



LandScope
America

Providing Data for LandScope

Version 2.3
October 2014



NatureServe

A Network Connecting Science With Conservation

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Recommendations for developing Protected Areas Layer

The following instructions only pertain to building a legend in accordance with the way the PADUS (Protected Areas Database) layer is symbolized within LandScope. We recommend that states designate and symbolize their protected areas layer in a manner consistent with that of the PADUS layer as shown in LandScope, however, this is not required.

The table below illustrates how the PADUS layer is displayed in LandScope, including the RGB Symbology, according to Owner Type (own_type).

<u>Owner Type</u>	<u>Symbology (RGB)</u>
Federal Land	38-115-0
Native American Land/Native Corporation (AK)	115-76-0
State Land	132-0-168
Regional Agency Land	255-255-115
Local Government Land	230-152-0
Non-Governmental Organization Land	115-115-0
Private Land	168-0-0
Joint Ownership	205-102-153
Unknown	0-168-132

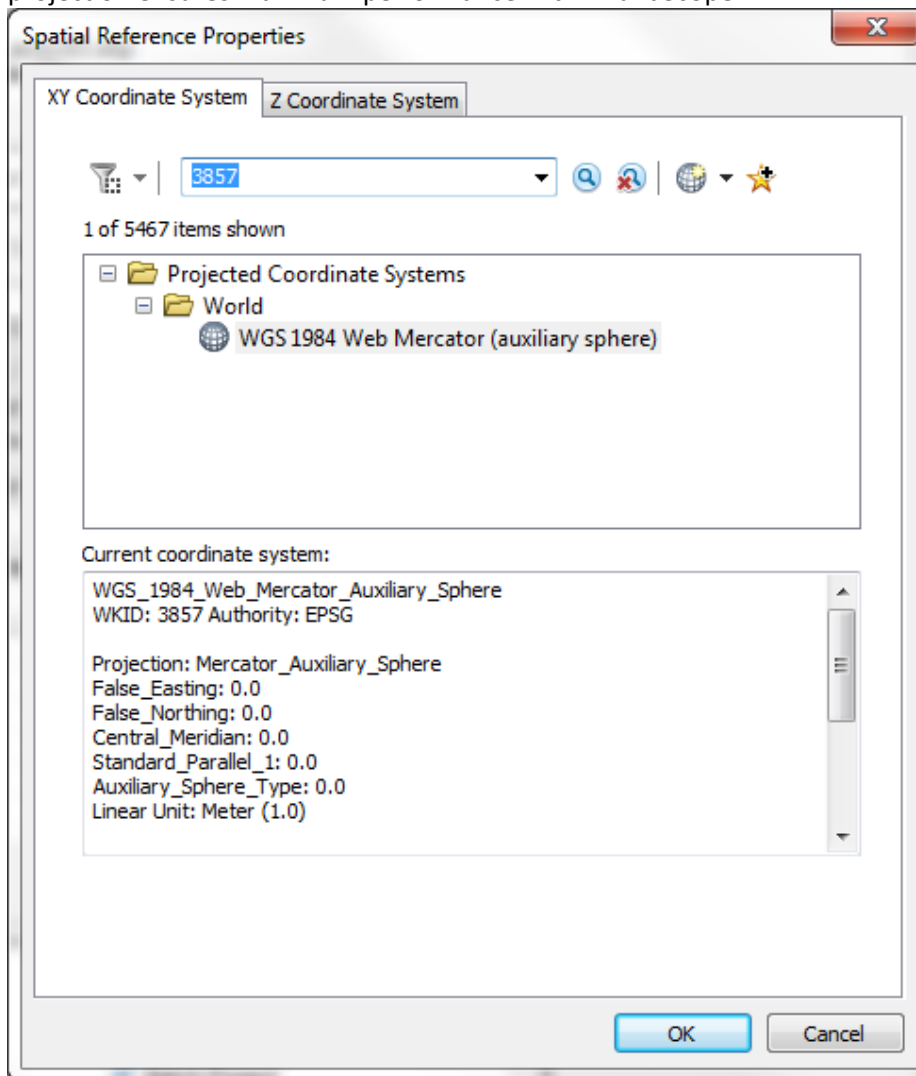
Instructions for Developing Map Documents

Unlike previous versions, LandScope 2.0 can consume public map services. As such, if your organization or another state agency can publish your map services for you, we recommend doing so. This enables you to change the data and manner in which it is presented at your convenience.

If necessary, NatureServe can publish map services for you, for use in LandScope. NatureServe will publish the map services exactly as provided and may be limited, due to resources, as to how often the map services can be updated.

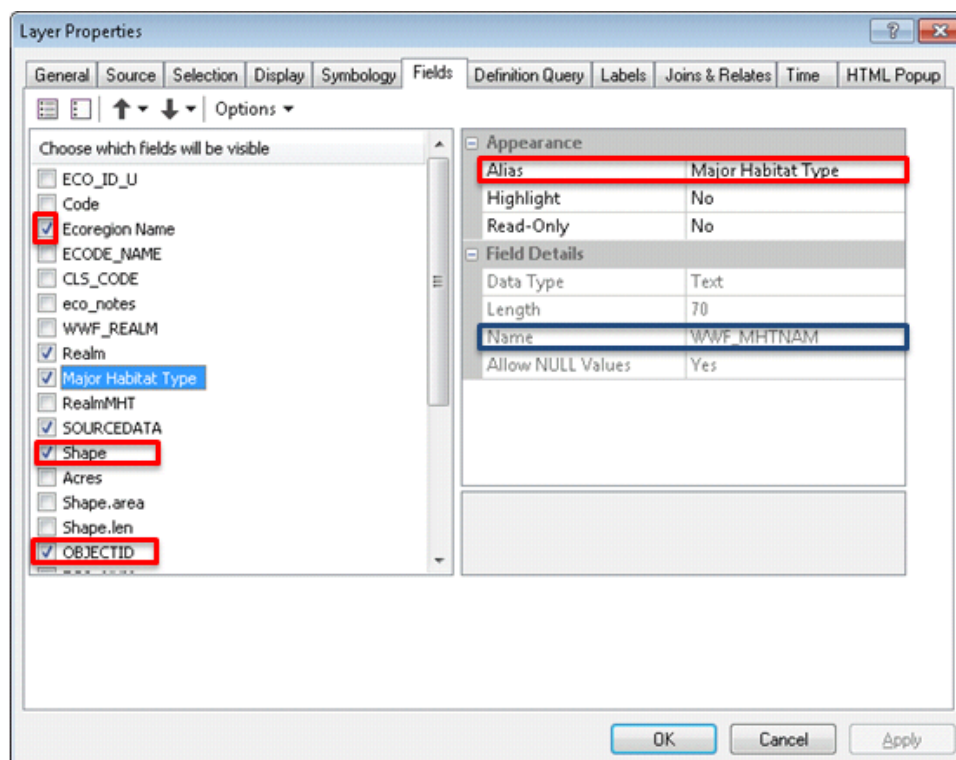
Following are instructions for how map documents should be constructed and published for optimal use in LandScope.

1. Project all layers to **WGS_1984_Web_Mercator_Auxiliary_Sphere** (WKID=3857). Utilizing this projection ensures maximum performance within LandScope.



2. If NatureServe is to publish the map service, import each layer into its own unique File Geodatabase, named in the following format:
THEMEABBREVIATION_STATEABBREVIATION_LayerName_YearorVersion_NewOrUpdate.
Theme abbreviations are listed below. For example, an update to a layer from Colorado to be displayed within the Protected Areas theme should be named: PRO_CO_ThemeName_YearOrVersion_Update.
 - Conservation Priorities: PRI
 - Ecosystems: ECO
 - Energy: NRG
 - Plants & Animals: SPP
 - Protected Areas: PRO
 - References: REF
 - Recreation: REC
 - Threats: THR
 - GEN: for use in more than one theme

3. Create a unique MXD per layer to be published and add the dataset from the File Geodatabase (imported in step 2) to the map document.
NOTE: The exception to this is if a layer is to be displayed differently at different scales, in which case, all renditions of the layer should be contained within a single map document (.mxd)
4. Zoom to the layer.
5. For each data layer assign Layer Properties to ensure that the layer and data is displayed appropriately within LandScope.
 - **General tab:**
 - Layer Name: name the layer within the MXD as it is to appear in LandScope, according to the following naming convention:
 State abbreviation: Descriptive name using spaces (if appropriate, abbreviation of agency responsible for layer)
 CO: Network Conservation Areas (NHP)
 - Credits: include the Credits (as identified in the metadata template below) here, or they will not appear in the Map Key & Credits section of LandScope.
 - Scale Range: provide appropriate scale restrictions. This is very important because if it is not done, the layer will be displayed in the layer dropdown list at all scales (i.e. national), not just as appropriate (when zoomed to the geographic area at an appropriate scale). LandScope utilizes the scale thresholds defined within the underlying map service, not the webmap, so this has to be defined within the map document (.mxd). Below is the list of scales used currently in LandScope for layers within the various states so as not to display layers **Out beyond (minimum scale)** of:
 - CO: 1:4,622,325
 - DE: 1:9,244,650
 - FL: 1:9,244,650
 - LA: 1:4,622,325
 - MD : 1:9,244,650
 - ME: 1:4,622,325
 - NC: 1:4,622,325
 - NY: 1:9,244,650
 - PA: 1:9,244,650
 - TX: 1:9,244,650
 - VA: 1:9,244,650
 - WA 1:4,622,325
 - WV: 2,311,163
 - **Display tab:** set the transparency appropriately so that the base map and other layers can be seen in conjunction with the data set.
 - **Symbology tab:** symbolize the layer as it is to be displayed in LandScope.
 - **Fields tab:**
 - Fields of type **Geometry** and **ObjectID** must always be visible (typically **Shape** and **OBJECTID**)
 - Only make those fields **VISIBLE** which you would like available via the Identify/Query tools. Fields lacking data or with coded data which is not meaningful should not be marked **Visible**.
 - Define Aliases for fields which will be visible
 - Sort the fields in the order they should be displayed.



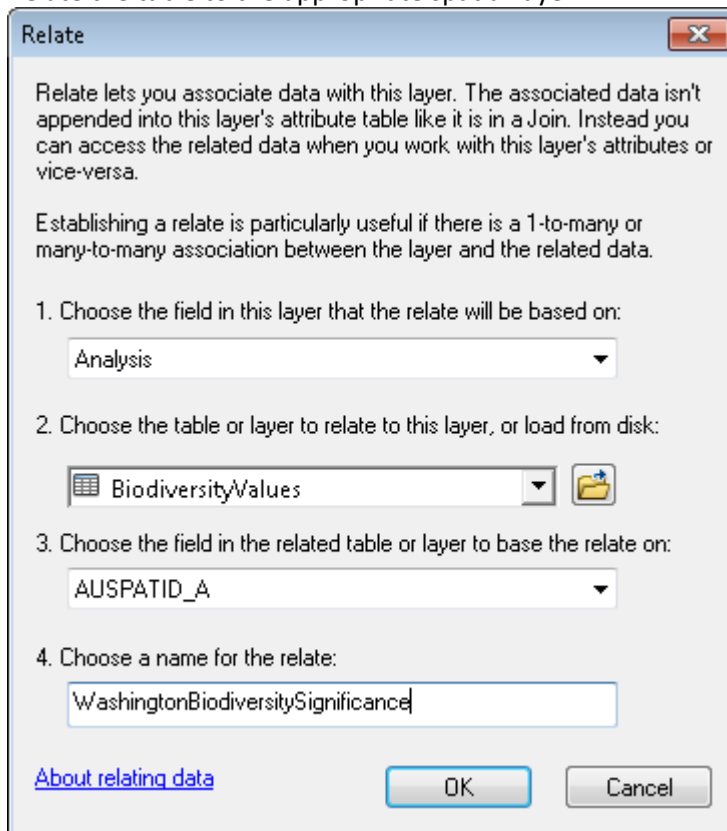
6. Provide metadata for every feature dataset according to instructions in [LandScope User Friendly Metadata Template](#). A metadata template document is also available within the LS_Data_Template.zip file.

Data for display in a one-to-many relationship

The following instructions only apply to layers for which the tabular data is to be displayed in a one-to-many relationship via the Identify tool, as done within the “Number of Federally Listed or Imperiled Species by County” layer in the Plants & Animals theme in [LandScope](#).

1. Use a layer which contains a unique identifier per record (ie. STATE_FIPS or HUC8)
2. Add a field to the layer called NUMBER_OF_ and populate it with the number of G1-G2 species (or equivalent) in the physical area of each feature.
3. Add the table to be joined to the layer to the same File Geodatabase containing the layer. The table should contain the unique identifier, for joining purposes, and in the County example, a single record per G1-G2 species per county. For example if there are 4 G1-G2 species in Howard County, then the table will contain 4 records for Howard County – one for each species.
4. If appropriate, within the table, provide a link which references a web page for the G1-G2 species (or equivalent; i.e. link to NatureServe Explorer for *Agalinis acuta* the URL would be: http://www.natureserve.org/explorer/servlet/NatureServe?searchSpeciesUid=ELEMENT_GLOBAL.2.140310 where 2 represents ELEMENT_GLOBAL.OU_UID and 140310 represents ELEMENT_GLOBAL.SEQ_UID).

5. Add the table to the map document.
6. Relate the table to the appropriate spatial layer



7. Indicate which fields should be visible within the table and label fields with appropriate aliases within the Properties of the table. There is no way to configure the related table in a web map so failing to indicate visibility and provide aliases will result in all fields being displayed with their original Name (rather than Alias). You can access the table within the Table of Contents of the map document by choosing to **List by Source**.

Providing information regarding published map services for use in LandScope

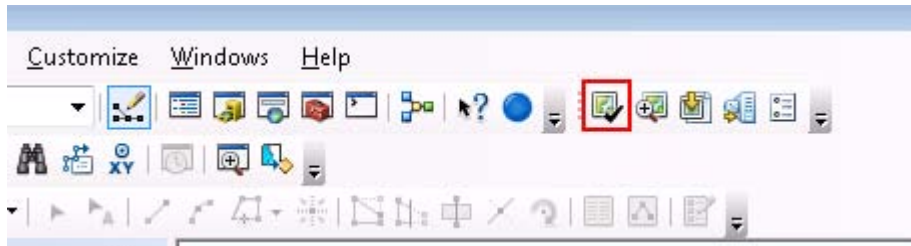
Map Services which can be used in LandScope include Map Services published on ArcGIS Online or on ArcGIS servers publicly available on the Internet. Map services must be in the WGS 84 Web Mercator (Auxiliary Sphere) projection (spatial reference ID=3857).

For map services published by your organization or another agency, to be consumed in LandScope, provide the following information, per map service:

- Public URL of the map service
- Theme in which the map service should be published (Conservation Priorities, Ecosystems, Energy, Plants & Animals, Protected Areas, Recreation, References, Threats)
- Metadata corresponding to each layer

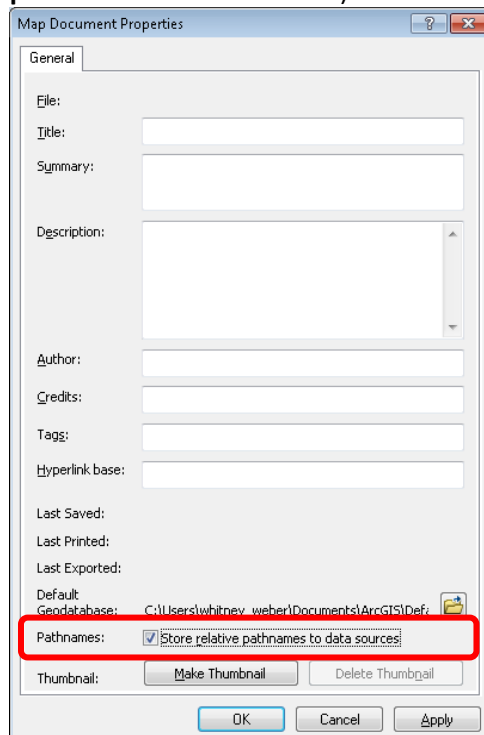
Packaging of Data for Publication by NatureServe

If NatureServe is to publish your map services, prior to packaging the data for publication by NatureServe, use the **Analyze Map** tool within the **Map Service Publishing** toolbar (**Customize** menu, **Toolbars**, **Map Service Publishing**) to ensure that there are no errors that will prevent the map document(s) from being published as a map service. Each MXD will be published as a separate map service.



If NatureServe is to publish your map services, provide NatureServe a zip file containing the following:

- Single File geodatabase per layer to be published, containing the source data
- Single metadata document per layer
- Single Map document(s) (.mxd) per layer to be published, referencing the data within the File Geodatabase
 - Use relative path names (*File* menu, *Map Document Properties*, *Pathnames*: **Store relative pathnames to data sources**)



Paste the zip file into the appropriate state subfolder within the LandScope transfer site according to the [Instructions for uploading data to NatureServe's transfer site](#).

LandScope User Friendly Metadata Template

(Rename and save as “LSMD_xxxx_yyyy.doc”, where xxxx reflects the name of the map service or mxd, if NatureServe has been requested to publish the map service. If a map service contains more than a single layer, _yyyy should be used to reference the layer name.

An example of LandScope metadata in this format can be accessed at:

http://www.landscape.org/florida/map_layers/ecosystems/functional_wetlands/15466/

1) Data Layer name

Clear, descriptive name for data layer (not file name)

2) Summary

One- or two-sentence summary of the layer describing what the layer represents. Serves as an abstract, a teaser on “parent” pages, and the description that search engines retrieve. 250 characters maximum, as limited for web map on ArcGIS.com

3) Source agency and program

Organization(s) that developed and maintain the data layer

4) Source agency logo(s)

Logo image(s) of organization(s) responsible for the data layer

5) Location

- a) What geographic area(s) does the data layer cover?*
- b) Map scale (at which data were compiled)*

6) Description

More complete (1-2 paragraph) explanation of the data layer. What does it show? Offer a “word picture” of the map or data layer. What data are included in the layer (such as “all federal and state listed species”)? Do the data have any notable known gaps or limitations?

7) How you might make use of this data layer (“Relevance to LandScope”)

One or two paragraphs describing examples of how the data layer can be used to support conservation and natural-resource decision-making

8) How to get the data layer

Link to the map service. Link to download, if available. Provide contact information for offline distribution/delivery.

9) How to get more information

Links (or contact info) for acquiring formal metadata, data descriptions, and methodology information

10) Access and use constraints

Select appropriate Creative Commons license logo, based on the data-sharing agreement with the provider

- Attribution (BY)
- Attribution Share Alike (BY-SA)
- Attribution No Derivatives (BY-ND)
- Attribution Non-Commercial (BY-NC)
- Attribution Non-Commercial Share Alike (BY-NC-SA)
- Attribution Non-Commercial No Derivatives (BY-NC-ND)
- None of the above ("All rights reserved.")
- Other?

11) Credits

Document preferred citation information. Keep consistent with the citation in the prepared metadata, which will include this credit line along with the layer name in the legend.

12) Sample map

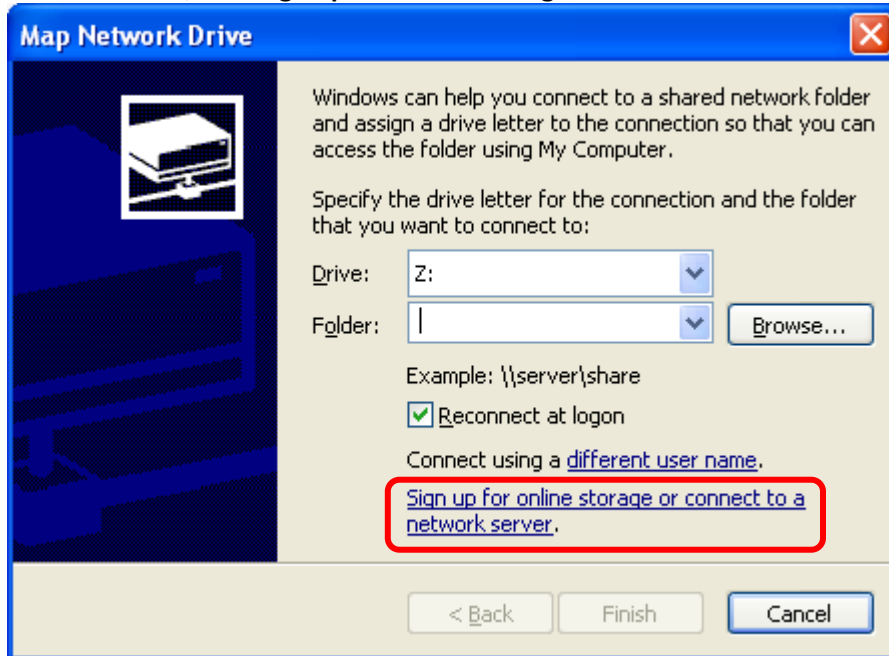
JPG thumbnail of the map layer: max size 660px x 440px. Include as separate attachment.

13) Tags & Keywords

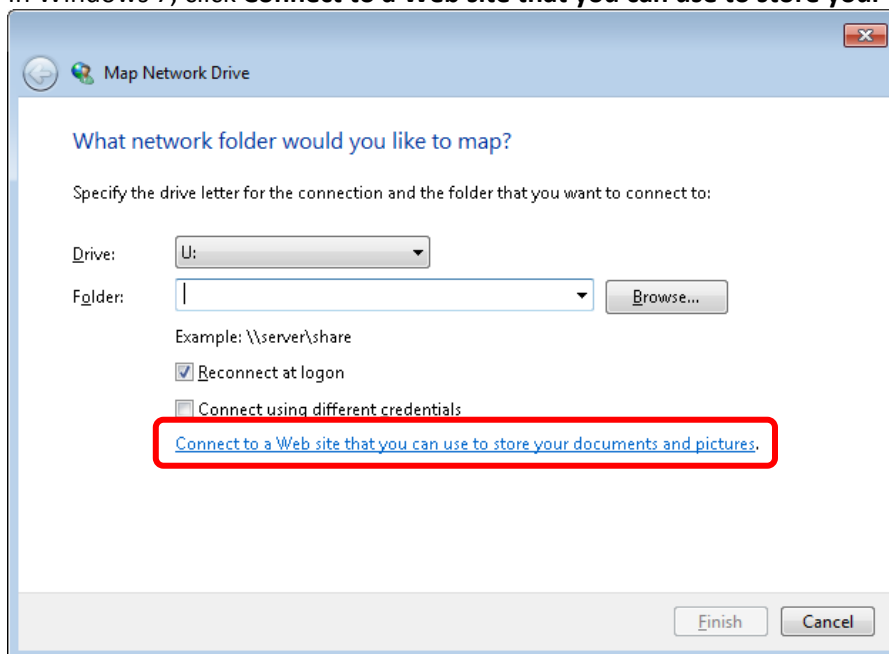
Subject keywords to return the description page through site searches, separated by commas

Instructions for uploading data to NatureServe's transfer site

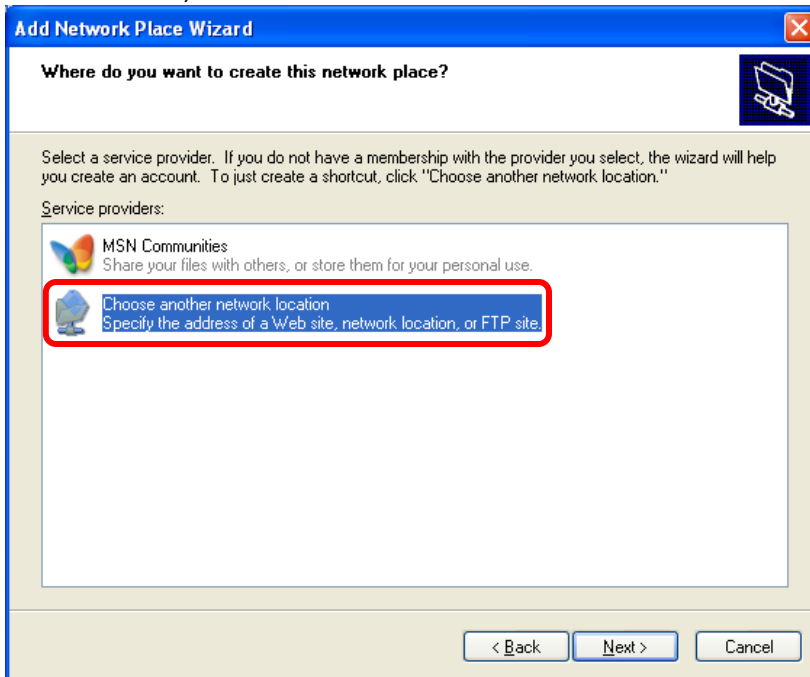
1. In Windows XP, right-click on the **Start** menu and click **Explore** to open Windows Explorer.
In Windows 7, right-click on the **Start** menu and click **Open Windows Explorer**.
2. From the *Tools* menu choose **Map Network Drive**
3. In Windows XP, click **Sign up for online storage or connect to a network server**.



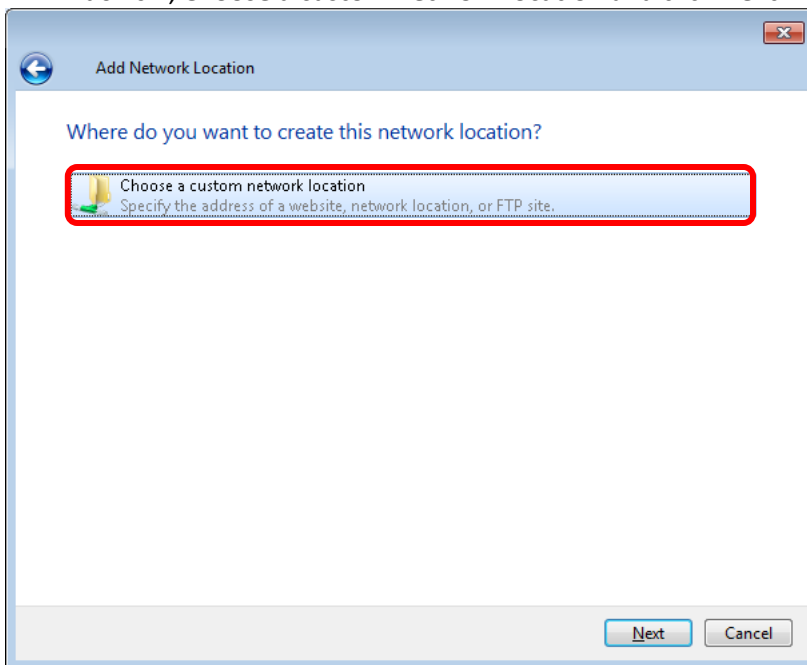
In Windows 7, click **Connect to a Web site that you can use to store your documents and pictures**.



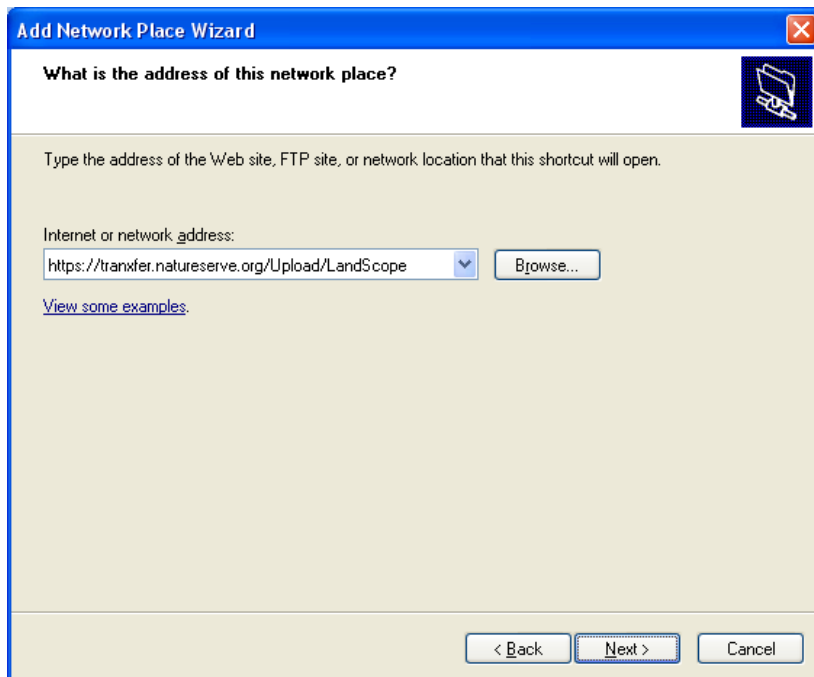
4. In the Add Network Location welcome screen, click **Next**.
5. In Windows XP, **Choose another network location** and click **Next**.



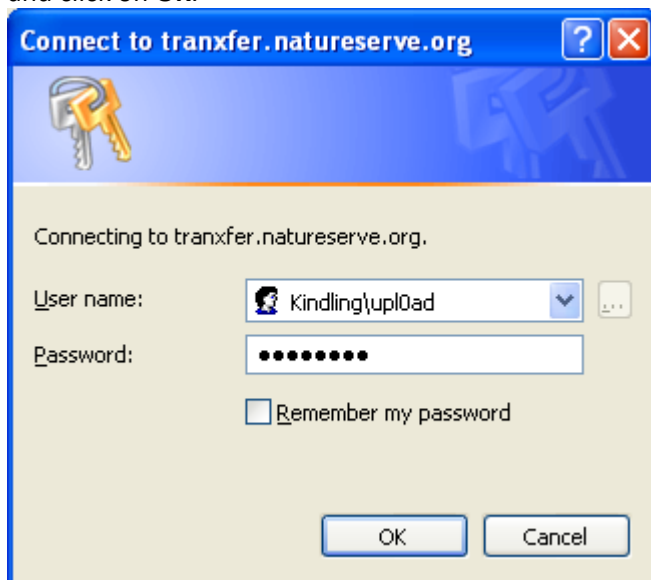
In Windows 7, **Choose a custom network location** and click **Next**



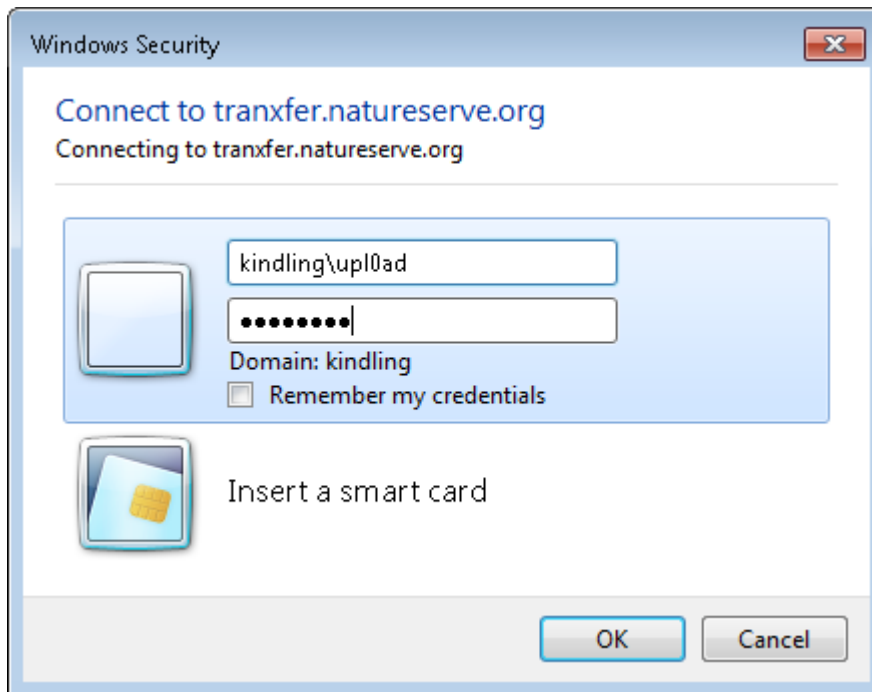
6. Type <https://tranxfer.natureserve.org/Upload/LandScope> for the **Internet or Network Address** and click **Next**.



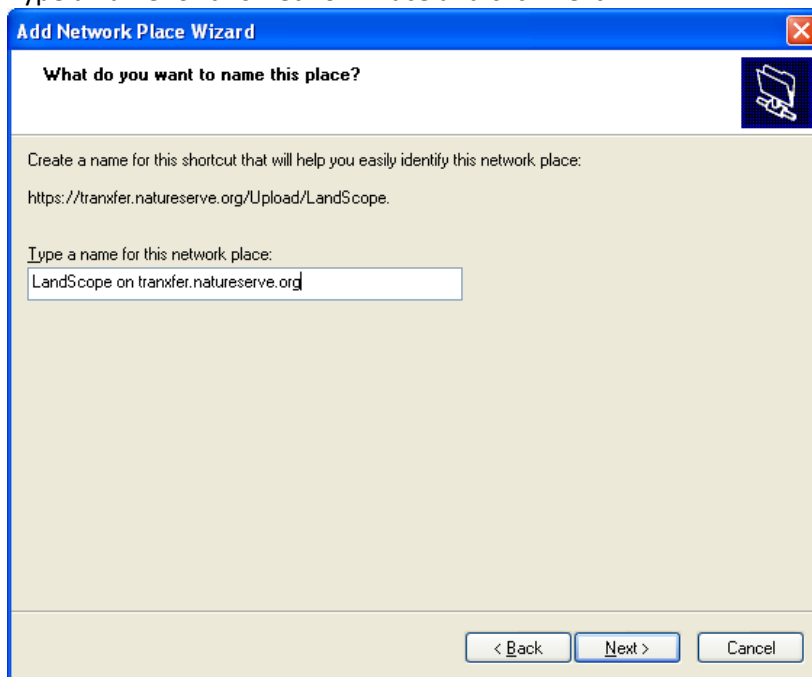
7. In Windows XP, in the *Connect to* window, enter Credentials: Kindling\upl0ad and password welcome2 and click on **OK**.



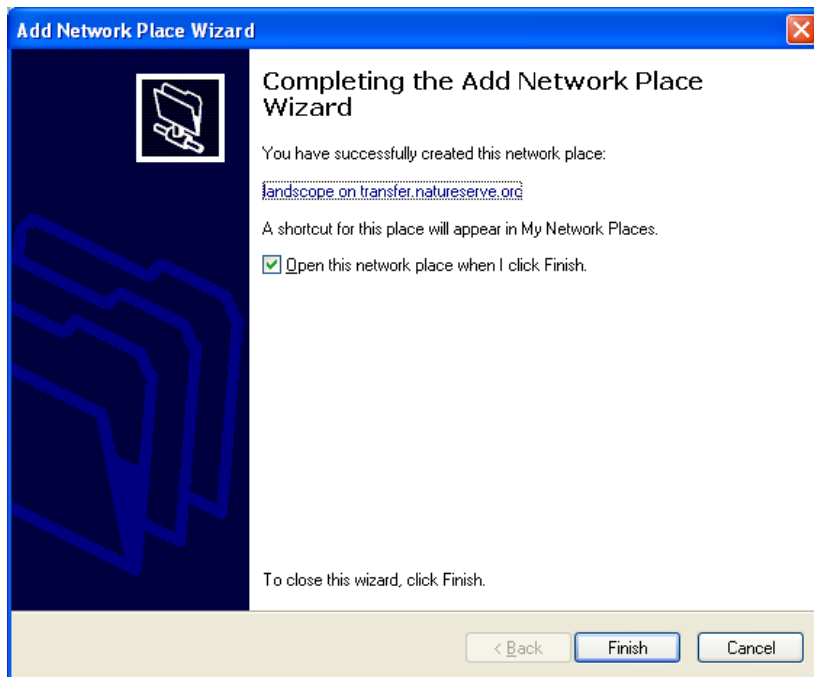
In Windows 7, in the *Windows Security* window, enter Credentials: Kindling\upl0ad and password welcome2 and click on **OK**.



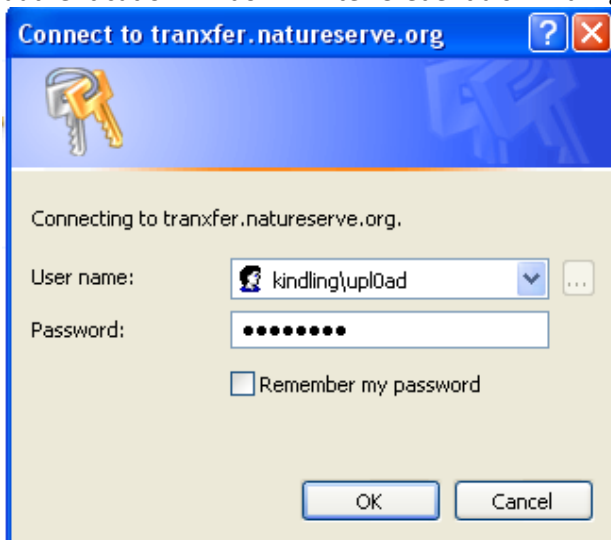
8. Type a name for this Network Place and click Next.



9. Click on Finish and the New Window Should open.



NOTE: You MAY be re-prompted for network credentials. If you get the rolling flashlight; look for the authentication window. Enter Credentials: Kindling\upl0ad and password welcome2 and click on **OK**.



10. Access Network Place at any time through My Network Places (Name May Vary).

