NC eDMR: An Overview of the North Carolina Electronic Discharge Monitoring Report (eDMR) System
Question to Answer?

- What is eDMR
- Why eDMR?
- Who can use eDMR?
- What are advantages of eDMR?
- How does eDMR work?
- How can facilities sign up?
What is NC eDMR?

- Custom developed Web-based software application for electronic reporting of DMR data
- Only applies to NPDES Wastewater Permits
- Collaborative project with EPA, DENR, DWR & CSC
- Intermediate between facility & DWR BIMS database
- Alternative to paper-based DMRs
  - Electronic signature
Purpose of eDMR

- Collect discharge monitoring report data
- Provide validation of DMR data against Permit limit/monitoring requirements to identify potential issues
- Transmit data to NC DWR data system (BIMS), which transmits data to EPA ICIS System

**NOTE:** eDMR does not ensure compliance but only identifies potential issues that should be reviewed.
Brief History of eDMR

- Partially funded by an EPA Grant through the Central Data Exchange (CDX) Network
- Long-term support assumed by NC IT staff after implementation
- Development began in May 2007
- Pilot Test was conducted from February to May 2009
- Project was completed in October 2009
- eDMR System went live on November 1, 2009.
Why NC eDMR

- EPA Rules are going to require it soon
- It’s time in 2014 we should be using electronic transmittal
- State NPDES permits are requiring it upon renewal
- There are benefits to eDMR
NPDES Electronic Reporting Rule

- Published on July 30, 2013
- Uses Clean Water Act, Section 308 Authority.
- Requires electronic reporting rather than written reports.
- Public comment period closed on December 12, 2013
- New comment period will be open soon per April 12 Notice
- Goals of the Proposed Rule - Saves resources, time, money, paper, & makes reporting easier for NPDES facilities and regulators;
Two-Phase Implementation Plan

- One year after the effective date of the rule (Phase 1), DMR data must be submitted electronically to DWR.

- Two years after the effective date of the rule (Phase 2), electronic submission of:
  - General Permit Reports (NOIs, NOTs, NECs, LEWs);
  - Biosolids Annual Program Reports;
  - CAFO Annual Program Reports;
  - MS4 Program Reports;
  - Pretreatment Program Annual Reports;
  - Sewer Overflow Event Reports (SSO, Bypass).
90% Implementation Threshold

- If more than 90% of North Carolina’s NPDES permittees that are required to submit DMRs do so in accordance with the State Readiness Criteria, then North Carolina’s permittees would not be required to submit DMRs electronically to EPA under the proposed CWA Section 308 request.

- The 90% participant rate is evaluated for each NPDES data group.
CROMERR
Cross Media Electronic Reporting Rule

- Provides the legal framework for e-reporting from regulated entities to the EPA and to states authorized to administer EPA programs.

- The intent is to maintain the same level of corporate and individual responsibility and accountability that exists in the paper environment when reporting is done electronically.
Electronic Signature

- NC DWR Wastewater electronic systems not CROMERR compliant...Yet
- Electronic Signature not available at this time
- Stringent requirements for EPA approval 1 year+
- Signed copy of DMR printed from eDMR system mailed to DWR will still be required
  - Reduced frequency of mailing a possibility
- Efforts are underway to complete application for electronic signature approval by EPA
Benefits of using NC eDMR

- Identify discrepancies with permit information
- Validation reduces mistakes and oversights
- Reduce data manipulation
- Provides options for data entry:
  - Direct data entry
  - Bulk loading via import from Excel
  - Bulk load via import from internal system
What are Advantages of eDMR?

- On-line availability of DMR requirements
- Faster & more efficient
- Greater control over data quality
- Implementation cost savings
  - Reducing & better using resources
- Ability to view, print, & revise stored DMRs
- Built in validation rules
Who Can Use eDMR?

- Individually discharging permitted facilities
  - NPDES wastewater
- Basic requirements to use system
  - A computer with adequate memory/resources for internet functions
  - An internet connection
  - A valid email address
Current Users

- Total Active NPDES WW Facilities – 1198
- Dec 2013
  - Facilities Registered – 79
  - Facilities Using eDMR – 39
- Feb 2014
  - Facilities Registered – 129
  - Facilities Using eDMR – 48
- Apr 2014
  - Facilities Registered – 163
  - Facilities Using eDMR – 78 (6.5% 😊)

List of current registered Facilities found on the eDMR website can provide good eDMR experiences & information.
How does eDMR work?

- Interfaces with DWQ data system (BIMS – Basinwide Information Management System)
  - DWR Data System transmits permit/limit/monitoring information for report creation in eDMR
  - eDMR transmits monitoring data to DWR Data system for submittal
- eDMR has 4 main steps
  - Data Entry/Collection
  - Data Validation
  - Data Certification
  - Data Submittal
- Maintains Report History
How Does eDMR Work?

- 3 Methods of data transmission
  - Online/direct data entry
  - DWQ import excel template
  - Facility-created import from permittee database
- Data verified against permit information
  - eDMR-generated warning/error messages
User Management in eDMR

- The following user permissions exist for facility users:

<table>
<thead>
<tr>
<th>User Privileges</th>
<th>Owners</th>
<th>Facility Administrators</th>
<th>Submitters</th>
<th>Certifiers</th>
<th>Data Entry</th>
<th>View Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Facility Administrators</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Manage Facility Users</td>
<td>X</td>
<td>X</td>
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<td></td>
</tr>
<tr>
<td>Create/Update eDMR Reports</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Certify eDMR Reports</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Submit eDMR Reports to BIMS</td>
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<td>X</td>
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<tr>
<td>Revise eDMR Reports</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>View eDMR Reports</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Delete eDMR Reports and Report Pages</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Import</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

- Owner/Submitter users can only be set up by DWR
- Owners can manage their facility users
Common Issues Experienced

- Use of incorrect parameter codes
- Discrepancies in hardcopy permit and DWR data system
- Incorrect facility classifications and ORC designations
- Set up of bulk data import
- Submittal failures due to system/network issues
- Occasionally users find a software bug that requires a code fix
eDMR Resources

- Various DWR Staff
  - Information Processing Staff
    (Registration/User Account Issues)
  - DWR NPDES Permit Staff
    (Permit information issues)
  - DWR Certification Unit Staff
    (Classification/ORC issues)
  - DWR Information Technology Staff
    (Technical/System issues)

- EDMR Website
How to Register for NC eDMR?

- All information needed for Registration can be found on the EDMR Website: http://portal.ncdenr.org/web/wq/admin/bog/ipu/edmr
- Complete eDMR application
- User registration verification
**eDMR Owner Verification Report**

Permit: NC0023230  
Permit Version: 3.0  
Facility: Richlands WWTP  
Owner: Onslow Water & Sewer Authority  
Registered for eDMR? Yes  
Facility Classification: WW-2

<table>
<thead>
<tr>
<th>ORC Name</th>
<th>Certification #</th>
<th>ORC Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straub, Daniel R.</td>
<td>WW-3 (84) / 988655</td>
<td>ORC</td>
</tr>
<tr>
<td>Stutts, Joseph W.</td>
<td>WW-2 / 992614</td>
<td>Backup</td>
</tr>
</tbody>
</table>
How to Register for NC eDMR?

- Use Registration Checklist
- Validate your facility information
- Complete registration form
- Review support documentation
eDMR Website Navigation

Links:

- What is eDMR?
- System requirements
- User registration
  - How to register
  - Registration checklist
  - Registration form
  - Registration verification
eDMR Website Navigation Links cont’d:

- Methods of submitting eDMR
- Form/reports
  - Registration form
  - Registration verification
  - Ownership change forms
  - Signatory authority notification form (delegation)
  - ORC change form
eDMR Website Navigation Links cont’d:

- User documentation
  - eDMR flowchart
  - Helpful hints
  - List of PCS codes
  - Known issues
  - User guides
  - User administration
- Current participants
- Contact us
eDMR Application

Screen shots
North Carolina (NC) eDMR Reports

Login

Login

User:

Password:

Login

Request Password Reset
Forgot Password?

Message: You have been successfully logged out. Have a nice day!
## eDMR Reports List

3 items found, displaying all items.

<table>
<thead>
<tr>
<th>Permit #</th>
<th>Owner</th>
<th>Facility</th>
<th>Version</th>
<th>DMR For</th>
<th>Status</th>
<th>Actions</th>
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</thead>
<tbody>
<tr>
<td>NC0029297</td>
<td>Catawba County Schools</td>
<td>Fred T. Foard High School</td>
<td>1.0</td>
<td>01-2009</td>
<td>Not Valid</td>
<td>Validate</td>
</tr>
<tr>
<td>NC0045438</td>
<td>Catawba County Schools</td>
<td>Sherrills Ford Elementary School</td>
<td>1.0</td>
<td>01-2008</td>
<td>Processed</td>
<td>Revise</td>
</tr>
<tr>
<td>NC0029297</td>
<td>Catawba County Schools</td>
<td>Fred T. Foard High School</td>
<td>1.0</td>
<td>01-2008</td>
<td>Processed</td>
<td>Revise</td>
</tr>
</tbody>
</table>
### Use for Importing

### Use for Data Entry
Select Outfall then Create Page
Select How Data is Entered
### Parameter Code:

<table>
<thead>
<tr>
<th>Parameter Code</th>
<th>50050</th>
<th>00010</th>
<th>00400</th>
<th>50060</th>
<th>00310</th>
<th>00610</th>
<th>00530</th>
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</thead>
<tbody>
<tr>
<td>Sampling Frequency</td>
<td>Weekly</td>
<td>Weekly</td>
<td>2 X month</td>
<td>2 X week</td>
<td>2 X month</td>
<td>2 X month</td>
<td>2 X month</td>
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<tr>
<td>Composite(C)/Grab(G)</td>
<td>Instantar</td>
<td>Grab</td>
<td>Grab</td>
<td>Grab</td>
<td>Grab</td>
<td>Grab</td>
<td>Grab</td>
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### Day of the Week

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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
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<tr>
<td>Monday</td>
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<tr>
<td>Tuesday</td>
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<td>Wednesday</td>
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<tr>
<td>Saturday</td>
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### Measurements

<table>
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<tr>
<th></th>
<th>FLOW</th>
<th>TEMP-C</th>
<th>PH</th>
<th>CHLORINE</th>
<th>BOD</th>
<th>NH3-N</th>
<th>RES/TSS</th>
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</thead>
<tbody>
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<td>ug/l</td>
<td>mg/l</td>
<td>mg/l</td>
<td>mg/l</td>
</tr>
<tr>
<td>Day of week</td>
<td>Date</td>
<td>FLOW</td>
<td>PH</td>
<td>RES/TSS</td>
<td>CHLORIDE</td>
<td>FLUORIDE</td>
<td>ALDRIN</td>
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<tr>
<td>Sunday</td>
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<td>Monday</td>
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<td>1.3351</td>
<td>7.33</td>
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<td>Wednesday</td>
<td>30</td>
<td>1.2642</td>
<td>7.09</td>
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<td>Thursday</td>
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Weekly Average Limit:

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<tr>
<th></th>
<th>FLOW</th>
<th>PH</th>
<th>RES/TSS</th>
<th>CHLORIDE</th>
<th>FLUORIDE</th>
<th>ALDRIN</th>
<th>LINDANE</th>
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<tbody>
<tr>
<td>Week #5 (27–31)</td>
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<tr>
<td>Weekly Average (calculated):</td>
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<td>Monthly Average:</td>
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<td>Monthly Average (calculated):</td>
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<td>Daily Average:</td>
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<td>Daily Average (calculated):</td>
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<tr>
<td>Monthly Avg % Removal (85%):</td>
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<td></td>
</tr>
</tbody>
</table>
Shows eDMR Status & Actions Available
Validation for Report: NC0000175 V1.0 01-2008 Not Valid

- Report Page For Outfall# 001 Sampling Location: Influent is Missing!
- Comment Required If Facility Is Non-Compliant!
- Report Page For Outfall# 002 Sampling Location: Effluent is Missing!

Report Page:001-Effluent  (See Data For All Weeks)

Parameter: (39782) Lindane  Frequency: 2 X month  Sampling Type: Grab
- Daily Max Exceeded!

Parameter: (39410) Heptachlor  Frequency: 2 X month  Sampling Type: Grab
- Daily Max Exceeded!

Report Page:001-Upstream  (See Data For All Weeks)

Report Page:001-Downstream  (See Data For All Weeks)
By this signature, I certify that this report is accurate and complete to the best of my knowledge.
Can I get a Temporary Waiver from E-Reporting

- Yes if
  - Demonstrated hardship; or
  - Facility being located in an area with limited internet (broadband) access.

- Requests must be submitted in writing;
- Valid for 12-months;
- Re-application is allowed if conditions are still met; and
- Temporary waivers are waivers from electronic reporting only.
For additional information,

Please refer to the eDMR contact information on the eDMR website located at:
