



# **NUTRIENTSMART PROGRAM**

**2022 Application**

Nutrients like nitrogen and phosphorus naturally occur in the environment. However, when present in aquatic environments at high levels they can cause several problems including; impacts to drinking water, ecosystem shifts, algal blooms leading to impacts on the ecosystem, local economy and potentially human and animal health. NutrientSmart (NSmart) is a voluntary recognition program aimed at reducing nutrient loadings of nitrogen and phosphorus to surface waters. NSmart seeks to: distribute information that will aid in the reduction of nutrients to local and regional watershed and to use tools and methods to reduce the nutrient effluent amounts.

NSmart aims to encourage and recognize the adoption of enhanced nutrient management practices by water resource recovery facilities (WRRFs). The term WRRF also referred to a “facility” or “utility”, includes publicly owned treatment works and domestic wastewater treatment plants. The program intends to acknowledge the work that has been done and further efforts through peer to peer and other information sharing with members and their constituents.

To participate in the NSmart program entities must demonstrate their intent or actions toward enhanced nutrient management. The program has two components (1) utility-community engagement through outreach and (2) reduction of total nitrogen (TN), total phosphorus (TP) or both (TN & TP). Additionally, the program recognizes those utilities implementing an innovative strategy to achieve those reductions. NSmart will use percentage reduction (influent to effluent) to calculate a facility’s reduced nutrient loadings and determine acceptance into the appropriate recognition level/tier.

NSmart is a proposed voluntary program recognizing nutrient reductions by water resource recovery facilities (WRRFs), and potentially industries and other entities in partnership with them, through educational outreach, technology, and innovative methods.

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## Program Statement of Purpose

When in excess, nitrogen and phosphorus in aquatic environments may lead to harmful algal blooms (HABs), low dissolved oxygen, fish die-offs, etc. HABs and excess nutrients can have a negative impact on ecosystems, the economy and human and animal health. NSmart is a voluntary program recognizing nutrient reductions by water resource recovery facilities (WRRFs), and potentially industries and other entities in partnership with them, through educational outreach, technology, and innovative methods. NSmart will be initiated with water resource recovery facilities (WRRFs) seeking recognition for their efforts to reduce nutrient discharge.



## Eligible Applicants

- NSmart is open to any water resource recovery facility (WRRF) seeking recognition for their efforts to reduce nutrient discharge.

## Application Requirements

To be considered for NSmart, applicants must submit the following written materials. Each are described further in this document:

- Application Part 1: Background Information
- Application Part 2a: Advocate/Partner Recognition
- Application Part 2b: Innovator Recognition
- Application Part 3: Signed Certification Statement

## Basis for Recognition

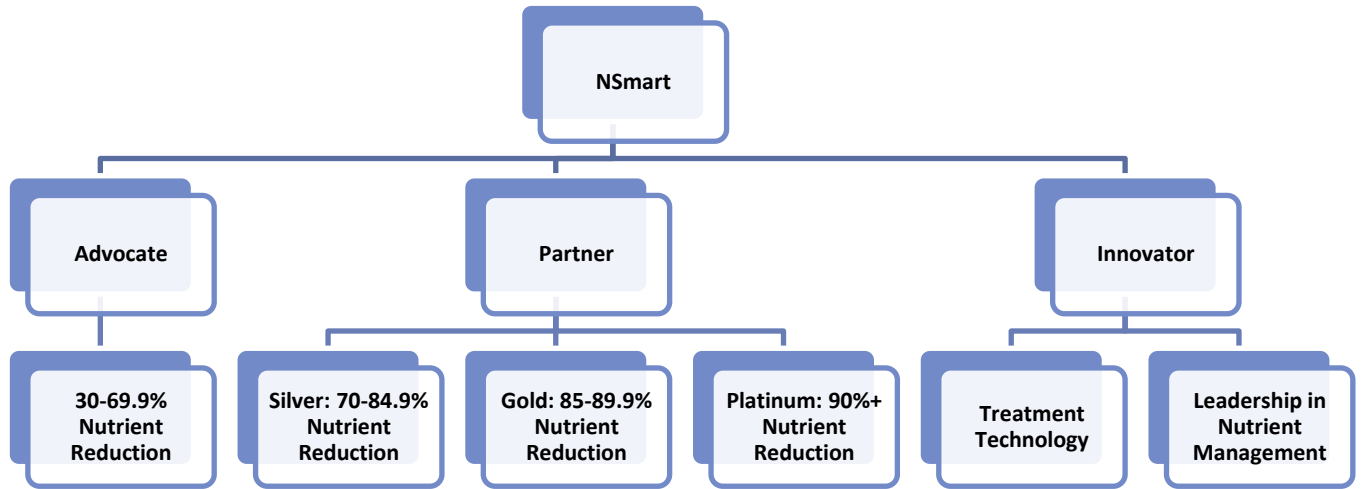
Successful applicants will need to demonstrate their intent or actions toward enhanced nutrient management. Reviewers will take into consideration an applicant's percentage reduction (influent to effluent) to calculate a facility's reduced nutrient loadings and determine acceptance into Advocate or Partner status. Partner level utilities can gain Innovator level recognition by demonstrating in their application a significant advancement in treatment technology or leadership in nutrient management.

## Notification and Presentation of Recognition

Applicants will be informed whether or not they were selected for recognition by or before **April 1, 2022** by email or phone. Advocate level utilities will receive a letter of recognition, Partner level utilities will receive a plaque, letter of recognition and use of the program identifier. A ceremony will be held in May 2022 to recognize Innovator level recipients. Applicants are not required to attend the ceremony to receive recognition.

# Recognition Program Membership

NSmart Partner status is granted for a three-year period. Facilities must renew Partner recognition the year before expiration to ensure active status in the program.



## Application Part 1: Background Information

Utility Description (combine all plants if a multi-site system)		
Utility Name:		
Type (e.g., single plant, regional system, multiple plants, collection or distribution system only, stormwater, etc.):		
NPDES ID:	Average Annual Daily Flow or Demand (MGD):	
Population Served:		
Location		
Street Address:		
City:	State:	Country:
Zip Code/Country Code:		
Utility Representative Contact Information		
Name:	Phone:	Email:
<i>If this application has been prepared by another entity on behalf of the utility, provide the information of the preparer below</i>		
Name:	Title:	Contact Information (phone or email):

## Application Part 2a: Advocate/Partner Recognition

NSmart program entities must demonstrate their intent or actions toward enhanced management. The program has two components (1) utility-community engagement through outreach and (2) reduction of total nitrogen (TN), total phosphorus (TP) or both (TN & TP). Additionally, the program recognizes those utilities implementing an innovative strategy to achieve those reductions. NSmart will use percentage reduction (influent to effluent) to calculate a facility's reduced nutrient loadings and determine acceptance into the appropriate recognition level/tier. NSmart encourages all organizations — small, medium, and large — to participate in the program.

### Advocate Level Recognition:

- Participants working to establish outreach programs AND/OR reduce nutrients 30-70%

### Advocate Recognition Application Requirements:

- Outreach Program
  - Participants may describe utility-community activities in your organization that are significant, unique, comprehensive, efficient, effective, noteworthy, or otherwise worthy of highlighting.
  - Possible outreach examples include: website, flyers, community events, bill stuffs, social media, TV commercials, radio ads, etc.
- Nutrient Data
  - Participants must include 12 consecutive months of influent and effluent data
    - Influent collection is at the facility's discretion and in accordance with their permit
    - Influent collection and analysis must be via an approved method listed in 40 CFR part 136
    - Effluent data will be monitored through the discharge monitoring report
  - Applications for Nutrient reduction recognition can be TN, TP, or both
  - Data reports will determine which Level and Tier the participant qualifies for.

### Partner Level Recognition:

- Participants have an outreach program in place AND are actively reducing nutrients (TN,TP or both)
  - Silver: 70-85% nutrient reduction
  - Gold: 85-90% nutrient reduction
  - Platinum: 90%+ nutrient reduction

### Partner Recognition Application Requirements:

- Fulfill the Advocate Recognition Requirements with 70% nutrient reduction or higher.
- Complete at least one outreach item as outlined below:
  - Possible outreach examples:
    - Website, flyers, community events, bill stuffs, social media, TV commercial, radio ad, etc.
  - List what your facility has done in the past 3 years or plans to do, as a whole for nutrient reductions (500 words)

## Application Part 2b: Innovator Recognition

*Innovator Recognition is optional. All Innovator level applicants must complete Part 2a and qualify for Partner level.*

Innovator level recognition is for Partner level utilities only. To receive Innovator recognition, in addition to meeting at least 70% nutrient reduction, the facility must demonstrate an innovation related to nutrient reduction. Facilities will be evaluated against one another based on subdivisions of design flow rate:

- < 1 million gallons per day
- 1-10 million gallons per day
- 10 million gallons per day
- 

At each flow rate subdivision, **one** Innovator award will be given for each of the following categories (for a total of 6 awards):

- **Treatment Technology** innovations demonstrate a significant advancement in nutrient removal and/or recovery over existing technologies or processes including nutrient management projects resulting in:
  - Reductions in capital costs
  - Reductions in operation and maintenance costs
  - Reductions in volume/footprint
  - Innovative recovery of water, energy, or nutrients
- **Leadership in Nutrient Management** innovations are designed to encompass a broad range of topics. Each facility can make its case for why their innovation deserves recognition.
  - Some possible projects that would fall under this catch all category include:
    - Robust utility research program, mentoring and sharing knowledge with other utilities
    - Community outreach
    - Coupling green infrastructure, watershed activities, and storm water with nutrient reduction
    - Innovative technology testing or demonstration

### Treatment Technology Application Requirements:

- In 1,500 words or less describe the innovation
  - Demonstrate the facility's percent of nutrient reduction
- In 1,000 words or less demonstrate the environmental impact
  - Those applications that show demonstrated, measured impacts (e.g., reduced benthic algae, improved aquatic indices, reduced suspended algae, improved instream DO or pH profiles, additional nutrient load reduction achieved, etc.) will receive enhanced consideration.
- Documentation (additional tabular or graphic data) supporting the innovation may be included up to a maximum of 5 pages (and as part of the Innovator summary discussion application maximum)

### Leadership in Nutrient Management Requirements:

- In 1,500 words or less describe the innovation
- Provide visual documentation of nutrient reduction activity
  - Possible examples: news report, pictures, screen shot of website hits/likes, etc.



## Application Part 3: Certification Statement

I, \_\_\_\_\_ [PRINT NAME], an approved representative of my organization, \_\_\_\_\_ [ORGANIZATION NAME], certify that all data and information provided in this application package is accurate to the best of my organization's knowledge and has not been falsified. I certify that my organization is in good standing and has had no major permit violations in the 12 months prior to the date of submission of this application package.

\_\_\_\_\_ [UTILITY REPRESENTATIVE SIGNATURE]

\_\_\_\_\_ [DATE]

***If this application has been prepared by another entity on behalf of the utility, preparer sign below:***

\_\_\_\_\_ [PREPARER SIGNATURE]

\_\_\_\_\_ [DATE]

# **NSMART PROGRAM**