



Introduction to the Integrated Report (IR) Process

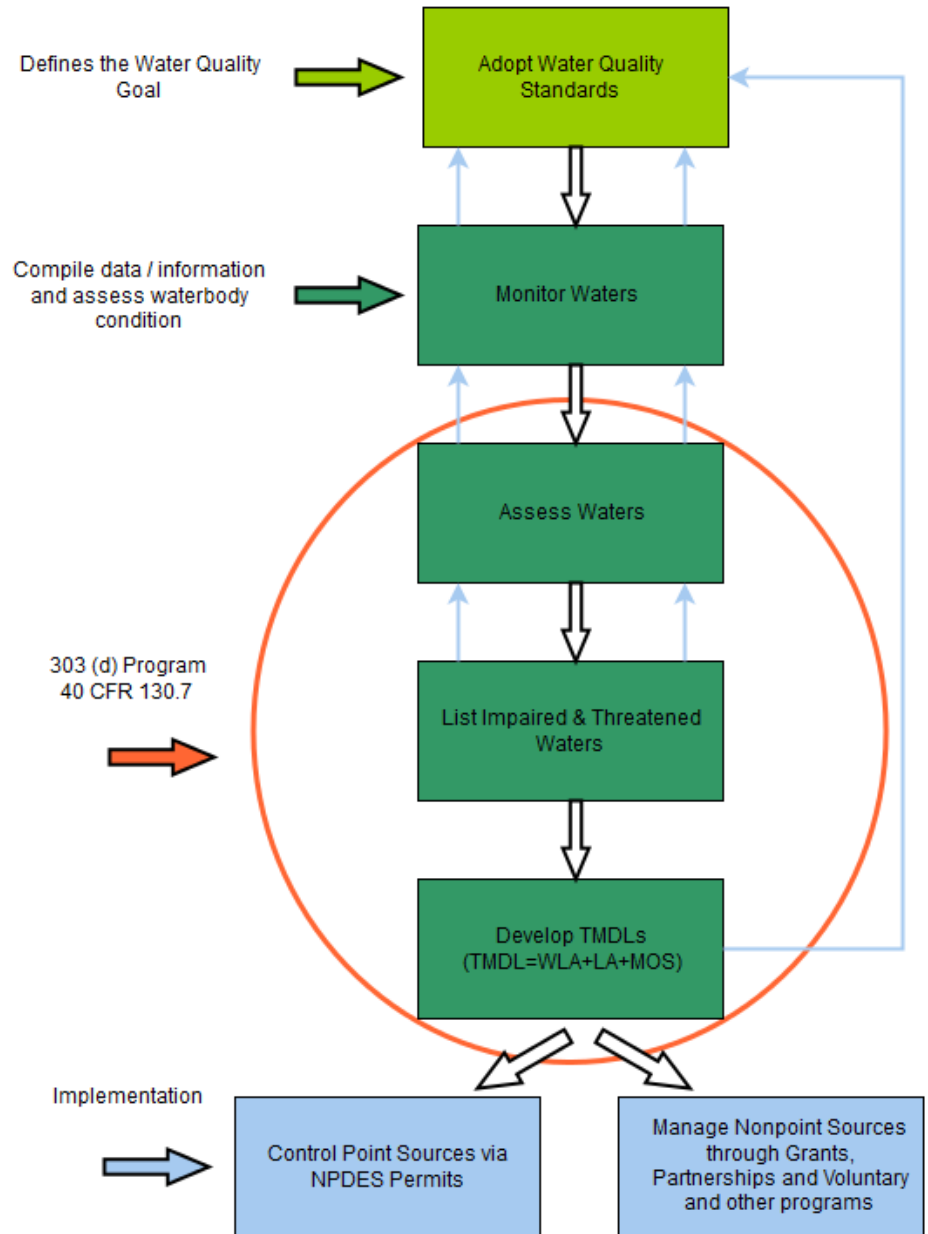
**Jill Fullagar, Assessment
Coordinator, Region 10**

**National Data Management
Training Workshop**

**Shepherdstown, WV May 29-
31, 2019**

The Clean Water Act (CWA)

Steps



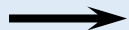
Water Quality Standards



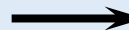
Water Quality Standards

And the CWA Section 303(d) Process

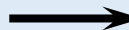
Water Quality Standards



303(d) List



Water Quality Restoration Plan (TMDL)



Water Quality Controls

- Beneficial uses
- Numeric Criteria
- Narrative
- Antidegradation

- List of impaired and threatened waters in need of TMDLs

- Watershed Characterization
- Water Quality Impairment Status
- Source Assessments
- Targets
- Allocation
- Margin of Safety
- Monitoring Strategy
- Restoration Strategy

- NPDES permits
- Voluntary Nonpoint Source BMPs

Water Quality Standards

And the CWA Section 303(d) Process

(2) Each State shall also identify on the same list developed under paragraph (b)(1) of this section those water quality-limited segments still requiring TMDLs or parts thereof within its boundaries for which controls on thermal discharges under section 301 or State or local requirements are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife.

(3) For the purposes of listing waters under § 130.7(b), the term “water quality standard applicable to such waters” and “applicable water quality standards” refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

Water Quality Standards

Resources

Federal Requirements



- [Water Quality Standards Requirements](#)
- [Determinations that New or Revised Standards are Necessary](#)
- [Federally-Promulgated Water Quality Standards](#)

Policy, Guidance & Reference



- [Priorities for Water Quality Criteria and Standards Programs FY 2017-2018](#)
- [Water Quality Standards Handbook](#)
- [Reference Library of Policy and Guidance Documents](#)

Standards in Your Area



- [State-Specific Water Quality Standards](#)

Technical Resources for Tribes



- [Tribes and Water Quality Standards](#)
- [EPA Actions on Tribal Water Quality Standards and Contacts](#)
- [Water Quality Standards Tools for Tribes](#)
- [Case Studies, Publications and Videos on Tribal Water Quality Standards](#)
- [Guidance for Conducting Fish Consumption Surveys](#)

Related Information

- [Standards for Water Body Health](#)
- [Water Quality Criteria](#)
- [Training for Water Quality Criteria & Standards](#)
- [Environmental Protection in Indian Country](#)
- [Sign up for the Water Quality Standards listserv](#)

<https://www.epa.gov/wqs-tech>

Water Quality Standards

Resources

Water Quality Standards Academy

To support water quality standards development, we offer the Water Quality Standards Academy (WQSA), which presents classroom-based and online courses, along with occasional webinars.

Online Courses

Webinars

Classroom Academy

Online Courses

The Online Academy offers Water Quality Standards training through the web.

Basic Course Modules

Key concept modules are designed to prepare you for the five-day Live Academy and are designed for persons with some familiarity with water quality standards. People with more experience in this subject matter may benefit from taking the online course as refresher training. These topics are covered in further detail in the Classroom WQS Academy.

Key Concepts Modules

- [Module 1: Overview](#)
- [Module 2: Use](#)
- [Module 3: Criteria](#)
- [Module 4: Antidegradation](#)
- [Module 5: Flexibilities](#)
- [Module 6: Review](#)

Supplemental Topics Modules

These supplemental modules are intended for users whose interest goes beyond the core WQSA modules. These topics are covered in further detail in the Classroom WQS Academy.

- [Listing Impaired Waters and Developing TMDLs](#)
- [Monitoring and Assessment](#)
- [NPDES Permit Program](#)
- [Human Health Ambient Water Quality Criteria](#)
- [Aquatic Life Criteria](#)

Special Interest Modules

Special interest modules are intended to provide users with basic information on topics that are not regularly covered in the Classroom WQS Academy.

- [Public Involvement \(ZIP\)](#) (5 pp, 52 MB)
- [Copper Biotic Ligand Model](#)

Related Information

- [Join the WQSA newsletter to receive email notifications of upcoming WQSA sessions and other WQSA events.](#)
- [What are Water Quality Standards?](#)

You may need a PDF reader to view some of the files on this page. See [EPA's About PDF page](#) to learn more.

<https://www.epa.gov/wqs-tech/water-quality-standards-academy>

The Integrated Report (IR)



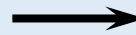
The 303(d) List

Category 5 of IR

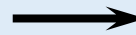
Water Quality
Standards



303(d) List



Water Quality
Restoration Plan (TMDL)



Water Quality
Controls

- Beneficial uses
- Numeric Criteria
- Narrative
- Antidegradation

- **List of impaired and threatened water quality limited segments (WQLS) in need of TMDLs**

- Watershed Characterization
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What is the Integrated Report?

- **The National Water Quality Inventory Report to Congress or 305(b) report**
 - Report submitted every two years detailing water quality status of all waters
- **The 303(d) List**
 - Report submitted every two years documenting impaired and threatened waters
- **CWA Section 314**
 - Assessment of status and trends of significant publicly owned lakes
- EPA recommends states combine these reports into the **Integrated Report (IR)**, which is to be submitted April 1 of even numbered years.

The IR Development Process

Solicit

Issue data solicitation.

Develop

Develop a credible data policy and listing methodologies.

**Assemble and
evaluate**

Assemble and evaluate all existing and readily available water quality-related data and information to develop the list required by §§ 130.7(b)(1) and 130.7(b)(2).

Evaluate

Evaluate data using the credible data policy.

Assess

Assess valid data using listing methodologies to compare to the WQS.

Report

Report the status of all waters, placing impaired and threatened waters on the 303(d) list.

Assessment Units

- **Assessment units** (AUs) are segments of waterbodies partitioned to represent homogeneity in physical, biological or chemical conditions.
- **AUs** should be larger than a sampling station but small enough to represent a relatively homogenous parcel of water.
- **AUs** can be split or merged, if necessary.
- **AUs** may not necessarily be monitored each listing cycle.
- **Waterbody/pollutant pairs or Water Quality Limited Segments (WQLSs)** may be supporting designated uses for some parameters but not others.

IR

Categories

- **Category 1:** All designated uses are supported, no use is threatened;
- **Category 2:** Available data and/or information indicate that some, but not all of the designated uses are supported;
- **Category 3:** There is insufficient available data and/or information to make a use support determination;
- **Category 4:** Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed;
 - **4a:** A TMDL to address a specific segment/pollutant combination has been approved or established by EPA.
 - **4b:** A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements.
 - **4c:** A use is impaired, but the impairment is not caused by a pollutant
- **Category 5/5-alt:** Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed. This is commonly referred to as the “**Impaired Waters List**” or “**303(d) List.**”

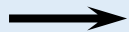
Total Maximum Daily Loads (TMDLs)



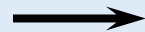
TMDLs

Water Quality Improvement Projects

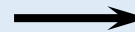
Water Quality
Standards



303(d) List



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Restoration Plan (TMDL)



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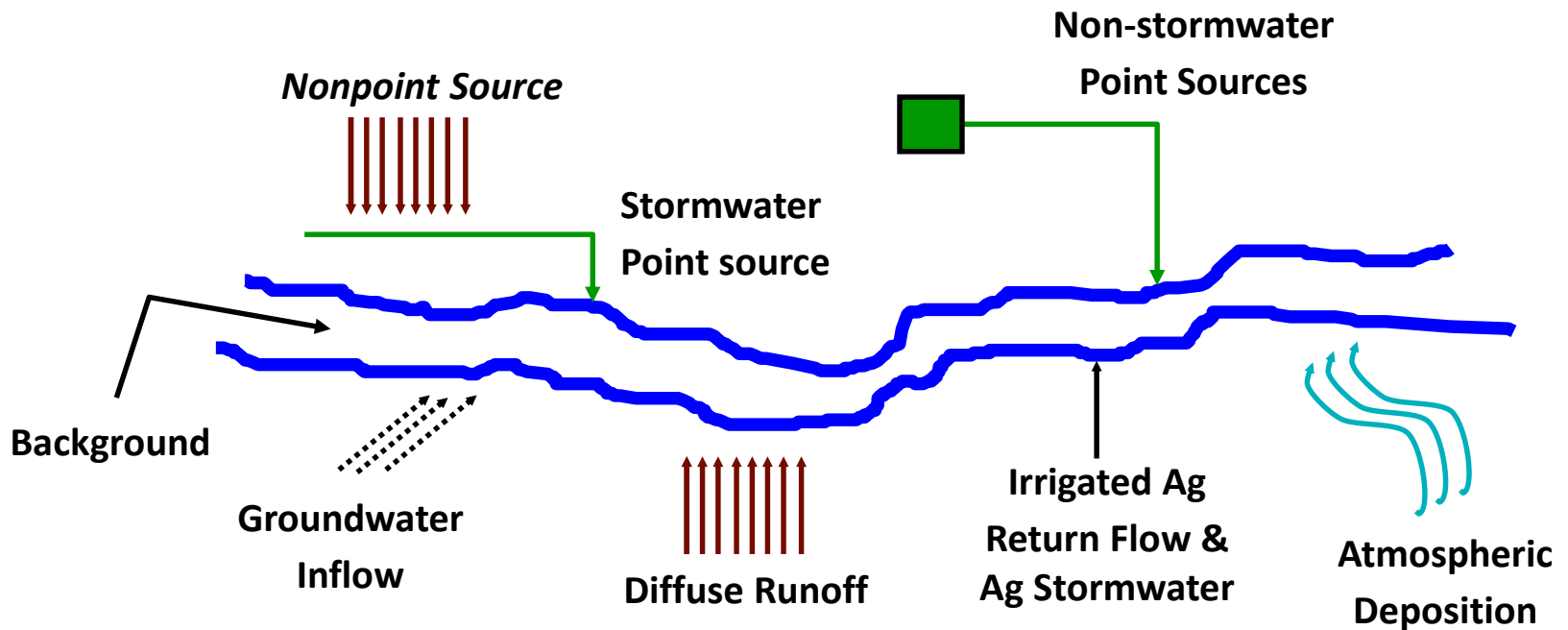
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TMDLs

$$\text{TMDL} = \sum \text{WLA} + \sum \text{LA} + \text{MOS}$$

Wasteload Allocation (WLA) Components





Load Allocation (LA) Components

TMDL

Resources

Impaired Waters and TMDLs

CONTACT US SHARE    

Impaired Waters and
TMDLs Home

Program Vision

Impaired Waters and
TMDLs throughout the U.S

Technical Tools and
Resources

Overview of Total Maximum Daily Loads (TMDLs)

On this page:

- [What is a TMDL?](#)
- [What triggers the need for a TMDL?](#)
- [Who is responsible for developing a TMDL?](#)
- [How are TMDLs developed?](#)
- [Public participation in TMDL development](#)
- [What are the components of a TMDL document?](#)
- [What happens after the TMDL is approved by EPA?](#)

<https://www.epa.gov/tmdl/overview-total-maximum-daily-loads-tmdls>

TMDL

Resources

[Impaired Waters and TMDLs Home](#)

[Program Vision](#)

[Impaired Waters and TMDLs throughout the U.S](#)

[Technical Tools and Resources](#)

Developing Total Maximum Daily Loads (TMDLs)

After the identification of water quality-limited waters is completed, states develop TMDLs at a level necessary to achieve the applicable state water quality standards. Waters targeted for TMDL development are based on the extent of pollution and the use(s) of the water, (e.g., health of aquatic life or public recreation), and the identity of the pollutant(s) causing or expected to cause the impairment.

The Clean Water Act requires states to calculate the pollutant reduction needed with seasonal variations and a margin of safety. The TMDL establishes a target for total load of pollutant the water body can assimilate and allocates the load to point sources (called the wasteload allocation) and nonpoint sources (called the load allocation). The margin of safety takes into account the uncertainty between the model and the actual environment. Data and information such as land use, water quality monitoring results, modeling techniques, calculation methods and other relevant evidence are included in the TMDL.

[TMDL Support Documents](#)

[Surface Water Quality Modeling](#)

[Resources from TMDL Stakeholders](#)

[Effectively Implementing TMDLs](#)



<https://www.epa.gov/tmdl/developing-total-maximum-daily-loads-tmdls>

The IR Submittal



IR

**Suggested
Organization**

EXECUTIVE SUMMARY

PART A. INTRODUCTION

PART B. BACKGROUND

B1. Total Waters

B2. Water Pollution Control Program

B3. Cost/Benefit Assessment

B4. Special State Concerns and Recommendations

PART C. SURFACE WATER MONITORING AND ASSESSMENT

C1. Monitoring Program

C2. Assessment Methodology

C3. Assessment Results

C4. Wetlands Program

C5. Trends Analysis for Surface Waters

C6. Public Health Issues

PART D. GROUND WATER MONITORING AND ASSESSMENT

PART E. PUBLIC PARTICIPATION

IR

Reporting Element Checklist

- Required vs Recommended water quality reporting elements
- What is the Assessment Total Maximum Daily Load Tracking and Implementation System?
- Which elements are captured in ATTAINS?
- What reports and summaries can be generated in ATTAINS?
- What documents need to be uploaded to ATTAINS?

IR

Additional Resources

- **The Clean Water Act:**
<https://www.govinfo.gov/content/pkg/STATUTE-86/pdf/STATUTE-86-Pg816.pdf>
- **IR Guidance:**
<https://www.epa.gov/tmdl/integrated-reporting-guidance-under-cwa-sections-303d-305b-and-314>
- **2006 IR Guidance:**
<https://www.epa.gov/sites/production/files/2015-10/documents/2006irg-report.pdf>
- **2009 Ocean Acidification Memo:**
<https://www.epa.gov/tmdl/epa-issues-november-15-2010-memorandum-integrated-reporting-and-listing-decisions-related-ocean>
- **2002 EPA Consolidated Assessment and Listing Guidance:**
https://www.epa.gov/sites/production/files/2015-09/documents/consolidated_assessment_and_listing_methodology_calm.pdf

Getting Started

Central Data Exchange (CDX) Account Set-up

STEP A: Registering for a CDX Account

Refer to <https://cdx.epa.gov/About/UserGuide> for screen shots and further details.

1. Go to the Central Data Exchange (CDX) Homepage (<https://cdx.epa.gov/>) and select **“Register with CDX”**
2. You will be re-directed to the CDX Terms and Conditions page. You will need to agree to the terms and condition to continue. To indicate agreement, Check the box next to **“I am this registrant. I will not share my account, and I accept the terms and conditions, above”** then click Proceed.
3. Select a Program Service a. Select: **EEP: General E-Enterprise Use**
4. Provide Role and Additional Information
 - a) Select: **Public**
 - b) Click on **“Request Role Access”**
5. Provide User Information
 - a) Make a note of the **User ID** you created. You will need this to associate your CDX account with ATTAINS.
 - b) Set up Security Questions
6. Provide Organization Information
 - a) Organization Name: **INDIVIDUAL**
 - b) Contact information: Provide your email and phone number.
 - c) Click on **“Submit Request for Access”**
7. Confirmation screen and Activation Link: Click on the activation link to finalize registration
8. Complete Registration and Additional Validation

Getting Started

ATTAINS Login and Exchange Network

STEP B. ASSOCIATING YOUR ACCOUNT WITH YOUR ATTAINS SYSTEM LOGIN

Your regional Data Management Coordinator (DMC) will be able to add you to the ATTAINS system user database. Follow the instructions below to request access.

All users – You must complete this step regardless of whether you intend to use the User Interface or the Exchange Network:

1. Contact your regional Data Management Coordinator (DMC), who will set up your account in the ATTAINS User Database. (<https://www.epa.gov/waterdata/data-management-coordinators-dmc>)
2. Provide the DMC with the following information. The DMC may contact you with follow-up questions.
 - a) Name and Email address
 - b) Organization
 - c) User ID (this will be one of the two options below, depending upon your affiliation)
 - i. CDX account (a.k.a., Exchange Network or NAAS account) User ID if you are from a state, territory, or tribe
 - ii. Web Access Management (WAM) or Local Area Network (LAN) login ID if you are EPA or ORISE
 - d) Level of access you are requesting for each module.
3. The DMC will use the ATTAINS User Interface to provide access. Once access has been established, they will contact the user and let them know they can log-in to the ATTAINS User Interface.

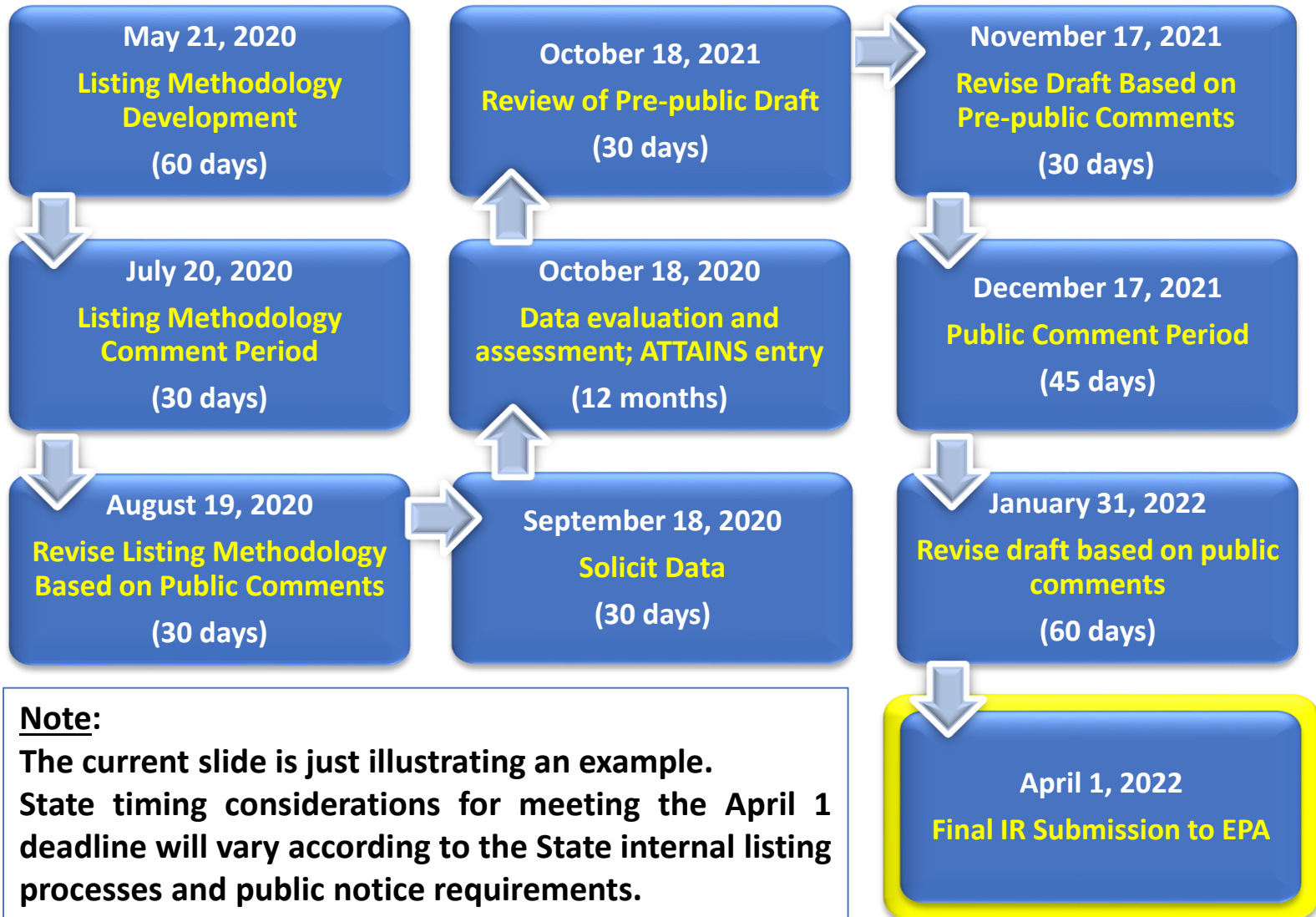
Exchange Network users: If you want to submit data to ATTAINS through the Exchange Network, you must complete an extra step. In addition to getting your CDX account added to the ATTAINS User Database (previous step), you must also get your CDX account associated with the ATTAINS data flow under the Exchange Network (this step). Contact the EPA Node Helpdesk at nodehelpdesk@epacdx.net to associate your CDX account with the ATTAINS flow.

Getting Started

ATTAINS Login and Exchange Network

- **ATTAINS Roles**
 - Read Only (ability to view only)
 - Data Entry (ability to enter and edit data)
 - Administrator (ability to batch upload AUs; submit Assessment; submit action; submit (publish) surveys)
 - Reviewer (EPA only; higher level permission than Administrator; work with DMC to assign as appropriate)
- **ATTAINS Design Team Calls**
 - Email Dwane Young and cc Laura Shumway and Wendy Reid to be added to call invite list
(young.dwane@epa.gov;
Shumway.laura@epa.gov ;
reid.wendy@epa.gov)
- **ATTAINS Listserv**
 - Sign up at:
<https://www.epa.gov/waterdata/attain-sinfo-listserv>

Getting Started: Example of Timing Considerations for Meeting the April 1st Deadline



Note:

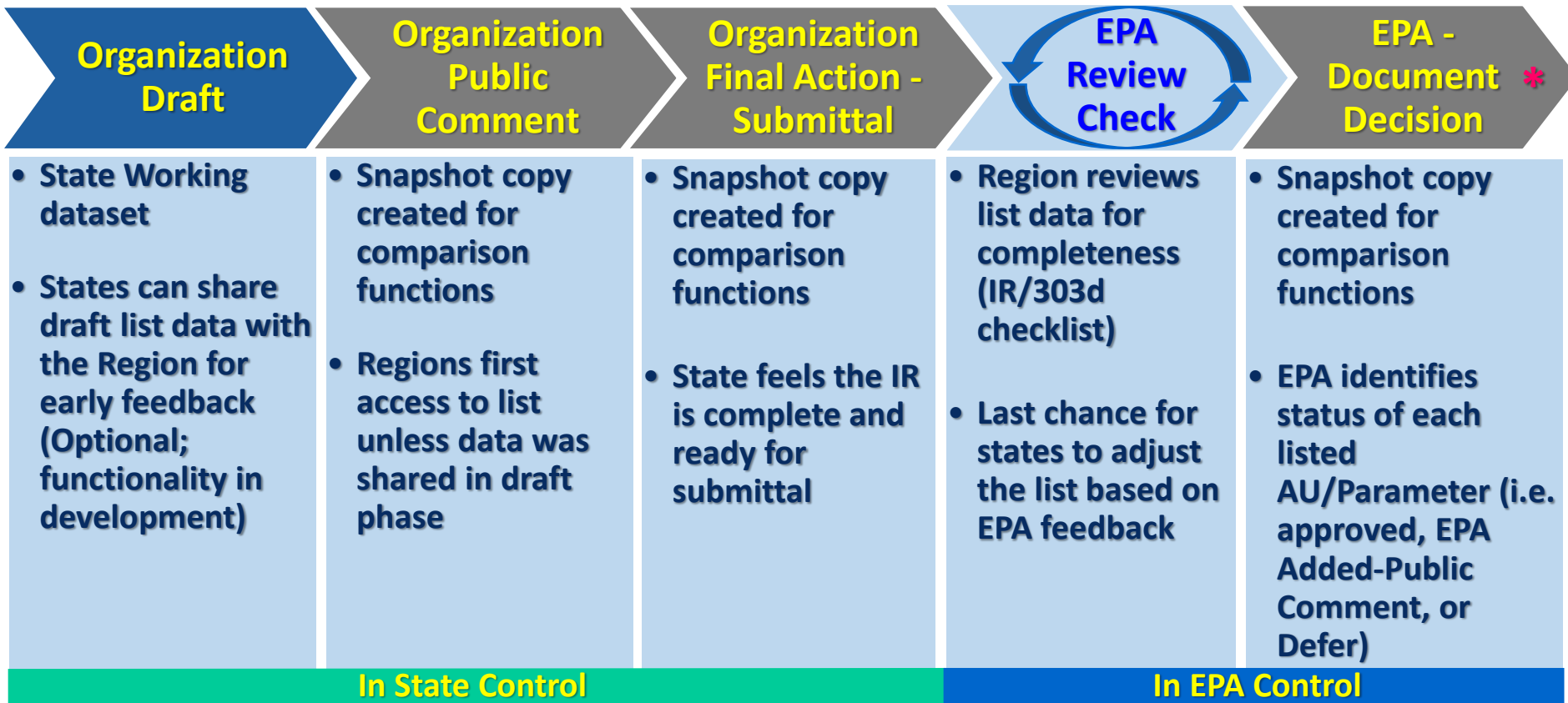
The current slide is just illustrating an example. State timing considerations for meeting the April 1 deadline will vary according to the State internal listing processes and public notice requirements.

EPA's Role

ATTAINS Listing Review

- Review listing methodologies (no approval role)
- Ensures that submission is complete:
 - ATTAINS entries are complete
 - All required elements are included either in ATTAINS entries or as a pdf uploaded into ATTAINS
- EPA takes action on the 303(d) List itself
- EPA has 30 days from submission to act on the List

ATTAINS: State IR Data Submission and Promotion Process



* If full approval, list will be promoted to **EPA Final Action** status. If partial approval/disapproval, or defer, list will be promoted to **EPA Interim Action** status, and additional steps will follow before it can be promoted to **EPA Final Action** status.

What Does EPA See in ATTAINS?

Home Tab View for EPA Users

The Home tab view contains four sections for EPA users. Each section is described on the following pages.

ATTAINS - USEPA (EPA) Organization (epa user)

Home Assessment Units Assessments Actions Reports Priorities Surveys Administration

Welcome epa user

1 Metrics

These numbers are for all of region - HQ

Backlog of 303(d) Lists: 8 Backlog of EPA TMDLs: 11

2 IR Progress

Region	State	Organization Id	Cycle	Current Status	Days Since Submission
08	SD	SDDENR	2018	EPA - Document Decisions	544
08	SD	SDDENR	2020	EPA - Document Decisions	19

3 Actions Ready for Review

Region	State	Organization Id	Pending Actions	TMDLs Overdue
01	AA	TEST_ORG_A	1	1
01	BB	TEST_ORG_B	1	1
01	CC	TEST_ORG_C	2	1
08	SD	SDDENR	2	1

4 Release Notes

About This Release

ATTAINS

What Does The EPA Review Process Look Like?

Assessments 2020 (Organization Draft)

Assessment Unit ID	Assessment Unit Name	Water Type	EPA IR Category	Organization IR Category	Multi-IR Category	Cycle Last Assessed	Last Modified
BB_AdairRiver	Adair River	RIVER	5		5,4A,2	2016	Sep 11, 2018 6:40:58 AM
BB_AshleyCreek	Ashley Creek	CREEK	5		5,2	2016	Aug 15, 2018 8:55:10 AM
BB_BentleysEstuary	BentleysEstuary	ESTUARY	5		5,4A,2	2016	Aug 15, 2018 12:22:39 PM

- Manage Cycle
- Upload Assessments
- Export Assessments
- Create Cycle
- Reset Cycle
- Reset Filter
- Help

Note: An asterisk in ATTAINS denotes a required field.

Cycle History

CYCLE INFORMATION: This cycle has been submitted to the EPA for review.

Cycle	Label	Status	Type	Cycle Years
2020	IN_PROGRESS_2020	Organization Final Action - Submittal	In Progress	
2020	SNAPSHOT_2018_10_25	Organization Final Action - Submittal	Snapshot	

Current Status: Organization Final Action - Submittal

Take Action

- Document Decisions
- Return to Organization

Cycle 2020 (Organization Final Action - Submittal)

Document Name	Document Type	Agency Code	File Name	Document Information - 2020 Assessment Methodology
2020 Assessment and listing Methodology	Assessment methodology	State	Test 2020 Assessment Methodology.docx	Comment: Not Specified
2020 IR Narrative	Integrated Report Document	State	Test 2020 IR Narrative Report.pdf	
2020 Delistings	Other Supporting	State	Test 2020 Delistings.xlsx	

Completing EPA's Review in ATTAINS

Assessments 2020 (EPA - Document Decisions)

Assessment Unit ID	Assessment Unit Name	Water Type	EPA IR Category	Organization IR Category	Multi-IR Category	Cycle Last Assessed	Last Modified	
LS_TEST	Testing not assessed use	GREAT LAKES BEACH	3			2018	Aug 24, 2018 9:45:47 AM	
BB_AshleyCreek	Ashley Creek	CREEK	5		5.2	2016	Aug 15, 2018 8:55:10 AM	
BB_GetOutRun	Get Out Run	RIVER	5		5.2	2016	Aug 15, 2018 8:55:12 AM	2016 <input type="checkbox"/> OK

Navigation icons: Home, Assessment Units, **Assessments**, Actions, Reports, Priorities, Administration.

Assessments 2020 (EPA - Document Decisions) Cycle Selection - Menu

- Manage Cycle
- Review Cycle
- Upload Assessments
- Export Assessments
- Reset Filter
- Help

Cycle Review

2020 - EPA - Document Decisions

Linked Waters, **Details**, All Waters

Download Review Status

Assessment Unit ID	Assessment Unit Name	Parameter Name	Parameter Status	Parameter IR Category	Review Decision	Review Comment	Review Status
BB_AdarRiver	Adar River	BACTERIA (OYSTER WATERS)	Observed effect		<input checked="" type="checkbox"/> APPROVED		<input type="checkbox"/>
BB_AdarRiver	Adar River	DISSOLVED OXYGEN	Cause	4A	<input checked="" type="checkbox"/> APPROVED		<input type="checkbox"/>
BB_AdarRiver	Adar River	ESCHERICHIA COLI (E. COLI)	Cause	5	<input checked="" type="checkbox"/> APPROVED		<input type="checkbox"/>
BB_AdarRiver	Adar River	FLOATING DEBRIS	Meeting Criteria	2	<input checked="" type="checkbox"/> APPROVED		<input type="checkbox"/>
BB_AdarRiver	Adar River	NITROGEN	Meeting Criteria	2	<input checked="" type="checkbox"/> APPROVED		<input type="checkbox"/>

Review Status: Reviewed, Not Reviewed, Defer, Complete All

A	B	C	D	E	F	G	H	I	J	K	L	M	N
ASSESSMENT_UNIT_ID	ASSESSMENT_UNIT_NAME	PARAMETER_NAME	PARAM_STAT	PARAM_IR_CATEGORY	PARAM_DELISTING	REVIEW_DECISION	REVIEW_COMMENT						
2	BB_AdarRiver	Adar River	ESCHERICHIA COLI (E. COLI)	Cause	5	APPROVED							
3	BB_AshleyCreek	Ashley Creek	FLOATING DEBRIS	Cause	5	APPROVED							
4	BB_BentleysEstuary	BentleysEstuary	AMMONIA-NITROGEN	Cause	5	APPROVED							
5	BB_BentleysEstuary	BentleysEstuary	HAMFUL ALGAL BLOODS	Cause	5	APPROVED							
6	BB_BentleysEstuary	BentleysEstuary	NITRATE/NITRITE (NITRITE + N.Cause		5	APPROVED							
7	BB_GetOutRun	Get Out Run	ALGAE	Cause	5	APPROVED							
8	BB_GetOutRun	Get Out Run	ALGAL TOXINS	Cause	5	APPROVED							
9	BB_GetOutRun	Get Out Run	FISH KILL DUE TO THERMAL MI	Cause	5	APPROVED							
10	BB_MarkoRiver	Marko River	ESCHERICHIA COLI (E. COLI)	Cause	5	APPROVED							
11	BB_MarkoRiver	Marko River	PHOSPHORUS, TOTAL	Cause	5	APPROVED							
12	bb_pas	abejo river	CHLORINE DIOXIDE	Cause	5	APPROVED							
13	BB_ShandraRiver	Shandra River	EUTROPHICATION	Cause	5	APPROVED							

ATTAINS

EPA Interim or Final Action Status for List

- If full approval, list will be promoted to EPA Final Action status.
- If partial approval/disapproval or deferral, list will be promoted to EPA Interim Action status, and additional steps will follow before it can be promoted to EPA Final Action status.

List Review

What Does EPA Look For?

- The State's **identification of WQLS**, that are not meeting applicable WQS, still requiring TMDL(s), the pollutants causing the impairment and **priority ranking for TMDL development** (including WQLS targeted for TMDL development within the next two years).
- A description of the **methodology** used to develop the list
- A **description of the data and information used** to develop the list
- A **rationale for any decision to not use any existing and readily available data and information**
- **Any other reasonable information** requested by the Regional Administrator.
- States must demonstrate **good cause** for not including a water or waters on the list.

Additional Tools and Resources

- <https://www.epa.gov/tmdl/resources-tools-and-databases-about-impaired-waters-and-tmdls>
- <https://www.epa.gov/tmdl>
- <https://www.epa.gov/waterdata/attains>



Questions?

Thank you!!