV file will contain fields required for submitting records for the following Wyoming workflows:
  
  o Challenge submission
    ▪ NOTE: The fields at the end of the table named Challenge * need to be retained and populated before submitting to the Wyoming Business Council
  
  o Grant Application submission
    ▪ NOTE: The fields at the end of the table named Challenge * can be removed before submitting to the Wyoming Business Council

3.5 CREATE MAP PRINT

• Select button

• Following dialog should appear:
- Select Advanced

- Select Print button

- Status bar will say “Creating print”
• Once completed:

1. **Wyoming Broadband Map**

   - Select “1. Wyoming Broadband Map”
   - New window will be opened and pdf will be displayed

   ![Map Image]

   - Use Clear Prints button if you wish to delete all files created (to date)
   - **NOTE:** Other options can be utilized within the Print Map dialog such as:
     - Select different Layout options
     - Select different Formats (png, jpeg, etc)
If you have any questions about how to use these maps, please contact LightBox Customer Success at:

- WyomingISPCoordinator@lightboxre.com
<table>
<thead>
<tr>
<th>Version</th>
<th>Edited By</th>
<th>Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>LightBox</td>
<td>3/28/23</td>
<td>Initial Document</td>
</tr>
</tbody>
</table>