

US EPA ARCHIVE DOCUMENT

State Innovation Grant
Missouri Department of Natural Resources
St. Louis Air Quality Management Plan
4th Quarter 2008 Progress Report

Synopsis of Accomplishments

Based on the project timeline, the activities planned in the initial quarter of the grant are designed to further the project team's development of the AQMP including the conceptual model, beginning the transfer of data and modeling constructs to department staff, and furthering the outreach for community involvement in plan development. The development of the conceptual model was on-going during this reporting period and a draft model was submitted to EPA-OAQPS on January 14, 2009. The conceptual model has been distributed to stakeholders for comment at this time. Further tasks under development include: the evaluation of the national toxics emissions inventory for the St. Louis area, the "new" models (emission and photochemical) for use with toxic as well as criteria pollutants are also being examined, and staff has commenced self-instruction to use the BenMAP exposure tool as part of the AQMP. The BenMAP tool has required the most effort and is now working successfully in the test environment.

A meeting was held on November 24, 2008 with staff from EPA-OAQPS in Jefferson City, Missouri to discuss the technical approach to the AQMP development and its implementation. Based on that meeting, the use of the EPA modeling constructs from the Detroit study as a strong reference for the St. Louis project can still occur but will require additional effort. EPA-OAQPS informed us that these modeling tools were not prepared in a specific fashion and incorporated models that are available for use at this time and the modeling data were derived from national and local sources. We were told the models and data used in that study are currently available for use. At the meeting, staff requested a methodology document from EPA to assess the methods utilized in the Detroit study and a broader discussion of the specific scripts and other tools/data used by EPA or its contractors. This will allow for appropriate changes to be made in our methodology and subsequent technical analyses. However, we have not been provided with that document and this delay in obtaining the methodology may eventually delay the products contained within the AQMP workplan. Further, a full technical report for the Detroit study is needed for evaluation. The specific details for each task are outlined in Table 1.

Table 1 - Schedule of Major Project Tasks

| | Task Name | Task Description | Outputs Expected | Start Date | End Date | Complete | Comments |
|-------|--|---|---|------------|----------|--------------------------------|--|
| 3 | Conceptual Model | Development of AQMP document that provides the conceptual model for the project including discussion of individual pollutant formation planning activities/outreach, and policy issues | Submit conceptual model to USEPA | 5/08 | 9/08 | Yes, submitted in January 2009 | The draft conceptual model is complete and awaiting comments from stakeholders |
| 3B1 | Draft Quality Assurance Project Plan (QAPP) | Development and submittal of draft QAPP for creation and implementation of the St. Louis AQMP | Submittal of draft QAPP for the project to USEPA | 10/08 | 1/09 | N/A | Draft QAPP will be submitted in late 1/09 or early 2/09. |
| 4.1 | Air Toxics Inventory | Obtain and process for use air toxics inventory information from Missouri/Illinois sources along with EPA National Toxics Inventory database for point, area, and mobile sources as a template for AQMP use | Template to develop air toxics inventory for use in photochemical modeling and inventory analyses | 7/08 | 10/09 | N/A | This work is ongoing and staff has obtained the information to begin evaluation of the inventory data |
| 4.1.1 | Emission Model Construct Transfer/Training * | EPA-OAQPS has developed an emission modeling construct to process air toxics inventory information from a wide variety of sources that is critical for use in this project; transfer of this construct from OAQPS along with guidance and support for use | Transfer of information from EPA-OAQPS and trained technical staff (with guidance from EPA) | 7-8/08 | 1-3/09 | N/A | EPA-OAQPS has told us there is no construct to transfer. This will require a thorough review of the methods utilized by EPA and training |

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|-------|--|--|---|------------|----------|----------|---|
| 4.1.1 | Emission Model Construct Transfer/Training * | | | | | | for the staff mentioned in the workplan, but will require additional effort to begin the modeling process |
| 4.1.2 | Upgrade Missouri Inventory System for Air Toxics** | Change in coding necessary to support air toxics inventory improvement for stationary sources in Missouri's current Emission Inventory System (MoEIS); will require contract (\$10,000); output will be a modified system that will track VOC, HAPs, and PM emission units independently instead of VOC/HAP and PM/HAP as currently done | Improved inventory system for ease of facility entry of emission information, improved quality assurance of plant-provided toxic data, and data analyses/storage capability | 10/08 | 10/09 | N/A | Work is on-going on this task, but was not started until 1 st quarter 2009, due to transition issues with the new administration and contract requirements. Initial scoping for this contract should be completed shortly. |
| 4.2 | Photochemical Modeling Transfer/Training ** | EPA-OAQPS has developed (is developing) an air quality (photochemical) model to evaluate ozone, PM, and air toxics using the same model/inputs; transfer of this model to allow for a comprehensive evaluation of all relevant pollutants in StL | Transfer of information from EPA-OAQPS and trained technical staff (with EPA guidance) | 10/08 | 4-6/09 | N/A | Same as 4.1.1 |

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| | Task Name | Task Description | Outputs Expected | Start Date | End Date | Complete | Comments |
|-------|--|--|--|------------|----------|----------|--|
| 5 | Creation of AQMP* | Development of the plan entails considerable public outreach, incorporation of technical information, policy discussions between the relevant agencies and stakeholders, and ultimately decisions about what are air quality priorities in St. Louis (how can we reach them) | The AQMP submitted to USEPA | 12/07 | 12/09 | N/A | The AQMP development is proceeding. The development of the conceptual model has lead to the discovery of policy issues that need to be addressed in the coming months. |
| 5.1 | Public Outreach/Education* | Meetings with local community to begin the education process about AQMPs; meetings with AQMP team, stakeholders and internal management to discuss technical policy issues related to the AQMP; formal public comments/hearing on the plan | Meeting summaries; documented revisions to the AQMP; Missouri Air Conservation Commission adoption of the AQMP | 12/07 | 12/09 | N/A | Two meetings of the Air Quality Advisory Committee in St. Louis were held and the AQMP is an on-going topic with discussion regarding progress and upcoming developments |
| 6.1.1 | Development of Request for Proposal (RFP) for Air Quality Modeling | After the “new” modeling constructs have been transferred, an RFP will be created for assistance in the development of the emission | Completed RFP for modeling assistance | 12/08 | 3-5/09 | N/A | Work did not start on this task in 4 th quarter 2008. The modeling |

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| | Contract** | inventory and modeling databases for the AQMP process; the contract will be for \$100,000 (this amount will not fund the whole effort; assistance only) | | | | | constructs have not been fully implemented for the new modeling system at this time. |
|--|------------|---|--|--|--|--|--|

Narrative Discussion

There are two known issues that may cause minor delays in the project. The first, discussed previously, is the lack of information currently available from OAQPS regarding the specific methodology utilized in the Detroit study. This could be a communication issue between the department and staff at the regional office and OAQPS. At this point, the department will request the necessary information again including the methodology document and technical reports regarding the outcomes of the study. The second is an internal issue related to funding of computer equipment for modeling related to the project. The recent administration change and on-going budget difficulties may cause some delay in the necessary purchasing for the project. Neither issue is a significant problem for the overall project and will hopefully be addressed shortly.

Next Quarter Activities

The highlighted activities for the 1st quarter of 2009 include submittal of the draft QAPP for the project; further development of the AQMP including a planned meeting between management of the EPA Regional Offices, the department, and the Illinois EPA to discuss the policy-related issues found while developing the conceptual model and future goals of the AQMP; continued community outreach through the St. Louis Air Quality Advisory Committee meetings; further training of staff on the modeling tools for the project; initial development of the Request for Proposal for assistance regarding the development and quality assurance of the toxics emission inventory and modeling to be utilized for the project.

Financial Report

Financial section deleted by EPA as confidential business information.