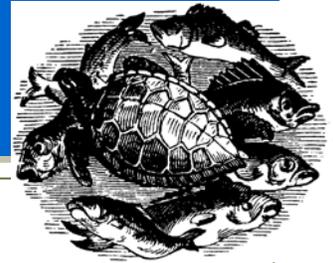


THE ARROYO COLORADO WATERSHED PARTNERSHIP NEWSLETTER

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Hola Arroyo Partners

By Laura De La Garza

We have an opportunity here, an opportunity not only to clean up an impaired water body, the Arroyo Colorado, but also to make the Lower Rio Grande Valley a better place to live. Welcome to the Arroyo Colorado Watershed Partnership and thanks for taking the time from your busy schedules to read this newsletter and for bring yourselves up to date on what is happening with our **Arroyo Colorado Watershed Protection Plan** (Arroyo WPP). This is our first newsletter and is produced for the benefit for those who have not had the time to come to our meetings and do not receive the bi-weekly email updates.

We are on our way to developing a WPP and we have until the end of this year to produce our plan, a plan that will be a “living document,” a plan for the changing Valley, open to periodic review. Watershed planning is the wave of the future. It is a wave that unites a region, fosters community pride, and **attracts grant money**. Watershed planning seems to also require a lot of acronyms. So here are some that you will be seeing in this newsletter or in our reports. Thank you for your interest and participation!

The Arroyo WPP: How We Got Here

By Laura De La Garza

The Arroyo Colorado (the Arroyo) has a history of poor water quality and has been listed as an impaired water body by the state of Texas (the state) since they began their statewide surface water quality testing program. When a water body fails to meet the state’s water quality standards, it is put on the Clean Water Act (CWA) 303 (d) list. This listing requires that the state take action to improve water quality. The Texas Commission on Environmental Quality (TCEQ) initiated a TMDL analysis in 1998 and completed it in 2002. One conclusion of the study is that the physical setting in the Arroyo contributes significantly to the water quality impairments. The Arroyo Colorado is

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Acronyms

ACWP – Arroyo Colorado Watershed Partnership
BOD – biological oxygen demand
CCA – Coastal Conservation Association
CCDD – Cameron County Drainage District
CWA – Clean Water Act
DO – dissolved oxygen
EPA – Environmental Protection Agency
IBWC – International Boundary and Water Commission
IP – implementation plan
LRGV – Lower Rio Grande Valley
NPS – nonpoint source (not from a single source, usually through rainfall runoff)
TCEQ – Texas Commission on Environmental Quality
TMDL – total maximum daily load
TPWD – Texas Parks and Wildlife Department
TSSWCB – Texas State Soil and Water Conservation Board
WCD – Water Conservation District

not a normal stream in the sense that it is modified for flood control and dredged for commerce. Both these modifications are recognized as vital for public safety and economic prosperity.

Another conclusion is that even extreme reductions in pollutant loading (up to 90%) would not result in meeting water quality standards. Do not let this discourage us, because water quality modeling has shown that with just a 20% reduction in pollution loading we can see significant improvements in water quality. Ordinarily, the state would develop an implementation plan (IP) that requires pollutant load

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Elements of the Arroyo Colorado Watershed Protection Plan

By Laura De La Garza

The Arroyo WPP needs to define actions to reduce pollution and restore water quality. It will include both regulatory and voluntary actions and must be developed in cooperation with regional and local stakeholders. In order to receive federal funding, we must include the following are nine elements in our plan:

- Identification of causes and sources of pollution
- Estimated load reductions
- Criteria for verifying and assessing load reductions
- Water quality monitoring component



A Stakeholder is anyone who manages or uses the Arroyo in any way. This includes: municipalities, farmers, fisherman, bird watchers, property owners, the general public, and our federal, state, and local agencies that are charged with protecting our environmental resources.

- Detailed description of NPS management measures
- Estimated amount of technical and financial assistance required
- Information and education component
- Schedule of implementation
- Description of milestones

Who is Writing This Plan?

By Laura De La Garza

It is my job as the coordinator for the Arroyo Colorado Watershed Partnership to ensure the plans gets written and submitted to the TCEQ by January 2006. It is also my job to make this a community, consensus-based plan. At this time, we have over 300 individuals on our mailing and email lists and we are constantly recruiting new members.

Our Arroyo Colorado Watershed Partnership consists of the following groups:

- Steering Committee
- Agricultural Work Group
- Wastewater Infrastructure Work Group

- Habitat Restoration Work Group
- Education and Outreach Work Group
- TMDL Work Group
- Land Use Work Group
- Members at Large

The Steering Committee is our official 24-member advisory group to the TCEQ. A task force has been formed to fill vacancies on the committee and to re-evaluate this membership to ensure that the group is diverse and represents all the stakeholders' interests. The following lists the

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We all in a watershed.

We all live downstream.



The Arroyo Colorado at Llano Grande in Weslaco .

Your Watershed Coordinator and Work Group Leaders

By Louanne Jones

Laura De La Garza is your Watershed Coordinator and also serves as the leader of its Education and Outreach Work Group. Laura was hired by Texas Sea Grant, a part of the Texas A&M University System, to fulfill their contract with the TCEQ to support and coordinate the Arroyo Colorado Watershed Steering Committee in its efforts. Laura was born and raised in Corpus Christi, Texas, and graduated from the University of Texas in Austin with a B.S. in Geology. After working more than 12 years as a professional geologist specializing in ground and surface water issues, Laura returned to UT Austin for graduate studies in community and regional planning. She has worked for the City of Austin, the Lower Colorado River Authority, and Kennecott Utah Copper. Laura has experience as a regulator and also knows what it takes to comply with the many rules and regulations associated with water management.

The Leader of the Habitat Work Group

Kay Jenkins serves as the regional natural resource coordinator for State Parks Region II at the Texas Parks and Wildlife Department (TPWD). Kay received both a

B.S. and an M.S. in Forestry with an Agriculture minor from Stephen F. Austin State University in Nacogdoches. She also earned an M.S. in Environmental Science with a coastal wetland focus from Texas A&M University - Corpus Christi. Before joining TPWD, Kay owned and operated a landscape contracting business for 12 years in Rockport, Texas. In 1998, she joined the TPWD, and worked for seven years as a coastal biologist in their Upper and Lower Coast Conservation programs.

The Leaders of the Agriculture Work Group

Kevin Wagner is the Team Leader for the Nonpoint Source Program at the Texas State Soil and Water Conservation Board (TSSWCB). As Team Leader, he is responsible for programs that protect surface waters from adverse impacts due to runoff from agricultural operations, and that improve water quality in polluted rivers, lakes, and bays. Kevin received his B.S. in biology from Howard Payne University in 1992, and his M.S. in Environmental Science from Oklahoma State University in 1995. He has been with the TSSWCB for more than five years.

Please see *Leaders* on page 4

Work Group Highlights

By Roger Miranda, Kay Jenkins, Kevin Wagner and Laura De La Garza

The Arroyo Colorado **Wastewater Infrastructure (WWI) Work Group** has made good progress developing the WWI component of the Arroyo Colorado Watershed Protection Plan. After a series of individual meetings with city and utility officials in January, February, and March, the TCEQ has developed a preliminary WWI plan for the Arroyo Colorado. The draft plan was presented to the WWI Work Group members on April 25, 2005, for their review and comment. This draft plan represents a very preliminary starting point from which to begin developing a consensus-based WWI plan. The TCEQ is also currently in discussions with several funding agencies to try to focus available infrastructure funding on the Arroyo Colorado watershed. The results of these meetings and the comments received from the stakeholders on the draft WWI plan will be discussed at the next meeting of the WWI Work Group, which is preliminarily scheduled for early August 2005.

The **Habitat Restoration Work Group** has been compiling available fish and wildlife habitat data associated with the Arroyo, developing a geographical information system (GIS) database, and conducting site visits and meetings in order to develop a list of preferred options for habitat restoration in relation to water quality. The consensus is that wetlands of different sizes and function will improve the quality of water and improve the oxygen levels in the Arroyo Colorado. Currently, the work group is in the process of hiring a firm to develop alternative feasible habitat restoration/modification designs and recommendations.

The **Agricultural Work Group** has been busy working on their goal of assessing what the agriculture community can do to reduce the amount of sediment and nutrients flowing off agricultural fields in the Arroyo Colorado watershed. Preliminary studies indicate that managing nutrient sources on farms is a key component to reducing nutrient loading. Modeling

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reductions equal to the amount determined in the TMDL. However, since a 90% reduction of pollutants is unrealistic, the TCEQ's commissioners advised that a Watershed Protection Plan (WPP) be developed for the Arroyo Colorado Watershed instead.

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indicates that nutrient management could result in approximately a 50% decrease in phosphorus runoff, and greater than a 50% decrease in nitrogen runoff, from each acre to which chemical fertilizer was applied. The work group has been working to develop grant applications that address the nine elements of the WPP necessary to obtain federal funding. Three programs will be federally funded starting September 1, 2005: 1) Education on Best Management Practices for the Arroyo Colorado Watershed, 2) Water Quality Management Plan Implementation Assistance in the Arroyo Colorado Watershed, and 3) Assessment of Agricultural NPS Pollution in the Arroyo Colorado.

The **Education and Outreach Work Group** has been developing a strategy to build awareness of the water quality impairments of the Arroyo Colorado and to educate the public about the importance of the Arroyo. The work group developed a list of the water quality education and outreach efforts of other area groups and through this, established partnerships with several of them. Work group members have been promoting the development of the Arroyo WPP through meetings, presentations, and TPWD Coastal Expos. Currently, the work group is working with McAllen's International Museum of Arts and Sciences (IMAS) to develop a curriculum for science teachers about watersheds, with specific information about the Arroyo Colorado watershed.

The **Land Use Work Group** was recently created and will meet for the first time on June 17, 2005. It was created by the Arroyo Colorado Steering Committee to bring in a segment of the community that was missing from the process of developing the Arroyo WPP. The LRGV is a fast growing region, and land development impacts water quality. The purpose of this work group is to provide land development models and tools which communities throughout the region can use to minimize development impacts.

In an effort to reduce uncertainty in the TMDL analysis, the Arroyo Colorado Partnership formed the **TMDL/Further Study work group**. The goal of the

So here we are, full of acronyms and working on a WPP for the Arroyo Colorado. And why are we working on this plan? Because it is required, and if we do not write it ourselves, the state or the EPA will. We have an opportunity to design a plan that works for the Valley by people who live in the Valley.

work group is to collect the data necessary to address the current data limitations and information gaps associated with the topics of hydrodynamics, primary productivity, biochemical oxygen demand dynamics, and nutrient cycling. The TCEQ is partnering with the United States Geological Survey (USGS) to fund the data collection effort. The TMDL work group convened in June of 2004 and a preliminary sampling plan to collect the necessary data was developed in October 2004. A quality assurance project plan (QAPP) was released for comment and is in the process of being finalized. Sampling is scheduled to begin in the summer of 2005.

Leaders from page 3

Andy Garza co-leads the Arroyo Agriculture work group and has been the manager of the TSSWCB's Harlingen Regional Office since 1995. Andy's primary responsibility has been to assist seven area soil and water conservation districts with the administration of the S.B. 503 water quality management program. He also coordinates activities for the other four regional offices. In addition, Andy directs the current federally-funded nonpoint source project for the Arroyo with the assistance of the Southernmost Soil and Water Conservation District. Andy received a B.S. in Animal Science and an M.S. in Range Management from Texas A&I University.

The Leader of the Wastewater Infrastructure and TMDL Work Group

Roger Miranda is a Geochemist with the TCEQ. He is the project manager for the TCEQ's Arroyo Colorado TMDL project, which is one of more than 60 TMDL projects undertaken by the TCEQ. Roger has a B.S. in Geology from the University of Texas at Arlington and an M.S. in Geosciences from the University of Texas at Dallas where he specialized in organic geochemistry. He has worked for the TCEQ since June of 1994. In October 1996, he joined the Office of Water Resource Management as a member of the Border Environmental Assessment Team where he was instrumental in initiating the TMDL study for the Arroyo Colorado. As a member of the TCEQ's TMDL Program, Roger is project manager for three other major TMDL projects in the state of Texas.

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current members and individuals nominated for the vacancies.

Steering Committee Members to Date

Andy Garza – TSSWCB
 Chris Rakestraw – Coalition to Save the Arroyo Colorado
 Butch Palmer – Port of Harlingen Authority
 Mike Weeks – Texas Parks and Wildlife Department
 Ken Jones – Lower Rio Grande Development Council
 M. Clair Lee – U.S. Fish and Wildlife Service
 Jim Chapman – Sierra Club
 John Wallace – Atascosa National Wildlife Refuge
 Neil Haman – Texas Water Development Board
 Paul Bergh – CCA / Lower Laguna Madre Foundation
 Rick Reyes – IBWC
 Rocky Freund – Nueces River Authority
 Tony Reisinger, Jr. – Texas Sea Grant
 Ray Prewett – Texas Citrus Mutual
 Wayne Halbert – Southmost Soil WCD

Nominations

Darrell Gunn – Harlingen Waterworks System
 Don Medina – LRGV Storm Water Task Force
 Dr. Ni-Bin Chang – Texas A&M Kingsville
 Marco Pedraza – McAllen Public Utilities
 Carlos Rubinstein – Rio Grande Water Master
 Terry Lockamy – Texas Cooperative Extension
 Hudson De Yoe – University of Texas Pan American
 Alan Moore – CCDD#2
 Amado Salinas – Military Highway WSC
 Frank Flores – City of Mission
 Dr. Kim Jones – Texas A&M Kingsville
 Sonya Kaniger – CCID #2

The entire Arroyo group has a voice in this process since this is a consensus-based planning effort; however, the 24-member advisory group is our official representation. If you would like to be considered for a position on the Steering Committee or would like to nominate someone, please contact Laura De La Garza at (956) 371-6024 or lauradlg@tamu.edu. Nominations will be accepted up until our next Partnership meeting in early August.

The Watershed Plan for the Arroyo Colorado

By Laura De La Garza

The best plans have a clear vision, goals, and action items. Before a group can develop visions and goals, there must be a clear and widely recognized problem statement.

The following problem statement has been developed by our Arroyo Colorado Watershed Partnership: “The Arroyo Colorado is an impaired water body not currently meeting water quality standards, which impacts the Arroyo Colorado watershed and the Lower Laguna Madre, valued natural resources of the Rio Grande Valley”

The Arroyo is considered impaired because of high levels of bacteria and because it has low levels of dissolved

oxygen that often result in fish kills. During the period from 1990 and 2004, 26 million fish died in 19 state-documented fish kills in the Arroyo Colorado. The long-term impact to the Lower Laguna Madre is unclear but our scientists agree that we are impacting one of our most valued resources in the Valley, our Laguna Madre and the habitat it provides for the world-renowned birding population. The excessive bacteria come from poorly treated wastewater, failing septic systems, and untreated wastewater from some of the colonias. The low DO is in part attributed to nutrient loading from our agricultural fields, wastewater treatment plants, and urban storm water flows.

*“The Best Plans
 Have Clear
 Visions, Goals,
 and Action Items”*

Please see *A Good Plan* on page 6

The Arroyo Colorado Watershed Partnership

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We're on the Web!

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A Good Plan from page 5

So we know what the problem is. The next step is to develop visions and then goals, objectives, and action items. Here are some definitions.

Vision – general statement of where a group wants to go and what it will accomplish over a given time span (usually 5 to 10+ years).

Goals – less general than visions, goals describe what is needed to realize the vision, and refer to components of the overall effort, sometimes quantifiable.

Objectives – elaborate goals, describe types of management or activities, and are quantifiable where possible.

Action Items – explain who is going to do what, where, and when.

The watershed planning process is an opportunity to envision a mode of development for the Lower Rio Grande Valley that will not only protect natural resources but also improve the quality of life and provide economic resources.

So let's start building our vision for the Arroyo Colorado! I will be working on this with our work groups in our next round of meetings and am always open and available to receive your comments either by phone (956) 371-6024 or email lauradlg@tamu.edu.

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