

SUPPLEMENTAL ENVIRONMENT PROJECT PROPOSALS

The City would like to apply \$18,000 of the \$21,000 mandatory minimum penalty associated with Complaint No. R2-2003-0041 to supplemental environmental projects (SEP) within our community. There are three projects the City would like to propose, expansion of our existing environmental public education program, conduct a pilot computer recycling project, and conduct a water conserving device give-away. Since there are no existing approved SEP we propose the following:

1. Expand the Existing Water Education Program

Need for the Project The City of Benicia would like to expand its Water Education Program to cover a greater age range of students. The City currently conducts a comprehensive hands-on program for 3rd - 5th grades. Benicia's consultant has recommended new outreach programs that include 2nd grade, middle school, and high school students. Benicia's consultant is a geologist and former GATE (Gifted and Talented Education) instructor for the Benicia Unified School District. All current and proposed projects are closely aligned with the state Board of Education's science standards for each grade and fulfill specific topic requirements. Expanding the educational effort to middle school and high school aged youth will serve to remind them of their responsibility and the environmental challenges ahead as they prepare to assume their role as stewards of our planet.

Project Description

Second Grade The new outreach program would introduce second graders to wetlands. This is a self-guided program that is kept in a container for checkout at the WWTP office. Wetlands located within a block of the City's wastewater treatment plant would provide a simple teaching tool for the educational program. The SEP would provide funding to purchase educational materials that are contained in a wheeled "lending box." The materials are given away to the students and the box is continually refilled. The box can be pushed to the wetlands and used there and returned.

Middle School (Grades 6-8) Benicia's consultant has recommended that the City provide wetlands kits to 6th grade science classes. The kit would include pollution prevention literature and other items that are free to the teachers. This program would be advertised in a flyer and a letter given to the sixth grade teachers at the beginning of the school year. In addition to the wetlands kit, the sixth graders will be taught pollution prevention in classroom presentations. The program will borrow the "Enviroscape" watershed model (permission granted from Fairfield, Vacaville and Suisun's Water Ed Teacher) and use it for two weeks. The program will be presented to 16 classes using the hands-on watershed model, which addresses household chemical use and non-point source pollution.

High School For older students, the city proposes to start a Water Pollution Education Video/Photo contest. The high school has a video class each semester and the Benicia Public Library has a video class for kids each summer so there are ample potential participants. This idea has worked successfully in other areas and it would be a good way to involve the high school kids. Most other agencies use a cash prize for the student and his/her teacher or gift certificate to a camera/video store. Showing the video on the cable channel would be well received. For one 10th grade chemistry class, the program proposes a pilot project for MTBE/Taste and Odor in water. This is a hands-on activity with a lesson on water quality, the impact of MTBE pollution on waterways, and the water treatment process that removes MTBE. The water education program also proposes establishing a comprehensive lending library of water educational materials that includes books, brochures, videos, etc. The material would be appropriate for high school students and cover local water resources and water pollution problems.

Goals The City wants to see 100% exposure of the environmental education program to second through sixth grade students. For the high school students, the City anticipates a 25 to 50% exposure to the photo/video contest and lending library with a 10 to 15% participation rate. The success of the pilot program for MTBE/Taste and Odor in water will be measured by the type and number of responses that we receive from science teachers.

Workplan The step-by-step plan for project implementation is outlined as follows:

1. Purchase materials
2. Create advertising brochures and hold meetings with teachers
3. Sign-ups for classes
4. Conduct the classes
5. Evaluate the surveys that are given to the teachers

Timeline The program will have the description brochures available at the beginning of the school year (by August 25th) and class sign-ups by the end of the first week of school (by August 29th). Classes will be taught throughout the school year, primarily from November through March. The evaluation process should be completed by the end of May.

Budget The total cost for implementing this new program would be \$4,200 with \$3,200 for consultant fees and \$1,000 for materials.

Personnel Sue Wickham, the City's consultant for the last four years, will be in charge of implementing this new program. Mary Shaw, a teacher's aide and an active student parent that assisted Sue last year, will continue as the assistant. In addition, City staff will also work with the program.

Evaluation Plan and Criteria Teacher surveys are provided at each class. A self-addressed stamped envelope is included. The success of the program is evaluated by the teacher's response.

Continuation/Monitoring Plans If the pilot programs are successful, additional funding will be requested at the beginning of each fiscal year to continue these programs.

2. Sponsoring a Computer Recycling Event for Local Businesses

Need for the Project In order to promote recycling and pollution prevention, the City of Benicia proposes to sponsor a one-day Computer Drop-Off Event for local businesses. The City would hire Computer Recycling Center (CRC), a non-profit organization, to coordinate the event.

Project Description CRC did not have any concrete prices for how much it would cost, but based on the expenditures that the City of Napa provided, we estimate spending \$9,000 *depending on the level of participation*. The City proposes to provide a coupon to local businesses listed in the water billing system to drop off a monitor or tower and provide a drop off for other items if they want to pay "at cost". This type of event is very successful and keeps the electronic components and associated metals out of the garbage and off the sides of the roads. Some people break them apart and hide them in regular household waste, which ends up in local landfills. The associated metals enter waterways via landfill leachate.

Goals City's goal is to expose about 20 to 30% of its citizen to recycling and pollution prevention and hope for about 10 to 15% participation. The citizens of Benicia would see the benefit of reducing pollution generated by the public.

Workplan The step-by-step plan to implement this event is outlined below:

1. Hire a recycle company to process recycle computer parts
2. The event would be advertised by flyers that are inserted with business billings

3. Purchase materials for packaging, shipping, advertising, etc.
4. Coordinating the event; choosing a date and drop-off site
5. Event evaluation

Timeline The timeline for this event is about 60 to 70 days. It will require about 45 to 60 days to advertise the event, purchase materials, and coordinating the event and an additional 10 days to evaluate the event.

Budget The City is expected to spend about \$500 to advertise the event and \$9,400 process the computers for recycling.

Personnel CRC would serve as the coordinator for this event with assistance from City of Benicia personnel.

Evaluation Plan and Criteria The success of this event will be evaluated by the level of participation.

Continuation/Monitoring Plan If this one-time event is successful, additional funding would be secured from recycling grants to continue the event and, if possible, expand the event to residential computer users.

3. Offer Water-Conserving Hose Nozzles to Local Citizens

Need for the Project The City of Benicia would like to offer water-conserving hose nozzles to the citizens of Benicia. Landscaping accounts for at least 50% of the water used at a typical residence. Automatic shutoff features of hose nozzles reduces overwatering. Any reduction in overwatering reduces the amount of nutrients and pesticides entering the stormdrains. The City of Benicia is always looking for means to reduce the volume of water citizens use. Hose nozzles that shut off when released would serve both goals of reducing water supply needs and water waste.

Project Description Provide hose nozzles to the citizens of Benicia on a first come-first served basis.

Goals Public awareness and reduction of overwatering and pollutants entering the stormdrains.

Workplan The step-by-step plan for project implementation is outlined as follows:

1. Purchase nozzles
2. Create advertisements for the local newspaper
3. Schedules times and locations of availability
4. Distribute nozzles

Timeline The program will be held in conjunction with Water Awareness Month (May).

Budget The total cost for this program would be \$3900, \$400 for advertising and \$3500 for the devices.

Personnel City staff.

Evaluation Plan and Criteria The success of the program will be evaluated by the public's response.

Continuation/Monitoring Plans If the pilot programs are successful, additional funding will be requested at the beginning of each fiscal year to continue these programs.

If you have any questions or concerns regarding the proposals, please do not hesitate to call Vicki Shidell at (707) 746-4338 or e-mail her at vshidell@ci.benicia.ca.us or me at (707) 746-4294 or email me at jbailey@ci.benicia.ca.us.