

Pest Management - Identifying Sensitive Areas

Pest management is an important component of the Resource Management System (RMS) planning process. NRCS' roles in pest management are listed in 190-GM, Part 404.10(c). The first item listed in this section states "*Evaluating environmental risks associated with probable pest management recommendations*". This document is intended to guide the conservation planner in identifying environmentally sensitive areas on the Conservation Management Unit (CMU).

The primary screening tool to determine environmental risk is the Windows Pesticide Screening Tool, or WIN_PST. This tool qualitatively evaluates the potential for pesticides to be transported by water from the area of application and adversely affect non-target organisms. WIN-PST provides environmental risk information that a planner can use to formulate appropriate mitigation techniques that meet RMS water quality criteria.

While WIN-PST addresses soil/pesticide interactions and the probability of pesticides leaving the target area via water runoff, leaching, or adsorption to soil or organic particles, it does not identify sensitive geographic or man-made features that may be impacted negatively by off-target pesticides. This document is intended to give the resource conservation planner additional guidance on identifying potential resources issues beyond what is identified with WIN-PST.

Some basic guiding principles to identify sensitive areas are:

- Information from the pesticide label regarding environmental hazards/risks are noted and followed
- WIN-PST is used to identify soil/pesticide interaction hazards to humans and fish
- WIN-PST mitigation techniques are implemented to reduce environmental hazards and impacts to sensitive areas
- Sensitive areas may be found on **all land uses**
- Cultural, biological, and mechanical pest controls should be strongly considered when an **extreme** hazard rating has been calculated by WIN-PST
- All pest management activities and strategies must be in compliance with NEPA

Six primary resource sensitive areas need to be considered when planning and designing practice 595 Pest Management. These are:

- Wellhead Protection Areas
 - designated by ND Department of Health
www.health.state.nd.us/wq/gw/sourcewater.htm#Maps
- Natural and man-made lakes
 - reference USGS 7.5 minute quads or county highway map
- Streams and rivers
 - blue line on USGS 7.5 minute quads
- Type II (saturated) wetlands
Type IV (semi-permanent) wetlands
Type V (permanent) wetlands
 - reference NWI maps

- T&E species critical habitat
-<http://mountain-prairie.fws.gov/northdakotafieldoffice/GIS/ppcrithab/ND/ndcrithab.htm>
- North Dakota Department of Health (NDDH) priority aquifers
-reference ND Groundwater Monitoring Program 1997 to 2001 Summary Report
(Table 1 and Figure 1)

Other potentially sensitive areas are:

Ephemeral streams/rivers

- reference aerial photography or do a site visit

Livestock and wildlife dams and ponds

- reference aerial photography or do a site visit

Type I and III wetlands

- reference NWI maps

Known ground water to surface water interfaces (recharge and discharge wetlands).

These water bodies may need to be considered because of a high potential for a pesticide to be present or available, and mobile via water, sediment, or air. Location in the watershed and juxtaposition to the previous “six sensitive areas” may also be critical in identifying and planning for sensitive areas.

Additional man-made features may make an area sensitive such as:

- farmsteads and feedlots
- roads and ditches
- bee hives

There may be additional unique or man-made landscape features in which the resource conservation planner may need to address when developing a pest management plan.

TABLE 1

Aquifers Sampled, Year of Sampling and Reference for Report Describing Monitoring Results for the Years 1997 to 2001

Aquifer	Year Sampled	Reference	Aquifer	Year Sampled	Reference
Bismarck	2000	Bartleson and Goven, 2000	Manfred	2000	Bartleson and Goven, 2000
Burnt Creek	2000	Bartleson and Goven, 2000	McVille	1998	Bartleson and Goven, 1998
Carrington	2000	Bartleson and Goven, 2000	Milnor Channel	1999	Bartleson and Goven, 1999
Denbigh	1998	Bartleson and Goven, 1998	Missouri River	2000	Bartleson and Goven, 2000
Edgeley	2000	Bartleson and Goven, 2000	New Rockford	1998	Bartleson and Goven, 1998
Elk Valley	1998	Bartleson and Goven, 1998	Oakes	1997	Bartleson and Gunnerson, 1997
Englevale	2000	Bartleson and Goven, 2000	Painted Woods Lake	2000	Bartleson and Goven, 2000
Esmond	2001	Bartleson and Goven, 2001	Pembina River	2001	Bartleson and Goven, 2001
Fordville	1998	Bartleson and Goven, 1998	Pipestem Creek	2001	Bartleson and Goven, 2001
Galesburg/Page	1999	Bartleson and Goven, 1999	Pleasant Lake	2001	Bartleson and Goven, 2001
Glenview	2000	Bartleson and Goven, 2000	Sand Prairie	2000	Bartleson and Goven, 2000
Guelph	2000	Bartleson and Goven, 2000	Seven Mile Coulee	2001	Bartleson and Goven, 2001
Hankinson	1999	Bartleson and Goven, 1999	Shell Valley	1998	Bartleson and Goven, 1998
Heimdal	2001	Bartleson and Goven, 2001	Sheyenne Delta	1999	Bartleson and Goven, 1999
Horseshoe Valley	2001	Bartleson and Goven, 2001	Spring Creek Aq. System	1997	Bartleson and Gunnerson, 1997
Icelandic	1997	Bartleson And Gunnerson, 1997	Stoney Slough	2001	Bartleson and Goven, 2001
Inkster	1998	Bartleson and Goven, 1998	Strasburg	2000	Bartleson and Goven, 2000
James River	2001	Bartleson and Goven, 2001	Strawberry Lake	1998	Bartleson and Goven, 1998
Juanita Lake	2000	Bartleson and Goven, 2000	Streeter	1997	Bartleson and Gunnerson, 1997
Karlsruhe	1998	Bartleson and Goven, 1998	Tokio	2001	Bartleson and Goven, 2001
Kidder/Marston-moor Plain	1999	Bartleson and Goven, 1999	Trenton	2001	Bartleson and Goven, 2001
Kilgore	2001	Bartleson and Goven, 2001	Turtle Lake	1998	Bartleson and Goven, 1998
Lake Nettie	2000	Bartleson and Goven, 2000	Wagonsport	2000	Bartleson and Goven, 2000
Lake Souris	1998	Bartleson and Goven, 1998	Warwick	1997	Bartleson and Gunnerson, 1997
LaMoure	2000	Bartleson and Goven, 2000	Yellowstone - Missouri	20001	Bartleson and Goven, 2001
Lower Apple Creek	2001	Bartleson and Goven, 2001			