

The attached “*Guidance for WPDES Permitting for Concentrated Aquatic Animal Production Facilities*” is being made available for public review at this time. This draft guidance was written to inform and assist Wisconsin Department of Natural Resources (WDNR) staff in development of permit conditions and non-numeric effluent guidelines that parallel the requirements 40 CFR 451.11. This guidance relies on USEPA guidance, recommendations from the *Wisconsin Walleye Initiative Regulatory Review & Recommendations Study*, and other reference material to provide advice on monitoring requirements and best management plan development.

This guidance was developed by wastewater permitting staff from WDNR. The WDNR is now soliciting input from external stakeholders on this guidance. Once this 21 day notice period is complete, all comments will be considered, revisions will be made to the guidance as needed, and final guidance will be made available to internal and external stakeholders.

Comments related to this draft guidance document should be sent to Jacob Zimmerman at the following email address: Jacob.Zimmerman@wisconsin.gov.



Guidance for WPDES Permitting for Concentrated Aquatic Animal Production Facilities

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This document is intended solely as guidance, and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations, and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

APPROVED:

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Date

Summary

On April 2, 2012, Wisconsin enacted 2011 Wisconsin Act 207, also referred to as the *Aquaculture Bill*. In addition to relaxing regulations on the aquaculture industry, the Act created s. 283.31 (5m) Wis. Stat. to read:

283.31 (5m) PERMITS FOR CERTAIN CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITIES. The department shall include in permits issued under this section for concentrated aquatic animal production facilities described in [40 CFR 451.10](#) requirements that are based on, and are not more stringent than, the requirements in [40 CFR 451.11](#).

Concentrated aquatic animal production (CAAP) facilities means a hatchery, fish farm, rearing station or other facility which meets the criteria of 40 CFR 131 Appendix C.

On May 22, 2013 Wisconsin enacted 2013 Wisconsin Act 20, also referred to as the *Wisconsin Walleye Initiative*. The Act is intended to dramatically increase the number of walleyes in state walleye waters by expanding production of large fingerling walleye at state, private and tribal fish hatcheries for stocking in waters accessible to the public. As a requirement of the Act, the *Wisconsin Walleye Initiative Regulatory Review & Recommendations Study* was submitted to the Wisconsin legislature on November 15, 2013. The Department has committed to reduce the regulatory burdens associated with Wisconsin Pollutant Discharge Elimination System (WPDES) reporting and monitoring requirements.

The intent of this document is to provide guidance primarily to Wisconsin Department of Natural Resources (WDNR) staff. This guidance document may also be useful to WPDES permittees and their associates on how to implement the procedures in [40 CFR 451.11](#). As guidance, this document may evolve with time as more experience is gained in WPDES permitting for CAAP facilities.

Abbreviations and Acronyms

This list contains the most common abbreviations used in this document.

BMP	Best Management Practice
BPJ	Best Professional Judgment
CAAP	Concentrated Aquatic Animal Production
CWA	Clean Water Act
DATCP	Department of Agriculture, Trade and Consumer Protection
ELG	Effluent Limitations Guideline
USEPA	United States Environmental Protection Agency
MSDS	Material Safety Data Sheet
PPM	Parts Per Million
SIC	Standard Industrial Classification
SWAMP	System for Wastewater Applications, Monitoring and Permits
TBEL	Technology-Based Effluent Limitation
WDNR	Wisconsin Department of Natural Resources
WEPA	Wisconsin Environmental Policy Act
WET	Whole Effluent Toxicity
WPDES	Wisconsin Pollutant Discharge Elimination System
WQBEL	Water Quality-Based Effluent Limitation

Table of Contents

Summary	1
Abbreviations and Acronyms	2
Chapter 1- Concentrated Aquatic Animal Production Facilities	4
Large WPDES Permitted CAAP Facilities	5
Small WPDES Permitted CAAP Facilities	6
Chapter 2 - WPDES Application Streamlining	7
WPDES Application Production Rates, Feeding Rates and Facility Structures	7
WPDES Application Effluent Monitoring Requirements	8
WPDES Application Additives Table and WET Testing	8
WPDES Application Cover Letter	9
Chapter 3 – WPDES Permit Drafting	11
Best Management Practices	11
Solids Control	11
Materials Storage	12
Structural Maintenance	12
Recordkeeping	12
Training	12
Reduced Monitoring	13
TBELs	13
WQBELs	13
WET Testing	14
Chapter 4 – Non-Permitted Facilities	14
Existing Facilities	15
New Facilities	15
Starting a New Fish Farm	16
Step 1: Collect Information	16
Step 2: Meet with WDNR	16
Step 3: Obtain WDNR Permits Prior to Operation	16
References	18
Applicability Matrix	19

Chapter 1- Concentrated Aquatic Animal Production Facilities

The Wisconsin Pollutant Discharge Elimination System (WPDES) is a federally mandated program and required under Chapters 281 and 283 Wis. Stats. At the current time, the law requires WDNR to issue WPDES permits for Concentrated Aquatic Animal Production (CAAP) facilities. There are currently 15 permitted CAAP facilities in the State of Wisconsin (Table 1). There are 2 private facilities, 1 federal facility and 12 state facilities. A CAAP facility means a hatchery, fish farm, rearing station or other facility which meets the criteria for determining a concentrated aquatic animal production facility as defined in Appendix C to Part 122 of 40 CFR.

A hatchery, fish farm, or other facility is a concentrated aquatic animal production facility for purposes of §122.24 if it contains, grows, or holds aquatic animals in either of the following categories:

- a. Cold water fish species or other cold water aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year but does not include:
 1. Facilities which produce less than 9,090 harvest weight kilograms (approximately 20,000 pounds) of aquatic animals per year; and
 2. Facilities which feed less than 2,272 kilograms (approximately 5,000 pounds) of food during the calendar month of maximum feeding.

“Cold water aquatic animals” include, but are not limited to, the *Salmonidae* family of fish; e.g., trout and salmon.

- b. Warm water fish species or other warm aquatic animals in ponds, raceways, or other similar structures which discharge at least 30 days per year but does not include:
 1. Closed ponds which discharge only during periods of excess runoff; or
 2. Facilities which produce less than 45,454 harvest weight kilograms (approximately 100,000 pounds) of aquatic animals per year.

“Warm water aquatic animals” include, but are not limited to, the *Ameiride*, *Centrarchidae* and *Cyprinidae* families of fish; e.g., respectively, catfish, sunfish and minnows.

Table 1: State of Wisconsin Concentrated Aquatic Animal Production Facilities

CAAP Facility	WPDES Permit No.	Location
Rushing Waters Fisheries, Inc.	0002488	Jefferson County
Silver Moon Springs LLC	0064548	Langlade County
Iron River National Fish Hatchery	0044334	Bayfield County
WI DNR Art Oehmcke Hatchery	0058271	Oneida County
WI DNR Brule Rearing Station	0004171	Douglas County
WI DNR Governor Tommy G. Thompson Hatchery	0049191	Washburn County
WI DNR Kettle Moraine Springs Hatchery	0026255	Sheboygan County
WI DNR Lakewood Rearing Station	0022721	Oconto County
WI DNR Langlade Rearing Station	0022748	Langlade County
WI DNR Les Voigt Hatchery	0004162	Bayfield County
WI DNR Nevin Hatchery	0002585	Dane County
WI DNR Osceola Hatchery	0004197	Polk County
WI DNR St. Croix Falls Hatchery	0004201	Polk County
WI DNR Thunder River Rearing Station	0022713	Marinette County
WI DNR Wild Rose Hatchery	0022756	Waushara County

Large WPDES Permitted CAAP Facilities

2011 Wisconsin Act 207 was enacted on April 2, 2012. Section 15 of 2011 Wisconsin Act 207 created 283.31 (5m) Wis. Stats. which reads:

283.31 (5m) PERMITS FOR CERTAIN CONCENTRATED AQUATIC ANIMAL PRODUCTION FACILITIES
 The Department shall include permits issued under this section for concentrated aquatic animal production facilities described in 40 CFR 451.10 requirements that are based on, and are not more stringent than, the requirements in 40 CFR 451.11.

<http://www.gpo.gov/fdsys/granule/CFR-2010-title40-vol29/CFR-2010-title40-vol29-part451/content-detail.html>

40 CFR 451.10 applies to the discharge of pollutants from a CAAP facility that produces 100,000 pounds or more per year of aquatic animals in a flow-through or recirculating system. The following Wisconsin CAAP facilities exceed the production threshold of 100,000 pounds or more per year and whose WPDES permits include the requirements in 40 CFR 451.11:

1. Rushing Waters Fisheries, Inc.
2. Iron River National Fish Hatchery
3. WI WDNR Wild Rose Fish Hatchery

On June 30, 2004, the U.S. Environmental Protection Agency (USEPA) completed regulations under the Clean Water Act (CWA) establishing effluent limitations guidelines (ELGs) and new source performance standards for the CAAP point source category. The ELGs require management practices and

recordkeeping activities, rather than numerical discharge limitations. The ELGs were promulgated on August 23, 2004 in 40 CFR 451. The requirements in 40 CFR 451.11 can be found in the USEPA Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category. http://water.epa.gov/scitech/wastetech/guide/aquaculture/guidance_index.cfm

Small WPDES Permitted CAAP Facilities

2013 Wisconsin Act 20 was enacted on May 22, 2013. As a requirement of the Act, the *Wisconsin Walleye Initiative Regulatory Review & Recommendations Study* was submitted to the Wisconsin legislature on November 15, 2013. The Department has committed to reducing the regulatory burdens associated with reporting and monitoring requirements for WPDES permitted CAAP facilities.

In order to reduce regulatory burdens associated with reporting and monitoring, the WDNR intends to adopt an approach similar to the ELGs for CAAP facilities whose production is under the 100,000 pound threshold. The need for ELGs for small facilities will be determined by Best Professional Judgment of the permit drafter. In addition to including management practices and recordkeeping activities, the Department proposes to streamline the WPDES application process.

DRAFT

Chapter 2 - WPDES Application Streamlining

The Standard Industrial Classifications (SIC) applicable to Wisconsin CAAP facilities include:

1. 0921 - Fish Hatcheries and Preserves

These establishments are primarily engaged in operating fish hatcheries or preserves.

2. 0273 – Animal Aquaculture

These establishments are primarily engaged in the production of finfish and shellfish, such as crustaceans and mollusks, within a confined space under controlled feeding, sanitation and harvesting procedures.

The WDNR has not developed a WPDES application for CAAP facilities. Instead, CAAP facilities apply for a WPDES permit under the secondary industry category. While the secondary industry category application captures the majority of required information, additional information such as production rates, feeding rates and the type and number of structures are gathered through additional communication with the facility. The effluent monitoring requirements included in the secondary industry application includes several parameters that are not common to CAAP facility wastewater and the additives table does not accurately identify the seasonal usage rates of additives.

The WDNR is developing an application for CAAP facilities. The application will include the streamlined elements presented in this section.

WPDES Application Production Rates, Feeding Rates and Facility Structures

Facility specific information will allow the Department to streamline the development of WPDES permits which incorporate efficient Best Management Practices (BMPs) and facility specific recordkeeping requirements. Tables 2.1 and 2.2 will be added to the WPDES application for CAAP facilities.

Table 2.1 Type and Number of Structures

Indicate the number of ponds, raceways and similar structures contributing to this Outfall.		
Ponds	Raceways	Other

Table 2.2 Production and Feeding Rates

List the species of fish or aquatic animals held and fed at your facility contributing to this Outfall. For species, give the total weight produced by your facility contributing to this Outfall per year in pounds of harvestable weight, and also give the maximum weight present at any one time.					
Cold Water Species			Warm Water Species		
Species	Harvestable Weight (pounds)		Species	Harvestable Weight (pounds)	
	Total Yearly	Maximum		Total Yearly	Maximum
Report the total pounds of food during the calendar month of maximum feeding.			Month	Pounds of Food	

WPDES Application Effluent Monitoring Requirements

The WPDES application effluent monitoring requirements for secondary industry wastewater are shown in Table 2.3. Of the 20 parameters listed, only 6 parameters (in **bold**) are applicable to CAAP facilities. A revised monitoring grid will be developed and added to the WPDES application for CAAP facilities. In addition to the 6 parameters listed in red in Table 2.3, CAAP facilities will be required to monitor Nitrite + Nitrate Nitrogen, Total Kjeldahl Nitrogen, and Total Nitrogen.

Table 2.3 Secondary Industry Wastewater Effluent Monitoring Requirements

Parameter Code	Parameter Name	Units
789	Ammonia Nitrogen	mg/L as N
66	BOD₅ (5-day Biochemical Oxygen Demand)	mg/L
140	COD (Chemical Oxygen Demand)	mg/L
105	Total Chlorides	mg/L
112	Total Residual Chlorine	mg/L
342	Oil and Grease	mg/L
377	pH	s.u.
388	Total Phosphorus	mg/L as P
457	Total Suspended Solids	mg/L
488	Temperature (winter)	°F
487	Temperature (summer)	°F
34	Total Recoverable Arsenic	µg/L
88	Total recoverable Cadmium	µg/L
133	Total Recoverable Chromium	µg/L
147	Total recoverable Copper	µg/L
264	Total Recoverable Lead	µg/L
280	Total Recoverable Mercury	µg/L
315	Total Recoverable Nickel	µg/L
553	Total Recoverable Zinc	µg/L
234	Hardness (as CaCO ₃)	mg/L

WPDES Application Additives Table and WET Testing

Additive use in CAAP facilities is typically infrequent, sporadic and seasonal. In order to accurately assess the need for Whole Effluent Toxicity (WET) testing, the WPDES application additives table will be modified to identify the specific months of the year that each additive is used. Permittees are required to provide the number of biocides, water quality conditioners and process additives used at their facilities. In addition, permittees are required to complete the WPDES application additives table (Table 2.4) and submit Material Safety Data Sheets (MSDS) for each additive.

Table 2.4 WPDES Application Additives Table

Additive Name and Manufacturer		Purpose of Additive						Frequency of Use (months/year)			Frequency of Use (days/week)		
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Maximum Usage Rate (lbs or gals per day)													
Average Usage Rate (lbs or gals per day)													
(OPTIONAL ESTIMATE) Effluent Concentration (ppm)													
Comment:													

WPDES Application Cover Letter

The WDNR anticipates having an application developed for CAAP facilities by April 1, 2015. The streamlined elements of the WPDES application will be facilitated through the application cover letter. The cover letter generated in the Department’s computer program, the System for Wastewater Applications, Monitoring and Permits (SWAMP) will include the following language.

Notification to CAAP (Concentrated Aquatic Animal Production) Facilities: For each Surface Water Outfall , you are required to monitor and record results in the ‘Common Pollutants’ grid as follows:

- *Ammonia Nitrogen* (submit a minimum of 4 sample results collected at least 1 month apart)*
- *BOD₅* (submit one sample result for 5-day Biochemical Oxygen Demand)*
- *Chlorides, Total (submit one sample result for Total Chlorides)*
- *Phosphorus Total* (submit 12 sample results collected weekly for 3 months)*
- *TSS* (submit one sample result for Total Suspended Solids)*
- *Temperature* (submit one temperature measurement in Fahrenheit)*
- *Nitrogen Series* (submit a single result each for Nitrate + Nitrite Nitrogen, Total Kjeldahl Nitrogen and Total Nitrogen) Note: Total Nitrogen is calculated as the sum of Nitrate + Nitrite and Total Kjeldahl.*

**If your current permit requires regular monitoring and reporting of this substance, then you are not required to submit samples with your application.*

For the remaining substances listed in the ‘Common Pollutants’ grid, you are required to submit a sample result only for those substances that you believe are present in the discharge for reasons other than their presence in the intake water.

You may identify the type of wastewater discharged from your facility as “Aquaculture Discharge.”

As part of the description for each surface water outfall, include production rates and the total number of ponds, raceways and similar structures in your facility. List the species of fish held and fed at your facility. For each species, give the total weight produced by your facility per year in pounds of harvestable weight and also the maximum weight present at any one time. Report the total pounds of food provided during the calendar month of maximum feeding and identify the month.

For the additives grid, list all chemicals used to maintain or restore water quality for aquatic animal production, all drugs, all pesticides and all therapeutants where use may lead to a discharge of the substance to waters of the State. In the comment section, include the maximum and average usage rate (lbs or gals per day) for each month of the year. Drug means any substance defined as a drug in section 201(g)(1) of the Federal Food, Drug and Cosmetic Act, 21 U.S.C. Section 321. Pesticide means any substance defined as a “pesticide” in section 2(u) of the Federal Insecticide, Fungicide, and Rodenticide Act, 7. U.S.C. § 136(u). Therapeutant means any substance that is used to maintain or restore aquatic animal health or to affect the structure or any function of an aquatic animal.

Chapter 3 – WPDES Permit Drafting

On June 30, 2004, the USEPA completed regulations under the CWA establishing ELGs and new source performance standards for the CAAP point source category. The ELGs require management practices and recordkeeping activities, rather than numerical discharge limitations. The ELGs were promulgated on August 23, 2004 in 40 CFR 451. The requirements in 40 CFR 451.11 can be found in the USEPA *Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*. http://water.epa.gov/scitech/wastetech/guide/aquaculture/guidance_index.cfm

While the ELGs only apply to CAAP facilities that produce 100,000 pounds or greater in harvestable weight, the Department intends to apply the ELGs to all CAAP facilities. The general approach is to have permittees operate CAAP facilities with BMPs. By optimizing the operation of CAAP facilities, the Department believes that wastewater discharged from CAAP facilities should be of a quality that does not impose an environmental concern. As stated in the ELG guidance document, this type of regulatory structure allows individual facilities to develop a plan tailored to the unique conditions of the CAAP facility, while reducing the discharge of pollutants consistent with the goals of the CWA. Permittees that demonstrate consistent best management practices through well maintained facilities and accurate recordkeeping will be eligible for less stringent WPDES permit conditions including:

- Reduced monitoring frequency and reporting
- Elimination of technology-based effluent limitations (TBELs)
- Potential elimination of water quality-based effluent limitations (WQBELs)
- Reduced WET testing

Best Management Practices

Eligibility for less stringent WPDES permit conditions will be significantly dependent upon the development and implementation of a BMP plan. A BMP plan is a description of the standard operating procedures and actions required to control solids, store materials, maintain the aquatic animal containment structures, perform recordkeeping, train employees, closely monitor feeding, collect and dispose of waste, address transport or harvest discharge, and remove dead aquatic animals. Permittees will be required to submit written documentation of a BMP plan and keep necessary records to demonstrate the implementation of the plan. An example BMP Plan and a BMP Plan Template can be found in Appendix E and example forms, logs and checklists can be found in Appendices M – T of the *USEPA Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*. The BMP Plan and all recordkeeping forms, logs and checklists shall be made available to the Department upon request.

Permittees of CAAP facilities will be required to develop and maintain a BMP plan on site describing how the permittee will achieve the requirements of the following permit conditions.

Solids Control

The permittee shall:

- Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic

animal growth in order to minimize potential discharges of uneaten feed and waste products to waters of the U.S.;

- In order to minimize the discharge of accumulated solids from settling ponds and basins and production systems, identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading and harvesting aquatic animals in the production system; and
- Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the U.S., except in cases where the permitting authority authorizes such discharge in order to benefit the aquatic environment.

Materials Storage

The permittee shall:

- Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides or feed to waters of the U.S.; and
- Implement procedures for properly containing, cleaning, and disposing of any spilled material.

Structural Maintenance

The permittee shall:

- Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage; and
- Conduct regular maintenance of the production system and the wastewater treatment system in order to ensure that they are properly functioning.

Recordkeeping

The permittee shall:

- In order to calculate representative feed conversion ratios, maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals; and
- Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

Training

The permittee shall:

- In order to ensure the proper clean-up and disposal of spilled material adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill; and
- Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.

Guidance describing specific details of BMPs exists in several excellent documents (below) and will not be reproduced as part of this guidance.

1. Piper, Robert G. ET AL. (1982) *Fish Hatchery Management*, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C.
2. U.S. Environmental Protection Agency (2004) *Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*, Engineering and Analysis Division, Washington, D.C.

3. Malison, J. A. and Hartleb, C.F. (2005) *Best Management Practices for Aquaculture in Wisconsin and the Great Lakes Region*, Sea Grant Institute, University of Wisconsin.

Reduced Monitoring

On April 19, 1996, the USEPA published interim guidance for reducing reporting and monitoring under the NPDES permit program. The interim guidance fulfilled one of the main directions in the President's Regulatory Reinvention Initiative for USEPA – reducing unnecessary reporting while at the same time maintaining a high level of environmental protection for the Nation. At the time of publication, USEPA encouraged each USEPA region to begin immediately implementing the interim guidance, and to work with NPDES States to adopt the policy as soon as possible. WDNR developed Draft – Reduced Monitoring Guidance in February 2003.

Relying on the USEPA *Interim Guidance For Performance-Based Reduction of NPDES Permit Monitoring Frequencies* (<http://www.epa.gov/npdes/pubs/perf-red.pdf>), eligibility for reduction in monitoring will be based on a demonstration of excellent historical performance by facilities subject to WPDES permit requirements. Facilities can demonstrate this historical performance through both compliance and enforcement history and a demonstrated ability to consistently reduce pollutants in their discharge below the levels necessary to meet existing permit requirements. Facilities will also be expected to maintain these performance levels to continue to receive the reductions. Reducing burdens in this manner will also provide incentives for voluntary reductions of pollutant discharges through such means as reuse and recycling. Reduction in monitoring frequency will be evaluated at the time of permit reissuance.

TBELs

WPDES permits for CAAP facilities contain TBELs determined by Best Professional Judgment (BPJ). The two parameters subject to BPJ include TSS and pH. Eligibility for the elimination of TBELs will be based on the development and implementation of a BMP plan. The BMP plan must include components that are designed to minimize the discharge of solids from the facility. Permittees who demonstrate continual reduction of solids discharge and high quality effluent through implementation of best management practices will be eligible for the removal of TBELs. The WDNR will base the determination of TBEL removal on historical performance, monitoring results and thorough recordkeeping.

While the goal of applying the ELGs to all CAAP facilities in Wisconsin is to reduce the burdens associated with reporting and monitoring, the WDNR will continue to require some minimal level of monitoring in order to characterize facilities discharge of those parameters with TBELs replaced by the BMPs even when their permits do not include numeric TBELs.

WQBELs

The WDNR is required and will set water quality-based effluent limitations (WQBELs) with monitoring requirements to protect water quality of the receiving water body. Monitoring frequencies for parameters with WQBELs will be the lowest allowable by USEPA guidance. The WDNR concludes that an effective BMP approach could reduce levels of pollutants normally regulated as WQBELs to below

thresholds that would trigger the need for limits (no reasonable potential). In that case, limits for those substances could be removed from permits and monitoring could likewise be reduced.

WET Testing

The WDNR utilizes a WET Checklist in the determination for the need for WET limits and monitoring. The WET Checklist is intended for use by staff when making WET limits and monitoring recommendations during the permit reissuance process. The WET Checklist assigns points based on factors present that increase the chances for toxicity in a facilities effluent. The completed WET Checklist recommends WET monitoring frequencies, based on points accumulated during the WET Checklist analysis. One of the factors in the WET Checklist that is assigned points is the Industrial Contributors/Discharge Category. Currently 5 points are added to the Checklist for CAAP facilities in the Industrial Contributors/Discharge Category.

The WDNR is reducing the 5 point Industrial Contributors/Discharge Category assignment to zero, which will likely reduce the WET monitoring requirements for CAAP facilities. The Department has monitored WET data from its' 12 state facilities for several years, and has determined that there is a low-risk potential for toxicity from CAAP facility effluent. CAAP facility wastewater is inherently high quality and contains a self-monitoring bioassay (i.e. toxic water quality kills aquatic organisms). Toxicity may be a concern for CAAP facilities that use large amounts of additives. However, the WET Checklist accounts for this potential toxicity by assigning additional points to the WET Checklist for each additive present in a CAAP facility's wastewater.

Chapter 4 – Non-Permitted Facilities

On May 22, 2013 Wisconsin enacted 2013 Wisconsin Act 20, also referred to as the *Wisconsin Walleye Initiative*. 2013 Wisconsin Act 20 is intended to dramatically increase the number of walleyes in state walleye waters by expanding production of large fingerling walleye at state, private and tribal fish hatcheries for stocking in waters accessible to the public.

Funding for this effort includes the following:

- \$8.2 million for infrastructure improvements and \$1.3 million each year for annual operating costs will be provided to expand production at WDNR state fish hatcheries. Production should increase from 60,000 to 120,000 large walleye fingerlings to well over 500,000 by 2016.
- One time funding of \$2 million is also being provided for a competitive grant program for municipal, tribal and private aquaculture facilities to improve their infrastructure and enhance the capabilities to stock additional large fingerling walleye in Wisconsin's waters.
- \$500,000 is being provided annually starting in FY 14-15 to purchase large fingerling walleye for stocking in Wisconsin's waters from private fish farms.

The Department anticipates an expansion in the Fish Hatcheries and Preserves and Animal Aquaculture industries. This has the potential to increase the number of existing facilities requiring a WPDES permit,

increase the number of new facilities and increase the frequency of compliance inquiries from community members.

Existing Facilities

There are approximately 2,500 fish farms registered with the Department of Agriculture, Trade and Consumer Protection (DATCP) in the State of Wisconsin. A fish farm is defined as an operation that hatches fish eggs or holds live fish for any of the following purposes:

- Sale or distribution
- Introduction into the waters of the state
- Fishing
- Use as bait or fertilizer
- Use as human food or animal feed
- Holding live fish or fish eggs owned by another person

Only about 350 of the approximately 2,500 registered fish farms meet the definition of a fish farm and actually use their facilities for business or educational purposes. The rest are privately owned ponds where the owners stock fish for their own use. These facilities are not required to register recreational ponds as a fish farm, but many owners find that it saves them money and inconvenience. For current data and information regarding fish farm registration, visit the DATCP website.

http://datcp.wi.gov/Farms/Fish_Farms/Registration/index.aspx

Of the approximately 350 registered fish farms that meet the definition of a fish farm, only 15 have a WPDES permit. Existing facilities wishing to expand their operations over the CAAP production thresholds of approximately 20,000 lbs coldwater species and approximately 100,000 lbs warmwater species will be considered a new discharger for purposes of WPDES permitting. New discharges will need to apply for a WPDES permit at least 180 days prior to increasing production.

New Facilities

As stated in the USEPA *Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*, a CAAP facility is a new source if construction of the facility began after September 22, 2004 and the CAAP ELGs apply to the facility. Under the CWA, construction refers to the construction of any building, structure or facility and to the installation of equipment. If construction occurs after the new source date, the facility will be considered a new source if it meets any of the following criteria:

- It is constructed at a site at which no other source is located; or
- It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
- Its processes are substantially independent of an existing source at the same site. To determine whether the processes are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant; and the extent to which the new facility is engaged in the same general type of activity as the existing source should be considered. 40 CFR 122.29(b)(1), 40 CFR 403.3(k)(1)

A new source CAAP facility must apply for a WPDES permit at least 180 days prior to discharging from the CAAP facility. New source is subject to Wisconsin Environmental Policy Act (WEPA) review.

A WPDES permit may be required for a hatchery, fish farm or other facility that does not meet the CAAP criteria but is determined to be a significant pollutant contributor. The type and amount of discharge and the quality of the receiving water determines the need for a WPDES permit and the discharge monitoring requirements. In order to determine the need for a WPDES permit, an assessment of the facility will be conducted by the Department.

Starting a New Fish Farm

If a new facility intends to use an existing waterbody or construct a new waterbody for a fish farm that was not registered as a 1997 WDNR licensed hatchery, the facility will have to work closely with WDNR staff to make sure the fish farm can comply with the permitting requirements.

Step 1: Collect Information

Collect the following information to help determine which permits are required and what restrictions might apply:

- Location of the waterbody, nearby waterways and wetlands
- Previous WDNR permits or licenses issued for the waterway
- Historical maps of the waterway prior to any modifications
- Any proposed modifications to waterway (dredging, culverts, structures, etc.)
- Proposed fish farm operation plan (species, annual production, feed rates, water additives, etc.)
- Location of fish farm inflow and outflow
- Location of floodplain and shoreline boundaries
- Riparian ownership of the waterway

Step 2: Meet with WDNR

Schedule a meeting with the regional WDNR Fish Farm Environmental Coordinator to review the information and determine which permits are required and what restrictions might apply. Since there are multiple WDNR permits required for each waterway, multiple WDNR staff may be involved.

- Natural Waterbody permit – District Fisheries Supervisor
- Chapter 30 and 31 permits – Water Management Specialists
- Well approvals – Regional Water Supply Specialists
- Water Use permits – Water Use Staff
- WPDES permit – Basin Wastewater Specialists

Step 3: Obtain WDNR Permits Prior to Operation

Once the required permits have been identified and the general concept of the project discussed with WDNR staff, application forms will need to be completed and submitted along with any applicable fees.

Again, the type and amount of discharge and the quality of the receiving water determines the need for a WPDES permit and the discharge monitoring requirements. If it is determined that a WPDES permit is

required, the facility will be sent a New WPDES Permit Pre-Application Checksheet. Information from the checksheet will be used to generate a facility specific WPDES application.

After a complete application has been submitted, WDNR staff will draft a WPDES permit. In many instances this requires a site visit by the Basin Wastewater Specialist and the WPDES permit drafter. The next step is to comply with a 30-day public notice requirement specified by statute. Once the permit is reissued, there is an appeal period where the facility or other members of the public may challenge the WDNR decision.

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References

Malison, J. A. and Hartleb, C.F. (2005) *Best Management Practices for Aquaculture in Wisconsin and the Great Lakes Region*, Sea Grant Institute, University of Wisconsin.

Piper, R.G. et. al. (1982) *Fish Hatchery Management*, U.S. Fish and Wildlife Service, Department of the Interior, Washington, D.C.

U.S. Environmental Protection Agency (2004) *Compliance Guide for the Concentrated Aquatic Animal Production Point Source Category*, Engineering and Analysis Division, Washington, D.C.

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Applicability Matrix

System Type	Species Type (Water)	Discharge ≥ 30 Days Per Year?	Annual Production of Aquatic Animals	Maximum Month of Feeding > 5,000 lb (2,272 kg)?	NPDES Applies? ¹	NPDES/ELGs Applies?
Flow-through or Recirculating	Cold	Yes	≥ 100,000 lb (45,454 kg)	N/A	X	X
			≥ 20,000 lb (9,090 kg)	Yes	X	
				No	X	
			≤ 20,000 lb (9,090 kg)	Yes	X	
	No					
	Warm	Yes	≥ 100,000 lb (45,454 kg)	N/A	X	X
≤ 100,000 lb (45,454 kg)			N/A			
Net Pens	Cold	Yes	≥ 100,000 lb (45,454 kg)	N/A	X	X
			≥ 20,000 lb (9,090 kg)	Yes	X	
				No	X	
			≤ 20,000 lb (9,090 kg)	Yes	X	
	No					
	Warm	Yes	≥ 100,000 lb (45,454 kg)	N/A	X	X
≤ 100,000 lb (45,454 kg)			N/A			
Ponds	Cold	Yes ²	≥ 100,000 lb (45,454 kg)	N/A	X	X
			≥ 20,000 lb (9,090 kg)	Yes	X	
				No	X	
			≤ 20,000 lb (9,090 kg)	Yes	X	
	No					
	Warm	Yes ²	≥ 100,000 lb (45,454 kg)	N/A	X	X
≤ 100,000 lb (45,454 kg)			N/A			
		No				
Alligator ponds, molluscan shellfish, lobster cages and pounds, crawfish, indirect discharges, or Alaskan flow-through					See Footnote 3	

¹ The Director may designate a facility as a CAAP facility on a case-by-case basis, even if the facility does not meet the discharge, annual production, and feed requirements of the NPDES regulations.

² Note this does not apply to closed ponds which discharge only during periods of excess runoff.

³ These types of systems are exempt from the CAAP ELGs. They may be regulated by the NPDES regulations if they meet the discharge, annual production, and feed requirements of the NPDES regulations, or if the Director designates them (on a case-by-case basis) as CAAP facilities or other types of facilities requiring an NPDES permit