

Nebraska Conservation and Environmental Review Tool (CERT): Descriptions of Map Layers

Nebraska Natural Heritage Program
Nebraska Game and Parks Commission
February 28, 2020



Descriptions of CERT map layers can also be found in the CERT map viewer. However, because of space constraints, in a few cases descriptions on the CERT map viewer have been abbreviated. To view the map layer description on the CERT map viewer, click on the arrow at the right of the data layer name and select ‘View Description.’

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Critical Habitat

This layer shows areas identified as Critical Habitat by the U.S. Fish and Wildlife Service. Areas of Critical Habitat are considered essential for the conservation of a listed species.

Information from USFWS on Critical Habitat:

<https://www.fws.gov/endangered/what-we-do/critical-habitats-faq.html>

Data Sources

Whooping Crane and Salt Creek Tiger Beetle:

U.S. Fish and Wildlife Service. U.S. FWS Threatened & Endangered Species Active Critical Habitat Report. Vector digital data. Downloaded March 9, 2016 from <http://crithab.fws.gov>.

Topeka Shiner:

Nebraska Field Office, U.S. Fish and Wildlife Service, Wood River, NE.

Note regarding Topeka Shiner: The linear stream data provided by Nebraska Field Office, U.S. Fish and Wildlife Service were processed by the Nebraska Natural Heritage Program for use in the CERT by buffering 6 meters.

Scenic and Recreational Rivers

This layer shows areas in Nebraska that are designated as Wild and Scenic Rivers by the National Park Service. These areas are the Niobrara National Scenic River and Missouri National Recreation River.

Data Source:

National Park Service 2015. Administrative Boundaries of National Park System Units 12/31/2015 - National Geospatial Data Asset (NGDA) NPS National Parks Dataset. Vector digital data published December 31, 2015. National Park Service. Fort Collins.

Note regarding data processing by the NENHP (Nebraska Natural Heritage Program of the Nebraska Game and Parks Commission):

The Missouri National Recreation River includes a disjunct area in South Dakota (Spirit Mound), and this was removed for use in the Nebraska Conservation and Environmental Review Tool, because the CERT is meant for use within Nebraska. 'In part' was added to the name 'Missouri National Recreation River' in the attribute table, so it is clear that what is shown is not the complete unit.

Township-level Element Occurrences (NENHP)

This layer in the Nebraska Conservation and Environmental Review Tool (CERT) shows recent (1975 or later) records of at-risk species and natural communities that are documented in a database managed by the Nebraska Natural Heritage Program (NENHP) of the Nebraska Game and Parks Commission (NGPC). The data have been generalized to polygons the size of a township(s). If a documented occurrence overlaps spatially with any part of the township, it is represented in the township-level element occurrence layer. Locations are generalized to the township(s) in order to protect sensitive species and to protect landowner privacy.

The layer includes all terrestrial natural community types. Species included are those that are designated as Tier 1 and 2 at-risk species by the Nebraska Natural Legacy Project, and plants that are not Tier 1 or 2 but ranked S1 to S3 (for explanation of terms see “CERT Report: Terminology used in CERT tables” on the CERT [Help](#) tab).

More Information

Records included in the CERT data layer

The following types of records are excluded:

- Records with an estimated locational uncertainty of 8000 meters.
- Records with an Element Occurrence Rank of H (Historical) or X (Extirpated).
- Records with a last observation year of 1974 or prior (note that records with an observation year of ‘unknown’ are not excluded from the data)

The polygons shown correspond to single or multiple townships. Most townships are approximately 36 square miles. However, at the state boundaries townships are often cut off and therefore the portion of the township in the state can be much smaller. Therefore, prior to processing the occurrence data, the township data was processed such that townships under 30 square miles were merged with their neighbor(s).

More information on data managed by the Nebraska Natural Heritage Program

The Nebraska Natural Heritage Program tracks occurrences of “at-risk” species within the state. “At-risk” species are defined as those that are rare or declining in Nebraska, unique to Nebraska, or declining globally. For birds, our current policy is to only track breeding locations (with the exception of a few species that are only migratory in the state). State and federally listed threatened and endangered species are among those tracked by the Natural Heritage Program. The Program also tracks occurrences of the various types of natural plant communities in the state, both rare and common. Conservation of these communities serves as a “coarse filter” to help conserve the majority of species and preclude their decline to at-risk status. All at-risk species and natural communities are considered a valuable state resource worthy of ensuring their continued existence in Nebraska.

The information in the Nebraska Natural Heritage Database is contributed by researchers across a variety of organizations – local, state, federal, non-profit, and the public. The resulting data represents the work of those researchers and the work of Natural Heritage Program staff, who

have been incorporating data into the database since the program's inception in 1987. The information is used for environmental review, conservation planning, and research.

Please be aware that although the Nebraska Natural Heritage database is the most up-to-date and comprehensive database available on the occurrences of rare species and natural communities, many areas have not been inventoried or reported on to the Natural Heritage Program. Similarly, the record of one rare species at a location does not imply that other species have been surveyed at that site or reported to the Natural Heritage Program. As such, the data should be interpreted with abundant caution, and an "absence of evidence is not evidence of absence" philosophy followed.

Tier 1 at-risk species - Ranges/Models

This data layer shows distributions (ranges or, when available, distribution models), for Tier 1 at-risk species (for explanation of terms see "CERT Report: Terminology used in CERT tables" on the CERT [Help](#) tab).

Most of the data was created by the Nebraska Natural Heritage Program (NENHP) of the Nebraska Game and Parks Commission (NGPC) with the input of NGPC and USFWS biologists. For some bird species the data came from Birds of Nebraska Online (URL: BirdsofNebraska.org). For those cases, the field 'Used By Permission' gives the publication that should be cited by users.

Crucial Habitat Assessment Tool (CHAT)

As part of a west-wide effort led by the Western Governors' Association and the Western Association of Fish and Wildlife Agencies, the Nebraska Game and Parks Commission has synthesized information related to habitat for at-risk native species and natural plant communities. The result is coarse-scale, landscape-level information that can be used by anyone for land-use planning. The product of this west-wide collaboration is called the [Crucial Habitat Assessment Tool \(CHAT\)](#). The information, provided through an online GIS-mapping tool, is non-regulatory and gives project planners and the general public access to credible scientific data on a broad scale for use in project analysis, siting, and planning.

The CHAT (Crucial Habitat Assessment Tool):

- Is intended to support a broad spectrum of users from planners, to private landowners, to policy makers.
- Aims to bring greater certainty and predictability to planning efforts.
- Is designed to reduce conflicts and surprises during the planning process.
- Helps to ensure wildlife values are better incorporated into land use decision-making.
- Supports cross-state assessments for large-scale development (e.g., transmission lines, pipelines) or conservation projects.

[Download comprehensive Nebraska CHAT document \(pdf\)](#)
[Visit WAFWA CHAT website](#)

Large Intact Blocks

Large Intact Blocks represent large areas where there is less fragmentation of the landscape relative to other areas of the Great Plains. Maintaining large intact blocks of habitat helps to maintain populations of at-risk species.

Large Intact Blocks are classified into two categories: areas with a value of 1 (shown in dark purple in the Nebraska Conservation and Environmental Review Tool) are relatively more intact than areas with a value of 2 (light purple).

More Information:

The Western Governors' Association (WGA) contracted with NatureServe to develop a landscape integrity model for the entire West. Model values were based on the amount of human modification (roads, cities, industrial sites, agriculture, etc.) of the landscape both at and near each 90 m sq pixel. Next, Large Natural Areas were delineated by a WGA workgroup based on a minimum size and minimum integrity score. The minimum size was set at 1,000 hectares (~2,470 acres). A minimum (qualifying) integrity score was developed for each ecoregion (Great Plains, Rocky Mountains, etc.) and was based on an evaluation of integrity scores within protected natural areas within the ecoregion.

The WGA workgroup then grouped the Large Natural Areas into two categories. The first category included those LNAs with landscape integrity scores that were in the top 1/3 of all LNA integrity scores above the minimum score to qualify as a LNA. These areas were considered relatively more intact and given a higher value. The second category included all the remaining LNAs (those with scores in the bottom 2/3 of qualifying scores).

The resulting scores were aggregated to 1-square mile hexagons and incorporated into the Crucial Habitat Assessment Tool (CHAT), which was released in 2011.

In the Nebraska Conservation and Environmental Review Tool, the **Large Intact Blocks** layer displays the original 90 m sq pixel data. The version aggregated to the 1-square mile hexagon can be found under **Crucial Habitat Assessment Tool (CHAT) / CHAT-Intact Landscape**. In the CHAT layer, areas that were not categorized as intact were assigned a value of 6.

Biologically Unique Landscape

Biologically Unique Landscapes (BULs) are a set of priority landscapes that, if properly managed, would conserve the majority of Nebraska's biological diversity.

The name of any BUL intersecting with the project area analyzed will be included in the tabular information of the CERT report, along with a link to more information on the BUL.

BULs were identified in Nebraska's State Wildlife Action Plan [Schneider, R., K. Stoner, G. Steinauer, M. Panella, and M. Humpert. 2011 (eds). The Nebraska Natural Legacy Project: State Wildlife Action Plan. 2nd ed. The Nebraska Game and Parks Commission, Lincoln, NE]. For more information on the Legacy Project, including a link to the document, see URL: <http://outdoornebraska.gov/naturallegacyproject>

To see information about all the BULs, along with photos, go to <http://bit.ly/2EN8nMR>

NGPC Properties

This layer includes properties owned or managed by the Nebraska Game and Parks Commission.

Protected Areas Database (USGS)

This layer shows areas that are included in the publicly accessible US Geological Survey (USGS) Protected Areas Database of the U.S. (PAD-US or PAD). More information including the PAD-US metadata (detailed documentation) can be found on the PAD-US website (gapanalysis.usgs.gov/padus/data).

Data Source: US Geological Survey (USGS) Gap Analysis Program (GAP). 2018 September 30. Protected Areas Database of the United State (PADUS) Version 2.0. Vector Digital Data. USGS National Gap Analysis Program. Downloaded February 4, 2020 from <https://gapanalysis.usgs.gov/padus/data/download/>.

Previously areas identified as being owned or managed by the Nebraska Game and Parks Commission were removed from the PAD layer, because they were already represented by the separate NGPC Properties layer. However, as of February 2020, NGPC properties are being retained in the PAD layer. This change was made because NGPC sometimes de-accessions properties, but the new ownership may not be reflected in the PAD (which is updated by USGS rarely). By retaining NGPC properties in the PAD layer, users at least will be aware that the area may be in conservation ownership. If an area is represented as an NPGC property in the PAD but not the NGPC properties layer, it means the area is no longer an NGPC property.

River Sub-basins (HUC 8)

This layer shows 8-digit watershed boundaries (HUC8). HUC12 watersheds nest inside HUC8 watersheds. More information can be found on the USGS Watershed Boundary Data set web page here: <https://nhd.usgs.gov/wbd.html>

8-Digit Watershed Boundary Data were downloaded from <http://www.dnr.ne.gov/surface-water-data> on July 11, 2016.

Sub-Watersheds (HUC12)

This layer shows 12-digit watershed boundaries (HUC12). Hydrologic unit codes and names are included in the data. HUC12s nest inside HUC8s. More information can be found on the USGS Watershed Boundary Data set web page here: <https://nhd.usgs.gov/wbd.html>

Data Source: USDA/NRCS - National Cartography & Geospatial Center. 12-Digit Watershed Boundary Data 1:24,000. Vector Digital Data. Downloaded July 7, 2010 from a USGS website (URL from that time is obsolete, but data are available (as of July 2017) here <https://datagateway.nrcs.usda.gov/>

River Basins

Description TBD.

Mile Markers

The Mile Marker layer shows reference posts along highways. This point data set is managed by the Nebraska Department of Transportation.

Townships and Sections

This layer shows the Public Land Survey System for Nebraska. Townships and Sections are included in the Nebraska Conservation and Environmental Review Tool as two sub-layers visible at different scale ranges.

These data are available from the Nebraska Department of Natural Resources Data Bank (<https://dnr.nebraska.gov/data/boundaries>).

Counties

This layer shows county boundaries for Nebraska.

These data are available from the Nebraska Department of Natural Resources Data Bank (<https://dnr.nebraska.gov/data/boundaries>).