

Chapter NR 104

INTRASTATE WATERS — USES AND DESIGNATED STANDARDS

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Note: Chapter NR 104 as it existed on September 30, 1976 was repealed and a new chapter NR 104 was created effective October 1, 1976.

NR 104.01 General. (1) "It is . . . the goal of the state of Wisconsin that, wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in/ and on the water be achieved by 1983. . ." section 147.01(1) (b), Wis. Stats. The long-range goal of Wisconsin water quality standards is, therefore, to permit the use of water resources for all lawful purposes. Surface waters which because of natural conditions are not conducive to the establishment and support of the complete heirarchy of aquatic organisms shall not be degraded below present levels, but shall be upgraded as necessary to support assigned uses. Most surface waters within the state of Wisconsin already meet or exceed the goals specified above. However, certain waters of the state may not meet these goals for the following reasons:

- (a) The presence of inplacc pollutants,
- (b) Low natural streamflow,
- (c) Natural background conditions, and
- (d) Irretrievable cultural alterations.

Where it is determined that one or more of these factors may interfere with the attainment of the statutory objectives, a variance from the criteria necessary to achieve those objectives is provided.

(2) Surface waters within the boundaries of the state shall meet the standards for fish and aquatic life and recreational use with the variances and additions listed below in sections NR 104.02 to NR 104.07. A system is provided within which small streams and other surface waters which cannot support high quality uses are granted a variance from the high quality criteria.

(3) Effluent limitations specified in this chapter shall be achieved by industrial, private and municipal dischargers by July 1, 1983 unless an earlier date is otherwise provided in a permit issued under section

147.02, Wis. Stats. Municipal dischargers eligible for state or federal grant-in-aid shall achieve the specified effluent limitations upon completion of construction or modification of facilities approved by the department of natural resources subsequent to adoption of this chapter, unless otherwise provided in a permit issued under section 147.02, Wis. Stats.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.02 Surface water classifications and effluent limitations. (1) **HYDROLOGIC CLASSIFICATION.** "Surface waters" as defined in NR 102.01 (7), Wis. Adm. Code, may be classified according to their hydraulic or hydrologic characteristics. For purposes of this chapter, surface waters will be classified by the department into one of the following categories:

(a) *Lakes or flowages.* This classification includes bodies of water whose current is more or less stagnant or which lacks a unidirectional current.

(b) *Diffused surface waters.* This classification includes any water from rains, intermittent springs or melting snow which flows on the land surface, through ravines, etc., which are usually dry except in times of runoff. This category does not include waters at the land surface in the vicinity of agricultural or wastewater irrigation disposal systems.

(c) *Wetlands.* This classification includes areas where water is at or near the surface of the land much of the year, where soils are poorly drained, and where a significant portion of the plant cover is deemed aquatic in nature.

(d) *Wastewater effluent channels.* This classification includes discharge conveyances constructed primarily for the purpose of transporting wastes from a facility to a point of discharge. Drainage ditches (including those established under chapter 88, Wis. Stats.) constructed primarily for the purposes of relieving excess waters on agricultural lands shall not be construed as effluent channels. Modifications made to natural watercourses receiving wastewater effluents for the purpose of increasing or enhancing the natural flow characteristics of the stream shall not be classified as effluent channels.

(e) *Noncontinuous streams.* This classification includes watercourses which have a defined stream channel, but have a natural 7-day Q_{10} flow of less than 0.1 cfs and do not exhibit characteristics of being perpetually wet without wastewater discharges.

(f) *Continuous streams.* This classification includes watercourses which have a natural 7-day Q_{10} flow of greater than 0.1 cfs or which exhibit characteristics of a perpetually wet environment, are generally capable of supporting a diverse aquatic biota and flow in a defined stream channel.

Note: The application of this classification system is not dependent on the the navigability properties of the watercourse, but is dependent upon the quantity-quality relationships of the surface water.

(2) **WATER QUALITY CLASSIFICATION.** Whenever the goals as specified in section 147.01 (1) (b), Wis. Stats., cannot be attained because of conditions enumerated in NR 104.01 (1), a variance may be provided.

Variations from a specific water quality criteria may be given in NR 104.04 et. seq. or a variance under one of the categories provided in NR 104.01 (4) may be specified.

Practices attributable to municipal, industrial, commercial, domestic, agricultural, land development, or other activities shall be controlled so that waters irregardless of their hydrologic and water quality classifications meet the general aesthetic and acute toxicity conditions in Wis. Adm. Code section NR 102.02(1).

(3) VARIANCE CATEGORIES. (a) Surface waters not supporting a balanced aquatic community (intermediate aquatic life):

1. Applicability. This category of variance may be applied to either the continuous or noncontinuous stream hydrologic classification.

2. Surface water criteria. The following water quality criteria shall be met in all surface waters included in this variance category:

a. Minimum daily average dissolved oxygen shall not be less than 3 mg/l.

b. To protect the public health, bacteriological qualities specified in Wis. Adm. Code section NR 102.02(4) shall be maintained.

c. Disinfectant sufficient to protect the public health is permitted.

d. Chlorine, when used as an effluent disinfectant, shall not be greater than 0.75 mg/l at any point in the receiving water.

e. Ammonia nitrogen (as N) at all points in the receiving water shall not be greater than 3 mg/l during warm temperature conditions nor greater than 6 mg/l during cold temperatures to minimize the zone of toxicity and to reduce dissolved oxygen depletion caused by oxidation of the ammonia.

f. The pH shall be within the range of 6.0 to 9.0.

g. Other substances shall be controlled in accordance with Wis. Adm. Code section NR 102.02(1).

3. Effluent criteria. a. The effluent limitations determined necessary to meet the surface water criteria listed above are enumerated in table 1.

Parameter	Monthly Average (mg/l)	Table 1 Daily Maximum (mg/l)	Weekly Average (mg/l)	Other (mg/l)
BOD ₅	15	30	-	-
Total Suspended Solids	20	30	-	-
NH ₃ -N (May-October)	-	-	3	-
NH ₃ -N (November-April)	-	-	6	-
Dissolved Oxygen	-	-	-	4 (minimum)
Total Residual Chlorine	-	-	-	0.75 (maximum)

b. Unless otherwise specified in table 1 above, effluent limitations for sewage treatment works shall be as adopted in Wis. Adm. Code chapter NR 210.

c. In addition to the effluent limitations enumerated in table 1 above, effluent limitations for these and any other substance necessary to protect assigned uses shall be met.

(b) Marginal surface waters: 1. Applicability. This variance category may be applied to the continuous or noncontinuous stream hydrologic classification, except that is shall be applied to all surface waters classified as effluent channel, wetland or diffuse surface water.

2. Surface water criteria. The following surface water quality criteria shall be met in all surface waters included in this variance category:

a. Minimum daily average dissolved oxygen shall not be less than 2 mg/l.

b. To protect the public health, bacteriological qualities specified in Wis. Adm. Code section NR 102.02 (4) shall be maintained.

c. Disinfectant sufficient to protect the public health is permitted. Chlorine, when used as an effluent disinfectant, shall not be greater than 0.75 mg/l at any point in the receiving water.

d. The pH shall be within the range of 6.0 to 9.0.

e. Other substances shall be controlled in accordance with Wis. Adm. Code section NR 102.02 (1).

3. Effluent criteria. a. The effluent limitations determined necessary to meet the surface water criteria listed above are enumerated in table 2.

Table 2

Parameter	Monthly Average (mg/l)	Weekly Average (mg/l)	Other (mg/l)
BOD ₅	20	30	-
Total Suspended Solids	20	30	-
Dissolved Oxygen	-	-	4 (minimum)
Total Residual Chlorine	-	-	0.75 (maximum)

b. Unless otherwise specified in table 2 above, effluent limitations for sewage treatment works shall be as adopted in Wis. Adm. Code chapter NR 210.

c. In addition to the effluent limitations enumerated in table 2 above, effluent limitations for these and any other substance necessary to protect assigned uses shall be met.

(4) OTHER CLASSIFICATIONS AND EFFLUENT CRITERIA. (a) *Surface waters significant to the environmental integrity of the state or region.* Under all hydrologic categories, the department reserves the right to require other effluent limitations, including allocation of wasteloads for organic material, toxicants and chlorine residuals if it is determined that the specified surface water is important to the overall environmental integrity of the area. In waters identified as trout streams, located in scientific areas or wild and scenic areas, providing endangered species habitat or of high recreational potential, effluent criteria will be evaluated on a case-by-case basis.

(b) *Surface waters classified for fish and aquatic life.* 1. Streams. Where flowing streams or rivers are specified to achieve fish and aquatic life criteria, wasteload allocation for organic material, toxicants and chlorine residuals shall determine effluent criteria necessary to achieve that standard.

2. Lakes and flowages. Effluent characteristics for discharges to lakes or flowages shall be based upon an evaluation of water quality necessary to protect fish and aquatic life taking into account mixing zone and nutrient removal criteria.

3. Minimum effluent criteria. If it can be reasonably demonstrated that the quality of the surface water is independent of a wastewater discharge, effluent limitations established under sections 147.04 and 147.06, Wis. Stats., shall apply.

(c) *Wastewater treatment lagoons.* Effluents from fill-and-draw wastewater treatment lagoons or domestic waste stabilization ponds may be permitted to vary from the limitations specified in table 1 or 2 provided the following conditions are met:

1. The discharge occurs only during the spring and fall of the year when the flow in the receiving water is high, the temperature is low and the dissolved oxygen in the effluent can be maintained at a level greater than or equal to 4 mg/l.

2. The effluent is discharged at a rate specified in a permit issued under section 147.02, Wis. Stats. The permitted rate of discharge shall be such that the dissolved oxygen and ammonia nitrogen criteria necessary to sustain fish and aquatic life are maintained in the stream during the period of discharge.

3. The effluent limitations do not exceed those established under sections 147.04 and 147.06, Wis. Stats.

(5) **CHANGES IN CLASSIFICATION.** Surface waters which exhibit changing hydrologic and quality characteristics shall be classified accordingly. Effluent criteria for upstream discharges shall be based upon the most critical downstream classification and shall be specified by the department either on the basis of justified inference or by the application of a wasteload allocation analysis. Any subsequent changes in a stream's morphology or potential may necessitate the reevaluation of the classification.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.03 Classification of surface waters and antidegradation. In no case shall the effluent criteria specified herein cause degradation of surface water quality below present levels. Surface waters which, be reason of their hydrologic classification, are permitted to receive a new effluent of a quality specified in NR 104.01 (4) shall not receive such effluent unless it has been affirmatively demonstrated to the department that such degradation is necessary to protect the public health or to maintain or restore the environmental integrity of a higher value resource. In no case shall a new effluent interfere with or become injurious to any assigned uses made of or presently possible in any surface water.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.04 Provision for changes. The surface waters specified in this chapter are not intended to be an exclusive listing nor do the specified effluent criteria purport to meet the 1983 water quality goals set forth in chapter 147, Wis. Stats. Additions to or deletions from these listings may be made based upon the accumulation of information necessary to make such determination and in accordance with the requirements of chapter 227, Wis. Stats.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.05 Variances and additions applicable in the southern district. Subject to the provision of NR 104.04, intrastate surface waters in the southern district counties of Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock and Sauk shall meet the criteria for fish and aquatic life and recreational use with exceptions and additions as follows:

(1) **ADDITION.** The public water supply standard shall be met on the Wisconsin river in section 8, township 10 north, range 7 east.

(2) **VARIANCE.** Surface waters in the southern district subject to a variance under NR 104.02 (3)^b are listed in table 3.

(3) **OTHER VARIANCES.** The following surface waters in the southern district shall meet the standards for fish and aquatic life except that the dissolved oxygen shall not be lowered to less than 2 mg/l at any time, nor shall the membrane filter fecal coliform count exceed 1,000 per 100 ml as a monthly geometric mean based on not less than 5 samples per month nor exceed 2,000 per 100 ml in more than 10% of all samples during any month.

(a) Badfish creek from the east limits of the village of Oregon to the Dane-Rock county line.

**TABLE 3
SOUTHERN DISTRICT**

Surface Water (Facility Affected)	Reach Description	Hydrologic Classification	Applicable	Effluent
			Criteria (1)	Limitations (2)
Allen Creek (Brooklyn)	Upstream from Butts Corner Road	Continuous	I	A
Coon Branch (Cuba City)	Upstream from right tributary approximately 1 mile above STH "11".	Non-Continuous	II	B
	Downstream from above tributary to confluence with Galena River.	Non-Continuous	I	NA
Mud Creek and Tributary (Deerfield)	Tributary from Deerfield STP to confluence with Mud Creek	Effluent Ditch	II	B
	Mud Creek from above tributary downstream to confluence with Koshkonong Creek.	Continuous	I	
Indian Creek and Tributary (Dickeyville)	Tributary from Dickeyville STP to confluence with Indian Creek.	Non-Continuous	II	NA
	Indian Creek from above tributary downstream to confluence with Platte River.		I	A
Dodge Branch (Dodgeville)	Upstream from a point approximately 3,500 feet downstream from STH "191".	Non-Continuous	I	A
Gregory Branch (Fennimore)	Upstream from STH "61".	Continuous	I	A
Dead Creek (Juneau)	Upstream from CTH "M". From CHT "M" to St. Helena Rd.	Effluent Ditch	II	B
		Continuous	I	NA

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Tributary-Pigeon Creek (Lancaster)	Tributary from Lancaster STP downstream to south line of section 10.	Non-Continuous	II	Effluent limitations to be determined.
	Tributary from above point downstream to confluence with Pigeon Creek.	Continuous	I	
Tributary-East Branch Rock River (Lomira)	Tributary upstream from confluence with East Branch Rock River.	Non-Continuous	I	A
Brewery (Furnace) Creek (Mineral Point)	Brewery Creek upstream from confluence with Mineral Point Branch	Continuous	II	B (Note: the above limitation shall remain in effect until significant non-point source problems can be corrected)
West Branch Sugar River (Mt. Horeb) Swan Creek and Tributary (Orfordville)	From Mt. Horeb STP downstream to CTH "JG".	Continuous	I	A
	Tributary from Orfordville STP outfall to Swan Creek.	Effluent Ditch	II	NA
	Swan Creek from confluence with above tributary to Dicky Road.	Non-Continuous	I	A
Tributary-Beaver Dam River (Reeseville)	Tributary from Reeseville STP to confluence with Beaver Dam R.	Non-Continuous	I	A
Koshkonong Creek (Sun Prairie)	Koshkonong Creek upstream from first bridge above Sun Prairie STP.	Non-Continuous	II	Effluent limitations to be determined.
	Koshkonong Creek from above location to CTH "T".	Continuous	II	
Badger Mill Creek (Verona)	Badger Mill Creek from road at Verona STP downstream to STH "69".	Continuous	I	A
	(1) Criteria I requires the maintenance of surface water criteria specified in NR 104.02 (3) (a) 2.			
	Criteria II requires the maintenance of surface water criteria specified in NR 104.02 (3) (b) 2.			
	(2) Effluent limitation A requires those limits specified in NR 104.02 (3) (a) 3.			
	Effluent limitation B requires those limits specified in NR 104.02 (3) (b) 3.			

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.06 Variances and additions applicable in the southeast district. Subject to the provisions of NR 104.04, intrastate surface waters in the southeast district counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington and Waukesha shall meet the criteria for fish and aquatic life and recreational use with exceptions and additions as follows.

(1) **VARIANCE.** Surface waters in the southeast district subject to a variance under NR 104.02 (3) are listed in table 4.

(2) **OTHER VARIANCES.** (a) The following surface waters in the southeast district shall meet the standards for fish and aquatic life except that the dissolved oxygen shall not be lowered to less than 2 mg/l at any time, nor shall the membrane filter fecal coliform count exceed 1,000 per 100 ml as a monthly geometric mean based on not less than 5 samples per month nor exceed 2,000 per 100 ml in more than 10% of all samples during any month:

1. Underwood creek in Milwaukee and Waukesha counties below Juneau boulevard.
2. Barnes creek in Kenosha county.
3. Pike creek, a tributary of Pike river, in Kenosha county.
4. Pike river in Racine county.
5. Indian creek in Milwaukee county.
6. Honey creek in Milwaukee county.
7. Menomonee river in Milwaukee county below the confluence with Honey creek.
8. Kinnickinnic river in Milwaukee county.
9. Lincoln creek in Milwaukee county.

(b) The following surface waters in the southeast district shall meet the standards for fish and aquatic life except that the dissolved oxygen shall not be lowered to less than 2 mg/1 at any time, nor shall the membrane filter fecal coliform count exceed 1,000 per 100 ml as a monthly geometric mean based on not less than 5 samples per month nor exceed 89°F at any time at the edge of the mixing zones established by the department under Wis. Adm. Code section NR 102.03 (4):

1. Milwaukee river in Milwaukee county downstream from the North Avenue dam.
2. South Menomonee canal and Burnham canal in Milwaukee county.

TABLE 4
SOUTHEAST DISTRICT

Surface Water (Facility Affected)	Reach Description	Hydrologic Classification	Applicable Criteria (1)	Effluent Limitations (2)
Tributary-Muskego Lake (Muskego)	Tributary from Muskego STP downstream to Muskego Lake.	Effluent Ditch	II	Effluent limitations to be determined.
Salem Branch (Salem Utility District 1)	Salem Branch from Salem Utility District 1 STP downstream to 216th Avenue.	Non-Continuous	I	A
Little Turtle River (Sharon)	Little Turtle River from Sharon STP downstream to Rock-Walworth County line.	Non-Continuous	II	B
Tributary-Rubicon River (Slinger)	Tributary of the Rubicon River form the Slinger STP downstream to the wetland adjacent to Slinger Road.	Effluent Ditch	II	B
	Tributary from above location downstream to Rubicon River.	Non-Continuous	II	NA
	Rubicon River form Slinger Ditch downstream to Pike Lake.	Non-Continuous	I	NA
Tributary-Pike River (Sturtevant)	Tributary from Sturtevant STP downstream to first railroad crossing at S. C. Johnson Co.	Effluent Ditch	II	NA
	Tributary from above location downstream to confluence with North Branch Pike River.	Continuous	I	A
West Branch Root River Canal (Union Grove)	West Branch Root River Canal from 67th Drive downstream to CTH "C".	Non-Continuous	II	NA
	West Branch Root River Canal from	Non-Continuous	I	A

above location downstream to STH
"20".

- (1) Criteria I requires the maintenance of surface water criteria specified in NR 104.02 (3) (a) 2.
Criteria II requires the maintenance of surface water criteria specified in NR 104.02 (3) (b) 2.
- (2) Effluent limitation A requires those limits specified in NR 104.02 (3) (a) 3.
Effluent limitation B requires those limits specified in NR 104.02 (3) (b) 3.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.07 Variances and additions applicable in the Lake Michigan district. Subject to the provisions of NR 104.04, intrastate surface waters in the Lake Michigan district counties of Brown, Calumet, Door, Florence, Fond du Lac, Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara and Winnebago shall meet the criteria for fish and aquatic life and recreational use with exceptions and additions as follows:

(1) **ADDITION.** The public water supply standard shall be met in the following surface waters:

- (a) Lake Winnebago.
- (b) Fox river from Lake Winnebago downstream to the upper dam in the city of Appleton.
- (c) West branch Wolf river at Neopit.
- (d) Rainbow lake in Waupaca county.

(2) **VARIANCE.** Surface waters in the Lake Michigan district subject to a variance under NR 104.02 (3) are listed in table 5.

TABLE 5
LAKE MICHIGAN DISTRICT

Surface Water (Facility Affected)	Reach Description	Hydrologic Classification	Applicable Criteria (1)	Effluent Limitations (2)
Black Creek (Black Creek)	Black Creek from Black Creek STP to confluence with Chioic River (see Black Creek at Seymour).	Non-Continuous	I	A
Drainage to Gallagher Marsh (Brandon)	Upstream from STH "49" to Brandon.	Effluent Ditch	II	B
	Drainage from STH "49" to Gallagher Marsh.	Diffuse Surface Water	II	NA
Tributary-Spring Creek (Brillion)	Channel from Brillion STP to Spring Creek.	Effluent Ditch	II	Effluent limits to be determined.
Barr Creek-Tributary (Cedar Grove)	Barr Creek and tributary to Cedar Grove STP upstream from Lake Michigan	Non-Continuous	II	B
Tributary-Neshota River (Denmark)	Tributary from Denmark downstream to Neshota River	Non-Continuous	I	A
Tributary-DeNeveu Creek (Eden)	DeNeveu Creek tributary from Eden STP downstream to confluence with DeNeveu Creek.	Continuous	I	A
Seven Mile Creek (Haven Sanitary District)	Seven Mile Creek upstream from confluence with Meeme River.	Non-Continuous	II	B
Tributary-North Branch Manitowoc River (Hilbert)	Tributary to Hilbert upstream from confluence with North Branch Manitowoc River.	Non-Continuous	I	A
Tributaries-Plum Creek (Holland Sanitary District)	Tributary from CTH "D" downstream to Plum Creek.	Non-Continuous	II	B
	Tributary from Holland Sanitary	Non-Continuous	II	B

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	District STP downstream to above named tributary.				
Tributary-Kriwaniks Creek (Kellnersville)	Tributary from Kellnersville downstream to Kriwaniks Creek.	Non-Continuous	I	A	
Jones Creek (Lena)	Jones Creek upstream from CTH "J".	Non-Continuous	II	B	
	Jones Creek from CTH "J" downstream to confluence with Little River.	Continuous	I	NA	
School Creek (Luxemburg)	School Creek upstream from confluence with Kewaunee R.	Non-Continuous	I	A	
Tributary-Grand River (Markesan)	Ditch tributary from Markesan STP outfall to Grand River.	Effluent Ditch	II		Effluent limitations to be determined.
Tributary-Beaver Creek (Pound)	Tributary of Beaver Creek from Pound STP downstream to confluence with Beaver Creek.	Non-Continuous	I	A	
Silver Creek (Random Lake)	Silver Creek from Random Lake STP downstream to first crossing of Creek Road.	Continuous	I	A	
Tributary-West Branch Fond du Lac River (Rosendale)	Tributary from Rosendale STP downstream to confluence with West Branch Fond du Lac River.	Non-Continuous	I	A	
Tributary-Manitowoc River (St. Nazianz)	Tributary from St. Nazianz STP to STH "151".	Non-Continuous	I	A	
Black Creek (Seymour)	Black Creek from Seymour STP downstream to confluence with Shiock River (see Black Creek at Black Creek).	Non-Continuous	I	A	
Drainage to Mud Creek (Stockbridge Sanitary District)	Immediate vicinity of discharge before appearance of defined channel.	Wetland	II	B	
	Tributary from wetland area above to Mud Creek.	Effluent Ditch	II	NA	
	Mud Creek upstream from confluence with Lake Winnebago.	Non-Continuous	I	NA	

- (1) Criteria I requires the maintenance of surface water criteria specified in NR 104.02 (3) (a) 2.
 Criteria II requires the maintenance of surface water criteria specified in NR 104.02 (3) (b) 2.
- (2) Effluent limitation A requires those limits specified in NR 104.02 (3) (a) 3.
 Effluent limitation B requires those limits specified in NR 104.02 (3) (b) 3.

(3) OTHER VARIANCES. The Fox river from the upper dam at Appleton downstream to the village of Wrightstown shall meet the standards for fish and aquatic life and recreational use except that the dissolved oxygen shall not be lowered to less than 3.0 mg/1 during any consecutive 8 hours in a 24-hour period nor to less than 5.0 mg/1 for the remainder of the day. When natural conditions at the outlet of Lake Winnebago do not permit compliance with the above criteria, the dissolved oxygen of the water flowing from the lake in the Menasha channel shall not be lowered more than 2.0 mg/1 in the section of the Fox river from the upper dam at Appleton downstream to Wrightstown.

(b) The Fox river below the village of Wrightstown downstream to the mouth shall meet the standards for fish and aquatic life and recreational use except that the dissolved oxygen shall not be lowered to less than 2.0 mg/1 at any time.

(c) The Oconto river from the bridge in Oconto Falls to the county highway "J" bridge shall meet the standards for fish and aquatic life

and recreational use except that the dissolved oxygen shall not be lowered to less than 3.0 mg/1 at any time.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.08 Variances and additions applicable in the north central district. Subject to the provisions of NR 104.04, intrastate waters in the north central district counties of Adams, Forest, Juneau, Langlade, Lincoln, Marathon, Oneida, Portage, Vilas and Wood shall meet the criteria for fish and aquatic life and recreational use with exceptions and additions as follows:

(1) **ADDITION.** The public water supply standards shall be met in Lake Nepco in Wood county.

(2) **VARIANCE.** Surface waters in the north central district subject to a variance under NR 104.02 (3) are listed in table 6.

**TABLE 6
NORTH CENTRAL DISTRICT**

Surface Water (Facility Affected)	Reach Description	Hydrologic Classification	Applicable Criteria (1)	Effluent Limitations (2)
Mill Creek (Marshfield)	Mill Creek upstream from first road above CTH "E".	Effluent Ditch	II	Effluent limits to be determined.
	Mill Creek from above road to CTH "K".	Continuous	I	
Tributary-Big Eau Pleine River (Stratford)	Tributary from Stratford downstream to Big Eau Pleine R.	Non-Continuous	II	B
Drainage to Town Line Lake (Three Lakes Sanitary District)	Drainage area between Three Lakes Sanitary District STP and Town Line Lake.	Wetland	II	B

(1) Criteria I requires the maintenance of surface water criteria specified in NR 104.02 (3) (a) 2.

Criteria II requires the maintenance of surface water criteria specified in NR 104.02 (3) (b) 2.

(2) Effluent limitation A requires those limits specified in NR 104.02 (3) (a) 3.

Effluent limitation B requires those limits specified in NR 104.02 (3) (b) 3.

(3) **OTHER VARIANCES.** (a) The Wisconsin river from the Rhinelander dam downstream to Crescent creek shall meet the standards for fish and aquatic life and recreational use except that the dissolved oxygen shall not be lowered to less than 3.0 mg/1 at any time.

(b) The Wisconsin river from the Rothschild dam downstream to state highway "34" shall meet the standards for fish and aquatic life and recreational use except that the dissolved oxygen shall not be lowered to less than 3 mg/1 at any time.

(c) The Wisconsin river from the state highway "73" bridge at Nekoosa downstream to state highway "82" bridge shall meet the standards for fish and aquatic life and recreational use except that the dissolved oxygen shall not be lowered to less than 2 mg/1 from January 1 to April 15 annually.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.09 Variances and additions applicable in the west central district. Subject to the provisions of NR 104.04, intrastate waters in the west central district counties of Barron, Buffalo, Chipewewa, Clark, Crawford, Dunn, Eau Claire, Jackson, La Crosse, Monroe, Pepin, Pierce, Polk, St. Croix, Trempealeau and Vernon shall

meet the criteria for fish and aquatic life and recreational use with exceptions and additions as follows:

(1) ADDITION. The public water supply standard shall be met in the following surface waters:

- (a) Black river at Neillsville.
- (b) Town creek at Black River Falls.

(2) VARIANCE. Surface waters in the west central district subject to a variance under NR 104.02 (3) are listed in table 7.

TABLE 7
WEST CENTRAL DISTRICT

Surface Water (Facility Affected)	Reach Description	Hydrologic Classification	Applicable Criteria (1)	Effluent Limitations (2)
Baldwin Creek-Rush River (Baldwin)	Baldwin Creek-upstream from confluence with Rush River.	Non-Continuous	I	A
	Rush River-upstream from St. Croix- Pierce County line.	Non-Continuous	I	A
Little La Crosse River (Cashton)	Little La Crosse River upstream from 0.2 miles north of line between Sections 24 and 25, T15N, R4W.	Non-Continuous	I	A
Hay River (Cumberland)	Hay River from dam at Beaver Dam Lake downstream to Town Road at northwest corner of Section 29.	Non-Continuous	I	A
Drainage Area Tributary to Fish Hatchery Creek (Dresser)	Drainage area upstream from constructed drainage ditch to the tributary of Fish Hatchery Creek.	Wetland	II	B
	Drainage ditch and tributary to Fish Hatchery Creek.	Non-Continuous	I	A
Isabella Creek (Ellsworth)	Isabella Creek upstream from Town Road between Sections 28 and 33.	Non-Continuous	II	B
	Isabella Creek in Section 33.	Non-Continuous	I	NA
	Isabella Creek from above location downstream to CTH "V".	Continuous	I	NA
Brown Brook Tributary of Trade River (Frederic)	Brown Brook upstream from Town Rd. between Section 33 and Section 4.	Non-Continuous	II	B
	Brown Brook from above location downstream 0.5 mile.	Continuous	I	NA
Bear Creek (Loyal)	Bear Creek from Loyal STP downstream to Town Road on north line of Section 8.	Non-Continuous	I	A
Tributary-Trade River (Luck)	Tributary from Luck STP downstream to center of Section 21.	Effluent Ditch	II	B
Drainage Area Tributary Rice Lake (Milltown)	Drainage area north of Rice Lake in Section 17.	Wetland	II	B
Drainage from Village of Turtle Lake to Moon Creek (Turtle Lake)	Drainage area between Turtle Lake STP downstream to dike near south line of Section 32.	Wetland	II	B
	Channel from above dike downstream to south line of Section 32.	Non-Continuous	I	NA
Tributary to Springville Branch Bad Axe River (Viroqua)	Tributary from Viroqua STP downstream to large spring above Springville.	Non-Continuous	II	Effluent Limitations to be determined.
Tributary to North Fork Bad Axe River (Westby)	Tributary from Westby STP downstream to line between Sections 35 and 36, T14N, R5W.	Non-Continuous	II	B

(1) Criteria I requires the maintenance of surface water criteria specified in NR 104.02 (3) (a) 2.

Criteria II requires the maintenance of surface water criteria specified in NR 104.02 (3) (b) 2.

(2) Effluent limitation A requires those limits specified in NR 104.02 (3) (a) 3.

Effluent limitation B requires those limits specified in NR 104.02 (3) (b) 3.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.

NR 104.10 Variances and additions applicable in the northwest district. Subject to the provisions of NR 104.04, intrastate waters in the northwest district counties of Ashland, Bayfield, Burnett, Douglas, Iron, Price, Rusk, Sawyer, Taylor and Washburn shall meet the criteria for fish and aquatic life and recreational use with exceptions and additions as follows:

(1) **ADDITION.** The public water supply standard shall be met in the following surface waters:

- (a) Lake Lavina in Iron county.
- (b) Little Rib lake in Taylor county.

(2) **VARIANCE.** Surface waters in the northwest district subject to a variance under NR 104.02 (3) are listed in table 8.

**TABLE 8
NORTHWEST DISTRICT**

Surface Water (Facility Affected)	Reach Description	Hydrologic Classification	Applicable Criteria (1)	Effluent Limitations (2)
South Fork Main Creek (Hawkins)	South Fork Main Creek from Hawkins Millpond Dam downstream to CTH "M".	Continuous	I	A
Sheep Ranch Creek (Rib Lake)	Sheep Ranch Creek from Rib Lake STP downstream to first town road.	Continuous	I	A
(1) Criteria I requires the maintenance of surface water criteria specified in NR 104.02 (3) (a) 2.				
Criteria II requires the maintenance of surface water criteria specified in NR 104.02 (3) (b) 2.				
(2) Effluent limitation A requires those limits specified in NR 104.02 (3) (a) 3. Effluent limitation B requires those limits specified in NR 104.02 (3) (b) 3.				

(3) **OTHER VARIANCES.** (a) The Flambeau river from the upper dam at Park Falls downstream to the Crowley dam shall meet the standards for fish and aquatic life and recreational use except that the dissolved oxygen shall not be lowered to less than 3.0 mg/l at any time.

(b) Newton creek from Stinson avenue to the mouth at Superior Bay in the city of Superior, Douglas county is classified as a noncontinuous stream. The water quality of Newton creek shall meet those criteria specified in Wis. Adm. Code section NR 102.02 (1) and shall be maintained at a dissolved oxygen concentration of at least 5.0 mg/l at all times. Superior Bay shall meet the standards for fish and aquatic life and recreational uses except that the average total ammonia nitrogen concentration in the bay shoreward from Hog Island shall not exceed 2.83 mg/l. Determinations of average total ammonia nitrogen concentration shall be based on samples taken at 4 representative locations.

History: Cr. Register, September, 1976, No. 249, eff. 10-1-76.