

## **Technical Advisory Panel SSTS Product Registration**

Meeting: Thursday, February 20, 2025  
**9:00 a.m. to 10:30 a.m.**

Microsoft Teams

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Meeting ID: 253 178 502 408

Passcode: 4En66NG6

## **Meeting Agenda**

9:00 am: Welcome; Review agenda

- Introductions

9:05 am: December 5, 2024 TAP Meeting Notes – Review and approve

9:10 am: Product Renewals – Wendy

- Nibbler – No paperwork received
- Hydro-Action -No paperwork received
- Prinsco Chambers – Attached packet

9:20 am: Supply Chain Letter on Website

9:30 am: UV Light Approval Discussion

9:45 am: HSW Worksheet

10:30 am: Adjournment

### **2025 TAP Meetings**

Thursday, April 17, 2025

Thursday, June 12, 2025

Thursday, August 21, 2025

Thursday, October 16, 2025

Thursday, December 11, 2025

**Subsurface Sewage Treatment Systems (SSTS)  
Technical Advisory Panel (TAP) for Product Registration**

Meeting Notes – February 20, 2025  
Virtual – Teams Meeting

**Meeting Attendees:**

| Committee Members  | Present on February 20, 2025 | Guests            | Present on February 20, 2025 |
|--------------------|------------------------------|-------------------|------------------------------|
| Tom Espersen       | X                            |                   |                              |
| Mitch Johnson      | -                            |                   |                              |
| Pete Otterness     | X                            |                   |                              |
| Alex Pepin         | X                            |                   |                              |
| Ben Hoyt           | X                            |                   |                              |
| Sara Heger         | X                            |                   |                              |
| Jon Olson          | X                            |                   |                              |
| Bob Whitmyer       | X                            |                   |                              |
| Scott Robinson     | X                            |                   |                              |
| Tyler Lampella     | X                            |                   |                              |
| Chad Viland        | X                            |                   |                              |
| Elizabeth Harbaugh | X                            | <b>MPCA Staff</b> |                              |
| Chris Priebe       | X                            | Wendy Chirpich    | X                            |
| Jason Walsh        | X                            | Cody Robinson     | X                            |
|                    |                              | Aaron Jensen      | -                            |
|                    |                              | Steve Oscarson    | X                            |
|                    |                              | Corey Hower       | X                            |
|                    |                              | Aaron Patrick     | -                            |

9:00 am: Welcome; Review agenda, Introductions  
Everybody introduced themselves.

9:05 am: December 5, 2024 TAP Meeting Notes – Review and approve.  
No comments.

**Motion to approve meeting minutes from December 5, 2024. Unanimously approved.**

9:10 am: Product Renewals

Wendy went over the remainder of the products that were up for renewal in 2024. Nibbler and Hydro-Action have not contacted MPCA about renewing their products yet. She plans on removing them from the website.

February 20, 2025: Technical Advisory Panel  
Meeting Notes

No other members have heard from Nibbler or Hydro-Action either. Some members called but have not received any information or calls back from them. The standard TAP practice was laid out by the members is to remove them from the MPCA's registered list.

To renew products with high-strength waste, they will have to submit testing of their product to show it is working to treat. For residential strength waste the company would be required to provide an affidavit nothing has changed.

Once any manufacturer has been removed from the MPCA's registered list (delisted), they will have to restart the registration process over.

If Nibbler or Hydro-Action come back to the MPCA to get relisted on the registered list, all the information will be brought back to TAP for discussion. For Nibbler, the TAP panel would have to review the data from their high-strength waste products, it is more than just a quick renewal by the MPCA.

Some Members shared concern that there may not be any data for the high-strength waste product. No information has been brought forward as of today and the renewal would have to be in accordance with the high-strength protocol that is being looked at later in the agenda. The product manufacturer would have to sample their existing systems which would require 3 years of sampling and then they can come back to apply for the MPCA to relist them on the registered products list.

Members wanted to identify that as a general note, the MPCA does not have the ability to issue a full registration to high-strength waste products as there is no NSF testing protocol in place yet. The TAP panel does have the ability to remove the requirements of certain sampling in terms of duration or parameters for the future for each manufacturer though as they provide data that shows their product is working.

**Motion to remove Nibbler and Hydro-Action from our registration list, unanimously approved.**

Prinsco has high-capacity, low profile and standard chamber are up for renewal.

Prinsco chambers are only 34" but TAP gave them the full 36" width for credit. Prinsco will need to adjust their table in their manual but the MPCA's registration letter does identify that they get 36" width. This is the same as their other models that have been previously registered. With their three products, they will have one registration letter to keep them all on the same timeframe for renewal moving forward.

**Motion to approve the renewal of Prinsco and second. Motion unanimously approved.**

9:20 am: Supply Chain Letter

Now that there are replacement parts available and other options on the market, I feel it is time to remove our letter off the website. Any objections?

February 20, 2025: Technical Advisory Panel  
Meeting Notes

There is now a stand-alone UV bulb, the MPCA's letter is up for consideration to be removed. The letter required that if any other bulb was to be used in previously registered products, it changed the system to a type 5 as no other UV bulbs were registered with those products. This would then ultimately change these back to Type 4 systems. Any registered UV bulb would be allowed to be swapped out on a technology that requires UV disinfection and would be still a Type 4 system.

TAP members think that some guidance on this topic for the LGU's, Service Providers and Designers would be warranted and a bulletin article may be a good idea. The MPCA will also address this topic in their Talking Tours around the state this year as well.

**Motion to remove the Supply Chain Letter and was seconded. Motion unanimously approved.**

9:30 am: UV Light Approval Discussion

Wendy stated that there as a question at the last Advisory Committee meeting on how we registered this product.

Quick recap: Our letter states that as long as the influent going into the UV light meet standards it is ok to use. If there is a manufacture that does not want Norweco used with their product, they are welcome to contact the MPCA (Wendy) and a provision can be added in their registration letter that states Norweco should not be used.

Influent Standards per MPCA letter and NSF testing:

10. Influent limits prior to the AT 1500 UV disinfection unit must be as follows:

- a. CBOD5 concentration shall be < 25 mg/L for Treatment Level B, < 15 mg/L for Treatment Level A
- b. Total suspended solids concentration shall be < 30 mg/L for Treatment Level B, < 15mg/L for Treatment Level A
- c. E. Coli population shall be between 100 and 1,000,000/ 100mL
- d. Fecal coliform populations shall be between 10,000 and 100,000,000/100mL
- e. pH shall be between 6.0 to 9.0 S.U.
- f. Temperature shall be between 6 and 30 degrees Celsius
- g. UV Transmittance shall be between 50% and 75%

Tap and ultimately the MPCA registers products with and without bacterial reduction. Therefore, any bulb that meets the requirements can be put in place. On the registration letters, the MPCA identifies that the product can meet A-2 or B-2 requirements, then it goes onto say that if you want to get A or B, then you can put a registered bacterial reduction product on the end of the registered treatment product.

MPCA staff identified that they break out registration into 3 categories: treatment, bacterial reduction and distribution media. Each of these can be registered as a standalone product and may not be tied with each other.

Members think that the flexibility of a different bulb is beneficial to the industry. But the MPCA should give guidance to LGU's and Service Providers on what this means for registered products.

Question was poised to the group - Can manufacturers dictate what additional products need to be used down the treatment train? Members think manufacturers should not be able to dictate any additional products to be

February 20, 2025: Technical Advisory Panel  
Meeting Notes

used. It can muddy the waters down the road if we run into additional supply chain issues. One member wants to be proactive in reaching out the manufacturers to see if they are okay with it. Then the LGU's could then be updated.

A suggestion was made for the registration letter to be more generic about UV bulbs and also to not be specific about the other registered components that are used in conjunction with the specific manufacturer's product. The MPCA should allow for products to be able to be mixed and match as long as each of the components are registered.

MPCA staff will bring this up at any of the training opportunities we give around the state. A bulletin article is a good idea to get the word out to the industry as well.

9:45 am: HSW Protocol Worksheet

Wendy would really like to finalize this worksheet so that we can send it out to Manufactures ahead of time. All of the HSW products that are registered have the HSW protocol in their registration letter and will be required to submit data when the expire at the end of this year (2025). She would like to send out a reminder letter ASAP so that if they haven't collected data yet, they have this year to do so. We run the risk of no one collecting data and having to drop most of our registered products in Minnesota. We would like to avoid that.

Comments on the worksheet:

Members of the TAP think that the MPCA could bring up the high-strength waste protocol to be identified in NSF testing protocols. That group will meet in the spring of 2025.

The HSW document will help the MPCA to guide manufacturers or simplify it, on the MPCA's required data that needs to be reviewed to renew them if they are operating correctly and meeting the limits. This would make it cleaner for TAP and MPCA review, as well as manufacturer submittal for everyone to be on the same page.

This is the form we would send out to manufacturers when they are up for renewal.

Group discussion on where to sample and what are we trying to prove with the data-

Sampling of the influent is to prove whether or not the waste is high-strength waste. But do we need to specify where to sample? Sampling at different locations will show different results. That could manipulate the data to show better results. The end result we are looking for is to show that high-strength waste to be brought to residential strength waste prior to the soil treatment area. Then without effluent being sampled, we cannot say that the treatment product is actually treating high-strength waste. We need a representative sample of what is coming out of the building and what is being dosed to the STA.

Is there a way to emphasize where to sample the influent on the worksheet? The MPCA is going to look into a better recommendation on where to get a representative/composite sample. Need to get a composite sample and how can we specify that in one worksheet that can encompass all systems out there in MN.

February 20, 2025: Technical Advisory Panel  
Meeting Notes

The TAP panel needs to be able to substantiate the product will break down high-strength waste. On the other side, TAP would not require sampling when these systems are used in residential systems. The MPCA will need to look at what we require for sampling.

TAP members think that we should exclude the sampling requirements from residential systems. Some of these products are not registered for residential. High-strength waste products are only registered to get to treatment level C. MN rule doesn't preclude a high-strength waste product from being used on residential system, but they will get no reduction in size or separation.

What do we do when we have multiple septic tanks in a series (campground with septic tanks and then a common collection tanks)? The MPCA will need to look the wording/recommendation on where to sample from to get a representative sample.

A TAP member thinks more description to what type of facility the product is being used on would better help the TAP panel understand what is being treated. This would include updating the summary report on the HSW worksheet to better describe what is the facility type description. It was also noted that the MPCA should require the address of where the facility is located.

On the form itself there is currently a requirement for a 30-day flow average. TAP members discussed the importance of everyday readings vs the practical application of obtaining everyday flow measurements on a system when they are spaced out away across Minnesota. What is the purpose of this measurement? It isn't feasible to have a person go run out to a site for 30-days prior to sampling or to install telemetry on an existing system. Flow is important as are they certain times when the product looks better to sample versus an overload of the system. It is important to know what is going into the system to better understand the sampling results. The TAP panel and the MPCA are looking at removal rates of the product in comparison to the flow going in to get the pounds removed based on the flow going through the system.

All of TAP agreed that there is a need for flow data, but it doesn't need to be unreasonable.

Would a flow reading at the beginning of the 30-day mark and at the end of the 30-days, then average it, still work for what we need it for? Can the owner take the first reading as these systems are far apart and increases the cost to run/operate them. Is a 30-day average flow measurement acceptable to the TAP panel instead of daily flow monitoring? You could also take quarterly sampling and then correlate it back to the average 30-day flow. TAP identified that while obtaining daily flow data is the best, it would be reasonable to allow for an average over the 30-day flow to occur.

Discussion around full registration vs conditional registration- When a HSW manufacturer first comes in, they need some data to show us it works, we then would require this protocol to show it is working. If the testing shows it is working, then we can reduce the amount of sampling, but they don't ever become officially registered in MN.

TAP members want the final HSW protocol worksheet sent to them once it has been taken care of.

February 20, 2025: Technical Advisory Panel  
Meeting Notes

**Motion to allow 30-day average instead of daily flow monitoring, include facility type, facility address and to make recommendations on where to sample the influent from. Seconded. Then unanimously approved.**

**Motion to Adjourn at 10:27 AM. Seconded. Unanimously approved.**

**Technical Advisory Panel**  
**SSTS Product Registration**  
Meeting: Thursday, June 12, 2025  
**9:00 a.m. to 10:00 a.m.**

Microsoft Teams  
[Join the meeting now](#)  
Meeting ID: 283 714 079 651 8  
Passcode: mY2dk9df

## **Meeting Agenda**

9:00 am: Welcome; Review agenda

9:05 am: February 20, 2025 TAP Meeting Notes – Review and approve

9:10 am: TAP Position Opening

9:15 am: SludgeHammer – Additional Models scaled up

- Meeting Update

9:40 am: MPCA's Update

- HSW Worksheet
- Jet -UV Light
- Nibbler
- 2024 Annual Report is available: [SSTS annual report | Minnesota Pollution Control Agency](#)

10:00 am: Adjournment

### **2025 TAP Meetings**

Thursday, August 21, 2025

Thursday, October 16, 2025

Thursday, December 11, 2025



**Subsurface Sewage Treatment Systems (SSTS)  
Technical Advisory Panel (TAP) for Product Registration**

Meeting Notes – June 12, 2025

Virtual – Teams Meeting

**Meeting Attendees:**

| Committee Members  | Present on June 12, 2025 | Guests            | Present on February 20, 2025 |
|--------------------|--------------------------|-------------------|------------------------------|
|                    |                          |                   |                              |
| Mitch Johnson      | X                        |                   |                              |
| Pete Otterness     |                          |                   |                              |
| Alex Pepin         | X                        |                   |                              |
| Ben Hoyt           | X                        |                   |                              |
| Sara Heger         | X                        |                   |                              |
| Jon Olson          |                          |                   |                              |
| Bob Whitmyer       |                          |                   |                              |
| Scott Robinson     | X                        |                   |                              |
| Tyler Lampella     | X                        |                   |                              |
| Chad Viland        | X                        |                   |                              |
| Elizabeth Harbaugh | X                        | <b>MPCA Staff</b> |                              |
| Chris Priebe       |                          | Wendy Chirpich    | X                            |
| Jason Walsh        | X                        | Cody Robinson     | X                            |
|                    |                          | Aaron Jensen      | -                            |
|                    |                          | Steve Oscarson    | X                            |
|                    |                          | Corey Hower       | X                            |
|                    |                          | Aaron Patrick     | X                            |

9:00 am: Welcome; Review agenda, Introductions

9:05 am: February 20, 2025 TAP Meeting Notes – Review and approve

No comments.

**Motion to approve meeting minutes from February 20, 2025. Unanimously approved.**

9:10 am: TAP Position Opening

With the passing of Tom Espersen we now have an opening on the TAP. Tom filled the position of an Advanced designer. There is a little bit of room for some shuffling if needed. Anyone have any recommendations that we could reach out to?

June 12, 2025: Technical Advisory Panel  
Meeting Notes

Brief discussion ensued. The MPCA will email the TAP member application to the group so they can share it with potential applicants.

9:15 am: SludgeHammer – Additional Models scaled up

- Meeting Update
- Cody and Wendy met with SludgeHammer on April 23<sup>rd</sup>.
  - Registration Process and what that means
  - Need an ID/AD to design system
    - Operating permits and maintenance
  - Their target audience is remediation even though they meet B2 standards.
  - Remediation is permitted locally, however once you add a registered
  - product, it now becomes a Type IV system.
  - Realized they only registered their 400 and 600 gpd models. They also have
  - an 800 and 1000 gpd model they would like to add.

SludgeHammer has expressed interest in providing training in Minnesota.

There was discussion about water softener discharge going into the system. The packet from SludgeHammer indicates it can go into the system. Many redirect water softener discharge out of the SSTs. Will this impact the flow needs of the treatment product? The consensus of the group is that ultimately, the amount of GPD variation will not be significant enough. Furthermore, some LGUs might prohibit or discourage softener discharge into an SSTs. The consensus of the group is to leave the discussion about the softener discharge to the LGU and designer on a case-by-case basis.

There was discussion about manufacturer certified service provider(s). It is presently unknown if any exist but that is something the manufacturer would do.

The manual provided is a design/installation manual. There was discussion about operation and maintenance not being part of the packet/manual submitted. During the discussion, it was discovered that the U of MN website is missing some manuals. The MPCA will email missing manuals to the U of MN. Some felt that it is best practice to include all manuals in the permit application file.

**Motion to register SludgeHammer S800 and S1000 and was seconded. Motion unanimously approved.**

The motion to register included making sure they supply all required manuals.

9:40 am: MPCA Update

HSW Protocol has been updated as approved at the last meeting. This will be sent out to all HSW manufactures to help with year-end renewals.

The MPCA highlighted two minor updates. Daily flow measurements and a small update to the HSW protocol data entry form. Discussion ensued on making the form a requirement rather than a suggested form.

We have met with Jet. Submitted an application for UV light but was missing some data. Wendy spoke with Kyle last week and they are looking into registering their ATU and UV light. They are curious on MN process on how to go about doing that.

They have pulled their application as they work with their new staff and gather more information on what is required.

June 12, 2025: Technical Advisory Panel  
Meeting Notes

Nibbler submitted data on 4 systems, 2 samples each, 6 months apart. No flow data, no influent data on 2 of the systems. This does not meet our protocol. Wendy asked Nibbler for more data including how many systems were installed in Minnesota.

It was also clarified that they are still delisted. Discussion ensued about requirements for manufacturers needing to provide information to the state and upholding the standard for all manufacturers.

2024 Annual Report is posted online.

**Motion to Adjourn at 9:58 AM. Seconded. Unanimously approved.**

## **Technical Advisory Panel SSTS Product Registration**

Meeting: Thursday, December 11, 2025  
**9:00 a.m. to 10:30 a.m.**

Microsoft Teams [Need help?](#) [Join the meeting now](#)

**Meeting ID: 267 777 309 397 15**

**Passcode: BA3RH7MA**

### **Meeting Agenda**

9:00 am: Welcome; Review agenda

- Introductions
- 2 positions open (AD, At Large)

9:05 am: June 12, 2025 TAP Meeting Notes – Review and approve

9:10 am: Product Renewals – Wendy

- 2025 Renewal Summary

10:25 pm: 2026 Meeting Dates

10:30 pm: Adjournment

### **2026 TAP Meetings**

Thursday, February 26, 2026

Thursday, April 23, 2026

Thursday, June 25, 2026

Thursday, August 27, 2026

Thursday, October 22, 2026

**Thursday, December 17, 2026**

**Subsurface Sewage Treatment Systems (SSTS)  
Technical Advisory Panel (TAP) for Product Registration**

Meeting Notes – December 11, 2025

Virtual – Teams Meeting

**Meeting Attendees:**

| <b>Committee Members</b> | <b>Present on December 11, 2025</b> | <b>Guests</b>     | <b>Present on December 11, 2025</b> |
|--------------------------|-------------------------------------|-------------------|-------------------------------------|
| Mitch Johnson            | X                                   |                   |                                     |
| Alex Pepin               | X                                   |                   |                                     |
| Ben Hoyt                 | X                                   |                   |                                     |
| Sara Heger               | -                                   |                   |                                     |
| Jon Olson                | -                                   |                   |                                     |
| Bob Whitmyer             | X                                   |                   |                                     |
| Scott Robinson           | X                                   |                   |                                     |
| Tyler Lampella           | X                                   | <b>MPCA Staff</b> |                                     |
| Chad Viland              | X                                   | Wendy Chirpich    | X                                   |
| Elizabeth Harbaugh       | X                                   | Cody Robinson     | X                                   |
| Chris Priebe             | X                                   | Aaron Jensen      | X                                   |
| Jason Walsh              | X                                   | Steve Oscarson    | -                                   |
|                          |                                     | Corey Hower       | -                                   |
|                          |                                     | Aaron Patrick     | X                                   |

9:00 am: Welcome; Review agenda, Introductions

Two positions on the TAP are currently open. Wendy has a lead on an Advanced Designer. A potential At Large member is still needed.

Tyler will reach out to a potential Advanced Designer too.

9:05 am: June 12, 2025, TAP Meeting Notes – Review and approve.

No comments.

**Motion to approve meeting minutes from June 12, 2025, and second. Motion approved.**

9:10 am: Product Renewals

Wendy went over the products for renewal. She stated 11 registered products are up for renewal on December 31, 2025. All manufactures have been emailed asking for their renewal applications. In addition, a survey was sent out to all LGUs, Advanced Designers, Intermediate Designers and Service Providers for feedback on these 11 products that are up for renewal at the end of this year. 405 individuals were emailed the survey. Two surveys were returned (1 Ecopod, 1 BioBarrier). Products registered for High Strength Waste had the additional task of providing data on systems that were installed in Minnesota according to our HSW Protocol.

December 11, 2025: Technical Advisory Panel  
Meeting Notes

Would like to entertain a motion to renew:

BioBarrier MBR  
High Strength FAST  
HydroKinetic  
Singular & TNT  
EcoFlo Coco Filter

**Motion to approve renewal for the five products above and second. Motion approved.**

Would like to entertain a motion to renew:

BioBarrier HSMBR

Wendy discussed BioBarrier HSMBR submitted their renewal application and affidavit stating that no changes were made to their systems. They stated that two units were installed on one site with a flow of 18,000 gallons per day. The site was residential strength waste. As this site does not fit within our scope of work, Wendy believes we could treat them as "0 installs" and they would be good for renewal for another three years. Submitted data (see below) did not include influent samples and was quarterly samples, not 30-day samples. Wendy does plan on sending an email to all HSW manufacturers reminding them of the protocol and offering to meet with them to go over our requirements for the next renewal if they do have any installs.

Discussion about no flow data being provided, so it makes it challenging to determine whether a product is working. For this one specifically, it technically was not applicable due to being over 10,000 gpd. It was further clarified that this issue is not limited to this product, however.

**Motion to approve renewal for the product above and second. Motion approved.**

Would like to entertain a motion to renew:

EcoPod – N Series  
EcoPod – D Series

EcoPod already went through our HSW protocol and was reregistered without the need of further testing. Infiltrator is working on getting more data/operating permit information on where the 40 residential sites were installed. However, this is not a rule requirement, so we are unable to require them to submit that information. Wendy believes these two products are good for another three years. Side note: Infiltrator bought out Delta since last registration and would like to rename some of the EcoPod D series models for clarity by adding D for double stacked and S for single stacked.

Data was reviewed during the discussion for one system. It was clarified that the nitrogen was evaluated because it was designed to be over 5,000 gpd and that it was not actually required due to actual flow falling below 5,000 gpd.

**Motion to approve the renewal of the two products above and second. Motion approved.**

Would like to entertain a motion to renew:

December 11, 2025: Technical Advisory Panel  
Meeting Notes

Application from EHS Smart HSW Discussion. EHS turned in their application stating they had two installs in the last three years. One in June of 2025 and one in 2023. The data in the attached packet was reviewed. We have two options; we could de-list this product as they didn't follow protocol. However, their previous registration letter did not clearly lay out this process for them. A better option might be to renew them for one year, explain the protocol and what must be completed to renew them again at the end of 2026 for another three years.

Discussion included how to approach forms being submitted for renewal that do not include all required information. Delisting is an option. Removing the requirement that is frequently missing is an option. Renewal for one year is an option for this manufacturer because their previous registration letter did not clearly lay out the process for them as it should have.

Discussion included reaching out to LGUs to get the missing data as the systems in question should have operating permits.

What are the ramifications for delisting a product? Existing systems as well as designers in need of products to meet their needs on future systems.

Ultimately, it is the responsibility of the manufacturer to provide the data, but the homeowners will likely bear the financial burden.

Delisting typically is the result of no data being submitted for known systems that were installed.

**Motion to approve the renewal of EHS Smart treatment technology for 1 year.**

Discussion that the renewal is for one year and that they must provide the required data next year. This is because their previous registration letter did not clearly lay out the process for them as it should have.

Motion approved.

Waiting to hear from:

Waterloo Biofilter

White Knight - HSW

Wendy will reach out to them again.

10:25 am: 2026 Meeting Dates

Thursday, February 19, 2026

Thursday, April 16, 2026

Thursday, June 18, 2026

Thursday, August 20, 2026

Thursday, October 15, 2026

Thursday, December 17, 2026

**Motion to Adjourn at 10:15 AM. Seconded. Unanimously approved.**