

Summary of Public Input: April 1–October 15, 2008

Sources of Public Input:

- Call to Audience (at Committee Meetings)
- Issue / Response Summaries (questions that surfaced at Committee Meetings that required research)
- Written Comments (submitted via mail, email, website, or in hard copy form at Committee meetings)

Infrastructure / Systems / Operations

Total Comments: 22

NO.	THEME	# COMMENTS	DATE
1	Biosolids: Who uses; what crops use on, is it safe, what contaminants are tested for before release for agricultural use, how is aquifer protected?	5	6/11/08
2	Aging infrastructure: <ul style="list-style-type: none"> • Sewer, water lines; dams, impacts to human resource, Concern about Kinder Morgan pipeline and its proximity to older sewer and water lines that are in need of replacement, how many grade 4 & 5 pipes? • Can you attest to adequacy and proficiency of current systems? 	8	5/08 7/9/08 9/10/08 9/24/08 10/2/08 10/15/08
3	Operational Efficiency: <ul style="list-style-type: none"> • Is Tucson planning to move to a wireless meter system so they don't need meter readers? 	1	7/9/08
4	New infrastructure / Capacity needs: <ul style="list-style-type: none"> • Interest in citing a reclaimed facility on the east side • Interest in models for public / private partnerships in the development of new wastewater infrastructure • Is infrastructure in place to extract water from AZ Water Bank • Is recovery of recharged water satisfactory? 	4	7/9 6/11/08 6/25/08
5	Exempt wells: How many total? How many within City of Tucson? How deep? Relationship of exempt well pumpage to Assured Water Supply Rules?	2	6/11/08
6	Subsidence impacts - have we ever had to repair sewer lines due to subsidence?	2	6/11/08 7/9/08

History, Institutional, Regulatory Framework

Total Comments: 6

NO.	THEME	# COMMENTS	DATE
1	Mining companies should be required to take CAP water instead of using Groundwater	1	6/11/08
2	Requests for more info on sustainable regulations / ordinances including storm water, ordinances that protect and preserve our natural resource, the WASH Preservation Ordinance, Native Plant Preservation regulations, MUM detention / retention basin regulatory manual.	4	10/8/08 6/11/08
3	Recommendation to include statutory changes that can help meet safe yield in inventory.	1	9/24/08

Water Supply and Demand / Customer Demographics

Total Comments: 24

NO.	THEME	# COMMENTS	DATE
1	<p>Concerns about overdraft and access to renewable supplies:</p> <ul style="list-style-type: none"> • Safe Yield unattainable; Recharge in some areas (e.g. Catalina) not possible. • Lack of access to CAP options • Provide graph of water level declines • How much of overdraft in 3rd Management Plan is related to Industrial Use? • By 2020 will be in overdraft – need to limit population growth to a sustainable level; need good conservation / water harvesting • Other water providers have limited access to renewable supplies and are located over shallow portions of the aquifer making them vulnerable to higher levels of subsidence. Regionalization of water is the ultimate prize for them, as it would allow them to tap into Tucson’s deep aquifer and the CAP allotment so they could continue the irresponsible growth patterns 	5	6/11/08 7/9/08 8/27/08 9/24/08
2	<p>Concerns about sources, adequacy and reliability of future supplies:</p> <ul style="list-style-type: none"> • Water supplies greater if water harvesting potential is factored into the equation (e.g. through large scale storm water harvesting) • Concern about the long viability of the Assured Water Supply designations (deep wells may be accessing poor quality water) • Although there is a lot of groundwater, much is unusable. Concern for subsidence should too much be withdrawn • More info needed on strategies to acquire and deliver water to meet future demand, when it will be needed, paying for and sharing • Add Mars to list of magic water supplies 	12	6/11/08 6/25/08 7/9/08 9/10/08 9/24/08 10/2/08

	<ul style="list-style-type: none"> • Definition of firm supply is that it is drinkable, potable, and good for the environment, wet water. • whether there is too much growth for the available of “firm” (i.e. wet water) supplies • CAGR is a tool to protect the property interests of the development community by creating the myth of “paper water”. • Concerns about viability of Colorado River supplies given explosive growth coupled with reduced flows due to climate change • 100 Year Assured Water Supply is a short-sighted approach - what are options are being explored to deal with possible shortages due to climate change and explosive population growth? • we will be in overdraft after 2020 – need to slow pop growth and increase conservation and water harvesting to address future supply shortages • CAP supplies declining – barriers to mandatory conservation • How much water banked in Avra Valley? • How far behind in 3 yr. window of opportunity? 		
3	<p>Indirect, potable reuse of effluent:</p> <ul style="list-style-type: none"> • Need to start now with public education, should be included in report as a placeholder; use UA experts on pathogen control and invite these experts to present to Committee • Can we consider potable reuse of effluent in planning for future? • Topic of indirect potable reuse should be part of the public consideration / participation effort. Recognized researchers in this area from U of A and California should be consulted. • Do not want to drink effluent so more people can come to region • If the 96% of effluent currently used to recharge the aquifer is used for other purposes, that recharge will be lost. 	3	6/25/08 8/13/08
4	<p>General</p> <p>Need to distinguish between actual needs for water vs. demands for water</p> <p>Concern about Rosemont Mine’s water consumption – projections for future use, where it might come from, and how it’s impacts to regional supply picture</p>	4	6/25/08 10/2

Finance

Total Comments: 8

NO.	THEME	# COMMENTS	DATE
1	City of Tucson Impact Fee Ordinance needs to be amended to remove clause that caps the annual increase to 5%	1	9/3/08
2	Water rates should be reflective of usage. Commercial turf users should be charged a higher rate	1	7/15/08
3	<p>More cost info needed</p> <ul style="list-style-type: none"> • Need total cost of growth model to identify the real costs of growth both capital and operational • Cost to build new canals needed to bring in “new” water • What are the costs of replenishment? • What is the estimated total cost of system replacements for the next 20 plus years? Nearly half of pipes will become at least 50 years old within this period • What are the costs related to the City’s plan for reclaimed water reuse? Are funds available to pay for the plan? 	6	6/11/08 6/25/08 7/9/08 9/3/08

Population, Land Use and Growth

Total Comments: 3

NO.	THEME	# COMMENTS	DATE
1	Assumptions of increased density through infill misguided due to nature of construction	1	9/3/08
2	Committee should base its recommendations on historical information provided and balance population with water resources	1	9/10/08
3	Do not build high density like Manhattan – cannot evacuate in an emergency and too costly – not suitable for low income people.	1	9/3/08

Conservation

Total Comments: 19

NO.	THEME	# COMMENTS	DATE
1	<p>Rainwater harvesting offers many benefits:</p> <ul style="list-style-type: none"> • recharges to aquifer • reduces reliance on CAP • should be considered part of future water supply • Recommend guttered roofs with cisterns and infiltration trenches in all new construction, infiltration trenches with or without cisterns on all commercial parking areas • Should mandate that paved areas (especially parking lots) be designed to allow water to penetrate in order to replenish the aquifer rather than having it go into storm drains • Schools, parks etc should be encouraged to install roof water collection • Rainwater is high quality water and the infrastructure to harvest is inexpensive – no reason why new development cannot incorporate. 	6	6/11/08 7/8/08 7/23/08

	<ul style="list-style-type: none"> • Rainwater harvesting is a safer route to explore than greywater. The City could require developers to design appropriate locations for rainwater cisterns, including positioning the roof and gutters to facilitate maximum rainwater harvesting. Builders could be required to work with companies that install rainwater cisterns so as to offer this option to prospective homebuyers. Deed restrictions are often an impediment to sustainability features such as rainwater harvesting and solar panels. 		
2	<p>Storm water management is an untapped water conservation / supply augmentation opportunity</p> <ul style="list-style-type: none"> • Concern that not enough is being done to maximize resources (i.e. capture and put storm water to beneficial use). • Need for incentive based tools on private property • Require developers to retain accelerated runoff on site • Need a storm water management plan that requires on-site retention of storm water • Urban areas cause heat islands – storm water can be retained to support green belts that sequester carbon and can double as recharge areas using cisterns, detention basins and infiltration trenches while cooling the area and reducing energy needs, and help state withstand extended droughts. • Recommend greenbelts with native trees, shrubs, rock check dams and detention basins in all drainages • 25,000 AF per year goes down the Santa Cruz River. This water could be harvested to augment our supplies. 	3	5/19/08 7/23/08
3	<p>Greywater comes with costs (disadvantages) that need to be considered</p> <ul style="list-style-type: none"> • Concern about use of potable water to flush lines in areas where greywater systems reduce flows • What is being done to address the fact that sewer lines need to be tilted at a greater angle to compensate for the loss of water? • Currently, because of the problem with the need for line flushing, this is not a real conservation measure • Concern about the long term safety of greywater reuse and its potential impacts on humans and the environment. Should use precautionary principle where greywater is concerned. Education is critical. • Loss of water due to leaks and flushing of sewer lines. 	6	7/8/08 10/8/08 10/15/08
4	<p>Need to address question of who and what we are conserving for</p> <ul style="list-style-type: none"> • To allow future growth at the expense of current residents' quality of life? Not right that growth in an area that does not have enough water to sustain that growth will take normal life pleasures away from people that already exist in the area. • If conservation is used to justify continued growth such 	2	6/11/08

	growth would eventually bring us to the same imbalance in supply use now face		
5	<p>General</p> <ul style="list-style-type: none"> • Rain sensors on all automatic irrigation systems • Recharge and reuse of all treated effluent • Should capture water that drips from air conditioners • Beat the Peak should be more visible – good reminder of the need to conserve during peak summer months • Promote water saving appliances with max hot water temps • When the study area has been defined and the inventory of that are completed, the committee should be able to determine what population can be sustained with current supplies. At that time, the governing bodies can begin the conversation about to obtain additional supplies, from where and at what cost? • What barriers exist to mandatory water conservation? • How much water is lost annually due to evaporation from the open CAP ditch? • How much water is lost to leaks? How much potable water lost due to sewer line flushing? 	9	6/11/08 6/25/08 7/9/08 9/10/08 10/8/08

Climate Change

Total Comments: 11

NO.	THEME	# COMMENTS	DATES
1	<p>Concern about uncertainties, effects of climate change and whether there is sufficient consideration of this in planning for drought:</p> <ul style="list-style-type: none"> • Is global warming is being factored into drought calculations? • Effects of climate change include surface temperature changes, evaporation rates, reduced snow pack, earlier and shorter runoff seasons, increased water temperatures, and decreased water supplies, increased fires, loss of endangered species • What kinds of plans are in place / planned to deal with drought and uncertainty? • Concern about Colorado River allocation being cut back due to drought • Affects of climate change on surface and groundwater and whether the data on this is being factored into decision making • There does not seem to be a sense of urgency among local water resource managers – as opposed to national & international experts. (Climate change related uncertainties / impacts) should be taken seriously. • Underlying data needs to be peer reviewed • Need for a holistic, adaptive management approach 	9	4/17/08 6/11/08 6/25/08 7/9/08

2	Concern about outdated infrastructure being more sensitive to hazardous events	1	6/11/08
3	Adopt precautionary principle – holding that scientific uncertainty is no an excuse for failure e to protect the environment.	1	5/21/08

Environmental Needs for Water

Total Comments: 3

NO.	THEME	# COMMENTS	DATE
1	Restoration projects: How many? How much effluent needed to complete? Is CEP enough to meet the need for completing existing restoration projects?	2	10/8/08
2	Groundwater dependent ecosystems: Where are they regionally and statewide?	1	10/15/08

Water Quality

Total Comments: 22

NO.	THEME	# COMMENTS	DATE
1	Overall concern about pollutants in water: <ul style="list-style-type: none"> • Is it safe to drink? • Why so many water quality monitoring violations? • Need for a Water Quality Dept. to ensure appropriate monitoring • Emerging contaminants are a concern (e.g. pharmaceuticals and endocrine disruptors) - need to test for these. What does current wastewater treatment facility remove? Need to guard against polluting our aquifer • Impacts to groundwater salt concentrations from CAP • Contamination of Lake Mead with wastewater from Las Vegas • Greywater concerns: contamination from greywater – need to restrict discharge to amount plants will use to avoid infiltration into groundwater • CAP impacts to aquifer: any chance that recharging CAP will clog the aquifer making it unable to filter out the undesirables? 	19	4/25/08 6/11/08 6/25/08 7/9/08 7/21/08 8/4/08 8/13/08 9/6/08 9/15/08 9/17/08 9/20/08
2	Disaster Response: Is there a plan in place?	1	--
3	Need for local entities to designate max allowable concentrations o TDS in public drinking water	1	7/2/08
4	More info on water treatment e.g. history of water supply disinfection	1	6/11/08

Process

Total Comments: 42

NO.	THEME	# COMMENTS	DATE
1	Need for accurate information	2	5/18/08

	<ul style="list-style-type: none"> • Don't make this a PR campaign. • Need better understanding of the complexity of our aquifer. 		
2	If other water providers want a seat at the table they should be willing to share vital information.	1	6/25/08
3	The study should ensure that all high-tech options are evaluated for their potential societal and environmental and economic costs and benefits.	1	
4	Homeland security – concerns about sharing information on infrastructure	1	5/28/08
5	Importance of Process <ul style="list-style-type: none"> • Process is very important for Tucson citizens and whole region – needs to be open and inclusive – to have integrity. • Concerned that some committee members are missing too many meetings – need to follow Robert's Rules of Order with regard to attendance • Moving policy-makers and the public to understand the singularity of this moment and potential and challenges and seriousness is done by facts, in part, and also by stories. Recommend that participants in the process write opinion pieces about what it's meant to be in this room. 	5	3/25/08 4/16/08 4/18/08 7/23/08 09/10/08
6	<ul style="list-style-type: none"> • Phase I needs to articulate shared values. A clear and understandable document which presents the range of scenarios we might fact, evaluates potential high-tech solutions in terms of their potential costs and benefits needs to be presented to the public in a variety of media. 	2	
7	Access to data and info <ul style="list-style-type: none"> • The more people who have access to detailed, technical information the better the quality of the input – moves from criticism of process to criticism of policy which is good. Recommend publishing online interim, draft documents and minutes of meetings so people can understand the deliberative process. Need a firewall between technical and public participants. • Deposit materials at for the public at UA library and Pima Community College • Use website to build a glossary – give others a chance to add and refine • Put something on open meeting law on website • Some providers did not receive the information requests from the committee 	3	4/18/08 6/23/08
8	Oversight Committee Selection / Composition / Roles <ul style="list-style-type: none"> • How was committee selected? • What are the roles and responsibilities of Committee members? • The Committee can determine what is in the scope of their work and can ask questions. Your committee was created to ensure that everybody who needs to be involved is involved. Consider making recommendations to change the scope as 	11	4/16/08 4/17/08 4/23/08 4/24/08 5/12/08 5/28/08 6/11/08 6/23/08

	<p>you (Oversight Committee members) deem appropriate</p> <ul style="list-style-type: none"> • Many decisions in scope go beyond the two jurisdictions – need to expand the “Table” (i.e. membership on the Oversight Committee) to include other jurisdictions and water providers - Requested by Town of Marana, SAHBA, SALC, SAWUA • The Committee should not presume to understand the politics of sustainable water population since this goes outside the City water service area • Provide list of committee member affiliations, constituencies, etc. • Why no private citizens on panel? 		
9	<p>Include Peer Review</p> <ul style="list-style-type: none"> • Ensure that a range of scenarios related to water supply, worst to best, be created by a team of local, state and also outside experts with experience in holistic and adaptive water management (to complement experts with more traditional engineering and economic backgrounds). • Need to have outside experts in all facets of water supply and delivery involved. • Due to the complexity of the issues being addressed, it seems appropriate to have each report be reviewed by an appropriate peer group. 	4	4/17/08 4/17/08 5/21/08 5/28/08
10	The Oversight Committee should conduct a global “best practices” regional water management study drawing on the experiences inside AZ, the US and internationally.	1	
11	<p>Acknowledge other efforts:</p> <ul style="list-style-type: none"> • Water CASA • SAWUA • Safe Yield Task Forces • Regional Drought Planning 	2	
12	Utility involvement: There are several water providers within City of Tucson and others outside of Pima County Wastewater service areas.	1	
13	Run Phases 1 & 3 and 2 & 4 concurrently	1	
14	Suggestions for room arrangement, facilitation n, and other meeting logistics	2	4/22/08 4/24/08
15	Public involvement: Importance of involving neighborhoods; Include a technical advisory committee; Use neighborhood associations to expand outreach and involvement (e.g. have them serve as a water task forces); improve communication laterally among all clients	5	5/21/08 9/3/08 5/28/08

Miscellaneous

Total comments: 22

NO.	THEME	# COMMENTS	DATE
1	Do not use misleading comparisons when analyzing alternative systems/costs.	1	10/15/08

2	<p>Scope of Work:</p> <ul style="list-style-type: none"> • Several items in Phase I and II that go beyond data collection and include decision affecting the larger region. Scope of work should be amended to delay all items that involve more than data collection and inventorying until after the larger stakeholder group is assembled. • Phases IV and V raise concern because of the introduction of the affected communities so late in the process that the policies, values and definitions of ‘sustainable’ and ‘livable’ are, for the most part, set with little room for participation, comment or innovation. • Don’t need a detailed analysis of all infrastructure of each utility. Critical info that should be requested is service area boundary, current and committed demand of the service area, available water resources to meet service area demands, and potential interconnects with neighboring utilities 	3	4/17/08 5/12/08 6/23/08
3	<p>Mutually constructed recharge basin should be co-owned by all participants who have provided funding for capacity with the County water reclamation facilities and future regional water reclamation facilities. Pima County’s choice to discharge to a “managed facility” versus a “constructed facility” signifies a lack of commitment to providing regional replenished resources.</p>	1	5/28/08
4	<p>If IGAs between City and County are modified, they should be evaluated for their merit, accuracy and appropriateness.</p>	1	5/28/08
5	<p>Homeland security: Concerns about sharing information</p>	1	6/23/08
6	<p>Study area</p> <ul style="list-style-type: none"> • When will you define the area to be included in the study? Members of SAWUA are not within the metropolitan area but are within Pima County. One member is in S. Pinal County. A boundary needs to be defined for the study areas so we know which member utilities are affected. • Provide a map of overlay of two service areas • Study area should be expanded to look at the larger region inclusive of all of the watersheds • Concerned over limiting the region. The water from the Santa Ritas and the Catalinas feed into the Tucson basin. • Any consideration of the whole Santa Cruz Watershed including the contributing watersheds such as the Cienega Watershed and how it contributes to the water of the Tucson basin? Are the impacts from growth and development of neighboring watersheds being considered? 	6	6/11/08 6/23/08 8/27/08 9/10/08
7	<p>Information about the Tucson Regional Water Coalition’s membership and goals was provided</p>	1	5/13/08
8	<p>Interdepartmental coordination: All City departments involved with water resources should coordinate their missions and services because water resources impact numerous aspects of the community.</p>		10/8/08
9	<p>Land Use / Water Resource Policies: Recommendation to look at policies adopted by the City of Peoria related to integrating land use planning with water resource planning.</p>	1	9/29/08

10	<p>Governance: With 40% living outside the City, should there be a change in governance? Hope that the Committee recommends against the privatization of water resource planning and that we do not regionalize water.</p>	2	6/11/08 10/2/08
11	<p>Growth Control:</p> <ul style="list-style-type: none"> • Water supply should drive land use policy; Need to control growth in order to achieve sustainability. • Decision makers in Tucson and this region have to accept the fact that a growth based economy is not sustainable in the Sonoran Desert 	2	9/24/08
12	<p>Water and Energy Consumption:</p> <ul style="list-style-type: none"> • Need to factor in fuel and the and the role of oil in population growth 	1	8/27/08
13	<p>Partnerships:</p> <ul style="list-style-type: none"> • CAGR Interest in exploring mutually beneficial partnerships in Tucson AMA that will result in accrual of long term storage credits through lease, purchase or credit-sharing arrangements. • U of NSF Water Quality center interested in exploring ways the university can help the City and county in its planning efforts 	2	3/6/08 4/15/08