U.S. Fish and Wildlife Service
Litchfield Wetland Management District
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Litchfield, MN 55355
320-693-2849
http://www.fws.gov/midwest/Litchfieldwetland/

FOR IMMEDIATE RELEASE

March 13, 2013
Contact: Scott Glup, Project Leader

Public comment invited on well monitoring program on District lands in a seven county region

The Litchfield Wetland Management District (District) of the U.S. Fish and Wildlife Service (FWS) is seeking public comment on a draft Compatibility Determination (CD) for the installation of wells for monitoring of ground water resources on lands within the seven county District. These counties include Kandiyohi, McLeod, Meeker, Renville, Stearns, Todd and Wright. Through this process, the Service will evaluate the installation of ground water monitoring wells on lands of the National Wildlife Refuge System (refuge).

The National Wildlife Refuge Improvement Act of 1997 requires that before permitting new or expanded uses on a refuge, the use must be determined to be compatible with the purposes of the refuge. Compatible means that a use will not materially interfere with, or detract from, the fulfillment of the Refuge System mission or the refuges purposes. The National Wildlife Refuge System has determined that habitat management practices are compatible on refuge lands. However, since well drilling is an expanded use, it is subject to the compatibility review process which includes a public comment period. Compatibility determinations must be updated every 10-15 years or when the use changes or is expanded.

The Minnesota Department of Natural Resources, Division of Waters (MNDNR) and other cooperating agencies and volunteers have managed a statewide network of water level observation wells (obwells). Data from these wells are used to assess ground water resources, determine long term trends, interpret impacts of pumping and climate, plan for water conservation, evaluate water conflicts, and otherwise manage the water resource. Measurements from the wells are collected monthly. These resulting data are analyzed for impacts of specific events and for trends in aquifer response to human activities. New obwells are drilled in areas where ground water data is lacking. Recently, the District has been approached by several agencies interested in installing wells on federal Waterfowl Production Areas for the purposes of ground water level monitoring.

Copies of the draft Compatibility Determination can be obtained by calling 320-693-2849, from our web site; www.fws.gov/midwest/Litchfieldwetland/ or by emailing scott_glup@fws.gov. Written comments on the Compatibility Determination will be accepted through March 28, 2013. Written comments should be submitted to Scott Glup, Project Leader, 22274 615th Ave, Litchfield, MN 55355; or scott_glup@fws.gov.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service. For more information on our work and the people who make it happen, visit **www.fws.gov**.

COMPATIBILITY DETERMINATION

Use: Groundwater monitoring wells

Refuge Name: Litchfield Wetland Management District (WMD)

Establishing and Acquisition Authorities: Migratory Bird Hunting and Conservation Stamp Act, 16 U.S.C. 718(d) (c); Fish and Wildlife Coordination Act, 19 U.S.C. 661-667E as amended; Fish and Wildlife Act of 1956, 16 U.S.C. 7249(a); National Wildlife Refuge System Improvement Act of 1997, Migratory Bird Treaty Act of 1918 16 U.S.C. 703-712

Waterfowl Production Areas Purpose: "…As Waterfowl Production Areas" subject to "…all of the provisions of such Act…except the inviolate sanctuary provisions…" 16 U.S.C. 718(c) (Migratory Bird Hunting and Conservation Stamp)

National Wildlife Refuge System Mission: The mission is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Description of Use:

What is the use? Several state and federal organizations, including the Minnesota Department of Natural Resources–Division of Waters (MNDNR) have been monitoring groundwater wells in Minnesota since the 1940s. Today, these agencies collect different types of groundwater data, including: water levels, flow directions, aquifer recharge/discharge characteristics and chemical parameters to determine pollution sensitivity, residence time and age of the groundwater. One agency, the MNDNR, and it's Observation Well (Obwell) project monitors approximately 800 wells across the state, on private and public lands, from shallow to very deep, and in many different aquifers. As wells get old and deteriorate, (some are 50+ years old) agencies abandon them and acquire or drill new wells to improve the quality of information in the long-term monitoring of the state's ground water resources. Recently, they have begun trying to place more of the new wells on public lands to insure long-term access to them. The US Fish and Wildlife Service's Litchfield Wetland Management District (District) Waterfowl Production Areas (WPAs) can provide accessible well sites in areas where no wells exist, filling gaps in groundwater data collection

Where is the use conducted? The District is located in the rolling, glacier-formed landscape of central Minnesota's Mississippi and Minnesota River watersheds in the transition zone between the eastern deciduous hardwood forest and the western tallgrass prairie. The District manages about 50,000 acres of WPA and perpetual easement lands, as well as assisting private landowners with land management, in the counties of Kandiyohi, McLeod, Meeker, Renville, Stearns, Todd and Wright. Some of the 152 WPAs in the District may be made available for well placement, especially the existing household, livestock and irrigation wells found on properties that the District purchases. If an acquired well meets observation well standards, conversion to a monitoring well would also remove the requirement, and cost, of the District having it sealed.

Permission to place a monitoring well on a WPA will be determined on a case by case basis, the final decision being made by the District project leader. The requesting agency will have to produce evidence showing a need for locating a well on a WPA, other than the ease of access. New wells will be located in areas where there is a gap in groundwater data, vertical data as well as horizontal data. For example, shallow wells that access the water table 20 feet below the surface only provide accurate data for small areas and could be placed nearer to each other. However, a well accessing a large aquifer 250 feet below the surface would provide data for a much, much larger area and may be very widely placed. The location of a well on a WPA is important. Access is mandatory. Keeping in mind that the purpose for WPAs is providing and protecting wildlife habitat, the District requires that wells be placed near the roadside approaches for several reasons. One: Vehicle access to interior wells would be disturbing to wildlife and destructive to habitat. Two: Motorized vehicle use is a prohibited activity, requiring permits, and well maintenance may require the use of large, heavy vehicles. Three: The standpipe above the well may pose a hazard during habitat management activities (mowing, tree removal, prescribed fire, etc.).

How is the use conducted? The initial drilling is normally completed by a contractor. In some situations, the Minnesota Geological Survey (MNGS) is looking for opportunities to extract deep, soil core samples to collect data for their County and State Geologic Atlas project. This core sample drilling can go as deep as bedrock or 400 feet, whichever comes first. After the sample is collected, another agency, like the MNDNR, will analyze the core sample and determine if conditions are favorable for a monitoring well. If not, which is unlikely, the hole will be sealed by the MNGS. If conditions are favorable, the partnering agency will take over the project, the hole sealed up to the desired aquifer level and a two inch diameter steel casing with remote sensing instrumentation will be installed. The remaining hole will then be sealed up to the desired subsurface water table level and a second, two inch diameter steel casing with instrumentation will be installed. Finally, the hole will be filled to surface level and an 8 inch steel standpipe with a locked cover will be sunk into the ground around the two well casings for protection. The standpipe will extend approximately three feet above the ground and be made highly visible. This process converts the soil core sample drilling into two monitoring wells; a deep aquifer well and a subsurface water table well. The instrumentation will continuously record ground water data that will be remotely monitored by the agency installing the well. All costs for installation, maintenance and eventual sealing of the monitoring well will be provided by the installing agency. The District will be provided well monitoring information and soil core information.

Why is this use being proposed? Several state and federal agencies are placing monitoring wells across the state to gather information about ground water resources. These agencies will obtain both short- and long-term information that will benefit the District, the state of Minnesota and private well owners. The agencies generally prefer locating wells on public lands for better long term access. As private lands change ownership, an agency may be denied access to the well(s).

Availability of Resources: The District will only incur the initial staff costs for siting the wells/ soil borings and small administrative costs for access permitting, upon request, during the life of the well. All other costs will be the responsibility of the well installation agency. These include, but are not limited to, the initial drilling (except in the case of the MNGS soil core sample scenario), installing, maintaining, sealing the well and removing all above ground well structure.

Anticipated Impacts of the Use: The impact of drilling the well is expected to be minimal in terms of installation time and disturbances to the area. The approaches and roadside well sites and the area immediately around then are already impacted by car and foot travel. The benefits of the long term monitoring of the deep aquifers and shallow water tables, and possible soil boring information, far outweigh the minor drilling, installation and maintenance disturbance the well could have on the District and its resources.

Public Review and Comment: This Compatibility Determination will be available for public review from March 13, 2013 through March 28, 2013. All comments can be sent to Litchfield Wetland Management District, 22274 615th Avenue, Litchfield, MN 55355 or emailed to scott_glup@fws.gov.

Determination (Check one below):

_____Use is Not Compatible

__X__Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility: To ensure compatibility with National Wildlife Refuge System and Litchfield Wetland Management District goals and objectives, drilling and well installation can only occur under the following stipulations:

1. All debris from installation of the well be removed and the site will be restored with seeding, if necessary.
2. Data collection and monitoring will be conducted by the well installation agency.
3. Data produced as a result of the well installation, including any soil core sampling, on the WPA will be provided to the District upon request.
4. Well head maintenance, future well sealing and removal of all above ground well structure will be the responsibility of the well installation agency.
5. No well accessing activities may occur during the ground-nesting season (May 15 – August 1)

Justification: A national group of groundwater experts advises the federal government on water resource data issues. This group, known as the Advisory Committee on Water Information (ACWI), was originally formed by the Secretary of Interior under the Federal Advisory Committee Act. The ACWI formed a sub-group known as the Subcommittee on Groundwater (SOGW) that is working to develop and encourage implementation of a nationwide, long-term groundwater quantity and quality monitoring framework. This framework would provide information necessary at a national level for the planning, management, and development of groundwater supplies to meet current and future water needs, and ecosystem requirements. In June of 2009, SOGW released the report "A National Framework for Groundwater Monitoring in the United States". This document outlines the building of a National Ground-Water Monitoring Network (NGWMN) to include both groundwater levels and groundwater quality. More recently, Minnesota's groundwater level monitoring wells located within southeast and south central Minnesota (including the Twin City Metropolitan Area) were selected by SOGW, as were wells

from four other areas (Illinois-Indiana, Montana, New Jersey and Texas), for inclusion in a pilot project to implement a national network. Any wells installed on Litchfield District WPAs under Memorandums of Understanding (MOUs) based on this Compatibility Determination will become a part of this network, a network that had its origins under a group formed by the foresight of the Secretary of Interior.

Since the founding of this national network of observation wells, the utilization of, and dependence on, groundwater resources has continued to rise. As irrigation wells, gravel pit operations and agricultural, subsurface tiling operations increase, the need for groundwater monitoring wells and their data increases. Only with good data can good decisions be made by state and federal agencies, and private citizens, to protect this priceless resource. The lack of data in the past has contributed to the loss of this resource in portions of southwestern U.S., where the water table has been drawn down over 300 feet and made living on the land very difficult. Even in the Land of 10,000 Lakes this can happen. In 2012 in southwestern Minnesota, some irrigation operations had to be shut down when neighboring households lost suction to their drinking water wells. Groundwater monitoring data would have been extremely helpful in averting the above situations.

Two of the Litchfield District major management directives are the restoration of drained wetlands and the protection of the few wetlands that still remain in our agriculturally dominated landscape. Protecting wetlands from illegal surface drainage is relatively simple to enforce because the proof is easy to see, but subsurface drainage is difficult to enforce. Many of our wetland basin levels in course soil types are tied to the water table levels. Center pivot irrigation systems are being seen more frequently next to WPAs and they are getting longer as fence and tree rows disappear. They can draw very large quantities of water and lower the water table in a relatively short time. Sand and gravel soil types are increasingly sought out for gravel operations, using pumps to lower the water table in the pits to improve access to subsurface deposits. Both these pumping operations could lower the water table miles away and illegally drain protected basins. In another scenario, a drainage tile placed along the edge of a wetland can, over time, effectively drain a wetland. In this case, unless there is surface evidence of tile installation, the proof of drainage may come too late, with the basin having already developed a cropping history. Knowing the levels and flow directions of groundwater would provide evidence to assist in the enforcement of violations like these.

Signature: Refuge Manager: _____

(signature and date)

Concurrence: Refuge Chief: _____

(signature and date)

Mandatory 10- or 15-year Re-evaluation Date: 2023-2028