

**15A NCAC 02B .0270 JORDAN WATER SUPPLY NUTRIENT STRATEGY: WASTEWATER DISCHARGE REQUIREMENTS**

(See S.L. 2013-395)

The following is the NPDES wastewater discharge management strategy for the B. Everett Jordan Reservoir watershed, or Jordan watershed:

- (1) **PURPOSE.** The purpose of this Rule is to establish minimum nutrient control requirements for point source wastewater discharges in the Jordan watershed in order to restore and maintain water quality in the reservoir and its tributaries and protect their designated uses, including water supply.
- (2) **APPLICABILITY.** This Rule applies to all wastewater treatment facilities discharging in the Jordan watershed that receive nutrient-bearing wastewater and are subject to requirements for individual NPDES permits.
- (3) **DEFINITIONS.** For the purposes of this Rule, the following definitions apply:
  - (a) In regard to point source dischargers, treatment facilities, and wastewater flows and discharges,
    - (i) "Existing" means that which was subject to a NPDES permit as of December 31, 2001;
    - (ii) "Expanding" means that which has increased or will increase beyond its permitted flow as defined in this Rule; and
    - (iii) "New" means that which was not subject to a NPDES permit as of December 31, 2001.
  - (b) "Active" allocation means that portion of an allocation that has been applied toward and is expressed as a nutrient limit in an individual NPDES permit. Allocation that is held but not applied in this way is "reserve" allocation.
  - (c) "Limit" means the mass quantity of nitrogen or phosphorus that a discharger or group of dischargers is authorized through a NPDES permit to release into surface waters of the Jordan watershed. Limits are enforceable and may be expressed as "delivered limit" or as the equivalent "discharge limit."
  - (d) "MGD" means million gallons per day.
  - (e) "Permitted flow" means the maximum monthly average flow authorized in a facility's NPDES permit as of December 31, 2001, with the following exceptions:

<u>Facility Owner</u>	<u>Facility Name</u>	<u>NPDES Permit</u>	<u>Permitted Flow (MGD)</u>
B. E. Jordan & Son, LLC	B. E. Jordan & Son WWTP	NC0042528	0.036
Durham County	Triangle WWTP	NC0026051	12.0
Ferrington Utilities, Inc.	Ferrington Village WWTP	NC0043559	0.5
Greensboro, City of	T.Z. Osborne WWTP	NC0047384	40.0
Mervyn R. King	Countryside Manor WWTP	NC0073571	0.03
OWASA	Mason Farm WWTP	NC0025241	14.5
Pittsboro, Town of	Pittsboro WWTP	NC0020354	2.25
Quarterstone Farm Assoc.	Quarterstone Farm WWTP	NC0066966	0.2
Aqua North Carolina, Inc.	Chatham WRF	NC0056413	0.35

- (f) "Reserve" allocation means allocation that is held by a permittee or other person but which has not been applied toward and is not expressed as a nutrient limit in an individual NPDES permit. Allocation that has been applied and expressed in this way is "active" allocation.
- (4) This Item provides for the initial division of nutrient wasteload allocations among point source dischargers under this strategy.
  - (a) The delivered wasteload allocations of nitrogen and phosphorus assigned to point source dischargers collectively in each of the Jordan subwatersheds, as set out in 15A NCAC 02B .0262(4), shall be divided as follows:

<u>Subwatershed and Discharger Subcategories</u>	<u>Delivered Allocations (lb/yr)</u>	
	<u>Total Nitrogen</u>	<u>Total Phosphorus</u>

Upper New Hope Arm		
Permitted flows $\geq$ 0.1 MGD	332,466	22,498
Permitted flows $<$ 0.1 MGD	3,613	608
Lower New Hope Arm		
Permitted flows $\geq$ 0.1 MGD	6,836	498
Permitted flows $<$ 0.1 MGD	0	0
Haw River Arm		
Permitted flows $\geq$ 0.1 MGD	881,757	104,004
Permitted flows $<$ 0.1 MGD	13,370	1,996

- (b) The nutrient allocations in Sub-Item (a) of this Item shall be apportioned among the existing dischargers in each subcategory in proportion to the dischargers' permitted flows and the resulting delivered nutrient allocations assigned to each individual discharger.
- (5) This Item describes allowable changes in nutrient allocations.
- (a) The aggregate and individual nutrient allocations available to point source dischargers in the Jordan watershed are subject to change:
- (i) Whenever the Commission, through rulemaking, revises the wasteload allocations in 15A NCAC 02B .0262 in order to ensure the protection of water quality in the reservoir and its tributaries or to conform with applicable state or federal requirements;
  - (ii) Whenever one or more point source dischargers acquires any portion of the nonpoint load allocations under the provisions in this Rule, and 15A NCAC 02B .0273, Options for Offsetting Nutrient Loads;
  - (iii) As the result of allocation transfers between point sources or between point and nonpoint sources, except that nutrient allocation can be transferred and applied only within its assigned subwatershed; or
  - (iv) Any allocation is valid only in the subwatershed for which it is first established.
- (b) In the event that the Commission changes any nutrient wasteload allocation specified in 15A NCAC 02B .0262 or Item (4) of this Rule, the Commission shall also re-evaluate the apportionment among the dischargers and shall revise the individual allocations as necessary.
- (6) This Item identifies nutrient control requirements specific to existing discharges.
- (a) Any existing discharger with a permitted flow of 0.1 MGD or greater shall continue to limit its total phosphorus discharge to its active individual discharge allocation initially applied as of calendar year 2010 as defined or modified pursuant to this Rule.
- (b) Each existing discharger with a permitted flow greater than or equal to 0.1 MGD, having evaluated its treatment facilities and operations, identified further opportunities to improve and optimize nitrogen reduction in the existing facilities, and submitted a report to the Division in 2010 proposing optimization measures, shall, upon Division acceptance of the report, implement the measures as provided in the acceptance, and shall continue to implement such measures until treatment system improvements undertaken to comply with this Rule's nitrogen limits are completed and operational. Beginning in 2015 and continuing until one year after the improvements are operational, each such discharger shall submit a progress report to the Division by March 1 of each year documenting the status of the proposed measures and the nitrogen reductions achieved at the facility in the previous calendar year.
- (c) No later than the calendar year 2016, each existing discharger with a permitted flow greater than or equal to 0.1 MGD shall limit its total nitrogen discharge to its active individual discharge allocation as defined or modified pursuant to this Rule, except that if by December 31, 2016, the discharger has received an authorization pursuant to G.S. 143-215.1 for construction, installation, or alteration of its treatment works for purposes of complying with its total nitrogen limit, at which point the limit shall become effective no later than calendar year 2018.
- (7) This Item identifies nutrient control requirements specific to new discharges.

- (a) Any person proposing a new wastewater discharge to surface waters shall meet the following requirements prior to applying for an NPDES permit:
    - (i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H .0105(c)(2);
    - (ii) If the results of the evaluation support a new discharge, acquire sufficient nitrogen and phosphorus allocations for the discharge. The proponent may obtain allocation for the proposed discharge from existing dischargers pursuant to the applicable requirements of Item (9) of this Rule or employ measures to offset the increased nutrient loads resulting from the proposed discharge. The proponent may fund offset measures by making payment to the NC Ecosystem Enhancement Program or private sellers of reduction credit, or may implement other offset measures contingent upon approval by the Division as meeting the requirements of rule 15A NCAC 02B .0273 and 15A NCAC 02B .0703. The offsets shall be of an amount equivalent to the allocations required for a period of 30 years. Payment for each 30-year portion of the nonpoint source load allocation shall be made prior to the ensuing permit issuance;
    - (iii) Determine whether the proposed discharge of nutrients will cause local water quality impacts; and
    - (iv) Provide documentation with its NPDES permit application demonstrating that the requirements of Sub-Items (i) through (iii) of this Sub-Item have been met.
  - (b) The nutrient discharge allocations and offsets for a new facility shall not exceed the mass loads equivalent to a concentration of 3.0 mg/L nitrogen or 0.18 mg/L phosphorus at the permitted flow in the discharger's NPDES permit.
  - (c) Upon the effective date of its NPDES permit, a new discharger shall be subject to nitrogen and phosphorus limits not to exceed its active individual discharge allocations.
- (8) This Item identifies nutrient control requirements specific to expanding discharges.
- (a) Any person proposing to expand an existing wastewater discharge to surface waters beyond its permitted flow as defined in this Rule shall meet the following requirements prior to applying for an NPDES permit:
    - (i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H .0105(c)(2);
    - (ii) If the results of the evaluation support an expanded discharge, acquire sufficient nitrogen and phosphorus allocations for the discharge. The proponent may obtain allocation for the proposed discharge from existing dischargers pursuant to the applicable requirements of Item (9) of this Rule or employ measures to offset the increased nutrient loads resulting from the proposed discharge. The proponent may fund offset measures by making payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program or implement other offset measures contingent upon approval by the Division, either of which shall meet the requirements of rule 15A NCAC 02B .0273. The offsets shall be of an amount equivalent to the allocations required for a period of 30 years. Payment for each 30-year portion of the nonpoint source load allocation shall be made prior to the ensuing permit issuance;
    - (iii) Determine whether the proposed discharge of nutrients will cause local water quality impact; and
    - (iv) Provide documentation with its NPDES permit application demonstrating that the requirements of Sub-Items (i) through (iii) of this Sub-Item have been met.
  - (b) The nutrient discharge limits for an expanding facility shall not exceed the greater of its nutrient allocations or the mass value equivalent to a concentration of 3.0 mg/L nitrogen or 0.18 mg/L phosphorus at the permitted flow in the discharger's NPDES permit; except that this provision shall not result in an allocation or limit that is less than originally assigned to the discharger under this Rule.
  - (c) Upon expansion or upon notification by the Director that it is necessary to protect water quality, any discharger with a permitted flow of less than 0.1 MGD, as defined under this Rule, shall become subject to total nitrogen and total phosphorus permit limits not to exceed its active individual discharge allocations.

- (9) This Item describes additional requirements regarding nutrient discharge limits for wastewater facilities:
- (a) Annual mass nutrient limits shall be established as calendar-year limits.
  - (b) Any point source discharger holding nutrient allocations under this Rule may by mutual agreement transfer all or part of its allocations to any new, existing, or expanding dischargers in the same Jordan subwatershed or to other person(s), subject to the provisions of the Jordan nutrient strategy.
  - (c) For NPDES compliance purposes, the enforceable nutrient limits for an individual facility or for a compliance association described in Item (10) shall be the effective limits in the governing permit, regardless of the allocation held by the discharger or association.
  - (d) The Director may establish more stringent nitrogen or phosphorus discharge limits for any discharger upon finding that such limits are necessary to prevent the discharge from causing adverse water quality impacts on surface waters other than an arm of Jordan Reservoir as defined in Rule .0262(4) of this strategy. The Director shall establish such limits through modification of the discharger's NPDES permit in accordance with applicable rules and regulations. When the Director does so, the discharger retains its nutrient allocations, and the non-active portion of the discharger's allocation becomes reserve allocation. The allocation remains in reserve until the director determines that less stringent limits are allowable or until the allocation is applied to another discharge not subject to such water quality-based limits.
  - (e) In order for any transfer of allocation to become effective as a discharge limit in an individual NPDES permit, the discharger must request and obtain modification of the permit. Such request shall:
    - (i) Describe the purpose and nature of the modification;
    - (ii) Describe the nature of the transfer agreement, the amount of allocation transferred, and the dischargers or persons involved;
    - (iii) Provide copies of the transaction agreements with original signatures consistent with NPDES signatory requirements; and
    - (iv) Demonstrate to the Director's satisfaction that the increased nutrient discharge will not violate water quality standards in localized areas.
  - (f) Changes in a discharger's nutrient limits shall become effective upon modification of its individual permit but no sooner than January 1 of the year following modification. If the modified permit is issued after January 1, the Director may make the limit effective on that January 1 provided that the discharger made acceptable application in a timely manner.
  - (g) Regional Facilities. In the event that an existing discharger or group of dischargers accepts wastewater from another NPDES-permitted treatment facility in the same Jordan subwatershed and that acceptance results in the elimination of the discharge from the other treatment facility, the eliminated facility's delivered nutrient allocations shall be transferred and added to the accepting discharger's delivered allocations.
- (10) This Item describes the option for dischargers to join a group compliance association to collectively meet nutrient control requirements.
- (a) Any or all facilities within the same Jordan subwatershed may form a group compliance association to meet delivered nutrient allocations collectively. More than one group compliance association may be established in any subwatershed. No facility may belong to more than one association at a time.
  - (b) Any such association must apply for and shall be subject to an NPDES permit that establishes the effective nutrient limits for the association and for its members.
  - (c) No later than 180 days prior to the proposed date of a new association's operation or expiration of an existing association's NPDES permit, the association and its members shall submit an application for a NPDES permit for the discharge of nutrients to surface waters of the Jordan watershed. The association's NPDES permit shall be issued to the association and its members. It shall specify the delivered nutrient limits for the association and for each of its co-permittee members. Association members shall be deemed in compliance with the permit limits for nitrogen and phosphorus contained in

their individually issued NPDES permits so long as they remain members in an association.

- (d) An association's delivered nitrogen and phosphorus limits shall be the sum of its members' individual active delivered allocations for each nutrient plus any other active allocation obtained by the association or its members.
- (e) The individual delivered allocations for each member in the association permit shall initially be equivalent to the discharge limits in effect in the member's NPDES permit. Thereafter, changes in individual allocations or limits must be incorporated into the members' individual permits before they are included in the association permit.
- (f) An association and its members may reapportion the individual delivered allocations of its members on an annual basis. Changes in individual allocations or limits must be incorporated into the members' individual permits before they are included in the association permit.
- (g) Changes in nutrient limits shall become effective no sooner than January 1 of the year following permit modification. If the modified permit is issued after January 1, the Director may make the limit effective on that January 1 provided that the discharger made acceptable application in a timely manner.
- (h) Beginning with the first full calendar year that the nitrogen or phosphorus limits are effective, an association that does not meet its permit limit for nitrogen or phosphorus for a calendar year shall, no later than May 1 of the year following the exceedance, make an offset payment to the NC Ecosystem Enhancement Program or to private sellers of nutrient offset credit, or by implementing other load offsetting measures contingent upon approval by the Division as meeting the requirements of rule 15A NCAC 02B .0273 and 15A NCAC 02B .0703.
- (i) Association members shall be deemed in compliance with their individual delivered limits in the association NPDES permit for any calendar year in which the association is in compliance with its delivered limit. If the association fails to meet its delivered limit, the association and the members that have failed to meet their individual delivered nutrient limits in the association NPDES permit will be out of compliance with the association NPDES permit.

*History Note: Authority G.S. 143-214.1; 143-214.5; 143-215; 143-215.1; 143-215.3(a)(1); 143-215B; 143B-282(c); 143B-282(d); S.L. 1995, c. 572; S.L. 2005-190; S.L. 2006-259; S.L. 2009-216; S.L. 2011-394; S.L. 2012-187;  
Eff. August 11, 2009;  
See S.L. 2013-395;  
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