CHAPTER VIII – WATER AND NATURAL RESOURCES

Scott County contains a diverse array of water and natural resources that play an important role in shaping the County's quality of life, local economy, and environmental health. Public participation results gathered throughout the past decade suggest that the County's water and natural resource base is highly valued by residents. This chapter provides summary background information, goals, policies, and key recommendations to preserve and enhance the County's water and natural resource base.

The Scott County growth management effort includes planning for future urban expansion and transition areas as well as a defined permanent rural area. This chapter is intended to serve as the legal basis for planning for the current unincorporated area. It also serves as a coordinated and collaborative basis to work with the seven cities for transition to future urban uses as the county urban and expansion areas become urbanized and the permanent rural uses develop after the completion of a Detailed Area Plan (DAP).

This chapter is not intended to replace more detailed planning documents covering the County's natural resources, such as the 2006 *Scott County Water Resources Plan*, the 2004 *Scott Watershed Management Organization (WMO) Comprehensive Water Resource Plan 2004–2008*, and the 1999 *Scott County Groundwater Protection Plan*. These detailed planning documents, and subsequent updates, are incorporated into this 2030 Plan Update by reference.

The County's 2006 *Water Resources Plan*, which meets all of the requirements set in Minnesota statutes, has been approved by the Scott WMO, the Prior Lake-Spring Lake Watershed District, the Vermillion River Watershed Joint Powers Organization, and the Lower Minnesota River Watershed District. The 2006 *Water Resources Plan (amended December 2007)* is incorporated into this 2030 Plan Update as Appendix E.

The following discussion provides information as to where readers can obtain water and natural resource inventory information for Scott County, and presents water and natural resources goals and policies. Water and natural resources goals and policies are presented in two parts: 1) those related to water resources; and 2) those related to natural area corridors.

WATER AND NATURAL RESOURCE INVENTORY

Understanding Scott County's water and natural resource base provides a framework for analysis and suggests possible locational advantages for particular land uses. It is also essential to understand the location of environmentally sensitive areas to make responsible land use-, transportation-, and utility-related decisions. This will prevent severe developmental and environmental problems that may be difficult and costly to correct in the future. Maintenance of sensitive natural features is also important for the visual attractiveness of the county and for the functions they perform as natural communities. For a complete description and inventory of the County's land and water resource base, including geology, topography, groundwater, soils, surface water, watersheds, wetlands, floodplains, vegetation, habitat, climate, and environmentally sensitive areas, see the 2006 *Water Resources Plan, amended December 2007,* cited above.

A. Natural Resources

Unique natural features and biological communities are presented in more detail in the attached *Water Resources Plan* (Appendix E, Map 17). In addition the County has completed the Minnesota Land Cover Classification System (MLCCS) inventory. For much of the County the MLCCS included quality rankings for the natural community cover types. The MLCCS is in GIS format and will be available on the County website. The MLCCS and the data from the DNR Natural Heritage database formed the bulk of the information used to develop the Natural Areas Corridors Map (Figure VIII-4).

B. Geology

Surficially, Scott County is dominated by glacial till, except along the Minnesota River, which is composed of alluvium and terrace deposits. There are also areas near the river where the bedrock is at or near the surface. The abundance of glacial till, a material with low permeability because of the silts and clays that fill in the spaces between larger grains, provides a layer of protection for the county's aquifers that lie in the sedimentary rock below except near the river where bedrock is near the surface. Groundwater is susceptible to contamination in these areas. This is important as all Scott County drinking water comes from groundwater supplies. Additional geologic information can be obtained from the recently completed *Geologic Atlas of Scott County, Minnesota* (Minnesota Geological Survey, 2006) available on the County website.

C. Bluffs

Centuries of erosive actions by the Minnesota River and its tributaries have left unique bluff features across areas of Scott County, most notably in Blakely Township. Bluff areas offer unique views and contain the majority of the natural communities and rare species identified by Minnesota Department of Natural Resources (DNR) natural resource inventories. Bluff features present many challenges for stormwater management and erosion control as the areas around them become developed. It is important that these areas are managed appropriately to preserve the unique features including the natural communities and rare species. In addition, incorporating the preservation of bluffs into development provides aesthetic views while maintaining the area's unique history and sense of place.

The erosion and instability of bluff areas are of concern within the unincorporated areas, and as a result requirements are in place to facilitate management of these areas. Standards for land disturbing activities in bluff areas are identified in the *2006 Water Resources Plan (amended December 2007), Scott WMO Comprehensive Water Resource Plan 2004-2008*, and the County's Zoning Ordinance. Standards include a defined bluff overlay zone and bluff impact zone, runoff management, and setbacks for structures, stormwater ponds, infiltration systems, soil saturation-type features, and ISTS. These standards help facilitate stability of the bluff areas within the county, thereby reducing erosion/sedimentation and reduce future costs to provide clean up of areas, culverts, and bridges where deposition takes place.

D. Aggregate Deposits

Figure VIII-1 shows a map of bedrock and sand and gravel deposits in Scott County. The following text from the Minnesota Geological Survey *Aggregate Resources of the Seven-County Metropolitan Area* study (1999) briefly describes Scott County's aggregate deposits. The entire study is available for review on the Minnesota Department of Natural Resources (DNR) website at: www.dnr.state.mn.us.

Sand and Gravel: Most of the sand and gravel resources of Scott County lie within the broad terraces of the Minnesota River valley, along the northwest county boundary. Less voluminous deposits of ice-contact sands and gravels extend from the Minnesota River valley southeast into the interior of Scott County.

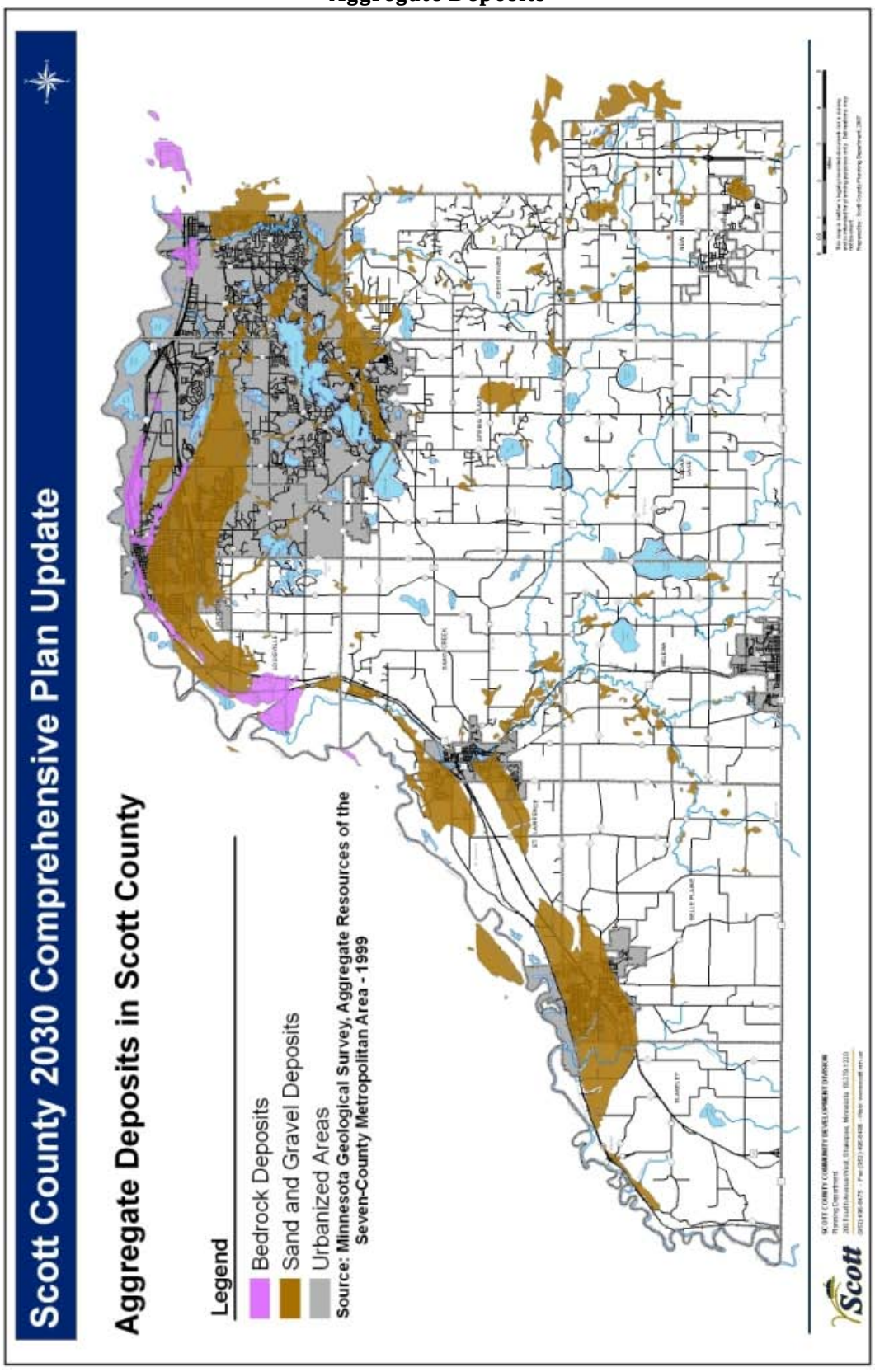
Bedrock: Prairie du Chien dolostone is close to the present land surface along the Minnesota River terrace in the northern part of Scott County. Along much of this terrace, bedrock is covered by 20-30-foot thick deposits of sand and gravel. Therefore, more bedrock resources might become available if the sand and gravel were removed. Much of the area is urbanized. Bedrock aggregate resources in Scott County can be divided into the three sub regions:

1. Scott northwest - Prairie du Chien dolostone underlies the Minnesota River terrace in northwestern Scott County. In this sub region, the dolostone is comparatively thin (50 to 85 feet), and is underlain at shallow depths by the Jordan Sandstone. Several large quarries have operated or are currently operating in the Prairie du Chien in this sub region, and much of the resource is already mined.
2. Scott north-central - Prairie du Chien dolostone underlies the terrace south of the Minnesota River and ranges from 70 to 90 feet thick. Most of the area has not been quarried because it is an area of urban development (Shakopee). There are, however, active or former quarries in the less developed areas at either end of the sub region.
3. Scott northeast - Prairie du Chien bedrock in this sub region in northeastern Scott County also underlies a terrace of the Minnesota River. Most of the remaining resource is present at the margins of two quarries that have been stripped free of overburden. The overburden was apparently thicker than 10 feet over most of the area prior to mining. These quarries are being encroached upon by urban development.

E. Prime Farmland and Soils of Statewide Significance

Prime farmland, as defined by the U.S. Department of Agriculture (USDA), is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Soils of statewide significance also have strong characteristics for crop production, but are classified by state and local agencies. Figure VIII-2 maps prime farmland and soils of statewide significance for the unincorporated areas of Scott County. A large concentration of these soil types is found in the western portion of the county. This is also the area with a strong agricultural history.

Figure VIII-1
Aggregate Deposits



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PLACEHOLDER FOR FIGURE VIII-2
PRIME FARMLAND AND SOILS OF
STATEWIDE SIGNIFICANCE

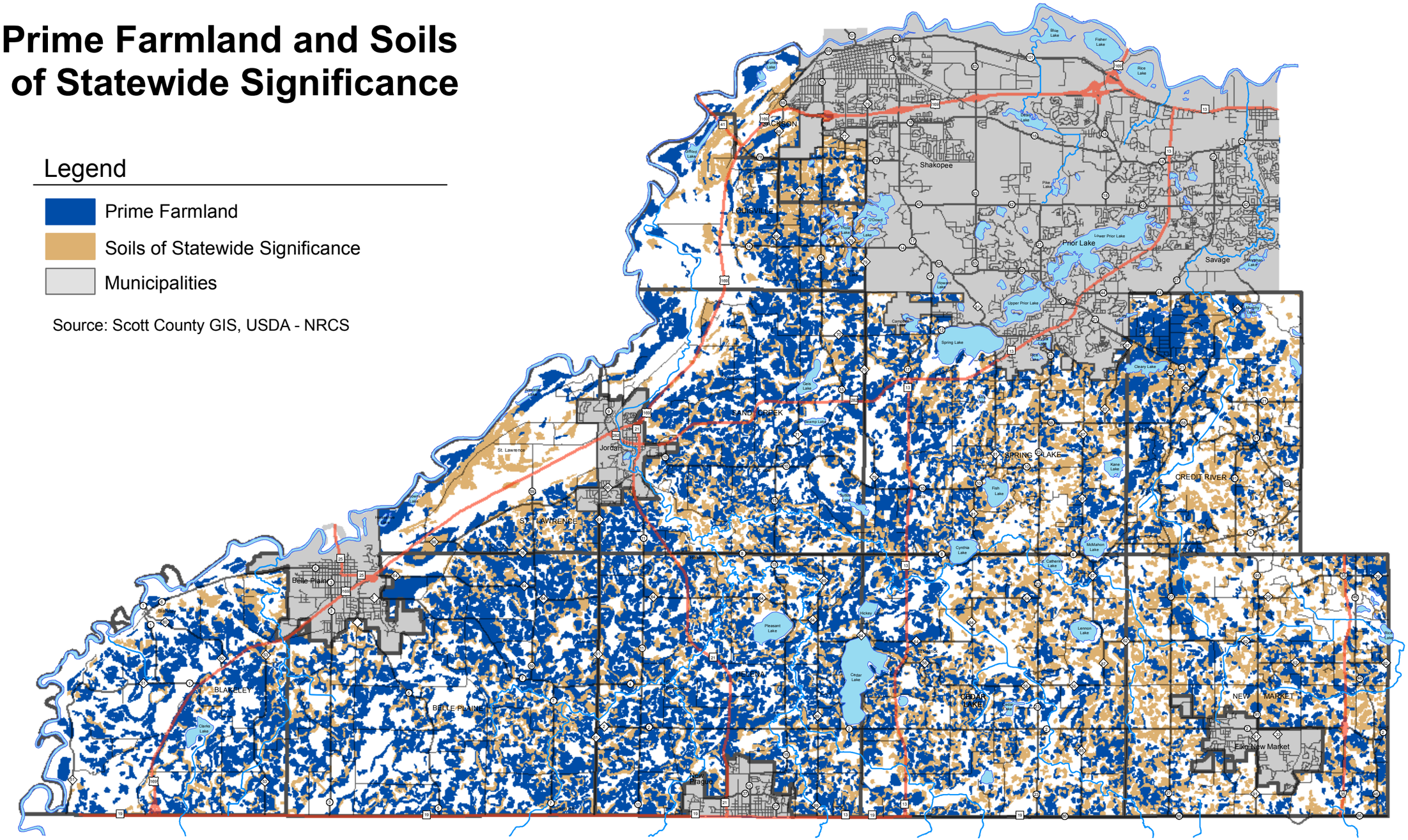
Scott County 2030 Comprehensive Plan Update

Prime Farmland and Soils of Statewide Significance

Legend

- Prime Farmland
- Soils of Statewide Significance
- Municipalities

Source: Scott County GIS, USDA - NRCS



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Prepared by: Scott County Planning Department, June 17, 2008

F. Water Resource Goals and Policies

The following goals and policies are largely paraphrased from the goals and policies in Scott County's approved *Water Resources Plan*, as adopted May 2006 and amended December 2007.

Goal #VIII-1 Manage the quantity and improve the quality of stormwater runoff from new development entering rivers, streams, lakes, wetlands, and groundwater within the unincorporated areas of Scott County.

a. Each development or land disturbing activity shall be responsible for managing its stormwater effectively, either on- or off-site.

b. Promote and encourage a reduction in runoff rates, encourage infiltration, and promote increased groundwater recharge.

c. Stormwater will be managed to minimize erosion, with an emphasis on stabilizing flow rates and velocities and prioritizing critical areas based on the landscape setting and existing vegetation.

d. Promote development strategies, land use practices, and water management activities that decrease and desynchronize peak flows, lengthen the watershed time of concentration, and raise base flow levels.

e. Promote development strategies to create and/or improve downstream conveyance systems. New systems shall be encouraged where such systems do not currently exist and are needed based on a detailed hydraulic analysis of the watershed and the demonstrated positive impact the system would have on the public health, safety, and welfare. Improvements to existing systems shall be encouraged where the existing system is inadequately sized, unstable, or could otherwise be modified to further other established goals and objectives of the water plan.

f. Promote strategies which allow for the orderly transition from privately maintained drainage systems to public drainage systems as development occurs. The desired end result being a public drainage system, contained within contiguous drainage & utility easements, that is permanent, maintainable, and adequate to service the long-term drainage needs of Scott County.

g. Use an overall philosophy of outcome based analysis and resource oriented management to recognize and avoid potential downstream impacts from stormwater due to development/re-development activities.

h. Identify and utilize existing, natural retention and detention areas for stormwater management while maintaining or improving the existing water quality.

i. The construction of publicly owned, operated, and maintained regional stormwater ponds shall be encouraged, where feasible, to promote storage through the construction of an integrated regional retention area, as opposed to multiple smaller areas of on-site ponding, to reduce public long-term maintenance costs and maintain efficiency. This policy recognizes the difference between smaller on-site stormwater ponds that are routinely maintained by

property owners, and larger regional basins that will likely require public monies for creation and routine maintenance. Figure VIII-3 provides a map showing areas identified as having potential for regional stormwater management facilities in the Sand Creek, Prior Lake-Spring Lake, and western areas of the county. This map was based on studies completed by the Scott Watershed Management Organization and the Prior Lake-Spring Lake Watershed District. It is anticipated that similar efforts will be completed for areas in the Credit River and Vermillion River watersheds in 2008-2010.

j. The construction of stormwater infiltration areas shall be encouraged, where feasible and environmentally beneficial, to promote the infiltration of stormwater to recharge subsurface aquifers.

k. The construction of publicly owned, operated, and maintained regional stormwater management systems shall be funded, in part or entirely, by development user fees.

l. Improve the long-term and institutional management and coordination of the county judicial ditch system.

m. Educate key audiences, including developers, consultants, contractors, builders, and local units of government, on stormwater best management practices and other appropriate methods, techniques, or regulations to manage stormwater quantity and quality.

n. Runoff shall be routed to water treatment ponds or other acceptable facilities before discharging to waters of the state.

o. Work to insure that mechanisms are put in place for future maintenance of stormwater infrastructure associated with new development at the time of the improvement.

Reason: Large or increased quantities of stormwater over presettlement conditions leads to larger volumes of water and higher flow velocities, which in turn provide the erosive power to damage stream channels and ultimately render them unstable. These issues are transferred downstream as additional water and scouring power is added along a watercourse. This leads to issues associated with sedimentation in downstream areas, which can, among other things, decrease floodplain storage, damage water resources, impact infrastructure and clog culverts, and destroy habitat. There are also economic implications due to increased volumes and flow of stormwater. Unstable stream channels over time have the ability to depress land values, damage property, endanger high value structures and render prime building locations unbuildable directly impacting the health, safety, and welfare of the county.

With an increase in water quantity, there is usually a corresponding decrease in water quality. Water quality is an important amenity in the county – both in terms of surface water and groundwater. Stormwater can carry a variety of pollutants, which can affect downstream areas as well as groundwater through infiltration.

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PLACEHOLDER FOR FIGURE VIII-3
POTENTIAL REGIONAL STORMWATER POND LOCATIONS

Scott County 2030 Comprehensive Plan Update

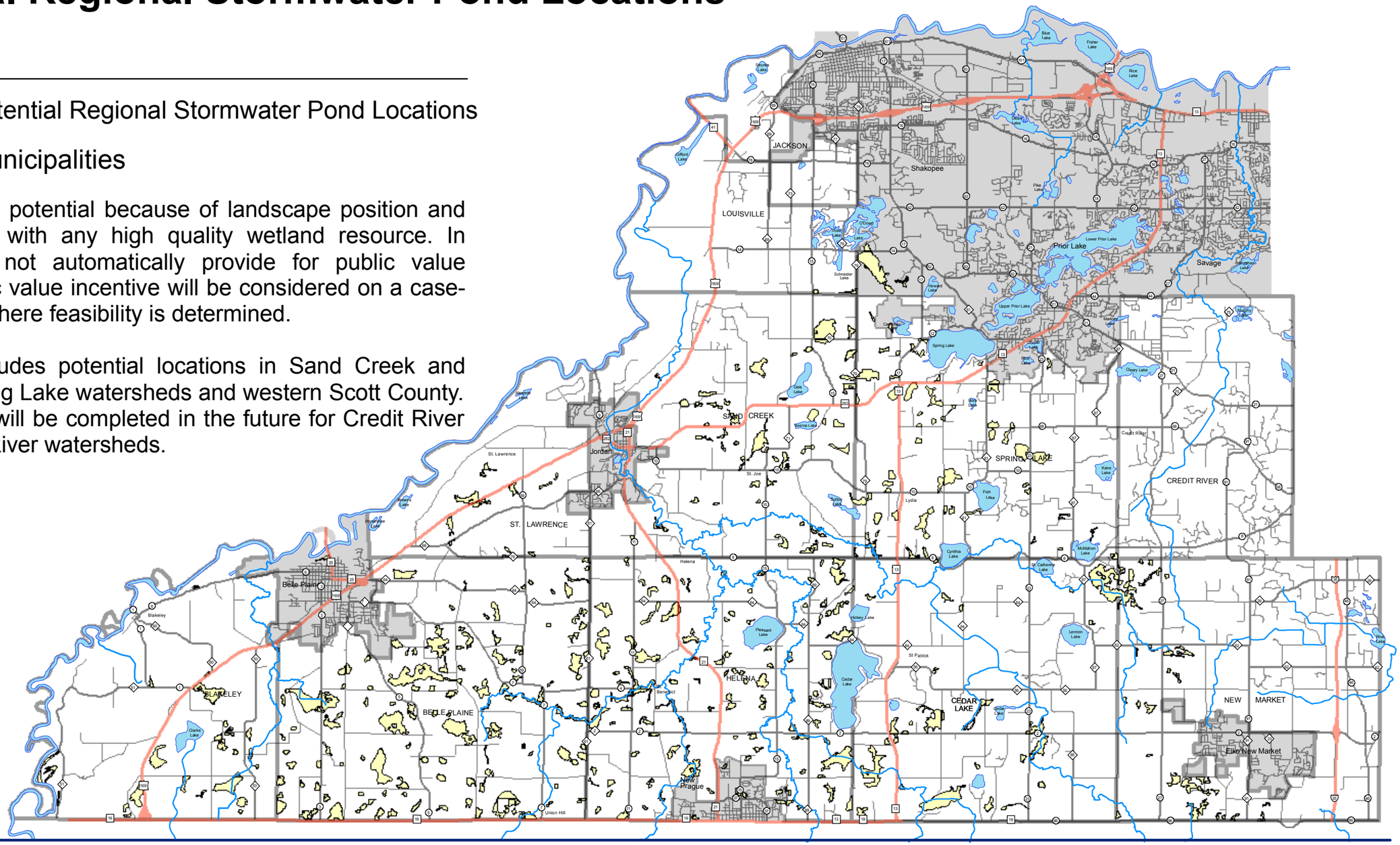
Potential Regional Stormwater Pond Locations*

Legend

- Potential Regional Stormwater Pond Locations
- Municipalities

* Only indicates potential because of landscape position and lack of conflict with any high quality wetland resource. In addition, does not automatically provide for public value incentive. Public value incentive will be considered on a case-by-case basis where feasibility is determined.

Note: Only includes potential locations in Sand Creek and Prior Lake-Spring Lake watersheds and western Scott County. A similar study will be completed in the future for Credit River and Vermillion River watersheds.



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Prepared by: Scott County Planning Department

Adopted: March 24, 2009

Goal #VIII-2 Protect and enhance wetland ecosystems by managing contributing watersheds, and ensure/encourage a measurable net gain of wetland functions and acreage throughout the county.

a. Achieve no net loss of wetlands in the unincorporated areas of Scott County, in conformance with the Minnesota Wetland Conservation Act (WCA) and associated rules (Minnesota Rules 8420).

b. Encourage wetland avoidance for all new developments and land disturbing activities.

c. Require mitigation of unavoidable wetland disturbance by replacing the lost wetland functions and values in the same major subwatershed with a wetland of equal or greater value at the replacement ratio defined in the Comprehensive Wetland Management Plan (to be developed). In the interim, replacement ratios shall be dictated by the WCA.

d. Require transportation projects to pursue wetland mitigation projects to the extent possible along the transportation corridor. Where this is not feasible, the transportation project manager should work with adjacent landowners, LGUs, SWCD, County, state, or federal agencies to identify and provide mitigation areas as close to the project area as possible (this does not preclude use of the BWSR Road Replacement Program for wetland mitigation).

e. Identify areas within the county that are conducive to wetland restoration. Work with landowners, SWCD, and appropriate agencies to accomplish wetland restoration within the identified areas, and encourage artificially drained hydric soils to revert to natural conditions and the restoration of wetlands through the Public Value Incentive Program and other appropriate tools.

f. Require all identified wetland habitat impacts to be mitigated through wetland enhancement, restoration, or creation.

g. Manage changes in volume and quality of local stormwater systems to minimize negative impacts to existing wetland functions, value, or biological diversity. This includes a proactive approach to erosion control enforcement around affected wetland areas, mitigation, restoration, or creation.

h. Identify and preserve wetlands for water retention, recharge, soil conservation, wildlife habitat, aesthetics, and natural enhancement of water quality.

i. Require a buffer, to include a filter strip, around each wetland commensurate with its management classification.

j. Increase participation of property owners, developers, and contractors in wetlands and wildlife land management assistance programs, and decrease violations of wetland regulations through better education programs.

Reason: Protection of wetland resources is required by federal and state policies, which are supported by regulations. Wetlands provide a variety of functions and values, which are important to the overall character and function

of the watersheds of which they are a part, and reduce overall long-term public costs for stormwater management.

Examples of functions include water storage, flood desynchronization, nutrient retention and transformation, wildlife and aquatic habitat, groundwater recharge and discharge areas, and influence on atmospheric processes. The types and numbers of functions that a wetland performs are based on many factors, and not all wetlands perform all functions nor do they perform functions equally well. Examples of wetland values include passive and active activities such as aesthetics, education, archaeological study, hunting, and bird watching.

Goal #VIII-3 Preserve and enhance surface water quality in Scott County's water bodies and watersheds, commensurate with the eco-region and desired uses.

a. Expand existing water quality monitoring networks.

b. Improve the quality of surface water monitoring programs and analysis, as well as the information derived from monitoring data.

c. Target high priority water bodies for water quality projects; this includes working with those waters listed as "impaired" by the MPCA for listing under Section 303(d) of the Clean Water Act.

d. Secure stable funding to augment water quality projects and local programs.

e. Obtain usable, transferable data for road salt management, and provide projects and workshops for Public Works personnel to improve proper storage practices and use salt-tolerant species in County ditches (less sand is better environmentally).

Reason: Protection of surface water quality is addressed by federal and state policies, which are supported by regulations. Surface water is an important resource. Failure to address water quality issues can lead to impairment of water resources and can affect recreational uses, aquatic habitat, wildlife, groundwater quality, and other water use activities.

The Minnesota Pollution Control Agency (MPCA) publishes a list of impaired waters under the Clean Water Act Section 303(d). Many water bodies located completely or partially within Scott County are on the current list and are considered impaired.

Goal #VIII-4 Protect groundwater quality and improve groundwater supplies through the effective implementation of watershed management plans and the Scott County Groundwater Protection Plan.

a. Promote ongoing evaluation of land use impacts on groundwater quality and quantity.

b. Provide data to municipal utilities and the general public regarding inventoried groundwater resources and incorporate information into the County's GIS with updates as appropriate.

c. Support identification and reduction of groundwater contamination from both point and non-point sources.

d. Continue to support programs that promote efficient and effective administration of groundwater pollution regulations.

e. Encourage data collection, development and consistent updating of a groundwater flow model and groundwater recharge model for Scott County.

f. Support enforcement of County ISTS and community septic system ordinances.

g. Support continued management of the County Feedlot Program.

h. Encourage an increase in well water testing by County residents not on municipal systems to identify potential aquifer contamination.

i. Promote water conservation strategies to conserve groundwater resources and reduce per-capita water use to conserve groundwater resources.

j. Provide education on wells, wellhead protection, groundwater/surface water interactions, and the County's groundwater resources.

Reason: Groundwater resources are protected by federal and state policies, which are supported by regulations. Scott County relies on groundwater for its domestic, municipal, and industrial supplies. Scott County adopted a Groundwater Protection Plan in 1999. The Plan outlines existing and potential issues as well as opportunities for groundwater protection and management. The rapid increase in the population of Scott County is intensifying land development pressure, increased groundwater use, and additional potential for groundwater contamination through land use changes.

Goal #VIII-5 Reduce non-point source pollution from agricultural activities.

a. Update and maintain an inventory of active feedlots.

b. Provide technical and financial assistance to operators of feedlots causing pollution problems.

c. Offer demonstration projects using BMPs for feedlots and animal waste storage and utilization.

d. Monitor long-term application rates of livestock wastes on land owned by feedlot operators, as well as on land leased, rented, or volunteered for application.

e. Monitor surface and groundwater quality in feedlot areas up gradient from sensitive surface and groundwater recharge areas.

f. Compile and publicize research data showing how to reduce non-point pollution on agricultural land through implementing practices such as integrated pest management, conservation cropping systems, biotechnology, manure utilization, filter strips, conservation tillage, nutrient management, and structural erosion control methods.

g. Provide technical and financial assistance to operators of agricultural land causing non-point source pollution problems.

h. Encourage farmers to conduct field by field soil testing to implement optimum nutrient and pesticide application based on soil texture, organic matter, fertility levels, subsoil, and potential for leaching.

i. Provide educational materials on agricultural BMPs that reduce non-point source pollution and maintain soil productivity and sustainable production levels.

j. Continue to participate in an annual crop residue (transect) survey to determine the level of conservation tillage applied on cropland acres.

k. Maintain contiguous agricultural areas to preserve existing agricultural drainage systems (private and public ditches).

l. Continue ongoing educational programs provided through the Scott SWCD, NRCS, University of Minnesota Extension Service, and other agencies that publicize and promote land stewardship targeted at agricultural producers, rural landowners, contractors, County, city, and township staff, and fertilizer dealers and distributors.

Reason: Agriculture, while not the only land use concern for non-point source pollution, is practiced on a fairly large portion of the land area in Scott County. Therefore, it is appropriate to look at this activity within its own goal and work with rural landowners to reduce non-point sources from agricultural lands. This includes conservation farm planning, implementing structural conservation practices, administering a county-wide feedlot program, using research and technology transfer to promote new farming techniques, and utilizing the technical and financial resources of other local, state, and federal programs that encourage land stewardship.

Goal #VIII-6 Protect human life, property, and surface water systems that could be damaged by flood events.

a. Manage local floodplain areas to maintain critical 100-year flood storage volumes.

b. Ensure that on-site or downstream detention basins are designed adequately and prevent runoff from developed areas from negatively impacting new or existing detention basins.

c. Update floodplain zoning regulations to maintain consistency with the Scott WMO's and other Watershed Organization's Comprehensive Water Resource Management Plans.

d. Require that new structures (i.e., buildings and other structures that could be flow obstructions) be constructed above the flood-prone areas to avoid causing an increase in the critical flood levels that could affect both the new construction and nearby structures.

e. Maintain discharge rates and flood storage volumes to minimize pond overflow and reduce erosion.

f. Maximize upstream storage.

g. Seek ways to increase infiltration by increasing vegetated areas and reducing impervious areas.

h. Maintain the proper function and performance of existing stormwater conveyance systems and storage facilities.

i. Remove accumulated sediment from storage facilities prior to reaching 50 percent of design capacity.

j. Support enhanced data sources, including updated Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM).

Reason: Proper placement of homes and structures is required to avoid damage and loss due to flooding. This can be accomplished by understanding and managing runoff and stormwater quantities as well as providing and enforcing ordinances that address these issues and prevent further incidents.

Goal #VIII-7 Guide for development within Scott County by providing policies, objectives and ordinances to support development while at the same time protecting and managing water resources.

a. The preservation, restoration, and enhancement of shoreland and wetland environments in their natural state shall be encouraged. Where desirable and practical, developments which complement these features and are in conformance with federal, state, and local regulations shall be supported and promoted.

b. Examine requested land use changes in relation to adjoining land uses, site accessibility, stormwater management systems availability, and consistency with the County's 2030 Comprehensive Plan Update and policies.

c. Encourage the placement of housing units in a manner that preserves significant natural resources.

d. Promote compatible land use patterns on shared boundaries between urban and rural uses as a means of protecting future urban expansion areas.

e. Promote cooperative efforts to solve public health hazards when a hazard can be corrected or controlled by public resources (sewer/water service, code enforcement, inspection, sharing infrastructure costs, etc.).

f. Establish compatible land use patterns that complement and minimize the impact to the county's environmental features.

g. Promote area-wide identification of environmentally sensitive natural resource areas for guiding land use development decisions.

Reason: Premature development that occurs before considerations of stormwater management, as well as other water and natural resource management, leads to increased environmental risk to residents and businesses and the increased cost associated with fixing problems after the fact.

Goal #VIII-8 Inform, educate and involve individuals, groups, businesses, industry, and government in the protection and cleanup of Scott County's water resources, thereby increasing the understanding of water resource management and creating a long-term commitment to improve and protect water resources.

a. Educate key audiences, such as developers, consultants, contractors, builders, and local units of government on stormwater best management practices and erosion control measures.

b. Increase participation of property owners, developers, and contractors in wetlands and wildlife land management assistance programs, and decrease violations of wetland regulations.

c. Encourage well water quality testing.

d. Promote a reduction in per-capita water use.

e. Provide educational materials on BMPs.

f. Conduct educational programs for homeowners, renters, grounds keepers, pesticide and fertilizer dealers and distributors, and city and County public works personnel.

g. Cooperate and collaborate with ongoing educational programs by the Scott WMO, University of Minnesota Extension Service, SWCD, NRCS and other agencies.

h. Help facilitate and support education/public outreach activities required under NPDES Phase II Municipal Separate Stormwater Pollution Prevention Program.

Reason: Educating and working with stakeholders within the County provides a network of knowledgeable people that support and help carry out the goals of the Water Resources Plan. Providing an understanding of the issues and providing a forum for discussion and consensus building regarding solutions will equate to better projects in the long run.

NATURAL AREA CORRIDORS

A. Process Summary

Identifying opportunities for linear connections of natural features is a subject that has evolved in Scott County plans over the years. The County's interim *Parks, Trails and Open Space System Policy Plan* (2004) recommended how the various federal, state, regional, and local agencies could work together to provide parkways, linear parks, and greenway corridors. In 2005, the *Southeast Scott County Comprehensive Plan Update* took the subject further by establishing mapping criteria, goals, policies, and possible implementation tools to achieve these linear natural resource corridors. A map showing natural resource corridors in the southeastern portion of the county was included in the 2005 plan.

This 2030 Plan Update builds upon these previous planning efforts and is bolstered by an extensive public participation process that identified a growing interest in a comprehensive approach to preserving natural areas. In 2005, a public opinion survey conducted in conjunction with the 2030 planning process found that about three-quarters of respondents supported or strongly supported additional regulations to protect environmentally sensitive areas. Facing mounting growth and development, these survey respondents indicated that protecting the county's woodlands, wetlands, habitat areas, and ground water were priority environmental issues to address in the 2030 Plan Update.

In 2006, the County held an extensive visioning process which included seven forums held across the county (see Chapter IV). Participants responded to a series of questions, and when asked whether the County should work now to preserve open space, in light of rising land costs and development pressures, almost three-quarters of participants agreed, and half strongly agreed. These forums also confirmed that water quality protection was one of the most critical issues (behind traffic) facing the County over the next two decades. As a result of this public input, the 2030 Vision sees a future when the County's "developed landscape includes parks, greenways, and conservation corridors based on natural resource inventories."

B. County Defined Natural Area Corridors

In response to the 2030 Vision, a process began in late 2006 to undertake the natural resource inventory and to ultimately identify Natural Area Corridors. This process included technical analysis and research conducted by County staff, as well as policy input from three advisory commissions (Parks, Planning, and Scott WMO Watershed), the Scott Soil and Water Conservation District Board, and township officials. This group held six workshops over the course of 2006 and 2007 to compile inventory data, identify draft corridors, and discuss various implementation policies.

Under this 2030 Plan Update, a Natural Area Corridor is defined as a linear connection of natural features as indicated on Figure VIII-4, which may include: areas with known sensitive species or communities, unique natural communities, and high and medium quality natural communities. Designating Natural Area Corridors is not intended to prohibit development. Rather, the intent is to guide development-related decisions as outlined within in the following corridor purpose statements, and involves a combination of efforts to protect high priority natural areas under private ownership as well as public ownership in combination with parks planning:

- Guide where resources can be enhanced and/or restored (e.g. types of vegetation to be planted, where stormwater ponds should be located);
- Allow for movement of wildlife in order to meet their basic habitat requirements for feeding, breeding, and resting;
- Provide connectivity between larger preservation areas;
- Guide where trailways (e.g. bituminous, woodchip, & vegetative paths) may be located and compatible–decision is necessary as to whether use will be consistent/suitable for natural resource protection–mitigation efforts may be required;
- Create viewsheds to help maintain rural "feel" of the community and the landscape that attracts many residents to the area;
- Buffer a resource from the impact of development;
- Guide where high priority areas may be targeted for public acquisition and regional parks;
- Guide transportation corridor planning; and
- Protect and buffer water resources.

When a property within a mapped Natural Area Corridor is proposed for development, the County must evaluate the proposal along side the following statements and make decisions related to implementing corridor purposes to shape the pattern of development desired:

- Determine if the property (or a portion of the property) proposed for development is within or adjacent to a Natural Area Corridor;
- Identify what types of resources are present within the corridor (e.g. wetland, woodland);
- Identify the purpose of the corridor (as outlined above);
- Determine whether preservation of the resource(s) within the corridor is appropriate;
- Determine what levels of resource protection already exist for the area in question (for example: if the area is a wetland in a corridor, then there is already some existing protection through the State of Minnesota Wetland Conservation Act); and
- Based on purpose, determine the appropriate implementation method(s) or options.

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PLACEHOLDER FOR FIGURE VIII-4
COUNTY DEFINED NATURAL AREA CORRIDORS

Scott County 2030 Comprehensive Plan Update

County Defined Natural Area Corridors

Legend

- Natural Area Corridors
- Municipalities

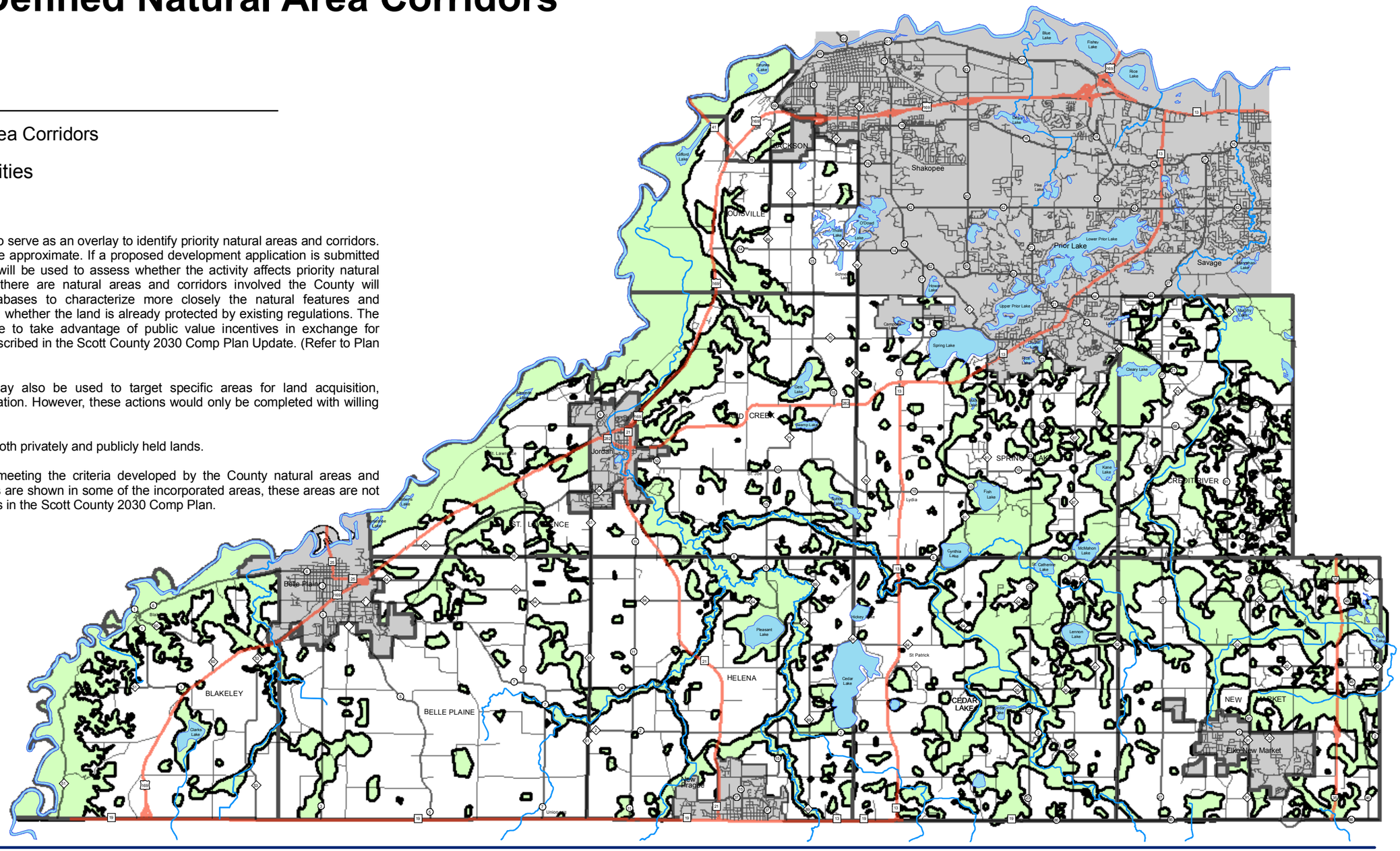
Note:

1) This map is intended to serve as an overlay to identify priority natural areas and corridors. Boundaries presented are approximate. If a proposed development application is submitted to the County this map will be used to assess whether the activity affects priority natural areas and corridors. If there are natural areas and corridors involved the County will reference available databases to characterize more closely the natural features and communities present and whether the land is already protected by existing regulations. The land owner may be able to take advantage of public value incentives in exchange for protection of areas as described in the Scott County 2030 Comp Plan Update. (Refer to Plan for more details.)

2) This overlay map may also be used to target specific areas for land acquisition, improvement, and restoration. However, these actions would only be completed with willing land owners.

3) Areas shown include both privately and publicly held lands.

4) While priority areas meeting the criteria developed by the County natural areas and corridor planning process are shown in some of the incorporated areas, these areas are not subject to the approaches in the Scott County 2030 Comp Plan.



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Prepared by: Scott County Planning Department

Adopted: March 24, 2009

C. Natural Area Corridors Goals and Policies

Goal #VIII-9 Encourage developments to fit the natural landscape through appropriate design and ensure the protection and enhancement of natural physical features such as floodplains, lakes, wetlands, vegetation, hydric soils, and steep slopes.

a. Encourage artificially drained hydric soils to revert to natural conditions and the restoration of wetlands using the Public Value Incentive Program.

b. Development on slopes identified as potential problem areas due to erosion or slope stability concerns shall be restricted or prohibited. Methods of controlling erosion or unstable slopes shall be indicated on all development requests.

c. Promote the use of native grasses, forbes, shrubs, and trees in development site restoration.

d. Establish compatible land use patterns that relate to the county's environmental features.

e. Promote the preservation of natural vegetation including prairies, woodlands, and wetlands as a design consideration for new subdivisions and developments and encourage preservation of high quality natural areas using the Public Value Incentive Program.

f. Require that all building permits and subdivisions comply with Minnesota Department of Natural Resources floodplain and shoreland standards.

g. Promote restoration and utilization of natural storm water storage areas for wildlife, aesthetics, and storm water management.

h. Require natural vegetative buffer areas along all bluffs, lakes, wetlands, creeks, and drainageways.

i. Promote restoration of upland and wetland areas (see also Goal #VIII-2 for wetland restoration and protection.

Goal#VIII-10 Protect environmentally sensitive areas characterized by hydric soils, steep slopes, tree massing, wetlands, lakes, floodplains, and shorelands from degradation.

a. Use the Natural Area Corridors map (Figure VIII-4) of high and medium priority natural resource areas for guiding land use development decisions.

b. Require developers to identify environmentally sensitive natural resources, which may be impacted by their development.

c. Promote the use of concentrated and cluster development concepts to encourage protection of natural features and prime agricultural land.

d. Ensure the proper protection and preserve high priority environmentally sensitive areas to ensure long-term protection using a suite of tools, from the Public Value Incentive Program to acquisition of conservation easements from willing landowners.

e. Promote the protection and management of woodland resources.

Goal#VIII-11 Establish natural resource corridors that link and protect natural open spaces and environmentally sensitive areas, to retain the rural character of Scott County and provide for wildlife corridors.

a. Provide incentives through the Public Value Incentive Program for developments to preserve natural resource areas (common areas, conservation easements, or part of lots) to serve as open space, natural environment areas, and to define rural residential areas.

b. Coordinate with townships, cities, Three Rivers Park District, Watershed Management Organizations, and DNR to acquire and manage high value natural resources that serve as open space, natural environment areas, and help define rural residential areas.

Goal#VIII-12 Increase the awareness of the value and importance of natural resources, their protection, restoration, and stewardship.

a. Educate landowners on the proper application and rates of herbicides, pesticides, and phosphorous fertilizers on lawns to prevent runoff to wetland areas and to prevent contamination of ground water and surface water resources.

b. Educate landowners on the control of invasive/exotic plant species in lakes, greenways, and natural areas and open spaces.

c. Implement a volunteer program for open space maintenance and citizen stewardship activities.

d. Educate landowners on the importance of habitat and natural communities management (e.g., lakescaping for wildlife and water quality, stream riparian vegetation management, woodland management, and prairie management).

e. To reduce public cost, support natural resource protection alternatives available through conservation organizations and natural environment programs.

f. Provide technical assistance for landowners interested in natural resources stewardship.

Goal#VIII-13 Work to establish a regionally-focused land use and transportation planning process that will ensure the preservation and management of both "green infrastructure" (i.e., Natural Area Corridors) and "gray infrastructure" (i.e., highways, bridges).

a. Promote a seamless transportation and greenway system encompassing trails, transitways, and all functional classes of roadways.

b. Consider Natural Area Corridors in the placement, design, and construction of transportation infrastructure.

D. Implementation

Implementation will vary depending on the specific resources present and the choices of the local government unit. Examples of five possible implementation tools may include:

1. Guide development (e.g. re-configure lots or road alignment or shift area of density to less significant area) such that the area is not impacted or impact is limited to the resources present (see Chapter V for more discussion on this possible implementation tool).

2. Provide incentives such as:
   - Allow higher density in an area for clustering development away from the resource and protecting the resource through conservation easements, land dedication, or other means (see Chapter V for more discussion on this tool);
   - Transfer of development rights: transferring (selling) density opportunities for development in areas where there is less of an impact on natural resources (see Chapter V for more discussion on this tool); and/or
   - Set aside (Reinvest in Minnesota–RIM/Conservation Reserve Enhancement Program–CREP) type programs.

3. Developer dedicated conservation easements.

4. Acquisition by local government (e.g. park dedication vs. fee per lot, public easements).

5. Acquisition by conservation organizations for recreational and/or preservation purposes (may be outright acquisition or easements).

Each of these possible implementation tools will be further discussed and analyzed after the adoption of this 2030 Plan Update.