

# Middle Gila Watershed

## Watershed Description

This watershed encompasses the Gila River drainage area below Coolidge Dam (San Carlos Reservoir) in the east to Painted Rocks Dam in the west. It excludes the Santa Cruz River, the San Pedro River, and the Salt River drainage above Granite Reef Dam. The Salt River drainage area below Granite Reef Dam is included in this watershed (instead of the Salt Watershed) because the canals and diversions at the dam hydrologically disconnect the system from the rest of the lower Salt River drainage.

The Phoenix metropolitan area, located in this 12,250 square mile watershed, consists of more than three million people (2000 census) and continues to be one of the fastest growing areas in the United States. Land ownership in the Middle Gila is approximately: 65% federal land, 25% private land, 4% state land, and 4% tribal land. Within the metropolitan area, irrigated agriculture uses are rapidly being displaced by urbanization. Outside the urbanized area, livestock grazing is the primary land use. Mining (primarily now abandoned) has occurred across this watershed, with more concentration south of Prescott.

Elevations range from 7,400 feet (above sea level) to 1,100 feet at Painted Rocks Reservoir. Most of the watershed is below 5,000 feet in elevation, with Sonoran Desert flora and fauna and warmwater aquatic communities.

## Water Resources

This area receives little rainfall (approximately 13 inches a year); therefore, surface water flow is primarily attributed to releases from upstream impoundments, effluent from wastewater treatment plants, and agricultural return flows.

An estimate of surface water resources in the Middle Gila Watershed is provided in the following table. Waters on Tribal lands are not assessed by ADEQ; therefore, those statistics are shown separately.

Estimated Surface Water Resources in the Middle Gila Watershed

	Perennial	Intermittent	Ephemeral
Stream miles	165	1,210	5,460
	Perennial	Non-perennial	
Lake acres	10,320	6,830	

Additional Water Resources Located on Tribal Lands – Not Assessed

	Perennial	Intermittent	Ephemeral
Stream miles On Tribal Lands	0	10	1,105
	Perennial	Non-perennial	
Lake acres On Tribal Lands	240	0	

Ambient monitoring focuses on perennial waters; however, special investigations may identify water quality problems on intermittent and even ephemeral waters. Estimated miles and acres are based on USGS digitized hydrology at 1:100,000 and have been rounded to the nearest 5 miles or 5 acres.

## Assessments

The Middle Gila Watershed can be separated into the following drainage areas (subwatersheds):

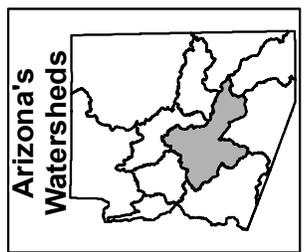
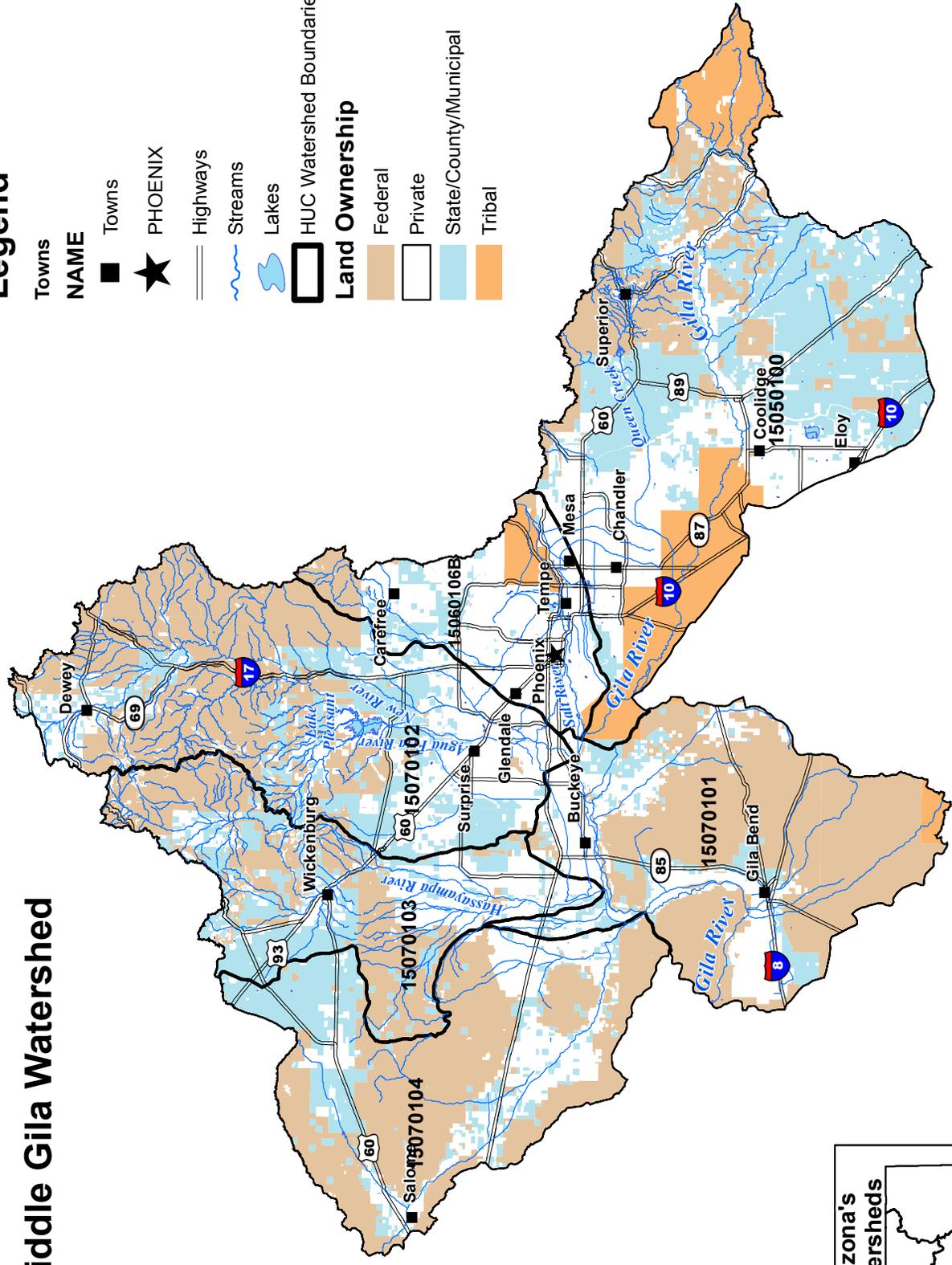
- 15050100 Gila – Queen Creek Drainage Area (from San Carlos Reservoir to Salt River)
- 15060106B Salt – Cave Creek Drainage Area (from Granite Reef Dam to Gila River)
- 15070101 Gila – Painted Rock Drainage Area (from Salt River to Painted Rock Dam)
- 15070102 Agua Fria River Drainage Area
- 15070103 Hassayampa River Drainage Area
- 15070104 Centennial River Drainage Area

These drainage areas and the surface waters assessed as “attaining” or “impaired” are illustrated on the following watershed map. Methods used to complete these assessments are described in the “Surface Water Assessment Methods and Technical Support” document.

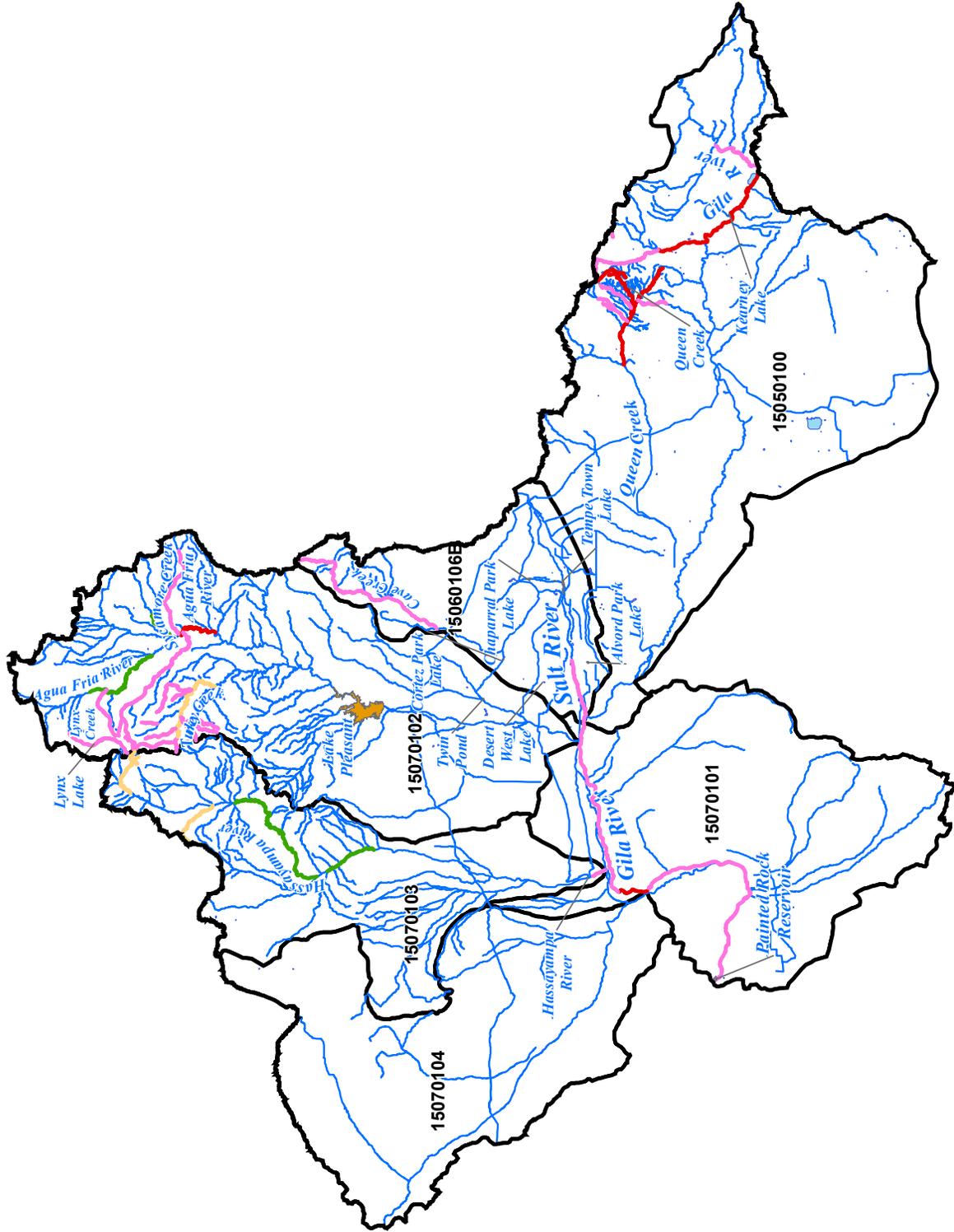
# Legend

- Towns**
- NAME
  - Towns
  - ★ PHOENIX
- Highways
- Streams
- Lakes
- HUC Watershed Boundaries
- Land Ownership**
- Federal
  - Private
  - State/County/Municipal
  - Tribal

## Middle Gila Watershed



# Middle Gila Watershed 2012/2014 Assessment for Streams and Lakes



## Legend

### Assessed Lakes - 2012

#### ADEQ and EPA Listings

- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired

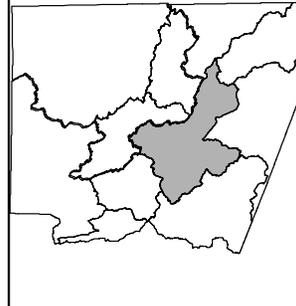
#### HUC Watershed Boundaries

### Assessed Streams - 2012

#### ADEQ and EPA Listings

- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired

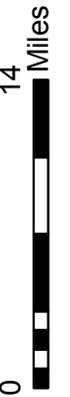
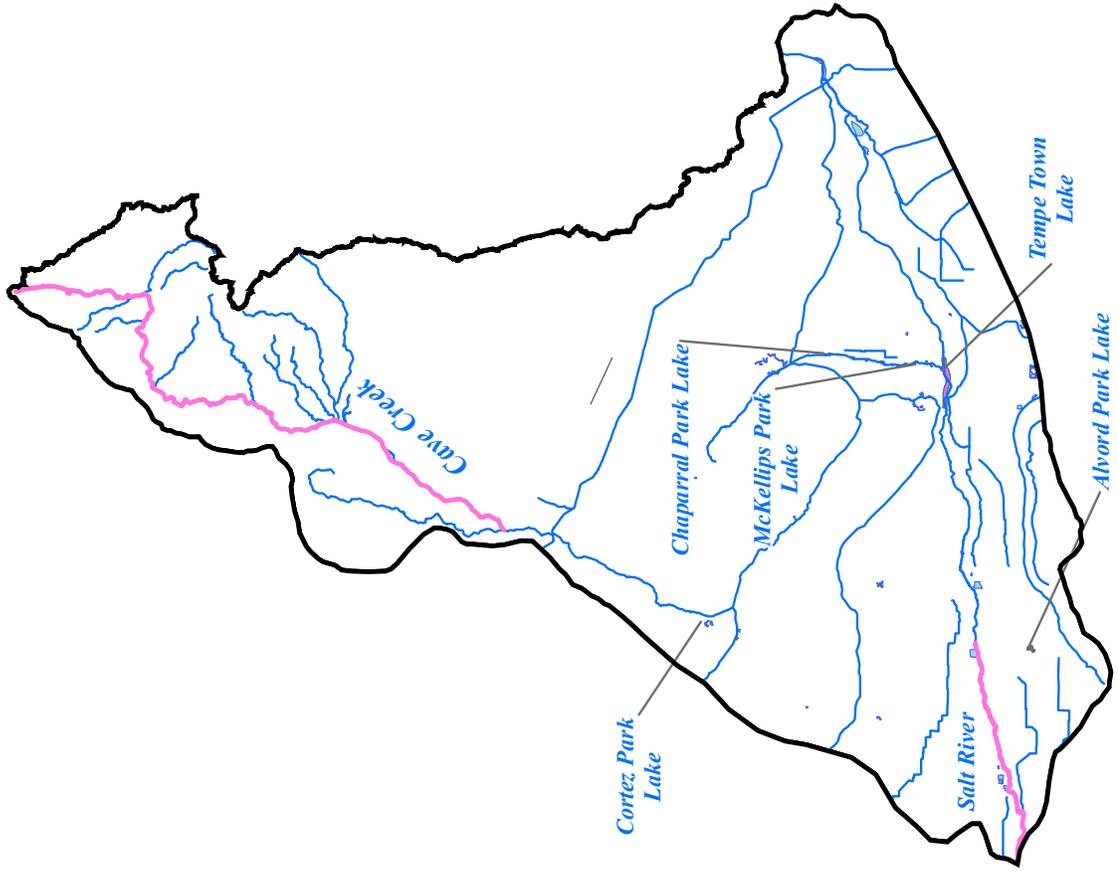
- Lakes
- Streams



See Individual HUC Printouts  
for Waters not Labeled

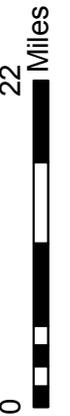
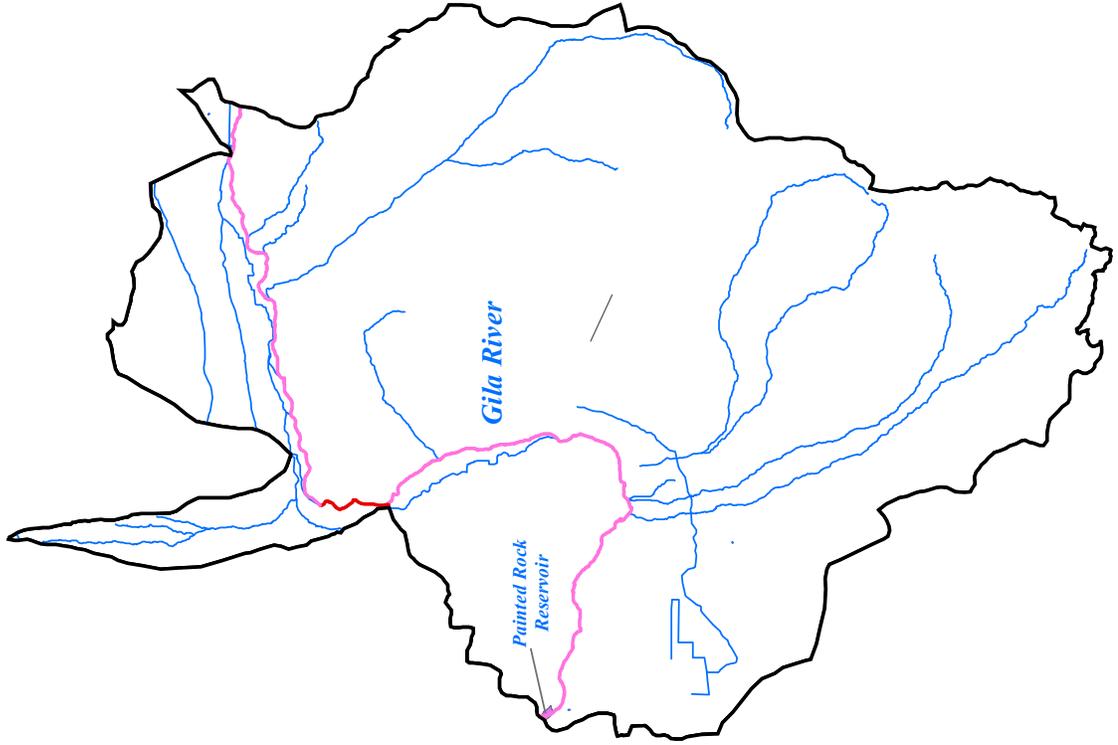


# Middle Gila Watershed HUC 15060106B 2012/2014 Assessment for Streams and Lakes

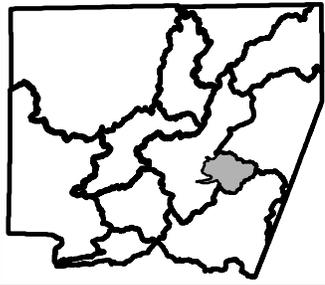


<b>Legend</b>	
<b>Assessed Streams - 2012</b>	
<b>ADEQ and EPA Listings</b>	
Attaining	Inconclusive
Not Attaining	EPA Impaired
Impaired	
HUC Watershed Boundaries	
Lakes	Streams
<b>Assessed Lakes - 2012</b>	
<b>ADEQ and EPA Listings</b>	
Attaining	Inconclusive
Not Attaining	EPA Impaired
Impaired	

# Middle Gila Watershed HUC 15070101 2012/2014 Assessment for Streams and Lakes



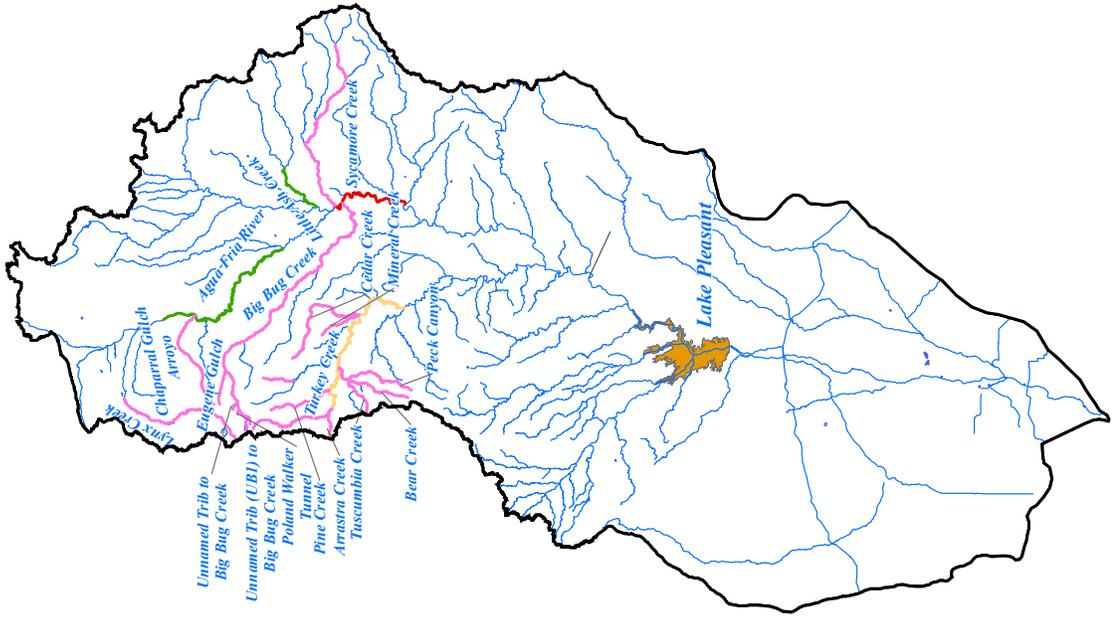
<b>Legend</b>	
<b>Assessed Streams - 2012</b>	
<b>ADEQ and EPA Listings</b>	
	Attaining
	Inconclusive
	Not Attaining
	EPA Impaired
	Impaired
	HUC Watershed Boundaries
	Lakes
	Streams
<b>Assessed Lakes - 2012</b>	
<b>ADEQ and EPA Listings</b>	
	Attaining
	Inconclusive
	Not Attaining
	EPA Impaired
	Impaired



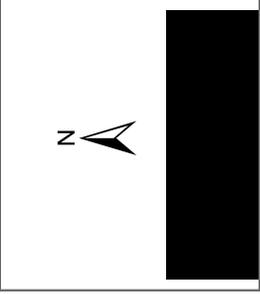
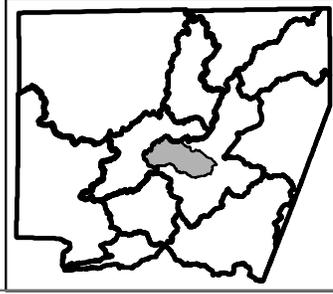




# Middle Gila Watershed HUC 15070102 2012/2014 Assessment for Streams and Lakes

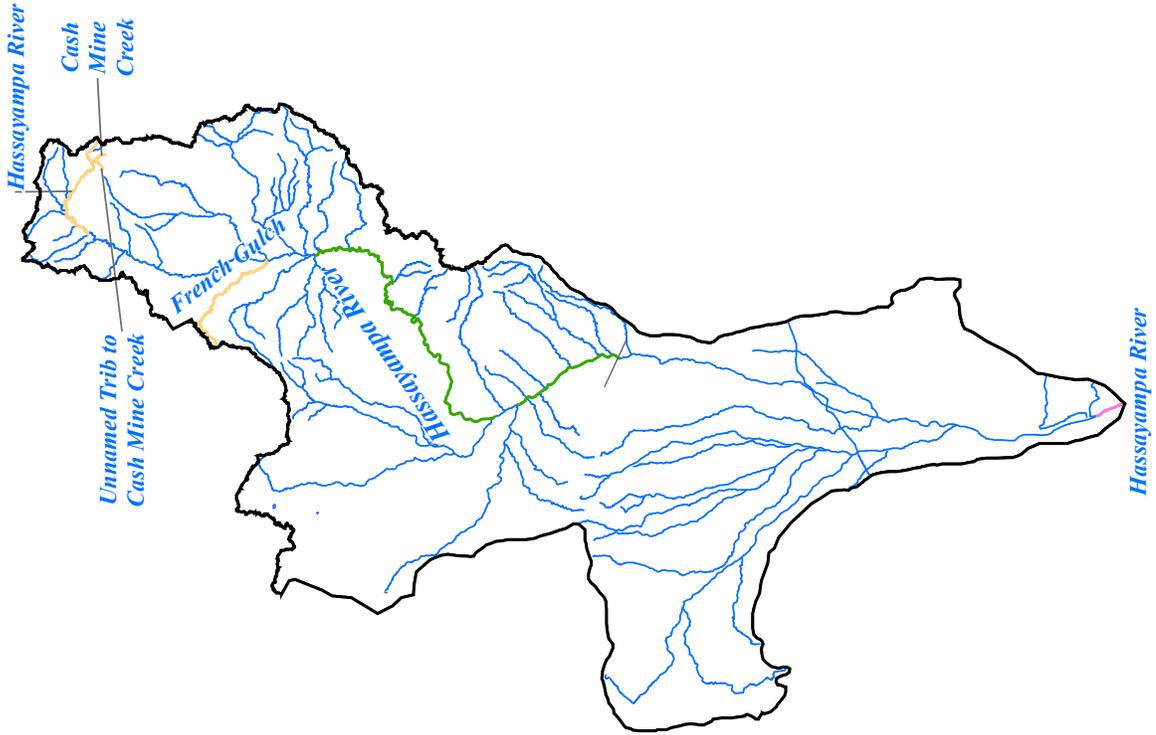


<b>Legend</b>	
<b>Assessed Streams - 2012</b>	
	Attaining
	Inconclusive
	Not Attaining
	EPA Impaired
	Impaired
	HUC Watershed Boundaries
	Lakes
	Streams
<b>Assessed Lakes - 2012</b>	
	Attaining
	Inconclusive
	Not Attaining
	EPA Impaired
	Impaired

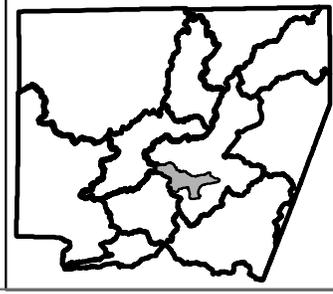


0 26 Miles

# Middle Gila Watershed HUC 15070103 2012/2014 Assessment for Streams and Lakes



<b>Legend</b>	
<b>Assessed Streams - 2012</b>	
<b>ADEQ and EPA Listings</b>	
	Attaining
	Inconclusive
	Not Attaining
	EPA Impaired
	Impaired
	HUC Watershed Boundaries
	Lakes
	Streams
<b>Assessed Lakes - 2012</b>	
<b>ADEQ and EPA Listings</b>	
	Attaining
	Inconclusive
	Not Attaining
	EPA Impaired
	Impaired



0 24 Miles

# A GUA FRIA RIVER

Sycamore Creek - Bishop Creek  
15070102-023  
9.1 Miles

**Category 5**  
Impaired

## IMPACTMENT STATUS

### E. coli (2010)

DWS - Inconclusive • FC - Attaining • FBC - Impaired  
AGI - Attaining • AGL - Attaining • A&Ww - Attaining

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Arsenic	10 ug/L	8/13/2008	16 ug/L	DWS is inconclusive with 1 exceedance in 4 samples (binomial).
E. coli	235 cfu/100 mL, SSM	9/11/2008	533 cfu/100 mL	FBC remains impaired with two exceedances in the last three years of the assessment period (7/08-6/11).
		10/20/2008	310 cfu/100 mL	

## Monitoring Summary

Sampling period: 8/13/2008 - 4/6/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW USGS GAGE 09512500	MGAFR087.06	100710	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc, selenium	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-4) Dissolved oxygen, E. coli, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Arsenic
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Mercury (dissolved), selenium

Priority	Monitoring Recommendations
High	Collect more <i>E. coli</i> to support TMDL development and arsenic due to exceedances. Good core parameter coverage with small number of samples.

Impairment Discussion
<i>Remains impaired for E. Coli (2010).</i>

# A GUA FRIA RIVER

State Route 169 - Yarber Wash  
15070102-031B  
17.8 Miles

**Category 2**  
Attaining some uses

DWS - Attaining • FC - Attaining • FBC - Inconclusive  
AGI - Attaining • AGL - Attaining • A&Ww - Inconclusive

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
<i>E. coli</i>	235 cfu/100 ml, SSM	9/11/2008	690 cfu/100 mL	FBC is inconclusive with 1 exceedance in 4 samples.

## Monitoring Summary

Sampling period: 8/13/2008 - 4/6/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE CHAPARRAL GULCH	MGAFR110.01	106462	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc, selenium	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(2-5) Dissolved oxygen, <i>E. coli</i> , pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	<i>E. coli</i>
Missing Core Parameters	Dissolved oxygen
Missing Seasonal Distribution	Dissolved oxygen
Lab Detection Limits Not Low Enough	Mercury (dissolved), selenium

Priority	Monitoring Recommendations
Medium	Collect additional <i>E. coli</i> samples due to the exceedance. Collect more dissolved oxygen to represent 3 seasons over the assessment period to complete core parameter coverage.

# IMPAIRMENT STATUS

## Ammonia (2004)

FC - Attaining • PBC - Inconclusive • A&Ww - Impaired

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	6.0 mg/L	9/10/2008	5.19 mg/L	A&Ww is inconclusive with 1 exceedance in 6 samples (binomial).
pH	9.0 SU	5/14/2009	9.7 SU	A&Ww and PBC are inconclusive with 2 exceedances in 6 samples (binomial).
		8/6/2009 8	9.3 SU	

## Monitoring Summary

Sampling period: 9/21/2006 - 8/6/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
MID LAKE	MGALV-C	101042	ADEQ	CLP
INFLOW	MGALV-A	101040	AGFD	CLP
WEST LAGOON	MGALV-WEST	102563	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(3-8) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(12) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(13-14) Dissolved oxygen, <i>E. coli</i> , pH, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Dissolved oxygen, pH
Missing Core Parameters	None
Missing Seasonal Distribution	Zinc (dissolved), cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
High	Collect more pH and dissolved oxygen due to exceedances. TMDL sampling completed.

Impairment Discussion
Remains impaired for ammonia (2004). Two exceedances in 2005 (2010 assessment) but no ammonia exceedances in this assessment period in 12 samples. TMDL development ongoing.

**Copper (2010)**

FC - Attaining • FBC - Inconclusive • A&Ww - Impaired

**Exceedances**

Parameter	Applicable Standard	Date	Result	Designated use support comments
Chromium	100 ug/L	7/22/2007	107 ug/L	FBC is inconclusive with 1 exceedance in 8 samples (binomial).
Copper <sup>d</sup>	24 mg/L <sup>acute</sup> @ 87 mg/L hardness & 10.5 ug/L <sup>chronic</sup> @ 120 mg/L hardness	8/6/2007	11.8 mg/L(worst case)/ 11 ug/L (median)	A&Ww remains impaired with 3 chronic exceedances in 9 samples.
	10.0 ug/L <sup>acute</sup> & 6.7 ug/L <sup>chronic</sup> @ 72 mg/L hardness	12/8/2007	12 ug/L (max) 11 ug/L (median)	
	9.1 ug/L <sup>acute</sup> & 6.3 ug/L <sup>chronic</sup> @ 66 mg/L hardness	1/7/2008	9.8 ug/L	
Lead	15 ug/L	3/23/2007	52.3 ug/L	FBC is inconclusive with 8 exceedances in 9 samples (binomial requires 20 samples for impairment).
		7/22/2007	270 ug/L	
		7/23/2007	123.4 ug/L	
		8/6/2007	52.3 ug/L	
		8/16/2007	108 ug/L	
		12/8/2007	23.6 ug/L	
		1/7/2008	76.3 ug/L	
		1/21/2010	28.8 ug/L	
SSC	80 mg/L	3/23/2007	337 mg/L	A&Ww is inconclusive. 2 non-storm single sample exceedances (3/23/07 and 1/28/08) but not enough samples to calculate a median.
		7/22/2007	1771 mg/L	
		8/16/2007	1060 mg/L	
		12/8/2007	200 mg/L	
		1/7/2008	2204 mg/L	
		1/28/2008	868 mg/L	

# Monitoring Summary

Sampling period: 3/23/2007 - 1/21/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE CONFLUENCE WITH QUEEN CREEK	MGARN000.11	103503	ADEQ	TMDL
ABOVE CONFLUENCE WITH TRIBUTARY 1	MGARN008.31	106222	ADEQ	TMDL
ABOVE CONFLUENCE WITH WOOD CANYON	MGARN005.52	107842	ADEQ	TMDL
ABOVE CONFLUENCE WITH TELEGRAPH CANYON	MGARN003.84	107823	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(9-11) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(2-8) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead, chromium, SSC
Missing Core Parameters	<i>E. coli</i>
Missing Seasonal Distribution	Dissolved oxygen, pH, <i>E. coli</i>
Lab Detection Limits Not Low Enough	Copper (dissolved), selenium, mercury (dissolved)

Priority	Monitoring Recommendations
Medium	Collect more chromium, lead, and SSC samples due to exceedances. Collect missing core parameters to represent at least 3 seasons during an assessment period.

Impairment Discussion
Remains impaired for copper (2010). Included as part of Queen Creek TMDL project.

# ARRASTRA CREEK

Headwaters - Turkey Creek  
15070102-848  
2 Miles

**Category 3**  
Inconclusive

PBC - Inconclusive • A&We - Inconclusive

Use Support

## No Exceedances

## Monitoring Summary

Sampling period: 2/25/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE MOUTH POINT NEAR CORRAL	MGARS000.04	107783	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Arsenic, boron, copper, lead, manganese	None	(1) Dissolved oxygen, pH, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

**BEAR CREEK**  
 Headwaters - Turkey Creek  
 15070102-046  
 8.1 Miles

**Category 3**  
 Inconclusive

PBC - Inconclusive • A&We - Inconclusive

Use Support

**No Exceedances**

**M**onitoring Summary  
 Sampling period: 11/28/2006 - 2/23/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
0.3 MILES SOUTH OF TURKEY CREEK CORRAL SITE	MGBEA001.08	104882	ADEQ	TMDL
DS OF TUSCUMBIA CREEK, US OF MOUTH PECK CANYON	MGBEA002.08	107703	ADEQ	TMDL
MID-STREAM (4X4 ACCESSIBLE)	MGBEA003.05	105347	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Arsenic, boron, copper, lead, manganese	None	(1) Dissolved oxygen, pH, total dissolved solids

**Data Gaps and Monitoring Needs**

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

# BIG BUG CREEK

Eugene Gulch - Agua Fria River  
15070102-034B  
23.3 Miles

**Category 3**  
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive  
AGL - Inconclusive • A&Ww - Inconclusive

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	9.6 ug/L @ 108 mg/L hardness	1/22/2010	10.1 ug/L	A&Ww is inconclusive with 1 exceedance in 2 samples.
Lead	15 ug/L	1/22/2010	23 ug/L	FBC is inconclusive with 1 exceedance in 2 samples (binomial).

## Monitoring Summary

Sampling period: 1/22/2010 - 3/9/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT SOUTH SPRING LANE	MGBGB009.57	107763	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1-2) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(1) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(2) Dissolved oxygen, pH

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper (dissolved), lead
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead
Lab Detection Limits Not Low Enough	Mercury (dissolved)

Priority	Monitoring Recommendations
Medium	Collect more lead and dissolved copper due to exceedances. All core parameters need sample and seasonal distribution coverage.

# BIG BUG CREEK

Headwaters - Eugene Gulch  
15070102-034A  
5.7 Miles

**Category 3**  
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive  
AGL - Inconclusive • A&Wc - Inconclusive

## No Exceedances

## Monitoring Summary

Sampling period: 3/9/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT FS ROAD 261 TRAIL BRIDGE	MGBGB028.27	108102	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, selenium, zinc	None	(1) pH

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead
Lab Detection Limits Not Low Enough	Cadmium (dissolved), lead (dissolved)

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period. Use lower lab reporting limits for dissolved cadmium and lead.

# CASH MINE CREEK

Headwaters - Hassayampa River  
15070103-349  
1.0 Miles

**Category 4A**  
Not Attaining

## Cadmium, copper, and zinc (2002)

FC - Inconclusive • FBC - Inconclusive  
A&Wc - Not Attaining

### Monitoring Summary

Sampling period: No current data

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW CASH MINE	MGCSM000.47	100832	ADEQ	Fixed Station Network
BELOW ROAD	MGCSM000.29	100833	Weston, ADEQ	TMDL, Fixed Station Network
NEAR MCCLEUR TAIL-INGS	MGCSM000.34	102818	ADEQ, Weston	TMDL, WQRF

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	None

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Conduct effectiveness monitoring after TMDL strategies have been implemented.

Impairment Discussion
Included in the Hassayampa River TMDL (2002).

**C**AVE CREEK  
 Headwaters - Cave Creek Dam  
 15060106B-026A  
 32.909 Miles

**Category 3**  
 Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive  
 A&Ww - Inconclusive

Use Support

**No Exceedances**

**M**onitoring Summary  
 Sampling period: 4/23/2009 - 11/18/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW SEVEN SPRINGS	MGCVE037.68	100527	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	(2) Dissolved oxygen, pH, total dissolved solids

**Data Gaps and Monitoring Needs**

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Collect core parameters to represent at least 3 seasons during an assessment period.

# CEDAR CANYON (CEDAR CREEK)

Headwaters - Turkey Creek  
15070102-053  
11.6 Miles

Category 3  
Inconclusive

Middle Gila

PBC - Inconclusive • A&We - Inconclusive  
Use Support

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Lead	15 ug/L	12/22/2010	42.7 ug/L	PBC is inconclusive with 1 exceedance in 2 samples (binomial).

## Monitoring Summary

Sampling period: 7/20/2006 - 12/22/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
NORTH OF MINERAL CREEK MOUTH	MGCED000.25	102522	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1-2) Arsenic, boron, chromium, copper, lead, manganese, mercury	None	(1) Dissolved oxygen, pH, SSC

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Collect lead samples due to the exceedance. Collect core parameters to represent at least 3 seasons during an assessment period.

# CHAPARRAL GULCH ARROYO

Headwaters - Agua Fria  
15070102-739  
9.9 Miles

**Category 3**

Inconclusive

PBC - Inconclusive • A&We - Inconclusive

# Use Support

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Lead	15 ug/L	1/22/2010	205 ug/L	PBC is inconclusive with 1 exceedance in 1 sample (binomial).
Zinc <sup>d</sup>	1509 ug/L @ 143 mg/L hardness	1/22/2010	4900 ug/L	A&We is inconclusive with 1 exceedance in 1 sample.

## Monitoring Summary

Sampling period: 1/22/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW IRON KING MINE	MGCGA001.32	107762	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(1) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1) Dissolved oxygen, pH

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Zinc (dissolved), lead
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Not enough data to assess. Collect more lead and dissolved zinc due to exceedances. Collect at least 3 of each core parameter to represent 3 seasons over assessment period.

*E. coli and low dissolved oxygen (2004)*

FC - Attaining • PBC - Attaining • AGI - Attaining  
 A&Ww - Impaired

**Exceedances**

Parameter	Applicable Standard	Date	Result	Designated use support comments
Ammonia	0.31 mg/L @ pH 8.8 and temp 26.1 °C	5/13/2009	1.2 mg/L	A&Ww is inconclusive with 1 exceedance in 4 samples.
Dissolved oxygen	6.0 mg/L	9/8/2008 9	4.51 mg/L	A&Ww remains impaired with 1 exceedance in 5 samples (binomial).

**M**onitoring Summary  
 Sampling period: 9/8/2008 - 8/5/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT DAM	MGCHA-A	101045	ADEQ	TMDL
MID LAKE	MGCHA-B	101046	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1-5) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(7) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(10) Dissolved oxygen, <i>E. coli</i> , pH, total dissolved solids

**Data Gaps and Monitoring Needs**

Exceedances Needing More Samples to Assess	Ammonia
Missing Core Parameters	None
Missing Seasonal Distribution	Zinc (dissolved), cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect more ammonia samples due to the exceedance.

Impairment Discussion
Remains impaired for dissolved oxygen and <i>E. coli</i> (2004). Five <i>E. coli</i> samples taken in this assessment period (08-09) with no exceedances. TMDL sampling completed. Developing TMDL report.

*Dissolved oxygen and pH (2004)*

FC - Attaining • PBC - Impaired • AGI - Impaired  
A&Ww - Impaired

**Exceedances**

Parameter	Applicable Standard	Date	Result	Designated use support comments
pH	9.0 SU	5/13/2009	9.4 SU	AGI, A&Ww, and AGI remain impaired with 1 exceedance in 5 samples.

**M**onitoring Summary  
Sampling period: 9/4/2008 - 8/5/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT DAM	MGCOR-A	101043	ADEQ	TMDL
MID LAKE	MGCOR-B	101044	ADEQ	CLP

Metal Samples	Nutrients & Related Samples	Other Samples
(2-8) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	(6-8) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(10) Dissolved oxygen, <i>E. coli</i> , pH, total dissolved solids

**Data Gaps and Monitoring Needs**

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Conduct effectiveness monitoring after TMDL strategies have been implemented.

**Impairment Discussion**

Remains impaired for dissolved oxygen and pH (2004). TMDL sampling completed.

# DEVILS CANYON

Headwaters - Mineral Creek  
15050100-1662  
12.9 Miles

**Category 3**  
Inconclusive

Middle Gila

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive  
A&Ww - Inconclusive

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	3.64 ug/L <sup>acute</sup> , 2.74 ug/L <sup>chronic</sup> @ 23 mg/L hardness	12/11/2007	12 ug/L	A&Ww chronic is inconclusive with 1 exceedance in the assessment period.

## Monitoring Summary

Sampling period: 12/11/2007

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT US 60	MGDVC009.11	105979	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc, selenium	None	(1) SSC

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper (dissolved)
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), zinc (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
Medium	Insufficient sampling event and seasonal coverage. Collect more dissolved copper samples due to the exceedance.

**EUGENE GULCH**  
 Headwater - Big Bug Creek  
 15070102-768  
 3.1 Miles

**Category 3**  
 Inconclusive

PBC - Inconclusive • A&We - Inconclusive

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	13.2 ug/L @ 55 mg/L hardness	3/9/2010	50.9 ug/L	A&We is inconclusive with 1 exceedance in 1 sample.

### Monitoring Summary

Sampling period: 3/9/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE POLAND JUCTION ROAD	MGEUG000.75	108103	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, selenium, zinc	None	(1) Dissolved oxygen, pH

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper (dissolved)
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect more dissolved copper due to the exceedance. All core parameters need sample number and seasonal distribution coverage.

# FRENCH GULCH

Headwaters - Hassayampa River  
15070103-239  
9.8 Miles

**Category 4A**  
Not Attaining

## Cadmium, copper, and zinc (2004)

FC - Inconclusive • FBC - Inconclusive  
A&Ww - Not Attaining

### Monitoring Summary

Sampling period: No current data

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE ZONIA GULCH	MGFRG008.19	102235	ADEQ	TMDL
AT HEADWATERS	MGFRG010.13	102086	ADEQ	TMDL
BELOW HEADWATERS	MGFRG010.33	102234	ADEQ	TMDL
BELOW UPPER WASTE ROCK PILE	MGFRG009.59	102087	ADEQ	TMDL
ABOVE HASSAYAMPA RIVER	MGFRG000.19	102084	ADEQ	TMDL
ABOVE PLACERITA GULCH	MGFRG007.06	101649	ADEQ	TMDL
ABOVE ZONIA MINE	MGFRG009.79	101619	ADEQ	TMDL
BELOW PLACERITA GULCH	MGFRG006.95	101650	ADEQ	TMDL
BELOW ZONIA GULCH	MGFRG008.09	101620	ADEQ	TMDL
WESTERN TRIB ABOVE ZONIA MINE	MGFRG010.19	102085	ADEQ	TMDL
ABOVE ZONIA MINE	MGFRG010.14	102088	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	None

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Conduct effectiveness monitoring after TMDL strategies have been implemented.

Impairment Discussion
Remains not attaining for copper, cadmium and zinc. French Gulch TMDL completed in 2005.

# GILA RIVER

San Pedro - Mineral Creek  
15050100-008  
19.8 Miles

**Category 5**  
Impaired

Middle Gila

## IMPACTMENT STATUS

**SSC (2006/8)**

FC - Attaining • FBC - Attaining • AGI - Attaining  
AGL - Attaining • A&Ww - Impaired

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
SSC	80 mg/L	9/16/2008	98 mg/L	A&Ww remains impaired. The exceedance on 5/13/09 occurred during a storm event and was excluded from assessment.
		1/14/2009	87.5 mg/L	
		5/13/2009	93 mg/L	

## Monitoring Summary

Sampling period: 9/16/2008 - 5/13/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT KELVIN, AZ USGS 09474000	MGGLR313.73	100748	USGS	USGS

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc, selenium	(3) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-4) Dissolved oxygen, <i>E. coli</i> , pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	Copper (dissolved)
Lab Detection Limits Not Low Enough	Mercury (dissolved), selenium

Priority	Monitoring Recommendations
High	Collect more SSC samples to support TMDL development.

<b>Impairment Discussion</b>
Remains impaired for SSC (2006/8)



# GILA RIVER

Dripping Spring - San Pedro River  
15050100-009  
11.0 Miles

## Category 3

Inconclusive

Middle Gila

AGI - Inconclusive • AGL - Inconclusive  
A&Ww - Inconclusive • FBC - Inconclusive • FC - Inconclusive

### No Exceedances

## Monitoring Summary

Sampling period: 9/7/2006 - 10/4/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW ASH CREEK	MGGLR337.14	104638	ADEQ	Special Studies

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	(1-2) <i>E. coli</i> , pH, turbidity

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	pH, boron, manganese, copper, lead, zinc (dissolved), dissolved oxygen, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Missing Seasonal Distribution	pH, boron, manganese, copper, lead, zinc (dissolved), dissolved oxygen, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Many core parameters need seasonal distribution and/or sample number coverage as well (at least 3 samples representing 3 seasons).

**GILA RIVER**  
 Centennial Wash - Gillespie Dam  
 15070101-008  
 5.3 Miles

**Category 5**  
 Impaired

**Boron (1992), selenium (2004)**

PBC - Inconclusive • FC - Inconclusive • A&Wedw - Impaired  
 AGL - Inconclusive • AGI - Impaired

**M**onitoring Summary  
 Sampling period: No current data

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE DIVERSION AT GILLESPIE DAM USGS 09518000	MGGLR167.44	100734	USGS	USGS

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	None

**Data Gaps and Monitoring Needs**

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
High	Collect more samples to support TMDL development.

Impairment Discussion
Remains impaired for boron and selenium. Overfile listing for pesticides in fish tissue by EPA in 2002. ADEQ proposes delisting this reach for pesticides based on recent fish tissue and water quality data.

# GILA RIVER SITES

Salt River - Painted Rock Reservoir  
15070101 (multiple reaches)  
77.2 Miles

**Category 3**  
Inconclusive

PBC - Inconclusive • FC - Inconclusive • A&Wedw - Inconclusive  
AGL - Inconclusive • AGI - Inconclusive

## Sites Summary

Sampling period: No current data

HUC-reach	Reach Description	Miles
15070101-015	Salt River - Agua Fria River	3.7
15070101-014	Agua Fria River - Waterman Wash	11.9
15070101-010	Waterman Wash - Hassayampa River	13.9
15070101-009	Hassayampa - Centennial Wash	7
15070101-007	Gillespie Dam - Rainbow Wash	5.1
15070101-005	Rainbow Wash - Sand Tank	16.9
15070101-001	Sand Tank - Painted Rock Reservoir	18.7

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect samples to determine designated use attainments.

Delisting of Previous Impairment
ADEQ proposes delisting these reaches (2002 EPA overfiles) based on recent fish tissue and water quality data..

# HASSAYAMPA RIVER

Buckeye Canal - Gila River  
15070103-001B  
2.3 Miles

## Category 2

Attaining some uses

FC - Inconclusive • FBC - Inconclusive • AGL - Attaining  
A&Ww - Inconclusive

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
<i>E. coli</i>	235 cfu/100 ml, SSM	5/14/2009	808 cfu/100 mL	FBC is inconclusive with 1 exceedance in 3 samples.
SSC	80 mg/L	1/13/2009	1511 mg/L	A&Ww is attaining with no median exceedances in 7 samples.
		5/14/2009	116 mg/L	

### Monitoring Summary

Sampling period: 9/15/2008 - 5/14/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE GILA RIVER	MGHSR000.77	101197	ADEQ	Ambient
NEAR ALINGTON, AZ USGS 09517000	MGHSR002.67	101496	USGS	USGS

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(3-6) Ammonia, nitrate, nitrite, nitrite/nitrate, nitrite/nitrate, nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	(3-7) Dissolved oxygen, <i>E. coli</i> , hexachlorocyclohexane delta, isophorone, naphthalene, nitrobenzene, nitrophenol, pH, phenol, pyrene, SSC, simazine, total dissolved solids, trichlorobenzene

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	<i>E. coli</i>
Missing Core Parameters	Copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect more <i>E. coli</i> samples to assess attainment. Collect more dissolved metals (cadmium, copper, zinc) covering 3 seasons over assessment period. Many organic parameters being monitored have detection limit issues (too many to list).

Delisting of Previous Impairment
Previously impaired for pesticides in fish tissue (2002, EPA). ADEQ proposes delisting based on recent fish tissue and water quality data.

# HASSAYAMPA RIVER

Cottonwood Creek - Martinez Wash  
15070103-004  
32.1 Miles

## Category 2

Attaining some uses

FC - Attaining • FBC - Attaining • AGI - Attaining  
AGL - Attaining • A&Ww - Inconclusive

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	6.0 mg/L	8/12/2008	5.46 mg/L	A&Ww is inconclusive with 1 exceedance in 3 samples (binomial).

## Monitoring Summary

Sampling period: 8/12/2008 - 4/7/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT BLM GAGE, BOX CANYON DAM	MGHSR058.80	100463	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc, selenium	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(4) Dissolved oxygen, <i>E. coli</i> , pH, SSC, total dissolved solids

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Dissolved oxygen
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Mercury, nickel (dissolved), selenium

Priority	Monitoring Recommendations
Medium	Collect more dissolved oxygen samples due to exceedance. Good core parameter coverage with small number of samples.

# HASSAYAMPA RIVER

Headwaters - Copper Creek  
15070103-007A  
11.0 Miles

**Category 4A**  
Not Attaining

*Low pH(2006/8) and zinc, cadmium, and copper (1992)*

FC - Attaining • FBC - Not Attaining • AGI - Not Attaining  
AGL - Not Attaining • A&Wc - Not Attaining

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Cadmium <sup>d</sup>	0.37 ug/L <sup>chronic</sup> @ 180 mg/L hardness	2/15/2007	2.8 ug/L	A&Wc remains not attaining.
	0.51 ug/L <sup>chronic</sup> @ 280 mg/L hardness	10/20/2008	3.3 ug/L	
	2.2 ug/L <sup>acute</sup> , 0.26 ug/L <sup>chronic</sup> @ 110 mg/L hardness	2/4/2009	3.9 ug/L	
	2.8 ug/L <sup>acute</sup> , 0.31 ug/L <sup>chronic</sup> @ 140 mg/L hardness	4/7/2009	5.8 ug/L	
Copper <sup>d</sup>	15.9 ug/L <sup>acute</sup> , 10.5 ug/L <sup>chronic</sup> @ 180 mg/L hardness	2/15/2007	18 ug/L	A&Wc remains not attaining.
	14.7 ug/L <sup>acute</sup> , 9.7 ug/L <sup>chronic</sup> @ 110 mg/L hardness	2/4/2009	36 ug/L	
	18.5 ug/L <sup>acute</sup> , 11.9 ug/L <sup>chronic</sup> @ 140 mg/L hardness	4/7/2009	38 ug/L	
Zinc <sup>d</sup>	192 ug/L @ 180 mg/L hardness	2/15/2007	370 ug/L	A&Wc remains not attaining.
	127 ug/L @ 110 mg/L hardness	2/4/2009	260 ug/L	
	156 ug/L @ 140 mg/L hardness	4/7/2009	290 ug/L	

## Monitoring Summary

Sampling period: 2/15/2007 - 4/7/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
DOWNSTREAM OF WET- LAND MINE BABBLE	MGHSR113.86	100942	WESTN	TMDL
LOWER WOLF CREEK CAMPGROUND	MGHSR110.58	106662	ADEQ	Ambient
AT SENATOR MINE ADIT	MGHSR113.01	101084	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(3-5) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc, selenium	(3) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-5) Dissolved oxygen, <i>E. coli</i> , pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
Medium	Collect more cadmium, copper, and zinc samples to assess on the ground improvements. Good core parameter coverage with small number of samples.

Impairment Discussion
TMDL for cadmium, copper, zinc completed and approved in 2002. On the ground improvements meant to improve metal concentrations may have improved pH levels – no pH exceedances in this assessment period.

# HASSAYAMPA RIVER

Sols Wash - 8 Miles Below Wickenburg  
15070103-002A  
9.2 Miles

**Category 2**

Attaining some uses

FC - Attaining • FBC - Attaining • AGI - Inconclusive  
AGL - Attaining • A&Ww - Inconclusive

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	6.0 mg/L	8/15/2008	5.22 mg/L	A&Ww is inconclusive with 2 exceedances in 4 samples (binomial).
		2/4/2009	5.63 mg/L	
Manganese	10000 µg/L	8/15/2008	77000 µg/L	AGI is inconclusive with 1 exceedance in 4 samples (binomial).
Bottom Deposits	< 50%	10/22/2008	59%	A&Ww is inconclusive with 1 exceedance.

## Monitoring Summary

Sampling period: 8/15/2008 - 6/4/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT NATURE CONSERVANCY	MGHSR048.20	100462	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc, selenium	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(4) Dissolved oxygen, <i>E. coli</i> , pH, SSC, total dissolved solids, bottom deposits

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Manganese, dissolved oxygen, bottom deposits
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Mercury (dissolved), selenium

Priority	Monitoring Recommendations
Medium	Collect more manganese, dissolved oxygen, and bottom deposits samples due to exceedance. Good core parameter coverage with small number of samples.

# LAKE PLEASANT

15070102-1100  
8000 Acres

**Category 5**  
Impaired

## Mercury in fish tissue (EPA 2006/8)

FC - Impaired • FBC - Inconclusive • DWS - Inconclusive  
A&Ww - Inconclusive • AGL - Inconclusive • AGI - Inconclusive

### Monitoring Summary

Sampling period: No current data

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AGUA FRIA ARM	MGPLE-AGUA	102553	AGFD	Ambient
AT DAM	MGPLE-A	100067	ADEQ	TMDL
AT RIVERINE ZONE	MGPLE-C	101708	UA, ADEQ	CLP
CASTLE CREEK	MGPLE-CSTL	102554	ADEQ	TMDL
MARINA	MGPLE-MAR	101000	UA, ADEQ	CLP
MID LAKE	MGPLE-B	100068	ADEQ	CLP, TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	None

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
High	Collect more samples in support of TMDL development.

Impairment Discussion
Remains impaired for mercury in fish tissue (2006/8).

# LITTLE ASH CREEK (LAS)

Headwaters - Ash Creek  
15070102-039  
17.7 Miles

**Category 2**

Attaining some uses

FC - Attaining • FBC - Inconclusive • AGL - Attaining  
A&Ww - Attaining

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
<i>E. coli</i>	235 cfu/100 mL, SSM	8/14/2008	250 cfu/100 mL	FBC is inconclusive with 1 exceedance in the last 3 years of monitoring.

## Monitoring Summary

Sampling period: 8/14/2008 - 4/8/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
NEAR ESTLER PEAK	MGLAS004.52	100578	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc, selenium	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-4) Dissolved oxygen, <i>E. coli</i> , pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Mercury (dissolved), selenium

Priority	Monitoring Recommendations
Medium	Collect more <i>E. coli</i> samples due to the exceedance.

# LITTLE WOLF CREEK

Headwaters - Wolf Creek  
15070102-834  
3.0 Miles

**Category 3**  
Inconclusive

PBC - Inconclusive • A&We - Inconclusive

# Use Support

## No Exceedances

## Monitoring Summary

Sampling period: 2/25/2010 - 3/9/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE HIGHWAY 177 CROSSING	MGLWL000.32	107784	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1-2) Arsenic, boron, copper, lead, manganese	None	(2) Dissolved oxygen, pH, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

# LYNX CREEK

Headwaters - Unnamed Trib at 343429/1122105  
 15070102-033A  
 13.1 Miles

## Category 3

Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive  
 A&Wc - Inconclusive

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Cadmium <sup>d</sup>	1.3 ug/L <sup>acute</sup> , 0.19 ug/L <sup>chronic</sup> @ 66 mg/L hardness	3/9/2010 3	5.7 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.
Copper <sup>d</sup>	9.1 ug/L <sup>acute</sup> , 6.3 ug/L <sup>chronic</sup> @ 66 mg/L hardness	3/9/2010 3	75.6 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.
Lead	15 ug/L	3/9/2010 3	18.5 ug/L	FBC is inconclusive with 1 exceedance in 1 sample (binomial).
Zinc <sup>d</sup>	82 ug/L @ 66 mg/L hardness	3/9/2010 3	540 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.

## Monitoring Summary

Sampling period: 3/9/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT PINE MOUNTAIN ROAD	MGLNX018.81	108104	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, selenium, zinc	None	(1) Dissolved oxygen, pH

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Cadmium (dissolved), copper (dissolved), zinc (dissolved), lead
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Lab Detection Limits Not Low Enough	Cadmium (dissolved), lead (dissolved)

Priority	Monitoring Recommendations
Medium	Collect additional lead and dissolved metals (cadmium, copper, and zinc) due to exceedances. All core parameters need sample number and seasonal distribution coverage.

# MCKELLIPS PARK LAKE

15060106B-0920  
6.0 Acres

**Category 2**  
Attaining some uses

FC - Attaining • PBC - Inconclusive • AGI - Attaining  
A&Ww - Inconclusive

## No Exceedances

## Monitoring Summary

Sampling period: 2/14/2007 - 12/2/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT DRAIN	MGMPL-W	107122	SRP	SRP

Metal Samples	Nutrients & Related Samples	Other Samples
(19-20) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(20) Nitrate, nitrite, phosphorus	(2-20) Naphthalene, pH, total dissolved solids, styrene, , tetrachloroethane, tetrachloroethylene, toluene, trichlorobenzene, trichloroethane 111, trichloroethane 112, trichloroethylene, trihalomethanes, vinylchloride, xylene

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Lab Detection Limits Not Low Enough	Selenium

Priority	Monitoring Recommendations
Low	Collect core parameters to represent at least 3 seasons during an assessment period.

# MINERAL CREEK (MIN)

Devil's Canyon - Gila River  
15050100-012B  
19.6 Miles

**Category 5**  
Impaired

Middle Gila

## Dissolved oxygen (2006/08), selenium (2004), and copper (1992)

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive  
A&Ww - Impaired

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Hex chromium <sup>d</sup>	11 ug/L	9/14/2007	12 ug/L	A&Ww is inconclusive with 1 exceedance in 7 samples.
Copper <sup>d</sup>	3.4 ug/L <sup>acute</sup> , 2.6 ug/L <sup>chronic</sup> @ 23 mg/L hardness	12/17/2007	21 ug/L	A&Ww remains impaired with 4 exceedances in 23 samples.
	26 ug/L <sup>acute</sup> @ 203 mg/L hardness 14.6 ug/L <sup>chronic</sup> @ 177 mg/L hardness	7/16/2008	43 ug/L (Max) 39 ug/L (Median)	
	15.3 ug/L <sup>chronic</sup> @ 187 mg/L hardness	9/9/2008	23 ug/L	
	29.2 ug/L <sup>chronic</sup> @ >400 mg/L hardness	10/7/2008	48 ug/L	
Dissolved oxygen	6.0 mg/L	9/9/2006	1.16 mg/L	A&Ww remains impaired with 16 exceedances in 22 samples.
		12/5/2006	2.3 mg/L	
		4/16/2007	4.34 mg/L	
		5/18/2007	2.2 mg/L	
		6/26/2007	3.56 mg/L	
		7/11/2007	4.94 mg/L	
		8/3/2007	4.2 mg/L	
		9/14/2007	5.1 mg/L	
		10/5/2007	5.12 mg/L	
		4/8/2008	5.21 mg/L	
		5/14/2008	4.13 mg/L	
		6/10/2008	2.8 mg/L	
7/16/2008	3.79 mg/L			
Dissolved oxygen	6.0 mg/L	8/13/2008	3.96 mg/L	Continued.
		9/9/2008	3.68 mg/L	
		10/7/2008	3.01 mg/L	

Parameter	Applicable Standard	Date	Result	Designated use support comments
Hydrogen sulfide	2 ug/L	11/20/2007	606 ug/L	A&Ww is inconclusive, 1 exceedance, 1 sample
pH	6.5 SU	12/5/2006	5 SU	AGL, A&Ww, and FBC are attaining with 2 exceedances in 24 samples.
		12/17/2007	5.33 SU	
Selenium	2 ug/L	12/5/2006	5.1 ug/L	A&Ww remains impaired with 10 exceedances in 13 samples.
		5/18/2007	6.2 ug/L	
		6/26/2007	9.8 ug/L	
		7/11/2007	8.7 ug/L	
		8/3/2007	9.7 ug/L	
		9/14/2007	11 ug/L	
		10/5/2007	8.8 ug/L	
		11/20/2007	9.1 ug/L	
		11/11/2008	5 ug/L	
		12/10/2008	5.4 ug/L	
SSC	80 mg/L	7/16/2008	96.8 mg/L	A&Ww is attaining. Reported single sample exceedance was storm related.

# Monitoring Summary

Sampling period: 9/9/2006 - 12/10/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
TUNNEL OUTLET	MGMIN003.69	103333	ASARC	Permit Monitoring
AT INDIAN GARDENS	MGMIN008.81	103331	ASARC	Permit Monitoring
CHANNLE OUTLET	MGMIN002.65	103334	ASARC	Permit Monitoring
AT HIGHWAY 177 BRIDGE NORTH OF KELVIN, AZ	MGMIN001.38	100472	ASARC	Permit Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(1-64) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(1-61) Ammonia, nitrate, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1-64) Dissolved oxygen, <i>E. coli</i> , pH, SSC, total dissolved solids

# Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Hex chromium (dissolved), hydrogen sulfide
Missing Core Parameters	<i>E. coli</i>
Missing Seasonal Distribution	<i>E. coli</i>
Lab Detection Limits Not Low Enough	Beryllium (dissolved), cadmium (dissolved), chromium (dissolved), copper (dissolved), cyanide, lead (dissolved), nickel (dissolved), selenium, selenium (dissolved), silver (dissolved), thallium, thallium (dissolved), mercury (dissolved)

Priority	Monitoring Recommendations
High	Collect additional samples in support of TMDL development. Use lower detection limits for dissolved metals.

Impairment Discussion
Remains impaired for copper (1992), selenium (2004), and dissolved oxygen (2006/8).

# MINERAL CREEK (MNR)

Headwaters - Cedar Canyon Creek  
15070102-823  
4.0 Miles

## Category 3

Inconclusive

PBC - Inconclusive • A&We - Inconclusive

Use Support

### No Exceedances

## Monitoring Summary

Sampling period: 7/20/2006 - 2/10/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT MOUTH	MGMR000.21	102520	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Arsenic, boron, chromium, copper, manganese, mercury	None	(1) Dissolved oxygen, pH, SSC

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

# PAINTED ROCK RESERVOIR

15070101-1020A  
100 Acres

**Category 3**  
Inconclusive

FBC - Inconclusive • A&Ww - Inconclusive  
AGL - Inconclusive • AGI - Inconclusive • FC - Inconclusive

## Monitoring Summary

Sampling period: No current data

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT DAM FOREBAY	MGPRR-2	100053	USFWS	
MID LAKE	MGPRR-3	100054	USFWS	
UPPER RESERVOIR	MGPRR-4	100055	USFWS	

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	None

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect samples to determine designated use attainments..

Delisting of Previous Impairment
EPA overfile in 2002 due to pesticides in fish tissue (DDT, toxaphene, chlordane). ADEQ proposes delisting this water body based on recent fish tissue and water quality data.

# PEACHVILLE WASH

Headwaters - Fortuna Wash  
15050100-1846  
2.1 Miles

**Category 3**

Inconclusive

PBC - Inconclusive • AGL - Inconclusive  
A&We - Inconclusive

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Lead	15 ug/L	1/28/2008	44 ug/L	PBC is inconclusive with 2 exceedances in 3 samples (binomial).
		2/22/2010	15.9 ug/L	

## Monitoring Summary

Sampling period: 1/28/2008 - 7/29/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE FORTUNA WASH AT JEEP CROSSING	MGPEW000.02	106232	ADEQ	TMDL
AT BEDROCK OUTCROP	MGPEW000.79	108342	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1-3) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(1-2) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), copper, lead
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Collect lead samples due to exceedances. Collect core parameters to represent at least 3 seasons during an assessment period.

PBC - Inconclusive • A&We - Inconclusive

# Use Support

**No Exceedances**

**M**onitoring Summary  
 Sampling period: 4/3/2007 - 10/7/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
DOWNSTREAM OF PECK MINE	MGPEC000.38	105396	ADEQ	TMDL
UPSTREAM OF PECK MINE	MGPEC003.48	105397	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1-2) Arsenic, boron, copper, lead, manganese	None	(1) Dissolved oxygen, pH, total dissolved solids

**Data Gaps and Monitoring Needs**

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

**PINE CREEK**  
 Headwaters - Turkey Creek  
 15070102-069  
 6.3 Miles

**Category 3**  
 Inconclusive

PBC - Inconclusive • A&We - Inconclusive

Use Support

**No Exceedances**

**M**onitoring Summary  
 Sampling period: 7/20/2006 - 2/25/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
NORTH OF PINE FLAT ROAD	MGPIN003.49	102521	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Arsenic, boron, copper, lead, manganese	None	(1) Dissolved oxygen, pH, total dissolved solids

**Data Gaps and Monitoring Needs**

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

# POLAND WALKER TUNNEL

Headwater - Big Bug Creek  
15070102-334  
0.4 Miles

**Category 3**  
Inconclusive

Middle Gila

PBC - Inconclusive • A&Wc - Inconclusive

# Use Support

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Cadmium <sup>d</sup>	4.3 ug/L <sup>acute</sup> , 0.43 ug/L <sup>chronic</sup> @ 220 mg/L hardness	3/9/2010	284 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.
Copper <sup>d</sup>	28.2 ug/L <sup>acute</sup> , 17.6 ug/L <sup>chronic</sup> @ 220 mg/L hardness	3/9/2010	50.7 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.
Lead	15 ug/L	3/9/2010	44.6 ug/L	PBC is inconclusive with 1 exceedance in 1 sample (binomial).
Zinc <sup>d</sup>	229 ug/L @ 220 mg/L hardness	3/9/2010	23000 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.

## Monitoring Summary

Sampling period: 3/9/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE BIG BUG CREEK	MGPWT000.01	108124	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, copper, lead, manganese, zinc	None	(1) pH

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Cadmium (dissolved), copper (dissolved), zinc (dissolved), lead
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Lab Detection Limits Not Low Enough	Cadmium (dissolved)

Priority	Monitoring Recommendations
Medium	Collect more lead and dissolved metals (cadmium, copper, and zinc) due to exceedances. All core parameters in need of sample and seasonal distribution coverage.

PBC - Inconclusive • AGL - Inconclusive • A&We - Inconclusive

Use Support

**Exceedances**

Parameter	Applicable Standard	Date	Result	Designated use support comments
Arsenic	200 µg/L	7/31/2006	230 µg/L	AGL is attaining with 1 exceedance in 10 samples (binomial).
Copper	500 µg/L (AGL) 1300 µg/L (PBC)	7/31/2006	1500 µg/L	AGL is attaining with 2 exceedances in 10 samples (binomial). PBC is attaining with 1 exceedance in 10 samples (binomial).
		8/16/2007	1300 µg/L	
Lead	100 µg/L (AGL) 15 µg/L (PBC)	7/31/2006	300 µg/L	AGL is inconclusive with 3 exceedances in 11 samples (binomial). PBC is inconclusive with 7 exceedances in 11 samples (binomial requires 20 samples for impairment).
		8/16/2007	280 µg/L	
		12/1/2007	41.8 µg/L	
		12/8/2007	63.2 µg/L	
		12/11/2007	17.8 µg/L	
		1/6/2008	37 µg/L	
		12/8/2009	166 µg/L	

**M**onitoring Summary  
 Sampling period: 7/31/2006 - 12/8/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
JUST ABOVE CONFLUENCE WITH QUEEN CREEK	MGPTC000.15	104438	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(10-11) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(3-11) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Lead

Priority	Monitoring Recommendations
Medium	Collect more lead samples to determine AGL and PBC attainment. Part of Queen Creek TMDL.



# QUEEN CREEK

Headwaters - Superior Mining Div. Outfall  
15050100-014A  
8.8 Miles

## Category 5

Impaired

Middle Gila

**Add Selenium to the 303(d) list.  
Lead (2010) and copper (2002)**

**PBC - Impaired • AGL - Impaired • A&Ww - Impaired**

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Arsenic	200 ug/L (AGL) 280 ug/L (PBC)	7/31/2006	330 ug/L	AGL and PBC are attaining with 2 exceedances in 24 samples.
		5/16/2007	310 ug/L	
Chromium	1000 ug/L (AGL) 100 ug/L (PBC)	7/31/2006	140 ug/L	AGL is attaining with 1 exceedance in 21 sample. PBC is inconclusive with 4 exceedances in 21 sample.
		5/16/2007	152 ug/L	
		7/21/2007	120 ug/L	
		9/22/2007	1690 ug/L	
Copper	500 ug/L (AGL) 1300 ug/L (PBC)	7/31/2006	1500 ug/L	AGL and PBC are attaining with 4 and 2 exceedances respectively in 25 samples.
		5/16/2007	1160 ug/L	
		7/21/2007	841 ug/L	
		8/16/2007	2300 ug/L	
Copper <sup>d</sup>	8.7 ug/L <sup>acute</sup> , 6 ug/L <sup>chronic</sup> @ 63 mg/L hardness	3/24/2007	29 ug/L	A&Ww remains impaired with 16 chronic exceedances in 22 samples. Some values (7/21 & 1/6) were aggregated differently in this assessment than in the last due to values in different weeks being only 1-2 days apart.
	16.1 ug/L <sup>acute</sup> , 10.5 ug/L <sup>chronic</sup> @ 121 mg/L hardness	5/16/2007	63 ug/L	
	21.2 ug/L <sup>acute</sup> @ 162 mg/L hardness 29 ug/L <sup>chronic</sup> @ 400 mg/L hardness	7/21/2007	46 ug/L (Max) 37 ug/L (Median)	
	49.6 ug/L <sup>acute</sup> @ 400 mg/L hardness 15.6 ug/L <sup>chronic</sup> @ 192 mg/L hardness	8/6/2007	78 ug/L (Max) 31 ug/L (Median)	
	49.6 ug/L <sup>acute</sup> , 29.3 ug/L <sup>chronic</sup> @ 400 mg/L hardness	8/16/2007	57 ug/L (Max) 54 ug/L (Median)	
	49.6 ug/L <sup>acute</sup> , 29.3 ug/L <sup>chronic</sup> @ 400 mg/L hardness	9/22/2007	92 ug/L	
	9.1 ug/L <sup>acute</sup> , 6.3 ug/L <sup>chronic</sup> @ 66 mg/L hardness	12/1/2007	38 ug/L	

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	14.7 ug/L <sup>acute</sup> @ 110 mg/L hardness 10.5 ug/L <sup>chronic</sup> @ 120 mg/L hardness	12/4/2007	29 ug/L (Max) 25 ug/L (Median)	Continued.
	12.4 ug/L <sup>acute</sup> , 8.3 ug/L <sup>chronic</sup> @ 92 mg/L hardness	12/12/2007	20 ug/L	
	10.2 ug/L <sup>acute</sup> , 7.4 ug/L <sup>chronic</sup> @ 75 mg/L hardness	1/6/2008	20 ug/L	
	8.2 ug/L <sup>acute</sup> , 5.7 ug/L <sup>chronic</sup> @ 59 mg/L hardness	2/5/2008	103 ug/L	
	9.47 ug/L <sup>acute</sup> , 6.52 ug/L <sup>chronic</sup> @ 69 mg/L hardness	1/10/2008	24 ug/L	
	9.7 ug/L <sup>chronic</sup> @ 110 mg/L hardness	1/30/2008	12 ug/L	
	26.8 ug/L <sup>chronic</sup> @ 361 mg/L hardness	4/7/2008	34 ug/L	
	8.5 ug/L <sup>chronic</sup> @ 93.5 mg/L hardness	2/7/2010	8.9 ug/L	
Dissolved oxygen	6.0 mg/L	7/31/2006	5.31 mg/L	A&Ww is attaining with 1 exceedance in 13 samples (binomial).
Lead	100 ug/L (AGL) 15 ug/L (PBC)	7/31/2006	430 ug/L	AGL and PBC remain impaired with 7 and 11 exceedances respectively in 23 samples (binomial).
		8/7/2006	53 ug/L	
		5/16/2007	309 ug/L	
		7/21/2007	223 ug/L	
		7/23/2007	49.4 ug/L	
		8/6/2007	114 ug/L	
		8/16/2007	605 ug/L	
		9/22/2007	505 ug/L	
		12/1/2007	82 ug/L	
		12/7/2007	134 ug/L	
		1/6/2008	32 ug/L	
pH	9.0 SU	12/4/2007	9.2 SU	AGL, A&Ww, and PBC are attaining with 1 exceedance in 15 samples (binomial).
SSC	80 mg/L	07/31/2006	8570 mg/L	A&Ww is inconclusive with one median exceedance. Most reported single sample exceedances storm related. Did not appear in 2010 assessment due to change in designated use status.
		08/07/2006	1085.708 mg/L	
		11/28/2006	484.625 mg/L	
		02/14/2007	103.8 mg/L	
		03/24/2007	143 mg/L	
		05/16/2007	33300 mg/L	
		07/21/2007	60000 mg/L	
		07/23/2007	360.25 mg/L	
		08/07/2007	86 mg/L	
		08/16/2007	18033.333 mg/L	
		09/22/2007	19015 mg/L	

Parameter	Applicable Standard	Date	Result	Designated use support comments
SSC	80 mg/L	12/01/2007	1710 mg/L	Continued.
		12/08/2007	3455 mg/L	
		12/11/2007	111 mg/L	
		01/06/2008	2030 mg/L	
		01/07/2008	473.5 mg/L	
		01/15/2008	84 mg/L	
		01/27/2008	131 mg/L	
		01/30/2008	121 mg/L	
		02/05/2008	500 mg/L	
		03/04/2008	230 mg/L	
Selenium	2 ug/L	07/31/2006	8.1 ug/L	A&Ww is impaired. Selenium values excluded in 2010 assessment due to reliance on AZAC detection limit issue flag which was later shown to be incorrect in this case.
		11/28/2006	5.4 ug/L	
		02/14/2007	8.9 ug/L	
		03/24/2007	4.7 ug/L	

# M Monitoring Summary

Sampling period: 7/31/2006 - 2/7/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
MAGMA AVE & QUEEN CREEK	MGQEN038.73	103095	ADEQ	TMDL
BELOW OMYA MINE	MGQEN044.42	103092	RESCU	Ambient
AT HIGHWAY 60 CULVERTS	MGQEN041.74	103093	ADEQ	TMDL
BLW MINE DISCHARGE	MGQEN037.17	103316	ADEQ	TMDL
BELOW BHP NPDES PERMIT	MGQEN037.09	103096	ADEQ	TMDL
ABOVE CONFLUENCE WITH UNNAMED TRIBUTARY	MGQEN041.42	105658	ADEQ	TMDL
ABOVE OMYA PIT AT BEDROCK OUTCROP	MGQEN045.03	105980	ADEQ	TMDL
JUST BELOW HEADWATERS	MGQEN045.93	103091	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(64-76) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(30-64) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	SSC
Missing Core Parameters	<i>E. coli</i>
Missing Seasonal Distribution	<i>E. coli</i>
Lab Detection Limits Not Low Enough	Antimony (dissolved), arsenic (dissolved), cadmium (dissolved), copper (dissolved), lead, selenium, zinc (dissolved), mercury (dissolved)

Priority	Monitoring Recommendations
Medium	TMDL sampling complete.

Impairment Discussion
Remains impaired for copper (2002) and lead (2010). Copper TMDL initiated in 2004. Add Selenium to the 303(d) list,



# QUEEN CREEK

Potts Canyon - Whitlow Canyon  
15050100-014C  
8.0 Miles

## Category 5

Impaired

Middle Gila

# IMPAIRMENT

## Copper (2010)

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive  
A&Ww - Impaired

# STATUS

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Arsenic	200 ug/L (AGL) 80 ug/L (FC) 30 ug/L (FBC)	7/31/2006	460 ug/L	AGL, FC, and FBC are inconclusive with 1, 2, and 4 exceedances respectively in 9 samples (binomial).
		8/16/2006	105 ug/L	
		7/24/2007	42 ug/L	
		12/8/2007	40 ug/L	
Chromium	100 ug/L	7/31/2006	160 ug/L	FBC is inconclusive with 1 exceedance in 9 samples.
Copper	500 ug/L (AGL) 1300 ug/L (FBC)	7/31/2006	3800 ug/L	AGL and FBC are inconclusive with 2 exceedances in 9 samples (binomial).
		8/16/2007	2900 ug/L	
Copper <sup>d</sup>	18.3 ug/L <sup>acute</sup> , 11.9 ug/L <sup>chronic</sup> @ 139 mg/L hardness	7/24/2007	44 ug/L	A&Ww remains impaired.
	29.3 ug/L <sup>chronic</sup> @ > 400 mg/L hardness	8/16/2007	30 ug/L	
	13.1 ug/L <sup>acute</sup> , 8.7 ug/L <sup>chronic</sup> @ 97 mg/L hardness	12/1/2007	15 ug/L	
	10.2 ug/L <sup>acute</sup> , 7.0 ug/L <sup>chronic</sup> @ 75 mg/L hardness	12/8/2007	22 ug/L	
	12.4 ug/L <sup>acute</sup> , 8.3 ug/L <sup>chronic</sup> @ 92 mg/L hardness	12/11/2007	17 ug/L	
Dissolved oxygen	6.0 mg/L	7/31/2006	5.19 mg/L	A&Ww is inconclusive with 1 exceedance in 5 sample (binomial).
Lead	100 ug/L (AGL) 15 ug/L (FBC)	7/31/2006	1200 ug/L	AGL and FBC are inconclusive with 3 and 6 exceedances respectively in 9 samples (binomial). Binomial requires a minimum of 20 samples for impairment.
		7/24/2007	130 ug/L	
		8/16/2007	860 ug/L	
		12/1/2007	65 ug/L	
		12/8/2007	130 ug/L	
		12/11/2007	84 ug/L	
		1/6/2008	34 ug/L	

Parameter	Applicable Standard	Date	Result	Designated use support comments
SSC	80 mg/L	7/31/2006	42900 mg/L	A&Ww is attaining with no median exceedances. All single sample exceedances occurred during storm events.
		7/24/2007	252.5 mg/L	
		8/16/2007	35600 mg/L	
		12/1/2007	1402.5 mg/L	
		12/8/2007	3100 mg/L	
		12/11/2007	3200 mg/L	
		1/6/2008	1710 mg/L	
		1/29/2008	230 mg/L	
		2/5/2008	307 mg/L	

## Monitoring Summary

Sampling period: 7/31/2006 - 2/5/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
JUST ABOVE QUEENS STATION AT RAILROAD TRESTLE	MGQEN030.06	103098	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(9) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(2-9) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper, lead, chromium, dissolved oxygen, arsenic
Missing Core Parameters	<i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Lab Detection Limits Not Low Enough	Antimony (dissolved), arsenic, arsenic (dissolved), copper (dissolved), lead, selenium, mercury (dissolved)

Priority	Monitoring Recommendations
Medium	Collect more copper, lead, chromium, arsenic, and dissolved oxygen samples due to exceedances. Collect core parameters to represent at least 3 seasons during an assessment period.

Impairment Discussion
Remains impaired for dissolved copper (2010). This reach is included with Queen Creek Copper TMDL project.



# QUEEN CREEK

Superior Mining WWTP - Potts Canyon  
15050100-014B  
5.9 Miles

**Category 5**  
Impaired

Middle Gila

## IMPACTMENT STATUS

Copper (2002)

PBC - Inconclusive • A&Wedw - Impaired

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	28.5 ug/L <sup>acute</sup> , 17.7 ug/L <sup>chronic</sup> @ hardness 222 mg/L	7/31/2006	32 ug/L	A&Wedw chronic remains impaired with 5 exceedances in the assessment period.
	24.8 ug/L <sup>acute</sup> , 15.6 ug/L <sup>chronic</sup> @ hardness 192 mg/L	3/24/2007	25 ug/L	
	37.2 ug/L <sup>acute</sup> , 22.6 ug/L <sup>chronic</sup> @ 295 mg/L hardness	7/24/2007	51 ug/L	
	13.4 ug/L <sup>chronic</sup> @ 160 mg/L hardness 12	12/14/2007	18 ug/L	
	11.5 ug/L <sup>acute</sup> , 7.8 ug/L <sup>chronic</sup> @ 85 mg/L hardness	1/28/2008	23 ug/L	
Lead	15 mg/L	7/31/2006	82 ug/L	PBC is inconclusive with 2 exceedances in 5 samples (binomial).
		1/28/2008	26 ug/L	

## Monitoring Summary

Sampling period: 7/31/2006 - 1/28/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT THE HIGH TRAIL BRIDGE	MGQEN034.25	103544	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(5) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(1-5) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	<i>E. coli</i>
Missing Seasonal Distribution	<i>E. coli</i>
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead, selenium, mercury (dissolved)

Priority	Monitoring Recommendations
Medium	Collect lead samples due to exceedances. Collect at least 3 <i>E. coli</i> samples to represent 3 seasons over the assessment period to complete core parameter coverage.

Impairment Discussion
Remains impaired for copper (2002). This reach is included with Queen Creek Copper TMDL project.

# SALT RIVER

23rd Ave WWTP - Gila River  
15060106B-001D  
14.1 Miles

**Category 3**  
Inconclusive

Middle Gila

FC - Inconclusive • PBC - Inconclusive • A&Wedw - Inconclusive  
AGL - Inconclusive • AGI - Inconclusive

## Monitoring Summary

Sampling period: No current data

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT 107TH AVENUE	MGSLR001.09	100374	ADEQ	Fixed Station Network
ABOVE GILA RIVER	MGSLR001.11	100645	ADEQ	Fixed Station Network
ABOVE GILA RIVER	MGSLR000.88	100646	ADEQ	Fixed Station Network
AT 91ST AVE. WWTP DISCHARGE USGS 09512407	MGSLR003.96	100768	ADEQ	Fixed Station Network
BELOW TRES RIOS DISCHARGE	MGSLR003.33	101265	ADEQ	Ambient, Fixed Station Network
AT 91ST AVE CENTER CHANNEL	MGSLR003.56	103738	ADEQ	Fixed Station Network
AT 51ST AVE. BRIDGE	MGSLR009.30	104060	ADEQ	Fixed Station Network

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	None

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect samples to determine designated use attainments..

Delisting of Previous Impairment
EPA overfile in 2002 due to pesticides in fish tissue (DDT metabolites, toxaphene, chlordane). ADEQ proposes delisting this reach based on recent fish tissue and water quality data.

PBC - Inconclusive • AGL - Inconclusive • A&We - Inconclusive

Use Support

**Exceedances**

Parameter	Applicable Standard	Date	Result	Designated use support comments
Arsenic	200 ug/L (AGL) 280 ug/L (PBC)	7/31/2006	350 ug/L	AGL and PBC are inconclusive with 1 exceedance in 7 samples (binomial).
Copper	500 ug/L (AGL) 1300 ug/L (PBC)	7/31/2006	1800 ug/L	AGL is inconclusive with 5 exceedances in 9 samples. PBC is inconclusive with 3 exceedances in 9 samples (binomial).
		8/16/2007	800 ug/L	
		12/8/2007	1700 ug/L	
		1/7/2008	1600 ug/L	
		1/22/2010	544 ug/L	
Copper <sup>d</sup>	38.3 ug/L @ 170 mg/L hardness	12/8/2007	62 ug/L	A&We is attaining. No exceedances in the last 3 years of monitoring.
Lead	100 ug/L (AGL) 15 ug/L (PBC)	7/31/2006	840 ug/L	AGL and PBC are inconclusive with 9 exceedances in 9 samples (binomial).
		8/16/2007	740 ug/L	
		12/1/2007	213.1 ug/L	
		12/8/2007	1000 ug/L	
		12/11/2007	110 ug/L	
		1/7/2008	690 ug/L	
		1/28/2008	203.25 ug/L	
		1/22/2010	525 ug/L	
		2/22/2010	303.5 ug/L	

# Monitoring Summary

Sampling period: 7/31/2006 - 2/22/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT WINDMILL	MGSKW004.11	106233	ADEQ	TMDL
AT BOYCE THOMPSON ARBORETUM	MGSKW000.07	103545	ADEQ	TMDL
BELOW SILVER KING MINE AT FS ROAD	MGSKW004.60	106288	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(11-13) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(1-10) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Arsenic, copper, lead
Missing Core Parameters	None
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), copper, lead
Lab Detection Limits Not Low Enough	Lead

Priority	Monitoring Recommendations
Medium	Collect more arsenic, copper, and lead samples due to exceedances.

# SYCAMORE CREEK (SYD)

Tank Canyon - Agua Fria River  
15070102-024B  
17.6 Miles

**Category 3**  
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive  
A&Ww - Inconclusive

## No Exceedances

## Monitoring Summary

Sampling period: 8/14/2008 - 4/21/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE SYCAMORE RANGER STATION	MGSYD009.13	100704	ADEQ	Ambient
UPSTREAM OF DRY CREEK	MGSYD009.51	106863	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(1) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1-4) Dissolved oxygen, <i>E. coli</i> , pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

# TELEGRAPH CANYON

Headwaters - Arnett Creek  
15050100-1819  
6.1 Miles

**Category 3**

Inconclusive

FBC - Inconclusive • A&Ww - Inconclusive

Use Support

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Lead	15 ug/L	1/22/2010	45.2 ug/L	FBC is inconclusive with 1 exceedance in 3 samples (binomial).

## Monitoring Summary

Sampling period: 12/8/2009 - 1/27/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE CONFLUENCE WITH ARNETT CREEK	MGTEC000.62	107863	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(2-3) Copper, lead	None	(1) Dissolved oxygen, pH, total dissolved solids,

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), <i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Collect core parameters to represent at least 3 seasons during an assessment period. Collect more lead due to the exceedance.

# TEMPE TOWN LAKE

15060106B-1588  
220 Acres

**Category 3**  
Inconclusive

FC - Inconclusive • FBC - Inconclusive • A&Ww - Inconclusive

Use Support

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
pH	9.0 SU	7/5/2006	9.4 SU	A&Ww and FBC are inconclusive with 9 exceedances in 14 samples (binomial). Note: On July 20, 2010 one of the lower dams failed, completely draining the lake. The dam was replaced in September 2010 and the lake was refilled by the end of October.
		7/17/2006	9.3 SU	
		7/31/2006	9.3 SU	
		8/8/2006	9.3 SU	
		8/21/2006	9.3 SU	
		9/5/2006	9.5 SU	
		9/11/2006	9.5 SU	
		9/18/2006	9.5 SU	
		9/25/2006	9.3 SU	

## Monitoring Summary

Sampling period: 7/5/2006 - 12/5/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
MID LAKE SITE	MGTTL-MID	102452	AGF	Ambient
USD	MGTTL-B	101315	ADEQ	CLP
DSD	MGTTL-A	101316	ADEQ	CLP

Metal Samples	Nutrients & Related Samples	Other Samples
(3) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, manganese, mercury, nickel, selenium, silver, thallium, zinc	None	(3-38) <i>E. coli</i> , pH, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	pH
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect core parameters to represent at least 3 seasons during an assessment period.

# TRIBUT TO BIG BUG CREEK

Headwater - Big Bug Creek  
15070102-134  
0.8 Miles

**Category 3**  
Inconclusive

PBC - Inconclusive • A&We - Inconclusive

Use Support

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	4.1 ug/L @ hardness = 16 mg/L	3/9/2010 1	20.2 ug/L	A&We is inconclusive with 1 exceedance in 1 sample.
Lead	15 ug/L	3/9/2010 1	174 ug/L	PBC is inconclusive with 1 exceedance in 1 sample (binomial).
Lead <sup>d</sup>	17.7 ug/L @ hardness = 16 mg/L	3/9/2010 1	156 ug/L	A&We is inconclusive with 1 exceedance in 1 sample.
Zinc <sup>d</sup>	235 ug/L @ hardness = 16 mg/L	3/9/2010 1	300 ug/L	A&We is inconclusive with 1 exceedance in 1 sample.

## Monitoring Summary

Sampling period: 3/9/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT POLAND JUCTION (FOREST TRAIL 261)	MGUBB000.11	108122	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, selenium, zinc	None	(1) Dissolved oxygen, pH

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper (dissolved), lead (dissolved), zinc (dissolved), lead
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	Cadmium (dissolved), lead (dissolved), zinc (dissolved)

Priority	Monitoring Recommendations
Medium	Collect more lead and dissolved metals (copper, lead, and zinc) due to exceedances and obtain analyses with lower detection limits. All core parameters need sample number and seasonal distribution coverage.

# TRIBUTORY TO BIG BUG CREEK (UB1)

Headwater - Big Bug Creek  
15070102-234  
1.34 Miles

**Category 3**  
Inconclusive

## Use Support

PBC - Inconclusive • A&Wc - Inconclusive

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	3.4 ug/L <sup>acute</sup> , 2.6 ug/L <sup>chronic</sup> @ 23 mg/L hardness	3/9/2010	10.5 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.
Lead <sup>d</sup>	0.49 ug/L @ 23 mg/L hardness	3/9/2010	2.6 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.
Zinc <sup>d</sup>	33.7 ug/L @ 23 mg/L hardness	3/9/2010	130 ug/L	A&Wc is inconclusive with 1 exceedance in 1 sample.

### Monitoring Summary

Sampling period: 3/9/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW SNOWDRIFT MINE AT CONFLUENCE	MGUB1000.01	108123	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, selenium, zinc	None	(1) Dissolved oxygen, pH

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Cadmium (dissolved), copper (dissolved), zinc (dissolved), lead (dissolved)
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i>
Lab Detection Limits Not Low Enough	Cadmium (dissolved), lead (dissolved), zinc (dissolved)

Priority	Monitoring Recommendations
Medium	Collect more dissolved metals (copper, lead, and zinc) due to exceedances and try to obtain analyses with lower detection limits. All core parameters in need of sample and seasonal distribution coverage.

# TRIBUTORY TO CASH MINE CREEK

Headwaters - Cash Mine Creek  
15070103-415  
1.0 Miles

**Category 4A**  
Not Attaining

## Cadmium, copper, and zinc (2002)

FC - Inconclusive • FBC - Inconclusive  
A&Wc - Not Attaining

### Monitoring Summary

Sampling period: No current data

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
UPSTREAM OF REMEDIATED MCCLEUR TAILINGS	MGMMT000.13	102816	ADEQ	TMDL
DOWNSTREAM OF REMEDIATED MCCLEUR TAILINGS	MGMMT000.01	102817	ADEQ	TMDL
AT BASE OF MCCLEUR TAILINGS	MGUCM000.09	103352	ADEQ	TMDL
UPSTREAM OF ADIT AND MCCLEUR TAILINGS	MGUCM000.27	103357	ADEQ	TMDL
AT ADIT UPSTREAM OF MCCLEUR TAILINGS	MGUCM000.25	103358	ADEQ	TMDL
DOWNSTREAM OF ADIT UPSTREAM OF MCCLEUR	MGUCM000.22	103359	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
None	None	None

### Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Conduct effectiveness monitoring after TMDL strategies have been implemented.

Impairment Discussion
Included in the Hassayampa River TMDL (2002).

# TRIBUTORY TO DRY MINERAL CREEK

Headwaters - Dry Mineral Creek  
15050100-212  
1.4 Miles

**Category 3**  
Inconclusive

PBC - Inconclusive • A&We - Inconclusive

# Use Support

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper	1300 ug/L	3/14/2008	340000 ug/L	PBC is inconclusive with 1 exceedance in 1 sample (binomial).
Copper <sup>d</sup>	85.9 ug/L @ > 400 mg/L hardness	3/14/2008	310000 ug/L	A&We is attaining. 1 exceedance outside the assessment window.
pH	6.5 SU	3/14/2008	2.71 SU	A&We and PBC are inconclusive with 1 exceedance in 1 sample (binomial).

## Monitoring Summary

Sampling period: 3/14/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE 500 FT. ADIT	MGUDR001.20	106784	ADEQ	TMDL
AT 500 FT. ADIT	MGUDR001.15	106783	ADEQ	TMDL
BELOW UPPER PASQUATE DUMPS	MGUDR001.41	106785	ADEQ	TMDL
NEAR LOWER PASQUATE ADIT	MGUDR000.99	106782	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	None	(4) pH

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	pH, copper (dissolved), copper
Missing Core Parameters	Dissolved oxygen,
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Collect more pH and copper samples due to exceedances.

# TRIB (UQ2) TO QUEEN CREEK

Headwaters - Queen Creek  
15050100-1000  
0.5 Miles

**Category 5**  
Impaired

## IMPACT

Copper (2010)

PBC - Inconclusive • AGL - Inconclusive • A&We - Impaired

## STATUS

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	14.6 ug/L @ 61 mg/L hardness	8/17/2007	40 ug/L	A&We remains impaired. No new data since last assessment.
	9.6 ug/L @ 39 mg/L hardness	12/8/2007	52 ug/L	
	7.3 ug/L @ 29 mg/L hardness	1/6/2008	36 ug/L	
Lead	15 ug/L	12/8/2007	24.8 ug/L	PBC is inconclusive with 1 exceedance in 3 samples (binomial).

## Monitoring Summary

Sampling period: 8/17/2007 - 1/6/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
DRAINAGE ON NORTH FACE OF QUEEN CREEK CANYON	MGUQ2000.07	105760	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(3) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(1-3) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	Dissolved oxygen
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), copper, lead
Lab Detection Limits Not Low Enough	Copper (dissolved)

Priority	Monitoring Recommendations
Medium	Collect lead samples due to the exceedance.

Impairment Discussion
Remains impaired for copper (2010). Included as part of Queen Creek TMDL.

# TRIB (UQ3) TO QUEEN CREEK

Headwaters (Near King's Crown Peak) - Queen Creek  
15050100-1843  
1.7 Miles

**Category 5**  
Impaired

## IMPACTMENT

### Copper (2010)

PBC - Inconclusive • AGL - Inconclusive • A&We - Impaired

## STATUS

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	16.4 ug/L @ 69 mg/L hardness	8/7/2007	23 ug/L	A&We remains impaired with 4 exceedances in 5 samples.
	12.8 ug/L @ 53 mg/L hardness	12/1/2007	25 ug/L	
	16.2 ug/L @ 68 mg/L hardness	12/3/2007	19 ug/L	
	8.4 ug/L @ 34 mg/L hardness	1/6/2008	14 ug/L	

## Monitoring Summary

Sampling period: 8/7/2007 - 1/6/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
660 METERS EAST OF HIGHWAY 60 TUNNEL	MGUQ3000.03	105761	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(5) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(1-5) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Dissolved oxygen
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), copper, lead
Lab Detection Limits Not Low Enough	Copper (dissolved)

Priority	Monitoring Recommendations
Medium	Collect core parameters to represent at least 3 seasons during an assessment period.

Impairment Discussion
Remains impaired for copper (2010). Included as part of Queen Creek TMDL.

# TRIB (UQE) TO QUEEN CREEK

Headwaters - Queen Creek  
15050100-991  
2.0 Miles

Category 5  
Impaired

## IMPACTMENT

Copper (2010)

PBC - Attaining • AGL - Attaining • A&We - Impaired

## STATUS

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper <sup>d</sup>	7.7 ug/L @ 31 mg/L hardness	2/2/2007	34 ug/L	A&We remains impaired with 16 exceedances in 16 samples.
	6.1 ug/L @ 24 mg/L hardness	3/23/2007	37 ug/L	
	5.8 ug/L @ 23 mg/L hardness	3/27/2007	35.4 ug/L	
	9.3 ug/L @ 38 mg/L hardness	7/23/2007	55 ug/L	
	7.5 ug/L @ 30 mg/L hardness	8/6/2007	63 ug/L	
	9.8 ug/L @ 40 mg/L hardness	8/16/2007	65 ug/L	
	6.1 ug/L @ 24 mg/L hardness	12/1/2007	53 ug/L	
	5.1 ug/L @ 20 mg/L hardness	12/8/2007	49 ug/L	
	6.1 ug/L @ 24 mg/L hardness	12/12/2007	47 ug/L	
	4.1 ug/L @ 16 mg/L hardness	1/6/2008	23 ug/L	
	6.3 ug/L @ 25 mg/L hardness	1/11/2008	51 ug/L	
	6.5 ug/L @ 26 mg/L hardness	1/15/2008	33 ug/L	
	7 ug/L @ 28 mg/L hardness	1/27/2008	21 ug/L	
	5.8 ug/L @ 23 mg/L hardness	1/30/2008	39 ug/L	
	2.3 ug/L @ 8.5 mg/L hardness	2/5/2008	41 ug/L	
	7.0 ug/L @ 28 mg/L hardness	3/4/2008	27 ug/L	
Lead	15 ug/L	8/16/2007	17.7 ug/L	PBC is attaining with 1 exceedance in 16 samples (binomial).
pH	6.5 SU	8/16/2007	5.53 SU	AGL, A&We, and PBC are attaining with 2 exceedances in 14 samples (binomial).
		12/11/2007	6.16 SU	

# Monitoring Summary

Sampling period: 7/31/2006 - 3/4/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
DRAINING OAK FLAT	MGUQE000.01	104522	ADEQ	TMDL
AT HAIRPIN TURN OF TRIB TO OAK FLAT	MGUQE001.08	106224	ADEQ	TMDL
ABOVE AUTO SAMPLER AT HIGH FLOW SITE	MGUQE000.38	106019	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(22) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	None	(6-20) Dissolved oxygen, pH, SSC, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead, zinc (dissolved), assessment unit

Priority	Monitoring Recommendations
Medium	Collect core parameters to represent at least 3 seasons during an assessment period.

Impairment Discussion
Remains impaired for copper (2010). Included in Queen Creek TMDL project.

# TURKEY CREEK

Headwaters - Tributary at 341928/1122128  
15070102-036A  
9.1 Miles

**Category 3**  
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive  
AGL - Inconclusive • A&Wc - Inconclusive

## No Exceedances

## Monitoring Summary

Sampling period: 7/20/2006 - 2/25/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
DS FROM MOUTH OF AR-RASTRA CREEK	MGTRK021.89	107782	ADEQ	TMDL
UPSTREAM OF 5,000 MSL	MGTRK021.44	102512	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Arsenic, boron, copper, lead, manganese	None	(1) Dissolved oxygen, pH, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

# TURKEY CREEK

Tributary at 341928 / 1122128 - Poland Creek  
15070102-036B  
21 Miles

**Category 4A**  
Not Attaining

## IMPACT ASSESSMENT STATUS

### Copper and lead (1992)

FC - Inconclusive • FBC - Not Attaining • AGI - Inconclusive  
AGL - Inconclusive • A&Ww - Not Attaining

### Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Lead	15 ug/L	12/1/2007	19 ug/L	FBC remains not attaining with 2 exceedances in 6 samples (binomial).
		1/6/2008	25 ug/L	
pH	9.0 SU	12/1/2007	9.9 SU	AGI, AGL, A&Ww, and FBC are inconclusive with 1 exceedance in 7 samples (binomial).
SSC	80 mg/L	12/1/2007	3550 mg/L	A&Ww is attaining. This exceedance occurred during a storm event and was excluded from assessment.

## Monitoring Summary

Sampling period: 7/20/2006 - 3/2/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
DOWNSTREAM OF TRIBUTARY AND OF MINES	MGTRK004.33	102518	ADEQ	TMDL
ON CROWN KING ROAD AT BRIDGE	MGTRK004.42	101627	ADEQ	TMDL
UPSTREAM OF CONFLUENCE WITH POLAND CREEK	MGTRK000.10	104500	ADEQ	TMDL
BELOW GOLDEN TURKEY MINE UPSTREAM OF SPRING	MGTRK003.89	102510	ADEQ	TMDL
NORTH OF CLEATOR AT FOREST ROAD 93 CROSSING	MGTRK007.28	101083	ADEQ	TMDL

# Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	pH
Missing Core Parameters	Cadmium (dissolved), <i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead
Lab Detection Limits Not Low Enough	Copper (dissolved), lead (dissolved)

Priority	Monitoring Recommendations
Medium	Collect pH samples due to the exceedance. Collect lead and copper samples to determine the effectiveness of TMDL implementation strategies once they have been implemented.

Impairment Discussion
Copper and lead TMDL completed in 2004.

# TUSCUMBIA CREEK

Headwaters - Bear Creek  
15070102-850  
4.1 Miles

**Category 3**

Inconclusive

PBC - Inconclusive • A&We - Inconclusive

Use Support

**No Exceedances**

## Monitoring Summary

Sampling period: 2/23/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE MOUTH	MGTUS000.06	107704	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Arsenic, boron, copper, lead, manganese	None	(1) Dissolved oxygen, pH, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved)
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Not enough data to assess. Collect core parameters to represent at least 3 seasons during an assessment period.

# WHITFORD CANYON

Wood Camp Canyon - Potts Canyon  
15050100-1860  
4.1 Miles

**Category 3**  
Inconclusive

Middle Gila

PBC - Inconclusive • AGL - Inconclusive • A&We - Inconclusive

Use Support

## Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Lead	100 µg/L (AGL) 15 µg/L (PBC)	12/8/2009	126 µg/L	AGL is inconclusive with 1 exceedance in 4 samples. PBC is inconclusive with 3 exceedances in 4 samples (binomial).
		9/3/2009	35 µg/L	
		1/22/2010	25.3 µg/L	

## Monitoring Summary

Sampling period: 9/3/2009 - 1/27/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW CONFLUENCE WITH WOOD CAMP CANYON AND REEVIS TRAIL	MGWFC003.58	107442	ADEQ	TMDL
BELOW BARNETT CAMP	MGWHC000.34	107682	ADEQ	TMDL
AT FOREST SERVICE ROAD 650	MGWHC002.01	107922	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(4-8) Copper, lead	None	(2-5) Dissolved oxygen, pH, total dissolved solids

## Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	Zinc (dissolved), cadmium (dissolved)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), copper, lead
Lab Detection Limits Not Low Enough	Lead

Priority	Monitoring Recommendations
Low	Collect more lead samples due to exceedances. Collect core parameters to represent at least 3 seasons during an assessment period.