

## **Appendix 1**

### **Urban Service Area Limited Service Area and Environmental Corridor Fact Sheets**

# FACT SHEET

## Urban Service Areas

### What Are Urban Service Areas?

In order to avoid wasteful use of land and to most efficiently provide public services and facilities, the Dane County Regional Planning Commission (RPC) introduced the concept of urban service areas in the first Dane County Land Use Plan in 1973. Urban service areas are those areas in and around existing communities which are most suitable for urban development and capable of being provided with a full range of urban services. (Urban services are those additional public services normally provided or needed in urban areas, including public water supply and distribution systems, sanitary sewerage systems, higher levels of police and fire protection, solid waste collection, urban storm drainage systems, streets with curbs and gutters, street lighting, neighborhood facilities such as parks and schools, and urban transportation facilities such as sidewalks, taxi service and mass transit.)

The urban service area boundaries represent the outer limits of planned urban growth over the long-term planning period--at least 20 years--and include more than enough land to accommodate anticipated growth. Short-term staging boundaries are sometimes developed to indicate where urban development should occur and services be extended over the near-term future (up to 10 years), to assist in logical staging of growth and extension of services.

Regional plans also provide for Limited Service Areas--areas where only one or a few limited urban services, such as sanitary sewer service, is intended to be provided to special or unique areas (remote correctional facilities, sanitary landfills, etc.) or areas of existing development experiencing sewage disposal problems. These areas are not intended to receive a full range of urban services or additional urban development.

### How Are Urban Service Areas Developed?

The RPC works with the local community to develop an urban service area boundary which can be included in both local and regional plans. Twenty-five urban service areas and a number of limited service areas have been designated and adopted in Dane County. The approach involves:

- determining the amount of vacant land needed for urban development, consistent with population and growth forecasts and density standards. This information provides the basis for outlining an urban service area which contains enough vacant land to flexibly accommodate anticipated urban growth, yet is compact enough to result in orderly, staged development.
- locating potential urban service area boundaries, such as natural or constructed barriers to development, drainage area boundaries or other logical service boundaries
- protecting areas unsuitable for development, such as wetlands, floodplains, steep slopes, etc.
- Short-term staging boundaries are encouraged to indicate where urban development should occur and services be extended over the near-term future (5-10 years), to assist in logical staging of growth and extension of services. Short-term staging boundaries are required for large (over 100 acres of developable land) expansions of urban service areas.
- A “flexibility margin” of up to 100% of the incremental growth area is allowed to provide greater flexibility for the smaller outer urban service areas.

## How Are Urban Service Areas Used?

Local municipalities and the RPC use urban service areas to plan the location of urban developments showing where urban services will be provided.

RPC and DNR approve sewer extensions and sewage treatment facilities based on USA boundaries.

USAs are included in areawide plans so that local, regional and state agency decisions can be consistent and achieve desired growth and development patterns.

## How Are Urban Service Areas Changed?

Urban service areas are changed in response to:

- (a) changes in population or land use forecasts
- (b) evidence of actual growth and development occurring much faster than forecast
- (c) adjustments or changes in the specific location or direction of growth and development
- (d) changes resulting from a community plan update or revision.

The process of change involves these steps:

- (1) the request for the proposed change must be sponsored by or initiated by the local governmental unit or the RPC (changes requested by individuals or private parties must be channeled through the local unit of government). The request must be accompanied by a plan or description of: (a) the specific land use or proposed development for the area; (b) any environmental corridor or other areas intended to be protected or excluded from development; and (c) a plan and statement of intent to provide the needed urban services to the area. The specific information which must be submitted is described in the Planning Submittal Requirement for Urban Service Area Amendments, available from the RPC.
- (2) the RPC staff consults with affected governmental units to obtain information related to the need and impacts of the proposed change, and to identify any unresolved issues or controversies
- (3) the RPC staff prepares an analysis of the proposed change
- (4) the Regional Planning Commission holds a public hearing on the proposed change
- (5) the Dane County Regional Planning Commission acts on the proposed change
- (6) the RPC action is forwarded to any other agency which needs to approve of changes for specific purposes (the County Board for Farmland Preservation Plan changes, DNR for Water Quality Plan changes, etc.)

In general, the proposed changes must be consistent with the process and criteria for delineation of urban service area boundaries:

- the change must be consistent with adopted forecasts and density standards and not exceed the maximum size allowed by these standards (a “trade” may be made to accommodate USA additions which would otherwise exceed the maximum size, by removing an equivalent amount of vacant developable land from the urban service area to compensate for the addition). Short-term staging boundaries are required for large urban service area changes.
- areas unsuitable for development (environmental corridors) must be identified and excluded from development (see the Environmental Corridors Fact Sheet, available from the RPC, for more information)
- the change should generally be consistent and supportive of adopted plan policies and objectives. Any important adverse impacts of the proposed change should be addressed and mitigated to the extent possible.

*For more specific questions or information, contact the CAPD office.*



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## DANE COUNTY REGIONAL PLANNING COMMISSION

### LIMITED SERVICE AREA POLICIES

#### I. Statement of Purpose

To consolidate, clarify and revise the current policies and criteria for Limited Service Areas (LSA) as part of the *Dane County Land Use and Transportation Plan* and *Water Quality Plan*. The intent is for any creation or expansion of an LSA to be consistent with existing plans and to support local and regional planning.

#### II. Definitions

Limited Service Areas are areas where only one or a few urban services, such as sanitary sewer service, are provided to accommodate special or unique facilities or institutional uses which are appropriately located outside urban service areas, or areas of existing development experiencing wastewater disposal or water supply problems.

##### A. Types of Limited Service Areas

- (1) Special Facilities: including, but not limited to, landfills, park, recreational, and tourist facilities such as park shelters, golf course clubhouses, etc.
- (2) Institutional Uses: including, but not limited to, schools, correctional facilities, etc.
- (3) Existing Development: existing residential or commercial development experiencing wastewater disposal or water supply problems. Existing development means development existing in the local unit of government on the date the application for Limited Service Area establishment or expansion is submitted.

#### III. Criteria for Establishing a Limited Service Area

##### A. Special Facilities and Institutional Uses

- (1) The LSA should be limited to the area needed for use/service;
- (2) Evaluation of alternative means of providing needed services, including cost-effectiveness analyses;
- (3) Documented agreement from the agencies which will be providing the service(s);
- (4) If establishment or expansion of an LSA is proposed within one-half mile of an urban service area, a discussion and evaluation of the feasibility of including the proposed LSA in the USA must be submitted.

##### B. Existing Development

- (1) Addressed in and consistent with the local comprehensive plan;
- (2) The LSA should be limited to existing development including infill;
- (3) **Infill** should be limited to vacant lots or parcels contiguous to existing development or permanent open space, or a combination thereof, on at least two sides; and immediately adjacent to and having direct access to sanitary sewer and existing public streets or roads. Any area proposed for infill must contribute to the solution of the stated water quality problem and must be consistent with resolution of the problem as defined in the application for creation of the LSA;
- (4) Documentation of existing and reasonably anticipated on-site wastewater or water supply problems;
- (5) Evaluation of alternative means of providing needed services, including cost-effectiveness analyses (cost-effectiveness shall not be the sole determinant of LSA establishment);
- (6) Documented agreement from the agencies which will be providing the service(s); and

- (7) If establishment or expansion of an LSA is proposed within one-half mile of an urban service area, a discussion and evaluation of the feasibility of including the proposed LSA in the USA must be submitted.

#### **IV. Criteria for Expansion of a Limited Service Area**

##### **A. Special Facilities**

Proposals to expand the original use or facility will be evaluated, using the same criteria as for establishing the service area. For expanding the area to include related but different uses or facilities, additional urban services may be required, depending on the specific circumstances and uses proposed. Economic development of an existing facility is not an acceptable criteria for expansion of an LSA. The intent of an LSA is not to support economic expansion.

##### **B. Institutional Uses**

Proposals to expand the original use or facility will be evaluated, using the same criteria as for establishing the area. If the area is to be expanded, an evaluation of the need for additional urban services may be required. These same criteria apply to expanding the area to include related but different uses.

##### **C. Existing Development**

Proposals to expand a Limited Service Area which was established to serve existing development may be considered if the following criteria are met:

- (1) The local comprehensive plan must address the expansion area, and include policies to control development in the rest of the community and preserve farmland.
- (2) The additional development should be consistent with the goals and objectives of the *Dane County Land Use and Transportation Plan* and Wisconsin's Comprehensive Planning Legislation.
- (3) Residential development should meet the definition of Conservation Subdivisions in §66.1027(1)(a) Wis. Stats., with compact lots, common open space and maintenance/protection of natural features. Suggested guidelines include a minimum net density (exclusive of open space) of two dwelling units per acre (which corresponds to a maximum lot size of about 20,000 sq. ft.). It is also recommended that a mix of housing types be included.

#### **V. Submittal Requirements**

##### **A. An application for establishment or expansion of a Limited Service Area must include a plan describing:**

- (1) the specific proposed land uses and/or facilities to be included in the service area;
- (2) The services to be provided, including a cost-effectiveness analysis, and a statement from the service provider, if other than the applicant, of the willingness to provide the service(s);
- (3) delineation of environmental corridors in the service area consistent with RPC and DNR criteria;
- (4) a plan for protecting sensitive environmental resources and water quality, including a preliminary stormwater management plan;
- (5) how the proposal meets the applicable criteria listed under III and IV above;
- (6) the relation to and opportunities for coordination and cooperation with other units of government; and
- (7) any other relevant information needed to evaluate the request.

##### **B. Applications must be submitted by the general purpose unit of government (town, village, city, county) having jurisdiction in the proposed service area. RPC staff will provide assistance in assembling the needed information.**

# FACT SHEET

## Environmental Corridors

Environmental corridors are continuous systems of open space in urban and urbanizing areas, that include environmentally sensitive lands and natural resources requiring protection from disturbance and development, and lands needed for open space and recreational use. They are based mainly on drainage-ways and stream channels, floodplains, wetlands, steep slopes, and other resource features, and are part of a countywide system of continuous open space corridors.



Open Space Functions of Environmental Corridor Resource Features	Resource Features							
	Lakes, Ponds, & Streams	Wetlands	Floodplains	Steep Slopes	Woodlands	Parks	Unique Vegetation or Geology	Problem Soils
Function								
Protect Water Resources, Drainage & Hydrologic Functions	▲	▲	▲	▲	▲	▲	▲	▲
Provide Pollution Control		▲	▲	▲	▲	▲	▲	
Protect Public Health, Safety, and Property	▲	▲		▲				▲
Provide Outdoor Recreation and Education Opportunities	▲	▲	▲	▲	▲	▲	▲	
Provide Wildlife Habitat	▲	▲	▲	▲	▲	▲	▲	
Enhance Scenic Beauty and Shape Urban Form	▲	▲	▲	▲	▲	▲	▲	

▲ Primary Function      △ Secondary or Supplemental Function

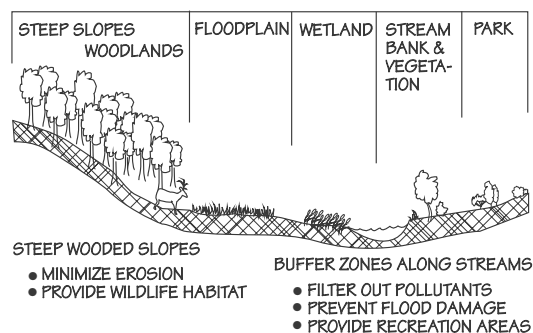
### How Are Environmental Corridors Mapped and Used?

Environmental corridors have been mapped for all urban service areas in the county. The RPC staff works with the local unit of government to delineate the corridors, based on available information and mapping

of environmental resources and open space lands (water bodies and drainageways, floodplains, wetlands, steep slopes, woodlands, areas of unique vegetation or geology, existing and proposed parks, etc.).

The objective is to delineate, in local *and* regional plans, those lands and resources which perform important environmental functions (see illustration) and need to be protected from development and urbanization. Including the corridors in community plans helps the local government to protect lands needed for drainage and recreation; avoid problems from development on steep slopes, poor soils or flood-prone areas; protect water resources and avoid pollution; and enhance scenic beauty and wildlife habitat.

Once delineated and adopted, the corridors are used by local governments, and by the RPC and state and federal agencies in making decisions on the location of urban development and major facilities. The corridors are also used as a basis or starting point for open space and recreation planning and acquisition. An important use of the corridors is in RPC/DNR review of sewer extensions and sewer service areas, to direct urban development to areas outside the corridors.



The schematic diagram depicts the resource elements one finds in a typical environmental corridor. Often one or more elements are found in the same locality, such as woodlands and steep slopes.

### Making Changes to Corridors

Changes to the environmental corridors are classified into two categories: a) **major changes** to the corridors that require approval by the Regional Planning Commission (RPC) and Department of Natural Resources (DNR) before these changes would be effective for the purpose of reviewing sanitary sewer extensions; and b) **minor changes** that do not require prior approval by the RPC or the DNR.

Any change to an environmental corridor, whether major or minor, should be initiated or sponsored by the affected local units of government (city, village, town), or by the Regional Planning Commission in consultation with affected local units of government. It is expected that all changes, major or minor, would be initiated by formal action by the municipality—by resolution, or approval of a plat or development plan.

**Major Changes.** Major changes have the potential for significant impacts on water quality, and require RPC and DNR approval. The review and decision process for a proposed major corridor change requires a public hearing and generally takes a minimum of three months.

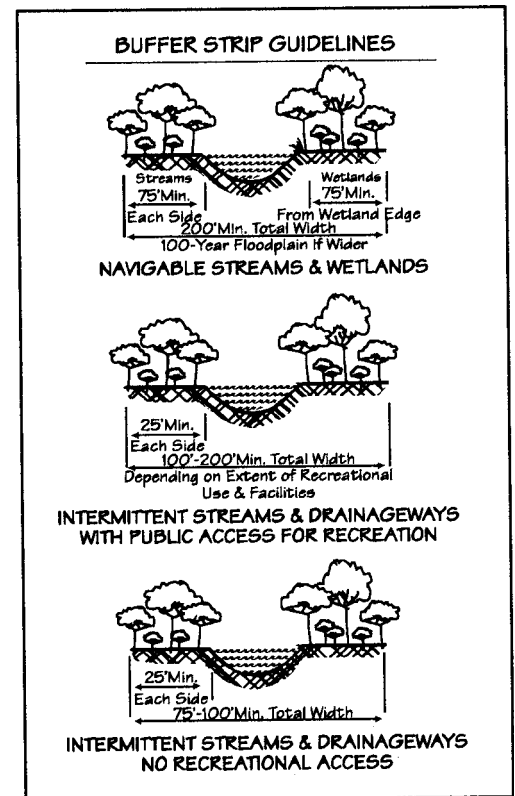
Major changes include:

- 1) Removing any mapped wetland area unless exempted by state administrative rules or state-approved rezoning.
- 2) Any change that would remove any area below the ordinary high water mark of a stream, pond or lake.
- 3) Any change resulting in the elimination or interruption in the continuity of any corridor segment which includes floodplains, wetlands, shoreland buffer strips or steep slopes adjacent to water bodies (defined as slopes over 12% where the base of slope does not have at least 75 feet of vegetated buffer strip between the base of slope and the ordinary high water mark of perennial streams, ponds and lakes).
- 4) Any change reducing the width of vegetated shoreland buffer strips along streams, wetlands, and drainageways below minimum guidelines (see illustration).

**Minor Changes.** Minor changes generally do not have the potential for significant impacts on water quality, and do not require RPC approval. The RPC should be notified of the official local action (resolution, plat or development plan approval, etc.) changing the corridors.

Minor changes include:

- 1) Changes resulting from DNR-approved changes in floodplain or wetland delineations, or DNR-approved rezoning.
- 2) Relocation or shortening of a corridor based solely on intermittent streams and drainageways, or adjustment of the buffer strip width within the guidelines (see illustration).
- 3) Addition to or removal from the corridors of public or private lands which do not include water bodies, floodplains, wetlands, minimum buffer strips or steep slopes adjacent to water bodies.
- 4) Changes resulting from utility or roadway maintenance or construction which meet the criteria set forth in NR 117. (It is not the intent of the environmental corridors to prevent or obstruct necessary maintenance, expansion or construction of transportation or utility facilities intended to serve areas outside of the corridors, needed to maintain or improve continuity of those systems, or designed to serve compatible uses in the corridors, such as park shelters or facilities. Facilities intended to serve new sewered residential, commercial or industrial development in the corridors are not permitted.)



For more specific questions contact:



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## **Appendix 2**

### **Dane County Summarized Water Resources Data and Baseflow Water Quality Monitoring Results**

**DANE COUNTY  
SUMMARIZED WATER RESOURCES DATA**

Surface Water Acreage in Dane County:	23,000 (36 square miles)
Percent of County Covered by Surface Water:	3%
Number of Named Streams in County:	68
Total Length of Streams in Miles:	475
Number of Named Lakes in County:	37
Total Area of Lakes in Square Miles:	33
Wetland Acreage in County:	52,370
(From DNR Wetland Inventory Maps)	

**SIZE OF MAJOR RIVER BASINS  
AND ASSOCIATED WATERSHEDS IN DANE COUNTY  
(IN SQUARE MILES)**

<b>UPPER ROCK RIVER BASIN</b>	<b>104.97*</b>	<b>SUGAR—PECATONICA RIVER BASIN</b>	<b>271.07</b>
Crawfish River	16.74*	Upper Sugar River	47.47
Mauneshia River	88.23*	Badger Mill Creek	32.56
<b>YAHARA RIVER BASIN:</b>	<b>466.97</b>	Lower Sugar River	29.05
Upper Yahara River	77.40	Story and Allen Creeks	35.72
Sixmile Creek	61.18	East Branch Pecatonica River	49.93
Pheasant Branch Creek	23.10	West Branch Sugar River	66.89
Lake Mendota Basin	41.57	Little Sugar River	9.45
Lake Monona Basin	46.83	<b>WISCONSIN RIVER BASIN:</b>	<b>221.52</b>
Nine Springs Creek	13.11	Spring Creek-Lodi Marsh	22.68
Lake Waubesa Basin	33.97	Crystal Lake-Marsh Creek	59.92
Mud Lake-Lake Kegonsa	58.21	East Branch Blue Mounds Creek	35.47
Lower Yahara River	44.05	Black Earth Creek	103.55
Badfish Creek	67.75		
<b>LOWER ROCK RIVER BASIN/ KOSHKONONG CREEK WATERSHED</b>	<b>173.72</b>		
Upper Koshkonong Creek	103.09		
Lower Koshkonong Creek	34.48		
Saunders Creek	36.15		

Includes only area of watershed within Dane County. See map on next page.

Source: Dane County Water Data Index, DCRPC.



**Physical Characteristics of Named Dane County Lakes**

Named Lakes	Location			Drainage System	Surface Acres			Maximum Depth (ft.)	Maximum Length (ft.)	Maximum Width (ft.)	Shoreline (miles)
	T	R	S		No.	Under 3 Ft. (%)	Over 20 Ft. (%)				
Barney Lake	6N	9E	34	Land-locked	27	70	0	6	0.28	0.84	0.84
Bass Lake	5N	10E	4	Badfish Creek	69	40	0	9	0.67	1.67	1.67
Lake Belle View	5N	8E	34	Sugar River	100	45	0	7	0.46	3.43	3.43
Brandenburg Lake	8N	8E	6	Land-locked	38	40	0	6	0.30	0.99	0.99
Cherokee Lake	8N	9E	24	Yahara River	57	15	5	23	0.8	2.4	2.4
Crystal Lake	9N	7E	1	Land-locked	500	25	0	9	1.8	5.30	5.30
Fish Lake	9N	7E	3	Land-locked	216	15	45	62	1.0	3.30	3.30
Fishers Lake	9N	6E	32	Dunlap Creek	5.2	30	0	8	0.21	0.53	0.53
Goose Lake	7N	12E	2	Koshkonong Creek	32	100	0	3	0.96	2.2	2.2
Goose Pond	6N	8E	13	Badger Mill Creek		80	0	4	0.16	0.68	0.68
Grass Lake (Town of Dunkirk)	5N	11E	18	Land-locked	10.2	60	0	5	0.18	0.53	0.53
Grass Lake (Town of Dunn)	6N	10E	30	Badfish Creek	48	40	0	9	0.68	1.74	1.74
Lake Harriet	5N	9E	9	Land-locked	32	10	0	12	0.40	1.03	1.03
Hook Lake	6N	10E	29	Land-locked	9.2	100	0	3	0.39	0.79	0.79
Indian Lake	8N	7E	2	Halfway Prairie Creek	66	25	0	6	0.53	1.3	1.3
Island Lake	5N	10E	3	Land-locked	9.8	50	0	5	0.16	0.14	0.53
Lake Kegonsa	6N	11E	16	Yahara River	3,209	10	50	31	3.2	2.4	9.5
Lake Marion	8N	6E	16	Black Earth Creek	16.7	20	0	10	0.35	0.11	0.85
Marshall Millpond	8N	12E		Mauneshia River	185	50	0	5	1.18	0.40	4.9
Lake Mendota	7N	9E		Yahara River	9,842	5	80	82	5.1	4.8	22.9
Lake Monona	7N	10E		Yahara River	3,274	5	70	64	3.3	1.6	14.4
Morse Pond	6N	8E	3	Land-locked	11.6	85	0	4	0.30	0.08	0.69
Mud Lake (Town of Deerfield)	7N	12E	2	Land-locked	34	40	0	8	0.34	0.21	0.98
Mud Lake (Town of Roxbury)	9N	7E	4	Land-locked	54	50	0	8	0.48	0.33	1.22
Lower Mud Lake	6N	10E	10	Yahara River	195	25	0	015	0.78	0.43	2.4
Upper Mud Lake	7N	10E	28	Yahara River	223	30	0	8	0.60	0.56	2.8
Rice Lake	5N	12E	14	Land-locked	98	30	0	8	0.93	0.40	2.67
Rockdale Millpond	6N	12E	13	Koshkonong Creek	72	75	0	5	1.33	0.23	2.79
Satmo Pond	8N	7E	32	Black Earth Creek	3.7	15	0	20	0.17	0.04	0.38
Stewart Lake	6N	6E	2	Moen Creek	6.8	25	0	13	0.20	0.10	0.50
Stoughton Lake	5N	11E	5	Yahara River	82	60	0	5	1.0	0.22	2.44
Sweet Lake	5N	12E	23	Land-locked	14.8	75	0	5	0.25	0.22	8.80
Token Creek Millpond	9N	10E	34	Token Creek	44	60	0	6	0.88	0.14	2.6
Verona Gravel Pit	6N	8E	22	Land-locked	9.1	10	0	20	0.27	0.1	0.6
Lake Waubesa	6N	10E	32	Yahara River	2,080	10	25	34	3.34	0.71	9.9
Lake Windsor	9N	10E	31	Yahara River	9	40	0	6	0.25	0.08	0.7
Lake Wingra	7N	9E	27	Murphy Creek	345	15	1	21	0.36	0.57	4.2

Water bodies are displayed on Water Resources Map on page 11

Source: Wisconsin Department of Natural Resources, 1985. Surface Water Resources of Dane County, pg. 77

**Physical Characteristics of Named Dane County Streams**

Stream Name	Location		Tributary to	Base Discharge (cfs)	Watershed in County (Miles) <sup>2</sup>	Surface Area (acres)	Length (miles)	Avg. Gradient (ft/mile)	Avg. Width (ft)	Avg. Depth (ft)	Principal Fishery Value
	T	R									
Badfish Creek	5N	10E	Yahara River	77.5	67	20.0	6	4.1	30	1.8	Forage
Badger Mill Creek	6N	8E	Sugar River	3.7	34	4.5	5	10.7	7.5	1.0	Forage
Black Earth Creek	8N	6E	E. Branch Blue Mounds Creek	21.4	105	51.0	21	6.9	17	1.2	Trout
Blue Mounds Branch	5N	6E	Gordon Creek	6.5	8	6.0	5.5	51.1	6	0.6	Forage
Blue Mounds Creek, E. Br.	8N	6E	Wisconsin River	22.3	35	11.0	4	3.9	22	1.2	Trout
Bohn Creek	7N	6E	Eivers Creek	1.4	4	3.0	3	37	2.5	0.6	Trout
Brewery Creek	7N	7E	Black Earth Creek	0.86		1.7	4	11.5	3.5	0.4	Forage
Deer Creek	6N	7E	Mt. Vernon Creek	1.7	4	4.0	5	42	6.5	0.8	Forage
Door Creek	6N	10E	Yahara River, Lake Kegonsa	9.4	29.5	12.3	12.7	2.4	16	1.0	Forage
Dunlap Creek	9N	6E	Wisconsin River	5.8	13.5	7.0	9.5	15.0	8	0.9	Trout
Eivers Creek	7N	6E	E. Branch Blue Mounds Creek	15	12	7.6	8	21.0	7	1.0	Trout
Flynn Creek	5N	8E	W. Branch Sugar River	1.6	5	1.7	3	21.8	7	0.5	Trout
Frogpand Creek	5N	10E	Badfish Creek	2.3	4	1.4	7	11.0	3	0.5	Forage
Fryes Feeder	6N	7E	Mt. Vernon Creek	4.3	4.8	1.5	4	38.3	3	0.5	Trout
Garfoot Creek	7N	7E	Black Earth Creek	3.5	6.0	2.5	3	32.0	5	0.4	Trout
German Valley Creek	5N	6E	Gordon Creek	.19	10.2	1.5	5	36.0	1	0.6	Forage
Halfway Prairie Creek	8N	6E	Black Earth Creek	5.7	29.2	7.0	11	15.7	6	0.8	Forage
Henry Creek	5N	8E	Sugar River	1.3	2.0	0.1	1	27.8	4	1.0	Trout
Jeglum Valley Creek	5N	6E	Kittleson Valley Creek	2.0	1	0.5	1.5	53.3	0.5	0.4	Forage
Keenan Creek	6N	10E	Yahara River, Lower Mud Lake	1.3	3.6	2.1	4.4	25	3	0.5	Forage
Kittleson Valley Creek	5N	6E	Gordon Creek (Iowa Co.)	7.0	29.8	2.9	8	19.3	6	0.5	Trout
Koshkonong Creek	5N	12E	Rock River	63.8	138	45	32	3.8	20	1	Forage
Leuten Creek	6N	11E	Yahara River	3.0	10	2	3	9.7	4	0.9	Forage
Little Door Creek	7N	11E	Door Creek	1.8	8.3	2.5	3	11.8	4	0.75	Forage
Little Norway Creek	7N	6E	Bohn Creek	0.36		1	1.3	92.3	1	0.25	Forage
Little Sugar River	5N	7E	Sugar River	1.6	6.9	1.5	2	7.5	3	0.4	Forage
Marsh Creek	8N	6E	Wisconsin River	2.7	3.4	1.3	3.5	5.0	3	0.3	Forage
Mauneshia River	8N	12E	Crayfish River (Dodge Co.)	67	88	85	20	5.8	20	1	NP, PF
Milum Creek	5N	8E	W. Branch Sugar River	0.4	3.3	0.5	2	15.0	1	0.7	Forage
Moen Creek	7N	6E	Eivers Creek	2.4	2.5	1	2	103.3	3	0.3	Trout
Mt. Vernon Creek	5N	7E	W. Branch Sugar River	19.7	16.7	10	7	18.5	10	2	Trout
Mud Creek (Deerfield)	7N	12E	Koshkonong Creek	0.1	22.4	2.2	9	6.0	4	2	Forage
Mud Creek (York)	9N	12E	Crawfish River (Dodge Co.)	0.2	6.0	0.3	3	5.0	1	0.4	Forage
Murphy Creek	7N	9E	Yahara River, Lake Monona	0.1	8.6	10	2.5	2.0	30	3	PF
Murphy's Creek	6N	10E	Yahara River, Lake Waubesa	2.1	5.4	1.1	3	8.0	3	0.4	Forage
Nine Springs Creek	7N	10E	Yahara River	0.1	15.1	5.8	6	3.3	8	2	Forage, Trout
Nolan Creek	9N	12E	Crawfish River (Dodge Co.)	0.1	5.7	1.2	5	22.0	3	1	Forage
Oregon Branch	5N	10E	Badfish Creek	42.9	30	18.2	10	8.2	15	1	Forage
Pheasant Branch Creek	7N	8E	Yahara River, Lake Mendota	1.6	22.7	4	7	19.7	3	0.6	PF
Pleasant Valley Branch	5N	6E	Kittleson Valley Creek	2.1		6	7	27.0	5	0.5	Forage
Pleasant Valley Creek	7N	6E	E. Branch Blue Mounds Creek	0.1		1	3	51.0	3	0.4	Forage
Pleasure Valley Creek	7N	6E	Ryan Creek	2.7	2.3	1	2.5	120	3	0.4	Forage
Primrose Branch	5N	7E	W. Branch Sugar River	28	9.0	1.8	5	19.4	3	0.5	Trout
Roxbury Creek	9N	6E	Wisconsin River	2.0	21.2	14.5	8	26	15	2	Forage
Rutland Branch	5N	10E	Badfish Creek	6.8	6.0	1.5	2	25.6	6	1	Trout
Ryan Creek	7N	6E	E. Branch Blue Mounds Creek	5.8	5.5	4.5	6	106	6	0.7	Trout
Saunders Creek	5N	12E	Rock River (Rock Co.)	3.6	36	11	10	5.1	5	1.2	Forage

**Physical Characteristics of Named Dane County Streams**

Stream Name	Location		Tributary to	Base Discharge (cfs)	Watershed in County (Miles) <sup>2</sup>	Surface Area (acres)	Length (miles)	Avg. Gradient (ft/mile)	Avg. Width (ft)	Avg. Depth (ft)	Principal Fishery Value
	T	R									
Schlapach Creek	7N	7E	Sugar River	2.6	5	1.8	3.5	24.4	3	0.5	Forage
Schumacher Creek	8N	12E	Mauneshia River, (Marshall Millpond)	0.1	11	1.5	3	5.0	2	1	Forage
Sixmile Creek	8N	9E	Yahara River, Lake Mendota	16.4	43	14.5	12	7.2	10	1	NP, PF
Spring Creek (Dane)	9N	8E	Wisconsin River (Columbia Co.)	5.0	22.9	4	3.5	41.3	0.6	0.3	Trout
Spring Creek (Medina)	8N	12E	Mauneshia River	0.9	6	2.3	3.5	5.0	3.5	0.5	Forage
Spring Creek (Westport)	8N	9E	Sixmile Creek	3.5	12.7	7.3	6	21.6	10	1	Forage, NP
Spring Valley Creek	5N	7E	Little Sugar River	1.0	2	1	2	13.3	3	0.3	Forage
Starkweather Creek, E. Br.	7N	10E	Yahara River, Lake Monona	1.7	21.5*	6.5	3	5.0	12	0.7	Forage
Starkweather Creek, W. Br.	7N	10E	E. Branch Starkweather Creek	8.8		4.2	2	3.7	12	0.8	Forage
Story Creek	5N	8E	Sugar River (Green Co.)	8.9	27	6.5	3	8.7	8	0.8	Trout
Stransky Creek	8N	12E	Mauneshia River	0.04	3	1	2	16.1	4	1	Forage
Sugar River	5N	8E	Rock River (Illinois)	70	218.4	120	30	4.1	20	1	NP, PF, Trout
Sugar River. W. Branch	5N	8E	Sugar River	8.1	66.5	30	18	7.5	7	0.7	Trout
Swan Creek	6N	10E	Yahara River, Lake Waubesa	1.1	7	2	2	16.1	3	0.5	Forage
Syftestad Creek	5N	6E	Kittleson Valley Creek	0.49	6	1.8	5	28.2	3	0.3	Forage
Taken Creek	8N	10E	Yahara River	18.6	27.3	18	10	8.7	15	1.5	Trout, NP
Vermont Creek	8N	6E	Black Earth Creek	6.4	14.9	9	8	19.2	10	0.7	Trout
Wendt Creek	8N	6E	Halfway Prairie Creek	2.7	10.5	4	6	23.3	7	6	Forage
Wisconsin River			Mississippi River	2,000	225	1,386	14	1.4	500	6	WE, NP, PF
Yahara River	5N	11E	Rock River (Rock Co.)	68.8	466	127	40	3.60	100	4	WE, NP, PF
York Valley Creek	5N	6E	Kittleson Valley Creek	4.2	3	1	2	9.60	4	1	Trout

Note: WE = Walleye, NP = Northern Pike, PF = Panfish

\*Watershed of east and west branches combined.

Water bodies are displayed on Water Resources Map on page 11

Source: Wisconsin Department of Natural Resources, 1985. Surface Water Resources of Dane County, pg. 79-80

STREAM BASEFLOW WATER QUALITY MONITORING RESULTS

Period of Record	Station		Flow cfs	Temperature °C	Dissolved Oxygen mg/l	pH s.u.	NO <sup>2</sup> + NO <sup>3</sup> Nitrogen mg/l	Ammonia Nitrogen mg/l	Organic Nitrogen mg/l	Total Nitrogen mg/l	Dissolved Phosphorus mg/l	Total Phosphorus mg/l	Specific Conductivity us/cm	Chloride mg/l	Alkalinity mg/l as CaCO <sub>3</sub>	Turbidity NTU	Chemical Oxygen Demand mg/l	Suspended Sediment mg/l	Fecal Coliform col/100ml
<b>WISCONSIN RIVER BASIN</b>																			
2002 (April – Oct.)	Black Earth Creek @ USGS gage above Black Earth	mean	38.3	15.2	10.1	8.0	2.9	0.04	0.10	3.00	0.05	0.06	615	23	280	–	< 10	19	999
		min.	30.0	13.5	7.8	7.7	2.5	0.04	0.06	2.74	0.04	0.05	525	21	247	–	< 10	8	34
		max.	46.0	16.0	15.7	8.4	3.1	0.04	0.16	3.21	0.06	0.08	642	24	296	–	< 10	28	1,600
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	–	6	6
2003 (April – Sept.)	Black Earth Creek Low Flow #3 near Cross Plains	mean	0.84	16.75	11.3	8.2	3.2	0.04	0.34	3.59	0.09	.13	646	23	296	–	13	24	231
		min.	0.52	9.5	8.9	8.1	2.7	0.03	0.15	3.19	0.04	.09	631	21	264	–	10	5	37
		max.	1.5	25.0	15.6	8.4	4.2	0.04	0.56	4.37	0.15	.17	662	26	316	–	20	50	380
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	–	6	6
<b>SUGAR-PECATONICA RIVER BASIN</b>																			
2003 (Jan. – Dec.)	Sugar River	mean	–	8.8	10.0	7.8	6.8	0.06	0.49	7.4	0.07	0.12	712	86	251	–	–	30	579
		min.	–	0.1	7.6	7.5	4.9	0.02	0.14	5.7	< 0.01	0.03	557	59	191	–	–	4	68
		max.	–	19.0	12.3	8.0	8.5	0.23	1.01	9.2	0.18	0.26	830	107	291	–	–	158	1,540
		–USGS # samples	–	12	12	12	12	12	12	12	12	12	12	12	12	11	–	–	12
2003 (Jan. – Dec.)	Badger Mill Creek @ STH 69 south of Verona	mean	–	10.0	10.5	7.8	9.9	0.08	0.92	10.9	0.13	0.28	1,094	217	268	–	–	43	3,944
		min.	–	2.6	8.5	7.6	6.1	0.02	0.60	7.0	0.02	0.15	741	151	194	–	–	5	68
		max.	–	19.0	13.6	8.1	12.3	0.17	2.06	13.2	0.50	0.60	1,283	265	309	–	–	360	23,600
		–MMSD # samples	–	12	12	12	12	12	12	12	12	12	12	12	12	12	–	–	12
2003 (May – Sept.)	W. Branch Sugar River @ STH 92 near Mt. Vernon	mean	11.8	14.4	9.5	7.9	5.9	0.04	0.21	6.18	0.06	0.11	700	45	271	–	12	61	1,043
		min.	10.0	11.5	7.5	7.7	5.5	0.02	0.17	5.75	0.05	0.06	661	34	253	–	< 10	33	360
		max.	15.0	17.5	11.8	8.3	6.5	0.07	0.27	6.79	0.07	0.16	719	50	279	–	20	84	2,000
		–USGS # samples	6	6	5	6	6	6	6	6	6	6	6	6	6	6	–	6	6
2000 (April – Nov.)	Mt. Vernon Creek near Mt. Vernon	mean	17.7	10.5	10.3	7.9	4.7	0.03	0.10	4.83	0.05	0.05	582	12	272	3.4	< 10	29	332
		min.	15.0	7.0	9.6	7.8	4.6	0.02	0.06	4.75	0.04	0.04	569	12	268	1.0	< 10	16	33
		max.	20.0	13.5	11.2	8.0	4.8	0.04	0.13	4.97	0.06	0.06	591	13	276	6.4	< 10	46	670
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	6	6	6
<b>YAHARA RIVER BASIN</b>																			
2002 (April – Oct.)	Yahara River @ Golf Course @ Windsor	mean	15.7	17.2	9.3	8.0	8.2	0.04	0.23	8.46	0.05	0.08	763	40	294	–	12	31	418
		min.	12.0	15.0	7.2	7.8	7.7	0.04	0.14	8.05	0.04	0.06	751	38	274	–	< 10	3	120
		max.	24.0	19.0	11.6	8.2	8.7	0.06	0.28	9.00	0.06	0.09	778	41	314	–	20	74	670
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	–	6	6
2001 (Apr. – Nov.)	Token Creek @ USH 51 near Madison	mean	25.2	10.8	10.0	7.8	7.8	0.04	0.21	8.08	0.06	0.07	731	36	297	6.4	< 10	53	235
		min.	22.0	5.5	6.6	7.0	7.2	0.03	0.15	7.51	0.04	0.04	714	33	265	6.4	< 10	23	23
		max.	29.0	17.0	12.8	8.2	8.2	0.04	0.28	8.49	0.06	0.13	742	38	328	6.4	< 10	78	520
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	1	6	6
2002 (Apr. – Nov.)	Sixmile Creek @ Mill Rd. near Waunakee	mean	13.7	14.2	10.8	7.9	2.9	0.03	0.36	3.30	0.11	0.15	691	32	306	3.2	< 10	15	1,426
		min.	8.9	8.0	7.5	7.4	2.5	0.02	0.27	2.95	0.06	0.08	620	29	277	1.5	< 10	7	5
		max.	18.0	21.0	15.4	8.3	3.2	0.04	0.46	3.56	0.16	0.21	728	35	327	8.4	< 10	27	5,800
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	6	6	6
2001 (April – Nov.)	Pheasant Branch Creek @ USH 12 @ Middleton	mean	3.8	11.8	8.1	7.5	6.5	0.14	0.62	7.22	0.08	0.15	931	41	321	4.0	13	33	699
		min.	2.0	6.5	5.4	7.2	4.0	0.12	0.55	4.84	0.03	0.09	828	32	294	4.0	< 10	11	14
		max.	6.6	18.5	10.3	7.7	8.0	0.17	0.70	8.68	0.14	0.25	991	49	347	4.0	20	51	1,500
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	1	6	6
2001 (April – Nov.)	E. Branch Starkweather Creek @ Milwaukee St.	mean	1.2	13.8	7.9	7.3	2.5	0.15	0.38	3.01	0.05	0.11	939	105	308	2.3	17	23	399
		min.	0.9	7.5	4.7	6.7	1.3	0.04	0.31	1.72	0.03	0.08	883	94	285	2.3	10	6	7
		max.	1.9	22.5	13.3	7.8	3.4	0.31	0.49	3.92	0.08	0.16	1,040	132	340	2.3	30	43	1,900
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	1	6	6
2001 (Apr. – Nov.)	W. Branch Starkweather Creek @ Milwaukee St.	mean	5.1	14.5	8.2	7.6	2.8	0.09	0.57	3.42	0.05	0.11	820	51	325	3.0	20	34	754
		min.	2.9	6.5	3.9	7.1	1.5	0.02	0.40	2.16	0.04	0.05	739	45	311	3.0	20	9	61
		max.	6.0	22.5	13.0	7.9	3.5	0.18	0.64	4.29	0.06	0.30	907	71	347	3.0	20	55	2,600
		–USGS # samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	1	6	6

STREAM BASEFLOW WATER QUALITY MONITORING RESULTS

Period of Record	Station		Flow cfs	Temperature °C	Dissolved Oxygen mg/l	pH s.u.	NO <sup>2</sup> + NO <sup>3</sup> Nitrogen mg/l	Ammonia Nitrogen mg/l	Organic Nitrogen mg/l	Total Nitrogen mg/l	Dissolved Phosphorus mg/l	Total Phosphorus mg/l	Specific Conductivity us/cm	Chloride mg/l	Alkalinity mg/l as CaCO <sub>3</sub>	Turbidity NTU	Chemical Oxygen Demand mg/l	Suspended Sediment mg/l	Fecal Coliform col/100ml
2001 (April – Nov.)	Door Creek near Cottage Grove  –USGS	mean	7.4	13.9	9.6	7.6	4.9	0.09	0.40	5.41	0.05	0.09	810	37	344	5.6	13	31	397
		min.	6.0	9.0	4.3	7.3	4.6	0.02	0.36	5.09	0.03	0.07	800	35	339	2.1	10	9	130
		max.	7.8	19.0	15.1	8.1	5.2	0.19	0.43	5.78	0.08	0.15	827	39	351	17.0	20	75	1,100
		# samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	6	6	6
2002 (Apr. – Oct.)	Nine Springs Creek @ Moorland Rd.  –MMSD	Mean	10.2	19.3	8.8	7.7	4.6	0.41	0.35	4.95	.05	0.09	736	44	309	–	15	30	193
		min.	6.4	15.5	3.6	7.3	3.2	0.26	0.22	3.65	.04	0.05	638	42	291	–	10	4	87
		max.	15.0	25.5	14.8	8.2	5.6	0.61	0.54	5.82	.06	0.14	768	47	316	–	20	57	280
		# samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	–	6	6
2000 (April – Nov.)	Yahara River near Dunkirk  –USGS	mean	304	16.9	9.9	8.6	0.5	0.12	0.59	1.24	.06	.13	507	41	190	7.4	33	16	77
		min.	52	9.5	7.1	8.4	0.1	0.02	0.54	0.72	.04	.05	459	38	164	3.0	20	5	5
		max.	540	24.0	11.5	8.8	1.7	0.32	0.67	2.34	.08	.22	610	51	223	19.0	50	30	120
		# samples	6	6	6	6	6	6	6	6	6	6	6	6	6	5	6	6	6
2000-3 (April – Oct.)	Badfish Creek @ Co. Hwy. A  –MMSD	mean	–	12.5	9.7	7.8	11.8	0.07	0.90	12.7	0.12	0.24	1,406	268	281	–	–	8	1,953
		min.	–	8.8	8.1	7.7	10.8	0.02	0.53	11.9	0.03	0.12	1,372	237	266	–	–	4	71
		max.	–	16.6	12.4	7.2	13.0	0.22	1.37	140	0.21	0.32	1,477	296	306	–	–	18	5,900
		# samples	–	8	8	8	8	8	8	8	8	8	8	8	8	8	–	–	8
2002 (April– Oct.)	<b>MAUNESHA RIVER BASIN</b>  Mauneshia River south of USH 151  –USGS	mean	9.3	16.8	8.1	7.6	7.9	0.04	.37	8.35	.07	0.12	796	43	304	–	12	40	2,903
		min.	2.7	12.5	6.4	7.0	6.1	0.03	.28	6.63	.04	0.07	748	41	250	–	< 10	20	310
		max.	31	21.0	12.7	8.1	9.1	0.07	.52	9.54	.10	0.20	820	48	334	–	20	63	7,300
		# samples	6	6	6	6	6	6	6	6	6	6	6	6	6	6	–	6	6
2003 (April– Sept.)	<b>KOSHKONONG CREEK BASIN</b>  Koshkonong Creek @ Bailey Rd. near Sun Prairie  –USGS	mean	4.6	17.5	9.1	7.8	15.2	0.11	1.07	16.5	0.65	0.70	1,517	273	264	–	30	4	653
		min.	2.0	11.5	7.9	7.5	13.5	0.04	0.79	14.7	0.37	0.51	1,440	248	243	–	30	1	240
		max.	5.6	21.5	10.4	8.2	17.9	0.24	1.34	19.3	0.88	0.88	1,670	327	280	–	30	10	1,500
		# samples	6	6	6	6	6	6	6	6	6	6	6	6	6	6	–	6	6
2003 (April– Sept.)	Koshkonong Creek @ Hoopen Rd. near Rockdale  –USGS	mean	29.7	16.5	8.2	8.0	4.0	0.22	0.68	4.95	0.16	0.32	921	87	315	–	25	94	877
		min.	16.0	8.5	6.9	7.7	3.7	0.13	0.50	4.57	0.06	0.21	811	49	302	–	10	17	200
		max.	48.0	22.5	10.3	8.4	5.0	0.28	0.96	5.74	0.24	0.39	1,030	123	323	–	40	180	1,700
		# samples	6	6	6	6	6	6	6	6	6	6	6	6	6	6	–	6	6