



# Fact Sheet

**The U.S. Environmental Protection Agency (EPA)  
Proposes to Reissue a National Pollutant Discharge Elimination System (NPDES) Permit to  
Discharge Pollutants Pursuant to the Provisions of the Clean Water Act (CWA) to:**

## **Concentrated Animal Feeding Operations in the State of Idaho**

Public Comment Start Date: October 23, 2019  
Public Comment Expiration Date: December 9, 2019

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### **EPA Proposes to Reissue NPDES Permit No. IDG010000**

The U.S. Environmental Protection Agency (EPA) proposes to reissue a National Pollutant Discharge Elimination System (NPDES) general permit for concentrated animal feeding operations (CAFOs) in Idaho excluding Tribal lands (Draft Permit). The draft permit proposes to establish conditions for the discharge of pollutants from these CAFOs to waters of the United States.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures;
- descriptions of the types of facilities and discharges covered under the General Permit;
- a description of proposed effluent limitations and other provisions of the draft General Permit; and
- technical material supporting the conditions in the Draft Permit

### **Public Comment**

Persons wishing to comment on the draft permit may do so in writing by the expiration date of the public notice. All comments must be in writing and must include the commenter's name, address, telephone number, the permit name, and the permit number. Comments must include a concise statement of their basis and any relevant facts the commenter believes EPA should consider in making its decision regarding the conditions and limitations in the final permit. All written comments and requests must be submitted to the attention of the Director, Water Division, at the following address: U.S. EPA, Region 10, 1200 6th Avenue, Suite 155, WD 19-

C04, Seattle, WA 98101-3188. Alternatively, comments may be submitted by facsimile to 208-378-5744; or submitted via e-mail to [peak.nicholas@epa.gov](mailto:peak.nicholas@epa.gov) by the end date of the public comment period.

Persons wishing to request that a public hearing be held may do so, in writing, by the end date of this public comment period. A public hearing is a formal meeting, on the record, wherein EPA officials hear the public's views and concerns about an EPA action or proposal. A request for a public hearing must state the nature of the issues to be raised, reference the permit name and NPDES permit number, and include the requester's name, address, and telephone number.

After the comment period closes, and all significant comments have been considered, EPA will review and address all submitted comments. EPA Region 10's Director of the Water Division will then make a final decision regarding permit issuance. If no comments are received, the tentative conditions in the draft permit will become final.

Pursuant to Section 509(b)(1) of the Clean Water Act, 33 U.S.C. § 1369(b)(1), any interested person may appeal the permit in the Ninth Circuit Court of Appeals within 120 days following notice of EPA's final decision for the permit.

#### **State Clean Water Act Section 401 Certification**

The Idaho Department of Environmental Quality (IDEQ) has provided a draft certification for the permit pursuant to Section 401 of the Clean Water Act, 33 U.S.C. § 1341 (see Appendix A). EPA may not issue the NPDES permit until the IDEQ has granted, denied, or waived certification. For more information about the draft certification, please contact Loren Moore, at (208) 373-0158 or at: [loren.moore@deq.idaho.gov](mailto:loren.moore@deq.idaho.gov). Comments regarding the certification should be directed to:

Loren Moore  
401 Water Quality-Based  
Permitting Coordinator  
Idaho Department of  
Environmental Quality  
1410 N. Hilton  
Boise, ID 83706

#### **Documents are Available for Review**

The draft permit and related documents can be reviewed or obtained by visiting or contacting EPA's Regional Office in Seattle, Washington, or Idaho Operations Office in Boise, Idaho, between 8:30 a.m. and 4:00 p.m., Monday through Friday at the addresses below. The draft permits, fact sheet, and other information can also be found by visiting the Region 10 NPDES website at: <https://www.epa.gov/npdes-permits/about-region-10s-npdes-permit-program>.

United States Environmental Protection Agency, Region 10  
1200 Sixth Avenue, Suite 155, WD 19-C04  
Seattle, WA 98101-3188  
(206) 553-0523  
Toll Free 1-800-424-4372 (within Alaska, Idaho, Oregon and Washington)

The Fact Sheet and draft permit are also available at:

United States Environmental Protection Agency, Region 10  
Idaho Operations Office  
950 W. Bannock Street, Suite 900  
Boise, ID 83702

## **I. INTRODUCTION**

### **A. General Permits**

Section 301(a) of the Clean Water Act (CWA), 33 U.S.C. § 1311(a), prohibits the discharge of pollutants to waters of the U.S. except in accordance with a National Pollutant Discharge Elimination System (NPDES) permit. CWA Section 402, 33 U.S.C. § 1342, authorizes EPA to issue NPDES permits authorizing such discharges subject to requirements that implement CWA Sections 301, 304, and 401, 33 U.S.C. §§ 1311, 1314, and 1341.

These requirements must include effluent limitations that implement technology-based limits as well as any more stringent limit necessary to protect state water quality standards. Violation of a condition contained in an NPDES permit, whether an individual or general permit, is a violation of the CWA and subjects the operator of the permitted facility to the penalties specified in Section 309 of the CWA, 33 U.S.C. § 1319.

40 CFR § 122.28 allows EPA to issue general permits to regulate numerous facilities in one permit when the facilities:

- Are located within the same geographic area;
- Involve the same or substantially similar types of operations;
- Discharge the same types of wastes;
- Require the same effluent limits or operating conditions;
- Require the same or similar monitoring requirements; and
- In the opinion of EPA, are more appropriately controlled under a general permit rather than an individual permit.

Using general permits conserves resources and reduces the paperwork burden associated with obtaining discharge authorization for the regulated community. All of the concentrated animal feeding operations (CAFOs) subject to this permit require the same effluent limits, operating conditions, and monitoring requirements, other than where specific water quality-based limits are implemented to be consistent with wasteload allocations (WLAs) articulated in an

approved Total Maximum Daily Load (TMDL). Moreover, the operations are substantially similar and all are located within the state of Idaho. Therefore, EPA has determined that a general permit is the appropriate mechanism to address the majority of CAFOs that are subject to the requirements of the NPDES program and the CWA.

**B. Permit History**

The previous General Permit for Concentrated Animal Feeding Operations in Idaho, NPDES Permit No. IDG01000, went into effect on May 9, 2012 and expired on May 8, 2017. No facilities were covered under the 2012 permit.

**C. NPDES NPDES Authorization**

In 2014, the Idaho Legislature revised the Idaho Code to direct the Idaho Department of Environmental Quality (IDEQ) to seek authorization from EPA to administer the NPDES permit program for the State of Idaho. On August 31, 2016, IDEQ submitted a program package pursuant to CWA Section 402(b), 33 U.S.C. 1342(b) and 40 CFR § 123.21. On June 5, 2018, EPA authorized IDEQ to implement a phased NPDES permit program beginning July 1, 2018. Based on this phased approach, IDEQ will obtain permitting for general permits on July 1, 2020. At that point in time, all documentation required by the permit would be sent to IDEQ rather than to EPA and any decision under the permit stated to be made by EPA or jointly between EPA and IDEQ will be made solely by IDEQ. Permittees will be notified by IDEQ when this transition occurs.

**D. Summary of Changes to the Permit**

<b>2012 Permit</b>	<b>Draft Permit</b>
Section I.A. Permit Area. <ul style="list-style-type: none"> <li>• Provided coverage for CAFOs in Indian Country</li> </ul>	Section I.A. Permit Area and Eligibility. <ul style="list-style-type: none"> <li>• Excludes CAFOs in Indian Country</li> </ul>
Section I.F. Requirements for an Individual NPDES Permit. <ul style="list-style-type: none"> <li>• Did not include CAFOs in Indian Country</li> </ul>	Section I.F. Individual Permit Coverage. <ul style="list-style-type: none"> <li>• Includes CAFOs in Indian Country</li> </ul>
Section II.A. Effluent Limitations and Standards Applicable to the Production Area <ul style="list-style-type: none"> <li>• Removed Section II.A.3.h. regarding requirements over CAFOs constructing or modifying existing wastewater or manure storage structures.</li> <li>• Removed Section II.A.3.i regarding requirements for keeping a rain gauge onsite with a log of all measurable rainfall events.</li> </ul>	Section II.A. Effluent Limitations and Standards Applicable to the Production Area <ul style="list-style-type: none"> <li>• Added Section II.A.3. regarding no discharge requirements for new source swine, poultry and veal facilities.</li> </ul>

<ul style="list-style-type: none"> <li>• Removed Section II.A.3.j regarding requirements to isolate open lots from run-on from outside drainages.</li> <li>• Removed Section II.A.3.k regarding requirements on facilities expanding operations.</li> <li>• Removed Section II.A.4. Other Requirements/Prohibitions Applicable to Production Areas</li> <li>• Removed Section II.A.5. Discharges to Water Quality Impaired Waters</li> </ul>	
<p>Section II.B. Effluent Limitations and Standards Applicable to the Land Application Area</p> <ul style="list-style-type: none"> <li>• Removed Section II.B.1.i regarding complete on-site records.</li> <li>• Removed Section II.B.2</li> <li>• Removed Section II.B.3</li> </ul>	<p>Section II.B. Effluent Limitations and Standards Applicable to the Land Application Area</p> <ul style="list-style-type: none"> <li>• Modified Section II.B.10 which prohibits the application of manure, litter, or process wastewater to frozen, snow covered, or saturated soils.</li> </ul>
<p>Section III.A.3. NMP Content</p> <ul style="list-style-type: none"> <li>• Removed Section III.A.3.i regarding applications rates being expressed in the NMP consistent with either the Linear or Narrative Rate approach.</li> <li>• Removed Section III.A.3.J regarding including a site map of the production area and land application area.</li> </ul>	<p>Section III.A.2. NMP Content</p> <ul style="list-style-type: none"> <li>• Sections III.A.2.a – i have been modified to include more specific requirements for the NMP Content.</li> <li>• Section III.A.2.a requires CAFOs to use IDAWM to evaluate wastewater and manure storage structures. CAFOs must evaluate existing wastewater and manure storage using Washington NRCS Engineering Technical Note 23, “NRCS Assessment Procedures for Existing Waste Storage Ponds”.</li> <li>• Section III.A.2.f requires CAFOs to evaluate each land application area be evaluated using Idaho NRCS Water Quality Technical Note 6, “Idaho Nutrient Transport Risk Assessment, (INTRA). Any land application area that receives a risk assessment rating of medium or greater must have appropriate conservation practices installed to reduce the rating to low.</li> <li>• Section III.A.2.g requires CAFOs to sample soil and manure in accordance to guidance from the University of Idaho instead of Idaho NRCS.</li> </ul>

	<ul style="list-style-type: none"> <li>• Section III.A.2.h requires CAFOs to generate annual nutrient budgets using University of Idaho fertilizer guides or other land grant university fertilizer or crop production guides.</li> <li>• <i>The land application requirements stipulated in Sections II.B.1, II.B.2, III.A.2.g, II.A.2.h, and Appendices C, E and I represent the narrative rate approach [40 CFR § 122.42(e)(5)(ii)]. EPA has identified spreadsheets (Idaho's NRCS IDAWM, Appendix C and Idaho's NRCS Water Quality Technical Note #6, Appendix E) that incorporate many of the required elements and should simplify the nutrient management planning process for operators.</i></li> </ul>
<p>Section III.A.7. Requirements Associated with NMP Implementation</p> <ul style="list-style-type: none"> <li>• Removed entire section which was repetitive from earlier sections of the previous permit.</li> </ul>	<p>Section III.A.</p> <ul style="list-style-type: none"> <li>• Requires CAFOs to develop, submit, and implement a site-specific Nutrient Management Plan (NMP). The NMP shall identify and describe practices that will be implemented to ensure compliance with the effluent limitations and special conditions of this permit (Sections II and III).</li> </ul>
<p>Section III.A.8. Certified Specialists to Develop NMPs</p> <ul style="list-style-type: none"> <li>• Removed entire section.</li> </ul>	
<p>Section III.D.2. Wastewater or Manure Storage Structure Dewatering</p> <ul style="list-style-type: none"> <li>• Removed entire section.</li> </ul>	
<p>Section III.D.3. Spills</p> <ul style="list-style-type: none"> <li>• Removed entire section.</li> </ul>	
<p>Section III.D.4. Employee Training</p> <ul style="list-style-type: none"> <li>• Removed entire section.</li> </ul>	
<p>Section IV. Inspection, Monitoring, Record Keeping, and Reporting</p> <ul style="list-style-type: none"> <li>• Removed Table IV-A. NPDES CAFO Permit Record Keeping Requirements.</li> </ul>	<p>Section IV. Records, Reporting, Monitoring, and Notification</p> <ul style="list-style-type: none"> <li>• Added Section IV.A.1. Record Keeping Requirements for the Production Area.</li> <li>• Added Section IV.A.2. 2. Record Keeping Requirements for the Land Application Area.</li> </ul>

	<ul style="list-style-type: none"><li>• Added Section IV.B.3. 3. The annual report must include all the information detailed in the Annual Report Template in Appendix H. The permittee may use the fillable pdf template provided or may compile all the required information in a separate document.</li></ul>
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## II. PROPOSED EFFLUENT LIMITATIONS AND OTHER PERMIT PROVISIONS

### A. General

#### 1. Permit Area and Eligibility

The permit offers NPDES permit coverage for discharges from operations defined as CAFOs in the State of Idaho, excluding Indian Country. See 40 CFR § 122.23(b)(2). CAFOs are point sources subject to the NPDES permitting program. A permit is required for any CAFO that discharges pollutants to waters of the U.S. See 40 CFR § 122.23(d)(1). The draft permit provides coverage for any eligible facilities that discharge and meet the following criteria:

- The facility meets the definition of a large, medium, or small CAFO defined in 40 CFR § 122.23(b)(4), (6), and (9);
- is located in the permit coverage area;
- is not specifically excluded from coverage per one of the conditions specified in Section I.F.1 of the permit.

#### 2. Application for Coverage

In accordance with 40 CFR §§ 122.21(i)(1)(x), 122.28(b)(2), and 122.23(d)(3), a CAFO operator seeking coverage under this permit must submit a signed Notice of Intent (NOI) (see CAFO General Permit Appendix A) and nutrient management plan (NMP) to EPA. EPA Form 2B serves as the NOI for this permit. Copies of the NOI must also be submitted to IDEQ and the Idaho State Department of Agriculture (ISDA).

Pursuant to 40 CFR § 122.23(h), upon receipt, EPA will review the NOI and NMP to ensure that all permit requirements are fulfilled. EPA may request additional information from the CAFO owner or operator if additional information is necessary to complete the NOI and NMP or to clarify, modify, or supplement previously submitted material. If EPA makes a preliminary determination that the NOI is complete, the NOI, NMP, and draft terms of the NMP to be incorporated into the permit will be made available at EPA Region 10's website at: <https://www.epa.gov/npdes-permits/about-region-10s-npdes-permit-program> for a thirty (30) day public review and comment period. EPA will respond to comments received during this period and, if necessary, require the CAFO owner or operator to revise the NMP. If determined appropriate by EPA, CAFOs will be granted coverage under the permit upon written notification by EPA. If EPA determines that the facility is ineligible for coverage under the permit, EPA

will inform the facility an individual permit is required. Until the CAFO owner/operator receives written notification from EPA that the CAFO is authorized to discharge under the permit, any discharges from the CAFO are not covered by a NPDES permit.

CAFOs classified as “new sources” must conduct an environmental review pursuant to the National Environmental Policy Act (NEPA) [40 CFR Part 6]. A CAFO is a “new source” if construction commenced after April 14, 2013, and it meets the criteria set forth in 40 CFR § 122.29. *See* 40 CFR § 122.2 and 68 Fed. Reg. 7176, 7200 (February 12, 2003). New Source CAFOs in Idaho must submit a Finding of No Significant Impact (“FONSI”) or an Environmental Impact Statement (“EIS”) issued by EPA Region 10 along with the NOI and NMP in order to obtain coverage under the general permit.

An existing CAFO that proposes to expand their facility would not become a new source unless the modifications totally replace the process or production equipment that causes the discharge of pollutants, or the new/modified facility’s production and waste handling processes are substantially independent of the preexisting source. *See* 68 Fed. Reg. at 7200. For an existing CAFO, the draft permit adds a procedure to be used for permit coverage of a significant expansion that is constructed after the effective date of the permit. If EPA determines the expansion to be a new source, the permittee must include a FONSI or an EIS issued by EPA Region 10 along with the NOI to have the expansion covered by the permit.

### **3. Permit Expiration**

In accordance with 40 CFR § 122.46(a), NPDES permits shall be effective for a fixed term not to exceed five (5) years. Therefore, this permit will expire five years from the effective date of the final permit. If the permit is not reissued prior to the expiration date, it shall be eligible for an administrative extension of coverage in accordance with the Administrative Procedures Act (APA) and will remain in full force. However, the EPA cannot provide coverage under this general permit to any Permittee who submits the NOI requesting permit coverage after the permit expiration date.

### **4. Change in Ownership**

If a change of ownership occurs at a CAFO whose discharge is authorized under the permit, coverage under the permit will automatically transfer under the following conditions:

- The current permittee notifies EPA at least 30 days prior to the proposed transfer date;
- The notice includes a written agreement between the existing and new permittees containing a specific transfer date for permit responsibility, coverage and liability between them;
- EPA does not notify the existing permittee and the proposed permittee that the facility is no longer eligible for coverage under the General Permit.

If the new owner or operator modifies any part of the Nutrient Management Plan (NMP), the NMP shall be submitted to EPA in accordance with Section III.A.5 of the permit and 40 CFR § 122.42(e)(6), and may be subject to the public notice and comment requirements of Section

I.B.4 of the permit.

### **5. Termination of Permit Coverage**

In accordance with 40 CFR § 122.64, EPA may terminate coverage under the permit by determining, in writing, that the facility no longer requires NPDES coverage because one of the following conditions is met:

- The facility has ceased all operations and all waste retention structures have been properly closed in accordance with the Idaho Natural Resources Conservation Service (NRCS) Conservation Practice Standard No. 360, Closure of Waste Impoundment contained in the NRCS Field Office Technical Guide and all other remaining stockpiles of manure, litter, or process wastewater not contained in a wastewater or manure storage structure are properly disposed of in accordance with Section III.C; or
- The facility is no longer a CAFO that discharges manure, litter, or process waste water to waters of the United States; or
- In accordance with 40 CFR § 122.64, the entire discharge is permanently terminated by elimination of the flow or by connection to a publicly owned treatment works (POTW).

The permittee may request termination of coverage under the permit in accordance with 40 CFR §§ 122.64 and 122.22(d) for one of the reasons stipulated above. The request must be made in writing and submitted to EPA. Termination of coverage will become effective 30 days after the written notice is sent by EPA, unless the permittee objects within that time frame.

### **6. Individual Permit Coverage**

In accordance with 40 CFR § 122.28(a)(4)(ii), EPA may exclude specific sources or areas from coverage under the permit. The following CAFOs are not eligible for coverage under this NPDES general permit, and must apply for an individual permit:

- CAFOs that have been notified by EPA that they are ineligible for coverage under this general permit due to a past history of non-compliance. [40 CFR § 122.28(b)(3)(A)]
- CAFOs that are seeking coverage that will adversely affect species that are federally-listed as endangered or threatened (“listed”) under the Endangered Species Act (ESA) or adversely modify critical habitat of those species. This provision is included in accordance with the outcome of consultation pursuant to Section 7 of the ESA.
- CAFOs that are seeking coverage that will have the potential to affect historic properties. CAFO owners/operators must determine whether their permit-related activities have the potential to affect a property that is listed or eligible for listing on the National Register of Historic Places, pursuant the National Historic Preservation Act. If the CAFO seeking coverage will have an effect on historic properties, the CAFO's owners/operators must consult with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other tribal representatives regarding measures to mitigate or prevent any adverse effects on historic properties.
- CAFOs with discharges to a designated Outstanding Resource Water. As of the effective date of this permit there are no Outstanding Resource Waters approved by the Idaho

Legislature. This provision is included in accordance with the State of Idaho's certification of this permit pursuant to CWA § 401(a)(1), 33 U.S.C. § 1341(a)(1) and 40 CFR § 124.53.

- CAFOs located in Indian Country. Since IDEQ will assume administration of this permit on July 1, 2020 and since EPA retains permitting authority on tribal lands in Idaho, EPA has decided to exclude coverage to CAFOs located in Indian Country from this permit. If a CAFO located on tribal land requires NPDES permit coverage, then the facility should apply for an individual permit with EPA Region 10.

Pursuant to 40 CFR § 122.28(b)(3), EPA may require any discharger applying for coverage under this general permit to apply for and obtain an individual permit. EPA will notify the operator, in writing, that an application for an individual permit is required and will set a time for submission of the application. Coverage of the facility under this general NPDES permit is automatically terminated when: (1) the operator fails to submit the required individual NPDES permit application within the defined time frame; or (2) the individual NPDES permit is issued by EPA.

Pursuant to 40 CFR § 122.28(b)(3)(iii), any operator authorized under the general permit who believes that the terms and conditions of the general permit are not appropriate for his/her facility, either before or after obtaining coverage under the permit, may request to be covered by an individual permit. The operator shall submit an application, with reasons supporting the request, to EPA no later than 90 days after the publication by EPA of the general permit in the Federal Register. This application shall include NPDES permit application Forms 1 and 2C, together with the same information required for the NOI.

## **B. EFFLUENT LIMITATIONS AND STANDARDS**

### **1. Overview**

Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants by any point source into waters of the U.S. except in accordance with a permit. CWA § 402, 33 U.S.C. § 1342, authorizes EPA to issue NPDES permits authorizing discharges subject to limitations and requirements imposed pursuant to Sections 101, 301(b), 304, 308, 401, and 403 of the CWA, 33 U.S.C. §§ 1251, 1311(b), 1314, 1318, 1341, and 1343. Pursuant to these statutory provisions, EPA is required to include conditions in a permit that meet technology-based effluent limitations as well as any requirement necessary to meet applicable state water quality standards. Moreover, NPDES permits generally contain record-keeping and reporting requirements pursuant to CWA § 308, 33 U.S.C. § 1318.

Manure, litter, and process wastewater discharges resulting from CAFOs are subject to the requirements found at 40 CFR §§ 122.23 and 122.42(e). Many CAFOs are also subject to the effluent limitation guidelines (ELGs) found at 40 CFR Part 412. Pursuant to CWA § 402(a)(2), 33 U.S.C. § 1342(a)(2), and 40 CFR § 122.44(k)(3), best management practices (BMPs) are being proposed in the draft permit. These practices are reasonably necessary either to achieve effluent limitations or to carry out the Act's goals of eliminating the discharge of pollutants to maintain water quality.

The draft permit has been developed to fulfill the NPDES general permit requirements in accordance with 40 CFR §§ 122.42(e)(1)(i), 412.31, and 412.43.

## **2. Effluent Limitations and Standards Applicable to the Production Area**

### Discharge Standards for All Facilities

The production area at a CAFO includes the animal confinement areas and other parts of the facility, including manure storage areas, raw materials storage areas, and waste containment areas. (40 CFR § 122.23(b)(8).)

For all types of animals and all facilities other than swine, poultry and veal “new sources”, the permit prohibits the discharge of manure, litter or process wastewater pollutants into waters of the U.S. except under the following condition: whenever precipitation causes an overflow of manure, litter or process wastewater, pollutants may be discharged provided that the production area is designed, constructed, operated and maintained to contain all manure, litter and process wastewater including the runoff and direct precipitation from a 25-year, 24-hour storm event for the location of the CAFO.

“New source” CAFOs, are facilities where construction began prior to April 14, 2003. This applies to CAFOs that meet or exceed the following: 2,500 swine each weighing 55 pounds or more; 10,000 swine each weighing less than 55 pounds; 30,000 laying hens or broilers if the facility uses a liquid manure handling system; 82,000 laying hens if the facility uses other than a liquid manure handling system; 125,000 chickens other than laying hens if the facility uses other than a liquid manure handling system; 55,000 turkeys; and 1,000 veal calves (40 CFR § 412.40). The new source performance standards for production areas of swine, poultry and veal calf operations (40 CFR § 412.46) require that there be no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production area.

### Additional Requirements for All Facilities

Manure, litter, and/or process wastewater discharges resulting from CAFOs are subject to the ELGs found at 40 CFR Part 412.

Part II.A.2 of the Draft Permit includes additional requirements that are applicable to the production area of the CAFO:

The design storage volume must be adequate to contain all manure, litter and process wastewater accumulated during a storage period of 180 days, including:

- The normal precipitation less evaporation during the storage period;
- The normal runoff during the storage period;
- The direct precipitation from a 25-year, 24-hour storm event;
- The runoff from the 25-year, 24-hour storm event from the production area;

- The residual solids after liquid has been removed;
- One-foot freeboard to maintain structural integrity; and
- In the case of treatment lagoons, the necessary minimum treatment volume.

These minimum design storage requirements are adapted from EPA's CAFO technical guidance document *Managing Manure Nutrients at Concentrated Animal Feeding Operations*.<sup>1</sup>

The permit contains provisions for the visual inspection of facilities, including:

- Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the wastewater and manure storage and containment structures. [40 CFR § 412.37(a)(1)(i)]
- Daily inspections of all water lines, including drinking water and cooling water lines. [40 CFR § 412.37(a)(1)(ii)]
- (3) Weekly inspections of the manure, litter, and process wastewater impoundments noting the level as indicated by the depth marker installed in accordance with 40 CFR § 412.37(a)(2). [40 CFR § 412.37(a)(1)(iii)]

The permit also requires:

- Installation of a depth marker in all open surface liquid impoundments which clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event. The depth marker need not be a gauge or any formal type of structure; it need only provide immediate visual verification that adequate freeboard remains. [40 CFR § 412.37(a)(2)]
- Correction of any deficiencies that are identified as a result of visual inspections as soon as possible. [40 CFR § 412.37(a)(3)]
- No disposal of animal mortalities in any liquid manure or process wastewater systems and handling of animal mortalities in such a way as to prevent discharge of pollutants to surface water. [40 CFR §§ 122.42(e)(1)(ii) and 412.37(a)(4)]
- Maintenance of complete records for the production area. Records must be maintained on-site at the permitted CAFO for five years from the date they are created. [40 CFR §§ 122.42(e)(2) and 412.37(b)]

### **3. Effluent Limitations and Standards Applicable to the Land Application Area**

Permit provisions for land application of manure, litter or process wastewater under the control of the CAFO owner/operator include both technology-based and water quality-based limits. Provisions 1-8 are technology-based requirements based on BMPs specified in the CAFO regulations, including the ELGs. [40 CFR §§ 122.42(e)(5) and 412.4(c)(1)], and include:

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<sup>1</sup> U.S. EPA, *Managing Manure Nutrients at Concentrated Animal Feeding Operations*, 2004. Chapter 2, Section B.1. EPA-821-B-04-009. <https://www.epa.gov/npdes/managing-manure-nutrients-cafos>

1. Develop and implement a NMP that is based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field. [40 CFR § 412.4(c)(1)]
2. Address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters. [40 CFR § 412.4(c)(1)]
3. Determine application rates for manure, litter, and process wastewater that minimize phosphorus and nitrogen transport from the field to surface waters in accordance with the University of Idaho Fertilizer Guides<sup>2</sup> or related University of Idaho Crop Production Guide<sup>3</sup>. If a University of Idaho Fertilizer Guide or related Crop Production Guide is unavailable, a fertilizer or production guide from a Pacific Northwest Land Grant University may be used. If a land grant university fertilizer or crop production guide is unavailable, the NMP must identify and include the best available data used to determine specific land application rates for the crop. [40 CFR § 412.4(c)(2)]
4. Identify appropriate site-specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the United States [40 CFR § 122.42(e)(1)(vi)]
5. Analyze manure and soil a minimum of once annually for nitrogen and phosphorus content. [40 CFR § 412.4(c)(3)]  
Periodically inspect for leaks from equipment used for land application of manure, litter, or process wastewater. [40 CFR § 412.4(c)(4)] Establishment of protocols to land apply manure, litter, and process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater. [40 CFR § 122.42(e)(1)(viii)].
6. Analyze manure and soil a minimum of once annually for nitrogen and phosphorus content. [40 CFR § 412.4(c)(3)]
7. Periodically inspect for leaks from equipment used for land application of manure, litter, or process wastewater. [40 CFR § 412.4(c)(4)]
8. Do not apply manure, litter, or process wastewater closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters. The permittee may opt to use a 35-foot vegetated buffer as an alternative to the 100-foot setback. As a compliance alternative, the permittee may demonstrate to the permitting authority that the use of an alternative practice will result in equivalent or better pollutant reductions than would be achieved by the use of the 100-foot setback. An adequate demonstration must include the use of site-specific data using a credible tool such as INTRA or the Idaho Phosphorus Site Index. [40 CFR §§ 412.4(c)(5) and 412.4(c)(5)(i)]

Provisions 9 and 10 are water quality-based provisions. The rationale for those provisions are explained below.

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<sup>2</sup> University of Idaho, Southern Idaho Fertilizer Guides Publications & Resources, <http://www.extension.uidaho.edu/resources2.aspx?title=Crop%20Production&category1=Fertilizers%20and%20Soil&category2=Southern%20Idaho%20Fertilizer%20Guides>

<sup>3</sup> University of Idaho, Crop Production, <http://www.extension.uidaho.edu/crops.aspx>

9. Prevent dry weather discharges of manure, litter and process wastewater, including discharges to waters of the U.S. through tile drains, ditches or other conveyances, discharges associated with irrigation, as well as discharges via subsurface flows.

Where manure, litter, or process wastewater has been applied in accordance with the CAFO's NMP, a precipitation related discharge of manure, litter, or process wastewater from land areas under the control of the CAFO is considered to be an agricultural storm water discharge. All other discharges from the land application area that are not agricultural storm water discharges are dry weather discharges and are prohibited.

Discharges from CAFO land application area, except where it is an agricultural storm water discharge, are subject to NPDES requirements, including water quality-based effluent limitations. Federal regulations [40 CFR § 122.44(d)] require permit limitations to control all pollutants which may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above and State or Tribal water quality standard. In most instances, a CAFO that meets technology-based permit limits requiring manure to be applied at appropriate agronomic rates will eliminate all or most dry weather discharges. However, if such discharges remain, the Permitting Authority must determine the need for additional water quality-based effluent limitations to meet applicable water quality standards based on the circumstances of each particular case (see the Preamble to the Final Rule, 73 FR 70,418 (November 20, 2008)).

A state-wide general permit must ensure that water quality standards will not be violated by authorized discharges from any facility covered by that permit. A general permit's water quality-based requirements must, therefore, be sufficiently protective to ensure that no authorized discharges anywhere in the State will violate water quality standards (see Water Quality-based Effluent Limitations and Standards – Production Area, above).

EPA has determined that water quality-based effluent limitations are necessary to address dry weather discharges from land application areas that cause or contribute to an excursion above Idaho Water Quality Standards. The draft permit prohibits all dry weather discharge from the land application area to a water of the United States from a CAFO as a result of the application of manure, litter or process wastewater to land areas under the control of the CAFO, except where it is an agricultural storm water discharge. [40 CFR § 122.23(e)]. A dry weather discharge is a discharge of manure, litter, and/or process waste water from the land application area under the control of a CAFO that is not defined as Agricultural Stormwater (40 CFR § 122.23(e)) and where the manure, litter, or process wastewater has not been land applied in accordance with site-specific nutrient management practices that ensure the appropriate utilization of the nutrients in the manure, litter, or process wastewater as specified in 40 CFR § 122.42(e)(1)(vi-ix). The term does not exclude discharges through tile drains, discharges mingled with irrigation water, discharges composed of liquid manure or process wastewater, discharges resulting from the failure of land application equipment, and discharges from furrow or flood irrigation tail water.

10. Do not apply manure, litter or process wastewater when the land is frozen or snow-covered, or when the top two inches of soil are saturated from rainfall, snow melt or irrigation.

EPA has determined that water quality-based effluent limitations are necessary to address discharges from land application areas during winter. The draft Permit prohibits the land application of manure, litter, or process wastewater when the land application area is frozen and/or snow covered or when the top two inches of soil are saturated from rainfall, snow melt, or irrigation.

Not surprisingly, manure, litter and process wastewater cannot be effectively applied at an agronomic rate during the non-growing season, since there will be minimal or no plant uptake. At the same time, frozen, snow-covered or saturated soils will enhance and facilitate runoff. Studies of winter manure application and nutrient losses include assessments using a variety of methods and scales, both spatial and temporal. As Table 1 shows, the majority of these studies observed substantial nutrient losses from winter-applied manure.

<b>Table 1: Summary of research studies on nutrient losses from winter application of manure</b>			
<b>Study</b>	<b>Geographic Location</b>	<b>Manure Type</b>	<b>Loss magnitude and form</b>
<b>Watershed studies</b>			
Bishop, P.L., W.D. Hively, J.R. Stedinger, M.R. Rafferty, J.L. Lojpersberger, and J.A. Bloomfield. 2005. Multivariate analysis of paired watershed data to evaluate agricultural best management practice effects on stream water phosphorus. <i>J. Environ. Qual.</i> 34:1087–1101.	New York	Dairy manure	Paired-watershed model of reduced winter spreading demonstrated load reductions of: 43% Soluble P 29% Particulate P
Brown, M.B., P. Longabucco, M.R. Rafferty, P.D. Robillard, M.F. Walter, and D.A. Haith. 1989. Effects of animal waste control practices on nonpoint source phosphorus loading in the West Branch of the Delaware River watershed. <i>J. Soil Water Cons.</i> 44(1):67-70.	New York	Dairy manure	Model simulations of improved spreading schedules that eliminated winter spreading led to 35% decrease in TP losses
Gessel, P.D., N.C. Hansen, J.F. Moncrief, and M.A. Schmitt. 2004. Rate of Fall-Applied Liquid Swine Manure: Effects on Runoff Transport of Sediment and Phosphorus. <i>J. Environ. Qual.</i> 33:1839-1844.	Minnesota	Swine	Significant increases in DP loss in spring runoff from frozen soil after fall application of swine manure applied at 1x and 2x the recommended rate: • Control: <0.1 kg/ha DP • 1x rate: ~0.2 kg/ha DP • 2x rate: ~0.4 kg/ha DP (Values estimated from Figure 2 in paper.) 18 percent of spring runoff P losses were DP.

<b>Table 1: Summary of research studies on nutrient losses from winter application of manure</b>			
<b>Study</b>	<b>Geographic Location</b>	<b>Manure Type</b>	<b>Loss magnitude and form</b>
Hansen, N.C., S.C. Gupta, J.F. Moncrief. 2000. Snowmelt runoff, sediment, and phosphorus losses under three different tillage systems. <i>Soil Tillage Res.</i> 57:93-100.	Minnesota	Not specified	Soluble P was 75% of total P loss in snowmelt for three tillage systems. (Manure application was not part of the study design. Study included here to illustrate points about proportion of dissolved P in snowmelt.)
Komiskey, M.J., T.D. Stuntebeck, and F.W. Madison. 2011. Nutrients and sediment in frozen-ground runoff from no-till fields receiving liquid-dairy and solid-beef manures. <i>J. Soil Water Cons.</i> 66(5):303-312.	Wisconsin	Dairy (liquid), beef (solid)	DRP comprised 80% of total P losses in runoff frozen ground treated with manure
Lewis, T.W. and J.C. Makarewicz. 2009. Winter application of manure on an agricultural watershed and its impact on downstream nutrient fluxes. <i>J. Grt. Lakes Res.</i> 35(sp1):43-49.	New York	Dairy manure	Banning winter spreading resulted in these changes in event+nonevent mean stream nutrient concentrations: <ul style="list-style-type: none"> <li>• TP 37.6 – 68.7% decrease</li> <li>• SRP 37.9 – 74.9% decrease</li> <li>• TKN 50 – 69.8% decrease</li> </ul>
Owens, L.B., J.V. Bonta, M.J. Shipitalo, and S. Rogers. 2011. Effects of winter manure application in Ohio on the quality of surface runoff. <i>J. Environ. Qual.</i> 40:153–165.	Ohio	Turkey litter, swine manure (liquid)	Following Ohio NRCS criteria for manure application to frozen/snow-covered soils, annual losses in runoff varied widely by watershed and manure characteristics, ranged: TN: 0.0 – 52.4 kg/ha TP: 0.02 – 17.2 kg/ha
Pionke, H.B., W.J. Gburek, R.R. Schnabel, A.N. Sharpley, and G.F. Elwinger. 1999. Seasonal flow, nutrient concentrations and loading patterns in stream flow draining an agricultural hill-land watershed. <i>J. Hydrol.</i> 220:62-73.	Pennsylvania	Not specified	[about seasonal flow and loads, not winter spreading specifically]
Shappell, N.W., L.O. Billey, and M.J. Shipitalo. 2016. Estrogenic activity and nutrient losses in surface runoff after winter manure application to small watersheds. <i>Sci. Total Environ.</i> 543:570-680.	Ohio	Swine, turkey, beef	<ul style="list-style-type: none"> <li>• Forage plots receiving beef manure slurry had no runoff in 2009 and minimal runoff and N losses &lt;3 kg/ha in other years; authors concluded that agronomic rates of manure application to frozen mature grassland with ~10% slope pose little risk of environmental harm from runoff.</li> <li>• Mean TP in runoff from watersheds receiving:               <ul style="list-style-type: none"> <li>○ Swine manure 1.7 – 5.5 mg/L;</li> <li>○ Turkey litter 1.4 – 7.6 mg/L;</li> <li>○ Control (no manure) 0.3 – 0.8 mg/L</li> </ul> </li> </ul>

<b>Table 1: Summary of research studies on nutrient losses from winter application of manure</b>			
<b>Study</b>	<b>Geographic Location</b>	<b>Manure Type</b>	<b>Loss magnitude and form</b>
			<ul style="list-style-type: none"> <li>• Cumulative mass loss (January 1 – April 30, 2009, 2010, 2011) adjusted for loss from controls:               <ul style="list-style-type: none"> <li>○ Swine manure 1.07 – 8.58 kg/ha</li> <li>○ Turkey litter 4.80 kg/ha (2009 only)</li> </ul> </li> <li>• Flow adjusted TP pre-application/post-application:               <ul style="list-style-type: none"> <li>○ Swine manure: 0.86 – 10.15 mg/L</li> <li>○ Turkey litter: 3.68 – 5.79 mg/L</li> </ul> </li> </ul>
Stuntebeck, T.D., M.J. Komiskey, M.C. Peppler, D.W. Owens, and D.R. Frame. 2011. Precipitation-runoff relations and water-quality characteristics at edge-of-field stations, Discovery Farms and Pioneer Farm, Wisconsin, 2003–8: U.S. Geological Survey Scientific Investigations Report 2011–5008, 46 pp.	Wisconsin	Dairy, beef	Not specified [report summarizes results for 6 farms under different management conditions and cautions against using the data to determine whether a particular farming system resulted in higher nutrient yields than another.]
<b>Plot and field studies</b>			
Lorimor, J.C. 1996. Fate of nutrients from liquid swine manure land-applied in the winter. Ph.D. Thesis, Iowa State Univ., <i>Retrospective Theses and Dissertations</i> . Paper 11163.	Iowa	Swine (liquid)	<p>Over two years of late winter application on snow:</p> <ul style="list-style-type: none"> <li>• [TKN] 116.2 – 1086.0 mg/L</li> <li>• Average N losses: 46.0 kg/ha from corn stubble, 21.6 kg/ha from soybean stubble</li> <li>• Average N loss 22% of applied (highest year 43% of applied)</li> <li>• Average P losses: 21.6 kg/ha from corn stubble, 2.3 kg/ha from soybean stubble</li> <li>• Average P loss 29% of applied (highest year 36% of applied)</li> <li>• Applied N and P loss of 1% in spring broadcast of swine manure</li> </ul>
<b>Laboratory Studies</b>			
Williams, M.R., G.W. Feyereisen, D.B. Beegle, R.D. Shannon, G.J. Folmar, and R.B. Bryant. 2011. Manure application under winter conditions: nutrient runoff and leaching losses. <i>Trans. ASABE</i> 54(3):891-899.	Pennsylvania	Dairy	<p>After manure application, N and P concentrations in snowmelt runoff 6-140 times higher than control:</p> <ul style="list-style-type: none"> <li>• Snow-covered control               <ul style="list-style-type: none"> <li>○ TN 2.5 ug/L</li> <li>○ TP 1.4 ug/L</li> </ul> </li> <li>• Manure on top of snow               <ul style="list-style-type: none"> <li>○ TN 276 ug/L</li> <li>○ TP 11.8 ug/L</li> </ul> </li> <li>• Manure between snow               <ul style="list-style-type: none"> <li>○ TN 285 ug/L</li> </ul> </li> </ul>

<b>Table 1: Summary of research studies on nutrient losses from winter application of manure</b>			
<b>Study</b>	<b>Geographic Location</b>	<b>Manure Type</b>	<b>Loss magnitude and form</b>
			<ul style="list-style-type: none"> <li>○ TP 10.6 ug/L</li> <li>● Manure under snow               <ul style="list-style-type: none"> <li>○ TN 362 ug/L</li> <li>○ TP 8.7 ug/L</li> </ul> </li> </ul> <p>After manure application, N and P loads in snowmelt runoff 3 – 100 times higher than control:</p> <ul style="list-style-type: none"> <li>● Snow-covered control               <ul style="list-style-type: none"> <li>○ TN 3.6 ug/cm<sup>2</sup></li> <li>○ TP 2.2 ug/cm<sup>2</sup></li> </ul> </li> <li>● Manure on top of snow               <ul style="list-style-type: none"> <li>○ TN 254 ug/cm<sup>2</sup></li> <li>○ TP 10.9 ug/cm<sup>2</sup></li> </ul> </li> <li>● Manure between snow               <ul style="list-style-type: none"> <li>○ TN 231 ug/cm<sup>2</sup></li> <li>○ TP 8.5 ug/cm<sup>2</sup></li> </ul> </li> <li>● Manure under snow               <ul style="list-style-type: none"> <li>○ TN 362 ug/cm<sup>2</sup></li> <li>○ TP 9.1 ug/cm<sup>2</sup></li> </ul> </li> </ul> <p>Manure on frozen soil treatment had the largest concentrations and losses of N and P during rainfall simulations compared to other treatments:</p> <ul style="list-style-type: none"> <li>● TN 107 mg/L; 39 ug/cm<sup>2</sup></li> <li>● TP 11.5 mg/L; 4 ug/cm<sup>2</sup></li> </ul>

Nutrients lost in soluble forms represent the greatest potential impact on water quality from manure applied to frozen and snow-covered ground because soluble nutrients are readily available to support biological growth and eutrophication. Nearly all researchers who report increased nutrient runoff following winter application report much higher levels of soluble nutrients, compared to particulate forms. Hansen et al. (2000) reported that snowmelt tends to contain higher proportions of dissolved P than rainfall-generated runoff because of reduced detachment of soil particles from frozen soil. Gessel et al. (2004) noted significant increases in dissolved P losses (0.2 – 0.4 kg/ha) in spring runoff from frozen soil after fall application of swine manure, compared to reduced runoff and P losses in summer runoff from similarly treated plots. On average, 18 percent of spring runoff P losses were in the dissolved form. Komiskey et al. (2011) reported that on average, dissolved P accounted for more than 80 percent of all P measured in runoff from several Wisconsin crop fields during frozen-ground periods. Lewis and Makarewicz (2009) reported that a short-term application of manure to a snow-covered landscape resulted in immediate increases of dissolved fractions including SRP (greater than 200 ug/L increase) and NO<sub>3</sub>-N (greater than 4 mg/L increase) for approximately 1 week after the application of manure, while the particulate fraction TSS did not increase in the downstream system. Except immediately after application of manure, the increase in the amount of P being lost from the sub-watershed was due to the dissolved fraction of P rather than the particulate

fraction as SRP represented 91.7 percent of the TP concentration. (Values are estimated from Figure 4 in the paper.)

The most recent research using either plot or field studies was performed at the University of Iowa. This study reported mass losses of nitrogen up to 43 percent and phosphorus up to 36 percent. This study also reported extremely high N runoff concentrations of up to 1086.0 mg total Kjeldahl nitrogen (TKN)/L (Lorimor, 1996). The same study also reported just 1 percent losses of N and P applied in spring broadcast of swine manure. Earlier studies report similar results, although it is not clear that these studies reflect the influence of contemporary cropping systems and nutrient management practices.

Williams et al. (2011) conducted a lysimeter study with simulated snowfall and rainfall to evaluate the influence of winter-spread manure position within a snowpack on nutrient runoff from a snowmelt or rainfall event. The authors reported that snowmelt behavior and N and P losses in surface runoff and subsurface leachate vary depending on the manure's location with respect to snow. Applying manure prior to, during, or after a snowfall event increased the concentrations and losses of N and P in snowmelt runoff and may decrease infiltration in subsequent rainfall events, resulting in higher concentrations and losses of both N and P in runoff. Applying manure on top of the snow reduced the amount of NH<sub>4</sub>-N losses, but increased the losses of organic N, DRP, and total P to surface runoff during a snowmelt event. The authors suggested that if methods were developed to “incorporate” manure into the middle of a snowpack, the risk of environmental degradation from winter manure application might be reduced compared to placing manure above or below the snowpack.

Studies that specifically addressed the effectiveness of BMPs for winter application of manure demonstrated that although some performed better than others, none adequately controlled nutrient runoff.<sup>4</sup> While other BMP-focused studies exist that did not specifically measure the

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<sup>4</sup> Kongoli, C.E. and W.L. Bland. 2002. Influence of manure application on surface energy and snow cover. *J. Environ. Qual.* 31:1166–1173.

Schillinger, W.F. and D.E. Wilkins. 1997. Deep ripping fall-planted wheat after fallow to improve infiltration and reduce erosion. *J. Soil. Water Cons.* 52:198-202.

Pikul, J.L., Jr., D.E. Wilkins, J.K. Aase, and J.F. Zuzel. 1996. Contour ripping: A tillage strategy to improve water infiltration into frozen soil. *J. Soil Water Cons.* 51:76-83.

Lorimor, J.C. and J.C. Melvin. 1996. Nitrogen losses in surface runoff from winter-applied manure. University of Iowa. Final Report.

Fleming, R. and H. Fraser. 2000. Impacts of Winter Spreading of Manure on Water Quality - Literature Review. University of Guelph, Report prepared for Ontario Pork, Etobicoke, ON, Canada.

Ulen, B. 2003. Concentrations and transport of different forms of phosphorus during snowmelt runoff from an illite clay soil. *Hydrol. Proc.* 17:747-758.

Fallow, D.J., D.M. Brown, J.D. Lauzon, and G.W. Parkin. 2007. Risk assessment of unsuitable winter conditions for manure and nutrient application across Ontario. *J. Environ. Qual.* 36:31–43

winter performance of BMPs, the runoff concentrations and loadings from winter application activities generally indicate that commonly deployed BMPs that may be effective during the growing season are not sufficient during the winter or during spring runoff.

In a New York dairy watershed, Lewis and Makarewic<sup>5</sup> (2009) concluded that a winter spreading ban yielded 60-69 percent in-stream reductions in average TP concentrations, 68-75 percent reductions in soluble P concentrations and 50-70 percent reductions in TKN levels during the winter months.

Gilley et al.<sup>6</sup> (2002) recommended that to reduce the loss of nutrients and minimize environmental concerns, the period just before planting is the ideal time to apply manure to croplands. For forage systems, manure should be added immediately after each harvest or grazing cycle. Management flexibility is improved when multiple crop types allow more-frequent manure application periods.

Nolan et al.<sup>7</sup> (undated) noted that research results that evaluate the effectiveness of BMPs for the control of snowmelt runoff are difficult to assess due to limited data, and to differences among sites, in prior management practices and in climatic conditions. The effectiveness of applying a BMP or combination of BMPs will also vary according to site-specific conditions. The authors concluded that it is likely that the most effective BMPs to reduce the risk of P losses would be to eliminate the spreading of manure on frozen or snow-covered soil, and to relocate livestock wintering sites.

The weight of scientific evidence clearly demonstrates high risks of runoff from winter manure application and relative ineffectiveness of BMPs in curtailing that risk. Therefore, EPA has determined that the only measure adequately protective of water quality is to prohibit land application of manure, litter and process wastewater on frozen, snow-covered and saturated soils.

#### **4. Effluent Limitations and Standards Applicable to Discharges to Impaired Waters**

Federal regulations [40 CFR § 122.44(d)] require permit limitations to control all pollutants which may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard. Water quality-based requirements in the general permit must be sufficiently protective to ensure that no authorized discharges will violate State water quality standards. EPA may impose additional water quality-based limitations on a site-specific basis, or require the facility to obtain an individual permit, if information in a facility's NOI, required reports, or other sources indicates that the facility's discharges are not controlled as necessary to meet applicable water quality standards.

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<sup>5</sup> Lewis, T.W. and J.C. Makarewicz. 2009. Winter application of manure on an agricultural watershed and its impact on downstream nutrient fluxes. *J. Grt. Lakes Res.* 35(sp1):43-49.

<sup>6</sup> Gilley, J.E., L.M. Risse, and B. Eghball. 2002. Managing runoff after manure application. *J. Soil Water Cons.* 57(6):530-533.

<sup>7</sup> Nolan, S., L. Good, P. Loro, J. Elliot, T. Wallace, and B. Olson. Undated. Best Management Practices for Snowmelt Runoff. Alberta Agriculture and Rural Development. Edmonton, AB.

In situations where technology-based effluent limitations are not sufficient to meet water quality standards, the permitting authority must develop more stringent water quality-based effluent limitations on a site- specific basis. NPDES permits may include BMPs as water quality-based effluent limitations where numeric limits are infeasible or where the use of BMPs is reasonably necessary to meet water quality- based effluent limitations [40 CFR § 122.44(k)(3) and (4)].

For impaired waters with an EPA approved TMDL, permit provisions must be consistent with the assumptions and requirements of any available WLA [40 CFR § 122.44(d)(vii)(B)]. For impaired waters without an EPA approved or established TMDL, additional requirements must be consistent with water quality standards. Owners/operators of CAFOs that discharge to an impaired water, with or without a TMDL, must implement and maintain any control measures or conditions required by the permit, and include these control measures or conditions in the NMP.

IDEQ has developed, and EPA has approved, 75 TMDLs for Idaho waterbodies for pollutants commonly associated with CAFO discharges, i.e., nutrients and bacteria (see Table 2).

#	Major Basin	Subbasins	TMDL	Issued	Pollutant(s)
1.	Bear River	Bear Lake, Central Bear, Lower Bear-Malad, Middle Bear	Bear River/Malad River Subbasin Assessment and TMDL Plan	June 29, 2006	Total P, Total N, E. coli
2.	Bear River	Bear Lake, Central Bear, Lower Bear-Mald, Middle Bear	Bear River Malad Subbasin TMDL Addendum	September 13, 2013	Total P
3.	Clearwater	Clearwater	Hatwai Creek Subbasin Assessment and TMDLs	December 28, 2010	E. coli, Total P
4.	Clearwater	Clearwater	Jim Ford Creek	June 6, 2000	Fecal coliform, Nutr/Eutr
5.	Clearwater	Clearwater	Lindsay Creek Watershed TMDL	June 26, 2007	E. coli, Nutr/Eutr
6.	Clearwater	Clearwater	Potlatch River TMDLs	February 13, 2009	E. coli, Nutri/Eutr, Total N
7.	Clearwater	Clearwater	Winchester Lake	March 22, 1999	D.O., Fecal coliform, Nutr/Eutr
8.	Clearwater	Lower North Fork, Clearwater	Clearwater River Subbasin, Lower North Fork	January 15, 2003	E. coli

**NPDES Permit #IDG010000**  
**Idaho CAFO's**

9.	Clearwater	Palouseho	Cow Creek Subbasin TMDL	February 13, 2006	Nutr/Eutr
10.	Clearwater	Palouse	Palouse River (South Fork) TMDL	October 1, 2007	E. coli, Nutr/Eutr
11.	Clearwater	Palouse	Palouse River Subbasin TMDL	March 14, 2005	E. coli, Nutr/Eutr
12.	Clearwater	Palouse	Paradise Creek	February 12, 1998	E. coli, Fecal coliform, NH3, Nutr/Eutr
13.	Clearwater	South Fork Clearwater	Clearwater River (South Fork) TMDL	July 22, 2004	E. coli, D.O., Nutr/Eutr
14.	Clearwater	South Fork Clearwater	Clearwater River, South Fork (Nez Perce Reservation Lanes) TMDL	July 22, 2004	E. coli, D.O., Nutr/Eutr
15.	Clearwater	South Fork Clearwater	Cottonwood Creek	June 6, 2000	NH3, D.O., fecal coliform, Nutr/Eutr
16.	Panhandle	Coeur d'Alene Lake	Black Lake Nutrients TMDL	August 31, 2011	Total P
17.	Panhandle	Coeur d'Alene Lake	Coeur D'Alene Lake and River Subbasin	July 14, 2000	Fecal coliform
18.	Panhandle	Coeur d'Alene Lake	Fernan Lake TMDL (Coeur D'Alene Lake and River 2013 Addendum)	November 6, 2013	Total P
19.	Panhandle	Hangman	Upper Hangman Creek Assessment and TMDLs	August 29, 2007	E. coli
20.	Panhandle	Pend Oreille Lake	Clark Fork/Pend Oreille Basin	April 2, 2001	D.O., Total P
21.	Panhandle	Pend Oreille Lake	Lake Pend Oreille	October 8, 2002	Total P
22.	Panhandle	Pend Oreille Lake	Pack River Nutrients TMDLs	December 31, 2008	Total P
23.	Panhandle	Upper Spokane	Fish Creek Temperature,	June 5, 2008	E. coli

**NPDES Permit #IDG010000**  
**Idaho CAFO's**

			Sediment and Bacteria TMDLs		
24.	Panhandle	Upper Spokane	Spokane, Upper	January 31, 2001	Total P
25.	Salmon	Hells Canyon, Lower Salmon	Lower Salmon River and Hells Canyon Tributaries TMDLs	February 9, 2010	E. coli
26.	Salmon	Lemhi	Lemhi	March 14, 2000	E. coli, Fecal coliform
27.	Salmon	Lemhi	Lemhi Subbasin TMDLs	February 27, 2013	E. coli
28.	Salmon	Little Salmon	Little Salmon River Subbasin	March 29, 2006	E. coli, Total P
29.	Salmon	Little Salmon	Little Salmon River Subbasin TMDL Addendum	April 10, 2013	E. coli
30.	Salmon	Lower Snake-Asotin	Tammany Creek Watershed TMDL Addendum	December 17, 2010	Total P, E. coli
31.	Salmon	Middle Salmon-Panther	Salmon River, Middle/Panther Creek	July 2, 2001	Total P
32.	Salmon	Pahsimeroi	Pahsimeroi River Addendum 2013 TMDL	April 10, 2014	E. coli
33.	Southwest	Boise-Mores	Boise-Mores Creek TMDLs	February 18, 2010	E. coli
34.	Southwest	Brownlee Reservoir	Brownlee Reservoir - Weiser Flat	September 30, 2003	Total P
35.	Southwest	Brownlee Reservoir, Middle Snake-Payette	Snake River - Hells Canyon TMDL	March 1, 2004	Total P, D.O.
36.	Southwest	Brownlee Reservoir, Middle Snake-Payette	Snake River Hells Canyon TMDL	September 9, 2004	Total P
37.	Southwest	Bruneau	Bruneau River Subbasin	March 13, 2001	Total P, E. coli, D.O.

**NPDES Permit #IDG010000**  
**Idaho CAFO's**

38.	Southwest	Bruneau	Jacks Creek TMDL (Modification)	November 13, 2007	Total P
39.	Southwest	Bruneau, C.J. Strike Reservoir	King Hill - CJ Strike Reservoir Subbasin Assessment and TMDL	June 21, 2006	D.O., Total P
40.	Southwest	Lower Boise	Boise River, Lower	January 25, 2000	Fecal coliform
41.	Southwest	Lower Boise	Lake Lowell TMDL (Addendum to Lower Boise River Subbasin)	December 6, 2010	Total P
42.	Southwest	Lower Boise	Lower Boise River Sediment and Bacteria TMDLs Addendum	June 3, 2008	Fecal coliform
43.	Southwest	Lower Boise	Lower Boise River TMDL	September 18, 2015	E. coli
44.	Southwest	Lower Boise	Lower Boise River TMDL Total Phosphorus TMDL (2015 Addendum)	December 22, 2015	Total P
45.	Southwest	Middle Snake-Succor	Snake River - Middle/Succor Creek	January 5, 2004	E. coli, Total P, Fecal coliform, Nutr/Eutr
46.	Southwest	North Fork Payette	Cascade Reservoir - Part I	May 13, 1996	Total P
47.	Southwest	North Fork Payette	Cascade Reservoir - Part II	April 19, 1999	Total P
48.	Southwest	Payette	Bissel Creek	October 24, 2003	E. coli
49.	Southwest	Payette	Lower Payette River TMDL 2013 Addendum (Little Willow Creek)	December 11, 2013	E. coli
50.	Southwest	Payette	Payette River, Lower	May 31, 2000	E. coli

**NPDES Permit #IDG010000**  
**Idaho CAFO's**

51.	Southwest	Weiser	Weiser River Watershed Subbasin TMDL	January 19, 2007	E. coli, Fecal coliform
52.	Upper Snake	American Falls, Blackfoot, Lake Walcott, Portneuf	American Falls Subbasin TMDL	August 6, 2012	Phosphorus
53.	Upper Snake	Big Lost	Big Lost River TMDL (Revised and Updated)	December 14, 2011	E. coli
54.	Upper Snake	Big Wood	Big Wood River TMDL Revision	February 9, 2012	E. coli
55.	Upper Snake	Big Wood	Big Wood River Watershed	May 15, 2002	Total P, E. coli
56.	Upper Snake	Blackfoot	Blackfoot River	April 3, 2002	Nutr/Eutr
57.	Upper Snake	Blackfoot	Blackfoot River Subbasin TMDL (2013 Addendum)	July 26, 2013	E. coli
58.	Upper Snake	Camas	Camas Creek Subbasin TMDL	September 30, 2005	Total P, E. coli
59.	Upper Snake	Goose	Goose Creek TMDL	July 25, 2004	E. coli, D.O., Total P
60.	Upper Snake	Goose, Lake Walcott	Lake Walcott	June 27, 2000	Total P
61.	Upper Snake	Lake Walcott	Lake Walcott TMDL (Marsh Creek) 2013 Addendum	January 23, 2015	E. coli
62.	Upper Snake	Little Wood	Little Wood River Subbasin TMDL	September 30, 2005	Total P, E. coli
63.	Upper Snake	Lower Henrys	Upper and Lower Henry Fork TMDLs	August 17, 2010	E. coli
64.	Upper Snake	Lower Henrys, Teton	Teton River Subbasin	February 24, 2003	Total P
65.	Upper Snake	Palisades	Palisades Subbasin TMDL Addendum	February 10, 2014	E. coli
66.	Upper Snake	Portneuf	Portneuf River	April 16, 2001	Total P, Total N, Fecal coliform

67.	Upper Snake	Portneuf	Portneuf River TMDL	July 29, 2010	E. coli, Total N, Total P
68.	Upper Snake	Raft	Raft River Watershed TMDL	July 27, 2004	Total P, E. coli
69.	Upper Snake	Salmon Falls	Salmon Falls Creek Subbasin TMDLs	February 27, 2008	Total P, Total N, E. coli
70.	Upper Snake	Salmon Falls, Upper Snake-Rock	Snake-Rock, Upper	August 25, 2000	Total P, Fecal coliform
71.	Upper Snake	Teton	Teton River TMDL	September 26, 2003	Total P
72.	Upper Snake	Upper Snake - Rock	Billingsley Creek	August 23, 1993	Total P
73.	Upper Snake	Upper Snake-Rock	Snake River Watershed, Middle	April 25, 1997	Total P
74.	Upper Snake	Upper Snake-Rock	Upper Snake Rock TMDL (Modification)	September 14, 2005	Total P
75.	Upper Snake	Willow	Willow Creek TMDL	June 30, 2004	Total P, Nutr/Eutr

None of Idaho's TMDLs assign specific WLAs to CAFOs. Most of these TMDLs do not directly address loads from animal agriculture. When they are noted, they are included generally as nonpoint source contributions to be addressed through implementation plans for agriculture. One TMDL, *American Falls Subbasin Total Maximum Daily Load Plan: Subbasin Assessment and Loading Analysis* (IDEQ, May 2012) identifies 5 CAFOs as point sources, but does not assign specific wasteload allocations to those discharges. From a pollution abatement stand point it is clear that the TMDL writers considered the standard elements of the CAFO permitting program adequate to control pollutant discharges from CAFOs. Therefore, in order to be consistent with the requirements and assumptions of these TMDLs, the EPA has determined that compliance with the terms and conditions of this permit meets the obligations of the relevant TMDLs and the EPA is not requiring additional controls on nutrient and bacteria sources at CAFOs that have not been assigned operation-specific WLAs.

### **III. SPECIAL CONDITIONS**

#### **A. Nutrient Management Plan**

The CAFO operator/owner must develop, submit and implement a Nutrient Management Plan (NMP) [40 CFR §§ 122.42(e)(5) and 412.4(c)(1)]. The NMP shall identify and describe practices

that will be implemented to ensure compliance with the effluent limitations and other provisions of this permit.

1. Schedule

CAFOs seeking permit coverage under the permit must submit the completed NMP to EPA with the NOI. The permittee shall implement its NMP upon authorization under the permit [40 CFR § 122.23(h)].

2. NMP Content

The draft permit specifies that each NMP must include site-specific practices and procedures necessary to implement the applicable effluent limitations and standards. In addition, each NMP must meet nine minimum measures required under 40 CFR § 122.42(e)(1)(i-ix), and specified in the permit. These requirements include the following:

- a. Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities. Each wastewater or manure storage structure must be designed, constructed, operated and maintained in accordance with the requirements specified in Section II.A.1 of the permit.
  - i. Each wastewater or manure storage structure must be evaluated using the Idaho Animal Waste Management (IDAWM) Software, Version 4, December 2000 (Appendix C). If the evaluation determines that the existing wastewater or manure storage structures have a storage capacity less than the minimum capacity specified in Section II.A.1, the NMP must include measures that the CAFO will take to ensure that the storage capacity is increased and that interim measures are implemented to prevent negative consequences of having inadequate, or inadequately designed storage. The results of the evaluation must be included with the NMP.
  - ii. The CAFO covered by this permit must ensure the proper operation and maintenance of wastewater and manure storage structures by completing the Washington NRCS Engineering Technical Note #23, NRCS Assessment Procedure for Existing Waste Storage Ponds<sup>8</sup> (Appendix D), for each wastewater or manure storage structure. If the evaluation of the CAFO's wastewater or manure storage structures identifies deficiencies in the operation or maintenance of the structures, the CAFO must identify measures to address those deficiencies in its NMP. The NMP must include the results of the evaluation [40 CFR § 122.42(e)(1)(i)].
- b. Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities. Mortality handling activities must comply with all applicable Federal, State and local regulatory

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<sup>8</sup> USDA, Natural Resources Conservation Service, Spokane, Washington, NRCS Assessment Procedure for Existing Waste Storage Ponds, Engineering Note #23, January 2013. <https://ecology.wa.gov/DOE/files/a0/a0a6c01a-af2c-428b-83ba-a30f10d8e643.pdf>

- requirements. Both typical and catastrophic mortality handling procedures should be detailed in the NMP, as stipulated in the permit [40 CFR § 122.42(e)(1)(ii)].
- c. Ensure that clean water is diverted, as appropriate, from the production area. The NMP must identify the necessary structures and controls to exclude clean water from the production area, and the necessary operation and maintenance requirements for those controls. All water that comes into contact with any polluting materials must be directed to storage or treatment structures and accounted for in the sizing and management of those structures [40 CFR § 122.42(e)(1)(iii)].
  - d. Prevent the direct contact of animals confined or stabled at the facility with waters of the United States [40 CFR § 122.42(e)(1)(iv)].
  - e. Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals or contaminants. The NMP must include the appropriate storage, handling and disposal practices for these materials [40 CFR § 122.42(e)(1)(v)].
  - f. Identify appropriate site-specific conservation practices to be implemented, including as appropriate buffers or equivalent practices as stipulated in Section III.A.2.f to control runoff of pollutants to waters of the United States. Each land application area must be evaluated using the Idaho NRCS Water Quality Technical Note #6, Idaho Nutrient Transport Risk Assessment<sup>9</sup> (INTRA) (Appendix E), and include the results of the evaluation in the NMP. Dairies may opt to utilize the Idaho Phosphorus Site Index<sup>10</sup> in lieu of INTRA. The NMP must identify all land application areas with a Medium or High risk assessment rating and identify the appropriate conservation practices required to reduce the risk assessment of each land application area to a Low risk assessment rating. The NMP must include a schedule of implementation for the site-specific conservation practices and provisions on the proper operation and maintenance if those site-specific conservation practices have been implemented in accordance with NRCS conservation practice standards, or other standards as identified in this permit or in the NMP with adequate information and citations for EPA to adequately review [40 CFR § 122.42(e)(1)(vi)].
  - g. The permit identifies protocols for the appropriate testing of manure, litter, process wastewater and soil on an annual basis.
    - i. Manure, litter, or process wastewater must be analyzed in accordance with the University of Idaho Manure and Wastewater Sampling, CIS 1139<sup>11</sup>.

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<sup>9</sup> USDA, Natural Resources Conservation Service, Boise, Idaho, Technical Note Water Quality No. 6, *Idaho Nutrient Transport Risk Assessment (INTRA)*, 2006. [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs144p2\\_045218.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_045218.pdf)

<sup>10</sup> USDA, The Phosphorus Site Index: A Systematic Approach to Assess the Risk of Nonpoint Source Pollution of Idaho Waters by Agricultural Phosphorus, 2017. <https://agri.idaho.gov/main/wp-content/uploads/2018/01/Phosphorus-Site-Index-reference-2017-revised.pdf>

<sup>11</sup> Sheffield, R.E. and R.J. Norell, *Manure and Wastewater Sampling*, CIS 1139, University of Idaho, 2007. <http://www.cals.uidaho.edu/edcomm/pdf/cis/cis1139.pdf>

- ii. Soil samples, from each field that will be used to land apply, must be analyzed in accordance with the University of Idaho Bulletin 704, Soil Sampling<sup>12</sup>. Manure, litter, or process wastewater must be analyzed for nitrogen and phosphorus content and at a minimum, soil must be analyzed for pH, soil organic matter, Nitrate-Nitrogen (NO<sub>3</sub>-N), Ammonium-Nitrate (NH<sub>4</sub>-N), and phosphorus (P). All analyses must be used in determining application rates for manure, litter and process wastewater [40 CFR § 122.42(e)(1)(vii)].
  - iii. All analyses must be conducted by a laboratory certified by the North American Proficiency Testing Program.<sup>13</sup>
- h. Establish protocols to land apply manure, litter, or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater. Each permittee must develop land application rates for each land application area where manure, litter, or process wastewater is applied. The land application rates must be developed in accordance with the University of Idaho Fertilizer Guides or related University of Idaho Crop Production Guide. If a University of Idaho Fertilizer Guide or Crop Production Guide is unavailable, a fertilizer or crop production guide from a Pacific Northwest Land Grant University may be used instead (i.e., Oregon State University, Washington State University). If no fertilizer guides or crop production guides are available, the NMP must identify and use the best data available to determine land application rates for each land application area. The NMP must express land application rates in pounds per acre, and volume of manure, litter, or process wastewater in tons, gallons, or cubic feet [40 CFR § 122.42(e)(1)(viii)].

The land application requirements stipulated in Sections II.B.1, II.B.2, III.A.2.g, II.A.2.h, and Appendices C, E and I represent the narrative rate approach [40 CFR § 122.42(e)(5)(ii)]. EPA has identified spreadsheets (Idaho's NRCS IDAWM, Appendix C and Idaho's NRCS Water Quality Technical Note #6, Appendix E) that incorporate many of the required elements, and should simplify the nutrient management planning process for operators.

- i. Identify and maintain site specific records to document the implementation and management of the minimum elements described in Sections III.A.2.a-h and in compliance with the permit [40 CFR § 122.42(e)(1)(ix)].

### 3. Signatory

The NMP shall be signed by the owner/operator or other signatory authority in accordance with Section V.C.5 (Signatory Requirements) of the draft permit [40 CFR § 122.41(k)].

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<sup>12</sup> Mahler, R.L. and T.A. Tindall, Soil Sampling, Bulletin 704 (revised), University of Idaho Cooperative Extension System, (no date). <http://www.cals.uidaho.edu/edComm/pdf/EXT/EXT0704.pdf>

<sup>13</sup> The North American Proficiency Testing Program (NAPT), Soil Science Society of America. <http://naptprogram.org/>

4. NMP Availability

A current copy of the NMP shall be kept on-site at the permitted facility in accordance with Section IV.A.1 and Section IV.A.2 of the Draft permit and provided to the permitting authority upon request [40 CFR § 412.37(c)].

5. Changes to the NMP

- a. The draft permit recognizes that a CAFO owner or operator may need to make changes to its NMP. When a CAFO owner or operator covered by the permit makes changes to the CAFO's NMP previously submitted to EPA, the CAFO owner or operator must provide EPA with the most current version of the CAFO's NMP and identify changes from the previous version; [40 CFR § 122.42(e)(6)(i)]
- b. EPA will review the revised NMP. If EPA determines that the changes to the NMP require revision of the terms of the NMP incorporated into the permit, EPA must then determine whether such changes are substantial [40 CFR 122.42(e)(6)(ii)]. Substantial changes to the terms of a NMP incorporated as terms and conditions of a permit include, but are not limited to [40 CFR § 122.42(e)(6)(iii)]:
  - i. Addition of new land application areas not previously included in the CAFO's NMP, except that if the added land application area is covered by the terms of a NMP incorporated into an existing NPDES permit and the permittee complies with such terms when applying manure, litter, and process wastewater to the added land [40 CFR § 122.42(e)(6)(iii)(A)];
  - ii. Changes to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop [40 CFR § 122.42(e)(6)(iii)(B)];
  - iii. Addition of any crop or other uses not included in the terms of the CAFO's NMP and corresponding field-specific rates of application; and [40 CFR § 122.42(e)(6)(iii)(C)]
  - iv. Changes to site specific components of the CAFO's NMP, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the U.S [40 CFR §122.42(e)(6)(iii)(D)].
- c. If the changes to the terms of the NMP are not substantial, EPA will include the revised NMP in the permit record, revise the terms of the permit based on the site specific NMP, and notify the permittee and the public of any changes to the terms of the permit based on revisions to the NMP [40 CFR § 122.42(e)(6)(ii)(A)].
- d. If EPA determines that the changes to the terms of the NMP are substantial, EPA will notify the public, make the proposed changes and make the information submitted by the CAFO owner or operator available for public review and comment, and respond to all significant comments received during the comment period. The process for public comments, hearing requests and the hearing process if a hearing is held will follow the procedures set forth in 40 CFR 124.11 through 124.13. EPA may require the permittee to further revise the NMP, if necessary. Once EPA incorporates the revised terms of the

NMP into the permit, EPA will notify the permittee of the revised terms and conditions of the permit [40 CFR § 122.42(e)(6)(ii)(B)].

**B. Lagoon Liner Requirements**

The draft permit requires CAFOs constructing new wastewater or manure storage structures or modifying existing wastewater or manure storage structures must have a liner that is constructed and maintained in accordance with Idaho NRCS standards. Any damage to the wastewater or manure storage structure liner must be evaluated by a Professional Engineer and corrected within thirty (30) days. This includes corrections made pursuant to an evaluation that discovers deficiencies in the integrity of the liner. All documentation of wastewater or manure storage structure liner maintenance must be kept onsite with the NMP. This provision was in the 2012 General Permit and is carried forward in the draft permit.

**C. Facility Closure**

The draft permit contains conditions that CAFOs must follow specific conditions for the closure of lagoons and other earthen or synthetically lined basins and other wastewater or manure storage structures.

Under the draft permit, no such facilities may be abandoned and each must be properly closed as promptly as practicable upon ceasing operation. In addition, any lagoon or other earthen or synthetic lined basin that is not in use for a period of twelve consecutive months must be properly closed unless the facility is financially viable, intends to resume use of the structure at a later date, and either: (1) maintains the structure as though it were actively in use, to prevent compromise of structural integrity; or (2) removes manure and wastewater to a depth of one foot or less and refills the structure with clean water to preserve the integrity of the synthetic or earthen liner. In either case, the permittee must notify EPA of the action taken, and must conduct routine inspections, maintenance, and record keeping as though the structure were in use. Prior to restoration of use of the structure, the permittee shall notify EPA and provide the opportunity for inspection.

All closure of lagoons and other earthen or synthetic lined basins must be consistent with Idaho Natural Resource Conservation Service Practice Standard Code 360 (Closure of Waste Impoundments). Consistent with this standard the permittee must remove all waste materials to the maximum extent practicable and dispose of them in accordance with the permittee's nutrient management plan, unless otherwise authorized by EPA.

Closure of all other manure, litter, or process wastewater storage and handling structures must occur as promptly as practicable after the permittee has ceased to operate, or, if the permittee has not ceased to operate, within 12 months after the date on which the use of the structure ceased. To close a manure, litter, or process wastewater storage and handling structure, the permittee must remove all manure, litter, or process wastewater and dispose of it in accordance with the permittee's nutrient management plan, or document its transfer from the permitted facility in accordance with off-site transfer requirements specified in Section III.D of the draft permit, unless otherwise authorized by EPA [40

CFR § 122.23(h)].

**D. Requirements for the Transfer of Manure, Litter, and Process Wastewater**

Under the draft permit, where CAFO-generated manure, litter, or process wastewater is sold or given away the permittee must comply with specific requirements that document the transaction and promote proper management. These include the following conditions:

- a. Maintain records showing the date and amount of manure, litter, and/or process wastewater that leaves the permitted operation;
- b. Record of the name and address of the recipient;
- c. Provide the recipient(s) with representative information on the nutrient content of the manure, litter, and/or process wastewater analyzed in accordance with Section III.A.2.g.i of the Draft permit; and
- d. Retain the records on-site, for a period of five years, and submit the records to EPA upon request [40 CFR § 122.42(e)(3)].

**IV. RECORDS, REPORTING, MONITORING AND NOTIFICATION**

**A. Records Management**

The draft permit requires the permittee to maintain records to demonstrate compliance and implementation of Sections II.A, II.B, and III.A of the draft permit. [40 CFR § 122.42(e)(2) and (3); 40 CFR § 412.37(b) and (c)]

**B. Annual Reporting Requirements**

Under the draft permit, the permittee must submit an annual report by March 1st of each year. Two milestones will occur during this permit term that will affect annual reporting:

1. IDEQ will assume authority for general permits, including this July 1, 2020. At that point in time, all documentation required by the permit must be provided to IDEQ rather than to EPA.
2. In addition, consistent with the electronic reporting requirements that go into effect on December 21, 2020 (40 CFR § 127), any reports submitted after that time must be submitted electronically. On October 22, 2015, EPA finalized a rulemaking that modernizes Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. The final rule requires regulated entities and state and federal regulators to use existing, available information technology to report data required by the NPDES permit program electronically instead of filing written paper reports. The permittee must sign and certify all electronic submissions in accordance with the requirements of Section V.C.5 of this permit (Signatory Requirements).

For both of these reasons, i.e., transition of permit authority to IDEQ and implementation of e-

reporting, beginning with the annual report due by March 1, 2021, annual reports must be submitted to IDEQ electronically. Both before and after these transitions annual reports must also be submitted to ISDA.

The permittee may seek an electronic reporting waiver by submitting a request. Prior to July 1, 2020 this request should be submitted to EPA. Beginning July 1, 2020 this request should be submitted to IDEQ. This waiver request should contain the following details: facility name; NPDES permit number; facility address; name, address and contact information for the owner, operator, or duly authorized facility representative; and a brief written statement regarding the basis for claiming such a temporary waiver.

The request for the electronic reporting waiver will be either approved or denied within 120 days. The duration of the temporary waiver may not exceed 5 years. The permittee must reapply for a new temporary waiver. Approved electronic reporting waivers are not transferable. Only permittees with an approved reporting waiver request may submit annual reports on paper for the period that the approved reporting waiver request is effective.

The annual report must include [per 40 CFR § 122.42(e)(4) and 40 CFR § 412] all of the information detailed in the Annual Report Template provided in Appendix H of the permit. For ease of compilation, the permittee may use the fillable pdf template provided, or may opt to provide all of the required information in another document.

**C. Notification of Unauthorized Discharges Resulting from Manure, Litter, and Process Wastewater Storage, Handling, On-site Transport and Application**

The draft permit provides that in the event of an unauthorized discharge of pollutants to a water of the United States, the permittee is required to make immediate oral notification within 24-hours to the EPA Region 10, Surface Water Enforcement Section, Water Enforcement and Field Branch, Seattle, WA at 206-553-1846 and notify EPA, ISDA, and the appropriate IDEQ regional office in writing within five (5) working days of the discharge from the facility. In addition, the permittee must keep a copy of the submitted notification together with the other records required by the draft permit. The discharge notification must include: 1) A description of the discharge and its cause, including a description of the flow path to the receiving water body and an estimate of the flow and volume discharged; and 2) The period of non-compliance, including exact dates and times, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate and prevent recurrence of the discharge. This reporting requirement is a standard permit condition under 40 CFR § 122.41(1)(6). Note that runoff that meets the definition of agricultural stormwater does not constitute a point source discharge.

**D. Monitoring Requirements for All Discharges from Wastewater or Manure Storage Structures**

The draft permit provides that in the event of any overflow or other discharge of pollutants from a manure and/or wastewater storage or retention structure, whether or not authorized by the draft permit, the discharge must be sampled and analyzed, and an estimate of the volume of the release and the date and time must be recorded.

Samples must, at a minimum, be analyzed for the following parameters: total nitrogen, nitrate nitrogen, ammonia nitrogen, total phosphorus, E. coli, five-day biochemical oxygen demand (BOD5), total suspended solids, pH, and temperature. The discharge must be analyzed in accordance with approved EPA methods for water analysis listed in 40 CFR §136.

If conditions are not safe for sampling, the permittee must provide documentation of why samples could not be collected and analyzed. For example, the permittee may be unable to collect samples during dangerous weather conditions (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.). However, once the dangerous condition has passed, the permittee shall collect a sample from the retention structure (pond or lagoon) from which the discharge occurred [40 CFR § 122.41(j)].

**E. Spills/Releases in Excess of Reportable Quantities**

The draft permit provides that the permittee notifies the National Response Center and IDEQ in the event of a release of a hazardous substance or oil in an amount equal or in excess of a reportable quantity established under either 40 CFR § 110, 40 CFR § 117 or 40 CFR § 302, occurs during a 24-hour period.

## **V. STANDARD PERMIT CONDITIONS**

The draft permit for CAFOs incorporates the standard conditions applicable to all permits issued under the NPDES program. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance requirements, and other general requirements.

## **VI. DEFINITIONS**

The definition of “fecal coliform” was removed because it is not used in this permit. Otherwise, there are no changes to the definitions section, compared to the 2012 permit.

## **VII. OTHER REQUIREMENTS**

**A. State Certification**

Section 401 of the Act, 33 U.S.C. 1341, requires EPA to seek a certification from the State that the conditions of the permit are stringent enough to comply with State water quality standards. The State must either certify that the draft permit complies with State water quality standards, as applicable, or waive certification before the final permit is issued. At the EPA’s request, IDEQ provided the EPA with their draft CWA § 401 certifications on September 6, 2019, see Appendix A. After the public comments have been evaluated and addressed, the preliminary final permit will be sent to the State to begin the final certification process. If the state authorizes different or additional conditions as part of the certification, the permit may be changed to reflect these conditions.

## **B. Environmental Justice**

Executive Order 12898 titled, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities." The EPA strives to enhance the ability of overburdened communities to participate fully and meaningfully in the permitting process for EPA-issued permits, including NPDES permits. "Overburdened" communities can include minority, low-income, tribal, and indigenous populations or communities that potentially experience disproportionate environmental harms and risks. Additional information regarding the environmental justice process is located at: <https://www.epa.gov/environmentaljustice>. The General Permit implements existing water pollution prevention and control requirements, including best management practices, to ensure compliance with CWA requirements.

## **C. Tribal Coordination and Consultation**

Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, the EPA reached out to tribes that could be interested in the draft General Permit and invited them to initiate government-to-government consultation. The EPA will continue to work with tribes during the permit issuance process. The EPA specifically solicits additional comment on this proposed action from tribal officials.

## **D. Endangered Species Act**

Pursuant to Section 7 of the Endangered Species Act (ESA), the EPA is required to consult with the National Marine Fisheries Services and the U.S. Fish and Wildlife Service (collectively, the Services). The EPA has prepared a Biological Evaluation (BE) in which the EPA concludes that the draft permit is not likely to adversely affect any ESA listed species and/or designated critical habitat. The Services concurred with EPA's determination of not likely to adversely affect. The BE and Services' concurrence letters are included as part of the Administrative Record for the draft permit.

## **E. Essential Fish Habitat**

Essential Fish Habitat (EFH) is the waters and substrate (sediments, etc.) necessary for fish to spawn, breed, feed, or grow to maturity. The Magnuson-Stevens Fishery Conservation and Management Act (January 21, 1999) requires the EPA to consult with NOAA Fisheries when a proposed discharge has the potential to adversely affect EFH (i.e., reduce quality and/or quantity of EFH). The EFH regulations define an adverse effect as any impact which reduces quality and/or quantity of EFH and may include direct (e.g. contamination or physical disruption), indirect (e.g. loss of prey, reduction in species' fecundity), site specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. The EPA's EFH assessment is documented in the BE and concluded the permit would not adversely affect EFH. The NMFS was consulted and concurred with EPA's finding of no adverse effect.

## **VIII. OTHER INFORMATION**

### **A. Impact on Small Businesses**

While this is a permit covered by the EPA's permitting procedures and not a rulemaking, the EPA did analyze potential impact of today's permit on small entities and concludes that this permit reissuance will not have a significant impact on a substantial number of small entities. As discussed on Page 4, Summary of Changes from the Current (2012) Permit, there are few changes to the 2012 Permit. All changes result in either no or negligible incremental cost and no or negligible operational and/or economical burdens. The EPA did not conduct a quantitative analysis of impacts for this permit, as that would only be appropriate if the permit may affect a substantial number of small entities.

In general, the use of a General Permit allows the EPA and dischargers, including small entities, to allocate resources in a more efficient manner, obtain timely permit coverage, and avoid seeking resource-intensive individual permits, while simultaneously providing greater certainty and efficiency and ensuring consistent permit conditions for comparable facilities.

### **Appendix A – Draft 401 Certification**