



North Dakota Wildlife Refuges and Wetland Resources

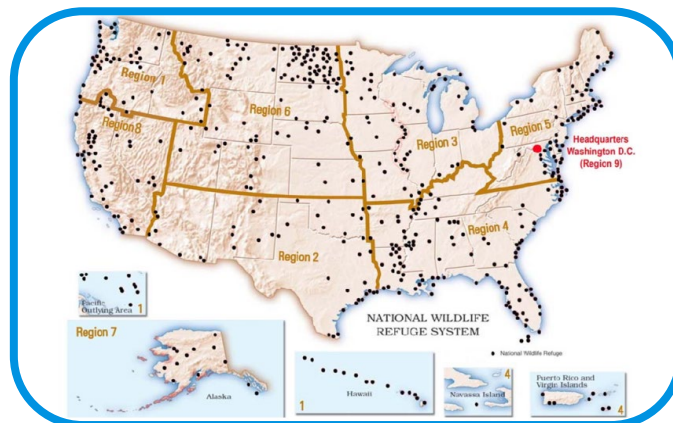
Summary

Students will learn about the U. S. Fish and Wildlife Service and their mission and identify differences between federal, state, and local organizations. Students learn about wetlands and their value importance to sustaining life.

Background

The U. S. Fish and Wildlife Service (USFWS) is a nationwide organization under the Department of Interior. They are the only agency whose primary responsibility is the conservation and management of fish, wildlife, plants and their habitats for the American people. The mission of the USFWS is: “working with others to conserve, protect, and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people.” The USFWS is broad and covers many areas such as, endangered species, invasive species, migratory birds, National Wildlife Refuge System, and more. Video about USFWS "[Conserving the Nature of America - An Overview of the U.S. Fish and Wildlife Service](#)" - YouTube

National Wildlife Refuge's (NWRs) are established to promote the conservation of native species dependent on its land and water. The first NWR was created in March 1903 by President Theodore Roosevelt. It was Pelican Island NWR in Florida. It was created because there was a high demand for the plumes from pelicans (for fashion).



White Horse Hill National Game Preserve

Grade Level:

5th

Time:

45 minutes

Season:

Any

Objectives:

Students will be able to...

- Understand the mission of the U.S. Fish and Wildlife Service.
- Identify the USFWS as a premier wildlife organization of the entire country.
- Understand the value of wetlands and conservation.

Key Concepts:

- Wetlands
- Prairie potholes
- National Wildlife Refuge
- U.S. Fish and Wildlife Service

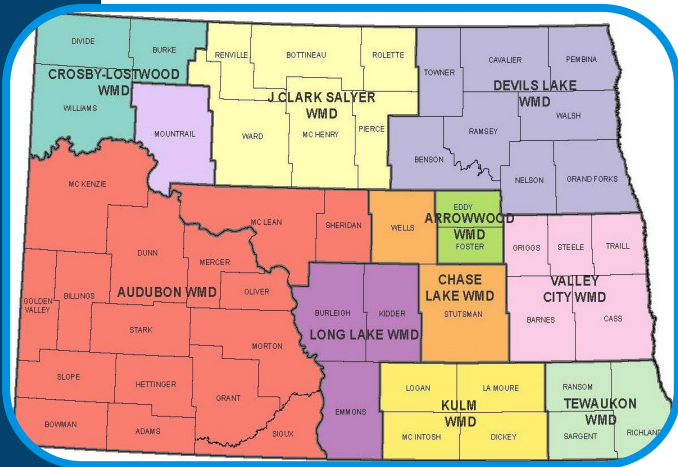
Materials:

- Introduction to the U.S. Fish and Wildlife PowerPoint
- 1/4 sheet of paper



Background (continued)

- There are 570 National Wildlife Refuges in the U.S. with at least 1 in every state.
- North Dakota has the most refuges of any state with 63 wildlife refuges.
- There are also 38 Wetland Management Districts (WMDs) in North Dakota.
- Devils Lake Wetland Management District covers eight counties in northeastern North Dakota.
- Devils Lake WMD has over 257 Waterfowl Production Areas.



White Horse Hill National Game Preserve is a wildlife refuge and is managed as part of the **Devils Lake WMD**. Devils Lake WMD, along with other WMD, are dedicated to the conservation and management of wetland and upland habitats essential to migratory birds. They use a variety of techniques such as: grazing, burning, and idling to manage these areas for wildlife. Devils Lake WMD focus's on keeping the habitat in good condition so that the wildlife have a place to go.

Prairie Pothole Region:

North Dakota is a part of the prairie pothole region. Historically, a glacier covered the region, which ended about 10,000 years ago, when the glacier's retreated depressions were left on the land that now fill with water.

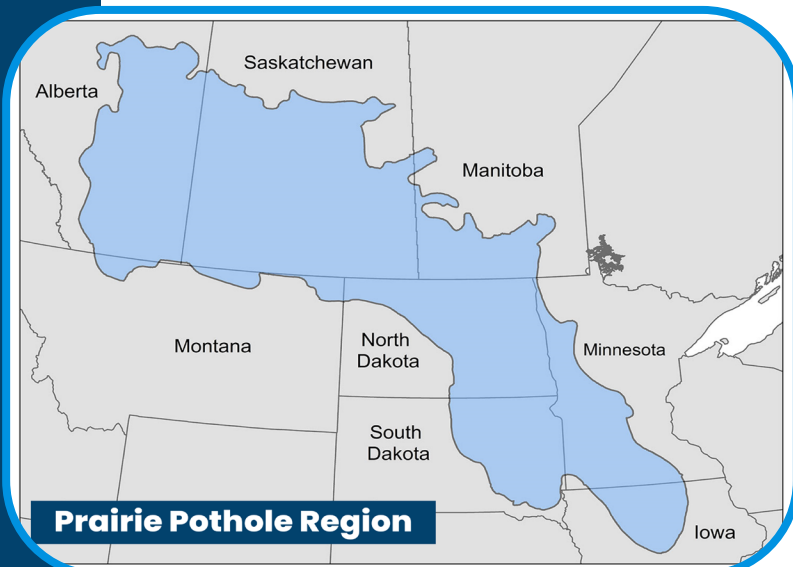


Photo Credit: USFWS



Background (continued)

Wetlands:

Wetlands are areas where water covers the soil or is near the surface. Wetlands are constantly changing. There are different types of wetlands, they are not always wet. **Temporary** wetlands will hold runoff until early summer. **Seasonal** wetlands will hold runoff until mid-July. **Semipermanent** wetlands are well-defined depressions and hold water throughout summer. **Permanent** wetlands are well-defined basins that hold water throughout the year.

There are many names for wetlands based on their characteristics:

- Pothole – formed by glaciers and found in prairie grasslands
- Marsh – has much vegetation
- Slough – nickname for a pothole
- Swamp – dominated by trees
- Wet meadow – found where the water table is high
- Bog – deep organic soils

Wetlands are extremely important to water quality. They prevent flooding and filter out pollutants (like coffee filters). Wetlands habitats provide food, nesting areas, brood cover, and rest areas.

More than 50% of North American ducks are raised in the Prairie Pothole Region with North Dakota raising more than all of Canada. This is because of wetland conservation. Nearly all of the prairie potholes in Canada have been drained for filled to facilitate modern farming.

Set-up

1. Have paper cut into $\frac{1}{4}$ sheets to pass out to students.
2. Have the Introduction to the U.S. Fish and Wildlife Service PowerPoint ready. (available upon request by emailing the refuge manager currently colleen_graue@fws.gov)



Procedure

1. Pass out $\frac{1}{4}$ of a sheet of blank paper to each student.
2. Have the students write their names and number it to three.
3. Give the students two minutes to think and write down any question they have about the USFWS, White Horse Hill, or anything related to the refuge or nature.
4. Gather up the papers and start the presentation.
5. Use the background information to go more in-depth on some of the slides.
6. After the PowerPoint take the students outside or form a circle. Pull some of the questions and answer them.
7. Continue to re-visit the student's questions through out the year.

Vocabulary

- **Wetland** – areas where water covers the soil or is near the surface.
- **Prairie Pothole Region** – a geographic area historically covered by a glacier that left depressions in the land when it receded.
- **Conservation** –the protection and management of natural resources.
- **National Wildlife Refuge System** – a network of protected lands and waters managed by the U.S. Fish and Wildlife Service.
- **Department of Interior** – a Cabinet-level agency of the U.S. government that oversees federal public land management, natural and cultural resources, and trust responsibilities of Native Americans and island communities.

Resources

- <https://www.fws.gov/program/national-wildlife-refuge-system>
- Introduction to the USFWS PowerPoint
- Conserving the Nature of America - "[Conserving the Nature of America - An Overview of the The U.S. Fish and Wildlife Service](#)" - YouTube

North Dakota Curriculum Standards

This lesson helps support the following state standards:

5-ESS3-1 – Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.