

# 2008 Texas Environmental Excellence Awards Application

<b>GENERAL INFORMATION</b>		Date: <u>10-17-07</u>
Name(company) <b>Nueces River Authority</b>		
Type of business or organization <b>River Authority</b>		
Business subsidiary of <b>NA</b>	No. of employees/members <b>7</b>	
Contact person & title <b>Sky Lewey, Resource Protection and Education Director</b>		
Mailing Address <b>P.O. Box 349</b>		
City <b>Uvalde</b>	State <b>Texas</b>	Zip <b>78802</b>
Physical Address (if different) <b>200 East Nopal Street Suite 206</b>		
City <b>Uvalde</b>	State <b>Texas</b>	Zip <b>78801</b>
Daytime Phone ( <b>830</b> ) <b>278-6810</b>		Fax ( <b>830</b> ) <b>278-2025</b>
Email Address <b>slewey@nueces-ra.org</b>		
Web Site Address <b>nueces-ra.org</b>		
Total Number of Projects Submitted <b>One</b>		
<b>Category:</b> Please select the type of organization sponsoring this project. Final determination will be made by the TCEQ.		
<input type="checkbox"/> Education	<input type="checkbox"/> Large Business/Nontechnical	<input type="checkbox"/> Agriculture
<input type="checkbox"/> Small Business	<input type="checkbox"/> Youth	<input checked="" type="checkbox"/> Government (River Authority)
<input type="checkbox"/> Individual	<input type="checkbox"/> Civic/Nonprofit Organization	
<b>* Do not use this application for Large Business/Technical or Innovative Technology projects. Use Form T.</b>		

(1) Name of project:

### Headwaters Stewardship Project

(2) Describe the project in detail (date of event(s), site(s), number of people participating, purpose, goals, history, description of the problem, accomplishments to date, etc.). What type of environmental improvement was made and how was the improvement accomplished? (Describe in 600 words or less.)

More and more people, making more and more water dirty means our pristine rivers are at risk of becoming polluted. With a resident population of under 100,000 in five rural counties, the approximately 4,000 square miles that form the headwater watersheds of the Frio, Sabinal, Leona, Nueces and West Nueces rivers host a visiting population that may exceed 10 million each year. The function and integrity of these special rivers is threatened by litter and illegal dumping, mechanical disturbances of beds and banks, introduction and proliferation of invasive species and municipal and agricultural runoff.

The **Headwaters Stewardship Project** is aimed at protecting water quality through education; providing people with knowledge and tools to change polluting behavior and empowering them to make personal choices in favor of resource protection. It is a “home grown” effort implemented in cooperation with conservation organizations, local governments and local businesses. Based on the premise that what happens on the land determines the quality of water in rivers, the Nueces River Authority lead the creation of this localized campaign with the following objectives:

1. **Recognize Value** - To make the public aware of the unique water quality and biological significance of Nueces basin headwater streams, their association with the Edwards and Carrizo Aquifers, and their value to communities and the region.
2. **Develop Accountability** - To create an awareness of activities that threaten the natural integrity of these streams and a conviction to assume responsibility for protection of them.
3. **Cultivate Involvement** – To empower landowners and the public, especially the youth, to actively preserve their natural integrity by making better individual choices.

Choosing a “hows and whys” approach to education over one that dictates “does and don’ts” we created a 3 foot by 8 foot plastic scaled relief model of the Nueces River basin to demonstrate watershed function and non-point pollution. With the aide of this model we take the lesson to the people and are reaching every 5<sup>th</sup> & 6<sup>th</sup> grade classroom in the five county project area each year. Hundreds of adults also experience this hands-on learning activity at civic events and community fairs.

A growing interest in preservation of our headwater rivers for their recreational and aesthetic value helped create a high profile litter prevention campaign that encourages personal responsibility while reminding the public that pollution is a personal choice. The campaign slogan, “Clean Rivers/Rios Limpios – Up to You”, delivered in graphic script popular with the youth, is displayed on litterbags, book marks, billboards, bi-lingual posters and featured in news stories. The slogan is also incorporated into the watershed model demonstrations where students go forth from each lesson with a personal litter bag and a new understanding or their responsibility for keeping rivers clean.



- (3) Is this project innovative or creative in its use or application of technology or personnel? If so, please explain. (Explain in 100 words or less).

This project is innovative and creative. It uses two original education tools: the hands-on, topographically correct basin model and the “Up 2 U” campaign. The model illustrates the connectedness of the headwaters streams to the Gulf Coast and personal behavior to water quality. Students run their fingers over the bumpy terrain, find where they live and trace a creek to its confluence with a river and the river down to the bays. They use dots of food coloring to illustrate pollutants and spray bottles to make rain, creating tainted runoff which they follow downstream. The watershed lesson is reinforced by the “Up 2 U” campaign challenge to consider how their personal choices impact the water resources.



*Uvalde Leader News*

3-19-2006

- (4) Describe how the project benefits the environment (for example, how it reduces waste or pollution, serves as a model for other projects). (Describe in 100 words or less.)

This project is a model for pollution prevention through education. The watershed model lessons are now being employed by five other conservation/education organizations in Texas. Locally, on the Frio and Nueces rivers the “Up 2 U” campaign has prevented river litter and encouraged responsible river recreation among tourists. Our watershed model lessons give elementary students concrete examples of how pollution occurs and empowers them to prevent it and advocate prevention among others.

- (5) How do you specifically measure the success of the project? (If applicable, include hard numbers: pounds or tons of diverted waste resources conserved, cost savings, year-to-year comparison, etc.) (Describe in 100 words or less.)
- 60,000 litter bags used by river recreationists
  - 6,000 cu. yds. of river litter prevented
  - 64 river related businesses advocating the “Clean Rivers Up 2 U” message
  - 4,416 students and 1,694 adults to date participated in watershed model demonstrations in the headwaters project area
  - results of an informal public opinion poll indicating – “Yes, the education program is working”
  - 537 5<sup>th</sup> graders in 6 school districts, received watershed model lesson in Fall 2005 and their Spring 2006 TAKS science test scores improved between 15% and 26%. Together the passing rates at our schools improved 11% more than the State average.

- letters and illustrations received from students, example:



- news accounts of motivated river visitors, or “volun-tourists”, advocating litter prevention, example:

Sunday, August 21, 2005 The Uvalde Leader-News Section A Page 11

# Clean Rivers Ríos Limpios

## T2U

### Volun-Tourists help keep our rivers clean

The Whites, from Richmond, are frequent visitors to the Frio Canyon. They are also what local ecology advocates have termed “volun-tourists.”

Kevin and Teresa White and their children, Andrew and Kar, sometimes make three trips to the area in a year, spending five or six days at a time on each visit. They enjoy a summer vacation of floating the river and camping, & hunting trap in the winter and a spring of fall visit to see wildlife and enjoy nature.

The family usually have been committed for the last twelve years, helping Andrew and Kar, now 17 and 16, develop their parents' special love of nature.

“We do not own property here, but we have an ownership interest in this area,” Teresa said of the Frio. “It is an ownership based on appreciation and respect, built over time and shared with nature.”

When the family arrived for their annual vacation this summer, Betty Ferguson, owner and operator of the Sycamore River Resort, told them about the Nueces River Authority’s “Up To You” litter prevention campaign. The catchy logo and bright yellow bags immediately grabbed the children’s attention.

“We have always collected litter in our boats, but the bags make it easy and fun,” Teresa said. “Before we knew it, Andrew, Kar and Scott, Andrew’s friend from Richmond, were busy as bees.”

“They adopted the ‘Up To You’ message with a positive, making litter prevention their mission, diving in the deep grass beds to retrieve random trash, casting their fishing lines of Doyonow.org, and racing across ponds to catch floating cans.”

“They were motivated, and motivation like that is contagious,” said Ferguson, who gives ice cream to children who return the litter bags full of river trash.

“Scott, Andrew, Kar and Sean had consumed their weight in ice cream and were still vigorously retrieving litter,” she added.

Impressed with the children’s commitment to the campaign, Kevin White offered to double whatever money they earned for their aluminum cans from the recycler back in Richmond.

“What we were not counting on was how we would haul all these cans back home,” Teresa said. “By the end of our five days they had filled the bed of our pickup and there were. So we started the washing process, eventually bagging eight thirty-three gallon bags of sorted cans.”

“We want to share our thanks to the campaign sponsors for giving us a tool and a license to keep our river clean. We just hope other families have as much fun doing it as we did.”

The Whites are not alone. Many river visitors have been picking up on the campaign this summer.

“We have had calls and reports from church and civic groups as well,” said Sky Lewery of the Nueces River Authority. “Our family was vacationing on the river when their teenage National Honor Society members realized that participating in the ‘Up To You’ campaign could let them earn their required community service hours while having fun floating the river. They called us to obtain documentation for the program.”

“Another campaign advocate reported that many local youths were motivating adults to keep the river clean at Arnold Canyon near Camp Wood.”

Anna Masel, president of the Friends of the Frio, reported that some of the 20,000 river litere bags sponsored by the group and the First State Bank of Uvalde will be used this summer.

“That means we will have to have more bags and more contributions to continue the effort next summer,” Masel said. “People really realize their rivers and they want help keep them clean.”

“The ‘Up To You’ campaign is all about individual responsibility. It will only succeed if individuals support it, especially those who live here. Our most volunteers, the volun-tourists, are challenging us. Let’s meet that challenge.”

- (6) Describe any educational, training, or outreach component to your program (brochure, video, manual, classes, seminars, etc.). Have you worked with another school, city, or other organization to help them establish a similar program? (Describe in 100 words or less.)

With our help the City of Corpus Christi and the Texas State Aquarium developed a second Nueces basin model for demonstration at their sea lab facility. Based on ours, two other river authorities have now adopted the watershed model education program for their basins. With our guidance and support, the Arroyo Colorado Watershed Partnership recently incorporated the use of a custom watershed model in their Rio Grande Valley education effort. “Up 2 U” litter bags have been distributed on the Rio Grande with sponsorship from business interests from that area. Three local groundwater conservation districts have underwritten the delivery of the watershed model presentations for 3,000 students in seven additional Nueces basin counties this year.

- (7) Does this project involve the cooperation of different types of public, private, community, business, or citizen groups? If so, please explain the cooperative effort and list all participating entities and their respective roles. (Describe in 100 words or less.)

The Headwaters Stewardship Project is founded on cooperation between public and private sector stakeholders. It has attracted over \$15,000 in local cash contributions for the production of “Up 2 U” litter bags. Other private sector contributions include in-store displays, poster creation and 64 local river related businesses handing out litterbags and advocating their use. The project also enjoys support from local governments, groundwater conservation districts, soil and water conservation districts, Texas Cooperative Extension and the Rio Grande Nueces Resource Conservation and Development Council.



- (8) Estimate cost of the project. Give specifics, if applicable. (Give specifics in 100 words or less.)

The total project budget, including the development costs and three and one-half years of implementation, is \$285,000. The estimated cost of sustaining this effective education effort is expected to be about two dollars per person reached.

- (9) Describe anything exceptional about your project. For example, is it financially self-sustaining? Does it go above and beyond legal requirements? Does your project address issues of environmental equity? Does it result in a significant positive impact to the environment? Does your project take place in a critical region, such as the Rio Grande border area? (Describe in 100 words or less.)

Ours is an exceptional and highly creative project aimed at conserving and protecting an exceptional resource. The headwater streams of the Nueces basin represent some of the last relatively pristine river ecosystems in Texas. They provide approximately 60% of the annual recharge to the Edwards Aquifer and recharge the Carrizo Wilcox Aquifer, major source waters for Texas. Downstream, public water supply reservoirs are fed by these streams and they support a vibrant coastal estuary system. While environmental education has been a component of school curriculum in many Texas cities, rural areas like ours have been underserved. Those living closest to these pristine streams have the greatest opportunity to protect them but the least knowledge about how they work. This project is solving that problem in an exceptional, creative “home grown” way.



*The Stewardship Challenge*

- (10) Briefly describe the schedule or timetable of the project, including start date and dates of any major milestones. Will this be an ongoing project? What additional resources and/or activities would allow you to improve this project? (Describe in 100 words or less.)

The Nueces River Authority’s Headwaters Stewardship Project, funded by cost share assistance from the Texas State Soil and Water Conservation Board and private sector contributions began in the 2004 and will continue through February 2008. We developed creative education tools and have used them to promote personal responsibility for water resource protection. It is working. With the development costs of model creation and campaign design complete, sustaining and expanding the reach of the program is estimated at \$50,000 per year. Sixty percent of this estimated cost has been committed by local conservation organizations. Additional funding is being sought for the balance.