



**PIMA COUNTY ENVIRONMENTAL QUALITY ADVISORY COUNCIL**  
**150 W. Congress Street, Suite 109**  
**Tucson, AZ 85701**

Summary Minutes – September 17, 2008  
Main Library Conference Room, 4<sup>th</sup> floor  
101 N. Stone, Tucson, AZ  
1:30 p.m.

Members Present:

Dr. Roger Caldwell  
Mr. Jeff Yockey  
Dr. Mark Witten  
Mr. Allan MacDonald  
Mr. Warren Thompson  
Mr. Daniel G. Rowe  
Mr. Curt Lueck  
Mr. Peter Livingston  
Mr. Ben Dorris

Members Absent:

Dr. Eric Betterton

Others Present:

Richard Grimaldi, Deputy Director, PDEQ  
Vicki Bennie, Council Secretary, PDEQ  
Melaney Seecat, Regional Wastewater Reclamation Dept.  
Sue Keith, ADEQ  
Dennis Dickerson, PAG

**I. CALL TO ORDER AND INTRODUCTIONS**

Mr. Thompson called the meeting to order and introductions were made.

**II. APPROVAL OF THE JULY 16, 2008, MINUTES**

Mr. Rowe made a motion, seconded by Dr. Witten, to approve the July 16, 2008, minutes, as written. The motion passed with a unanimous vote.

**III. JOINT CITY/COUNTY WASTEWATER STUDY**

Ms. Melaney Seecat provided background information on the joint City/County multi-phased study of wastewater. The scope of work was adopted on April 1, 2008 and included five phases to be completed over multiple years.

The Joint Oversight Committee was appointed to guide Phases I and II. The duties of the Joint Oversight Committee are to establish and oversee an open and inclusive public involvement process, reviews information on water and wastewater systems and resources and report its findings to the Mayor and Council and Board of Supervisors. The Chair is appointed jointly by the City Manager and County Administrator from the 12 members of the Committee

**JOINT CITY/COUNTY WASTEWATER STUDY (CONTINUED)**

The composition of the committee includes:

Four members from CWAC

Four members from WMAC

Two members from the County's Planning & Zoning Commission

Two members from the City's Planning Commission

Schedule

Phase I - April 2008 to February 2009

Phase II - March 2009 to October 2009

The goal of the study was to assure a sustainable water future for our community. The study provided a transparent and inclusive public process for engaging the community in the process.

The initial focus is to identify and agree on basic facts related to the condition and capacity of water, wastewater and reclaimed water infrastructure, and the ability of the infrastructure to accommodate existing and future population within the city and county service areas

Phase I Focus

*Assemble facts and information and educate committee and public*

- Inventory and assess condition and capacity of infrastructure
- Assess water supplies
- Evaluate studies and critical factors related to estimating a sustainable water population assuming no new supplies

Phase I Deliverables

Report on Public Participation - May 2008

Progress Report - August 2008

Report on Phase II - October 2008

Final Report - February 2009

Phase I Presentations

*Infrastructure and Supply Factors*

- Overview of history, institutional and regulatory framework
- Water supply and demand
- Water, wastewater and reclaimed water systems
- Capital improvement programming
- Financial planning

*Other Planning Factors*

- Population
- Land use and growth

*Environmental needs for water*

*Climate-related resource uncertainties*

*Water resource availability*

- ADWR water budget
- Municipal water resource availability in Tucson Active Management Area
- Tucson Water 2050 Plan Update

## **JOINT CITY/COUNTY WASTEWATER STUDY (CONTINUED)**

### Phase I Public Participation (Continued)

#### *Water conservation*

#### *Potential new water sources*

- Wide public notification of open committee meetings
- Comprehensive and interactive website
- Public input opportunities
- Issue response summaries
- Brochures and posters
- Open houses
- Review panel

#### Meeting Notification

- Agenda notices distributed to Oversight Committee members and an extensive mailing list
- Notices in libraries and other public places
- Calendar sections of newspapers

#### Website

- Disseminates comprehensive info in a transparent and accessible manner
- Includes audio, video, and verbatim transcripts of presentations, meeting summaries and reference documents ([www.tucsonpimawaterstudy.com](http://www.tucsonpimawaterstudy.com))
- Meetings are aired on Channel 12 and Access Tucson
- Draft and final reports are posted
- Public comments and answers to questions are posted

#### Other Phase I Activities

- Outreach to other water and wastewater providers
- Cooperative City/County efforts

#### Phase II Topics Setting Common Goals

- Work towards agreement on population growth, water, urban form, land use planning and infrastructure
- Connect land use planning and water planning
- Increase use of reclaimed water
- Develop renewable supplies
- Develop a consolidated Drought Management Plan
- Implement consistent water conservation standards
- Respect for the environment
- Balance between reservation of water for consumption and growth and reservation for the environment
- Common environmental standards and goals for reclaimed water use
- Prohibition of groundwater wells in areas near groundwater-dependent ecosystems

#### Expected Phase II Outcomes

- City and County agreement on a number of policy issues related to water service for future urban growth
- A uniform standard for assessing land use decisions on water supply and water infrastructure
- Consensus regarding improved and increased use of reclaimed or recycled water
- Determination of the role of conservation and its uniform application to help sustain long-term water supplies

**JOINT CITY/COUNTY WASTEWATER STUDY (CONTINUED)**

Expected Phase II Outcomes (Continued)

- A recognition that water not only serves community, but is needed for a healthy environment

Next Steps

Progress Report on Phase II Recommendations - October 2008

Draft of Final Report and Public Outreach - Mid-late January 2009

Phase I Final Report - February 2009

For more information

- [www.tucsonpimawaterstudy.com](http://www.tucsonpimawaterstudy.com)
- [info@tucsonpimawaterstudy.com](mailto:info@tucsonpimawaterstudy.com)
- 884-WISP (9477)

**IV. SORGHUM TOPIC**

Mr. Peter Livingston provided information about ethanol production in southern Arizona. Yesterday, he toured Arizona's first ethanol production facility, Pinal Energy, located in the city of Maricopa. It is a "corn to ethanol" facility with over two-thirds of the site devoted to the handling of corn. The corn is delivered, is ground, is cooked in tanks heated to 184 degrees, enzymes are added, the juice is extracted and travels to a cooling tower for the distillation and fermentation process. The process turns the corn from a starch to a sugar.

Thirty percent of corn grown in the United States is being diverted to make ethanol. Most of the corn for ethanol comes from Iowa because corn grown in Arizona may contain aflatoxins. Energy is used to bring the corn from Iowa; approximately three railroad cars full of corn each week are brought to Pinal Energy.

Mr. Livingston stated that a project funded by the University of Arizona's College of Agriculture and Life Sciences, U.S. Bureau of Reclamation and Sweet Ethanol, is growing sweet sorghum to be used for the production of ethanol. In 2006, they started growing over 31 varieties of sweet sorghum. Sweet sorghum is a grass that can be used to make ethanol and is considered the "arid land sugar cane". Sweet sorghum can be grown with less water and space (approximately 4,500 plants per acre). One acre yields about 50 tons of biomass and 500 to 600 gallons of ethanol. Mr. Livingston brought a sample that was about 14 feet tall.

Brazil uses ethanol (100%) as a fuel. Approximately 98% of their ethanol is made from sugar cane. Brazil is also seeing the benefits of sorghum. Sorghum can be grown three times in the same length of time it takes to grow one crop of sugar cane.

One of the disadvantages of sorghum versus sugar cane is a stabilized juice. Sugar juice is stabilized while sorghum juice can only be stored for about 8 hours. It has to be cooled and processed at night. Pinal Energy could take the sorghum juice and add it to the corn juice. The capital expenditure to build a plant to process ethanol from sorghum would be tremendous due to its instability.

After the liquid from the sweet sorghum is removed from the plant, the bagasse that is left can be used to make feed pellets for livestock. This year, the project is studying the possibility of using the bagasse to make bio-char (bio charcoal) to be used as fuel.

The research of this project has established a foundation to develop a Biofuels Center at the University of Arizona. The focus has been on sweet sorghum and algae.

**V. WESTERN CLIMATE INITIATIVE UPDATE**

Mr. Yockey provided information regarding the Western Climate initiative:  
Governor’s Executive Order 2005-02

- a. Established the Arizona Climate Change Advisory Group (CCAG)
  - i. establish a baseline emission inventory and forecast
  - ii. produce an *Action Plan* for reducing emissions

Governor’s Executive Order 2006-13

- b. Established a statewide goal to reduce emissions to
  - i. year 2000 emissions by 2020
  - ii. 50% below 2000 by 2040
- c. Created the Climate Change Executive Committee to implement the *Action Plan*  
Western Regional Climate Action Initiative  
Arizona  
California  
New Mexico  
Oregon  
Washington
  - Signed February 26, 2007
  - Regional reduction goal
  - Participate in a multi-state registry
  - Later renamed “Western Climate Initiative”

Statement of Regional Goal

- 15% below 2005 levels by 2020
- “do their share” to reduce emissions over the long term

Mr. Yockey’s presentation included the following table -- aggregation of partner’s individual goals:

	Goals	Relative to 2005	Relative to 2020 BAU	Absolute reductions from BAU (MMtCO <sub>2</sub> e)	1990-2020 BAU Growth
Arizona	2000 levels by 2020	-11%	-45%	72	144%
British Columbia	33% below 2007 by 2020	-30%	-46%	40	69%
California	1990 levels by 2020	-14%	-28%	170	40%
Manitoba	6% below 1990	-17%	TBD	TBD	TBD
New Mexico	10% below 2000 by 2020	-14%	-31%	28	65%
Oregon	10% below 1990 by 2020	-32%	-44%	40	61%
Washington	1990 levels by 2020	-11%	-28%	33	40%
		<b>-16%</b>	<b>-33%</b>	<b>383</b>	<b>54%</b>

WCI Work Plan

- Design Principals
- Stakeholder and public involvement process
- Timeline and milestones
- Design questions and issues on which public input is solicited

**WESTERN CLIMATE INITIATIVE UPDATE (CONTINUED)**

- Subcommittees: Scope; Reporting; Electricity; Allocations; Offsets

WCI Work Plan

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- Subcommittees: Scope; Reporting; Electricity; Allocations; Offsets

Stakeholder/Public Participation

- Subcommittees' Options Papers (January 2008)
- Initial Design Recommendations (March 2008)
- Economic Modeling Assumptions Book (April 2008)
- Draft Design Recommendations of the Cap and Trade Program (May 2008)
- Revised Economic Modeling Assumptions Book (July 2008)
- Draft Design Recommendations (July 2008)
- Final Design due week of September 22, 2008

Input Opportunities

- Teleconferences; Webinars; Stakeholder Meetings; State/Provincial Meetings

WCI Key Issues

Scope – Inclusion of Transportation of Residential and Commercial Fuel Combustion

Reporting – Requirement for third party verification

Electricity – Point of Regulation – First Jurisdictional Deliverer

Allocations - Apportionment to Partners

Distribution to Entities – Direct Allocation vs. Auction

Offsets – Absolute and Geographical Limits

Additional Information

- Arizona Department of Environmental Quality, <http://www.azclimatechange.gov/index.html>
- Western Climate Initiative, <http://www.westernclimateinitiative.org/Index.cfm>

**VI. PDEQ STAFF REPORT**

**Solid Waste Division Report**

Mr. Grimaldi reported on the following Solid Waste issues:

- Solid Waste tipping fees for commercial customers were increased and are now in effect.
- Staff continues to explore various options for the Solid Waste Division.

**Environmental Quality Division Report**

Mr. Grimaldi reported on the following Environmental Quality issues:

- Staff is restructuring the Environmental regulations, Titles 7 and 17
- Extensive work is ongoing on the buffelgrass ordinance. It is anticipated this document and an implementation plan will go to the Board of Supervisors in December.
- The Town of Sahuarita wastewater facility's capacity issues have been resolved and ADEQ granted permission to PDEQ to begin reviewing projects again.
- Due to revenue decreases, we are shifting staff from the Water and Sewer Plan Review Program to the Air Quality Program. Vacancies in the Air Quality Program are not being filled.

**V. CALL TO THE PUBLIC**

Mr. Thompson made a call to the public. Mr. Dickerson made the following announcements:

- PAG Sustainability Energy Expo will be held on March 6 and 7, 2009;
- PAG's EPAC is going on a tour of the Sierrita Mine on November 7. EQAC is welcome;
- Buffelgrass mapping – PAFG is searching for grant to fund mapping of buffelgrass areas. Another Buffelgrass Eradication Day is tentatively planned for February, 2009;
- Clean Cities Program Odyssey Day on October 3 at Foothills Mall, featuring a display of energy saving vehicles;
- PAG is developing an Electric Infrastructure Workshop to meet the anticipated need for electrical recharge system throughout the Tucson area for electric vehicles;
- PAG and the City of Tucson are working on a Solar Development Action Plan;
- American Recycling Day on November 15 to collect aluminum cans. PAG is working with U.S. Marine Corp. and funds collected for recycling the cans will be donated to Toys for Tots;
- PAG is working on a Greenhouse Gas Emission Inventory.

**VI. NEXT MEETING**

The next EQAC meeting will be on November 19, 2008, at 1:30 p.m. in the 6<sup>th</sup> floor conference room, 130 W. Congress, Tucson.

November agenda items are:

Sustainability Report – Tedra Fox

Solar Action Plan – Dennis Dickerson

Future Agenda items are:

Mobile Source Inventory Status – U of A staff

Riparian Habitat Presentation

AzRise, Solar Consortium at U of A - Ardeth Barnhart

Phoenix Light rail – land use implication – someone from Phoenix

SMART Growth – Arlan Colton

**VII. ADJOURNMENT**

Having completed all meeting agenda items, the Council adjourned.