

ATTACHMENT 8
**(Supplemental Documentation to the: Mogollon Rim Water Resource
Management Study Report of Findings)**

Estimation Work Sheets

MOGOLLON RIM WATER RESOURCE MANAGEMENT STUDY

SOCIAL ASSESSMENT AND ENVIRONMENTAL JUSTICE

A. Social Assessment

Social analysis is the process of considering impacts on humans, and social assessment is the product of the analysis (the results needed to describe the impacts on the human community from the action).

The goals of social analysis are to:

- Contribute to making projects more sound and sustainable by ensuring that projects fit the individuals and communities served and affected.
- Ensure project effectiveness by increasing support and tailoring institutional arrangements to the local culture.
- Make projects more inclusive by involving not only selected stakeholders but the larger, more diverse community

An extensive Social Analysis was not performed during this study. Rather an attempt has been made to identify significant area of social concern that could require additional research, analysis, and evaluation in subsequent studies. Social Assessment considerations for the Study Area include the following issues:

- Environmental Justice -- Distribution of minority population and low income populations of the Study Area within Gila County.
- Probable economic impacts – restrictive limits on growth for all economic units associated residential, commercial and industrial development and expansion.
- Reduced quality of life, changes in lifestyle, increased poverty in general, population migrations, reduction or modifications of recreation activities.
- Reevaluation of social values – growth vs. no-growth, community appearance, and cultural resources preservation and protection
- Public dissatisfaction with government water resource development and community growth policies and strategies -- moratorium on the issuance of water meters for community development (all considerations) and the introduction and application of restrictions on all community's planning and zoning policies and codes.
- Perceptions of inequity related to socioeconomic status, ethnicity, age, gender, and seniority, particularly with respect to water service rates.
- Recognition of institutional restraints on water use. Surface Water Rights
- Increased Restrictions and Conflicts -- Water user, Political, and Management (Community Fire Protection and Water Conservation), and (Other social conflicts?)
- Institutional Formation – Legal requirements and institutional organization

B. Environmental Justice

is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from

industrial, municipal and commercial operations or the execution of federal, state, local, and tribal programs and policies. Meaningful involvement means that; (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the regulatory agency's decision; (3) the concerns of all participants involved will be considered in the decision making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected.

In sum, environmental justice is the goal to be achieved for all communities and persons across this Nation. Environmental justice is achieved when everyone, regardless of race, culture, or income, enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

Environmental justice must be considered and where required appropriate mitigation measures will be established that will not create disproportionately high and adverse human health or environmental effects of federal programs, policies, and activities on minority populations and low-income populations in the Study Area.

The populations that could be affected in the Study Area are minority and low income populations in the Study Area are, in general, Black or African Americans, American Indian and Alaska Native, Asian, Native Hawaiian and other Pacific Islander, and Hispanic or Latino. The minorities population distribution, by population centers and estimation are shown in Table A.

Table A Minority Population Distribution by Town and Census Designated Place (CDP)-
- 2000.

Table A

Population Distribution Center	Gila County	Town of Payson	Pine CDP	Strawberry CDP
Minority Groups	Population*	Population*	Population*	Population*
Black or African American	197	36	3	1
American Indian and Alaska Native	6,630	257	10	6
Asian	220	72	2	7
Native Hawaiian and Other Pacific Islander	28	7	0	0
Some Other Race	3,385	183	21	10
Hispanic or Latino	8,546	708	34	32
Total	19,006	1,263	70	56

*2000 U. S. Bureau Census Data

The population distribution of minorities in the residual population of the Study Area's unincorporated community population, 4,762, is unknown, but mostly likely would be similar to the population distribution of minorities in the Pine and Strawberry Census Designated Places (CDP).

Low-Income populations are persons of low-income status. This status is based on U.S. Bureau of the Census definitions of individuals living below the poverty line, as defined by a statistical threshold that considers family size and income. Poverty levels census data -- 2000, in the Study Area, have been developed several ways, however, only two poverty status levels are presented in TableB., i.e. Families and Individuals.

Table B.

The Poverty Status of Families and Individuals in the Study Area. – 2000.

Population Distribution Center	Gila County	Town of Payson	Pine CDP	Strawberry CDP
Below Poverty Level	Numbers	Numbers	Numbers	Numbers
Families	1,785	274	31	24
Individuals	8,752	1,360	176	111

The population distribution of family and individual poverty status in the residual population of the Study Area's unincorporated community population, 4,762, is unknown, but most likely will be similar to the number shown for the Pine and Strawberry CDPs.

There are enough population in both minorities and low-income groups to flag these population groups as being groups that will require further considerations regarding environmental justice with respect to any proposed action associated with any or all of the proposed alternative prior to its implementation, including the Future Without alternative.

Probable economic impacts – The local economy is dominated by the tourism, in-migrating retirees, and seasonal residents are the primary drivers of the Payson and surrounding area economy. Government provides the most employment of any sector in Payson area. Another significant area of the local economy is the construction industries. There is a growing emphasis on manufacturing and service firms. Also encouraged is light industry and high tech operations compatible with the community's "High Quality of Life."

With the overall water supply being limited in both Payson and the surrounding area, the potential for the placement of restrictive limits on growth or expansion, e.g. moratorium on the sale of water meters or limitations on the issuance of building permits, could occur and hinder all future residential, commercial and industrial economic growth. The placement of restrictive growth limits would have a serious economic impact upon the construction industry as well as having a trickle down effect on the rest of the supporting economic sectors in the area.

As certain economic sectors are impacted the expected results would be a reduced quality of life, changes in lifestyle, increased poverty in general, population migrations, reduction or modifications of recreation activities to identify a few of the potential impacts.

Reevaluation of social values – Payson and the surrounding communities and unincorporated areas could settle the ongoing argument concerning growth vs. no-growth. If the water supply is limited and the safe yield limits have been identified and perhaps encroached upon, it most likely that a political scenario would be developed that implements no-growth policies for Payson and the surrounding areas. Water currently used to maintain each community's appearance could be seriously reduced and perhaps eliminated from use. Other areas where water could be used but restricted or eliminated could include cultural resources preservation and protection and recreation facilities.

Public dissatisfaction with local government -- for past several years, water resource development and community growth policies and strategies have been hot topics with the citizens of Payson and the surrounding areas. Issues that have been regularly discussed over the years are growth and no-growth. In fact, election of mayors and council persons frequently revolve around this specific issue. Secondary to the growth and no-growth

issues is water resource development. Issues associated with special use permits, for groundwater exploration and development in the National Forest, have been quite difficult to acquire by the Town of Payson. It is expected that acquisition of special use permits by others will be equally difficult. Discussions that evolve around moratoriums, whether zoning or water supply availability, i.e. water meters; create heated and divisive discussions within the community.

Perceptions of inequity related to the cost of water services and water supply development and their impact upon the socioeconomic status, ethnicity, age, gender, and seniority of Payson's citizens and the surrounding unincorporated communities will require additional study. The concerns over the issues of inequity may become may require special deliberations with respect to their impacts upon each group's or grouping's quality of life.

Recognition of institutional restraints on water use -- As noted through out this Report, surface water rights in the Study Area can generally be regarded as owned by the Salt River Project. Land ownership is also an institutional restraint in a geographic area that is primarily owned by Federal and State governments. Very little private land is available for developing well sites and other water system facilities needed system development, particularly groundwater wells and associated pipelines.

Increased Restrictions and Conflicts – As each community's water supply reaches its "Safe Yield" limitations, the challenge will be to establish a process for sustainable water supply management that will protect both the supply and serve the water user. Groundwater has been the primary water resource for this are for several years. However, this supply is susceptible to drought conditions. As the aquifer storage is diminished and the assumptions associated with "Safe Yield" are violated; the impacts and conflicts between and among groundwater users will increase. Impacts that could be noticed are the reduction in available fire protection, increased use of restrictive water conservation measures – including policing of water use. Efforts to mitigate these impacts could include use of effluent for as a source to provide fire protection, persistent application of water conservation measures rather than seasonal application of those same measures.

Drought may be another area that creates water use restrictions and conflicts. As aquifer deplete and recharge and aquifer recovery fails to provide for an adequate water supply for a community conflicts between water resource managers and water users will increase. There will be a need to focus upon the issues of water demand management and supplement water supplies to alleviate these shortages.

Institutional Formation – Legal requirements and institutional organization – The only known formation of a legal institutional arrangement is between the Town of Payson and the Tonto Apache Tribe. This action is an extension of previous service agreements between the Town and the Tribe.

All considered alternatives are on or near Federal lands. The probability of the any project being impacted by one or more Federal laws is quite high, i.e. it should be expected that some type of Federal impact will occur to either a community or the environment. What has been presented here is a preliminary social assessment. Certainly, more intense research, analysis, and evaluation would be required prior to the implementation of any proposed projects. Even the activities associated with Future Without Alternative would have to have the same level of investigation prior to the implementation of this Alternative, particularly where the projects implemented traverse Federal lands.

ESTIMATE WORKSHEET

FEATURE: C. C. Cragin Reservoir Water Supply Alternative Payson and Tonto Apache Tribe Only -- Raw Water Transmission Pipeline and Water Treatment Plant Cost Summary (Annual Water Supply = 3,7250 acre-feet per year)	PROJECT: Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
	REGION: LC PRICE LEVEL: 1st quarter 2008
	FILE: U:\PaysonAppraisalReport\Attach. 8\C.C.Cragin Res to Payson Table IV29.xls\Sheet1

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Tailrace Modifications		1	Lump Sum	\$55,000	\$55,000
		Raw Water Main Pipeline					
		Pipeline -- 18"		76,560	lf	\$135	\$10,335,600
		Pavement Replacement		57,420	lf	\$40	\$2,296,800
		Rock Excavation		29,774	cy	\$45	\$1,339,800
		Water/Wash Crossing		16	Crossing	\$45,000	\$720,000
		Traffic Control			Lump Sum	\$170,000	\$170,000
		Booster Pump Stations		0	Stations	\$825,000	0
		Subtotal					\$14,917,200
		Mobilization @ 5%					\$745,900
		Subtotal with Mobilization					\$15,663,100
		Unlisted Items @ 15%					\$2,349,500
		Contract Cost					\$18,012,600
		Contingencies @ 25%					\$4,503,100
		Field Cost (1st qtr 2006)					\$22,515,700
		Water Treatment Plant					
		General Requirements					\$288,000
		Sitework					\$640,000
		Microfiltration Building (1,600 sq ft)					\$176,000
		Microfiltration Equipment					\$1,780,000
		Disinfection					\$275,000
		Finished Water Reservoir					\$750,000
		Pump Station					\$215,000
		Electrical					\$703,000
		HVAC/Plumbing					\$176,000
		Subtotal					\$5,753,400
		Mobilization @ 5%					\$287,700
		Subtotal with Mobilization					\$6,041,100
		Unlisted Items @ 15%					\$906,200
		Contract Cost					\$6,974,300
		Contingencies @ 25%					\$1,736,800
		Field Cost (1st qtr 2006)					\$8,684,400
		Total Field Cost (1st qtr 2006)					\$31,199,800
		Adjusted Field Cost (1st qtr 2008)					\$33,861,900
		Note: The estimate does not include Non-contract costs.					

QUANTITIES				PRICES			
BY	Marvin Murray	CHECKED		BY		CHECKED	
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
	April 2008						

ESTIMATE WORKSHEET

FEATURE: C. C. Cragin Reservoir Water Supply Alternative Pine Only with CAP--Raw Water Transmission Pipeline and Water Treatment Plant Annual Water Supply = 500 acre-feet per year	PROJECT: Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
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PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Raw Water Main Pipeline					
		Pipeline -- 8"		80,256	lf	\$60	\$4,815,400
		Pavement Replacement		60,200	lf	\$40	\$2,408,000
		Rock Excavation		30,000	cy	\$45	\$1,350,000
		Water/Wash Crossing		16	Crossing	\$45,000	\$720,000
		Traffic Control			Lump Sum	\$200,000	\$200,000
		Booster Pump Stations		3	Stations	\$825,000	\$2,475,000
		Subtotal					\$11,968,400
		Mobilization @ 5%					\$598,400
		Subtotal with Mobilization					\$12,566,800
		Unlisted Items @ 15%					\$1,885,000
		Contract Cost					\$14,451,800
		Contingencies @ 25%					\$3,612,900
		Field Cost					\$18,064,700
		Field Cost: Water Treatment Cost (see Pine Raw Water Transmission Pipeline and Water Treatment Plant Cost Summary)					\$1,895,800
		Total Field Cost (1st qtr 2006)					\$19,960,500
		Adjusted Field Cost (1st qtr 2008)					\$21,663,600
		Annual Cost					
		Amortized Annual Cost (20 yrs @ 4.875%)					\$1,719,900
		Annual Operation & Maintenance Cost @ 8% of Field Cost					\$1,733,100
		Total Annual Cost					\$3,453,000
		Annual Cost per Acre-Foot					\$6,906
		Annual Cost per 1,000 gallons					\$21.19
		Note: The estimate does not include Non-contract costs.					

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June 2008			

ESTIMATE WORKSHEET

FEATURE: C. C. Cragin Reservoir Water Supply Alternative Tetra Tech's Group -- Houston Mesa Road and beyond to Round Valley and Oxbow Estates Field Cost Summary Source: Tetra Tech -- Base Cost	PROJECT: Mogollon Rim Water Resource Management Study									
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PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Washington Park					
		Subtotal (includes pipeline and WTP)					\$248,500
		Mobilization @ 5%					\$12,400
		Subtotal with Mobilization					\$260,900
		Unlisted Items @ 15%					\$39,100
		Contract Cost					\$300,000
		Contingencies @ 25%					\$75,000
		Field Cost (1st qtr 2006)					\$375,000
		Adjusted Field Cost (1st qtr 2008)					\$377,400
		Rim Trail DWID					
		Subtotal (includes pipeline and WTP)					\$249,400
		Mobilization @ 5%					\$12,500
		Subtotal with Mobilization					\$261,800
		Unlisted Items @ 15%					\$39,300
		Contract Cost					\$301,100
		Contingencies @ 25%					\$75,300
		Field Cost (1st qtr 2006)					\$376,400
		Adjusted Field Cost (1st qtr 2008)					\$378,700
		Verde Glen					
		Subtotal (includes pipeline and WTP)					\$584,200
		Mobilization @ 5%					\$29,200
		Subtotal with Mobilization					\$613,400
		Unlisted Items @ 15%					\$92,000
		Contract Cost					\$705,400
		Contingencies @ 25%					\$176,400
		Field Cost (1st qtr 2006)					\$881,800
		Adjusted Field Cost (1st qtr 2008)					\$887,300
		Note: The estimate does not include Non-contract costs.					

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ESTIMATE WORKSHEET

FEATURE: C. C. Cragin Reservoir Water Supply Alternative Tetra Tech's Group -- Houston Mesa Road and beyond to Round Valley and Oxbow Estates Field Cost Summary Source: Tetra Tech -- Base Cost	PROJECT: Mogollon Rim Water Resource Management Study				
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PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Cowan Ranch					
		Subtotal (includes pipeline and WTP)					\$82,200
		Mobilization @ 5%					\$4,100
		Subtotal with Mobilization					\$86,300
		Unlisted Items @ 15%					\$13,000
		Contract Cost					\$99,300
		Contingencies @ 25%					\$24,800
		Field Cost (1st qtr 2006)					\$124,100
		Adjusted Field Cost (1st qtr 2008)					\$124,900
		Shadow Rim Ranch Girl Scout Camp					
		Subtotal (includes pipeline and WTP)					\$236,500
		Mobilization @ 5%					\$11,800
		Subtotal with Mobilization					\$248,300
		Unlisted Items @ 15%					\$37,200
		Contract Cost					\$285,600
		Contingencies @ 25%					\$71,400
		Field Cost (1st qtr 2006)					\$357,000
		Adjusted Field Cost (1st qtr 2008)					\$359,200
		Whispering Pines					
		Subtotal (includes pipeline and WTP)					\$388,800
		Mobilization @ 5%					\$19,400
		Subtotal with Mobilization					\$408,200
		Unlisted Items @ 15%					\$61,200
		Contract Cost					\$469,500
		Contingencies @ 25%					\$117,400
		Field Cost (1st qtr 2006)					\$586,800
		Adjusted Field Cost (1st qtr 2008)					\$590,500
		Note: The estimate does not include Non-contract costs.					

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PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Beaver Valley					
		Subtotal (includes pipeline and WTP)					\$322,200
		Mobilization @ 5%					\$16,100
		Subtotal with Mobilization					\$338,300
		Unlisted Items @ 15%					\$50,700
		Contract Cost					\$389,100
		Contingencies @ 25%					\$97,300
		Field Cost (1st qtr 2006)					\$486,300
		Adjusted Field Cost (1st qtr 2008)					\$489,400
		Freedom Acres					
		Subtotal (includes pipeline and WTP)					\$110,900
		Mobilization @ 5%					\$5,500
		Subtotal with Mobilization					\$116,400
		Unlisted Items @ 15%					\$17,500
		Contract Cost					\$133,900
		Contingencies @ 25%					\$33,500
		Field Cost (1st qtr 2006)					\$167,300
		Adjusted Field Cost (1st qtr 2008)					\$168,400
		Wonder Valley					
		Subtotal (includes pipeline and WTP)					\$64,900
		Mobilization @ 5%					\$3,200
		Subtotal with Mobilization					\$68,100
		Unlisted Items @ 15%					\$10,200
		Contract Cost					\$78,300
		Contingencies @ 25%					\$19,600
		Field Cost (1st qtr 2006)					\$97,900
		Adjusted Field Cost (1st qtr 2008)					\$98,500
		Note: The estimate does not include Non-contract costs.					

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PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Sunflower Mesa					
		Subtotal (includes pipeline and WTP)					\$75,000
		Mobilization @ 5%					\$3,700
		Subtotal with Mobilization					\$78,700
		Unlisted Items @ 15%					\$11,800
		Contract Cost					\$90,500
		Contingencies @ 25%					\$22,600
		Field Cost (1st qtr 2006)					\$113,200
		Adjusted Field Cost (1st qtr 2008)					\$113,900
		Mesa del Caballo					
		Subtotal (includes pipeline and WTP)					\$462,200
		Mobilization @ 5%					\$23,100
		Subtotal with Mobilization					\$485,300
		Unlisted Items @ 15%					\$72,800
		Contract Cost					\$558,100
		Contingencies @ 25%					\$139,500
		Field Cost (1st qtr 2006)					\$697,600
		Adjusted Field Cost (1st qtr 2008)					\$702,000
		East Verde Estates					
		Subtotal (includes pipeline and WTP)					\$504,100
		Mobilization @ 5%					\$25,200
		Subtotal with Mobilization					\$529,300
		Unlisted Items @ 15%					\$79,400
		Contract Cost					\$608,700
		Contingencies @ 25%					\$152,200
		Field Cost (1st qtr 2006)					\$760,900
		Adjusted Field Cost (1st qtr 2008)					\$765,700
		Note: The estimate does not include Non-contract costs.					

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ESTIMATE WORKSHEET

FEATURE: C. C. Cragin Reservoir Water Supply Alternative Tetra Tech's Group -- Houston Mesa Road and beyond to Round Valley and Oxbow Estates Field Cost Summary Source: Tetra Tech -- Base Cost	PROJECT: Mogollon Rim Water Resource Management Study
WOID:	ESTIMATE LEVEL: Appraisal
REGION:	PRICE LEVEL: 1st qtr 2008
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PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Flowing Springs					
		Subtotal (includes pipeline and WTP)					\$502,800
		Mobilization @ 5%					\$25,100
		Subtotal with Mobilization					\$528,000
		Unlisted Items @ 15%					\$79,200
		Contract Cost					\$607,200
		Contingencies @ 25%					\$151,800
		Field Cost (1st qtr 2006)					\$759,000
		Adjusted Field Cost (1st qtr 2008)					\$763,800
		Town of Payson					
		Subtotal (includes pipeline and WTP)					\$20,670,700
		Mobilization @ 5%					\$1,033,500
		Subtotal with Mobilization					\$21,704,200
		Unlisted Items @ 15%					\$3,255,600
		Contract Cost					\$24,959,800
		Contingencies @ 25%					\$6,240,000
		Field Cost (1st qtr 2006)					\$31,199,800
		Adjusted Field Cost (1st qtr 2008)					\$33,861,900
		Town of Star Valley					
		Subtotal (includes pipeline and WTP)					\$621,600
		Mobilization @ 5%					\$31,100
		Subtotal with Mobilization					\$652,600
		Unlisted Items @ 15%					\$97,900
		Contract Cost					\$750,500
		Contingencies @ 25%					\$187,600
		Field Cost (1st qtr 2006)					\$938,200
		Adjusted Field Cost (1st qtr 2008)					\$944,100
		Note: The estimate does not include Non-contract costs.					

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ESTIMATE WORKSHEET

SHEET 6 OF 6

FEATURE: <i>C. C. Cragin Reservoir Water Supply Alternative Tetra Tech's Group -- Houston Mesa Road and beyond to Round Valley and Oxbow Estates Field Cost Summary Source: Tetra Tech -- Base Cost</i>	PROJECT:		
	Mogollon Rim Water Resource Management Study		
	WOID:	ESTIMATE LEVEL:	Appraisal
	REGION:	PRICE LEVEL:	1st qtr 2008
FILE: U:\PaysonAppraisalReport\Attach. 8\Communities along HMRoad Table IVc32.xls\Sheet1			

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Round Valley					
		Subtotal (includes pipeline and WTP)					\$1,523,200
		Mobilization @ 5%					\$76,200
		Subtotal with Mobilization					\$1,599,400
		Unlisted Items @ 15%					\$239,900
		Contract Cost					\$1,839,300
		Contingencies @ 25%					\$459,800
		Field Cost (1st qtr 2006)					\$2,299,100
		Adjusted Field Cost (1st qtr 2008)					\$2,313,600
		Oxbow Estates					
		Subtotal (includes pipeline and WTP)					\$571,400
		Mobilization @ 5%					\$28,600
		Subtotal with Mobilization					\$600,000
		Unlisted Items @ 15%					\$90,000
		Contract Cost					\$690,000
		Contingencies @ 25%					\$172,500
		Field Cost (1st qtr 2006)					\$862,500
		Adjusted Field Cost (1st qtr 2008)					\$868,000
		Note: The estimate does not include Non-contract costs.					
QUANTITIES			PRICES				
BY Marvin Murray		CHECKED	BY		CHECKED		
DATE PREPARED April 30 2008		PEER REVIEW	DATE PREPARED		PEER REVIEW		

ESTIMATE WORKSHEET

FEATURE:
Installation of wells near C. C. Cragin Reservoir

Annual Groundwater Production = 3500 acre-feet

PROJECT:
 Mogollon Rim Water Resource Management Study

WOID:	ESTIMATE LEVEL:	Appraisal
REGION:	PRICE LEVEL:	1st quarter 2008

FILE:

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
		Well Field Cost		6	well	\$500,000	\$3,000,000	
		Amortized -- 20 yrs @ 4,875%					\$238,200	
		Annual Operation & Maintenance Cost @ 8% of Field Cost					\$240,000	
		Total Annual Cost					\$478,200	
		Annual Cost per Acre Foot					\$137	
		Annual Cost per 1,000 gallons					\$0.42	
		Note: The estimate does not include Non-contract costs.						

QUANTITIES		PRICES	
BY Marvin Murray	CHECKED	BY	CHECKED
DATE PREPARED April 30 2008	PEER REVIEW	DATE PREPARED	PEER REVIEW

ESTIMATE WORKSHEET

FEATURE: Central Arizona Project Water Supply Alternative Option: Pine Creek (Annual Water Volume = 161 acre-feet per year) CAP Waters Only	PROJECT: Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
	REGION: LC PRICE LEVEL: 1st quarter 2008
	FILE: U:\PaysonAppraisalReport\Attach. 8\{PineWaterCoTable\36&Table\37.xls}Sheet1

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Pine Creek Water Supply					
		Pipeline System					
		Diversion Structure		1	Lump Sum	\$250,000	\$250,000
		Pipeline -- 10"		2,640	lf	\$75	\$198,000
		Pavement Replacement		250	lf	\$40	\$10,000
		Rock Excavation		250	cy	\$45	\$67,500
		Water/Wash Crossing		1	Crossing	\$45,000	\$45,000
		Traffic Control		0.2	Lump Sum	\$170,000	\$42,500
		Booster Pump Station(s)		0	Stations	\$104,000	0
		Subtotal					\$613,000
		Mobilization @ 5%					\$30,600
		Subtotal with Mobilization					\$643,700
		Unlisted @ 15%					\$96,600
		Contract Cost					\$740,200
		Contingencies @ 25%					\$185,000
		Field Cost (1st qtr 2006)					\$925,200
		Water Treatment Plant					\$649,300
		Finished Water Storage					\$1,143,400
		Field Cost (1st Qtr 2006)					\$1,792,700
		Total Field Cost (1st qtr 2006)					\$2,717,900
		Adjusted Total Field Cost (1st qtr 2008) TFC					\$2,885,000
		Annual Cost					
		Amortized (20 yrs @ 4.875%; CRF = 0.07939)					\$229,000
		Operation & Maintenance @ 8% TFC					\$230,800
		Total Annual Cost					\$459,800
		Annual Cost per Acre-Foot					\$2,856
		Annual Cost per 1,000 gallons					\$8.76
		Note: The estimate does not include Non-contract costs.					

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
April 30 2008			

ESTIMATE WORKSHEET

FEATURE: Central Arizona Project Water Supply Alternative East Verde River Option (Annual Water Supply = 161 acre-feet per year)	PROJECT: Mogollon Rim Water Resource Management Study
WOID:	ESTIMATE LEVEL: Appraisal
REGION: LC	PRICE LEVEL: 1st qtr 2008
FILE: U:\PaysonAppraisalReport\Attach. 8\{PineWaterCoTableIV36&TableIV37.xls}Sheet1	

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		East Verde River Water Supply					
		Water Delivery System					
		Diversion Structure		1	Lump Sum	\$500,000	\$500,000
		Pipeline -- 6"		52,272	lf	\$45	\$2,352,200
		Pavement Replacement		52,272	lf	\$40	\$2,090,900
		Rock Excavation		20,000	cy	\$45	\$900,000
		Water/Wash Crossing		5	Crossing	\$45,000	\$225,000
		Traffic Control		1	Lump Sum	\$170,000	\$170,000
		Booster Pump Station(s)		3	Stations	\$882,000	\$2,646,000
		Subtotal					\$8,384,100
		Mobilization @ 5%					\$419,200
		Subtotal with Mobilization					\$8,803,300
		Unlisted @ 15%					\$1,320,500
		Contract Cost					\$10,123,800
		Contingencies @ 25%					\$2,531,000
		Field Cost (1st qtr 2006)					\$12,654,800
		Water Treatment Plant					\$649,300
		Finished Water Storage					\$1,143,400
							\$1,792,700
		Total Field Cost (1st qtr 2006)					\$14,447,500
		Adjusted Total Field Cost (1st qtr 2008) TFC					\$15,680,200
		Annual Cost					
		Amortized (20 yrs @ 4.875%; CRF = 0.07939)					\$1,150,000
		Operation & Maintenance @ 8% TFC					\$1,254,400
		Total Annual Cost					\$2,404,400
		Annual Cost per Acre-Foot					\$14,934
		Annual Cost per 1,000 gallons					\$45.83
		Note: The estimate does not include Non-contract costs.					

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
April 30, 2008			

ESTIMATE WORKSHEET

FEATURE: Central Arizona Project Water Supply Alternative East Verde River Option (Annual Water Supply = 661 acre-feet per year)	PROJECT: Mogollon Rim Water Resource Management Study									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">WOID:</td> <td style="width: 30%;">ESTIMATE LEVEL:</td> <td style="width: 40%;">Appraisal</td> </tr> <tr> <td>REGION:</td> <td>LC</td> <td>PRICE LEVEL:</td> </tr> <tr> <td colspan="3">FILE:</td> </tr> </table>		WOID:	ESTIMATE LEVEL:	Appraisal	REGION:	LC	PRICE LEVEL:	FILE:		
WOID:	ESTIMATE LEVEL:	Appraisal								
REGION:	LC	PRICE LEVEL:								
FILE:										
U:\PaysonAppraisalReport\Attach. 8\{PineWaterCoTable\36&Table\37.xls}Sheet1										

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		East Verde River Water Supply					
		Water Delivery System					
		Diversion Structure		1	Lump Sum	\$500,000	\$500,000
		Pipeline -- 8"		52,272	lf	\$45	\$3,136,300
		Pavement Replacement		52,272	lf	\$40	\$2,090,900
		Rock Excavation		20,000	cy	\$45	\$900,000
		Water/Wash Crossing		5	Crossing	\$45,000	\$225,000
		Traffic Control		1	Lump Sum	\$170,000	\$170,000
		Booster Pump Station(s)		3	Stations	\$882,000	\$2,646,000
		Subtotal					\$9,668,200
		Mobilization @ 5%					\$483,400
		Subtotal with Mobilization					\$10,151,600
		Unlisted @ 15%					\$1,522,700
		Contract Cost					\$11,374,400
		Contingencies @ 25%					\$2,918,600
		Field Cost (1 qtr 2006)					\$14,592,900
		Water Treatment Plant					\$649,300
		Finished Water Storage					\$1,143,400
							\$1,792,700
		Total Field Cost (1st qtr 2006)					\$21,960,900
		Adjusted Total Field Cost (1st qtr 2008)					\$23,834,700
		Annual Cost					
		Amortized (20 yrs @ 4.875%; CRF = 0.07939)					\$1,897,245
		Operation & Maintenance @ 8% TFC					\$1,906,800
		Total Annual Cost					\$3,804,000
		Annual Cost per Acre-Foot					\$5,755
		Annual Cost per 1,000 gallons					\$17.66
		Note: The estimate does not include Non-contract costs.					

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
April 30, 2008			

ESTIMATE WORKSHEET

FEATURE: **ADOT HWY 260 Surface Water Diversion**
 Station 0+00 is located at or near Lion Springs @ HWY 260
 Pipeline Terminus is at or near Kohl's Ranch @ HWY 260
 Communities that could be served include Kohl's Ranch, Pine Meado, Thompson Draw I & II, and Tonto Village. One or more of these communities can use all of the expected water supply from this source, i.e 100 acre-feet per annum

PROJECT:
 Mogollon Rim Water Resource Management Study

WOID: _____ **ESTIMATE LEVEL:** Appraisal
REGION LC **PRICE LEVEL:** 1st quarter 2008
FILE: _____

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		HWY 260 Transmission Pipeline					
		Pipeline -- 6" (dip -- 350 psi class)		54,542	lf	\$45.00	\$ 2,454,400
		Pipeline -- 8" (dip -- 350 psi class)		0	lf	\$60.00	\$ 0
		Pavement Surface Replacement		10,560	lf	\$40.00	\$ 422,400
		Rock Excavation		14,667	cy	\$45.00	\$ 660,000
		Water/Wash Crossing		10	Crossing	\$45,000	\$ 450,000
		Traffic Control		1	Lump Sum	\$170,000	\$ 170,000
		Booster Pump Stations		1	Stations	\$167,000	\$ 167,000
		Subtotal					\$ 4,323,800
		Mobilization @ 5%					\$ 216,200
		Subtotal with Mobilization					\$ 4,540,000
		Unlisted Items @ 15%					\$ 681,000
		Contract Cost					\$ 5,221,000
		Contingencies @ 25%					\$ 1,305,200
		Field Cost (1st qtr 2006)					\$ 6,526,200
		Probable Purchase Cost of Existing Facilities					\$ 2,500,000
		Assumption: water treatment facilities, storage, and recovery, and disinfection systems are included and operable.					
		Field Cost with ADOT Facilities					\$ 9,583,000
		Field Cost adjusted to 1st qtr. 2008 -- FC					
		Annual Cost					
		Amortized @ 20 yrs, I = 4.875%; CRF = 0.07939					\$ 760,800
		Operation & Maintenance @ 8% FC					\$ 766,600
		Total Annual Cost					\$ 1,527,400
		Annual Cost per Acre-Foot					\$ 15,274
		Annual Cost per 1,000 gallons					\$ 46.87
		Note: The estimate does not include Non-contract costs.					

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
April 29, 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study
WOID:	ESTIMATE LEVEL: Appraisal
REGION:	PRICE LEVEL: 1st quarter 2008
FILE:	

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Non-Cluster Communities							
Camp Geronimo							
	2040 Annual Low Water Demand = 19 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$322
	Annual Cost per 1,000 gallons						\$0.99
Geronimo Estates							
	2040 Annual Low Water Demand = 84 af/yr						
	Low volume production well(s)		3	20 gpm	\$38,400		\$115,200
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$115,200
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$9,100
	Annual O & M Cost @ 8% of FC						\$9,200
	Total Annual Cost						\$18,400
	Annual Cost per Acre-Foot						\$219
	Annual Cost per 1,000 gallons						\$0.67
Bonita Creek							
	2040 Annual Low Water Demand = 27 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$227
	Annual Cost per 1,000 gallons						\$0.70
Note: The estimate does not include Non-contract costs.							

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
April 30 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
	REGION: _____ PRICE LEVEL: 1st quarter 2008
	FILE: _____

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Non-Cluster Communities							
Diamond Point Recreation							
	2040 Annual Low Water Demand = 15 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$408
	Annual Cost per 1,000 gallons						\$1.25
	Kohl's Ranch						
	2040 Annual Low Water Demand = 62 af/yr						
	Low volume production well(s)		2	20 gpm	\$38,400		\$76,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$76,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$6,100
	Annual O & M Cost @ 8% of FC						\$6,100
	Total Annual Cost						\$12,200
	Annual Cost per Acre-Foot						\$197
	Annual Cost per 1,000 gallons						\$0.61
	Tonto Creek Estates						
	2040 Annual Low Water Demand = 21 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$291
	Annual Cost per 1,000 gallons						\$0.89
	Note: The estimate does not include Non-contract costs.						

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
April 30 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
	REGION: _____ PRICE LEVEL: 1st quarter 2008
	FILE: _____

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST AMOUNT
Sub-Region One - Cluster 1						
Pine Water Company						
	2040 Annual Low Water Demand = 1128 af/yr					
	Low volume production well(s)		5	20 gpm	\$38,400	\$192,000
	High volume production well(s)		4	150 gpm	\$350,000	\$1,400,000
	Field Cost (FC)					\$1,592,000
	Annual Cost					
	Amortization: n = 20 yrs; I = 4.875%					
	Annual O & M Cost @ 8% of FC					
	Total Annual Cost					
	Annual Cost per Acre-Foot					
	Annual Cost per 1,000 gallons					
Pine Creek Canyon DWID						
	2040 Annual Low Water Demand = 58 af/yr					
	Low volume production well(s)		2	20 gpm	\$38,400	\$76,800
	High volume production well(s)		0	150 gpm	\$350,000	\$0
	Field Cost (FC)					\$76,800
	Annual Cost					
	Amortization: n = 20 yrs; I = 4.875%					
	Annual O & M Cost @ 8% of FC					
	Total Annual Cost					
	Annual Cost per Acre-Foot					
	Annual Cost per 1,000 gallons					
Pine Water Association DWID						
	2040 Annual Low Water Demand = 18 af/yr					
	Low volume production well(s)		1	20 gpm	\$38,400	\$38,400
	High volume production well(s)		0	150 gpm	\$350,000	\$0
	Field Cost (FC)					\$38,400
	Annual Cost					
	Amortization: n = 20 yrs; I = 4.875%					
	Annual O & M Cost @ 8% of FC					
	Total Annual Cost					
	Annual Cost per Acre-Foot					
	Annual Cost per 1,000 gallons					
Note: The estimate does not include Non-contract costs.						

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
April 30 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study
WOID:	ESTIMATE LEVEL: Appraisal
REGION:	PRICE LEVEL: 1st quarter 2008
FILE:	

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 1							
Solitude Trails DWID							
	2040 Annual Low Water Demand = 25 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		38,400
	High volume production well(s)		0	150 gpm	\$350,000		0
	Field Cost (FC)						38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$245
	Annual Cost per 1,000 gallons						\$0.75
Strawberry Hollow DWID							
	2040 Annual Low Water Demand= 23 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$266
	Annual Cost per 1,000 gallons						\$0.82
Strawberry Water Company (Brooke)							
	2040 Annual Low Water Demand = 672 af/yr						
	Low volume production well(s)		0	20 gpm	\$38,400		\$0
	High volume production well(s)		3	150 gpm	\$350,000		\$1,050,000
	Field Cost (FC)						\$1,050,000
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$83,400
	Annual O & M Cost @ 8% of FC						\$84,000
	Total Annual Cost						\$167,400
	Annual Cost per Acre-Foot						\$249
	Annual Cost per 1,000 gallons						\$0.76
	Note: The estimate does include Non-contract costs.						

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
April 30 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study									
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WOID:	ESTIMATE LEVEL:	Appraisal								
REGION:	PRICE LEVEL:	1st quarter 2008								
FILE:										

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 1							
Strawberry Water Company							
	2040 Annual Low Water Demand = 23 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$266
	Annual Cost per 1,000 gallons						\$0.82
Cluster 1 -- Sub-Regional System							
	2040 Annual Low Water Demand=1,947 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		8	150 gpm	\$350,000		\$2,800,000
	Field Cost (FC)						\$2,838,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$225,300
	Annual O & M Cost @ 8% of FC						\$227,100
	Total Annual Cost						\$452,400
	Annual Cost per Acre-Foot						\$232
	Annual Cost per 1,000 gallons						\$0.71
	Note: The estimate does include Non-contract costs.						

QUANTITIES				PRICES			
BY	CHECKED	BY	CHECKED	DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
Marvin Murray				April 30 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
	REGION: _____ PRICE LEVEL: 1st quarter 2008
	FILE: _____

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 2							
Washington Park							
	2040 Annual Low Water Demand = 5 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$1,224
	Annual Cost per 1,000 gallons						\$3.76
Rim Trail DWID							
	2040 Annual Low Water Demand = 48 af/yr						
	Low volume production well(s)		2	20 gpm	\$38,400		\$76,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$76,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$6,100
	Annual O & M Cost @ 8% of FC						\$6,100
	Total Annual Cost						\$12,200
	Annual Cost per Acre-Foot						\$255
	Annual Cost per 1,000 gallons						\$0.78
Shadow Rim Ranch							
	2040 Annual Low Water Demand = 7 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		38,400
	High volume production well(s)		0	150 gpm	\$350,000		0
	Field Cost (FC)						38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						3,000
	Annual O & M Cost @ 8% of FC						3,100
	Total Annual Cost						6,100
	Annual Cost per Acre-Foot						874
	Annual Cost per 1,000 gallons						\$2.68
Note: The estimate does not include Non-contract costs.							

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April 30 2008							

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
	REGION: _____ PRICE LEVEL: 1st quarter 2008
	FILE: _____

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 2							
Whispering Pines							
	2040 Annual Low Water Demand = 74 af/yr						
	Low volume production well(s)		3	20 gpm	\$38,400		\$115,200
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$115,200
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$9,100
	Annual O & M Cost @ 8% of FC						\$9,200
	Total Annual Cost						\$18,400
	Annual Cost per Acre-Foot						\$248
	Annual Cost per 1,000 gallons						\$0.76
Cowan Ranch							
	2040 Annual Low Water Demand = 7 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$874
	Annual Cost per 1,000 gallons						\$2.68
Verde Glen							
	2040 Annual Low Water Demand = 37 af/yr						
	Low volume production well(s)		2	20 gpm	\$38,400		\$76,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$76,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$6,100
	Annual O & M Cost @ 8% of FC						\$6,100
	Total Annual Cost						\$12,200
	Annual Cost per Acre-Foot						\$331
	Annual Cost per 1,000 gallons						\$1.02
Note: The estimate does not include Non-contract costs.							

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April 30 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study
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	REGION: _____ PRICE LEVEL: 1st quarter 2008
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PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 2							
Cluster 2 -- Sub-Regional System							
	2040 Annual Low Water Demand = 178 af/yr						
	Low volume production well(s)		6	20 gpm	\$38,400		\$230,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$230,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$18,300
	Annual O & M Cost @ 8% of FC						\$18,400
	Total Annual Cost						\$36,700
	Annual Cost per Acre-Foot						\$206
	Annual Cost per 1,000 gallons						\$0.63
Sub-Region One - Cluster 3							
Zane Grey Meadows							
	2040 Annual Low Water Demand = 6 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$1,020
	Annual Cost per 1,000 gallons						\$3.13
Collins Ranch							
	2040 Annual Low Water Demand = 11 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$556
	Annual Cost per 1,000 gallons						\$1.71
Note: The estimate does not include Non-contract costs.							

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April 30 2008			

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FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study
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	REGION: _____ PRICE LEVEL: 1st quarter 2008
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PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 3							
Mead Ranch							
	2040 Annual Low Water Demand = 41 af/yr						
	Low volume production well(s)		2	20 gpm	\$38,400		\$76,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$76,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$6,100
	Annual O & M Cost @ 8% of FC						\$6,100
	Total Annual Cost						\$12,200
	Annual Cost per Acre-Foot						\$299
	Annual Cost per 1,000 gallons						\$0.92
Cluster 3 -- Sub-Regional System							
	2040 Annual Low Water Demand = 58 af/yr						
	Low volume production well(s)		2	20 gpm	\$38,400		\$76,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$76,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$6,100
	Annual O & M Cost @ 8% of FC						\$6,100
	Total Annual Cost						\$12,200
	Annual Cost per Acre-Foot						\$211
	Annual Cost per 1,000 gallons						\$0.65
Sub-Region One - Cluster 4							
Ellison Creek Recreation							
	2040 Annual Low Water Demand = 19 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$322
	Annual Cost per 1,000 gallons						\$0.99
Note: The estimate does not include Non-contract costs.							

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FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study									
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FILE:										

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 4							
Ellison Creek Estates							
	2040 Annual Low Water Demand = 26 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$235
	Annual Cost per 1,000 gallons						\$0.72
Cluster 4 -- Sub-Regional System							
	2040 Annual Low Water Demand = 45 af/yr						
	Low volume production well(s)		2	20 gpm	\$38,400		\$76,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$76,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$6,100
	Annual O & M Cost @ 8% of FC						\$6,100
	Total Annual Cost						\$12,200
	Annual Cost per Acre-Foot						\$272
	Annual Cost per 1,000 gallons						\$0.83
Note: The estimate does not include Non-contract costs.							

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April 30 2008							

ESTIMATE WORKSHEET

FEATURE: Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost	PROJECT: Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
	REGION: _____ PRICE LEVEL: 1st quarter 2008
	FILE: _____

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 5							
Thompson Draw I&II							
	2040 Annual Low Water Demand = 27 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$227
	Annual Cost per 1,000 gallons						\$0.70
Tonto Village							
	2040 Annual Low Water Demand = 114 af/yr						
	Low volume production well(s)		4	20 gpm	\$38,400		\$153,600
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$153,600
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$12,200
	Annual O & M Cost @ 8% of FC						\$12,300
	Total Annual Cost						\$24,500
	Annual Cost per Acre-Foot						\$215
	Annual Cost per 1,000 gallons						\$0.66

Note: The estimate does not include Non-contract costs.

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ESTIMATE WORKSHEET

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	WOID: _____ ESTIMATE LEVEL: Appraisal
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	FILE: _____

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 5							
Wood Canyon Ranch							
	2040 Annual Low Water Demand = 84 af/yr						
	Low volume production well(s)		3	20 gpm	\$38,400		\$115,200
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$115,200
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$9,100
	Annual O & M Cost @ 8% of FC						\$9,200
	Total Annual Cost						\$18,400
	Annual Cost per Acre-Foot						\$219
	Annual Cost per 1,000 gallons						\$0.67
Cluster 5 -- Sub-Regional System							
	2040 Annual Low Water Demand = 225 af/yr						
	Low volume production well(s)		7	20 gpm	\$38,400		\$268,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$268,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$21,300
	Annual O & M Cost @ 8% of FC						\$21,500
	Total Annual Cost						\$42,800
	Annual Cost per Acre-Foot						\$190
	Annual Cost per 1,000 gallons						\$0.58
Sub-Region One - Cluster 6							
Bear Flat							
	2040 Annual Low Water Demand = 46 af/yr						
	Low volume production well(s)		2	20 gpm	\$38,400		\$76,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$76,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$6,100
	Annual O & M Cost @ 8% of FC						\$6,100
	Total Annual Cost						\$12,200
	Annual Cost per Acre-Foot						\$266
	Annual Cost per 1,000 gallons						\$0.82
Note: The estimate does not include Non-contract costs.							

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April 30 2008			

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	WOID: _____ ESTIMATE LEVEL: Appraisal
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PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 6							
Christopher Creek							
	2040 Annual Low Water Demand = 183 af/yr						
	Low volume production well(s)		6	20 gpm	\$38,400		\$230,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$230,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$18,300
	Annual O & M Cost @ 8% of FC						\$18,400
	Total Annual Cost						\$36,700
	Annual Cost per Acre-Foot						\$201
	Annual Cost per 1,000 gallons						\$0.62
Hunter Creek							
	2040 Annual Low Water Demand = 54 af/yr						
	Low volume production well(s)		2	20 gpm	\$38,400		\$76,800
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$76,800
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$6,100
	Annual O & M Cost @ 8% of FC						\$6,100
	Total Annual Cost						\$12,200
	Annual Cost per Acre-Foot						\$227
	Annual Cost per 1,000 gallons						\$0.70
R Bar C Boy Scout Camp							
	2040 Annual Low Water Demand = 3 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$2,040
	Annual Cost per 1,000 gallons						\$6.26

Note: The estimate does not include Non-contract costs.

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PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region One - Cluster 6							
Cluster 6 - Sub-Regional System							
	2040 Annual Low Water Demand = 286 af/yr						
	Low volume production well(s)		9	20 gpm	\$38,400		\$345,600
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$345,600
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$27,400
	Annual O & M Cost @ 8% of FC						\$27,600
	Total Annual Cost						\$55,100
	Annual Cost per Acre-Foot						\$193
	Annual Cost per 1,000 gallons						\$0.59
Sub-Region Two							
Arrowhead Canyon							
	2040 Annual Low Water Demand = 3 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$2,040
	Annual Cost per 1,000 gallons						\$6.26
Sub-Region Three - Individual Communities							
Mesa Del Caballo							
	2040 Annual Low Water Demand = 147 af/yr						
	Low volume production well(s)		5	20 gpm	\$38,400		\$192,000
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$192,000
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$15,200
	Annual O & M Cost @ 8% of FC						\$15,400
	Total Annual Cost						\$30,600
	Annual Cost per Acre-Foot						\$208
	Annual Cost per 1,000 gallons						\$0.64
Note: The estimate does not include Non-contract costs.							

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PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region Three - Individual Communities							
Flowing Springs							
	2040 Annual Low Water Demand = 26 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$235
	Annual Cost per 1,000 gallons						\$0.72
East Verde Estates							
	2040 Annual Low Water Demand = 79 af/yr						
	Low volume production well(s)		3	20 gpm	\$38,400		\$115,200
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$115,200
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$9,100
	Annual O & M Cost @ 8% of FC						\$9,200
	Total Annual Cost						\$18,400
	Annual Cost per Acre-Foot						\$232
	Annual Cost per 1,000 gallons						\$0.71
Summit Springs							
	2040 Annual Low Water Demand = 9 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$680
	Annual Cost per 1,000 gallons						\$2.09
Note: The estimate does not include Non-contract costs.							

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ESTIMATE WORKSHEET

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PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region Three - Individual Communities							
Star Valley							
	2040 Annual Low Water Demand = 509 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		2	150 gpm	\$350,000		\$700,000
	Field Cost (FC)						\$738,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$58,600
	Annual O & M Cost @ 8% of FC						\$59,100
	Total Annual Cost						\$117,700
	Annual Cost per Acre-Foot						\$231
	Annual Cost per 1,000 gallons						\$0.71
Sub-Region Three - Group 7							
Beaver Valley							
	2040 Annual Low Water Demand = 113 af/yr						
	Low volume production well(s)		4	20 gpm	\$38,400		\$153,600
	High volume production well(s)		0	150 gpm	\$350,000		
	Field Cost (FC)						\$153,600
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$12,200
	Annual O & M Cost @ 8% of FC						\$12,300
	Total Annual Cost						\$24,500
	Annual Cost per Acre-Foot						\$217
	Annual Cost per 1,000 gallons						\$0.66
Freedom Acres							
	2040 Annual Low Water Demand = 7 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$874
	Annual Cost per 1,000 gallons						\$2.68
Note: The estimate does not include Non-contract costs.							

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April 30 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: 1 Mogollon Rim Water Resource Management Study
	WOID: _____ ESTIMATE LEVEL: Appraisal
	REGION: _____ PRICE LEVEL: 1st quarter 2008
	FILE: _____

PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region Three - Group 7							
Wonder Valley							
	2040 Annual Low Water Demand = 8 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$3,000
	Annual O & M Cost @ 8% of FC						\$3,100
	Total Annual Cost						\$6,100
	Annual Cost per Acre-Foot						\$765
	Annual Cost per 1,000 gallons						\$2.35
Group 7 - Sub-Regional System							
	2040 Annual Low Water Demand = 128 af/yr						
	Low volume production well(s)		4	20 gpm	\$38,400		\$153,600
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$153,600
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$12,200
	Annual O & M Cost @ 8% of FC						\$12,300
	Total Annual Cost						\$24,500
	Annual Cost per Acre-Foot						\$191
	Annual Cost per 1,000 gallons						\$0.59
Sub-Region Three - Group 8							
Round Valley							
	2040 Annual Low Water Demand = 78 af/yr						
	Low volume production well(s)		3	20 gpm	\$38,400		\$115,200
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$115,200
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						\$9,100
	Annual O & M Cost @ 8% of FC						\$9,200
	Total Annual Cost						\$18,400
	Annual Cost per Acre-Foot						\$235
	Annual Cost per 1,000 gallons						\$0.72
Note: The estimate does not include Non-contract costs.							

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Marvin Murray			
DATE PREPARED	PEER REVIEW	DATE PREPARED	PEER REVIEW
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FEATURE: <i>Sub-Regional Groundwater Alternative Individual, Cluster and Group Field Cost and Associated Annual Cost</i>	PROJECT: Mogollon Rim Water Resource Management Study									
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PLANT ACCOUNT	PAY ITEM	CODE	QUANTITY	UNIT	UNIT PRICE	FIELD COST	AMOUNT
Sub-Region Three - Group 8							
Oxbow Estates							
	2040 Annual Low Water Demand = 34 af/yr						
	Low volume production well(s)		1	20 gpm	\$38,400		\$38,400
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$38,400
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						
	Annual O & M Cost @ 8% of FC						
	Total Annual Cost						
	Annual Cost per Acre-Foot						
	Annual Cost per 1,000 gallons						
Group 8 - Sub-Regional System							
	2040 Annual Low Water Demand = 112 af/yr						
	Low volume production well(s)		4	20 gpm	\$38,400		\$153,600
	High volume production well(s)		0	150 gpm	\$350,000		\$0
	Field Cost (FC)						\$153,600
	Annual Cost						
	Amortization: n = 20 yrs; I = 4.875%						
	Annual O & M Cost @ 8% of FC						
	Total Annual Cost						
	Annual Cost per Acre-Foot						
	Annual Cost per 1,000 gallons						
Note: The estimate does not include Non-contract costs.							

QUANTITIES				PRICES			
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Marvin Murray				April 30 2008			

ESTIMATE WORKSHEET

FEATURE: <i>Tonto Apache Tribe</i> <i>Roosevelt Lake Option</i> <i>(Annual Water Supply = 128 acre-feet per year)</i> <i>Reclamation Construction Cost Trend Adjusted</i> <i>Original Cost: Gookin Engineers 1992</i>	PROJECT: <p style="text-align: center;">Mogollon Rim Water Resource Management Study</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">WOID:</td> <td style="width: 30%;">ESTIMATE LEVEL:</td> <td style="width: 40%; text-align: right;">Appraisal</td> </tr> <tr> <td>REGION:</td> <td>LC</td> <td>PRICE LEVEL:</td> </tr> <tr> <td colspan="3" style="text-align: right;">FILE:</td> </tr> <tr> <td colspan="3" style="text-align: right;">U:\PaysonAppraisalReport\Attach. 8\TontoRooseveltTable\37.xls\Sheet1</td> </tr> </table>	WOID:	ESTIMATE LEVEL:	Appraisal	REGION:	LC	PRICE LEVEL:	FILE:			U:\PaysonAppraisalReport\Attach. 8\TontoRooseveltTable\37.xls\Sheet1		
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U:\PaysonAppraisalReport\Attach. 8\TontoRooseveltTable\37.xls\Sheet1													

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	Original Price -- 3rd Qtr 1992	Index Adjusted Price -- 1st Qtr 2008
		Roosevelt Lake Option					
		Water Delivery System					
		Pipeline		253,440	lf	\$29,146,100	\$48,477,700
		Intake Facility		1	unit	\$10,000	\$16,600
		Pump Houses (2 pumps per unit)		22	unit	\$2,530,000	\$4,208,100
		Water Treatment Plant (7mgd)		1	mgd	\$3,500,000	\$2,521,400
		Storage (1 mg)		1	mgd	\$200,000	\$332,600
		Electric Lines & Substations		Varies	lf	\$5,481,500	\$9,117,200
		O&M Equipment		Varies	System	\$34,000	\$56,551
		Subtotal				\$40,901,600	\$68,030,200
		Mobilization @ 5%				\$2,045,100	\$3,401,200
		Subtotal with Mobilization				\$42,946,700	\$71,430,800
		Unlisted Items @ 15%				\$6,442,000	\$10,714,800
		Contract Cost				\$49,388,700	\$82,146,500
		Contingencies @ 25%				\$12,347,200	\$20,536,600
		Field Cost				\$60,735,900	\$101,581,400
		Annual Cost					
		Amortized 20yr @ 8.5%; 0.10568)				\$6,523,800	\$0
		Amortized 20yr @ 4.875%; 0.07939)				\$0	\$8,064,600
		Operation & Maintenance @ 8% FC				\$4,938,870	\$8,126,500
		Total Annual Cost				\$11,462,600	\$16,191,100
		Annual Cost per Acre-Foot				\$71,196	\$126,493
		Annual Cost per 1,000 gallons				218.49	388.19
		Note: The estimate does not include Non-contract costs.					

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