

4-H & FISH AND WILDLIFE SERVICE GIS MAPPING PROJECT

The National Fish and Wildlife Service (FWS) website states, "In the near future, GIS will be so prevalent in natural resources management, that those organizations without some capability in this area will be severely handicapped." The 4-H & Fish and Wildlife Service GIS Mapping Project addresses this need by engaging 4-H members in GIS mapping projects on national wildlife refuges.

The first pilot projects were at Tamarac and Hamden National Wildlife Refuges, MN; Marais des Cygnes National Wildlife Refuge, KS; Target Rock and Montezuma National Wildlife Refuges, NY; and Neal Smith Wildlife Refuge, IA. In 2012, projects at Great Dismal Swamp National Wildlife Refuge, VA, and John Heinz National Wildlife Refuge at Tinicum, PA.

Teams of 4-H members in different states carry out GIS mapping projects with national wildlife refuges or other ecological services offices to meet needs identified. Data collected can be used for habitat protection, conservation and restoration and other uses. The project engages 4-H youth as citizen scientists partnering with FWS on researching issues that have relevance, impact, and interest for both the youth and FWS. While the youth learn and apply geospatial technology skills, they also learn about the subject of their data collection – such as natural and invasive plants, wildlife habitat, and facility management – and about the various jobs and careers associated with wildlife refuges.

Deliverables from this pilot project include a final report detailing results of the evaluations and a toolkit that will be available online for 4-H and other groups across the country that are looking for project ideas related to GIS mapping in natural areas where they live. The skills that youth learn can increase the number of young people who pursue degrees and careers such as wildlife biology, natural resource management, science, community planning, recreation, geospatial technology and agriculture.