BayTAS – Unveiling Proposed System Design Components and Considerations

Pravin Rana – EPA HQ
Michael Mason – EPA – Detail to CBPO

Attachment D
Water Quality Goal Implementation Team
July 6, 2010

BayTMDL Accounting and Tracking System (BayTAS) Version 1.0

- Purpose and Reason for BayTAS
- Data Needs and Process for Tracking WLAs, LAs, and Measuring Progress
- Overview of Proposed Data Flows/Basic System Configuration
- Presentation of BayTAS Data

BayTAS Version 1.0 Purpose

- Required by May 12th EPA Settlement (roll out for tracking by Jan 2011)
- TMDLs for 92 Segments in Bay Watershed
  - WLAs for NPDES Points Sources
  - LAs for Non-Point Sources
  - Practices reported in WIPS
- Are States on target to achieve the Bay TMDL?
  - Are WLAs being achieved?
  - Are LA's being achieved?
  - Status of practice implementation?
  - Status of programmatic activities?
  - Verification tracking
  - Future capacity to track generation of offsets and support trading
- Make allocations, progress and verification public

Tracking WLAs for Point Sources

- Individual or Aggregate end-of-pipe WLAs for NPDES Permits
- Determine if WLA is being achieved
- For Individual Permits with DMR data (eg, POTWs)
  - Discharge Monitoring Data for progress tracking
  - Delivered loads: modeling/adjustment to account for downstream effects
- For Individual or General Permits without DMR data:
  - Permit conditions assumed within wasteload allocations (e.g, performance standards for MS4 stormwater)
  - Modeling to determine load reductions/milestone progress for each sector
- Permit compliance schedules.

WLA Tracking Data Requirements – Individual Permits

Data Category/Classes for Individual Permits
Basic Facility/Permit Tracking
Pipe/Outfall Basic Information
Permit Limits – WLAs for N, P and Solids at the Pipe Level
Discharge Monitoring Data – N, P, and Solids
Verification information: Verifier name, type, % of inspections, penalties, and confidence levels.

WLA and Progress Data Reporting – Data Sources for NPDES Point Sources

- Option 1
  - Use existing wastewater facility data reported to wastewater facility database or through NEIEN as specified in CWA §117 grant guidance
- Option 2
  - Direct Reporting for ALL settlement-affected individual permits in Bay Watershed into PCS and ICIS-NPDES
  - Data is transferred from PCS/ICIS-NPDES to BayTAS by O&M Team

BayTAS – Non-Point Sources – Key Points/Assumptions

- Non-point load allocations will be allocated to sectors for each Bay TMDL segment
- WIPs and BayTAS will include segment-level and NPS sector-level target loads for non-Tidal States even if receive gross allocation
- Progress (load reductions and practices) will be reported for each scenario builder segment and non-point sector using National Environmental Exchange Network (NEIEN)
- NEIEN for non-point source reporting will be available in Dec, 2010
- The Bay Model will determine load reductions/progress
- Verification methods, rates and penalties to ensure practices are properly designed, installed and maintained. Discount progress if low confidence

LA Tracking Data Requirements – Non-Point Sources

Data Category/Classes for Non-Point Sources to Scenario Builder
Year
Segment ID (this is NOT one of the 92 segments but rather the scenario builder input id, each id "should" roll up to the 92 segments where the allocations actually occur. Segment captures BMP location from NEIEN information.
BMPs – a standardized list of BMPs for all 7 States (still being built)
Amount and Units (acres, percent, feet or pounds)
Land Use
Verification Data: Who is verifying? Type? % Inspections? Penalties? Confidence Level.

Non-Point Source Data Flows – Load Allocations and Practices

Sep 1, 2010

WIPs are submitted. Load allocations for each non-point sector is known segment

BayTAS Design Team reviews WIPS and adjusts system design to track load allocations and practices as reflected in WIPs

Dec. 31, 2010

EPA Publishes Final TMDL (either what is proposed in WIP or assigns TMDL itself)

Jan, 31 2011 onwards

BayTAS O&M Team Inputs Load Allocations and Practices into BayTAS

Data is Reported to Public Via ChesapeakeStat

Non-Point Source Data Flows –

Tracking progress towards allocations and practice implementation

>Jan 31, 2011

BayTAS O&M Team Inputs Load Allocations and Practices from WIPs and Final TMDL

NEIEN exchanges data between partners and Scenario Builder.

Bay Model runs will be used to determine progress towards milestones

Results of Model runs – progress and practice status flow into BayTAS.

Data is reported via Chesapeake Stat

Jan, 31 2011 onwards

Proposed Process for Verification and BayTAS

BMP Credits dependent on verification.
Who verified.
Cert. Level.
Penalties.
Confidence Level.

NEIEN Data Flow
BMP Information
With Supporting
Verification
Information

Scenario builder (makes verification adjustments)

Bay Model runs to calculate progress .

Allocations/Progress Data

Bay Tracking and Accounting System

Proposed System Configuration and Flows

States and DC submit Non-Point Source Load and Practices via NEIEN

Wastewater Point Source Data Direct Reporting OR PCS/ICIS

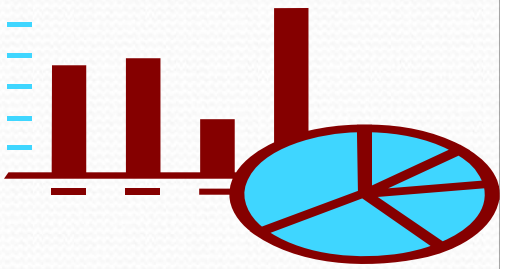
WLA and LA, assumptions and commitments reported in WIPs and final TMDL

Scenario Builder

Model runs determine progress towards meeting allocations.

Back-end – BayTAS O&M Team and State Access (QA, review etc.)

BayTAS (In CBPO Infrastructure)



To Chesapeake Stat for Presentation