



UNRBA Monitoring
Program and
Nutrient Credit
Development Project
BOD Meeting
November 2014



November 19, 2014

Update on the Nutrient Credit Project



Update on the Approach for Trapping Factors

- November 5th – we revised the analysis and memo using the updated USGS SPARROW models for the Southeast
- December 2nd – we will discuss the results at the PFC meeting and move to finalize the memorandum
- Trapping factors will be incorporated into the watershed calculation tool developed under Task 2



Update on the Screening Analysis

- October 10th – we submitted the memo for the screening analysis for nutrient reducing measures
 - Ranks the data quality for each measure
 - Ranks the implementation potential for each measure
 - High, medium, or low
- October 20th – we finalized the list of priority measures at the PFC meeting
- November 18th – we submitted the final the screening analysis memo



Discussions about Amending the Task 1 Deliverables

- Since August, the PFC has been discussing amending the Nutrient Credits scope of work to
 - Focus on the measures with best data and implementation potential
 - Deliver individual draft practice standards to DWR rather than a large report
 - Streamline the measure approval process
- PFC decided to hold on the decision about amending the scope of work associated with Task 1 until the screening analysis was complete



Started with 55 nutrient reducing measures in the May 2013 RFQ

Contractors renamed and recategorized these to 47 measures

Conducted screening analysis to prioritize the measures



Screened 47 measures

24 High or
Medium
Priority

16
Low
Priority

7 – DWR is
developing

Priority is based on data quality and implementation potential.



24 High / Medium Priority Measures

3 ranked
High –
High

12 ranked
Medium –
High

9 ranked
Medium –
Medium

Data quality - Implementation potential

Options for Task 1 Deliverables

20 - 24 Measures

Deliver one large report to DWR

DWR would develop practice standards

Could extend process by 1 or 2 years

10 - 15 Measures

Deliver draft practice standards to DWR

DWR would manage the public review process

Would only focus on measures with a high implementation potential



Decision to Amend the Task 1 Deliverables

- On November 4th, the PFC decided to recommend to the Board that the Task 1 deliverables be amended
 - Develop individual practice standards for a minimum of ten measures
 - Assess our budget by mid-summer to determine if an additional five measures could be developed
 - Coordinate with DWR to secure EPA funds as needed for Tetra Tech to develop the additional five measures



Initial Ten Measures

- Bioretention w/ design variants
- Filter strip w/ design variants
- Infiltration devices
- Land or forest protection
- Remove Illegal Wastewater Connection to Stormwater Systems or Surface Waters
- Soil Amendment
- Urban Nutrient Management
- Livestock Exclusion
- Riparian buffer - urban / suburban
- Riparian buffer - rural / agriculture

Next Five Measures

- Upland tree planting*
- Conversion to trees or grass*
- Leaf Litter Recovery**
- Permeable Pavement with Design Variants**
- Bioswales/Swales with Design Variants**

* Modeling based

** Additional data – May 2015

Update on the Monitoring Program

November 19, BOD Meeting





Monitoring Program Update

- **Lake Monitoring Update and Cost Revision**
 - Contract noted that Lake monitoring costs ranged from \$36,000 to \$104,000 depending on how much data collection was taken on by DWR
 - Costs revised to be \$23,175 reflecting DWR's agreement to collect most parameters and new sampling location
- DWR sampled Falls Lake on October 28 and November 12 and collected samples for the UNRBA requested parameters and at the new location near the mouth of Ledge Creek





Monitoring Program Update

- UNRBA Monitoring Program
 - Samples have been collected according to the monitoring plan, QAPP, and schedule since late August
 - A few station adjustments
 - Worked through site access issues, thank you DOT and Mayor of Stem!
 - August data received, reviewed and uploaded to database
 - Conducted two field audits
 - A number of sites observed with very low or stagnant flow in September and October (no samples were collected when no flow was observed)
 - Developed new sampling protocols for these locations





No Visible Flow – Beaverdam at Horseshoe Rd.





No Visible Flow – Unnamed Creek at Northside Rd.





No Visible Flow – Robertson Creek at Brassfield Rd.





No Visible Flow – Monitoring Program Implications

- **Proposed Changes to Monitoring Protocols for Low Flow Stations:**
 - Drop colored dye in stream and watch for 2 minutes for movement to determine if flow is present
 - Obtain samples even when no flow is observed – tag these samples as stagnant flow samples in UNRBA database
 - Review data after 3-5 months and determine whether to continue collecting samples when no flow is present
 - At each sampling event measure from a marked location on the bridge down to the top of the water column and to bottom of the stream
 - Estimate wetted channel width