

Watershed Model Work Plan

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Modeling Quarterly Review

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Phase 5 Projects

- Extension to 2011
- Climate Change
 - Determine range of possible futures
 - Land use
 - PET
 - Automate entire run
 - Develop BMP sensitivity to climate
 - Run Scenarios
 - RAND/ORD – Focus on Patuxent
 - USGS – Hydrology Effects

Phase 6 Development

- Develop sensitivities to input and export targets
- Incorporate Panel Recommendations
- Calibration
- Investigate Modeling Issues
- Code Updates
- Review

Phase 6 Sensitivities and Targets

- Gather Information
 - AGCHEM
 - Sparrow
 - CEAP
 - Other Coefficient Models
 - Forest Disturbance model
 - Workgroup Recommendations
 - Literature
- Synthesize and Discuss with Workgroups
- Test with Calibration

Incorporate Panel Recommendations

- Stormwater performance standards
- Stormwater retrofits
- Nutrient management
- Conservation Tillage
- Cover Crops
- Poultry Litter
- Stream Restoration
- On-Site Wastewater Treatment systems
- Urban Fertilizer Management
- Riparian Buffers
- Urban Tree planting
- Erosion and sediment control
- Illicit discharge
- Septic
- manure treatment technology
- impervious disconnect
- animal waste storage systems
- liquid manure injection/incorporation
- forest management
- urban filter strips and upgraded stream buffers
- urban shoreline erosion control
- floating wetlands
- street sweeping
- algal turf scrubbers
- cropland irrigation management
- MS4 minimum management measures

Calibration

- Starting from a good place – possible enhancements include:
- Gather additional flow and concentration data and load estimates
- More focus on PQUAL seasonal pattern
- Enhanced river calibration
- Regional Factor Methods

Other Modeling Issues

- Reservoirs
 - Susquehanna
 - Ponds
- Lag Times
- Uncertainty Analysis
- Organic Scour
- Code Updates (speed and clarity)
- ...

Review

- Ongoing reviews in many workgroups
- STAC
- Final review period
- Objective Criteria