

FY2015 TECHNICAL PROGRAM PLAN

ORSANCO Technical Committee Agenda Item 5
June 10-11, 2014

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Programs At A Glance

106 Funded (USEPA)

- ❑ **Public Info.**
- ❑ **Work Groups**
- ❑ **QA/QC**
- ❑ **Monitoring Strategy**
- ❑ **Bimonthly, Clean Metals Monitoring**
- ❑ **Contact Recreation Monitoring**
- ❑ **Fish Pop, Macroinvertebrate, Fish Tissue**
- ❑ **WQ Data Assessment**
- ❑ **TMDLs**
- ❑ **PCS Development & Admin**
- ❑ **Supplemental Monitoring**
- ❑ **NRSA Sampling**

State Funded

- ❑ **ODS**
- ❑ **Source Water Assessment**
- ❑ **Spills/Emergency Response**
- ❑ **Algae/Nutrients**
- ❑ **Biological Assessment**


Special Projects

- ❑ **EPRI Trading**
- ❑ **Wabash Algae/Nutrients Monitoring**
- ❑ **Pathogen Assessment**
- ❑ **ODS Renovation**
- ❑ **River Users TDS**
- ❑ **Life Below the Waterline**
- ❑ **Water Resources**

Program Recommendations from February Meeting

- Biological Subcommittee Recs
 - ▣ Implement new probabilistic design in 2015 survey to minimize “clumping”.
 - ▣ Target 4 pools for biological surveys.
 - ▣ Utilizing new macroinvertebrate index in 2016 305b assessments.
 - ▣ Exclude 2015 biological data in 2016 305b assessments due to timing.

- ❑ 106 Supplemental Monitoring Program (\$65K)
 - ▣ Utilize remote sensing data to evaluate river-wide temperature conditions and inputs, and algae/chlorophyll-a if funding allows.
- ❑ Spills/Emergency Response
 - ▣ Update spills model.
 - ▣ Look at upgrading/expanding ODS to handle additional pollutants; add new stations.
- ❑ Mixing Zone Prohibition
 - ▣ Unidentified activities to address mixing zone prohibition such as considering appropriateness of the prohibition, mercury criterion, etc...

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- Stream Criteria Subcommittee (on nutrients)
 - ▣ Conduct more intensive assessments of macroinvertebrate/nutrients data.
 - ▣ Work with EPA HQ to assessment data for nutrients criteria development.
 - ▣ Participate in Reg 3 Nutrients RTAG.
 - ▣ Provide recommendation to TEC in Oct. regarding use of SEP funds for nutrients criteria development.
 - NPDES Subcommittee
 - ▣ Recommend NPDES work with Standards Committee on streamlined mercury variance procedure.



□ 305b

- Hold workgroup meeting.
- Continue collection of methylmercury in fish tissue (2 samples for TL3 and TL4 in each of 4 biological pools annually).
- Consider new monitoring for PCBs & dioxin to update 305b assessments.

Monitoring Programs



- ❑ Ambient monitoring programs as usual.
- ❑ Changing bimonthly labs for cost.
- ❑ Two lower-river longitudinal temperature surveys planned; redirect funds to riverwide temperature “snapshot” using satellite data.
- ❑ Wabash monitoring project ends Jan, 2015.
- ❑ Begin comprehensive review of all ambient monitoring programs.
- ❑ Will be recommending changes to nutrients monitoring program for criteria development.

Assessment Programs

- ❑ Comprehensive review of 305b assessment methodologies.
- ❑ Bacteria trends analysis.
- ❑ Review and report all water quality data.
- ❑ Participate GOM Task Force.
- ❑ Support EPA Region 5 bacteria TMDL.

Standards



- ❑ Conduct 2015 triennial review of standards.
- ❑ Evaluate variance requests.
- ❑ Annual reporting of discharger compliance, CSO, & storm water abatement reports.
- ❑ Conduct NPDES permit reviews.

Special Projects

- ❑ Wabash Monitoring – wraps up early 2015.
- ❑ Nutrient Trading – wraps up end FY15.
- ❑ Water Resources – wraps up end 2014.
- ❑ River Users – will commence fund raising.
- ❑ ODS Renovation – through federal FY15.
- ❑ Pathogen Assessment – use remaining \$30K funds to support staff. salaries/indirect/benefits; work plan not yet developed. Funding from Cincinnati MSD CD effort.

Biological Programs FY15

Field Activities

- Probabilistic fish, macroinvertebrate, and habitat surveys in 4 pools (15 sites in each)
- Fish Population surveys at 18 fixed stations
 - ▣ Including water chemistry samples
- Fish Tissue
 - ▣ Fish consumption advisory support ~36 samples
 - ▣ Fish consumption use (MeHg) = 16 samples
- Mobile Aquarium Displays ~10 events
- Sample remaining 15 NRSA sites

Biological Programs FY15

Office Activities

- Incorporate all data into databases & publish on-line
- Develop written reports for pool surveys & publish on-line
- Continued refinement of biological indices
- Support states' development of fish consumption advisories
- Publish results of EMAP-GRE cooperative agreement
- Continue to explore assessment of Ohio River basin using 2008-2009 NRSA data
- Oversee development of web-based decision support tool in conjunction with ORBFHP
- Conduct community group presentations and demonstrations
- Participate in local, regional, and national conferences & workshops

Biological Programs FY15

Incorporating Recommendations

- FY15 2nd-3rd quarter activities
 - ▣ Explore new probabilistic design to avoid “clumping” of sites
 - ▣ Begin preparing 2010-2014 fish and macroinvertebrate data for use in 2016 305(b)

River Users Program

FY15 Activities

- Available Resources:
 - ▣ Approximately \$82K remaining after TDS study
- Current focus is on generating \$upport
 - ▣ Very few donors in recent years
 - ▣ Developed a brochure for distribution
 - ▣ Revamp program website
- No new projects selected at this time
 - ▣ Replenish the program fund before tackling a new project

Water Resources Initiative

□ Funding objectives:

- Complete characterization reports to define water management needs and define Commission role
- Water Resources Committee support
- Travel support for meetings with government agencies and other relevant parties

FY15 Activities

□ Finalize water resource characterization reports

- General water resources characterization
 - Watershed inventory; water use; shale gas development; interbasin transfers; **climate change**
- Inventory of water resource laws and regulations
- Propose Commission role in water resources (December 2014)

Water Resources Initiative (cont)

- Water Resources Committee
 - ▣ Upcoming meeting in June;
 - ▣ One meeting scheduled in FY15

- Future Funding?
 - ▣ Foundation funds will be consumed by end of 2014
 - ▣ Will need alternative funding to continue Water Resources Committee activities

SOURCE WATER PROTECTION AND EMERGENCY RESPONSE PROGRAMS

Program Components

QA/QC - No programmatic or funding changes

Source Water Protection “ “

Emergency Response Prep. “ “

Organics Detection System “ “

Spill Notification and Tracking – Spill model update

Organics Detection System Renovation - extension

FY15 Program Planning

- Recommendations Under Consideration at Feb TEC Meeting
 - ▣ Spills/Emergency Response
 - Update spills model
 - Upgrade/expand ODS to handle additional pollutants
 - Add new ODS stations

Update Spill Model

□ Modeling Needs

1. Transition to HEC-RAS flow input
2. Correct plume timing bug
3. Fix lower river model output
4. Improve outputs for efficiency and improved data sharing
5. Increase distance modeled in single run
6. Include tributaries

Update Spill Model

- Integrate updated spill model in GIS platform
 - ▣ Spill model linked to HEC-RAS data source
 - ▣ Auto input velocities
- Add data layers for all contaminant sources
 - ▣ Start w/Zone of Critical Concern, grow out from there
- Add links to MSDS sources
- Add links to health effects sources, i.e., Toxnet
- Add links to treatment sources
 - ▣ Similar to Emergency Procedures Guide

Update Spill Model

- Add links to analytical information
 - ▣ Regional laboratories, etc.
- Make it secure-web available
- Ohio River Basin Emergency Management Tool for Drinking Water Utilities

Update Spill Model

- Collaborate w/USEPA Breidenbach on tool development
 - ▣ identify a timeline for the project (2-3 years?)
 - ▣ level of funding
 - ▣ Collaborators
- Water Users motion for Commission to support development of project proposal to USEPA

Source Water Protection

No programmatic or funding changes

Elk River Spill has heightened awareness and need for conveying to the public the importance of ORSANCO's Source Water protective endeavors

Presentations to numerous groups regarding Commission's role in spill response: R-5 SWP/RRT; R-3 SWP

Numerous requests to participate in early warning detection program development: consultants, EPA and WV American Water

Staying abreast of legislative activities stemming from event;

Senate Bill 363 (WV), Manchin and Capito bills, President's Executive Order 13650

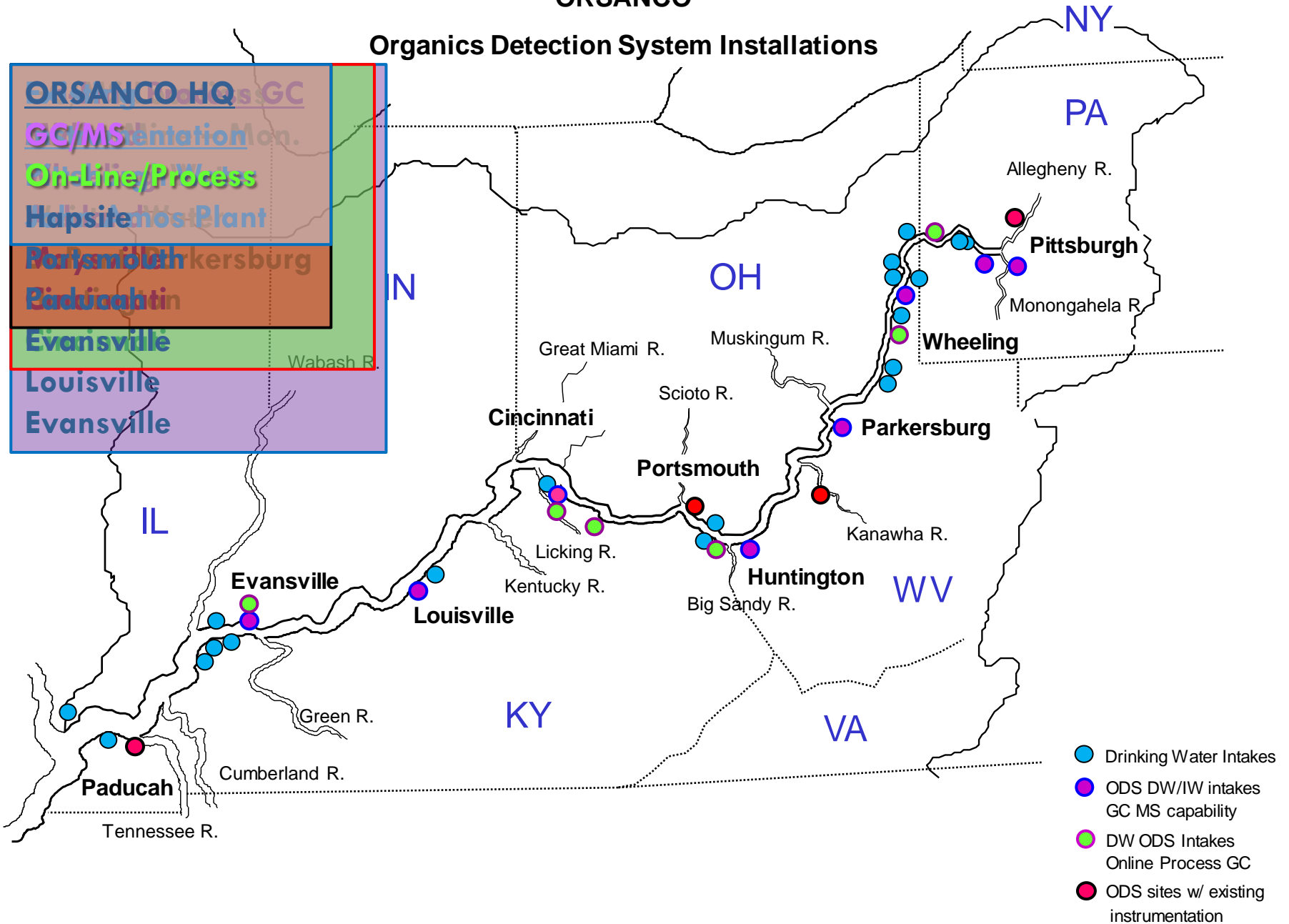
ODS & ODS Renovation

Two separate programs:

- ▣ **ODS Program 125**– Operation and maintenance of all ODS sites
- ▣ **ODS Renovation Project 345 (ODS-R)** – Upgrades to existing system instrumentation, consider add'l sites/instrumentation that would increase protective efforts
- ▣ Virtually seamless programmatically to date
- ▣ 9 sites completely upgraded; 1 new site added,
- ▣ 5 to go (including HDQTRS)

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Organics Detection System Installations



Organics Detection System

Funding changes made in FY 15 budget

- ▣ additional funds moved from state funded ODS program to congressionally funded ODS Renovation ODS-R program
- ▣ Requesting 1 year extension
 - Optimize funding
 - Realign categories
 - Provide relief to Commission budget
- ▣ Providing grant extension is approved to Sept, 2016.

ODS System performance/ In Kind Services

- ▣ ODS operators and volunteers completed **4,772** volatile organics tests on Ohio River water
- ▣ The total ODS operational days for the 01/01/13 to 12/31/13 time period was **87%** (equal to the number of operational for 2012)
- ▣ Calibration/quantitation increased from 20 to 30 compounds
- ▣ ODS sites equipped with mass spec detectors can qualitatively identify thousands of compounds
- ▣ ODS sites with on-line process GC's have ability to monitor river water around the clock