



Metropolitan Washington  
Council of Governments

**METROPOLITAN WASHINGTON AIR QUALITY COMMITTEE**  
777 North Capitol Street, N.E., Suite 300  
Washington, D.C. 20002

**Air Quality Planning  
Work Program and Budget**

**July 1, 2018 through June 30, 2019**

Adopted May xx, 2018

Prepared by

**Metropolitan Washington Council of Governments  
Department of Environmental Programs  
Air Quality Section**

## I. Background

This document presents the work program for the Metropolitan Washington Air Quality Committee (MWAQC) to be carried out between July 1, 2018 and June 30, 2019. It describes the work to be carried out by the staff of the Metropolitan Washington Council of Governments (COG) that is directly funded in this work program, as well as the in-kind contributions of the state air quality management agencies from the District of Columbia, Maryland, and Virginia. The tasks outlined in this work program are designed to ensure a regional approach to meeting the federal health standards in the Washington metropolitan region. Through the activities described for the coming year, several important steps will be taken towards improving the air quality of the region and meeting the deadlines required by the Clean Air Act.

### Certification of the Metropolitan Washington Air Quality Committee

The authority of MWAQC is derived from the certifications made by the Governors of Maryland and Virginia and the Mayor of the District of Columbia pursuant to Title I, "Provisions for Attainment and Maintenance of National Ambient Air Quality Standards," of the Clean Air Act Amendments of 1990 (section 174, 42 U.S. Code 7504).

### Mission of Metropolitan Washington Air Quality Committee

The primary responsibilities of MWAQC are development of regional carbon monoxide (CO), ozone, and fine particulate (PM<sub>2.5</sub>) National Ambient Air Quality Standards (NAAQS) plans for meeting the federal health standards for the criteria pollutants for which the Washington, DC-MD-VA region has been designated nonattainment. The air quality plans developed by MWAQC are provided to the States for incorporation in the State Implementation Plan (SIP) for submittal to EPA.

### Air Quality Classifications of the Washington Metropolitan Region

Pollutant	Attainment	Nonattainment
Ozone (O <sub>3</sub> )		
2015 Standard		●
2008 Standard	●	
Fine Particles (PM <sub>2.5</sub> )	●	
Carbon Monoxide (CO)	●	
Sulfur Dioxide (SO <sub>2</sub> )	●	
Nitrogen Dioxide (NO <sub>2</sub> )	●	

#### Ozone Standard:

In 2008 EPA announced an ozone standard of 75 ppb. The geographic scope of the region includes the Metropolitan Washington Region defined as follows: Montgomery, Prince George's, Frederick, Charles, Calvert Counties in Maryland; Fairfax County, Arlington County, City of Alexandria, City of Falls Church, City of Fairfax, Prince William County, Loudoun County, City of Manassas, City of Manassas Park in Virginia; and the District of Columbia.

In March 2008 EPA promulgated a the ozone standard of 75 ppb based on new evidence that ozone at lower levels has serious health effects. The states in the Metropolitan Washington region recommended to EPA that the region be designated as not attaining the 2008 ozone

standard based on monitor data.<sup>1</sup> In 2009 EPA announced it would reconsider the 2008 ozone standard. In January 2010 EPA proposed to lower the ozone standard to the range of 60-70 ppb.<sup>2</sup> EPA postponed announcement of the revised ozone standard until July 2011, at which time the President decided to keep the 2008 standard of 75 ppb. EPA reviewed the 2008 standard and published, in January 2014, a second external review draft of the policy assessment for the review of the 2008 ozone NAAQS.

In May 2012 EPA designated the Washington, DC-MD-VA Metropolitan Area as “Marginal” nonattainment for the 2008 ozone standard. The Washington region and all Marginal nonattainment areas have a deadline of the end of the summer of 2014 to attain the 75 ppb standard. In 2015, the region requested a one-year extension in order to meet the standard. Data from 2013 – 2015 showed the region was meeting the standard and moved forward to officially redesignate the region to attainment. In December 2017, the redesignation request and maintenance plan was approved by MWAQC and submitted to the EPA by the state air agencies.

In October 2015, EPA issued a final rule to revise the ozone standard to 70 ppb. States provided their designation recommendations to EPA based on 2014 – 2016 data. In December 2017, EPA notified the states that it intends to designate the area as nonattainment. The region is waiting for the final designation determination.

#### PM<sub>2.5</sub> Standard (“Fine Particles”):

EPA designated the metropolitan Washington region as nonattainment for the 1997 annual PM<sub>2.5</sub> NAAQS (15.0 micrograms per cubic meter,  $\mu\text{g}/\text{m}^3$ ) in January 2005. The state implementation plan adopting all requirements for the 1997 PM<sub>2.5</sub> standard was submitted in 2008.<sup>3</sup> The geographic scope of the PM<sub>2.5</sub> NAAQS Washington region nonattainment area is the same as for the 1997 8-hour ozone NAAQS, with the exception of Calvert County, Maryland. In December 2008 EPA announced that the monitors in the Washington region showed compliance (“Clean Data”) with the 1997 PM<sub>2.5</sub> NAAQS.<sup>4</sup> Due to monitoring data showing compliance with the 2006 PM<sub>2.5</sub> NAAQS, which reduced the daily standard to 35  $\mu\text{g}/\text{m}^3$ , EPA designated the region attainment for that standard. Therefore, no attainment planning is required for the 2006 PM<sub>2.5</sub> NAAQS.

On December 14, 2012, EPA announced a revised PM<sub>2.5</sub> NAAQS, which lowered the annual standard to 12.0  $\mu\text{g}/\text{m}^3$ . The Metropolitan Washington region’s level of fine particles for 2011 and 2012 are below the 2012 PM<sub>2.5</sub> NAAQS, so the region currently meets the 2012 standard. The region does not have any planning requirements for the 2012 PM<sub>2.5</sub> NAAQS.

In spring 2013 MWAQC and the States requested EPA to redesignate the Washington region to attainment of the 1997 PM<sub>2.5</sub> NAAQS. In September 2014, EPA redesignated the area as in attainment.

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<sup>1</sup> Federal Register, Vol.73, no. 60, March 27, 2008, 16436-16513

<sup>2</sup> Federal Register, Vol. 75, No.11, January 19, 2010, 2938-3053.

<sup>3</sup> Federal Register, Vol. 70, No. 3, January 5, 2005, 948-1018.

<sup>4</sup> Federal Register, Vol. 74, No. 7, January 12, 2009, 1146-1148.

### Other Pollutants:

The region currently meets and is designated attainment for CO, SO<sub>2</sub>, and NO<sub>2</sub>.

### **Membership on MWAQC**

Membership on MWAQC consists of representatives from twenty-two member local governments within the non-attainment area, as well as the Directors or their designees from the state air quality management agencies and state transportation agencies, representatives of state legislatures, and the Chair of the National Capital Region Transportation Planning Board (TPB). MWAQC's bylaws allow for the expansion or contraction of MWAQC membership, depending on the geographic scope of the designated nonattainment area.

### **Organizational Structure of MWAQC**

MWAQC adopted by-laws which established a position of Chair and three Vice-Chairs, and it has several standing subcommittees or special supporting committees including an Executive Committee, a Technical Advisory Committee, and a Public Advisory Committee. The Technical Advisory Committee has several standing subcommittees: Conformity, Attainment Modeling, Emissions Inventory, and Local Government Initiatives Subcommittee.

Officers of MWAQC are the Honorable Hans Riemer, Chair (Council, Montgomery County); Honorable Brandon Todd, Vice Chair (Council of the District of Columbia); Honorable Redella "Del" Pepper, Vice Chair (Council, City of Alexandria); and Honorable Robert Day, Vice Chair (Council, City of College Park). Elections of officers were held on December 20, 2017.

### **Interstate Air Quality Council**

The Interstate Air Quality Council (IAQC) is a cabinet-level collaboration between the District of Columbia, the State of Maryland and the Commonwealth of Virginia. It is comprised of the secretaries of the environment and transportation. IAQC resolves difficult issues if needed to ensure the mutual goals of improved air quality and efficient transportation are met.

### **Staff Support to MWAQC**

The lead role for administrative and technical support to MWAQC is held by the staff of the Metropolitan Washington Council of Governments. Major additional complementary technical staff support is provided by the staffs of the state air quality management agencies. During 1996, MWAQC established a Technical Advisory Committee (TAC) which formally broadened its staff support to include local government technical staff as well as staff representing the state transportation agencies. The 2018 TAC is chaired by Cecily Beall, District Department of Energy and Environment.

## **II. FY 2019 MWAQC Work Program Objectives**

MWAQC and the states will track designation and lay the ground work to meet the 2015 ozone standard. Support will be provided to local members to implement air quality initiatives to help meet the ozone standard.

In FY 2019 MWAQC Core Program objectives:

- Track designation and data for the 2015 ozone NAAQS. Begin development of baseline emission inventory.

- Work with local members to identify and implement initiatives to reduce air pollution.
- Review and comment on transportation conformity assessments for ozone.
- Communicate to regional leaders and the public on the need for actions to reduce emissions and improve air quality.
- Strategic Planning Assessment to determine short and long-term priorities.

### **Role of COG/MWAQC Staff**

The lead role for administrative and technical support to MWAQC is held by COG/MWAQC staff. Close collaboration between MWAQC staff and the state air agencies will be necessary to review and revise SIP inventories as needed for ozone, potential control measures, and calculation of necessary reductions needed to meet the standards. MWAQC staff will hold monthly calls with the state air agencies to coordinate work tasks and use of resources. As in the past, MWAQC staff will work closely with COG's Department of Transportation Planning staff on mobile emissions inventory and conformity issues.

### **MWAQC Meeting Frequency**

Five MWAQC meetings are proposed during the 12-month period. The Committee will review and discuss policy implications of federal guidance of the NAAQS for ozone, and take actions such as commenting on guidance and policies recommending and approving SIP revisions for approval as needed for the region and reviewing designation criteria and regional data.

This document is intended to guide the activities of MWAQC through the twelve-month period from July 1, 2018 to June 30, 2019. In subsequent sections the reader will find detailed descriptions of the seven major work program areas that are included in this work program. The seven major work areas are presented in more detail as tasks in the work program. The core work areas are as follows:

1. Emissions Inventory Development
2. SIP/Multi-Sector Strategy Development
3. Local Measures
4. Transportation Conformity/Mobile Emissions Analysis
5. Public Participation
6. MWAQC Support
7. Program Management

Costs for each of the above tasks are also included along with more detailed descriptions in Section III of this document.

The states and COG staff will meet periodically to discuss the work program status once contracts have been executed. COG will report quarterly on expenses. With the consent of the Chair of MWAQC and/or the Executive Subcommittee, in consultation with the states and concurrence of the funding agencies, specific subtasks may be delayed, new tasks or subtasks added or substituted, or existing tasks or subtasks modified in scope. These actions would only take place as long as EPA deadlines as interpreted by MWAQC are achieved.

### III. FY 2019 Work Program Task Descriptions

Following is a detailed description of the seven major work program areas.

#### 1. Emissions Inventory Development (\$41,000)

In 2018, EPA is expected to designate the region as marginal nonattainment for the 2015 ozone standard. Staff will begin the process of developing the base year inventory for the 2015 ozone standard. Staff will coordinate with and assist the state air agency staff to determine the necessary data for modeling inputs and review inputs and emissions inventories. Staff will also track the attainment status of the 2015 ozone standard and report to MWAQC, TAC, and other regional groups as needed.

Staff will participate in Ozone Transport Commission (OTC) and Mid-Atlantic Region Air Management Association (MARAMA) to support inventory development and keep track of various VOC and NO<sub>x</sub> control measures being adopted by states to reduce ozone. Identification of control measures and voluntary actions will help in attaining any future ozone NAAQS.

Attainment modeling is conducted by Regional Planning Organizations such as the OTC. Staff will participate in and track larger scale attainment modeling efforts at OTC and regional modeling centers in OTC states. Staff will participate in quarterly modeling research meetings/webinars held by the University of Maryland and MDE staff. VADEQ is also actively participating in the OTC modeling effort and will provide inputs as needed to evaluate and understand the results of available modeling exercises. COG staff will present informational briefings on the results of modeling exercises to TAC and MWAQC.

#### Deliverables:

- a) Base year inventory for 2015 ozone standard
- b) Identify Actions Needed for Inventories
- c) Meetings of UMD/MDE Modeling (RAAMP)
- d) Attend Emissions Inventory Trainings and Conferences

#### Deadline:

Ongoing  
June 2019  
Quarterly  
As needed

#### 2. SIP/Multi-Sector Strategy Development (\$22,483)

Staff will stay abreast of OTC/MARAMA ozone precursor pollutant inventory development and photochemical modeling. With designation for the 2015 ozone standard expected in 2018, staff will provide support for the designation and planning process related to the revised ozone standard.

As directed from MWAQC, staff will provide assistance and implement recommended actions to meet the ozone standard and work towards no unhealthy air days. Actions will be cost-effective, viable, implementable, meet 2008 ozone maintenance plan emission budgets by local and state jurisdictions in each of the four sectors (Energy, Transportation, Land Use, Built Environment), and include co-benefits for criteria pollutants. Staff will facilitate further discussions among MWAQC member agencies and COG committees, such as Region Forward, CEEPC, and TPB Technical Committee on the findings and potential implementation actions included in the recommendations of the What We Can DO, Regional Action Plan, and Multi-Sector Working Group.

Staff will track federal statutory and judicial regulatory actions that affects air quality in the Washington region and work with MWAQC to take appropriate policy actions. Staff will provide information and a forum for coordinating public policies that affect air quality among the state air and energy agencies and local governments in the region.

**Deliverables:**

- a) Identify priority strategies to reduce ozone precursors and identify potential co-benefits
- b) Track implementation of state and local control measures
- c) Reports on State and federal Legislative Activity

**Deadline:**

September 2018

Ongoing

As needed

**3. Local Measures (\$58,817)**

The What We Can Do report's goal is to identify, through a qualitative analysis, the suite of local and regional measures that could reduce air pollution in the region to the level that would result in no unhealthy air days. Staff will finalize the analysis to include level of effort to implement each measure, estimated range of costs, and estimated range of pollutant reduction achieved.

MWAQC staff will work with local members to promote actions to reduce ozone precursors by highlighting and prioritizing local measures in the What We Can Do report. Staff will identify 3 – 5 priority measures and provide technical expertise, in cooperation with the states, to assist local governments in the development of strategies and programs to reduce emissions of ozone precursors and co-benefits for PM<sub>2.5</sub> and greenhouse gases and to provide a methodology for calculating and reporting evidence of actions taken. If additional funds are needed for implementation, staff will identify funding sources. Priority measures may include programs such as diesel idle reduction, electric vehicle purchasing and infrastructure, or energy efficiency initiatives. To track progress, staff will help with the measurement and evaluation of local measure implementation conducted as part of the Climate, Energy, and Air survey. The Regional Action Plan will be updated with the survey results.

MWAQC staff will manage the Diesel Idle Reduction Campaign and Driver Recognition Program for the metropolitan Washington region. The campaign, originally developed in 2010, engages truck and motorcoach drivers to raise awareness of idle reduction and encourages compliance with idling laws. This includes coordinating outreach with motorcoach and truck drivers through 2-3 street team events, updating and purchasing campaign materials, and maintaining the program's website. Outreach will also be conducted with local members to educate them on the program and identify ways to promote the campaign through-out member jurisdictions.

COG will to continue its partnership with Electrify America to establish an electric vehicle infrastructure network and increase awareness of electric mobility. Staff will participate on the Northeast Corridor Regional Strategy Steering Committee to develop a regionwide EV charging infrastructure and coordinate with local members on implementation.

Also as part of this initiative, staff participates with groups such as the regional Tree Canopy Workgroup that focuses on regional tree canopy management, the Electric Vehicle Workgroup, and similar efforts that will help reduce emissions.

**Deliverables:**

- a) Identify Priority Measures for Implementation
- b) Climate, Energy and Air Survey
- c) Update Local Measures and Regional Action Plan
- d) Diesel Idle Reduction Campaign
- e) EV Readiness/Infrastructure Support
- f) Regional Workgroups

**Deadline:**

- September 2018
- May 2019
- June 2019
- June 2019
- Ongoing
- As Scheduled

**4. Transportation Conformity/Mobile Emissions Analysis (\$174,539)**

During FY 2019, the TPB will complete the conformity analysis of the Constrained Element of Visualize 2045 and the FY 2019 – 2024 TIP. TPB may also conduct an additional conformity analysis in 2019 following the completion of Visualize 2045.

MWAQC staff will review and comment on the inputs, outputs, and multiple run specification (MRS) files for the conformity analysis of the Visualize 2045 transportation plan. MWAQC staff will present the results of the conformity analysis to MWAQC and facilitate development of a comment letter, if necessary.

In the event that TPB conducts additional conformity analyses during the year or needs to develop mobile inventories for the 2015 ozone standard, MWAQC staff will provide non-travel related inputs, including Inspection & Maintenance program parameters, fuel supply and formulation characteristics, and meteorology for the appropriate analysis years. MWAQC staff will coordinate with states to acquire Inspection & Maintenance programs parameters and fuel supply and formulation characteristics. MWAQC staff, in coordination with the states, will review such data for accuracy and for MOVES-ready format compliance. In addition, MWAQC staff will obtain, review and process meteorology data and upon organizing them into a MOVES-ready format will transmit such data to DTP for direct incorporation into the air quality conformity MOVES model runs.

The Conformity Subcommittee may choose to review regional transportation conformity work and participate in the TPB interagency consultation process. Upon request by the TPB and the TPB Technical Committee, staff may provide briefings on EPA rulings, air quality standards, and guidance as they apply to conformity in the Washington region.

**Deliverables:**

- a) Comment on Transportation Conformity Analysis
- b) Provide Briefings and Written Reports to TPB and TPB Technical Committee
- c) Review analysis input, output, and acquire and q/a data

**Deadline:**

- As needed
- As needed
- As needed



## 5. Public Participation (\$70,863)

### Task 1: ACPAC

Staff will support the Air and Climate Public Advisory Committee (ACPAC), an advisory committee to MWAQC and to the Climate, Energy and Environment Policy Committee (CEEP), by attending meetings, providing program support, and briefing the committee on EPA regulations, air quality progress, air quality planning issues, local member initiatives, and proposed actions of MWAQC. ACPAC will meet approximately eleven times in 2018-2019. The ACPAC Chair will participate in MWAQC and MWAQC TAC meetings as needed, and will work with staff to report on the Committee's deliberations and recommendations as a regular part of MWAQC meetings.

### Task 2: Air Quality Reporting and Outreach

MWAQC leadership, COG/MWAQC Air Quality staff and COG Public Affairs staff will meet with the media, particularly environmental reporters and editorial boards, to inform them about air quality issues and progress. Staff will make periodic reports about the air quality challenges associated with the NAAQS, current emissions and related air quality trends to the COG Board of Directors, Chief Administrative Officers' Committee and to member local governments as requested. The goal of the outreach program is to inform decision-makers about air quality issues and challenges. This task also covers COG staff time to respond to media inquiries or support the MWAQC leadership in responding to media inquiries.

Public outreach will be conducted to promote the region's air quality improvements, challenges of meeting the air quality standards, and to promote local member initiatives. Existing materials will be updated and new materials will be developed such as, press releases, chair talking points, air quality dashboard and data displays, newsletter articles, or guest blogs.

#### **Deliverables:**

- a) ACPAC Meetings
- b) Member Recruitment
- c) Response to Media Inquiries
- d) Develop Materials (Press Releases, Articles, Blogs)

#### **Deadline:**

As scheduled (11)  
December 2018  
Ongoing  
Quarterly

## 6. MWAQC Support (\$106,374)

MWAQC Support includes staff support for MWAQC meetings, MWAQC Executive Committee, TAC, State Air Coordination, and subcommittee meetings and calls. Staff will coordinate and participate in all meetings, including preparing agendas, minutes, presentations and materials, and securing speakers. MWAQC will hold five regular business meetings to discuss local measures, regulations, guidance and legislation about air quality issues affecting the Washington region and whether or not to comment or act on proposed plans. Staff will coordinate with the chair and vice chairs, responding to requests, and develop materials for new members.

The TAC will meet monthly, with frequent subcommittee meetings. Staff will recruit stakeholders to participate on TAC. The Executive Committee will meet seven to eight times during the year. Staff will hold monthly calls with the state air agencies to coordinate use of

resources and progress on the SIP. Local Measures Workgroup will meet as needed to help identify and implement priority measures.

As air quality has significantly improved over the past decade, MWAQC's mission needs to be reviewed to ensure its priorities address air quality issues affecting the metropolitan Washington region. MWAQC will undertake a facilitated strategic planning assessment with member organizations. The assessment will include a review of the current state of the region's air, MWAQC principal mandates, mission, and short and long-term priorities as they relate to the authority within the Clean Air Act, Section 174, for local planning organizations. Results of the assessment will be used to direct future work of the committee as resources and time constraints allow.

**Deliverables:**

- a) MWAQC Meetings
- b) MWAQC Executive Ctte Calls
- c) Technical Advisory Ctte Calls
- d) TAC Stakeholder Recruitment
- e) State Air Agency Coordination Calls
- f) Subcommittee calls (local measures workgroup emissions inventory, conformity)
- g) Strategic Planning Assessment

**Deadline:**

- As scheduled (5)
- As scheduled (8)
- Monthly (11, no August call)
- January 2019
- Monthly (11, no August call)
- As Scheduled
  
- December 2018

**7. Project Management (\$49,541)**

Staff will prepare a draft work program and budget for the fiscal year 2020. Staff will work with the MWAQC Budget Subcommittee and MWAQC to get an approved budget in the spring before the fiscal year begins. Staff will work with funding agencies to finalize grants and contracts and invoice as required. Staff will provide quarterly financial and status reports to track the progress of implementing the approved work program and budget.

Staff uses information technology extensively in performing analyses, completing written summaries, downloading information and data from EPA, and the Internet for a variety of research needs. Contribution to computer support for project staff and management systems is accounted for in this task. Efforts to provide materials on the Internet may also fall under this task.

**Deliverables:**

- a) Quarterly Expense and Progress Reports
- b) MWAQC Budget Committee
- c) Draft MWAQC FY2020 Work Program and Budget
- d) Adopt MWAQC FY2020 Work Program and Budget

**Deadline:**

- Quarterly
- As scheduled (3-4)
- February 2019
  
- May 2019

#### IV. Funding Sources and Projected Budget

The MWAQC Work Program for FY 2019 is a 12-month work program and budget for the period from July 1, 2018 to June 30, 2019.

The MWAQC bylaws adopted in October 2004 include a funding formula that allocates contributions to the MWAQC budget by thirds, 1/3 from state air agencies, 1/3 from state transportation agencies, and 1/3 from local governments (Table 1). The budget for the core work program is a total of \$523,617. The state air agencies, the state and local departments of transportation and the Transportation Planning Board, and the Council of Governments will each contribute \$174,539. The funding by task is shown in Table 2. The MWAQC bylaws also state that “nothing shall preclude additional sub-regional efforts to be added to the work program at the request and expense of individual state agencies and local governments.”

Note that the funding from the TPB to support air quality planning and conformity is contingent upon TPB’s approval of the Unified Planning Work Program (UPWP) for FY 2019. Contributions from the State Air Agencies are contingent on approval of their organization’s funding. If needed, the MWAQC Work Program will be revised in October should the final budget amount change.

**Table 1**  
FY 2019 MWAQC Funding Contributions by Source

Source	Approved FY 2018	Requested FY 2019	Change
COG member jurisdictions	\$174,539	\$174,539	
State DOT/TPB	\$174,539	\$174,539	
State Air Agencies			
DOEE	\$21,847	\$22,436	+\$589
MDE	\$76,623	\$77,199	+\$579
VDEQ	\$76,069	\$74,904	-\$1,165
States. Subtotal	\$174,539	\$174,539	
<b>TOTAL</b>	<b>\$523,617</b>	<b>\$523,617</b>	<b>0</b>

**Table 2**  
**FY 2019 Air Quality Core Work Program Tasks**  
**(Breakdown of Costs by Type)**

<b>Work Program Tasks</b>	<b>COG staff (\$)</b>	<b>Consultants(\$)</b>	<b>Direct (\$)</b>	<b>Total Cost (\$)</b>
<b>1. Emissions Inventory Development</b>	\$40,000		\$1,000	\$41,000
<b>2.SIP/Multi-pollutant Strategy Development</b>	\$21,883		\$600	\$22,483
<b>3. Local Measures</b>	\$57,517		\$1,300	\$58,817
<b>4. Transportation Conformity/Mobile Emissions Analysis</b>	\$174,539		\$0	\$174,539
<b>5. Public Participation</b>	\$64,263		\$6,600	\$70,863
<b>6. MWAQC Support</b>	\$82,874	\$15,000	\$8,500	\$106,374
<b>7. Project Management</b>	\$48,541		\$1,000	49,541
<b>TOTAL</b>	\$489,617	\$15,000	\$19,000	\$523,617