

Water Quality Data Flow in the Florida TMDL Program

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Acronymns

- TMDL - total maximum daily load (assessment of pollutant loading that can be accommodated in a watershed and still achieve water quality standards)
- STORET – EPA’s Storage and Retrieval System, a national database that states are supposed to load water quality data to.

Florida's "Integrated" Network -- 3 Tiers

Tier 1 – 2 statewide networks
Status = probabilistic
Trend = 79 fixed stations

Tier 2 – Targeted Monitoring
“TMDL Program”

Tier 3 – Regulatory Monitoring (permits)

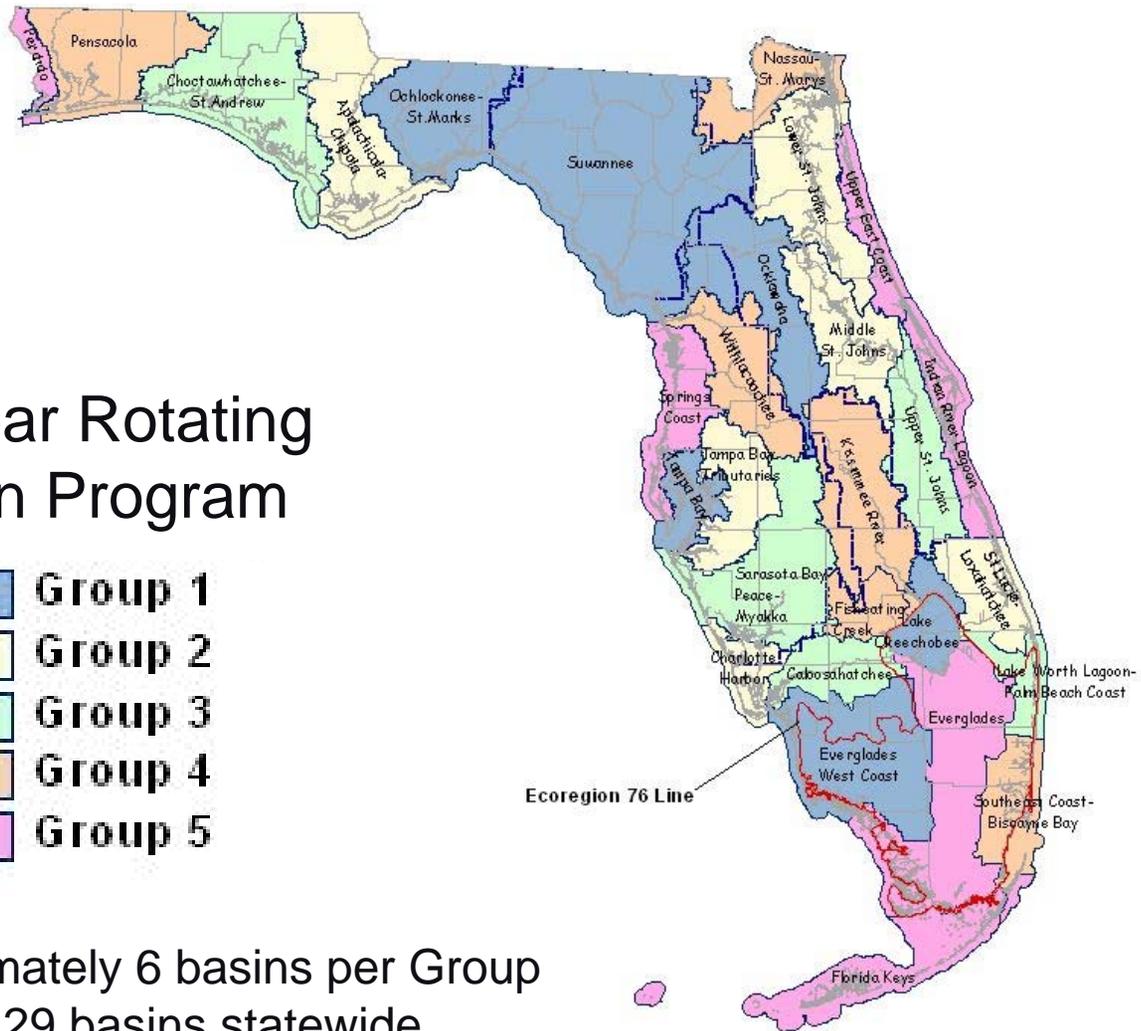


5-year
Rotating Basin
Program

5-Year Rotating Basin Program

-  **Group 1**
-  **Group 2**
-  **Group 3**
-  **Group 4**
-  **Group 5**

Approximately 6 basins per Group
Totaling 29 basins statewide



5-year Rotating Basin Management Program

“Basin” = USGS 8-digit hydrologic units (HUCs)

Phase 1: Preliminary basin assessment

Phase 2: Strategic Monitoring

Phase 3: TMDL development

Phase 4: Basin Action Plan Development
(TMDL Implementation)

Phase 5: Action Plan Implementation

Florida's Rotating Basin Timeline

	<u>Group 1</u>	<u>Group 2</u>	<u>Group 3</u>	<u>Group 4</u>	<u>Group 5</u>
2000	Phase 1				
2001	Phase 2	Phase 1			
2002	Phase 3	Phase 2	Phase 1		
2003	Phase 4	Phase 3	Phase 2	Phase 1	
2004	Phase 5	Phase 4	Phase 3	Phase 2	Phase 1
2005	Phase 1	Phase 5	Phase 4	Phase 3	Phase 2
etc					

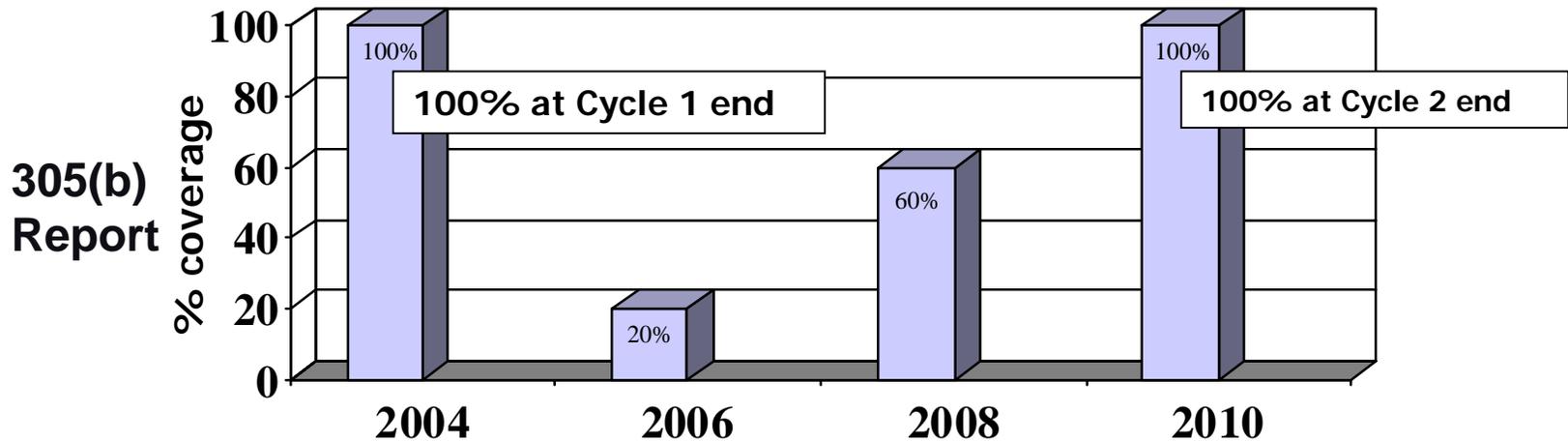
Next cycle begins



Basin Group	2003	2004	2005	2006	2007	2008	2009	2010	2011
Group 1	Phase 0 Status Monitoring			PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1
Group 2		Phase 0 Status Monitoring			PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
Group 3			Phase 0 Status Monitoring			PHASE 1	PHASE 2	PHASE 3	PHASE 4
Group 4				Phase 0 Status Monitoring			PHASE 1	PHASE 2	PHASE 3
Group 5					Phase 0 Status Monitoring			PHASE 1	PHASE 2

305b Reporting & Cycle 2 of the Basin Rotation Program

Basin Group	2003	2004	2005	2006	2007	2008	2009	2010	2011
Group 1	Phase 0 Status Monitoring		PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 1	
Group 2		Phase 0 Status Monitoring		PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	
Group 3		Phase 0 Status Monitoring			PHASE 1	PHASE 2	PHASE 3	PHASE 4	
Group 4			Phase 0 Status Monitoring			PHASE 1	PHASE 2	PHASE 3	
Group 5				Phase 0 Status Monitoring			PHASE 1	PHASE 2	



Phase One - Preliminary Basin Assessment

Steps:

- 1. Data Acquisition**
 - **DEP probabilistic network**
 - **Stakeholders**
 - **Others (other state/federal agencies)**
- 2. Data crunching (Application of Impaired Waters Rule criteria)**
- 3. Data Reporting**
 - **Preliminary Planning List & Draft Verified List**
 - **Strategic Monitoring Plan**
 - **Other basin reports**

Florida's STORET Program

Rule specifies "Florida STORET" as primary data source for all government entities

Maximizes stakeholder input

FDEP uses Regional STORET coordinators

Supports both local and State STORET databases

Enforces use of QA data elements

Florida STORET website –
for query, mapping and downloading
data:

<http://storet.dep.state.fl.us>

Florida's Impaired Waters Rule (IWR)

Chapter 62-303, Florida Administrative Code

- Specifies criteria that define waterbody impairment
- Specifies data quality for TMDL Program Planning List and Verified List
- Computer program written to translate the criteria

5-year Rotating Basin Management Program

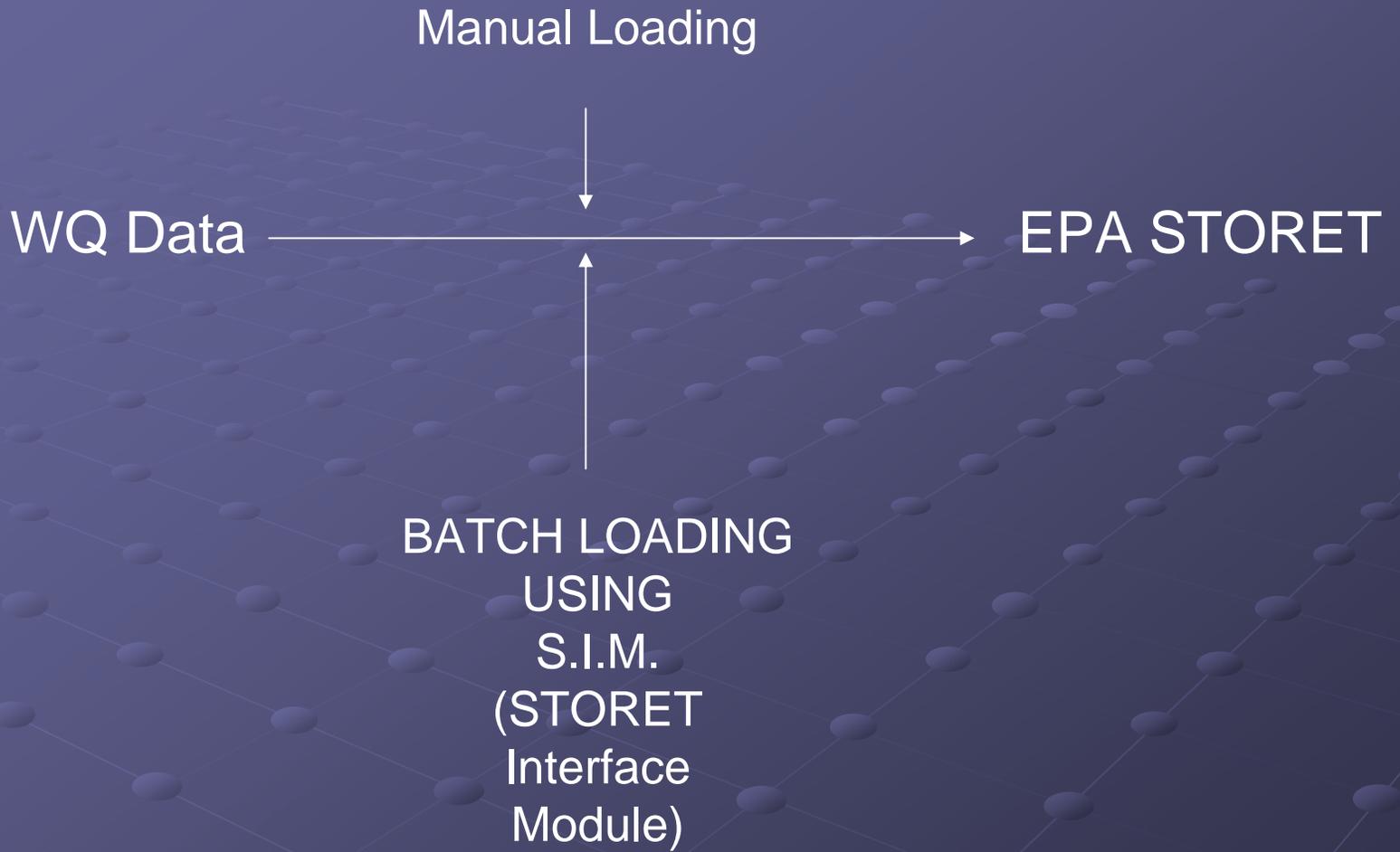
Phase 1: Preliminary basin assessment

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(TMDL Implementation)

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Florida DEP Data Elements Relating to Quality Assessment

Blue = not in STORET database structure

1. Sample ID
2. Parameter Name
3. Analytical Result
4. Result Units
5. Value Qualifiers (DEP)
6. Result Comments
7. Sample Collection Date
8. Sample Collection Time
9. Preparation Date
10. Preparation Time
11. Analysis Date
12. Analysis Time
13. Analytical Method
14. Preparation Method
15. Sample Matrix
16. DOH Certification #/Lab ID
17. Preservatives Added
18. MDL
19. PQL
20. Sample Type
21. Batch ID
22. Field, Lab Blank Results
23. CAS #

- **EPA SIM – SIM revisions take place only as authorized by EPA and must be contracted out.**
- **DEP SIM – Florida DEP hired an Oracle Forms developer and created a work-around to load the extra data elements**
- **EPA STORET – EPA's database structure**
- **Florida STORET – Florida's database structure**

<u>DEP Data Element</u>	<u>EPA/SIM?</u>	<u>DEP/SIM?</u>
Value Qualifiers (DEP)	NO	YES
Preparation Date	NO	YES
Preparation Time	NO	YES
Sample Matrix	NO	YES
Preservatives Added	NO	(value qualifier handles)

ADaPT:

Automated
Data
Processing
Tool



Gives electronic
data deliverable
(EDD)
from the lab



EDD Submitted to DEP
TMDL program

Additional QA Data Elements Required by ADaPT

Client_Sample_ID
Lab_Analysis_Ref_Method_ID
Lab_Sample_ID
LabID
Client_Analyte_ID
Analyte_Name
Result
Error
Result_Units
Lab_Qualifiers
Detection_Limit
Analyte_Type

Dilution
Percent_Moisture
Percent_Recovery
Relative_Percent_Difference
Reporting_Limit
Project_Number
Project_Name
End_Date_Collected
Matrix_ID
QC_Type
Shipping_Batch_ID
Temperature

Preparation_Type
Analysis_Type
Reportable_Result
Date_Prepared
Date_Analyzed
Total_Or_Dissolved
Prep_Batch_ID
Method_Batch_ID
Preservation_Intact
QC_Spike_Added
Result_Comments
Lab_Reporting_Batch_ID

Functional Diagram - Water Monitoring Information System (WMIS)

