

NITROGEN CREDIT ADVISORY BOARD MEETING
MINUTES FOR MARCH 10, 2023

The Nitrogen Credit Advisory Board (“Board”) meeting was held virtually via Zoom on March 10, 2023 and was called to order at 1:04 pm.

Board members present:

Nisha Patel (Chairman), Rebecca Augur, Kimberly Masson, Thomas Tyler, and Gary Zrelak,

Board members absent: none

Other Attendees:

Carlos Esguerra, Christopher Falk, Ivonne Hall, Robin Rittgers

New Business

MOTION: Ms. Patel requested a motion to approve the minutes from the December 6, 2022 meeting. Mr. Tyler seconded the motion. The motion passed unanimously.

2022 data overview: compliance with general permit

Ms. Raffa stated that cumulatively in 2022, treatment facilities discharged 6,288 equalized pounds of nitrogen per day (eq. lbs. N/day) meeting the Total Maximum Daily Load (TMDL) allocation for the State of 9,162 eq. lbs. N/day. This was a record-low cumulative loading for the last 3 years.

Dry weather, low flows, and warmer weather during 2022 had a positive impact on nitrogen removal efficiency at treatment plants.

Draft Price of Nitrogen Credit 2020

Ms. Raffa presented the draft cost of a nitrogen credit for buyers in 2022 at \$4.51 (***Note: A subsequent review of the price per credit revealed that the draft value for buyers should have been of \$4.56. This adjustment was communicated and approved by NCAB members via a separate phone call.**) This value was derived using the following formula:

Total Project Cost (\$) = (*Total Operation and Maintenance (O&M) Cost*) + (*Total Annual Capital Cost*)

***Total Operational & Maintenance cost:** O&M costs related to nitrogen removal estimated by means of an annual survey sent to all 64 Project Facilities (i.e., Project facility with a fully operational nitrogen removal system of any scale as of January 1st of the trading year). There were no new Nitrogen Removal Project Facilities that came online in 2022.*

***Total Annual Capital Cost:** Established by using the annual CWF repayment amount associated with the construction of nitrogen treatment at project facilities, as set forth in the loan agreements between the municipalities and DEEP.*

Total O&M Cost:	\$16,657,608
Total Capital Cost:	<u>\$14,542,281</u>
Total Project Cost	\$31,199,889

Equivalent Nitrogen Reduction from TMDL baseline load, calculated for each Project Facility (lbs/day)

$$= (\text{TMDL baseline load} - \text{Annual Avg. TN}) \times \text{Eq. Factor}$$

The Equivalent Nitrogen Reductions calculated for all Project Facilities are aggregated to get the cumulative daily average Equivalent Nitrogen Reduction which is then multiplied by 365 days to get the annual total reduction load.

- **Daily aggregate Equivalent Nitrogen Reduction** from TMDL baseline load by Project Facilities: 18,744.57 eq. lbs/day
- **2022 Total:** 6,841,768.05 eq. lbs

19 buyers purchased the credits they needed to meet their General Permit loading limit with those payments (\$595,513) being shared proportionally among the 59 facilities sellers. The sellers' produced (3,236.52) equalized credits calculated at **\$0.5091691**.

Mr. Rittgers shared high level results from the 2022 annual O&M cost survey sent to all 64 Project Facilities. The survey has been revised in the last two years to obtain more accurate O&M costs.

Mr. Falk presented graphs corroborating that the price of nitrogen credit for buyer's is expected to continue to decrease over time because most project facilities are finishing paying their CWF loans, and fewer facilities are completing new nitrogen reduction projects. Mr. Falk also showed how the seller's price (i.e., Nitrogen removal efficiency) is strongly correlated to weather conditions.

Mr. Zrelak commented that Combine Sewer Overflows facilities should have their load allocations revisited as a result of overflow reductions achieved in the last several years (i.e., more flow being conveyed to the project facility). The Department will evaluate his comment.

MOTION: Ms. Patel requested a motion to approve the 2022 draft cost of nitrogen credit at \$4.51 for buyers and \$0.509691 for sellers (*see note on 1st page about updated price*). Mr. Zrelak approved the draft cost of nitrogen credit for buyers and sellers. Mr. Tyler seconded the motion, the motion passed unanimously.

Established an Arbitration Panel in Case of Objections

Members of the board were asked to volunteer to serve on the arbitration panel for appeals of the nitrogen credit bills. Mr. Tyler, and Mr. Zrelak agreed to serve on the panel should it be necessary.

Ms. Patel requested a motion to adjourn the meeting. Mr. Tyler seconded the motion.

The meeting adjourned at 1:46 p.m.