

Environmental Information



# EN2017

## Assessment Tracking TMDL and Implementation System (ATTAINS)

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**2017 Exchange Network National Meeting**

*Innovation and Partnership*

May 16-18, 2017

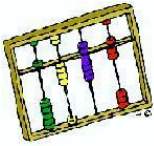
Sheraton Philadelphia Society Hill Hotel  
Philadelphia, Pennsylvania

<http://www.exchangenetwork.net/en2017>

# ABSTRACT

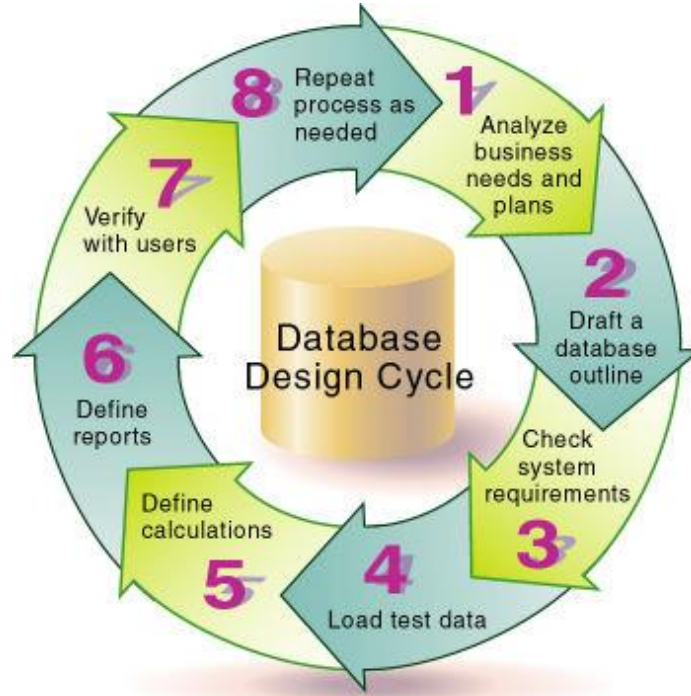
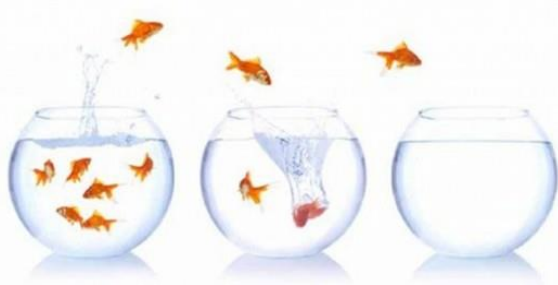
EPA and states are collaborating to create a fully electronic process for submitting state 303(d) lists, Integrated Reporting information and TMDLs. Montana, in particular has developed a water quality tracking system that is being integrated with the new ATTAINS via the Exchange Network.

# Montana's Data System History



	A	B	C	D	E	F	G
1	<b>I. SUFFICIENT CREDIBLE DATA-SOURCE CHECKLIST</b>						
2							
3	WATERBODY LOCATION	YELLOWSTONE HEADWATERS					
4	WATERBODY NAME	Miller Creek					
5	WATERBODY NUMBER	MT43B002_040					
6	HYDROLOGIC UNIT CODE	10070001					
7	WATER CLASSIFICATION						
8	SEGMENT LENGTH (MILES)	0.8					
9	ASSESSMENT BY	Adam Cook					
10	ASSESSMENT DATE (MDY)	8/30/2006					
11							
	SEGMENT DESCRIPTION	MILLER CREEK headwaters to mouth (Soda Butte Creek)					
12							
13							
14							
15	<b>DATA</b>	<b>CHK'D</b>	<b>DOCUMENT</b>	<b>DOCUMENT</b>	<b>ASSIGNED</b>	<b>BIOLOGICAL</b>	<b>HABITAT</b>
16	<b>SOURCE</b>	<b>?</b>	<b>TITLES</b>	<b>LOCATION</b>	<b>NUMBER</b>	<b>DATA</b>	<b>DATA</b>
17							<b>CHE</b>
18	<b>DEQ</b>						<b>PHYS</b>
19							
20	<b>FWP</b>						
21							
<span>Reference</span> <span>DW&amp;R tables</span> <span>AL&amp;F-S tables</span> <span>AL&amp;F-L&amp;W tables</span> <span>Data Matrix</span> <span>Summary</span> <span>Use Impairment</span> <span>Assessment Method</span>							
Ready							

# Montana's Data System History



	TMDL Project Id	* Project Name	TMDL Document No	* Document Name	TMDL Document Version No	* Version Name	Document Status	*
Select	C01-TMDL-01	Clark Fork River Nutrient TMDLs	C01-TMDL-01a	Clark Fork River VNRP & Nutrient TM	1	Final	Approved by EPA	
Select	C01-TMDL-02	Upper Clark Fork Tribs	C01-TMDL-02a	Upper Clark Fork River Tributaries Se	1	Original	Approved by EPA	
Select	C01-TMDL-02	Upper Clark Fork Tribs	C01-TMDL-02a-a	Upper Clark Fork Tribs Sediment Ad	1	Final Addendum	Approved by EPA	
Select	C01-TMDL-03	Little Blackfoot	C01-TMDL-03a	Little Blackfoot	1.0	Final Version	Approved by EPA	
Select	C01-TMDL-03	Little Blackfoot	C01-TMDL-03a-a	Little Blackfoot Metals Addendum	1.0	Metals Addendum	Approved by EPA	
Select	C01-TMDL-04	Upper Clark Fork Phase 2 TMDLs	C01-TMDL-04a	Upper Clark Fork Phase 2 TMDLs	1.0	Version 1.0 Final	Approved by EPA	
Select	C01-TMDL-05	Clark Fork - Silver Bow Metals	C01-TMDL-05a	Clark Fork - Silver Bow Metals	2.0	Version 2: Second EPA Submittal	Approved by EPA	
Select	C02-TMDL-01	Flint Watershed	C02-TMDL-01a	Flint Sediment & Metals	1.0	Final	Approved by EPA	
Select	C02-TMDL-01	Flint Watershed	C02-TMDL-01a-a	Douglas Creek Antimony Addendum	1.0	Final	Approved by EPA	
Select	C02-TMDL-01	Flint Watershed	C02-TMDL-01b	Flint Nutrients	1.0	Final	Approved by EPA	
Select	C02-TMDL-02	Rock Creek TMDL	C02-TMDL-02a	Rock Creek TMDL	1.0	Final Version	Approved by EPA	
Select	C02-TMDL-03	Bonita - Superior Metals	C02-TMDL-03a	Bonita - Superior Metals TMDLs	1.0	Final	Approved by EPA	
Select	C03-TMDL-01	Blackfoot Headwaters	C03-TMDL-01a	Water Quality Restoration Plan for M	1	Original	Approved by EPA	
Select	C03-TMDL-01	Blackfoot Headwaters	C03-TMDL-01b	Blackfoot Headwaters Planning Area	1	Original	Approved by EPA	
Select	C03-TMDL-01	Blackfoot Headwaters	C03-TMDL-01b-a	Sandbar Creek Addendum	1	Final Sandbar Creek Addendum	Approved by EPA	
Select	C03-TMDL-02	Middle Blackfoot - Nevada Basin TMI	C03-TMDL-02a	Middle Blackfoot-Nevada Creek Total	1.0	Final	Approved by EPA	
Select	C03-TMDL-02	Middle Blackfoot - Nevada Basin TMI	C03-TMDL-02a-a	Middle Blackfoot - Nevada Addendum	1.0	Final Addendum	Approved by EPA	
Select	C03-TMDL-03	Lower Blackfoot Basin TMDLs	C03-TMDL-03a	Lower Blackfoot Total Maximum Dail	2.0	Second Document Submittal	Approved by EPA	
Select	C03-TMDL-04	Lower Blackfoot Watershed Nutrients	C03-TMDL-04a	Lower Blackfoot Nutrients	1.0	Final	Approved by EPA	
Select	C04-TMDL-01	Ninemile Basin TMDLs	C04-TMDL-01a	Water Quality Restoration Plan and	1.0	Original	Approved by EPA	

## Bean Maintenance

Project Id C02-TMDL-02

Document No C02-TMDL-02a

Document Version Name Final Version

Bean Events

TMDL Planning Area Rock

Id305b MT76E002\_060

Waterbody Name South Fork Antelope Creek

Location Desc SOUTH FORK ANTELOPE CREEK, headwaters to r

Cause Group MT NUTRIENTS (Macro)

Cause Id 462

Cause Phosphorus (Total)

CFL 1994

Bean Category 4A

Pollutant Flag Yes

Next Step TMDL Imp / 5 Year Review

Bean Status Approved by EPA

Assessor Kathryn Makarowski

Last Date Assessed 12/29/2013

Kickout Reason



Group Manager Lou Volpe



TMDL Bean Kickout

Bulk Update Group Manager

Resolution TMDL



TMDL Pollutant PHOSPHORUS, TOTAL



Source



NPDES ID



Addressed By



## Beans Maintenance

Cycle

Bean Events

Assessment Unit	Water Name	Cause Name	Cycle Listed	Pollutant Flag	Bean Cat	Status	TMDL ID	Next Step	CDC	T-Pri
MT40J002_030	Little Boxelder Creek	Phosphorus (Total)	1988	YES	5	Scheduled		TMDL Dev Review		L
MT40J003_010	Lodge Creek	Mercury	2006	YES	5	Scheduled		TMDL Dev Review		L
MT40J003_010	Lodge Creek	Oxygen, Dissolved	1992	YES	5	Scheduled		TMDL Dev Review		L
MT40J003_010	Lodge Creek	Total Kjehldahl Nitrogen (TKN)	1992	YES	R	Retired		Retirement		
MT40J003_010	Lodge Creek	Nitrate/Nitrite (Nitrite + Nitrate)	1992	YES	5	Scheduled		TMDL Dev Review		L
MT40J003_010	Lodge Creek	Phosphorus (Total)	1992	YES	5	Scheduled		TMDL Dev Review		L
MT40J004_010	Battle Creek	Sedimentation/Siltation	2000	YES	5	Scheduled		TMDL Dev Review		L
MT40J005_020	Cottonwood Creek	Iron	2006	YES	5	Scheduled		TMDL Dev Review		L
MT40J005_020	Cottonwood Creek	Sedimentation/Siltation	1990	YES	5	Scheduled		TMDL Dev Review		L
MT40K001_010	Whitewater Creek	Mercury	2006	YES	5	Scheduled		TMDL Dev Review		L
MT40M001_011	Beaver Creek	Cadmium	2006	YES	1	WQS Attained		Protect	2014	H
MT40M001_011	Beaver Creek	Iron	2006	YES	1	WQS Attained		Protect	2014	H
MT40M001_011	Beaver Creek	Lead	2006	YES	4A	Approved by EPA	41898	TMDL Imp / 5 Year Rev	2014	H
MT40M001_012	Beaver Creek	Mercury	2006	YES	R	Retired		Retirement		
MT40M001_012	Beaver Creek	Phosphorus (Total)	2006	YES	R	Retired		Retirement		
MT40M001_020	Beaver Creek	Uranium	2000	YES	5	Scheduled		TMDL Dev Review		L
MT40M001_020	Beaver Creek	Nitrogen (Total)	1990	YES	5	Scheduled		TMDL Dev Review		L
MT40M001_020	Beaver Creek	Phosphorus (Total)	1990	YES	5	Scheduled		TMDL Dev Review		L
MT40M002_010	Flat Creek	Arsenic	2006	YES	5	Scheduled		TMDL Dev Review		L
MT40M002_010	Flat Creek	Cadmium	2006	YES	5	Scheduled		TMDL Dev Review		L

## Beans Maintenance

## Events Tracking

## Assessment Unit

MT40J002\_030

MT40J003\_010

MT40J003\_010

MT40J003\_010

MT40J003\_010

MT40J003\_010

MT40J004\_010

MT40J005\_020

MT40J005\_020

MT40K001\_010

MT40M001\_011

MT40M001\_011

MT40M001\_011

MT40M001\_012

MT40M001\_012

MT40M001\_020

MT40M001\_020

MT40M001\_020

MT40M002\_010

MT40M002\_010


## Events Tracking

Entity Type	Name	Event Name	Start Date	End Date	Comments
Bean	MT40M001_011-Cadmium	Bean Created	06/02/2010 11:30:09	06/02/2010 11:30:09	
Bean	MT40M001_011-Cadmium	Added To Document	08/13/2010 11:38:33	08/13/2010 11:38:33	
Bean	MT40M001_011-Cadmium	Bean Status Modified	08/13/2010 11:38:33	08/13/2010 11:38:33	Modified to IN_PROGRESS
Bean	MT40M001_011-Cadmium	Bean Status Modified	09/22/2011 16:50:29	09/22/2011 16:50:29	No impairment based on Mon/WMS group meeting
Bean	MT40M001_011-Cadmium	Next Step Modified	09/22/2011 16:50:29	09/22/2011 16:50:29	Modified to Monitoring Review - H
Bean	MT40M001_011-Cadmium	Removed From Document	09/22/2011 16:50:29	09/22/2011 16:50:29	
Bean	MT40M001_011-Cadmium	Bean Status Modified	11/25/2011 12:18:15	11/25/2011 12:18:15	Modified to IN_PROGRESS
Bean	MT40M001_011-Cadmium	Added To Document	11/25/2011 12:18:15	11/25/2011 12:18:15	
Bean	MT40M001_011-Cadmium	Bean Delisted	07/03/2012 14:02:09	07/03/2012 14:02:09	
Bean	MT40M001_011-Cadmium	Bean Status Modified	07/05/2012 16:31:02	07/05/2012 16:31:02	Not impaired; discussed in TMDL document
Bean	MT40M001_011-Cadmium	Removed From Document	07/05/2012 16:31:02	07/05/2012 16:31:02	
Bean	MT40M001_011-Cadmium	Bean Delisted	10/03/2013 11:19:59	10/03/2013 11:19:59	
Bean	MT40M001_011-Cadmium	Bean Status Modified	01/17/2014 14:41:59	01/17/2014 14:41:59	Modified to WQS ATTAINED -
Bean	MT40M001_011-Cadmium	Next Step Modified	01/17/2014 14:42:11	01/17/2014 14:42:11	Modified to Protect -Data cleanup due to error in w_beans trigge
Bean	MT40M001_011-Cadmium	Bean Delisted	10/08/2014 12:35:04	10/08/2014 12:35:04	

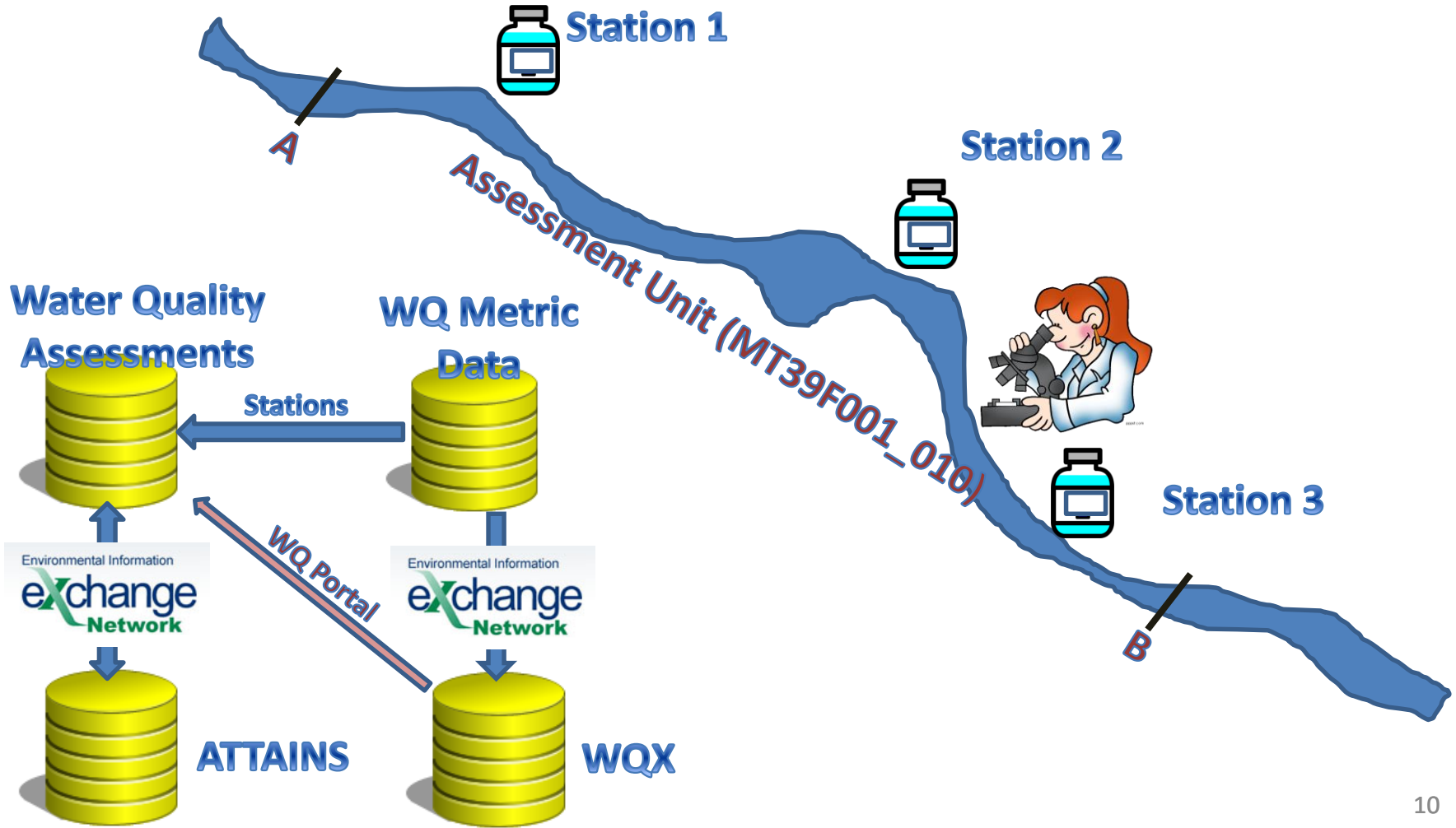
Update Comments

↓	Flat Creek	↓	Arsenic	↓	2006	YES	5	Scheduled	↓	TMDL Dev Review	↓	L
↓	Flat Creek	↓	Cadmium	↓	2006	YES	5	Scheduled	↓	TMDL Dev Review	↓	L





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# ATTAINS Design Collaboration

- Participated in ATTAINS workgroups (2013 – 2014)
  - Data Elements and Schema Work Group
  - Data Exchange Methodology Work Group
- EPA visits States (Montana - October 2014)
  - Demo and review our Water Quality Assessment, Reporting, and Documentation system (WARD)
- Member of ATTAINS Integrated Project Team (2014 - current)
  - Testing XML submissions via the Exchange Network
  - Discussing schema updates

# EN Grant Activities

- Montana's 2015 – 2016 Activity:
  - Fund OpenNode2 plug-in for v0.4.6/v0.4.7 schema
  - ETL procedures to move WARD data to OpenNode2 staging tables
  - Initial pilot testing of ATTAINS v0.4.6
  - Subsequent pilot testing v0.4.8 (XML edits)
- Montana's 2016 - 2018 Activity
  - Integration of new data elements into the Water Quality Tracking system
  - 2018 Integrated Report submission
  - User Interface changes
  - Integration testing with EPA's ATTAINS cloud interface
  - Implement WQ Portal web services into WQ tracking and SANDS
  - Documentation

# MT DEQ Activities for 2017

## Goal 1 – New ATTAINS v1.0

- Complete system requirements
- Integrate up to [86] new data elements into our ATTAINS/WARD system
- Modify user interface for Montana's WQ Tracking system
- Develop and implement system test plan
- 2018 Integrated Report submission
- Update documentation

## Goal 2 - WQ Data Portal Integration

- Implement WQ Portal web services into SANDS and WARD applications
- System testing
- Update documentation

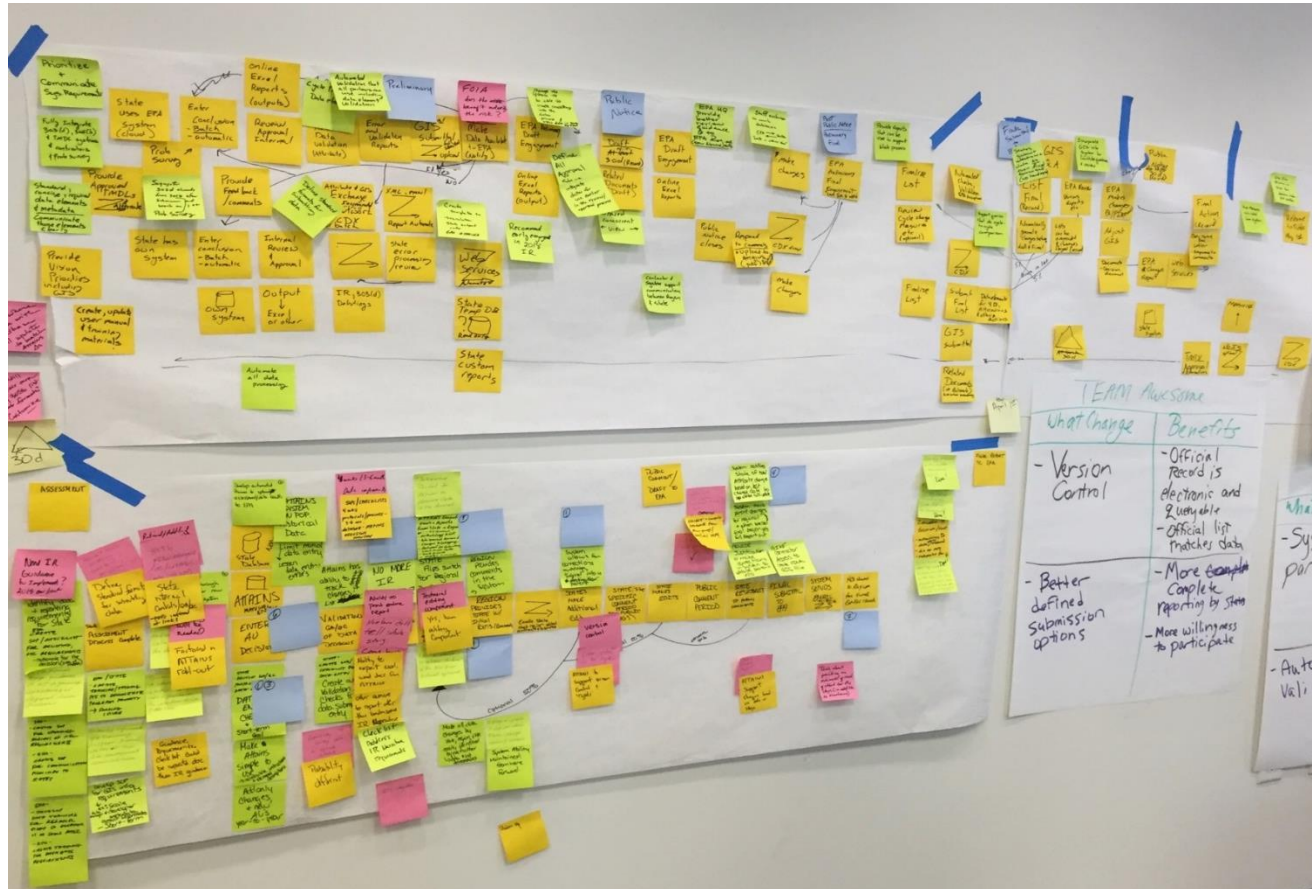
Getting to the new ATTAINS

# **LEAN EVENT : JANUARY 2015**



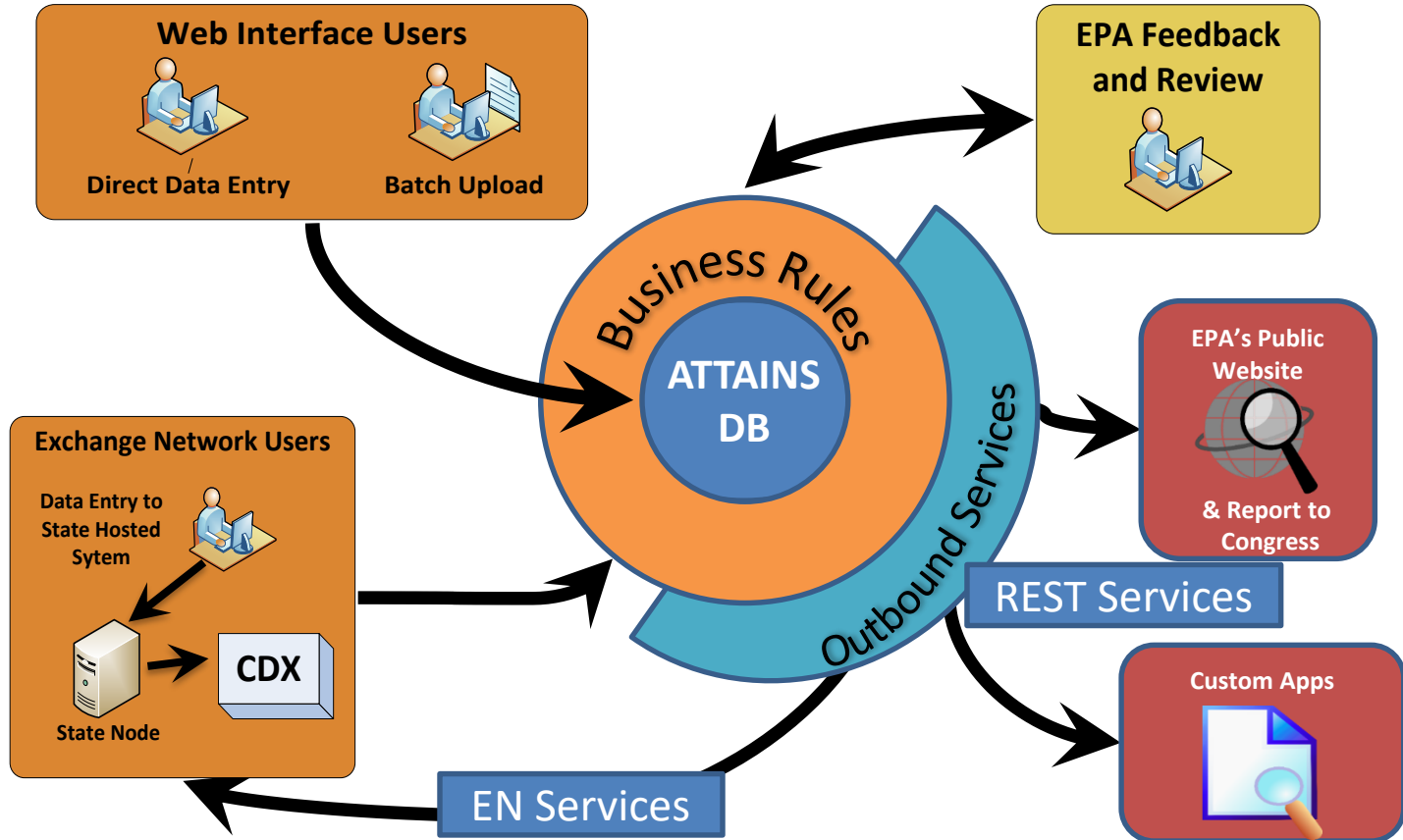


# Future State Process Map





# ATTAINS Architecture



# Joint Approach to Design

## ATTAINS Design Team

- Guiding the development of the User Interface
- Reviewing screens, recommending changes, reviewing domains
- Developing/reviewing business rules
- Using Agile development approach

## ATTAINS Exchange Network Group

- Guiding the implementation of Exchange Network components
- Providing EN input on design team decisions
- Share best-practices for submitting data and coordinate on plug-in development
- Evaluate schema implementation

# ATTAINS User Interface: Today

Sign in with an existing account

Exchange Network

WAM

Use of E-Enterprise Bridge  
for Authentication



Home



Assessment Units



Assessments



Actions



Reports



Priorities



Administration

## Assessment Unit Summary Wolf Creek (NC19-16-1)

N.C. Dept. of Environmental Quality

Edit Assessment Unit

Menu

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### 2018 IR Assessment - Wolf Creek (NC19-16-1)

N.C. Dept. of Environmental Quality

General

Uses

Parameters

Sources

Documents

Summary

#### Assessment Unit

Wolf Creek (NC19-16-1)

#### Location Description

From source to Northeast Creek

#### Water Type

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Responsive Design for  
Access Anywhere

<b>Assessment Unit Identifier</b>	NC19-16-1	<b>State</b>	NC
<b>Assessment Unit Name</b>	Wolf Creek	<b>Use Class</b>	Not Specified
<b>Status</b>	Active		
<b>Location Description</b>	From source to Northeast Creek	<b>Comment</b>	Not Specified

Water Type	Size	Units	Size Source	Estimation Method	Source Scale
CREEK	3.35	Miles			

# ATTAINS Schema Version 1.0

Version 1.0 has been delivered to the IOT for review/approval

OpenNode2 Plug-in is being updated to accommodate changes for v1.0



# Key Takeaways

1. For the 2018 Integrated Reporting Cycle, ATTAINS will be the ONLY way to submit data
  - Either Exchange Network or Direct Data Entry
  - Switching to a completely electronic submittal
2. User Interface has been deployed and ready for state use.  
Ready for EN submittals in June 2017
3. Training on the new ATTAINS is happening at the end of May
4. Let EPA know if you will have challenges in meeting the 2018 deadline

# Questions

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