

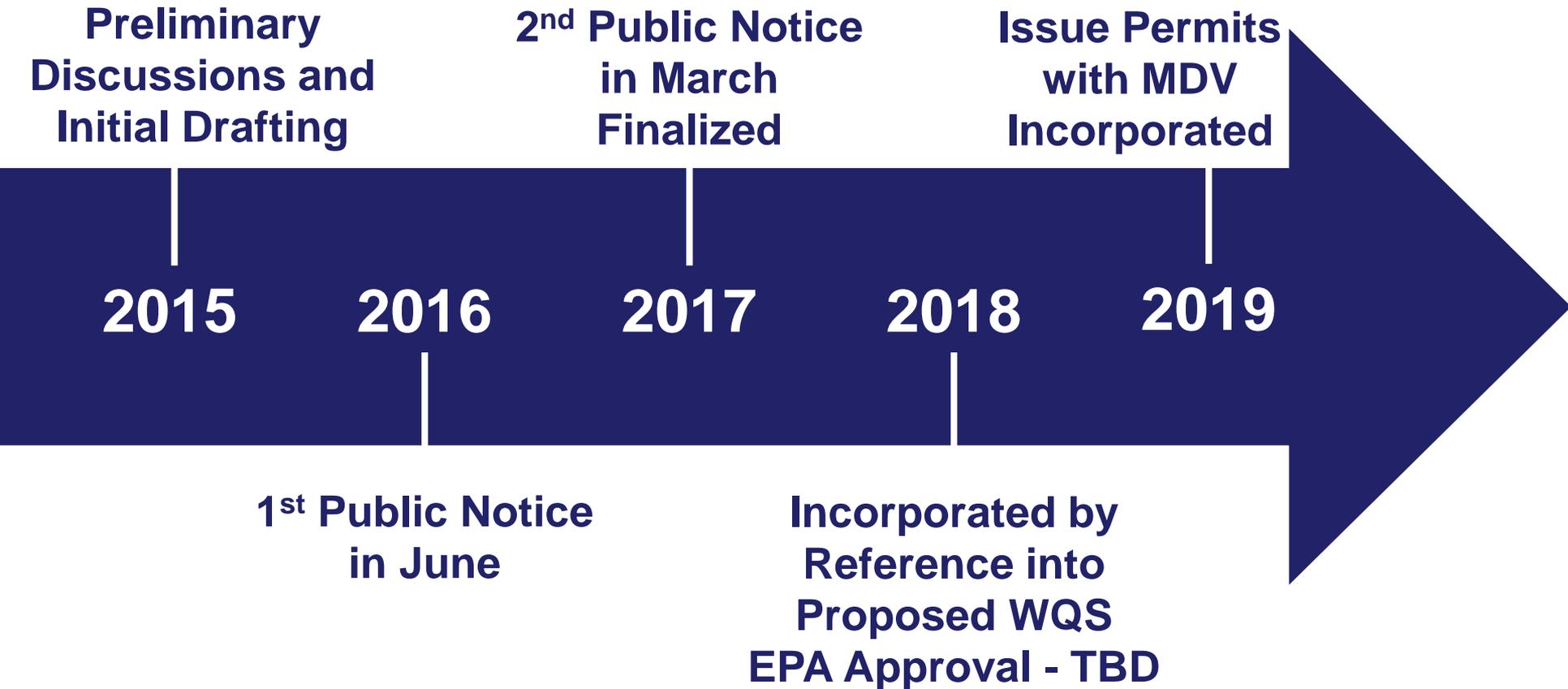
Multiple Discharger Variance *Status Update – August 2018*

Angela Falls

Multiple Discharger Variance (MDV)

- Water Quality Standards (WQS) Variance
- Total Ammonia Nitrogen
- Aquatic life designated use
- Multiple Dischargers that meet the qualifications of the MDV Framework

MDV Framework Timeline



Identifying Applicants

- Permit renewal process
- Enforcement casework
- Financial Assistance Center funding request
- Community request

Primarily, the MDV application process will be initiated by the Department at permit renewal; however, MDV applications will be accepted at any time.

Pre-Application Checklist

- ✓ Owned by a municipality
- ✓ Minor facility (design flow less than 1MGD)
- ✓ Lagoon is multi-celled
- ✓ Lagoon is facultative
- ✓ CAFCom Residential Indicator ≥ 1.5
- ✓ CAFCom Financial Capability Indicator is “weak” or “mid-range”

- There are currently **30** permit renewal applications that are being held for MDV.
- After EPA's approval of the MDV Framework, the Department will begin contacting potential applicants.
- Department staff will assist interested communities with the application process step-by-step.





Six Elements of the MDV Application

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
MULTIPLE-DISCHARGER VARIANCE (MDV) APPLICATION

1. GENERAL INFORMATION			
OWNER NAME		PERMIT NUMBER (s) #MO-	
FACILITY NAME		COUNTY	
MAILING ADDRESS	CITY	STATE	ZIP CODE
2. GENERAL INFORMATION			
2.1 Is this facility a municipal publicly owned treatment works? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If No, this facility does not qualify for the multiple-discharger variance. If necessary, please apply for a site-specific variance.</i>			
2.2 Population served:			
2.3 Design Flow in gallons per day:			
2.4 Actual Flow in gallons per day:			
2.5 Wastewater treatment facility type: <i>To qualify for the multiple-discharger variance, the current treatment type must be a multi-cell lagoon.</i>		<input type="checkbox"/> Lagoon: <input type="checkbox"/> Single Cell (not eligible) <input type="checkbox"/> Multi-Cell, # of cells _____	
2.6 Age(s) of current wastewater treatment facility infrastructure(s):			
2.7 Receiving Stream at the point of discharge from the wastewater treatment facility:			
2.8 Does your municipality currently own land adjacent to your lagoon? if yes, how many acres?		<input type="checkbox"/> Yes <input type="checkbox"/> No _____ acres	
2.9 Please attach a listing of sludge depth measurements for each lagoon cell.		<input type="checkbox"/> Attached	
2.10 Please attach a statement describing the economic and social conditions of your community. <i>(e.g. condition of schools, city buildings, presence of grocery stores, and any other relevant information. Can include visual aids where appropriate)</i>		<input type="checkbox"/> Attached	
3. CURRENT NPDES PERMIT INFORMATION			
3.1 Does your municipality currently have an application for renewal of your NPDES permit submitted to the Department of Natural Resources? <i>(If No, please submit an application for renewal 180 days before the expiration date of your current permit along with the completed financial questionnaire and this multiple-discharger variance application)</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No	
3.2 Does your site-specific NPDES permit currently contain final effluent limits for Ammonia as N? If yes, how many more years of the schedule of compliance are left on your current NPDES permit? <i>(If Yes, answer 3.3; If No, skip to 4.1)</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No # of years left on SOC: _____	
3.3 Is the municipality currently working toward meeting the NPDES permitted schedule of compliance to comply with the final effluent requirements for Ammonia as N? <i>(If Yes, please attach a document that includes the steps taken to meet these requirements)</i>		<input type="checkbox"/> Yes <input type="checkbox"/> No	

Element 1: MDV Application Form

- Requests general information about the municipality and facility
- Outlines attachments needed for a complete application submittal
- Sludge depth measurements for each cell
- Lagoon design profile
- Statement about the economic and social conditions of the community

Element 2: CAFCom

Cost Analysis for Compliance

Written when the permit incorporates new requirements where there is an anticipated cost to comply with the new requirement(s).

Financial Capability Indicators Score	Residential Indicator (User cost as a % of MHI)		
	Low (Below 1%)	Mid-Range (1.0% to 2.0%)	High (Above 2.0%)
Weak (below 1.5)	Medium Burden	High Burden	High Burden
Mid-Range (1.5 – 2.5)	Low Burden	Medium Burden	High Burden
Strong (above 2.5)	Low Burden	Medium Burden	High Burden

Element 3: Alternatives Analysis

Estimates the costs for the following:

- Regionalization
- Decentralization/conversion to onsite systems
- Relocation of discharge to a Class P stream with appropriate mixing zone

Residential Indicator ≥ 1.5

Financial Capability Indicator of “weak” or “mid-range”

Element 4: WESI

Uses and Variances – Evaluating Substantial and Widespread Economic and Social Impacts

EPA's WESI uses a two-step process to analyze if compliance with the ammonia WQS would cause a substantial impact.

Secondary Test Score	Municipal Preliminary Screener		
	Below 1.0%	1.0% to 2.0%	Above 2.0%
Below 1.5	?	✓	✓
1.5 to 2.5	X	?	✓
Above 2.5	X	X	?

- X: Impact is not likely to be substantial
- ✓: Impact is likely to be substantial
- ?: Impact is unclear

Element 5: Natural Heritage Review

A report can be queried through Missouri Department of Conservation's (MDC) website. It will designate the project area as Level 1-3. Further correspondence with MDC may be necessary depending on the result.

The MDV will not cause an adverse impact to federally-listed and/or state-listed threatened or endangered species (designated or proposed) or their critical habitat that are known to be present at the point of discharge.

Element 6: Engineering Field Evaluation

Department engineers will conduct an engineering field evaluation to ensure the lagoon meets the MDV Framework's definition of a "well-functioning" lagoon.

- ✓ Designed to have no more than 25% loss of its detention time
- ✓ Meets equivalent to secondary treatment technology-based effluent limits
- ✓ No signs of going septic, significant scum or solids floating on the surface, foul odors, or objectionable weeds in or around the lagoon basin(s)

MDV Application Approval

- The application will be approved if the qualifying result is met for each element.
- The permit writer will incorporate MDV requirements into the permit which will then go through the permit renewal process.
- An approval letter will accompany the issued permit.

What does this look like in permits?

Highest Attainable Conditions (HACs)

- Ammonia permit limits based on the WQS will be replaced with HACs
- HACs will be set at a percentile of reported discharge data
 - 95th percentile for the monthly average
 - 99th percentile for the daily maximum

What does this look like in permits?

Pollution Minimization Plan (PMP)

- A Special Condition will be added to the permit requiring compliance with the PMP
- A PMP is a structured set of activities to improve processes and pollutant controls that will prevent and reduce pollutant loadings.

MDV Application Disapproval

- If a qualifying result is not met for any element, then the municipality is not eligible for the MDV at that time.
- A letter will be sent notifying ineligibility.
- The Department will work with the community to determine next steps.
- The municipality may be eligible once their lagoon has been optimized to be “well-functioning”.

Other Considerations

- Disinfection
- Certified Operators
- Permit Synchronization
- Continuing Support
- Reevaluation of MDV Applicability
 - Occurs at each permit renewal
 - Once the 20 year term of the MDV has ended, the MDV may be re-established.

MDV Materials

Available online after MDV Framework Approval:

- MDV Framework
- MDV Implementation Plan
- MDV Fact Sheet
- MDV Application Form
- Alternatives Analysis Fact Sheet with Template
- WESI
- Engineering Field Evaluation Form
- PMP Fact Sheet
- PMP Annual Report Form
- National Heritage Review Fact Sheet with Letter Template



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

QUESTIONS?

Angela Falls

(573) 751-1419

angela.falls@dnr.mo.gov

