

**Notice:** Pursuant to s. NR 217.18, Wis. Adm. Code, this form must be completed and submitted to the Department at the time of the reissuance of an existing WPDES (Wisconsin pollutant discharge elimination system) permit to request adaptive management for phosphorus water quality based effluent limits (WQBEL). Failure to provide all requested information may result in denial of your request. Personal information collected will be used for administrative purposes and may be provided to requestors to the extent required by Wisconsin Open Records law [ss. 19.31-19.39, Wis. Stats.].

Type of Request:

- This is the formal adaptive management request as required in s. NR 217.18(2)
- This is a preliminary adaptive management request (to be submitted as part of facility planning.)

**Facility and Permit Information**

Facility Name Village of Deerfield WWTF		WPDES Permit No. <b>WI - 0023744</b>	
Facility Address 205 North Industrial Park Drive	City Deerfield	State WI	ZIP Code 53531
Receiving Water Tributary of Mud Creek			

**Owner Contact Information**

Last Name Paoli	First Name Nathan	MI	Phone No. (incl. area code) (608) 764-5820
Street Address 205 North Industrial Park Drive			FAX Number
City Deerfield	State WI	ZIP Code 53531	Email address npaoli@deerfieldwi.com

**Facility Information**

Provide listed information for each lagoon or pond basin

Required for AM Request	Wis. Administrative Code Reference	Conclusion	Evidence/Source of information (attach as needed)
1. NPS contribute at least 50% of total P contribution	s. NR 217.18(2)(b)	<input checked="" type="checkbox"/> NPS contributes at least 50% <input type="checkbox"/> NPS DOES NOT contribute at least 50%	See attached Presto Lite Report for Mud Creek Watershed
2. WQBEL Requires Filtration	s. NR 217.18(2)(c)	<input checked="" type="checkbox"/> Filtration required <input type="checkbox"/> Filtration NOT required	
3. AM Plan	s. NR 217.18(2)(d)	<input type="checkbox"/> Plan is Included – Page 3 <input checked="" type="checkbox"/> Plan is NOT Included <i>For a preliminary adaptive management request, AM plan not required</i>	

**Facility Operation and Performance**

- Current P removal capability** – If the facility is currently required by a WPDES permit to monitor effluent phosphorus (P) provide a summary of the influent and effluent annual average P concentrations for each of the past three (3) years. If permit required P data is not available, the applicant should provide any other P data that may be applicable and available. If no data is available, the Department may estimate the P effluent concentration by based on data from other similar facilities.

See November 2016 Compliance Alternatives Plan. Annual average effluent P concentrations have ranged from 0.34 to 0.50 in 2013-2015.

**Watershed Adaptive Management Request**

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2. **Facility Operation** – Provide a summary description of overall facility operation. If not a continuously discharging facility, describe storage procedures and the time periods when effluent discharge occurs.

See November 2016 Compliance Alternatives Plan. Treatment is provided with activated sludge and biological phosphorus removal.

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3. **Previous Studies** – Reference or attach any facility planning or evaluation study that evaluated facility performance capabilities (Note – Only include studies that are recent, within 5 years, or otherwise applicable for the evaluation of the existing facility and current conditions).

See November 2016 Compliance Alternatives Plan.

**Adaptive Management Plan (s. NR 217.18(d))**

This section should summarize the Adaptive Management Plan for internal and external review. A complete Adaptive Management Plan should be attached. Note: If this is a preliminary adaptive management request, this section is not required.

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Watershed

Percent Contribution of Applicant Discharge

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Action Area (include map)

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Watershed Characteristics and Timeline Justification

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Key Proposed Actions

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Key Goals and Measures for Determining Effectiveness

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Partner(s)

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**Watershed Adaptive Management Request**

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Funding Sources

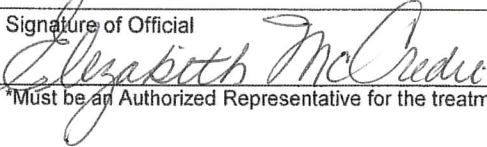
**Adaptive Management Request and Certification**

Based on the information provided, I am requesting the Watershed Adaptive Management option to achieve compliance with phosphorus water quality standards in accordance with s. NR 217.19, Wis. Adm. Code. I certify that the information provided with this request is true, accurate and complete to the best of my knowledge.

Print or type name of person submitting request\*  
Elizabeth J. McCredie

Title  
Village Administrator

Signature of Official



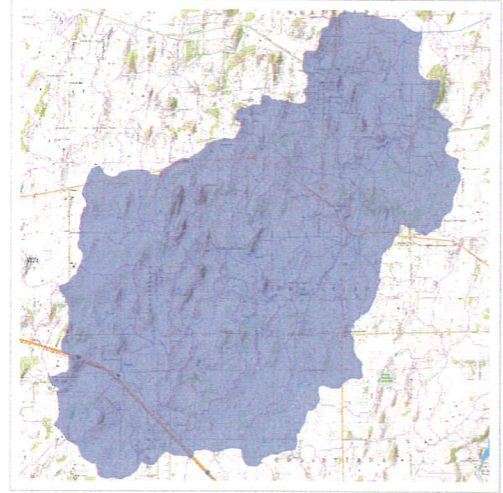
Date Signed

Sept. 11, 2017

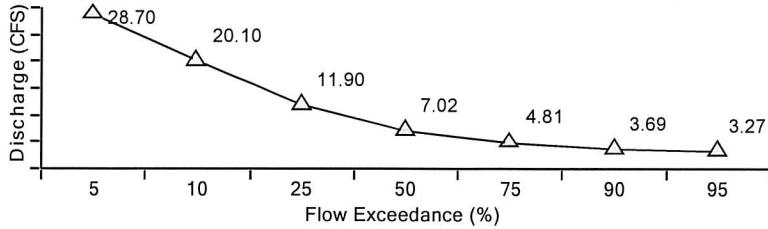
\*Must be an Authorized Representative for the treatment facility

# PRESTO-Lite Watershed Delineation Report

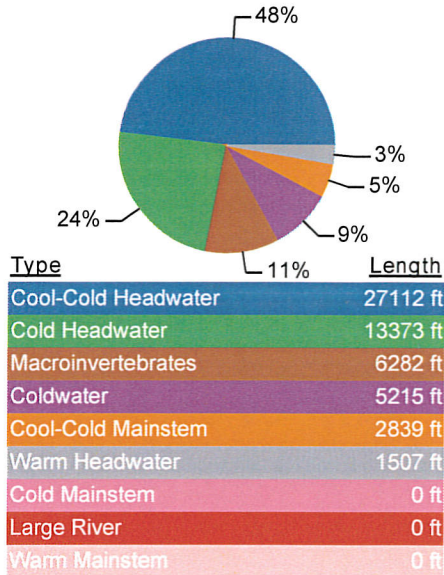
Reach ID: 200025041  
 Watershed Name: Mud Creek  
 Waterbody Name: Mud Creek  
 HUC08: Lower Rock River  
 Watershed Area: 23.59 mi<sup>2</sup>  
 Average Annual Precipitation: 33.86in



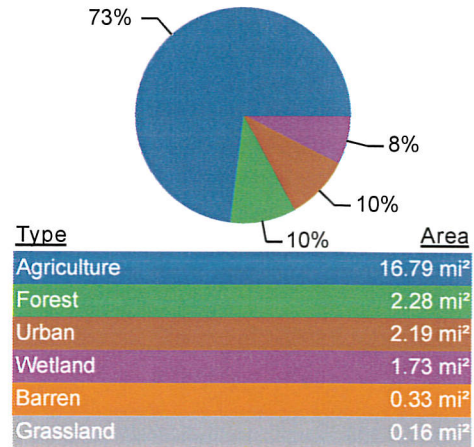
## Stream Flow



## Tributary Stream Type



## Landcover



## PRESTO Phosphorus Load Estimate

Avg. Annual Nonpoint Phosphorous Load (80% Confidence Interval)	4,396 (2,199 - 8,790) lbs
Number of Facilities (Individual Facility Information below)	1
Avg. Annual Point-source Phosphorous Load (2010 - 2012 total of all facilities)	290lbs
Most Likely Point : Nonpoint Phosphorous Ratio	6% : 94%
Low Estimate Point : Nonpoint Phosphorous Ratio (Adaptive Management)	12% : 88%

Adaptive Management Results

Facilities Discharging to the Mud Creek Watershed:

Facility Name	Permit #	Outfall #	Waste Type	Receiving Water	Avg. Phosphorus Load (lbs.) (2010 - 2012)
DEERFIELD WASTEWATER TREATMENT FACILITY	0023744	001	Municipal	Unnamed	290

### Watershed Analysis Limitations

- This analysis relies on pre-defined catchments from the Wisconsin Hydrography Data-Plus and may not delineate from the exact location required. When assessing phosphorus loads for specific facility in support of efforts such as adaptive management, care should be taken to ensure that additional downstream point sources do not exist. For adaptive management information related to specific facilities please reference the PRESTO website <http://dnr.wi.gov/topic/surfacewater/presto.html>
- Delineation of watersheds is based on a topographic assessment and therefore do not account for modified drainage networks such as stormwater sewer systems and ditched agriculture.
- If a watershed requires delineation from an exact location the user may use the desktop version of PRESTO that requires ESRI ArcGIS. The PRESTO tool and default datasets can be downloaded at <http://dnr.wi.gov/topic/surfacewater/presto.html>
- Data sources for this report originate from the WDNR's Wisconsin Hydrography Data-Plus value-added dataset and the point and non-point source loading information including in the WDNR's PRESTO model.
- If you have questions about the report generated from the PRESTO-Lite application please contact: [DNRWATERQUALITYMODELING@wisconsin.gov](mailto:DNRWATERQUALITYMODELING@wisconsin.gov)