

sewer service area. No amendment would be necessary unless the area is annexed by a different city, village, sanitary district, or utility district.

- In most other instances, the Brown County Planning Commission would request that the affected communities enter into a formal negotiation/mediation process for settlement of the contested issues.
- Should the subject area be located in a sanitary district or utility district and outside of the existing municipal boundary of the requesting municipality and the sanitary district or utility district in which the subject area resides objects to the SSA amendment request, the SSA request would not be reviewed by the Brown County Planning Commission until the requesting municipality obtains jurisdiction of the subject area either through annexation or inter-municipal agreement.

The extent of the subject area for negotiation purposes would be determined by the affected sewer service area and acreage allocations for each municipality.

If at least one of the affected communities states that a boundary, shared services, or other similar intergovernmental agreement cannot be reached after attempting a formal and documented negotiation/mediation process, and at least one of the parties continues to proceed with an SSA amendment request, the Brown County Planning Commission would proceed with the sewer service area amendment review. In that event, the Brown County Planning Commission would have the option to recommend denial of the SSA amendment request until the affected communities reached an agreement. This recommendation would then be forwarded to the Wisconsin Department of Natural Resources for review and consideration.

The Brown County Planning Commission would also have the option to resolve the dispute based upon guidance contained within approved facility plans, Wisconsin Administrative Code NR 121 and the goals, objectives, and policies contained within this plan. Particular emphasis would be placed on cost-effectiveness and environmental protection. The affected municipalities would be encouraged to provide information that includes an evaluation of alternatives that demonstrate how the municipality could extend sewer service to the subject area, when the service would be provided, the cost of sewer service, and any environmental impacts. The Brown County Planning Commission would then forward a recommendation based upon this information to the Wisconsin Department of Natural Resources for review and consideration.

This plan delineates the sewer service areas of Brown County and its immediate environs. It is understood that areas may change over time for a variety of reasons. Thus, to accommodate reasonable and justifiable changes, this plan identifies procedures and criteria to be followed in addressing such changes. To facilitate the timely consideration of proposed sewer service area changes, a separate Amendment Application Manual has been prepared to address both major and minor SSA revisions. A summary of this process is set forth in Chapter 8.

Table 4-1: Ownership of Sewage Treatment Facilities by Sewer Service Area

Sewer Service Area	Local Components	Regional Components	WWTP
Allouez	Allouez	GBMSD	GBMSD
Ashwaubenon	Ashwaubenon	GBMSD	GBMSD
Bellevue	Bellevue	GBMSD	GBMSD
Denmark	Denmark	Denmark	Denmark
De Pere	De Pere	GBMSD	GBMSD
Dyckesville	Dyckesville San. Dist.	GBMSD	GBMSD
Green Bay	Green Bay	GBMSD	GBMSD
Hobart	Hobart	GBMSD	GBMSD
Holland	Holland San. Dist.	Holland San. Dist.	Holland San. Dist.
Howard	Howard	GBMSD	GBMSD
Lawrence	Lawrence	GBMSD	De Pere
Ledgeview	Ledgeview San. Dist.	GBMSD	De Pere
Morrison/Wayside	Morrison San. Dist.	Morrison San. Dist.	Morrison San. Dist.
New Franken	New Franken San. Dist.	GBMSD	GBMSD
Oneida	Oneida	GBMSD	GBMSD
Pittsfield	Pittsfield San. Dist.	GBMSD	GBMSD
Pulaski	Pulaski	GBMSD	GBMSD
Scott	Scott San. Dist., Bayshore San. Dist. Royal Scot San. Dist.	GBMSD	GBMSD
Suamico	Suamico San. Dist.	Suamico San. Dist.	Suamico San. Dist.
Wrightstown	Wrightstown	Wrightstown	Wrightstown
Wrightstown #1 and #2	Wrightstown San. Dist. #1 Wrightstown San. Dist. #2	Wrightstown San. Dist. #1 Wrightstown San. Dist. #2	Wrightstown San. Dist. #1 Wrightstown San. Dist. #2

Chapter 5: Environmentally Sensitive Areas

History

A required element of all sanitary sewer service area plans is the identification and protection of those lands that, if developed, could have a potential adverse water quality impact. Protection of such areas from sewered development is also an important step toward ensuring an environmentally-sound wastewater collection and treatment system. For purposes of this plan, an environmentally-sound wastewater collection and treatment system is one that complies with the following goals, objectives, and policies.

Goals, Objectives, and Policies

Goal #1

Restore and maintain the chemical, physical, and biological integrity of bodies of water that are identified by local, state, or federal agencies as waters of the United States and/or waters of the state.

Objectives for Goal #1

- The discharge of pollutants into waters of the U.S. and the state shall be eliminated.
- The discharge of toxic pollutants in toxic amounts shall be prohibited.
- The waters of the U.S. shall be improved for the protection and propagation of fish and aquatic life, wildlife, and recreation and for public water supply, agriculture, industry, and other purposes.
- Water quality levels that are fishable and swimmable shall be attained.
- Programs for the control of nonpoint sources of pollution shall be developed and implemented in an expeditious manner so as to enable the goals of the Clean Water Act to be met through the control of both point and nonpoint sources of pollution.
 - o Policy: Best management practices and measures which will reduce pollutant loadings from nonpoint sources and which consider the impact of the practice upon both surface and groundwater quality shall be identified.
 - o Policy: The Brown County Sewage Plan shall require the preparation of erosion control, storm water management, and restoration plans for all development within or adjacent to environmentally sensitive area lands.
 - o Policy: The Brown County Sewage Plan shall require the establishment of buffers around all important natural resource features.

Goal #2

Manage the quality of the waters of the United States and the state, both ground and surface, both public and private, including consideration of the relationship of water quality to land and water resources and uses.

Objectives for Goal #2

- Comprehensive programs for the prevention, reduction, and elimination of pollution of waters of the state shall be prepared.
 - **Policy:** The Brown County Sewage Plan shall be reviewed, updated, and revised as necessary to ensure continued protection and preservation of the waters of the U.S. and the state.
 - **Policy:** The Brown County Sewage Plan shall identify and control, to the greatest extent feasible, agriculture, silviculture, and construction-related nonpoint sources of pollution.
 - **Policy:** The Brown County Municipal Separate Storm Sewer System (MS4) Permit shall be maintained and updated to retain the quality of surface storm water to the maximum extent possible.
- Major areas unsuitable for the installation of waste treatment systems because of physical or environmental constraints (environmentally sensitive areas) are to be included in the sewer service area but identified as unbuildable.
- Areas to be considered for inclusion in the sewer service area that have the potential for adverse impacts on the quality of waters of the United States or waters of the state from point or nonpoint sources of pollution shall include, but are not limited to, wetlands, shorelands, floodways, floodplains, steep slopes, karst features, highly erodible soils, and other limiting soil types, groundwater recharge areas, areas identified in the *Wisconsin Land Legacy Report*, areas identified in the *Wisconsin Natural Heritage Inventory*, and other such areas.
 - **Policy:** Development of shorelands shall meet standards set forth in Wisconsin NR 115 and Brown County Code of Ordinances Chapters 10 and 22 to ensure the maintenance of safe and healthful conditions, the prevention and control of water pollution, the protection of spawning grounds for fish and aquatic life, the control of building sites, the placement of structures and land uses, and the preservation of shore cover and natural beauty.
 - **Policy:** Development of floodplains shall meet standards set forth in Wisconsin NR 116 and Brown County Code of Ordinances Chapter 22 for appropriate floodplain districts. No unauthorized structure or fill shall be allowed to encroach upon and obstruct the flow of water in any stream channel or floodway.
 - **Policy:** All wetlands and their ecological functions shall be maintained unless documentation is provided that a wetland disturbance is unavoidable and appropriate mitigation will be provided and all pertinent approvals granted.
- A consistent and concise environmentally sensitive area definition shall be established.
 - **Policy:** A clear and meaningful identification of environmentally sensitive areas shall be established and maintained.

- o **Policy:** Environmentally sensitive area definitions established in the Brown County Sewage Plan shall be repeated in the Brown County Land Division and Subdivision Ordinance.
- o **Policy:** the best possible detailed and up-to-date mapping of environmentally sensitive areas shall be provided in accessible locations, including the Brown County Sewage Plan and GIS mapping.
- o **Policy:** Accurately updated and verified environmentally sensitive areas shall be demonstrated on recorded plat and certified survey maps in Brown County.

Goal #3

Address water quality management issues in an economically-feasible and environmentally-sound manner.

Objectives for Goal #3

- The Brown County Sewage Plan shall set forth an environmentally sensitive area concept and definition, which encourages countywide applicability.
- The use of environmentally sensitive areas for mutually compatible uses such as environmental protection, public recreation, and storm water management shall be allowed and encouraged.

Background

As identified previously in the Brown County Sewage Plan, the primary purpose of the Federal Clean Water Act is to protect the nation's lakes, rivers, aquifers, and coastal areas from pollution. Two goals of the Act are to eliminate the discharge of pollutants into the nation's waters and to achieve water quality levels that are fishable and swimmable. In pursuit of these goals, Section 208 of the Clean Water Act requires that all states prepare and implement regional water quality plans which, among other things, are intended to identify and control both point and nonpoint sources of pollution.

In Wisconsin, this continuing planning process has become the Department of Natural Resource's responsibility. In cooperation with regional planning commissions and local units of government, the DNR prepares and implements "water quality management plans." In 1974, in recognition of its need and importance, the Fox Valley area (which extends from Fond du Lac to Green Bay) was one of the first areas in the state designated for such planning.

With the creation of Administrative Code Chapter NR 121 (Areawide Water Quality Management Plans) in 1979, the Department of Natural Resources established the formal guidelines under which the water quality management planning process would be conducted in Wisconsin. That process included the requirement that each water quality management plan include the identification of "sewer service areas" and, within those areas, the identification of "major areas unsuitable for the installation of waste treatment systems because of physical or environmental constraints." NR 121 also states that "areas to be considered for exclusion from the sewer service area because of the potential for adverse impacts on the quality of the waters

of the state from both point and nonpoint sources of pollution include, but are not limited to, wetlands, shorelands, floodways and floodplains, steep slopes, highly erodible soils, and other limiting soil types, groundwater recharge areas, and other such physical constraints.”

The Brown County Planning Commission first began to identify such areas in its 1982 County sewage plan and termed those areas environmental corridors. At that time, environmental corridors consisted of all navigable waters, all wetlands larger than five acres located within zoned shoreland areas, and certain large wetlands located outside zoned shoreland areas identified by the DNR. The environmental corridor definition was later revised in the 1987 County sewage plan to also include the floodways of all navigable waters. Steep slopes were added as environmentally sensitive areas in the 1995 plan. The 2002 plan further clarified steep slopes and steep slope setbacks. In 2011, the plan was updated to reflect environmentally sensitive areas that relate to Shoreland zoning as best as possible, although not exactly the same, as well as inclusion of karst features, the *Wisconsin Land Legacy Report*, and the *Wisconsin's Natural Heritage Inventory*. The *2040 Brown County Sewage Plan* is expected to reflect the changes established in 2011 with clarifications included in some areas.

Beginning in the 1980s, more accurate, detailed, and definitive water quality research was undertaken within Wisconsin. Such research not only identified the general status of water quality within Wisconsin but also began to identify the current trends, anticipated problems, and envisioned solutions associated with those water quality conditions. In addition, research from around the country indicated what many regulators and researchers had already suspected. Nonpoint source pollution was a growing problem, and to preserve and improve water quality, regulation of surface water, groundwater, wetlands, and adjacent uplands was necessary.

Research, particularly from data collected from Municipal Separate Storm Sewer System (MS4) permits during the past five years, has assisted in identifying the extent and severity of nonpoint source pollution in urbanized areas. Forthcoming Total Maximum Daily Load (TMDL) requirements may assist in non-urban areas.

The areas adjacent to lakes, rivers, streams, floodways, and wetlands can filter pollutants from runoff, lessen downstream flooding, and maintain stream base flows. These “riparian” areas have also been shown to provide a variety of wildlife, recreation, and infrastructure opportunities. Research has indicated that proper “riparian buffers” consist of a wide strip of vegetation that prevents soil erosion, filters runoff, encourages infiltration, stabilizes stream banks, provides shade to water bodies, provides cover for wildlife, and provides recreational opportunities. Improper riparian buffers have been shown to contain row crops and impervious surfaces, to allow unrestricted access of livestock to surface waters, and to allow excessive levels of sediments and pollutants to enter the adjacent waterbodies.

Based upon this information, the *2002 Brown County Sewage Plan*, updated in 2011, further revised the environmentally sensitive area definition in response to changing federal and state rules and regulations and in response to the growing importance and need for flood studies and storm water management plans. The revised ESA definition includes refined buffers for steep

slopes adjacent to surface water features, and refined ESA setbacks for wetlands, waterways, and floodways. In addition, the revised ESA definition also provides greater flexibility for the location of certain activities and uses within ESAs.

Purpose

Brown County has many scenic, unique, and sensitive natural resource areas. Some examples are the Long Tail Point islands and coastal wetlands, such as Point au Sable and Peters Marsh; the Niagara Escarpment and particularly the associated Fonferek, Kittel, Rock, and Wequiock Falls areas; the Big Scott Woods; and the Neshota River Valley. Typical natural resource features include rivers and streams and their associated shorelands and floodlands, wetlands, woodlands, prairies, wildlife habitat areas, and wet, poorly drained, and organic soils and steep slopes. The presence and quality of these natural resource features in Brown County plays a pivotal role in the quality of life of County residents.

The benefits derived from natural resource features can also contribute to the health and safety of the County. Such benefits can include:

- Recharge of groundwater supplies, the source of drinking water for many people in Brown County.
- Maintenance of surface water and groundwater quality, which lends itself to improved drinking water supplies and recreational experiences.
- Attenuation of flood flows and stages, which decreases the risk of flood damage to adjacent property owners.
- Maintenance of base flows of streams and watercourses, which is important to the continued well-being of wildlife habitat.
- Reduction of soil erosion, which is vital for the continued high productivity of the County's agricultural lands.
- Abatement of air pollution, which results in health benefits for County residents, as well as for vegetation and wildlife.
- Abatement of noise pollution, which lends itself to use as a filter or buffer between adjacent and potentially conflicting land uses.
- Favorable modification of climate, which can result in moderation of temperature extremes, resulting in less stress on vegetation and potential building heating and cooling savings.
- Facilitation of the movement of wildlife and provision of game and non-game wildlife habitat, which improves hunting opportunities.
- Facilitation of the dispersal of plant seeds, which promotes continued biological diversity and healthy ecosystems.
- Protection of plant and animal diversity, which promotes healthy and thriving ecosystems able to survive change and stress.
- Protection of rare, threatened, and endangered species, thereby preserving a part of our natural heritage.

Because of the vital functions performed by these natural resource features, the intrusion of urban development into these areas is inappropriate and should be discouraged. The incompatibility of urban development within these natural resource features can also be evidenced by the widespread, serious, and costly problems that are often encountered when development occurs within these areas. Examples of such problems would include failing foundations of pavements and structures, wet basements, excessive operation of sump pumps, excessive clear-water infiltration into sanitary sewer systems, and poor drainage.

In addition, the destruction or deterioration of natural resource features may lead to a chain reaction of further environmental deterioration and destruction. For example:

- The destruction of ground cover may result in soil erosion, stream siltation, more rapid and higher volumes of storm water runoff, and increased flooding, as well as the destruction of wildlife habitat, loss of scenic beauty, and loss of rare, threatened, and endangered species habitats.
- The draining of wetlands may destroy fish spawning grounds, wildlife habitat, groundwater recharge areas, and the natural filtration and flood storage areas of interconnecting stream systems. The resulting deterioration of surface water quality may, in turn, lead to a deterioration of the quality of the groundwater that serves as a source of domestic, municipal, and industrial water supply and upon which low flows of rivers and streams may depend.

When natural resource features are located within areas of future growth, they are often developed or degraded. This has led to the continual loss of these resources over time. Although many of the problems associated with development of these natural resource features are widely known and recognized, the pressures to develop these areas have become even greater as other more easily developable lands become less prevalent within and adjacent to growing communities.

The Brown County Planning Commission has long recognized this problem and the importance of protecting and preserving these natural resource features. The 2008-2013 *Brown County Park and Outdoor Recreation Plan (extended to 2015)*, the 1979 *Brown County Environmentally Significant Areas Plan*, the 2004 *Brown County Comprehensive Plan*, as well as each update of the *Brown County Sewage Plan* have all set forth goals, objectives, and policies which strive to protect the natural resource features found in the County.

Definition

To restore, maintain, and manage waters of the United States and waters of the state, to promote a cost-effective and environmentally-sound wastewater collection and treatment system, to protect public and private property from damages related to flooding and erosion, to provide public recreation and infrastructure opportunities, to facilitate consistency with state and county regulations pertaining to land development and environmental protection, and to address the concerns and issues expressed by the Brown County Planning Commission and the

Wisconsin Department of Natural Resources, the *2040 Brown County Sewage Plan* sets forth the following definition of environmentally sensitive areas:

Environmentally sensitive areas (ESAs) are portions of the landscape, including valuable natural resource features, that should be protected from intensive development. ESAs shall include all lakes, rivers, streams, wetlands, floodways, and certain other significant and unique natural resource features. ESAs shall also include a setback or buffer from these features. Furthermore, areas of steep slopes when located wholly or partially within these natural resource features shall also be included as an ESA.

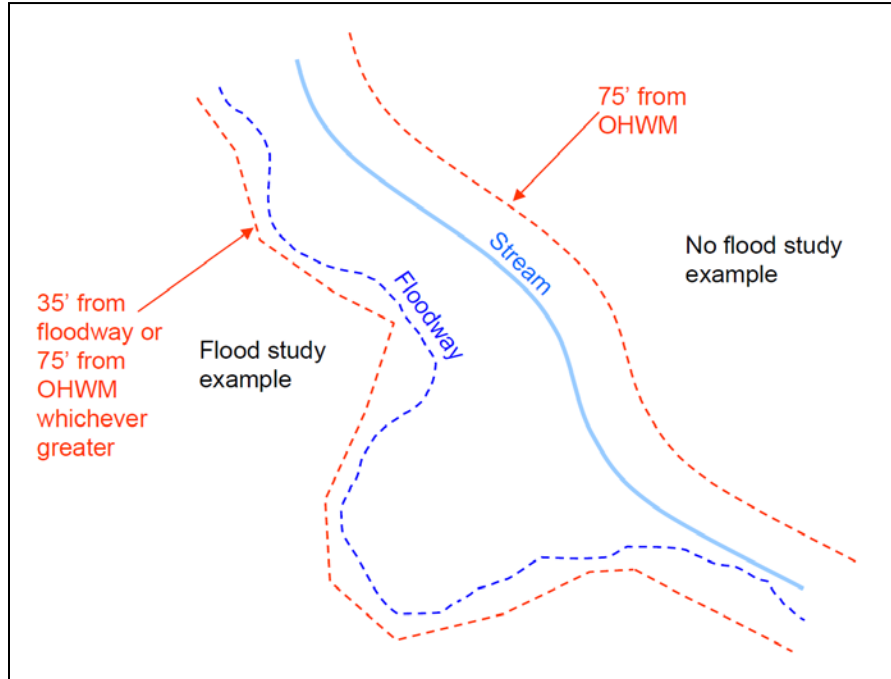
Criteria

The following graphic examples 1, 2, and 3 depict and Table 5-1 generally lists the criteria used to identify ESAs. The detailed ESAs located within the planning area for each municipality are shown on the maps included in Chapter 3 of this plan. These criteria are set forth below in more detail.

Navigable waterways.

- Including lakes, rivers, streams and ponds identified on USGS topographic maps or Brown County Geographic Information System (GIS).
- Land within 75-feet from the ordinary high water mark (OHWM) of navigable waterways with no flood study (see example 1).
 - o The 75-foot ESA setback from navigable waterways should be defined using lines that are, at minimum, parallel to the waterway. Points and straight lines that are surveyed and scaled may be used to define the boundary similar to a meander line; however, in no instance shall resultant points and straightened lines be closer than the designated ESA width.

Example 1.



Floodways

- Including floodways identified on FEMA maps, and DNR approved floodway maps and flood studies.
- Floodway plus land within 35-feet from the floodway line, or 75-feet from the ordinary high water mark (OHWM), whichever is greater (see example 1).
 - The 35-foot ESA setback to floodways should be defined using points that are a minimum of 35-feet from the actual ESA. The points should be connected with a straight line that is surveyed and scaled, similar to a meander line. In no instance shall the resultant straightened lines be closer than 20-feet from the actual ESA.

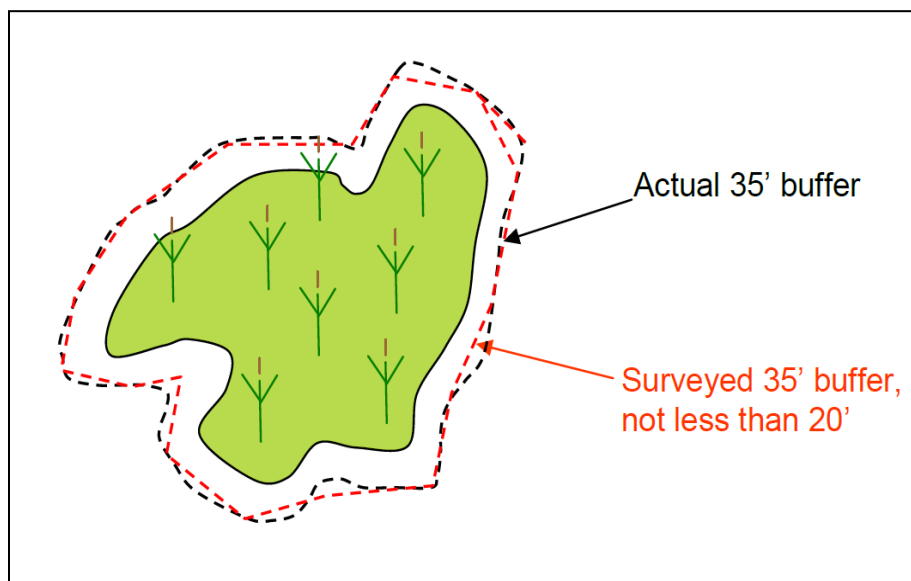
Non-navigable waterways

- Including lakes, rivers, streams and ponds identified on USGS topographic maps or Brown County GIS.
- Waterways determined to be non-navigable by Brown County or the DNR.
- Land within 35-feet from the top of bank of non-navigable waterways.
 - The 35-foot ESA setback from non-navigable waterways should be defined using lines that are, at minimum, parallel to the waterway. Points and straight lines that are surveyed and scaled should be used to define the boundary, similar to a meander line. In no instance shall the resultant points and straightened lines be closer than the designated ESA width.

Wetlands

- Including wetlands identified on a wetland delineation report with a supporting Wisconsin Department of Natural Resources and/or Army Corps of Engineers concurrence letter that is less than five years old, and in some cases, wetlands identified on the Wisconsin Department of Natural Resources wetland inventory.
- Wetlands that are less than two acres in size do not have an ESA setback.
- Land within 35-feet of wetlands that are two acres or larger than two acres in size (see example 2).
 - Wetland size is determined by the entire size of a wetland area. The wetlands area should not be divided into sub-polygons due to parcel lines, municipality lines, or county lines.
 - When there is no ESA setback to wetlands, the wetland boundary should be defined using points that are at the border of the actual ESA. Points and straight lines that are surveyed and scaled should be used to define the boundary, similar to a meander line. In no instance shall the resultant points and straightened lines be within the actual ESA.
 - The 35-foot ESA setback to wetlands should be defined using points that are a minimum of 35-feet from the actual ESA. The points should be connected with a straight line that is surveyed and scaled, similar to a meander line. In no instance shall the resultant straightened lines be closer than 20-feet from the actual ESA.

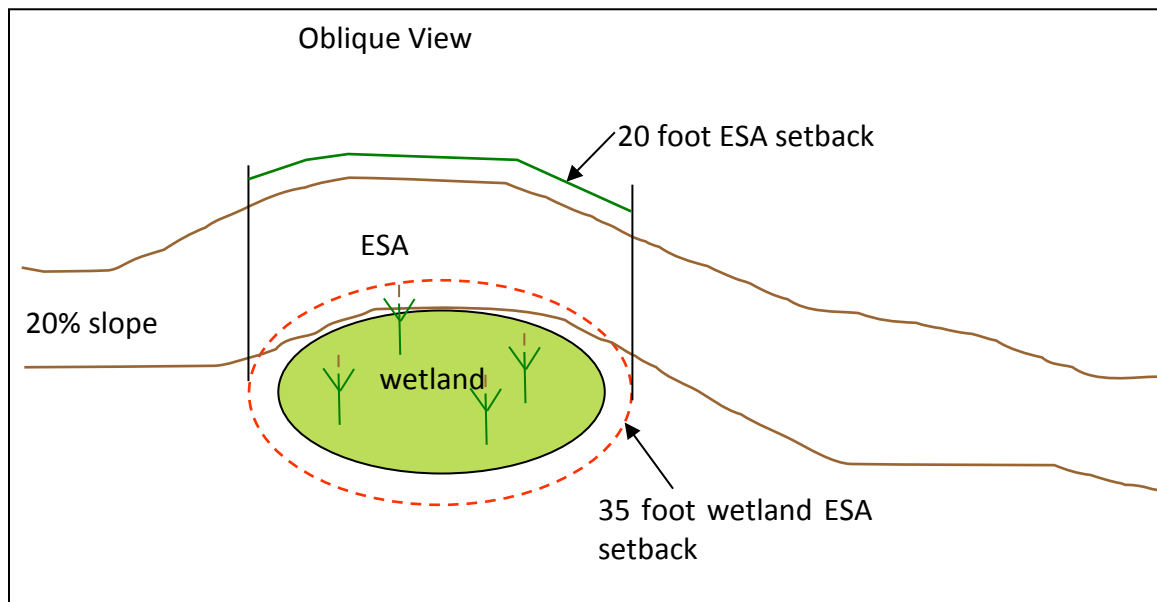
Example 2.



Steep Slopes

- Including land within 20-feet from the top and bottom of steep slopes that are 20% or greater that are located within and extend beyond any of the aforementioned natural resource features. The steep slope is also considered part of the ESA (see example 3).
 - o Lands with 20% or greater of slope that extend out from an ESA and are not part of a continuous ravine to the ESA shall be considered “lands unsuitable for building” until such time as a geotechnical report proving its suitability is provided to Brown County staff.
 - o Cutting and filling necessary to provide proper grade for walk-out basements is permitted within a steep slope ESA setback.
 - o The 20-foot ESA setback to steep slopes should be defined using points that are a minimum of 20-feet from the actual ESA. The points should be connected with a straight line that is surveyed and scaled, similar to a meander line. In no instance shall the resultant straightened lines be closer than 15-feet from the actual ESA.

Example 3.



Other Significant Natural Resource Features

Including (on a case-by-case basis) river and stream headwaters, groundwater recharge areas, unique woodlands, high-value wildlife habitat areas, geologic and natural area sites, wet and poorly drained and organic soils, and areas identified in the *Wisconsin Land Legacy Report* and where rare plants, animals, and natural communities are known to be located as identified in *Wisconsin's Natural Heritage Inventory*. Updated information regarding plant species is available online at <http://dnr.wi.gov/topic/erreview/publicportal.html>.

Karst features may appear to fall into this category but are not considered environmentally sensitive areas. Rather, karst features are considered land unsuitable for building and have a ten-foot setback. Karst areas can include certain steep slopes such as the Niagara Escarpment, exposed and cracked bedrock, etc.

Significant Man Made Features

It is very important to note that the intent of the environmentally sensitive areas concept set forth in the *2040 Brown County Sewage Plan* is to identify, protect, and preserve natural water and water-related resource features on a countywide basis. Man-made water-related features, such as ponds created by or as part of quarrying and storm water management or agricultural operations, are not to be identified as ESAs. However, should appropriate regulatory agencies determine that such man-made features are waters of the United States or waters of the state and if developed or disturbed would pose a significant threat to water quality, the ESA criteria and restrictions set forth in this plan shall apply.

Protective Areas

Protective areas have been created and are enforced by the Wisconsin Department of Natural resources to protect wetlands that have plant communities most sensitive to nutrient enrichment and sedimentation. Some protective areas are more restrictive than Brown County ESA's, and some protective areas are less restrictive. The width of a protective area is based on the sensitivity of the resource to the runoff stressors (nutrients or siltation).

Per NR 151, protective areas are areas of land that commence at the top of the channel of lakes streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the following widths, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface. Protective areas do not include land areas that do not contribute runoff to wetlands or waterways.

Natural Heritage Inventory

Established in 1985 by the Wisconsin legislature, Wisconsin's Natural Heritage Inventory program (NHI) is part of an international network of inventory programs. The NHI program is responsible for maintaining data on the locations and status of rare species, natural communities and natural features throughout the state. Species and natural communities tracked by the Wisconsin NHI Program can be found on the NHI Working List.

Natural communities where rare plants and animals on the NHI exist may also be considered ESA's. Appendix B in this plan includes lists of rare species and natural communities in the Brown County area, broken down by Township and Range. The following hyperlink connects to the most up-to-date inventory that is maintained by the Wisconsin Department of Natural Resources:

<http://dnr.wi.gov/topic/NHI/>

Table 5-1: Environmentally Sensitive Area Summary

ESA	ESA/Setback Requirement
Navigable waterway with flood study	Waterbody is ESA. 75-feet* from OHWM is ESA.
Navigable waterway without flood study	Waterbody is ESA. 75-feet* from OHWM is ESA.
Floodway	Floodway is ESA. 35-feet** from floodway is ESA.
Non-navigable waterway	Waterbody is ESA. 35-feet* from top of bank is ESA.
Wetland	Wetland*** is ESA.
Wetland greater than two acres	Wetland is ESA. 35-feet** from wetland is ESA.
Other significant natural resources	Including (on a case-by-case basis) river and stream headwaters, groundwater recharge areas, unique woodlands, high-value wildlife habitat areas, geologic and natural area sites and wet, poorly drained and organic soils, and areas identified in the <i>Wisconsin Land Legacy Report</i> and where rare plants, animals, and natural communities are known to be located as identified in <i>Wisconsin's Natural Heritage Inventory</i> .
Steep slopes that are 12% or greater	Slope ranging from 0% to 19.9% is not an ESA.
Steep slopes that are 20% or greater	Slope*** is ESA. 20-feet**** from top and bottom of slope is ESA.

* The 75-foot ESA setback and 35-foot ESA setback from navigable waterways and non-navigable waterways should be defined using lines that are, at minimum, parallel to the waterway. Points and straight lines may be used to define the boundary; however, in no instance shall the resultant straightened line be closer than the designated ESA width.

** The 35-foot ESA setback to wetlands and floodways should be defined using points that are 35-feet from the actual ESA. The points should be connected with a straight line that is surveyed and scaled, similar to a meander line. In no instance shall the resultant straightened line be closer than 20-feet from the actual ESA.

*** When there is no ESA setback to wetlands, the wetland boundary should be defined using points that are at the border of the actual ESA. The points should be connected with a straight line that is surveyed and scaled, similar to a meander line. In no instance shall the resultant straightened line be within the actual ESA.

**** The 20-foot ESA setback to steep slopes should be defined using points that are 20-feet from the actual ESA. The points should be connected with a straight line that is surveyed and scaled, similar to a meander line. In no instance shall the resultant straightened line be closer than 15-feet from the actual ESA.

Incompatible Activities and Uses

As stated in this chapter's goals, objectives, and policies, it is intended that:

- The discharge of pollutants from both point and nonpoint sources into waters of the United States and waters of the state be eliminated.
- Major areas unsuitable for the installation of waste treatment systems because of physical or environmental constraints be included in the sewer service area but clearly identified as unbuildable areas for public and private sewers.
- Areas that pose potential for adverse impacts on the quality of the waters of the state from point or nonpoint sources of pollution be considered for inclusion in the sewer service area but clearly identified as unbuildable areas for public and private sewers.
- Water quality levels that are "fishable" and "swimmable" be attained.

Therefore, environmentally-unsound development shall be prohibited within ESAs. In addition, private sewered development and associated land-disturbing activities, such as filling, excavation, grading, and clearing, will be prohibited within ESAs. Sewered development includes the construction, expansion, or replacement of:

- Impervious surfaces, swimming pools, concrete patios, private pathways.
- Structures and objects with a foundation including houses, outbuildings, sheds, garages, and fences.
- Other accessory structures and impervious surfaces associated with any of the above, such as garages, storage buildings, and parking areas.
- Private golf courses, campgrounds, man-made ponds, etc., if associated with any of the above.

It is also important to note that the environmentally sensitive area concept may be incorporated into other County programs and regulations, including Chapters 10 (Agricultural Shoreland Management), 21 (Land Division and Subdivisions), 22 (Shorelands, Floodplains, and Wetlands), and 26 (Animal Waste Management) of the Brown County Code of Ordinances. Under these County ordinances, similar restrictions may apply to non-sewered development and certain agricultural activities. It is strongly recommended that this plan and those ordinances be consulted before any development or land-disturbing activities are undertaken within Brown County.

Compatible Activities and Uses

As stated in this chapter's goals, objectives, and policies, it is intended that water quality management issues be addressed in an economically-feasible and environmentally-sound

manner. It is also stated that the use of environmentally sensitive areas for such mutually compatible uses as environmental protection, public recreation, storm water management, and environmentally-sound wastewater collection and treatment systems be allowed and encouraged. Therefore, certain activities are permitted within ESAs. These permitted activities are also in keeping with the *2040 Brown County Sewage Plan* intent to promote a countywide ESA concept.

The extension of public and private infrastructure and utilities (such as roads, sanitary sewers, water mains, storm sewers, gas lines, and fiber optic cables) across ESAs to enable the provision of such service to development located outside the ESAs is herein allowed, and an ESA amendment shall not be required. However, such disturbances of ESAs must be noted in the water quality management (208) sanitary sewer extension letters and in the subject sewer plans and specifications, so that an environmental review of the proposed action can be conducted, if necessary, during DNR review of the sewer plan. In such instances, appropriate caution and care must be exercised so that any disturbance to the ESA is minimized and the subject area is returned as much as possible to its pre-disturbed conditions. Such infrastructure and utilities should also be designed and constructed to the greatest extent possible so that once built will not have to be replaced or augmented and will minimize disturbance of ESAs. However, if local, county, or state representatives determine that the extent or nature of the disturbance of the ESA may be significant, such agencies may require the preparation, approval, and implementation of a restoration plan and/or erosion control plan.

In addition, with receipt of all necessary local, county, state, and federal permits and approvals and when designed to minimize environmental impacts, development of the following facilities shall also be allowed within ESAs:

- Passive recreation facilities that are available for public use (bicycle trails, walking trails, etc.).
- Storm water management (ponds, detention/retention areas, swales, etc.) when properly demonstrated that the facility does not fit or function elsewhere on a property.
- Environmentally-sound public wastewater collection and treatment systems (wastewater treatment plants, interceptor sewers, forcemains, lift stations, gravity sewers, etc.).
- Public utilities that are routed to minimize impact, or better yet, avoid impact on an ESA.

An ESA amendment shall not be required for such activities when all required permits and approvals are received, mitigation plans for any potential adverse water quality related impacts (degradation of the chemical, physical, and biological integrity of the waters of the United States and waters of the State, including loss or damage to fish and aquatic life, wildlife and recreation, and public water supplies or significant increases of pollutant loadings from point or non-point sources) have been approved by the appropriate regulatory agencies, and proper

prior notification of the ESA impact has been submitted to all affected agencies, including the Bureau of Water Quality of the WDNR.

To avoid the duplication of regulatory efforts, to streamline ESA amendments where possible and appropriate, and to maximize consistency between related regulatory programs, the following process will be implemented. This process does not apply to the compatible activities noted above unless an ESA delineation or location would change as a result of a proposed project.

- The Northeastern Region DNR will provide the Brown County Planning Commission a copy of all applications for Chapter 30 permits, and other applicable permits.
- The Brown County Planning Commission staff will notify the Northeastern Region DNR staff of the presence of any ESAs within the proposed project. If present and anticipated to be affected by the proposed project, the Northeastern Region DNR will require the applicant to so indicate in any public notification and/or public input component associated with the permit process.
- The Brown County Planning Commission staff will notify the Northeastern Region DNR staff during the permit review period of any water quality and ESA- related concerns associated with the proposed project as set forth under Wisconsin Administrative Code NR 121.
- Upon review and consideration of all appropriate information, including that submitted by the Brown County Planning Commission staff, the Northeastern Region DNR shall correspondingly approve, deny, or add conditions to the permit as appropriate and as provided by law.
- If any ESA delineation or location changes are to occur, the Northeastern Region DNR will provide a copy of any permit or approval and supplemental information, if any, to the Brown County Planning Commission.
- The Brown County Planning Commission will then prepare a summary and map outlining the change to the affected ESA, will include a copy of the permit, and will submit that information to the Northeastern Region DNR, as well as to the DNR's central office in Madison, as an official record of the change to the areawide water quality management plan.

Storm water management practices and facilities within ESAs do, however, require an ESA amendment in those instances when any element of the ESA (such as the floodway, wetland, or buffer) decreases in size.

Land that is platted by subdivision plat or certified survey map shall be subject to the ESA definition that was in effect at the time of local approval. Development or redevelopment will

not be allowed within navigable waters, floodways, wetlands, and steep slopes without approval of the BCPC and the WDNR. Revisions to established ESAs and ESA setbacks, to reflect current requirements, should be made by the property owner petitioning a Plan Correction amendment and the property owner preparing and recording an affidavit that demonstrates any approved revisions.

Additional compatible activities within ESAs are referenced in Appendix C of this plan.

Applicability

Pursuant to the federal and state areawide water quality management planning rules and regulations previously noted in this plan, these ESA restrictions pertain only within approved sanitary sewer service areas and only to sewered development. State policy also requires that the provisions of this county sewage plan be consistent with all other elements of the areawide water quality management plan, including nonpoint source priority watershed plans, remedial action plans, and wastewater treatment plant facility plans. Enforcement of these requirements will occur during the “WQM” or “208” letter conformance review undertaken for all public and private sanitary sewer extensions. Failure to abide by the requirements of this County sewage plan and the areawide water quality management plans of which it is part may result in a denial of sanitary sewer service to the concerned project.

Development utilizing onsite sewage disposal systems, even if located within a sewer service area, is not regulated by the rules of the *2040 Brown County Sewage Plan* but may be subject to other state, county, or local regulations. In addition, this ESA concept may soon be incorporated into Brown County Code of Ordinances Chapters 10, 21, 22, and 26. It is intended that the requirements contained within the *2040 Brown County Sewage Plan* be implemented cooperatively with these ordinances and with applicable federal, state, and local rules and regulations, including, but not limited to, the Federal Clean Water Act, Wisconsin Administrative Codes NR 103, 115, 116, 117, 121, 151, 216, and 299, and local zoning ordinances. Therefore, prior to any development or land-disturbing activity within the planning area, these plans, ordinances, rules, and corresponding regulatory agencies should be contacted to determine the feasibility of the proposed project.

It is intended that this plan be a “living document.” ESA features and the basis for their delineation obviously may change over time for a variety of reasons. To accommodate reasonable and justifiable changes to the delineation of an ESA, this plan also sets forth procedures and criteria to be followed in addressing those situations. Such procedures and their criteria are termed ESA amendments and are detailed in the Amendment Application Manual.

It should also be noted that the sanitary sewer service area maps set forth in the *2040 Brown County Sewage Plan*, and, the environmentally sensitive areas shown are a representation of conditions at the time of map preparation. Such physical features may change over time from natural or human causes. Therefore, it is extremely important that appropriate regulatory personnel, prior to any land-disturbing activity, verify the presence and location of navigable waters, non-navigable waters, floodways, wetlands, steep slopes, and other similar natural

resource features. Such verified information shall supersede and replace any previously mapped information set forth in this plan.

Emerging Issues and Trends

Over the past several years, the State of Wisconsin undertook a redesign of its entire nonpoint source pollution program, including programs administered by the Department of Natural Resources, the Department of Agriculture, Trade and Consumer Protection, the Department of Transportation, and the Department of Commerce. This effort is intended to advance the state's progress in addressing nonpoint source water quality problems.

Nonpoint source pollution is considered to be Wisconsin's greatest cause of water quality concern adversely affecting about 40 percent of its streams, about 90 percent of its inland lakes, many of the Great Lakes harbors and coastal waters, and a substantial portion of its groundwater resources.

The Department of Natural Resources, the Department of Agriculture, Trade and Consumer Protection, the Department of Transportation, and the Department of Commerce are working cooperatively to update statewide performance standards and prohibitions to resolve many nonpoint source water pollution impacts. When these statewide standards are inadequate to meet local water quality goals, targeted performance standards requiring a higher level of treatment or protection may be established. The performance standards as proposed will apply to:

- Agricultural practices.
- Non-agricultural practices.
- Transportation practices.

The goals of these redesigned programs are to:

- Reduce the average annual sediment load carried in runoff by 80 percent.
- Maintain or lower runoff rates to certain specifications.
- Control the volume of runoff through infiltration.
- Create and maintain buffer areas.
- Reduce total suspended solids within many metropolitan areas by 20 percent by March 2008 and by 40 percent, or to the maximum extent practicable, by March 2013.
- Ensure that all crop producers achieve a soil erosion rate equal to or less than the "T" (tolerable) rate on cropped fields.

- Establish and maintain concentrated flow channels in many cropland areas.
- Meet TSS removal and phosphorous reduction requirements of any approved TMDL.

These changes have immediate and significant impacts upon other regulatory programs, including the areawide water quality management planning program and, by extension, the *2040 Brown County Sewage Plan*. It is, therefore, recommended that upon approval of any additional changes or updates to the state's nonpoint source pollution program, the *2040 Brown County Sewage Plan* be immediately reviewed to ensure its continued compliance with applicable federal and state rules and regulations.

Chapter 6: Implementation

History

Brown County Planning Commission is the local administrative authority for the implementation of the *2040 Brown County Sewage Plan*. The cooperation of local municipalities, sanitary districts, utility districts, and sewerage districts is necessary for the success of the plan. Recognized as a major implementation tool of the DNR's four areawide water quality management plans which pertain to Brown County and of the Brown County Land Use and Transportation Plan, the *2040 Brown County Sewage Plan* provides direction to the fulfillment of future land use, development, and environmental goals and objectives. In addition to local support, the actions of state authorities, such as the Wisconsin Department of Natural Resources Bureau of Water Quality, will also greatly impact the success of this plan.

Goals, Objectives, and Policies

Goal #1

Include plan procedures and mechanisms for intergovernmental cooperation and public participation.

Objectives for Goal #1

- Cooperate with areawide 208 planning agencies in identifying appropriate technologies for each wastewater treatment facility.
- Establish and maintain the relationship of the sewer service area planning process to the Oneida Tribe of Indians of Wisconsin and to those communities located outside of Brown County but within the planning area.
- Work closely with communities, sanitary districts, utility districts, and sewerage districts in providing data and planning expertise during the development of facility plans.
- Assist communities, sanitary districts, utility districts, sewerage districts, and private homeowners in procuring financial assistance through the "Wisconsin Fund" and "Clean Water Fund."
- Evaluate, on a case-by-case basis, the economic and environmental impacts of proposed regional sewerage service alternatives on existing Brown County sewerage facilities.
- Coordinate, evaluate, and monitor the actions of local and state authorities on adherence to county land use goals, objectives, and policies.

Recommendations

It is recommended that the following steps be taken to implement this plan:

1. The *2040 Brown County Sewage Plan* should be submitted to the Wisconsin Department of Natural Resources Bureau of Water Quality for review and acceptance, prior to formal review and approval by the Brown County Planning Commission Board of Directors.
2. The *2040 Brown County Sewage Plan* should be formally approved by the Brown County Planning Commission Board of Directors. While not required, the plan will then be forwarded to the governing bodies of the cities, villages, and towns within the planning area impacted by this plan and to the governing bodies of the operators of the wastewater treatment facilities within Brown County for use as a guide for the identification of sanitary sewer service areas and for the provision of public sanitary sewer service.
3. The *2040 Brown County Sewage Plan* should be formally approved by the Wisconsin Department of Natural Resources Bureau of Water Quality as an amendment to the four water quality management plans (Lower Fox River, Twin-Door-Kewaunee River, Upper Green Bay, and Manitowoc River) which pertain to the planning area.
4. The Brown County Planning Commission, Brown County Land Conservation Department, and the Brown County Zoning Department should review their land division and subdivision, shoreland zoning, and other related ordinances for potential amendments so policies expressed in the ordinances reflect the urban service and environmental protection recommendations in the *2040 Brown County Sewage Plan*.
5. The cities, villages, towns, sewerage districts, utility districts, and sanitary districts within the planning area should review their land division and subdivision ordinances, zoning ordinances, comprehensive plans, and utility extension policies to ensure that the policies expressed in the ordinances, plans, and policies reflect the urban service and environmental protection recommendations in the *2040 Brown County Sewage Plan*.
6. The Brown County Planning Commission should review and comment on all public and private sanitary sewer extensions, wastewater treatment facility plans, and sewer service area and environmentally sensitive area amendments within the planning area related to conformance with the *2040 Brown County Sewage Plan* and the DNR's water quality management plans.

Other Considerations

In addition to the above, there are additional programs and policies that impact implementation of the *2040 Brown County Sewage Plan*. The programs and policies include the Wisconsin Department of Safety and Professional Services Chapter SPS 383.

Chapter SPS 383

Wisconsin Department of Safety and Professional Services Chapter SPS 383 will establish uniform standards and criteria for the design, installation, and maintenance of private sewage systems, POWTS, so that the systems are safe and will protect health and waters of the state. SPS 383 does not dictate or prioritize specific solutions or the selection of systems. Rather, the chapter delineates the critical factors, parameters, options, prohibitions, and limitations for the design of privately-owned wastewater treatment systems.

Financial Assistance

The Clean Water Fund

The Clean Water Fund (CWF) is a State of Wisconsin environmental loan program that was established in June 1990. The purpose of the fund is to provide financial assistance to municipalities for wastewater treatment facilities and urban storm water runoff projects. The Clean Water Fund intended to fill the void in funding sources when the federal government phased out its wastewater project funding in 1994. The Department of Natural Resources (DNR) is the primary administrator of the CWF program, and the Department of Administration is the financial manager for the CWF program.

The CWF provides funds for projects to build new wastewater treatment plants, modify or expand existing treatment plants, construct interceptors, or build a sewer system in an unsewered area. Funds for these various projects are available only for a Wisconsin town, village, city, county, town sanitary district, or lake protection district. Other entities that may benefit are metropolitan sewerage districts and federally recognized Indian tribes but not individual homeowners or businesses. Eligible candidates for the Clean Water Fund can receive funding for wastewater and storm water projects with a total project cost of less than \$1,000,000.

Before a municipality begins its project, it is recommended that the community contact the DNR because the proposed project must be approved by the DNR if a loan is granted. The municipality must have a wastewater user charge system that is fair and equitable. If not already in place, a replacement or depreciation fund must be established to replace equipment that will wear out during the life of the treatment plant. Also, the community must be able to afford the proposed loan payments.

Finally, the Clean Water Fund is an important tool that municipalities can utilize when in need of financial assistance. In addition to benefiting the community that receives the loan, others can utilize available money from future loans made from the repayment of Clean Water Fund loans in the form of a revolving loan fund. The loan program also provides an incentive for users to conserve water resources since a more realistic cost of capital will be reflected in the user charges. Last, since grants provide cost-free capital, they tend to keep user charges artificially low.

Chapter 7: Public Involvement

History

Public involvement is a critical component of any plan, and the *2040 Brown County Sewage Plan* is no exception. Successful long-term implementation of a plan is dependent upon the extent of public participation. Without public understanding and support of a plan's goals, objectives, policies, and recommendations, successful implementation would not occur.

The State of Wisconsin realizes this and has included within Administrative Code NR 121 the requirement that to receive Wisconsin Department of Natural Resources Bureau of Water Quality approval of an areawide water quality management plan, the plan (and its various elements) must be subjected to a public participation process, including, at a minimum, a public hearing. NR 121 also defines the public participation process as the implementation of activities developed to involve individual members of the public, local government officials, and other stakeholders in the areawide water quality management process. This process normally includes both public meetings and public informational hearings.

Opportunities for public involvement in the preparation of the *2040 Brown County Sewage Plan* included:

- The inclusion of the Brown County Planning Commission Board of Directors during three meetings, open to the public in 2013, 2014, and 2015, where updates of the Brown County Sewage Plan as the project developed.
- Monthly reporting of the status of the plan to the Brown County Planning Commission Board of Directors in written staff activity report format.
- Quarterly reporting of the status of the plan to the Wisconsin Department of Natural Resources Bureau of Water Quality in written staff time report format.
- The inclusion of all municipalities and all sanitary districts during the review of acreage allocation. Also, all municipalities were involved, first hand, in the selection and acceptance of proposed maps establishing new sewer service areas.
- Preliminary plan preview by the Wisconsin Department of Natural Resources Bureau of Water Quality from January-May, 2015.
- Public hearing and plan review, without action, by the Brown County Planning Commission Board of Directors, open to the public on August 5, 2015.
- Plan review, with approval by resolution, by the Brown County Planning Commission Board of Directors, open to the public on September 2, 2015.

After approximately two years of work and direct involvement with municipalities, sanitary districts, and Brown County, the *2040 Brown County Sewage Plan* was approved by the Brown County Board of Directors at its September 2, 2015, meeting. A copy of the public hearing minutes, meeting minutes, and resolution approving the *2040 Brown County Sewage Plan* is included in Appendix D. It can be noted that of the four people who spoke at the public hearing, none objected to the plan.

Immediately after the Brown County Planning Commission Board of Directors acted to approve the *2040 Brown County Sewage Plan* the plan was forwarded to the Wisconsin Department of Natural Resources for final review and consideration.

By letter dated September XX, 2015, the Wisconsin Department of Natural Resources Bureau of Water Quality accepted and approved the final plan. The approval documentation is also included in Appendix D.

Chapter 8: Sewage Plan Amendment Process

I. Introduction

A. What Are Sewer Service Areas and Why Are They Important?

The Federal Clean Water Act requires that publicly-owned sewage treatment plants identify the areas they could serve within a 20-year time-period. In Wisconsin, these areas are called sewer service areas. These sewer service areas include all lands which are currently provided by public sanitary sewer service and all lands which are envisioned to receive public sanitary sewer service within the next 20 years.

Only those lands located within an approved sewer service area can receive sanitary sewer service.

Both federal and state regulations direct how these areas will be identified and who will do this. In Wisconsin, the Department of Natural Resources (DNR) is responsible for establishing all sewer service areas. In Brown County and certain adjacent areas, the DNR has delegated some of this responsibility to the Brown County Planning Commission (BCPC). The BCPC establishes sewer service areas in its county sewage plan. That plan was prepared in 1972 and was updated in 1982, 1987, 1995, 2003, and revised in 2011.

Using federal and state guidelines, the Brown County Planning Commission identifies sewer service areas for each community and/or sanitary district that has or is envisioned to receive sanitary sewer service within the next 20 years. These guidelines are based upon sound engineering, planning, and environmental principals and upon information contained within the DNR's Areawide Water Quality Management plans, local wastewater treatment plant facility plans, local and county comprehensive plans, cost-effectiveness studies, and state-prepared population projections. Usually, the larger the expected population of the community will be and the larger and better maintained the sewage treatment plant is, the larger its sewer service area can be.

Sound engineering, planning, and environmental principals often encourage that development to occur with public sanitary sewer service. Because of this, most communities use these sewer service areas to help plan their growth. Thus, the communities in Brown County work in cooperation with the BCPC to identify a sewer service area that will best meet their future needs.

Federal and state guidelines also allow the boundaries of the sewer service areas to be revised and adjusted when necessary. At a minimum, it is recommended that they be reviewed at least once every five years to determine if circumstances warrant any change.

More detailed information about the sewer service areas in each municipality can be found in Chapter 3 of the *2040 Brown County Sewage Plan*.

B. What Are Environmentally Sensitive Areas and Why Are They Important?

The Federal Clean Water Act and other federal and state regulations also require that any part of a sewer service area, which, if developed, could result in a significant adverse water quality impact, be identified and not provided sanitary sewer service. A significant adverse water quality impact would include any harm to surface or ground waters due to point or nonpoint source pollution. In addition, the incremental impacts of individually small actions, when they occur on a widespread basis throughout a watershed or along a water body, can also result in a significant adverse water quality impact. Examples of this include nonpoint source pollution, such as agricultural or construction site erosion, storm water runoff from roads and parking lots, or the incremental grading or filling of wetlands and floodlands.

The Brown County Planning Commission refers to such areas as environmentally sensitive areas (ESAs). They include natural resource features, such as lakes, rivers and streams, floodways, shorelands, wetlands, and steep slopes adjacent to these areas.

The Brown County Planning Commission may allow limited development within the ESAs for such purposes as public and private utilities or recreational uses. For the most part, however, development, grading, and filling within these areas is prohibited.

The protection and preservation of these environmentally sensitive areas can result in:

- cleaner, safer, and more abundant water for drinking and recreation;
- control of flooding and erosion;
- reduced water, air, and noise pollution; and
- provision of wildlife habitat and healthy ecosystems and protection of rare, threatened, and endangered plant and animal species.

Conversely, the development of these areas can result in:

- water pollution;
- wet and flooded structures and property; and
- failing foundations, pavements, and structures.

When developing land within a sewer service area, all environmentally sensitive areas must be identified and preserved to protect the environment and to prevent serious and costly development problems.

More detailed information about these environmentally sensitive areas can be found in Chapter 6 of the *2040 Brown County Sewage Plan*.

C. What Are Amendments and Why Are They Important?

The *2040 Brown County Sewage Plan* does two very important things:

- The plan identifies a sewer service area (SSA) for each community and sanitary district in Brown County which has or might receive sanitary sewer service by the year 2040; and
- The plan identifies environmentally sensitive areas (ESAs) within the sewer service areas.

Any change of these areas is referred to as an amendment. There can be sewer service area changes, environmentally sensitive area changes, or both, but all are referred to as amendments. Each sewer service area or environmentally sensitive area amendment must meet certain specific requirements and criteria, which have been established by the Wisconsin Department of Natural Resources and the Brown County Planning Commission. Detailed information concerning these requirements and criteria are provided later in this document.

D. Who Can Ask for Amendments?

Any official representative of the state or federal governments, the county, a city, village, town, sanitary district, utility district, or sewerage district can apply for an amendment. Such a representative is commonly referred to as the applicant.

If a landowner or developer is requesting an amendment, he must first obtain the support and approval of the local unit of government before the BCPC will accept and review the amendment.

E. Who Is Responsible for Reviewing Amendments?

The Brown County Planning Commission and the Wisconsin Department of Natural Resources are responsible for reviewing and approving all amendments. In addition, the BCPC staff also typically requires that the local unit of government review and concur with the amendment.

F. When Can Amendments Be Requested?

An amendment can be requested at any time. However, it is strongly recommended that the applicant get local approval of the change first and then meet with the staff of the Brown County Planning Commission to discuss the change. This is very important because an amendment is typically reviewed by the BCPC only if the local unit of government supports the request. In turn, the DNR will typically not review an amendment until it has first been reviewed by the BCPC. Also, the more information the applicant can provide supporting the request, the better the chances are that the amendment will be reviewed in a timely manner.

It is especially important that the applicant keep in mind that review by the Brown County Planning Commission and the Wisconsin Department of Natural Resources can take as long as three months or even longer for especially complicated amendments.

Remember, no sewered development or associated construction can occur until this review is complete and the amendment approved.

G. What Kinds of Amendments Are There?

The BCPC has created an amendment system in order to both facilitate a quicker turnaround in the review of those sewer service area changes which are small in scope and impact and to provide a closer more comprehensive review for those amendments which are more complicated.

As established by the Brown County Planning Commission, there are four amendment types:

- Minor Sewer Service Area Amendments (Type 1)
- Major Sewer Service Area Amendments (Type 2)
- Minor Environmentally Sensitive Area Amendments (Type 3)
- Major Environmentally Sensitive Area Amendments (Type 4)

There are also five amendment policies:

- Plan Correction (Policy #1)
- Acreage Swap (Policy #2)
- Existing Development (Policy #3)
- Special Regional Uses (Policy #4)
- Proper Land Use Planning (Policy #5)

Each amendment type and amendment policy has its own special set of requirements. These are presented in the following section of the *Amendment Application Manual*. In addition, each of the 15 different kinds of amendments has its own special set of criteria that must also be addressed. These criteria are presented in the third section of this manual.

H. How Do I Start?

The first step is to determine exactly what you want to do. When you know what property is involved and what it will be used for, check the Brown County Planning Commission's sewer service area maps to see if any changes need to be requested. The BCPC and the local community both have a larger color map of the sewer service area and the environmentally sensitive areas in their offices. A copy of these maps are also available for viewing and for downloading at the Brown County website (www.co.brown.wi.us/planning)

The second step is to check with the local unit of government to see if it will support your change. Remember, the Brown County Planning Commission will typically not review any change without local government support. It is also important at this time to notify any adjacent communities that may be affected by the proposed change. The Brown County Planning Commission will require that they also be provided an opportunity to review and comment on any amendment prior to action by the BCPC.

The third step is to contact the Brown County Planning Commission to arrange a meeting to discuss the change. The staff of the BCPC will let you know specifically what information you need to provide and will answer any questions you have about the amendment process.

The fourth step is to fill out the appropriate part of the *Amendment Application Manual* and gather any other information you need or want which supports your request. This can include maps, letters of support, technical studies, or special reports or plans. The more detailed and complete the information provided with the amendment application, the less likely that delays will occur. Review of the amendment by the BCPC typically does not begin until after all information requested in the *Amendment Application Manual* is provided to the BCPC.

It is important to note that the sewer service area guidelines set forth in Chapter 5, particularly those that deal with the expansion of sewer service area by one community into another community, must also be addressed in any amendment. Documentation of management area status, discussions with adjacent communities, and other similar information must be provided along with the amendment application.

In certain rare instances of documented hardship, the BCPC may review incomplete amendment applications or may approve the amendment contingent upon receipt of the missing information. In such instances, the missing information must not involve local support or engineering or environmental concerns associated with the amendment request. Applicable situations will be decided by BCPC staff on a case-by-case basis as discussed in Chapter 7 of the *2040 Brown County Sewage Plan*.

The last step is to provide the amendment application and any additional information to the Brown County Planning Commission. This must always include, at a minimum:

- documentation of appropriate support for the specific change;
- a map showing the requested change; and
- a letter explaining the change and its reasons.

Detailed information on the requirements and criteria for the various amendments is set forth in the following sections of this manual.

I. What Happens After an Amendment Is Provided to the BCPC?

When all required materials are submitted to the Brown County Planning Commission, the BCPC staff will have seven days to review the materials for accuracy and completeness. At this time, the BCPC may contact the Wisconsin Department of Natural Resources and any other concerned units or agencies of government for additional review and comment on this matter. Should all information be in order, the BCPC will have another 14 working days (for minor amendments) or 38 working days (for major amendments) to complete their review. A public hearing to obtain public comment will also be held.

- The four amendment types are summarized in a table found in Chapter 8 Section II. A.

If the submitted information is incomplete or in error, review will not begin until this problem is corrected. At the end of its review, the BCPC staff will submit a letter to the applicant indicating staff's decision.

Should the BCPC staff approve the amendment as submitted, or in a revised form, and should the applicant agree with the findings and conclusion of the BCPC, the agreed upon change will be reflected in the county sewage plan and in all related sewer service area planning efforts.

If the request was a minor amendment, the agreed upon change is then final.

If the request was a major ESA amendment that results in a net ESA loss of five acres or less, BCPC staff will arrange a public hearing on this matter. A summary of the amendment request and all related information would then be provided to the BCPC and the main office of the Wisconsin Department of Natural Resources in Madison if the amendment resulted in a net ESA loss. Should the BCPC staff approve the amendment as submitted or revised and should the applicant agree, the change is then final.

If the request was a major SSA amendment impacting five or more acres, or a major ESA amendment that results in a net ESA loss of any size, BCPC staff will arrange a public hearing on this matter. That same evening, the BCPC staff will present its findings and the public hearing comments to the Brown County Planning Commission Board of Directors. Should the Board of Directors approve the amendment as submitted or revised and should the applicant agree, the amendment request and all related information would then be provided to the main office of the Wisconsin Department of Natural Resources in Madison. Should the DNR approve the amendment as submitted or revised and should the applicant agree, the change is then final.

J. What If I Disagree With the Findings of the BCPC or the DNR?

Should the applicant disagree with the findings and decision of the Brown County Planning Commission staff regarding a minor amendment, the applicant may petition to be heard by the Brown County Planning Commission Board of Directors.

The procedure for petitioning the Brown County Planning Commission Board of Directors for review of an amendment is as follows:

- the applicant must submit a letter to the BCPC requesting that the Board of Directors review the amendment request; and
- the applicant must resubmit the request as a major amendment. Review of the amendment request will then proceed as outlined under major amendments.

Should the applicant disagree with the findings and recommendation of the Brown County Planning Commission Board of Directors regarding a major amendment, the applicant may so indicate to the Wisconsin Department of Natural Resources when the BCPC submits its materials and information to the DNR.

The Wisconsin Department of Natural Resources will review and consider this matter and will then issue its decision. Their decision on this matter is final.

II. Amendment Requirements

Every amendment request must meet the requirements of at least one of the four amendment types and at least one of the five amendment policies.

Also as previously noted, all amendments must be based upon sound engineering, planning, and environmental principals. If an expansion of a sewer service area by one community into another community is involved, documentation indicating conformance with the guidelines set forth in Chapter 4 regarding this matter is also necessary. Furthermore, all amendments must be in conformance with pertinent federal, state, county, and local rules and regulations, not the least of which include federal and state water quality certification procedures, county shoreland and subdivision ordinances, and local zoning. And last, all amendments should also generally be consistent with local wastewater treatment plant facility plans, local and county comprehensive plans, cost-effectiveness studies, and state-prepared population projections.

A. Amendment Types

The following four amendment types have been created in order to recognize the differences between sewer service area changes and environmentally sensitive area changes. The four amendment types have also been created to distinguish amendments that have a smaller scope and impact from those amendments that have a larger impact and warrant a more detailed review.

Type	Amendment	Requirements	Approving Agent
Type 1	Minor Sewer Service Area Amendments	Amendment proposes that less than five acres of the existing (or previously amended) SSA are affected, and multiple amendments are not petitioned.	BCPC Staff
Type 2	Major Sewer Service Area Amendments	Amendment proposes that five or more acres of the existing (or previously amended) SSA are affected.	BCPC Staff BCPC Board of Directors WDNR
Type 3	Minor Environmentally Sensitive Area Amendments	Amendment proposes that less than five acres of the existing (or previously amended) ESA and ESA buffer are affected or changed, and no net loss of ESA occurs.	BCPC Staff
Type 4	Major Environmentally Sensitive Area Amendments	Amendment proposes one of the following: 1. Five or more ESA acres are affected no net ESA loss. 2. Any amount of ESA acres are affected with a net ESA loss.	1. BCPC Staff ----- 2. BCPC Staff BCPC Board of Directors WDNR

B. Amendment Policies

An amendment policy is a description of the reasons and justification for the sewer service area or environmentally sensitive area change. Both the DNR and the BCPC require that sound engineering, planning, and environmental principals justify all amendments. Such principals are typically based upon consistency with state official population forecasts, local, county, and state plans, ability to provide cost-effective sanitary sewer service, etc. The *2040 Brown County Sewage Plan* has identified the following five amendment policies:

- **Plan Correction (Policy #1).** Corrections to a sewer service area or environmentally sensitive area can be made to fix an error in the maps or data of the county sewage plan or to reflect more accurate and up-to-date information due to an approved regulatory change or field determination. Plan Corrections are performed at a staff level by BCPC staff.

Specific examples of changes that qualify under this policy include:

- sewer service area boundary clarifications as a result of an agreement between two or more communities concerning an existing shared boundary;
- environmentally sensitive area boundary changes made as a result of a DNR-approved flood study. (However, applicable ESA setback/buffers within the subject location, such as the minimum navigable stream setback, steep slopes, or wetland setback/buffers, would still apply.);
- environmentally sensitive area boundary changes as a result of an Army Corp of Engineers and DNR-approved wetland field verification. (However, applicable setback/buffers within the subject location, such as the steep slopes or wetland setback/buffers, would still apply.);
- environmentally sensitive area boundary changes as a result of a DNR or Brown County Zoning Department navigability determination. (However, applicable setback/buffers within the subject location, such as the minimum navigable stream setback, minimum navigable stream setback, steep slopes, or wetland setback/buffers, would still apply.);
- environmentally sensitive area boundary changes as a result of more accurate and detailed topographic mapping (typically to refine steep slope locations and extent); and
- environmentally sensitive area boundary changes as a result of a detailed storm water management plan and/or Chapter 30 permit approved by all appropriate regulatory agencies. Such changes can include the addition or relocation of non-navigable streams and appropriate setback/buffers and changes to slopes. Applicable setback/buffers may also be revised if specifically reviewed and approved by the appropriate regulatory agencies (typically the local community and the DNR under its NR 216 or Chapter 30 permit programs).

- **Acreage Swap (Policy #2).** Removing land from one location within a sewer service area or environmentally sensitive area and replacing the same amount and type of land back within another location.

The lands to be removed and added must typically not result in the creation of a “hole,” “island,” or narrow extension of SSA. An exact acre for acre swap is preferred. If the acreage swap is not exact then the amount being added should exceed the amount being removed.

- **Existing Development (Policy #3).** Sewer service areas and environmentally sensitive areas may be revised to accommodate areas of existing development provided that such changes can be accomplished in a cost-effective and environmentally-sound manner and other options or alternatives have been similarly considered.

Specific examples of changes that qualify under this policy include:

- sewer service area boundary changes as a result of addition of existing development with currently functioning onsite sewage disposal systems. Such changes must undertake a facilities plan and cost-effectiveness study which determines that the best long-range solution for sewage disposal of the subject area is a connection to the proposed public sewer system. These studies must investigate and compare all reasonable alternatives, including use of conventional and non-conventional onsite sewage disposal systems, including community onsite sewage disposal systems, deferment of connection to public sewer until connection is cost effective, and connection to other public sewer systems. When such changes are fully consistent with local and county “Smart Growth plans” for the extension of urban services, such as public sanitary sewer and water service, such developed lands may be added to the appropriate SSA without application of the population projection acreage allocation analysis. All other amendment criteria would apply, however.
 - sewer service area boundary changes as a result of addition of existing development with failing onsite sewage disposal systems. Such changes must undertake a facilities plan and cost-effectiveness study which determines that the best long-range solution for sewage disposal of the subject area is connection to the proposed public sewer system. These studies must investigate and compare all reasonable alternatives, including use of conventional and non-conventional onsite sewage disposal systems, including community onsite sewage disposal systems, deferment of connection to public sewer until the connection is cost effective, and connection to other public sewer systems. Such developed lands may be added to the appropriate SSA without application of the population projection acreage allocation analysis. All other amendment criteria would apply, however.
- **Special Regional Uses (Policy #4).** Sewer service areas and environmentally sensitive areas may be revised provided there is a documented need for a unique facility or development

of regional or statewide importance and the change can be accomplished in a cost-effective and environmentally-sound manner. Significant adverse water quality impacts will not be allowed. An example includes development for which a special location is required (such as regional parks, prisons, landfills, and airports).

- **Proper Land Use Planning (Policy #5).** Sewer service areas and environmentally sensitive areas may be revised to reflect unanticipated growth and development trends when in accord with sound engineering, planning, and environmental principals. Such development must be in accord with local, county, regional, and state plans, rules, and regulations.

Specific examples of changes that qualify under this policy include:

- sewer service area changes as a result of assigning additional sewer service area acreage to the subject SSA, which had previously been held in reserve at the time of the last update of the county sewage plan;
- sewer service area changes as a result of loss (development) of previously vacant developable land within the SSA. The *2040 Brown County Sewage Plan* allows SSA acreage to be replenished when the amount of such acreage within the SSA falls below the amount stated in the approved population projection acreage allocation for that SSA;
- Sewer service area changes as a result of unanticipated rates of growth within the community; and
- Sewer service area changes as a result of intergovernmental services or boundary agreements between neighboring communities.

III. Amendment Criteria

This section of the *Amendment Application Manual* sets forth the detailed information relating to the criteria of each possible combination of the three amendment types and the five amendment policies. All submitted amendments must be consistent with at least one of the amendment types, one of the amendment policies, and the following pertinent criteria.

Although hardship cases may exist and may warrant conditional BCPC review and/or approval and special circumstances may sometimes warrant a unique approach in an amendment's review and consideration, the intent of this plan is to fully, consistently, and fairly apply the goals, objectives, policies, requirements, and criteria set forth in the *2040 Brown County Sewage Plan* and in this *Amendment Application Manual*.

However, in no instance shall an amendment be approved by the Brown County Planning Commission that is not in conformance with at least a preponderance of the following criteria nor shall an amendment be approved which does not promote the cost-effective and environmentally-sound provision of public sanitary sewer service.

Details of the amendment criteria are summarized in the checklists at the end of this section.

A. Letter from Municipality and Owners

All amendments, except Plan Corrections, should include letter(s) from the affected municipalities. Letters may be provided by the chief elected official of the community or organization, by its governing body, or by any representative authorized to speak on behalf of the community or agency on such matters. The letter should specifically reference the amendment and state if the municipality is in support of, objecting to, or not concerned with the amendment. If objecting, reasons should be stated.

A letter from a municipality allows an opportunity for the municipality to express support of or concerns regarding the amendment. A municipality letter in support or opposition of an amendment does not guarantee approval or denial of an amendment proposal. Concerns will be taken into consideration when final decisions of approval or rejection are made by the BCPC and/or the WDNR.

Letters of support from affected property owners are required for all ESA amendments but, while often helpful and beneficial, are not required from property owners for SSA amendments.

When an amendment is sponsored by the WDNR or the BCPC, reasonable efforts will be made to obtain local support. While a consensus among affected units of government will be sought, it is recognized that in some cases unanimous support of an amendment may not be achieved. The WDNR and the BCPC Board of Directors may take into account the concerned parties positions, weigh it against the regional aspects of the amendment, and make a final determination concerning the issues involved.

Amendments that fail to receive applicable state, county, or local support will not meet this criterion.

Type 1: Minor Sewer Service Area Amendment Checklist

Criteria	Policy #1	Policy #2	Policy #3	Policy #4	Policy #5
A. Letter from Municipality and Letter from Owners	YES	YES	YES	YES	YES
B. Letter of Intent/Explanation	YES	YES	YES	YES	YES
C. Map(s)	YES	YES	YES	YES	YES
D. Amendment Fee	YES	YES	YES	YES	YES
E. Cost-effectiveness Analysis	n/a	YES	YES	YES	YES
F. Sewage Conveyance and Treatment Analysis	n/a	YES	YES	YES	YES
G. Public Water Supply and System Analysis	n/a	YES	YES	YES	YES
H. Compliance with County and Local Comprehensive Plans	YES	YES	YES	YES	YES
I. Population Projection Acreage Allocation Analysis	n/a	YES	YES	n/a	YES
J. ESA Impact Analysis	YES	YES	YES	YES	YES
K. Erosion Control and Storm Water Management Analysis	n/a	YES	YES	YES	YES
L. Intergovernmental Cooperation and Coordination	YES	YES	YES	YES	YES

YES = required

n/a = not applicable

☐ = Policy is not an option

Type 2: Major Sewer Service Area Amendment Checklist

Criteria	Policy #1	Policy #2	Policy #3	Policy #4	Policy #5
A. Letter from Municipality and Letter from Owners		YES	YES	YES	YES
B. Letter of Intent/Explanation		YES	YES	YES	YES
C. Map(s)		YES	YES	YES	YES
D. Amendment Fee		YES	YES	YES	YES
E. Cost-effectiveness Analysis		YES	YES	YES	YES
F. Sewage Conveyance and Treatment Analysis		YES	YES	YES	YES
G. Public Water Supply and System Analysis		YES	YES	YES	YES
H. Compliance with County and Local Comprehensive Plans		YES	YES	YES	YES
I. Population Projection Acreage Allocation Analysis		n/a	YES	n/a	YES
J. ESA Impact Analysis		YES	YES	YES	YES
K. Erosion Control and Storm Water Management Analysis		YES	YES	YES	YES
L. Intergovernmental Cooperation and Coordination		YES	YES	YES	YES

YES = required

n/a = not applicable

■ = Policy is not an option

Types 3 and 4: Minor and Major ESA Amendment Checklist

Criteria	Policy #1	Policy #2	Policy #3	Policy #4	Policy #5
A. Letter from Municipality and Letter from Owners	YES	YES	YES	YES	YES
B. Letter of Intent/Explanation	YES	YES	YES	YES	YES
C. Map(s)	YES	YES	YES	YES	YES
D. Amendment Fee	YES	YES	YES	YES	YES
E. Cost-effectiveness Analysis	n/a	n/a	n/a	n/a	n/a
F. Sewage Conveyance and Treatment Analysis	n/a	n/a	n/a	n/a	n/a
G. Public Water Supply and System Analysis	n/a	n/a	n/a	n/a	n/a
H. Compliance with County and Local Comprehensive Plans	YES	YES	YES	YES	YES
I. Population Projection Acreage Allocation Analysis	n/a	n/a	n/a	n/a	n/a
J. ESA Impact Analysis	YES	YES	YES	YES	YES
K. Erosion Control and Storm Water Management Analysis	YES	YES	YES	YES	YES
L. Intergovernmental Cooperation and Coordination	YES	YES	YES	YES	YES

YES = required

n/a = not applicable

☐ = Policy is not an option

B. Letter of Intent/Explanation

All amendments must include a letter from the applicant that fully explains the purpose and intent of the amendment. The letter must also identify the subject area and which amendment type and policy are applicable.

Inclusion of any other information that would support the amendment request is also strongly encouraged.

Amendments that fail to provide an appropriate letter of intent/explanation will not meet this criterion.

C. Map(s) of Subject Area/Amendment Request

All amendments must include a map or maps of the subject area. The map(s) must specifically identify the proposed changes at a scale and detail acceptable to BCPC staff. The map(s) shall not only identify the subject area but shall also identify all other information applicable to the amendment request. The applicant must contact BCPC staff prior to submittal of an amendment request in order to determine specific mapping requirements.

While map(s) for minor SSA and Policy #1 amendments need not be to scale and can be similar in nature to a sketch plan, map(s) for all other amendments shall be to scale and shall be adequately detailed to accurately and legibly show all pertinent information.

For SSA amendments, mapping requirements should generally include:

- the extent of the subject area.
- the location of pertinent municipal boundaries, property boundaries, sanitary district/sewerage district boundaries, sanitary sewers and other major utilities, easements, rights-of-way, land uses, and zoning districts within and immediately adjacent to the subject area.
- the generalized location, extent, and identification of proposed development and land-disturbing activities.
- the generalized location and extent of erosion control and storm water management activities.
- the generalized location and extent of pertinent major natural resource features, such as lakes, rivers, streams, floodlands, wetlands, and steep slopes. Of particular importance is the identification of the ESAs.
- the location and extent of the existing and proposed SSA boundaries.

For ESA amendments, mapping requirements should generally include:

- the extent of the subject area.
- the location of pertinent municipal boundaries, property boundaries, easements, rights-of-way, land uses, and zoning districts. Of particular importance is the identification of such features as drainage easements, conservancy districts, and publicly- or privately-owned recreational lands.

- the location, extent, and identification of proposed development and land-disturbing activities.
- the location, extent, and identification of proposed erosion control and storm water management facilities.
- the location and extent of all pertinent natural resource features, such as lakes, rivers, streams, drainageways, floodlands, shorelands, wetlands, steep slopes, critical soils, and significant vegetative, topographical, geological, archeological, and historic features within and immediately adjacent to the subject area. All such pertinent features shall be field verified and approved by the appropriate regulatory agencies, and this verification shall be provided to BCPC staff.
- the location and extent of the existing and proposed ESA boundaries.

The greatest level of detail will typically be necessary for ESA amendments, as accurate locations of all pertinent physical and natural resource features are often critical to such an amendment's approval. Slightly less detailed mapping will typically be necessary for major SSA amendments, as only accurate locations of the proposed SSA boundary changes are critical. Less detailed mapping will typically be acceptable for minor SSA amendments.

BCPC staff may require additional mapping requirements on a case-by-case basis. Such additional mapping will typically be required when DNR and/or BCPC staff believes a possible adverse water quality impact may occur, when unique or critical natural resources are involved, or when mitigation or enhancement efforts are proposed. Examples of such mapping include detailed flood studies, geo-technical and slope analysis studies, grading and drainage plans, detailed erosion control and storm water management plans, soil surveys, vegetation surveys, and landscaping plans.

Amendments that fail to provide appropriate detailed maps will not meet this criterion.

D. Amendment Fees

An amendment review fee will be charged for most amendments to help defray the cost involved with Brown County Planning Commission's review and documentation of the amendment request.

Those amendments which meet the requirements of Policy #1 or which are sponsored by the DNR or BCPC shall not be subject to an amendment fee.

The fee for all other major and minor amendments shall be the county fees as established by the County Board at the time the proposed amendment is submitted for review. This fee must be submitted to the Brown County Planning Commission in full at the time of the amendment's submittal.

Amendments that fail to provide the appropriate amendment fee will not meet this criterion.

E. Cost-Effectiveness Analysis

Most amendments will be required to provide a cost-effectiveness analysis. Such an analysis will not be necessary for amendments that meet the requirements of Policy #1.

For all other amendments, the analysis should include a brief review of the relationship of the subject area to adjacent SSAs, ESAs, sanitary and sewerage districts, and sewerage systems, other options or alternatives available for resolution of the subject issue, and the reasons for selection of the preferred alternative.

For major SSA amendments under Policy #3, the analysis should specifically include a discussion of why continued use of onsite sewage disposal systems was not chosen, why the extension of public sewers could not be deferred until a regularly scheduled update of the county sewage plan could be prepared, and what other options or arrangements for the provision of public sewer service could have been made. Costs associated with the provision of onsite and public sewer should be identified and compared. The comparison should be made for both sewered development densities, as well as unsewered development densities, and for both a 20-year and a 50-year timeframe. A facilities plan should also be prepared which indicates the extent of failing onsite systems, the probability of other adjacent systems failing, and a detailed comparison of other alternatives for both onsite and public sewer service.

For major ESA amendments, the analysis should include a discussion of why an alternative design, development, or land use which would not have required an ESA amendment could not have been pursued and why a lesser level of intrusion into the ESA could not have been accomplished.

Amendments that fail to provide the appropriate cost-effectiveness analysis that indicates that the amendment is the most cost-effective alternative (within commonly accepted margins of error and barring any over-riding environmental or social concerns) will not meet this criterion.

F. Sewage Conveyance and Treatment Analysis

Most amendments shall be required to provide a sewage conveyance and treatment analysis. Such an analysis is not necessary for amendments that meet the requirements of Policy #1.

For all other amendments, the analysis should include a letter from the appropriate local engineer confirming the ability of the community's sewers to adequately convey the subject area's sewage.

For all major SSA amendments, the analysis should also include a letter from the operator of the downstream sewerage system (if different than the local community) and from the appropriate sewage treatment plant operator confirming their ability to adequately convey and treat the subject area's sewage. As outlined in Chapter 5, the analysis should also include a detailed description of the flows and loads to be generated by the subject development, as well as a description of the impact and relationship of those flows and loads to the design capacity and permit levels of the treatment facility.

Amendments that fail to provide the appropriate sewage conveyance and treatment analysis which indicates that the downstream sewerage system planned to be in place at the time of development of the subject area can adequately convey and treat the subject area's sewage flows and loads (in compliance with all applicable permits and approvals and in consideration of other existing and planned flows and loads) will not meet this criterion.

G. Public Water Supply and System Analysis

Most amendments will be required to provide a public water supply and system analysis. Such an analysis will not be necessary for amendments that meet the requirements of Type 3, Type 4, or Policy #1.

For all other amendments, the analysis should include a brief review of the relationship of the subject area to adjacent public water supplies and systems and the options or alternatives for obtaining public water. If public water is to be provided, a letter from the appropriate service provider confirming this fact must be obtained. If public water is not to be provided, an explanation is required.

For major SSA amendments under Policy #5, the analysis should specifically address the proposed development's impact upon the adjacent public water supplies and public water systems. This analysis must include consideration of:

- identification and description of the proposed source of drinking water;
- the possibility and sources of potential drinking water contamination, excessive withdraw, lowering of water table levels, etc.; and
- current and projected future capacities within adjacent drinking water systems.

Amendments that fail to provide the appropriate public water supply and system analysis, which indicate that public water will be provided to the amendment area and that development of the amendment area will not adversely impact public water supplies and public water systems, will not meet this criterion.

H. Compliance with Local and County Plans and Planning Efforts Analysis

All amendments shall be required to provide a compliance with local and county plans and planning efforts analysis.

For all amendments, the analysis should indicate whether the subject area is located within an urban service area and/or has been designated to receive public sanitary sewer and other urban services, as identified by local and county plans. In addition, the analysis should also indicate whether an area development plan has been prepared for the subject area, what the current and planned land use and zoning are for the subject area, and whether they are consistent with the proposed amendment request.

For all ESA amendments, the analysis should also indicate whether the subject area has been identified for natural resource preservation or otherwise intended to be protected.

Amendments that fail to provide the appropriate compliance with local and county plans and planning efforts analysis that indicates that the subject amendment is in compliance with local and county plans and planning efforts will not meet this criterion.

I. Population Projection Acreage Allocation Formula Analysis

Most amendments shall be required to provide a population projection acreage allocation formula analysis. Such an analysis is not necessary for amendments that meet the requirements of Policies #1 (except SSA exchanges), #2, or #4.

For all other amendments, the analysis should indicate the current amount of vacant developable land located within the subject sewer service area and compare that to the amount provided to the SSA under the county sewage plan to determine if additional vacant developable land is warranted.

For all amendments that meet the requirements of Policy #3, those developed lands which have confirmed the presence of failing onsite sewage disposal systems need not meet this criteria.

Amendments that fail to provide the appropriate population projection acreage allocation formula analysis that indicates that the vacant developable land located within the subject amendment will not cause the subject SSA to exceed its acreage allocation will not meet this criterion.

J. ESA Impacts Analysis

Most amendments shall be required to provide an ESA impacts analysis. Such an analysis is not necessary for amendments that meet the requirements of Policy #1 when the subject area has subsequently been determined not to be an ESA per approved flood studies, wetland field determinations, etc.

For all other amendments, the analysis should include a general description and identification of the ESAs within and immediately adjacent to the subject area, the anticipated impacts upon and land-disturbing activities within the subject ESAs, and any proposed erosion control and storm water management activities.

For all ESA amendments, the analysis should also indicate the local and county shoreland zoning, conservancy zoning, and erosion control and subdivision ordinance requirements which pertain to the subject area and the proposed development's degree of conformance with those requirements. In addition, the location and delineation of all pertinent natural resource features, such as lakes, rivers, streams, drainageways, floodlands, wetlands, and steep slopes, should be verified by the appropriate regulatory agencies and that information provided with the analysis.

If applicable and warranted, the DNR, BCPC, or local community may require the preparation of additional detailed studies, such as flood studies, drainage plans, grading plans, geo-technical studies, slope analysis studies, soil surveys, vegetation surveys, and landscaping plans. Such

additional information will typically be required when DNR and/or BCPC staff believe a possible adverse water quality impact may occur, when unique or critical natural resources are involved, or when mitigation or enhancement activities are proposed.

It is very important to note that while the *2040 Brown County Sewage Plan* provides a means to amend and revise environmentally sensitive areas, the Brown County Planning Commission strongly recommends that such actions not be undertaken lightly or resorted to frequently. NR 121 states that ESAs not be developed due to environmental concerns. Research and practical application have long shown that natural resource features and systems are very difficult to recreate. While significant success has been experienced with enhancing previously damaged features or resources or mitigating some of the ongoing impacts upon these resources from adjacent development, this success often requires a substantial commitment of financial resources and technical expertise.

In general, the following guidelines should be considered during any proposed ESA amendment:

- First, try to avoid any impact on or need for an amendment of an ESA. Document these efforts.
- Second, if an impact or amendment is unavoidable, try to minimize it. Document these efforts.
- Third, if an impact and amendment cannot be avoided or minimized, undertake appropriate mitigation and/or enhancement efforts. Guidance for mitigation and/or enhancement efforts can often be obtained from local DNR staff. BCPC staff will place great consideration upon such input and the following guidelines.
 - Loss or degradation of particularly high quality natural resources will typically not be supported by BCPC staff, even with mitigation or enhancement efforts. Such resources would typically include DNR-identified Outstanding Resource Waters, Exceptional Resource Waters, and state-identified Natural Area Sites.
 - The emphasis for mitigation/enhancement efforts should be placed first upon maintaining or improving local water quality, second upon water quantity, third upon aquatic resources, fourth upon public recreation, and last upon terrestrial resources.
 - All such efforts should include appropriate erosion control and storm water management practices both during and after construction. These practices should be in accordance with the Wisconsin Construction Site Best Management Practice Handbook, the Wisconsin Storm Water Manual, and the USDA-NRCS Field Office Technical Guide. These practices should establish standards that achieve no increase of erosion, sedimentation, and storm water runoff volumes and velocities greater than those present under pre-development conditions and, preferably, no greater than those present under pre-settlement conditions. Applicable nonpoint source performance standards and guidelines must also be noted. Those more natural practices, such as infiltration areas, vegetated buffers, or vegetated swales, are preferred over those more man-made practices, such as catch basins and storm sewers.

- Within the ESA features to remain or to be created, establishment of native habitat should be undertaken. Use of pre-settlement vegetation native to the subject area is preferred over all others.
- When creating or recreating a setback/buffer, a three tiered system should be undertaken. The target of the first tier, closest to the water body, should be eventual establishment of a mature riparian forest that can provide shade, leaf litter, woody debris, and erosion protection to the nearby water body. This tier should extend at least the size of two mature trees in width (about 25 feet) and should remain undisturbed. The target of the middle tier should also be the establishment of a mature riparian forest. This tier should vary in width depending upon stream order but would ideally extend the width of the 100-year floodplain or 50 feet, whichever is greater. Disturbance of this area for such activities as storm water management and recreation should be allowed. The third tier, furthest from the water body, should be comprised of grasses; although, some trees, shrubs, and bushes could be allowed. This tier should extend about 25 feet in width and could be comprised of the backyards of adjacent development. However, target vegetation and buffer width of each of these three tiers should also take into account and often reflect the vegetation native to the specific area and the historic development patterns within lands immediately adjacent to the subject area.

Amendments that fail to provide the appropriate ESA impact analysis that indicates that there will be no significant adverse water quality impact will not meet this criterion.

K. Erosion Control and Storm Water Management Analysis

Most amendments shall be required to provide an erosion control and storm water management analysis. Such an analysis is not necessary for amendments that meet the requirements of Policy #1 (except SSA exchanges).

For all other amendments, the analysis should generally describe what erosion control and storm water management practices will be implemented. Such practices should describe and be in compliance with any local, county, and state requirements.

All amendments which contain an ESA, but which do not propose to impact that ESA, should also indicate what and where specific erosion control measures will be implemented to ensure such ESA protection.

All ESA amendments should include an erosion control and storm water management plan. For minor ESA amendments, the erosion control plan should include both text and a map indicating the timing, placement, and the party responsible for implementation of the erosion control and storm water management practices. Implementation of practices in accord with the Wisconsin Construction Site Best Management Practice Handbook, the Wisconsin Storm Water Manual, and the USDA-NRCS Field Office Technical Guide will be assumed to provide adequate protection of the subject ESA.

For all major ESA amendments, the erosion control and storm water management plan should be more comprehensive and detailed. It should address erosion control and storm water

management both during and subsequent to construction. It should include a general site plan of the development, which depicts site boundaries, lot and road locations, existing structures, vegetative cover, soil types, watershed boundaries, direction of surface water flow, location of bridges, culverts, waterways, storm sewers, detention basins, etc., topography at 2-foot contour intervals, and drainage easements. It should also include a map of the site depicting the above features after the proposed development. This map should also include the location of the proposed erosion control and storm water management practices. It should also include calculations of pre-construction and post-construction peak flows and rates, assumed runoff curve numbers, time of concentration, etc. Additionally, it should identify the timing and the parties responsible for implementation and maintenance of the practices.

The construction phase storm water management facilities should by design reduce the average annual sediment load carried in runoff by 80%, as compared to no practices in place.

The post-construction phase storm water management facilities should by design control 80% of the total suspended solids that would normally run off the site.

The storm water management facilities should also be in conformance with the erosion control and storm water management guidelines set forth under the ESA Impacts Analysis criteria, as well as the following guidelines:

- Maintain or reduce pre-development peak runoff volumes and velocities for the 2-year, 24-hour storm event in Brown County.
- Maintain or reduce pre-development peak runoff volumes and velocities for the 25-year, 24-hour storm event in Brown County.
- Safely pass the 100-year, 24-hour storm event in Brown County.
- Provide 80% reduction of sediment loadings resulting from the 1-year, 24-hour storm event in Brown County assuming no sediment resuspension.

Amendments that fail to provide the appropriate erosion control and storm water management analysis that indicates there will not be a significant increase of erosion or storm water runoff above pre-development conditions will not meet this criterion.

L. Intergovernmental Cooperation and Coordination Analysis

Most amendments shall be required to provide an intergovernmental cooperation and coordination analysis. Such an analysis is not necessary for amendments that meet the requirements of Policy #1.

For all other amendments, the analysis should include documentation that indicates that adjacent local units of government which might be impacted by the proposed amendment have been informed of the proposal and have been provided an opportunity to comment on this matter. Efforts undertaken to resolve any concerns should also be noted.

It is intended that this approach will encourage adjacent communities to work together on such issues as land use planning and the provision of urban services. Although such local support

should always be sought on these matters, it is recognized that such support might not always be obtainable. In those cases, the DNR and the BCPC will have to weigh the positions of the concerned parties and make a final determination based on the issues involved.

Amendments that fail to provide the appropriate intergovernmental cooperation and coordination analysis that indicates that adequate opportunities were provided to solicit adjacent community input will not meet this criterion.

IV. Summary

It has always been the intent of the Brown County Planning Commission to promote the sewer service area planning process for Brown County in as consistent and equitable a fashion as possible using the best engineering, planning, and environmental practices and principals available. In that regard, the BCPC has committed itself to preparing a document which promotes the efficient provision of urban services while, at the same time, protecting and preserving the natural resource features of the County.

While there are numerous federal, state, and local rules and regulations which must guide this type of planning process and while the efficient provision of sewer service and the protection and preservation of the natural environment are complicated and sensitive issues, it is the Brown County Planning Commission's hope that this plan, the latest in a series of plans which sets forth the sewer service areas and environmentally sensitive areas of Brown County, is as helpful as possible.

The Brown County Planning Commission stands ready to work with all parties interested in implementing this plan and its recommendations. Such assistance will always strive to achieve the community's goals and desires while encouraging the efficient provision of urban services in a cooperative fashion and encouraging the protection and preservation of our county's valuable natural resources.

Please join us in this effort and participate in making Brown County a better place to live and work.

Appendix A: Federal and State Water Quality Planning

The Clean Water Act

In 1972, in response to growing public concern about serious and widespread water pollution, the U. S. Congress passed Public Law 92-500. This sweeping revision of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act, represented a major change in federal water pollution control law. Under the direction and oversight of the Environmental Protection Agency (EPA), it is the primary federal law that protects our nation's lakes, rivers, aquifers, and coastal areas.

The Clean Water Act's primary objective is to restore and maintain the integrity of the nation's waters. This objective translates into two fundamental national goals:

1. Eliminate the discharge of pollutants into the nation's waters.
2. Achieve water quality levels that are fishable and swimmable.

While the Clean Water Act retained and strengthened the previous federal system of water quality standards, it more importantly changed the course of the whole national clean water effort by requiring:

- Three phases of nationally uniform industrial effluent limitations.
- Special controls over severely toxic pollutants.
- National Pollutant Discharge Elimination System (NPDES) permits for all point sources of pollution.
- National effluent limitations for municipal discharges and providing an expanded federal program of financial assistance to local governments for planning and construction of wastewater treatment facilities.
- Comprehensive river basin and regional water quality planning for both point and non-point sources of pollution.

In requiring comprehensive river basin and regional water quality planning, Congress recognized that some water quality problems are so complex or severe that they can't be solved by technology alone. For this reason, Congress incorporated the areawide waste treatment management planning process under Section 208 of the Clean Water Act. This process provides the EPA, states, and local units of government a planning tool to help address water quality management issues in a way that is socially acceptable, economically feasible, and environmentally sound.

A Section 208 regional or areawide plan offers comprehensive solutions to many related problems affecting water pollution. It can encompass one or more facility plans and facility planning areas. It builds upon the contents of local, regional, and state plans by including consideration of the impacts of land use and development. It considers the combined effect of all wastewater treatment facilities within its planning area. Additionally, it must include:

- A water quality assessment, which includes a description of the monitoring upon which the assessment is based.
- An identification of applicable water quality standards and stream classifications.
- An identification of waste load allocations for area waters.
- An identification of wastewater treatment facility improvements necessary to meet water quality standards.
- A means to properly manage sludge disposal.
- A means to identify and control nonpoint source pollution.
- Projections of population growth and wastewater loadings for a 20-year time span.
- Delineation of sewer service and planning area boundaries.
- An identification of the agencies responsible for implementation of the plan.
- An identification of the financing necessary to carry out the recommendations of the plan.

As previously noted, Section 208 of the Clean Water Act incorporates local input into this long-range planning effort. One of the means used to encourage that local involvement includes a management structure that requires:

- Designation of 208 planning areas by the state governor, with input from local elected officials and approval by the EPA.
- Designation of 208 planning agencies by the governor and approval by the EPA.
- Preparation of the 208 plan by a designated agency, with participation and oversight provided by appropriate state agencies and approval by the governor and the EPA.
- Implementation and administration of the plan by the designated agency, with participation and oversight provided by appropriate state agencies.

Areawide Water Quality Management Plans

Wisconsin's water quality management program prior to the Clean Water Act revolved around an objective to improve and protect the quality of state waters, but under the Clean Water Act, the state's water quality management program took on new meaning and direction. Specifically, new and more concrete standards for clean water were required, greater emphasis was placed on addressing nonpoint source pollution, and long-range planning became more important.

In response to the Clean Water Act, the governor in 1974 directed that areawide water quality management planning be undertaken for the three most complex and heavily urbanized areas of the state (Dane County, Southeastern Wisconsin, and the Lower Fox River Valley area). The local planning agencies designated to undertake that planning included the Dane County Regional Planning Commission for Dane County; the Southeastern Wisconsin Regional Planning Commission for Southeastern Wisconsin; and the Fox Valley Water Quality Planning Agency for the Lower Fox River Valley area. The governor also directed that areawide water quality management planning be undertaken for 18 additional river basins located throughout the state and designated the Wisconsin Department of Natural Resources (DNR) as the agency responsible for that planning. Included within these 18 designated river basins were the Lower

Fox River, the Upper Fox River, the Manitowoc River, and the Twin-Door-Kewaunee basins, which between the four of them encompass all of Brown County.

Furthermore, under Chapters 144 and 147 of the Wisconsin State Statutes and NR 121 of the Wisconsin Administrative Code, Wisconsin's approach to areawide water quality management planning specified that such plans must include a sewer service area planning component. These state statutes and administrative codes further specified that in addition to the previously identified "designated areas," sewer service area planning would be required in "non-designated areas," defined as urban areas with populations exceeding 10,000 people or with sewage treatment facilities that treat more than 1.0 mgd. While sewer service area planning in the "designated areas" was assigned to the previously noted local planning agencies, such planning within the "non-designated areas" was assigned to the DNR.

As set forth in NR 121, sewer service area planning is a process designed to anticipate a community's need for wastewater treatment. It is intended to protect communities from adverse water quality impacts through the provision of cost-effective and environmentally-sound wastewater treatment, and it is intended to be a continually ongoing process with constant local input, review, and revision.

Wisconsin has been preparing areawide water quality management and sewer service area plans since the late 1970s.

Appendix B: Wisconsin's Natural Heritage Inventory Data in Brown County

The following tables identify rare species and communities that are identified on Wisconsin's Natural Heritage Inventory (NHI) in the Brown County area as of February 5, 2015. The tables are broken down by Township and Range. These data are provided for general planning and assessment purposes only and should not be used for screening or reviewing proposed land development or land management projects.

Township 26N, Range 18E

Scientific Name	Common Name	WI Status	Federal Status	Group
Alasmodonta viridis	Slippershell Mussel	THR		Mussel~
Ptelea trifoliata	Wafer-ash	SC		Plant

Township 26N, Range 19E

Scientific Name	Common Name	WI Status	Federal Status	Group
Alasmodonta viridis	Slippershell Mussel	THR		Mussel~

Township 25N, Range 19E

Scientific Name	Common Name	WI Status	Federal Status	Group
Alasmodonta viridis	Slippershell Mussel	THR		Mussel~
Emydoidea blandingii	Blanding's Turtle	SC/H		Turtle~
Glyptemys insculpta	Wood Turtle	THR		Turtle~
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Trillium nivale	Snow Trillium	THR		Plant

Township 25N, Range 20E

<u>Scientific Name</u>	Common Name	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Alasmodonta viridis	Slippershell Mussel	THR		Mussel~
Botrychium oneidense	Blunt-lobed Grape-fern	SC		Plant
Buteo lineatus	Red-shouldered Hawk	THR		Bird~
Carex merritt-fernaldii	Fernald's Sedge	SC		Plant
Dryopteris filix-mas	Male Fern	SC		Plant
Emergent marsh	Emergent Marsh	NA		Community~
Emydoidea blandingii	Blanding's Turtle	SC/H		Turtle~
Galium palustre	Marsh Bedstraw	SC		Plant~
Glyptemys insculpta	Wood Turtle	THR		Turtle~
Great lakes beach	Great Lakes Beach	NA		Community~
Lepomis megalotis	Longear Sunfish	THR		Fish~
Lythrurus umbratilis	Redfin Shiner	THR		Fish~
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Nycticorax nycticorax	Black-crowned Night-Heron	SC/M		Bird~
Penstemon pallidus	Pale Beardtongue	SC		Plant
Platanthera flava var. herbiola	Pale Green Orchid	THR		Plant~
Southern sedge meadow	Southern Sedge Meadow	NA		Community~
Sterna forsteri	Forster's Tern	END		Bird~
Striatura exigua	Ribbed Striate	SC/N		Snail
Strobilops affinis	Eightfold Pinecone	SC/N		Snail
Vertigo elatior	Tapered Vertigo	SC/N		Snail
Vertigo nylanderi	Deep-throated Vertigo	SC/N		Snail

Township 25N, Range 21E

<u>Scientific Name</u>	Common Name	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Botaurus lentiginosus	American Bittern	SC/M		Bird~
Cakile lacustris	American Sea-rocket	SC		Plant
Emergent marsh	Emergent Marsh	NA		Community~
Great lakes beach	Great Lakes Beach	NA		Community~
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Nycticorax nycticorax	Black-crowned Night-Heron	SC/M		Bird~
Southern sedge meadow	Southern Sedge Meadow	NA		Community~
Sterna forsteri	Forster's Tern	END		Bird~
Sterna hirundo	Common Tern	END		Bird~

Township 25N, Range 22E

<u>Scientific Name</u>	Common Name	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Acipenser fulvescens	Lake Sturgeon	SC/H		Fish~
Adlumia fungosa	Climbing Fumitory	SC		Plant
Agabus discolor	A Predaceous Diving Beetle	SC/N		Beetle~
Alvar	Alvar	NA		Community
Anguilla rostrata	American Eel	SC/N		Fish~
Carex formosa	Handsome Sedge	THR		Plant
Eleocharis compressa	Flat-stemmed Spike-rush	SC		Plant~
Erynnis martialis	Mottled Dusky Wing	SC/N		Butterfly
Glyphyalinia rhoadsi	Sculpted Glyph	SC/N		Snail
Great Lakes Ridge and Swale	Great Lakes Ridge and Swale	NA		Community~
Guppya sterkii	Brilliant Granule	SC/N		Snail
Gymnocarpium robertianum	Limestone Oak Fern	SC		Plant
Hendersonia occulta	Cherrystone Drop	THR		Snail
Iris lacustris	Dwarf Lake Iris	THR	LT	Plant~
Lepomis megalotis	Longear Sunfish	THR		Fish~
Limotettix elegans	A Leafhopper	SC/N		Leafhopper~
Moist cliff	Moist Cliff	NA		Community
Northern dry-mesic forest	Northern Dry-mesic Forest	NA		Community
Northern mesic forest	Northern Mesic Forest	NA		Community
Northern wet-mesic forest	Northern Wet-mesic Forest	NA		Community~
Paravitrea multidentata	Dentate Supercoil	SC/N		Snail
Strobilops affinis	Eightfold Pinecone	SC/N		Snail
Vertigo elatior	Tapered Vertigo	SC/N		Snail
Vertigo hubrichti	Midwest Pleistocene Vertigo	END		Snail

Township 24N, Range 19E

<u>Scientific Name</u>	Common Name	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Aplectrum hyemale	Putty Root	SC		Plant
Emydoidea blandingii	Blanding's Turtle	SC/H		Turtle~
Glyptemys insculpta	Wood Turtle	THR		Turtle~
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Trillium nivale	Snow Trillium	THR		Plant

Township 24N, Range 20E

<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Aplectrum hyemale	Putty Root	SC		Plant
Emergent marsh	Emergent Marsh	NA		Community~
Emydoidea blandingii	Blanding's Turtle	SC/H		Turtle~
Falco peregrinus	Peregrine Falcon	END		Bird
Glyptemys insculpta	Wood Turtle	THR		Turtle~
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Northern dry-mesic forest	Northern Dry-mesic Forest	NA		Community
Ranunculus cymbalaria	Seaside Crowfoot	THR		Plant~
Shrub-carr	Shrub-carr	NA		Community~
Sterna forsteri	Forster's Tern	END		Bird~

Township 24N, Range 21E

<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Aplectrum hyemale	Putty Root	SC		Plant
Ardea alba	Great Egret	THR		Bird~
Aythya americana	Redhead	SC/M		Bird~
Cakile lacustris	American Sea-rocket	SC		Plant
Cymbiodyta toddi	A Water Scavenger Beetle	SC/N		Beetle~
Emergent marsh	Emergent Marsh	NA		Community~
Falco peregrinus	Peregrine Falcon	END		Bird
Glyptemys insculpta	Wood Turtle	THR		Turtle~
Great lakes beach	Great Lakes Beach	NA		Community~
Hydroprogne caspia	Caspian Tern	END		Bird~
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Nycticorax nycticorax	Black-crowned Night-Heron	SC/M		Bird~
Pelecanus erythrorhynchos	American White Pelican	SC/M		Bird~
Ranunculus cymbalaria	Seaside Crowfoot	THR		Plant~
Sterna forsteri	Forster's Tern	END		Bird~
Sterna hirundo	Common Tern	END		Bird~
Strophostyles leiosperma	Small-flowered Woolly Bean	SC		Plant
Vertigo hubrichti	Midwest Pleistocene Vertigo	END		Snail

Township 24N, Range 22E

Scientific Name	Common Name	WI Status	Federal Status	Group
Alvar	Alvar	NA		Community
Aplectrum hyemale	Putty Root	SC		Plant

Township 23N, Range 19E

Scientific Name	Common Name	WI Status	Federal Status	Group
Aplectrum hyemale	Putty Root	SC		Plant
Glyptemys insculpta	Wood Turtle	THR		Turtle~
Wormaldia shawnee	A Fingernet Caddisfly	SC/N		Caddisfly~

Township 23N, Range 20E

Scientific Name	Common Name	WI Status	Federal Status	Group
Acipenser fulvescens	Lake Sturgeon	SC/H		Fish~
Anguilla rostrata	American Eel	SC/N		Fish~
Aplectrum hyemale	Putty Root	SC		Plant
Falco peregrinus	Peregrine Falcon	END		Bird
Glyptemys insculpta	Wood Turtle	THR		Turtle~
Lepomis megalotis	Longear Sunfish	THR		Fish~
Trillium nivale	Snow Trillium	THR		Plant

Township 23N, Range 21E

Scientific Name	Common Name	WI Status	Federal Status	Group
Aplectrum hyemale	Putty Root	SC		Plant
Bartramia longicauda	Upland Sandpiper	THR		Bird
Guppya sterkii	Brilliant Granule	SC/N		Snail
Hendersonia occulta	Cherrystone Drop	THR		Snail
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Northern dry-mesic forest	Northern Dry-mesic Forest	NA		Community
Nycticorax nycticorax	Black-crowned Night-Heron	SC/M		Bird~
Ranunculus cymbalaria	Seaside Crowfoot	THR		Plant~
Southern dry-mesic forest	Southern Dry-mesic Forest	NA		Community
Trillium nivale	Snow Trillium	THR		Plant
Viola rostrata	Long-spurred Violet	SC		Plant

Township 23N, Range 22E

<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Aplectrum hyemale	Putty Root	SC		Plant
Bartramia longicauda	Upland Sandpiper	THR		Bird
Hendersonia occulta	Cherrystone Drop	THR		Snail
Lake--shallow, hard, seepage	Lake--Shallow, Hard, Seepage	NA		Community~
Northern mesic forest	Northern Mesic Forest	NA		Community
Northern wet forest	Northern Wet Forest	NA		Community~
Striatura exigua	Ribbed Striate	SC/N		Snail
Striatura ferrea	Black Striate	SC/N		Snail
Sturnella neglecta	Western Meadowlark	SC/M		Bird
Vertigo elatior	Tapered Vertigo	SC/N		Snail
Vertigo nylanderii	Deep-throated Vertigo	SC/N		Snail

Township 22N, Range 19E

<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Carex formosa	Handsome Sedge	THR		Plant

Township 22N, Range 20E

<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Hendersonia occulta	Cherrystone Drop	THR		Snail
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Paravitrea multidentata	Dentate Supercoil	SC/N		Snail
Southern dry-mesic forest	Southern Dry-mesic Forest	NA		Community
Stream--slow, hard, warm	Stream--Slow, Hard, Warm	NA		Community~
Vertigo hubrichti	Midwest Pleistocene Vertigo	END		Snail
Vertigo tridentata	Honey Vertigo	SC/N		Snail

Township 22N, Range 21E

<u>Scientific Name</u>	<u>Common Name</u>	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
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Township 22N, Range 22E

<u>Scientific Name</u>	Common Name	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Hendersonia occulta	Cherrystone Drop	THR		Snail
Northern mesic forest	Northern Mesic Forest	NA		Community
Striatura ferrea	Black Striate	SC/N		Snail
Strobilops affinis	Eightfold Pinecone	SC/N		Snail
Trillium nivale	Snow Trillium	THR		Plant
Vertigo elatior	Tapered Vertigo	SC/N		Snail

Township 21N, Range 19E

<u>Scientific Name</u>	Common Name	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Falco peregrinus	Peregrine Falcon	END		Bird
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~
Northern mesic forest	Northern Mesic Forest	NA		Community
Ruellia humilis	Hairy Wild-petunia	END		Plant
Southern dry-mesic forest	Southern Dry-mesic Forest	NA		Community

Township 21N, Range 20E

<u>Scientific Name</u>	Common Name	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Migratory Bird Concentration Site	Migratory Bird Concentration Site	SC		Other~

Township 21N, Range 21E

<u>Scientific Name</u>	Common Name	<u>WI Status</u>	<u>Federal Status</u>	<u>Group</u>
Acris blanchardi	Blanchard's Cricket Frog	END		Frog~
Northern mesic forest	Northern Mesic Forest	NA		Community

Appendix C: Environmentally Sensitive Area Compatible Activities and Uses

Natural Resource Feature	Permitted Uses
Navigable Waters	Utility crossings Street crossings
Areas within 75-feet of Navigable Waters	Utility crossings Street crossings Storm water management facilities Managed rotational grazing Passive public recreational facilities Landscaping with native Wisconsin vegetation species if topography is not changed. Uses specifically allowed by shoreland zoning
Non-Navigable Waters	Utility crossings Street crossings
Areas within 35 feet of Non-Navigable Waters	Utility crossings Street crossings Storm water management facilities Managed rotational grazing Passive public recreational facilities Landscaping with native Wisconsin vegetation species if topography is not changed. Uses specifically allowed by shoreland zoning
Wetlands	Utility crossings Street crossings
Areas within 35-feet of wetlands	Utility crossings Street crossings Storm water management facilities Managed rotational grazing Passive public recreational facilities Landscaping with native Wisconsin vegetation species if topography is not changed. Uses specifically allowed by shoreland zoning
Floodways	Utility crossings Street crossings
Areas within 35-feet of Floodways	Utility crossings Street crossings Storm water management facilities Managed rotational grazing Passive public recreational facilities Landscaping with native Wisconsin vegetation species if topography is not changed. Uses specifically allowed by shoreland zoning
Steep Slopes	Utility crossings Street crossings
Areas within 20-feet of Steep Slopes	Utility crossings Street crossings Storm water management facilities Managed rotational grazing Passive public recreational facilities Landscaping with native Wisconsin vegetation species if topography is not changed. Uses specifically allowed by shoreland zoning

Appendix D: Plan Approvals, Minutes, and Resolution

WDNR Approval from September XX, 2015:

[To be added after WDNR approves 2040 Plan via the amendment review]

Minutes from August 2, 2015, Public Hearing and Plan Overview Minutes:

P. Schleinz conducted the public hearing and presented the following information via PowerPoint:

Public Hearing Agenda

Final Draft 2040 Brown County Sewage Plan Approval Steps:

1. Public Hearing – Opportunity for general public to provide comments and ask questions on August 5, 2015.
2. BCPC Board of Directors review and approval via amendment proposed on September 2, 2015.
3. WDNR final review and approval after BCPC Board of Directors Approval.

What does a Sewage Plan allow Brown County to do?

- A Sewage Plan addresses "water quality" in urbanizing areas.

Why would a Region want to have a Sewage Plan?

- A Sewage Plan provides efficient local review and assistance to resident.

What is a SSA?

- Sewer Service Area

What is an ESA?

- Environmentally Sensitive Area

What is in each chapter of the Final Draft Sewage Plan?

1. History of past plans from 1982-2011.
2. Planning Area and water related features are defined as all of Brown County and limited adjacent areas.
3. Updated acreage allocations are calculated for municipalities.
4. Sewer Service Areas and Environmentally Sensitive Areas are established.
5. Implementation of Sewage Plan is defined.
6. Public Involvement Process is identified.
7. Amendment Process is clarified.
8. Plan Summary and Appendix.

What is new in the Final Draft Sewage Plan?

1. Sewer Service Area Acreage Allocations updated with 2010 census.
2. Environmentally Sensitive Area maps match updated 2011 requirements.
3. Minor Sewer Service Area Amendment review process updated to be staff only review in order to match other minor amendments.
4. Amendment application submittal information updated.

P. Schleinz called for input regarding the 2040 Brown County Sewage Plan.

M. Malcheski asked if the large scale dairy farms were exempt from consideration of ground water quality.

P. Schleinz stated that Brown County sewage plan primarily addresses areas that are urbanized so a large scale farm outside of the urbanized area would be exempt.

D. Juengst asked how are we addressing where storm water could be impacted that isn't necessarily going back to a metropolitan sewerage district?

P. Schleinz stated that the MS4 permit addresses storm water that flows through outfalls, not just a metropolitan sewerage district. For Brown County that is mostly ditches and swales on the sides of county highways flowing to waterways of the state, such as rivers.

D. Juengst asked how we make the river cleaner.

P. Schleinz stated we are working together with the Land Conservation, representatives from the MS4 permits, and DNR to work on a solution.

We are working on trying to find a solution on how to take the areas that are in the non-urbanized areas and address something that has been going on for many years and then have to change it.

M. Handeland asked that once the SSA boundaries have been approved by the DNR, can they be amended.

P. Schleinz stated that the SSA's in the plan have been reviewed and preapproved by the DNR so if you want to change it prior to final plan approval, Peter would have to let the DNR know we made a change in the maps.

K. Janssen asked about the sewer water utilities average monthly EOD exceeds the maximum design flow, what is this?

P. Schleinz stated that some of this may coincide with the melting season they might be taking back not only sewer water but also storm water.

P. Schleinz called for input regarding the 2040 Brown County Sewage Plan. Hearing no further questions, P. Schleinz closed the hearing.

Brown County Planning Commission Board of Directors Approval Minutes:

[To be added after BCPC Board approves final Minutes at October 2015 meeting]

RESOLUTION NO. 2015-07

**RESOLUTION OF THE BROWN COUNTY PLANNING COMMISSION
AMENDING AND UPDATING THE ADOPTED AREAWIDE WATER QUALITY
MANAGEMENT PLANS FOR BROWN COUNTY**

WHEREAS, Chapter NR 121 of the Wisconsin Administrative Code, entitled *Areawide Water Quality Management Plans*, is authorized under Section 281.11 and Section 281.12(1) of the Wisconsin State Statutes to protect, maintain, and improve the quality and management of the waters of the state, ground and surface, public and private; and

WHEREAS, at a meeting held on the 5th day of March 2003, the Brown County Planning Commission duly adopted a report entitled *2002 Brown County Sewage Plan* as the sanitary sewer service area planning element of the four areawide water quality management plans which pertain to Brown County; and

WHEREAS, by materials dated the 2nd day of September 2015, Brown County Planning Commission staff requested that the Brown County Planning Commission amend and update the *2002 Brown County Sewage Plan* by replacing the plan with a new *2040 Brown County Sewage Plan*; and

WHEREAS, the proposed amendment and update to the *2002 Brown County Sewage Plan* is documented in a Brown County Planning Commission staff report attached hereto and made a part hereof, which staff report concludes that the amendment to the ESA is sound and in the public interest; and

WHEREAS, at a meeting held on the 2nd September, 2015, the Brown County Planning Commission approved an amendment and update to the *2002 Brown County Sewage Plan* by replacing the plan with a new *2040 Brown County Sewage Plan*.

NOW, THEREFORE, BE IT HEREBY RESOLVED that the *2002 Brown County Sewage Plan*, adopted by the Brown County Planning Commission on the 5th day of March 2003 as the sanitary sewer service area planning element of the four areawide water quality management plans which pertain to Brown County, be and the same hereby is amended and updated by replacing the plan with a new *2040 Brown County Sewage Plan*.

BE IT FURTHER RESOLVED that the Director of the Brown County Planning Commission is authorized to submit findings to the Wisconsin Department of Natural Resources and the Wisconsin Department of Commerce that public and private sanitary sewer extensions necessary to serve anticipated development on the lands concerned are in conformance with and would serve to implement the adopted Areawide Water Quality Management Plans for Brown County as herein amended.

BE IT FURTHER RESOLVED that a true, correct, and exact copy of this resolution, together with the afore-referenced Brown County Planning Commission staff report shall be forthwith distributed to Brown County Planning Commission staff and to such other bodies, agencies, or individuals as the law may require or as the Brown County Planning Commission or its Board of Directors at its discretion shall determine and direct. The proposed amendment to the Areawide Water Quality Management Plans for Brown County for the subject ESA change, upon motion duly made and seconded, was adopted at the meeting of the Brown County Planning Commission Board of Directors held on the 2nd day of September 2015, being approved with 16 ayes, 0 nays, and 0 abstentions.

BROWN COUNTY PLANNING COMMISSION


Norbert Dantine, Jr., President

ATTEST:


Chuck Lamine, AICP, Planning Director