# Water Quality Monitoring and Education

Water Quality Monitoring and Education

## V(A). Planned Program (Summary)

### 1. Name of the Planned Program

Water Quality Monitoring and Education

## V(B). Program Knowledge Area(s)

### 1. Program Knowledge Areas and Percentage

| KA Code | Knowledge Area | %1862 Extension | %1890 Extension | %1862 Research | %1890 Research |
|---|---|---|---|---|---|
| 111 | Conservation and Efficient Use of Water | 100% | | 0% | |
| | Total | 100% | | 0% | |

## V(C). Planned Program (Inputs)

### 1. Actual amount of professional FTE/SYs expended this Program

| Year: 2007 | Extension | | Research | |
|---|---|---|---|---|
| | 1862 | 1890 | 1862 | 1890 |
| Plan | 1.0 | 0.0 | 0.0 | 0.0 |
| Actual | 1.5 | 0.0 | 0.0 | 0.0 |

### 2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

| Extension | | Research | |
|---|---|---|---|
| Smith-Lever 3b & 3c | 1890 Extension | Hatch | Evans-Allen |
| 60953 | 0 | 0 | 0 |
| 1862 Matching | 1890 Matching | 1862 Matching | 1890 Matching |
| 60953 | 0 | 0 | 0 |
| 1862 All Other | 1890 All Other | 1862 All Other | 1890 All Other |
| 9395 | 0 | 0 | 0 |

## V(D). Planned Program (Activity)

**1. Brief description of the Activity**

•Collaborate and work with Mid-Atlantic Regional Water Program •

Integrated and established collaboration with Mid-Atlantic Regional Water Program in October 2006 to enhance Water Quality Education in the District of Columbia. Wrote proposals for the program and was awarded 3 grants to expend Water Quality Education in the community. Water Quality Educational materials were purchased and distributed to elementary schools, high schools and community centers. Also, rain garden implemented at elementary school to introduce new techniques to enhance reduction of water pollution. Cooperative Extension ServiceWater Quality Education Program (WQEP) is participated in Mid-Atlantic Regional Water Program Steering Committee to improve water quality in the District and the Nation.To day, University of the District of Columbia is one of the members of the Mid-Atlantic Regional Water Program. UDC WQEP was awarded $500.00 from 1890 Land-Grant Universities Water Quality Program to attend Water Quality Monitoring Conference in Nashville, Tennessee on November 6, and 7, 2006. Project is implemented in the District through the fund awarded from Mid-Atlantic Regional Water Program. •Conduct research on water quality •Researches on water quality were conducted for writing grant proposals, distributing fact sheets, brochures, and developing water quality educational Power Point to conduct workshop. Topics such as "How Water Contaminated", "The impact of contaminated water on health", "Lead in Drinking Water", "E-coli in Drinking Water" "Agriculture & Water" and "Water Conservation" were researched to obtain updated in formations •Water Quality workshops/activities •Water Quality Workshops were conducted in elementary, high schools, and community recreation centers in Washington DC. 342 activities were conducted to disseminate water quality education. To enhance water quality education coordinated, meetings, work shops, implementing projects and participate in Expos are the major activities perpetuate water education in the District of Columbia. Coordinated and Met with Region 3 Water Quality Program, Kamit Institute for Magnificent Achievers School's Director and teachers, Water Resource Research Institute (WRRI), Mid-Atlantic Steering committee, DC Department of Water Resource, DC Water Quality Department, DC Green Day Celebration Program, Marshall Heights Community Development Organization, Inc, and 1890 and 1994 Land Grant Universities. Participated in international water workshop, U.S Environmental Protection Agent (EPA) Water Quality Education Department and received from EPA "Drinking water Standards & Health Effects, Drinking water Glossary, and Lead in Your Drinking Water" fact sheets 200 each to distribute at Water Quality Workshop. Water Quality Education participated in National Water Conference, at Savannah, GA, "Extreme Water Conference" in Maryland, Water Education Expo in Navy Yard in Washington DC, Conference on "Hazards in Water resources" at Boise, Idaho, King Greenleaf Recreation's Health Day exhibition in SW, Washington DC, "Elemental Analysis Technical Seminar" at College Park, MD, "Low Impact Development Project" at Maryland University, Collage Park, MD. Frequently meeting was conducted with UDCWRRI, Biology Department, Computer Science, and Engineering Department to discuss on future project on Water Quality Issues in the University of the District of Columbia and in the District of Columbia. •Curriculum developed for various workshops, fact sheets, and newsletters. •WQEP produced curriculum to conduct workshop at school and community centers." Water Conservation", Lead in Drinking Water"" Rain Garden" Green Roof", " Water Cycle" "Safe drinking water" "Non-Point Sources of water pollution" "The effect of water contamination on human health" "What is global warming?" "Coliform and E.coli in drinking water" "Heavy metal and drinking water" has been used to educate the community on water issues.

**2. Brief description of the target audience**

All residents in the District of Columbia.

## V(E). Planned Program (Outputs)

**1. Standard output measures**

**Target for the number of persons (contacts) reached through direct and indirect contact methods**

| | Direct Contacts Adults | Indirect Contacts Adults | Direct Contacts Youth | Indirect Contacts Youth |
|---|---|---|---|---|
| **Year** | **Target** | **Target** | **Target** | **Target** |
| **Plan** | 7000 | 0 | 0 | 0 |
| 2007 | 4943 | 2798 | 1600 | 7965 |

**2. Number of Patent Applications Submitted (Standard Research Output)**

**Patent Applications Submitted**

| Year | Target |
|---|---|
| **Plan:** | 0 |
| 2007: | 0 |

**Patents listed**

### 3. Publications (Standard General Output Measure)

**Number of Peer Reviewed Publications**

| | Extension | Research | Total |
|---|---|---|---|
| **Plan** | | | |
| 2007 | 0 | 0 | 0 |

## V(F). State Defined Outputs

**Output Target**
**Output #1**

**Output Measure**

Collaborate and work with Mid-Atlantic Regional Water Program. Conduct research on water quality.

| Year | Target | Actual |
|---|---|---|
| 2007 | 2000 | 0 |

**Output #2**

**Output Measure**

Water Quality workshops/activities; Curriculum development for various workshops; Fact sheets, and newsletters

| Year | Target | Actual |
|---|---|---|
| 2007 | 7000 | 7965 |

## V(G). State Defined Outcomes

| O No. | Outcome Name |
|---|---|
| 1 | Number of participants who gained knowledge on water quality. |
| 2 | Number of participants who understand the value of water monitoring. |
| 3 | Percentage of the increased number of residents drinking Washington DC tap water. |

Water Quality Monitoring and Education
**Outcome #1**

**1. Outcome Measures**

*Not reporting on this Outcome for this Annual Report*

**2. Associated Institution Types**

**3a. Outcome Type:**

**3b. Quantitative Outcome**

| Year | Quantitative Target | Actual |
|---|---|---|

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

| KA Code | Knowledge Area |
|---|---|

## V(H). Planned Program (External Factors)

**External factors which affected outcomes**

Populations changes (immigration,new cultural groupings,etc.)

**Brief Explanation**

Population changes have an effect on the water resources, because of the increased production of non-point source pollution.More over, the lack of water resource awareness in the District of Columbia residents and the absence of policy to encourage residents to attend water quality workshops has a major effect on the out comes.

## V(I). Planned Program (Evaluation Studies and Data Collection)

**1. Evaluation Studies Planned**

Before-After (before and after program)

**Evaluation Results**

Workshop Pre-test and Post-test show an 80%. increase in water quality awarness and knowledge.

**Key Items of Evaluation**