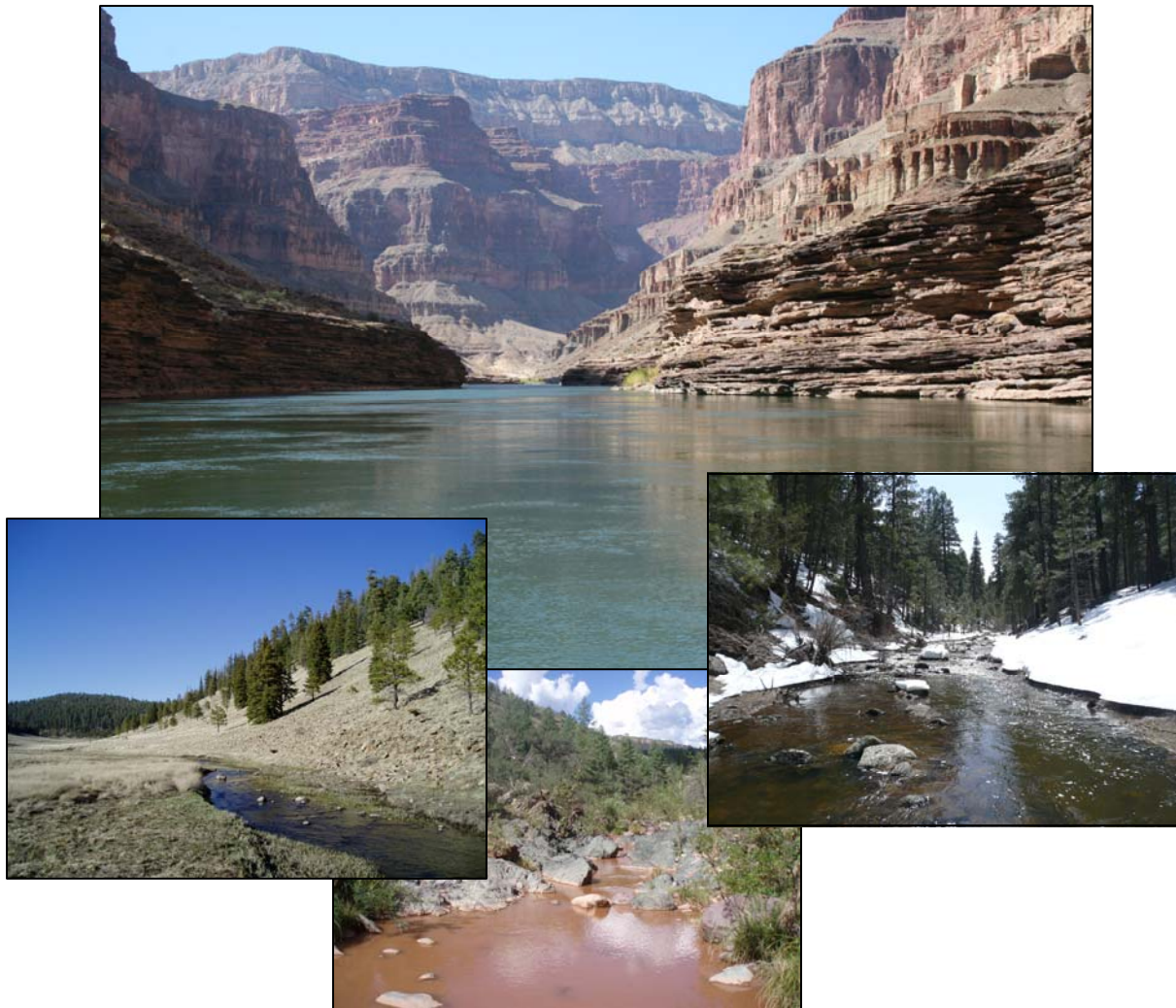


2010 Status of Water Quality Arizona's Integrated 305(b) Assessment and 303(d) Listing Report

June 2012



EQR- 12-01

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2010 Status of Water Quality in Arizona

Arizona's Integrated 305(b) Assessment and 303(d) Listing Report

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CHAPTER I

INTRODUCTION AND PURPOSE

Every two years, the Arizona Department of Environmental Quality (ADEQ) is required by the federal Clean Water Act to conduct a comprehensive analysis of water quality data associated with Arizona's surface waters to determine whether state water quality standards are being met and designated uses are being supported. This integrated surface water assessment and impaired waters listing report (2010 Assessment Report) serves three functions.

- Nationally, it fulfills a reporting requirement of the Clean Water Act, and is submitted to the Environmental Protection Agency (EPA), and used to report on national water quality issues and concerns.
- For ADEQ, it provides a mandate to compile environmental data and information from ADEQ's surface water quality protection programs, as well as from other agencies, organizations, and individuals. This comprehensive evaluation of quality of water in Arizona is used to set priorities, allocate resources, and make decisions about land use activities, discharges to the water, future monitoring, and program initiatives.
- For the public, it provides an opportunity to learn about and comment on the status of water quality in the state.

Surface Water Assessment Methods and Technical Support

ADEQ has created a separate assessment methods document. It is assumed that the reader will obtain and reference this technical support document when using the information in this assessment.

The Assessment Methods and Technical Support document provides a description of the assessment process and specific assessment and impaired water listing criteria. It also provides information about the monitoring data and information used in this assessment and Arizona's credible data requirements.

Report Overview

- Chapter I – Introduction and Purpose
- Chapter II – Water Quality Assessments by Watershed
- Chapter III – Summary Information
- Chapter IV – Action Plan
- Appendix A – List of Assessed Waterbodies by Watershed
- Appendix B – Assessment Category Lists
- Appendix C – TMDL Priority Ranking and Schedule

Appendix D – Critical Conditions
Appendix E – Delisting Impairments
Appendix F – Water Quality Improvements
Appendix G – Biocriteria Summary
Appendix H– Bottom Deposit Summary
Appendix I – Groundwater Quality Summary

Although an attempt was made to avoid technical jargon and unnecessary abbreviations, this is a technical report. Acronyms and terms used in the assessment report are defined in the Assessment Methods and Technical Support document.

CHAPTER II

WATER QUALITY ASSESSMENTS BY WATERSHED

Assessments are reported alphabetically by individual assessment units in this chapter and grouped by the 10 watersheds, as illustrated on the following map (page Chapter II-2): Bill Williams Watershed, Colorado – Grand Canyon Watershed, Colorado – Lower Gila Watershed, Little Colorado Watershed, Middle Gila Watershed, Salt Watershed, San Pedro Watershed, Santa Cruz Watershed, Upper Gila Watershed, and Verde Watershed. If the reader is uncertain about which watershed to look in for assessment information, an alphabetical listing of surface waters assessed is provided in Appendix A.

Assessment Information

A summary page is provided for each assessment indicating:

- Designated use support and an overall assessment
- Impairment status and pollutant causing impairment (if applicable)
- Monitoring data used in the assessment
- Exceedances
- Data gaps and monitoring priorities.

The data gaps and monitoring needs information provides the “Planning List” information used to prioritize future monitoring. Surface waters not assessed are also included in the general planning list, as the lack of data to support assessments is a reason to be placed on ADEQ’s internal Planning List.

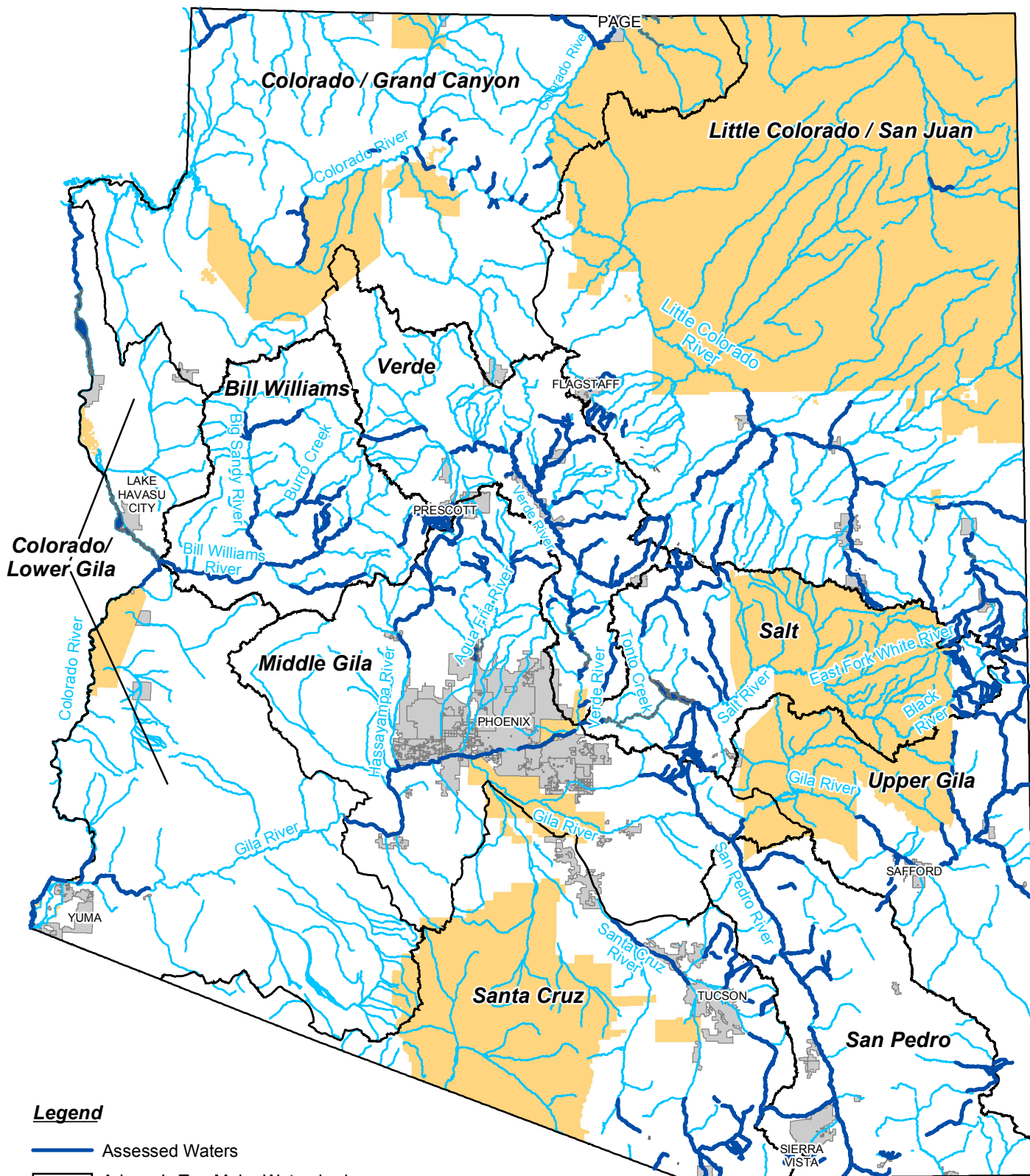
Page Chapter II-3 provides an example summary page with information on “How to Read” the individual waterbody assessment pages.

The reader should refer to the Surface water Assessment Methods and Technical Support document for information concerning the assessment process, determining exceedances, assessment criteria, assessment categories, and monitoring prioritization criteria.

Watershed Information

General background information and a few maps are provided for each watershed to provide some context for the assessments. One map (or a series of maps) shows the assessed surface waters and the monitoring sites used in this assessment.

2010 Statewide Assessed Waters

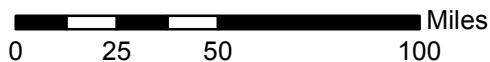


Legend

- Assessed Waters
- Arizona's Ten Major Watersheds
- Streams
- Incorporated City Boundaries
- Indian Reservation Boundaries



Note: See Watershed Assessment Maps for the names and locations of each assessed water in detail.



How to Read an Assessment Summary Page

"Attaining" or "Inconclusive" Summary Page

Waterbody Name

- Each watershed report is organized alphabetically by waterbody names.

Watershed Name

- appears as a side-header on each page

Parameter Name

- Superscript "d" after a metal name denotes dissolved constituent.
- No superscript after a metal name denotes total.

Number and Types of Samples

- Number of events used in assessment. An event is represented by samples collected at a site during a 7-day period.

Monitoring Priority

- High, Medium, or Low based on the criteria defined in the Assessment Methods and Technical Support document
- Used to schedule and prioritize future monitoring

Assessment Unit Information

- Reach Description
- Waterbody ID (8 digit HUC + reach/ lake number)
- Reach Length/ Lake Area

Overall Assessment Category

- The worst-case designated use support represents overall category for the assessment unit.

Designated Use Support

- Based on exceedances and data gaps

Parameter-Level Assessment Based on Exceedances

- Exceedances determine impairment (core parameters and seasonal coverage are not examined here. See Data Gaps.)
- Comments on assessment methods (e.g., binomial, 2-year median, etc.) and applicable assessment windows (e.g., 5-year assessment period vs last 3 years)
- Comments on exemptions

Bill Williams River Category 3 Inconclusive

Barro Creek - Iron Spring
15030201-003
5.4 miles

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

Exceedances

Parameter	Applicable Standard	Date & Result	Designated use support, supporting evidence, comments
SSC	80 mg/L	11/10/2004 1681 mg/L	A&Ww is attaining. This exceedance occurred within 48 hours of a local storm event.

Monitoring Summary
Sampling period: 11/10/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At 17 Mile Crossing	BWBSRQ19.76	102312	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1 total and dissolved mercury	1 dissolved oxygen 1 pH	1 suspended sediment 1 turbidity

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Monitoring Recommendations
Missing Core Parameters	All designated uses
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	N/A

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

"Impaired" or "Not Attaining" Summary Page

Pollutant Causing Impairment

- Impaired parameters and years first added to the 303(d) list of impaired waters
- May include EPA impairments (parameters over-filed by EPA based on federal regulations)

Bill Williams River Category 5 Impaired

Alamo Lake - Castaneda Wash
15030204-003
2.9 miles

Ammonia and high pH (2006)

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

Exceedances

Parameter	Applicable Standard	Date & Result	Designated use support, supporting evidence, comments
	0.47 mg/L	6/7/2004 0.7 mg/L	A&Ww chronic remains impaired. 3 exceed-

See the Assessment Methods and Technical Support document for more information on the assessment process.

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	0	10	1,105
On Tribal Lands	Perennial	Non-perennial	
Lake acres	240	0	
On Tribal Lands			

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

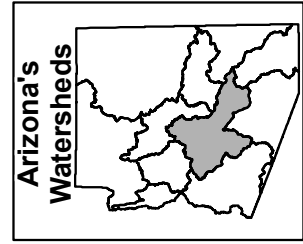
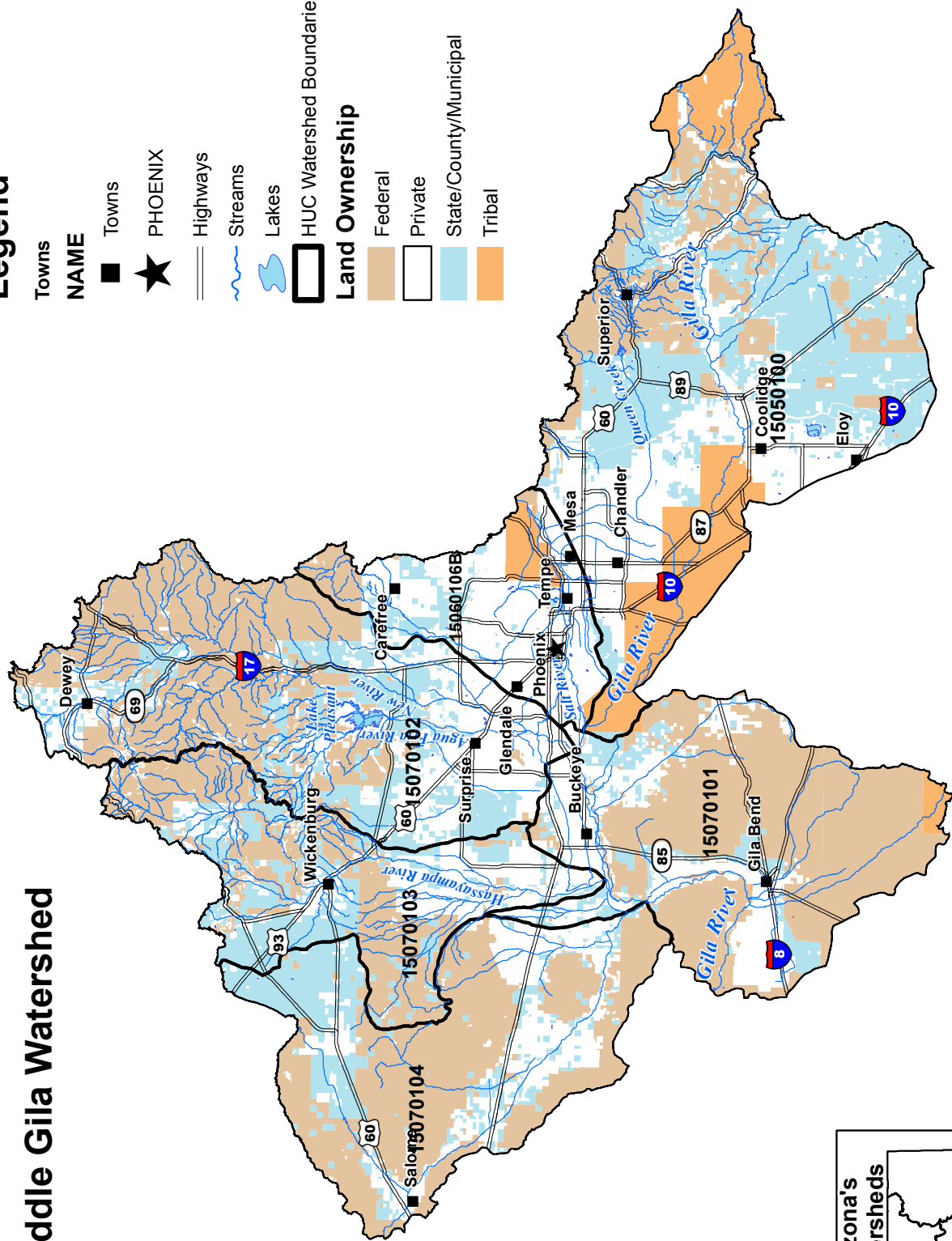
- 15070103 Hassayampa River Drainage Area
- 15070104 Centennial River Drainage Area

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 “2010 Surface Water Assessment Methods and Technical Support” document.

Middle Gila Watershed

Legend

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





Agu Fria River

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

Category 3
Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
<i>E. coli</i>	235 cfu/100 ml	9/11/2008	690 cfu/100 ml	FBC is inconclusive. 1 single sample maximum exceedance in last 3 year period (2 samples). Insufficient samples to calculate geomean exceedances.

Monitoring Summary

Sampling period: 8/13/2008 - 10/20/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Chaparral Gulch	MGAFR110.01	106462	ADEQ	Ambient
At A-12-02-17AAA	MGAFR100.15	103783	USGS	USGS
At Humboldt	MGAFR111.17	103766	USGS	USGS
At Well A-12-01-01CBA	MGAFR104.20	103782	USGS	USGS
Below Humbolt At 12-01 01DDD	MGAFR103.11	103777	USGS	USGS
Below USGS Gage #09512450	MGAFR109.37	101672	ADEQ	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-3: <i>E. coli</i> , fluoride, pH, SSC, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Inconclusive because coverage needed on all core parameters. More data required to assess FBC attainment in light of exceedance.



Agua Fria River

Sycamore Creek - Big Bug Creek
15070102-023
9.1 Miles

Category 5

Impaired

Add *E. coli* to 303(d) list

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Arsenic	10 ug/L	08/13/2008	16 ug/L	DWS is inconclusive with 1 exceedance in 2 samples (binomial).
<i>E. coli</i>	235 cfu/100 ml	09/11/2008	533 cfu/100 ml	FBC is impaired. 2 single sample maximum exceedances within last 3 year period (2 samples). Insufficient samples to calculate geometric mean exceedances.
		10/20/2008	310 cfu/100 ml	

Monitoring Summary

Sampling period: 8/13/2008 - 10/20/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Big Bug Creek	MGAFR087.35	100711	ADEQ	Biocriteria
At Bloody Basin Road	MGAFR081.57	103779	USGS	USGS
Below Bloody Basin Road At Horseshoe Ranch	MGAFR081.12	103780	USGS	USGS
Below Sycamore Creek	MGAFR088.43	103778	USGS	USGS
Below USGS Gage 09512500	MGAFR087.06	100710	ADEQ	Biocriteria, Ambient, Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-3: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, total dissolved solids, turbidity

Middle Gila

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Dissolved oxygen, arsenic
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dis-solved), <i>E. coli</i> , nitrate, arsenic, flouride, lead, boron, manganese, copper, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dis-solved), <i>E. coli</i> , nitrate, arsenic, flouride, lead, boron, manganese, copper, mercury
Lab Detection Limits Not Low Enough	Selenium

Priority	Monitoring Recommendations
High	Most designated uses inconclusive because coverage needed for all core parameters. Collect samples for TMDL development.

Impairment Discussion
Impaired for <i>E. coli</i> .

IMPAIRMENT STATUS

Ammonia (2004)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Ammonia	0.24 mg/L @ pH 8.8, T 30 °C	07/01/2004	0.57 mg/L	A&Ww remains impaired.
	0.21 mg/L @ pH 8.9, T 30 °C	05/25/2005	0.51 mg/L	
Dissolved Oxygen	6.0 mg/L	09/10/2008	5.19 mg/L	A&Ww is inconclusive with 1 exceedance in 4 samples (binomial).

Monitoring Summary

Sampling period: 7/1/2004 - 10/23/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Center Of Lake	MGALV-B	101041	ADEQ	Clean Lakes Program
Boat Ramp	MGALVALV-BR	102752	ADEQ, AGFD	Ambient
Combined Sample Site A, B, C	MGALV-ABC	101053	AGFD, ADEQ	Clean Lakes Program
East Basin	MGALV-EAST	102562	AGFD	Ambient
Inflow	MGALV-A	101040	AGFD, ADEQ	TMDL, Clean Lakes Program, Ambient
Mid Lake	MGALV-C	101042	AGFD, ADEQ	Clean Lakes Program, Ambient, TMDL
West Lagoon	MGALV-WEST	102563	ADEQ, AGFD	TMDL, Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
1-3 (dissolved), 2-4 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	1-19: ammonia, nitrite/nitrate, nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	1-18: dissolved oxygen, <i>E. coli</i> , fluoride, pH, solids, total dissolved solids, turbidity

Middle Gila

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	All designated uses have core parameter coverage needs. TMDL sampling completed.

Impairment Discussion
Remains impaired for ammonia. TMDL development ongoing.

Add Copper to the 303(d) list

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Fluoride	140 mg/L	05/26/2004	200 mg/L	FBC is inconclusive. 1 exceedances in 2 samples (binomial).
Lead	15 ug/L	03/23/2007	52.3 ug/L	FBC is inconclusive. 7 exceedances in 10 samples (binomial).
		07/22/2007	270 ug/L	
		07/23/2007	123.4 ug/L	
		08/06/2007	52.3 ug/L	
		08/16/2007	108.4 ug/L	
		12/08/2007	23.6 ug/L	
		01/07/2008	76.25 ug/L	
SSC	80 mg/L	03/23/2007	337 mg/L	A&Ww is attaining with no median exceedances. Only 3 samples (8/16/2007, 7/23/2007, 3/23/2007) not taken within 48 hours of storm/peak flow event. 6 single sample exceedances in 7 samples.
		07/23/2007	1771 mg/L	
		08/16/2007	1060 mg/L	
		12/08/2007	200 mg/L	
		01/07/2008	2203 mg/L	
		01/28/2008	868 mg/L	
Copper ^d	11.8 ug/L (acute) @ hardness = 87 mg/L, 10.5 ug/L (chronic) @ hardness = 120	08/07/2007	25/11 ug/L	A&Ww is impaired with 3 exceedances. (results notation X/Y = max/median)
	10.0 ug/L (acute), 6.7 ug/L (chronic) @ 72 mg/L hardness	12/8/2007	12/11 ug/L	
	9.1 ug/L (acute), 6.3 ug/L (chronic) @ 66 mg/L hardness	1/7/2008	9.8 ug/L	

Monitoring Summary

Sampling period: 5/26/2004 - 1/29/2008

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
At Blue Spring	MGARN007.64	103462	Resolution Copper	Ambient
Near Superior, AZ	MGARN002.74	101306	ADEQ	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
1-11 (dissolved), 2-11 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	2: nitrate, nitrite, nitrite/nitrate	2-8: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	<i>E. coli</i> needs sample and seasonal coverage, dissolved oxygen needs seasonal coverage. High magnitude exceedances, though no impairment in SSC. Collect more lead samples to meet sample number requirement.

Impairment Discussion
Impaired for copper. Included as part of Queen Creek TMDL project.

Cash Mine Creek

Headwaters - Hassayampa River
15070103-349
1.0 Miles

Category 4A
Not attaining

Cadmium, Copper, Zinc (2002)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper	1300 ug/L	03/04/2005	1650 ug/L	FBC is inconclusive with 1 exceedance, 1 sample. (binomial)
Copper ^d	9.2 ug/L (acute), 6.4 ug/L (chronic) @ hardness 67 mg/L	03/04/2005	1700 ug/L	A&Wc remains not attaining.
pH	6.5 SU	03/03/2005	5.79 SU	A&Wc and FBC are inconclusive with 1 exceedance (binomial).
Zinc ^d	93.9 ug/L @ hardness 77 mg/L	03/03/2005	930 ug/L	A&Wc remains not attaining.

Monitoring Summary

Sampling period: 3/3/2005 - 3/4/2005

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 Mcclell Tailings	MGCSM000.34	102818	ADEQ, Weston	TMDL, WQRF

Metals Samples	Nutrients & Related Samples	Other Samples
1-2 (dissolved), 2 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, zinc	None	2: dissolved oxygen, pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Inconclusive for this assessment period because all core parameters need coverage, lack of data.

Impairment Discussion
The Hassayampa River TMDL included loadings for cadmium, copper, and zinc from this tributary.

Tributary to Cash Mine Creek

Headwater to Cash Mine Creek
15070103-415
1.0 Mile

Category 4A
Not attaining

Cadmium, Copper, Zinc (2002)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
pH	6.5 SU	3/4/2005	5.43 SU	A&Wc and FBC are inconclusive with 1 exceedance, 1 sample (binomial).
Cadmium ^d	1.4 ug/L (acute), 0.19 ug/L (chronic) @ 70 mg/L hardness	3/4/2005	13 ug/L	A&Wc remains not attaining.
Copper ^d	9.6 ug/L (acute), 6.6 ug/L (chronic) @ 70 mg/L hardness	3/4/2005	150 ug/L	A&Wc remains not attaining.
Zinc ^d	87 ug/L @ 70 mg/L hardness	3/4/2005	1400 ug/L	A&Wc remains not attaining.

Monitoring Summary

Sampling period: 03/04/2005 - 03/05/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
upstream of remediated Mccleure tailings	MGMMT000.13	102816	ADEQ	TMDL
downstream of remediated Mccleure tailings	MGMMT000.01	102817	ADEQ	TMDL
at base of Mccleure tailings	MGUCM000.09	103352	ADEQ	TMDL
upstream of adit and Mccleure tailings	MGUCM000.27	103357	ADEQ	TMDL
at adit upstream of Mccleure tailings	MGUCM000.25	103358	ADEQ	TMDL
downstream of adit upstream of Mccleure	MGUCM000.22	103359	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, zinc	None	2: dissolved oxygen, pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need coverage to assess attainment.

Impairment Discussion
The 2002 Hassayampa River TMDL includes allocation for this reach.

A&We - Inconclusive • PBC - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 7/20/2006 - 12/18/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Mid-Reach	MGCED001.75	104542	ADEQ	TMDL
North Of Mineral Creek Mouth	MGCED000.25	102522	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): arsenic, boron, chromium, copper, lead, manganese, mercury	None	1: dissolved oxygen, fluoride, 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), <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	Inconclusive since all core parameters need coverage. Need more data to ascertain attainment.

Chaparral Park Lake

15060106B-0300
12.5 Acres

Category 5
Impaired

E. coli, dissolved oxygen (2004)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	9/8/2008	4.51 mg/L	A&Ww remains impaired (2004).

Monitoring Summary

Sampling period: 8/8/2008 - 10/22/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Dam	MGCHA-A	101045	ADEQ	Clean Lakes Program, TMDL
Combined Sample Site A, B	MGCHA-AB	101056	AGFD, ADEQ	Clean Lakes Program
Mid Lake	MGCHA-B	101046	ADEQ, AGFD	Clean Lakes Program, Ambient, TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	3: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-4: dissolved oxygen, <i>E. coli</i> , fluoride, pH, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Many core parameter needs, lack of data make this unit inconclusive this time around. TMDL sampling completed.

Impairment Discussion
Remains impaired for <i>E. coli</i> and dissolved oxygen. Developing TMDL report.

Cortez Park Lake

15060106B-0410
1.9 Acres

Category 5
Impaired

Dissolved oxygen, pH (2004)

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

No Exceedances

Monitoring Summary

Sampling period: 9/24/2004 - 10/22/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Dam	MGCOR-A	101043	ADEQ	Clean Lakes Program, TMDL
Combined Sample Site A, B	MGCOR-AB	101055	AGFD, ADEQ	Clean Lakes Program
Mid Lake	MGCOR-B	101044	ADEQ, AGFD	Clean Lakes Program, TMDL, Ambient
Shoreline	MGCOR-SH	103351	AGFD	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-5: dissolved oxygen, <i>E. coli</i> , fluoride, pH, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Inconclusive because most core parameters need sample coverage, all need seasonal coverage. TMDL sampling completed.

Impairment Discussion
Remains impaired for dissolved oxygen and pH. TMDL report being developed.

Desert West Lake

15060106B-0015
56.4 Acres

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 3/14/2006 - 3/14/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
East Basin	MGDSW-E	102544	AGFD	Ambient
Inflow	MGDSW-B	102543	AGFD	Ambient
West Basin	MGDSW-W	102545	AGFD	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
None	3: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	3: dissolved oxygen, pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more data to determine attainment. Core parameters need sample and seasonal coverage.

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	3.37 ug/L (acute), 2.55 ug/L (chronic) @ hardness = 23 mg/L	12/11/2007	12 ug/L	A&Ww is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 12/11/2007 - 12/11/2007

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At US 60	MGDVC009.11	105979	ADEQ	TMDL
South Of Highway 60	MGDVC005.49	100534	ADEQ	Biocriteria

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	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, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead, mercury
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), zinc (dissolved)

Priority	Monitoring Recommendations
Medium	Need more data to determine attainment. All core parameters need coverage. Collect more samples to assess dissolved copper exceedance.

Tributary To Dry Mineral Creek

Headwaters - Dry Mineral Creek
15050100-212
1.4 Miles

Category 3
Inconclusive

PBC- Inconclusive • A&We - Inconclusive

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	85.9 ug/L @ 1500(400) mg/L hardness	8/14/2008	310000 ug/L	A&We is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 3/14/2008 - 3/14/2008

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

Metals Samples	Nutrients & Related Samples	Other Samples
4 (dissolved), 4 (total): calcium, magnesium, antimony, arsenic, beryllium, boron, cadmium, chromium, copper, iron, lead, manganese, nickel, potassium, silver, mercury, selenium, sodium, thallium, zinc	none	4: pH, total suspended solids, turbidity, fluoride, chloride, sulfate, conductivity, alkalinity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	A&We, PBC need core parameter seasonal coverage

Fain Lake

15070101-0005
10.14 Acres

Category 3
Inconclusive

Middle Gila

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

No Exceedances

Monitoring Summary

Sampling period: 6/8/2004 - 6/8/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Dam	MGFAI-A	101400	ADEQ	Clean Lakes Program

Metals Samples	Nutrients & Related Samples	Other Samples
None	None	1: 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	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	All core parameters need coverage. More data needed to assess attainment.

Cadmium, Copper, Zinc (2004)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	4.6 ug/L (acute), 3.3 ug/L (chronic) @ hard. = 21 mg/L	02/23/2004	11 ug/L	A&Ww remains not attaining. (Results notation X\Y = max\median)
	3.2 ug/L (acute) @ hard. = 22 mg/L, 3.1 ug/L (chronic) @ hard. = 29 mg/L	3/13/2004	18/11 ug/L	
	3.7 ug/L (acute) @ hard. = 226mg/L, 2.9 ug/L (chronic) @ hard. = 27 mg/L	4/3/2004	9.7/9.6 ug/L	

Monitoring Summary

Sampling period: 1/1/2004 - 4/9/2004

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

Metals Samples	Nutrients & Related Samples	Other Samples
9-10 (dissolved), 9 (total): arsenic, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	None	4-8: dissolved oxygen, pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	All designated uses have core parameter needs therefore inconclusive.

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

Gila RiverSan Pedro - Mineral Creek
15050100-008
19.8 Miles**Category 5**
Impaired**IMPACT**
SSC (2006/8)
FC - Attaining • FBC - Inconclusive • A&Ww - Impaired
AGL - Attaining • AGI - Attaining
STATUS**Exceedances**

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
<i>E. coli</i>	235 cfu/100 ml	08/10/2004	235 cfu/100 ml	FBC is attaining: 1 single sample maximum exceedance within last 3 year period. No geo-mean exceedances.
		12/07/2004	340 cfu/100 ml	
Lead	15 ug/L	08/10/2004	22.9 ug/L	FBC is inconclusive. 1 exceedance in 9 samples (binomial).
SSC	80 mg/L	03/23/2004	182 mg/L	A&Ww remains impaired (2006/8). 7 single sample exceedances in 9 samples. Only 1 sample (9/16/2008) not taken within 48 hours of storm/peak flow.
		08/10/2004	956 mg/L	
		12/07/2004	118 mg/L	
		03/08/2005	136 mg/L	
		06/07/2005	106 mg/L	
		06/30/2006	113 mg/L	
		09/16/2008	98 mg/L	

Monitoring Summary
Sampling period: 3/23/2004 - 11/12/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
3 Miles Downstream Of Hayden, AZ	MGGLR327.90	103635	USGS	USGS
At Kelvin, AZ USGS 09474000	MGGLR313.73	100748	USGS, ADEQ	Ambient, USGS

Metals Samples	Nutrients & Related Samples	Other Samples
1-9 (dissolved), 2-9 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	3-8: ammonia, nitrite/nitrate, nitrite/nitrate (dissolved), nitrogen, phosphorus, total Kjeldahl nitrogen	1-9: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids, total dissolved solids, turbidity

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	Arsenic, arsenic (dissolved), barium, barium (dissolved), boron, boron (dissolved), chromium, copper, copper (dissolved)

Priority	Monitoring Recommendations
Low	Good core parameter coverage. Check to see why so many parameters have lab detection limit issues.

Impairment Discussion
Remains impaired for SSC.

Gila River Sites

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

Categories

DEQ - Inconclusive
EPA - Impaired

Pesticides in fish tissue (2002, EPA)

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

AGL - Inconclusive • AGI - Inconclusive

EPA FC - Impaired

No Exceedances

Sites Summary

no sampling in current assessment

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	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead, mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
High	All core parameters need coverage to assess attainment. Collect data to support TMDL development.

Impairment Discussion
EPA overfile in 2002 due to pesticides in fish tissue (DDT metabolites, toxaphene, chlordane). Arizona does not currently have a fish tissue pesticide standard.

Gila River

Centennial Wash - Gillespie Dam
15070101-008
5.3 Miles

Categories

DEQ - Impaired
EPA - Impaired

Boron (1992), Selenium (2004), Pesticides in fish tissue (2002, EPA)

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

AGL - Inconclusive • AGI - Impaired

EPA FC - Impaired

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Boron	1000 ug/L	04/01/2004	2770 ug/L	AGI remains impaired (1992). For current assessment, inconclusive with 3 exceedances in 4 samples (binomial).
		05/19/2004	2380 ug/L	
		12/16/2004	1580 ug/L	
Lead	100 ug/L (AGL), 15 ug/L (PBC)	01/05/2005	863 ug/L	AGL and PBC are inconclusive. 1 exceedance in 4 samples.
Selenium	2 ug/L	12/16/2004	6.7 ug/L	A&Wedw remains impaired (2004). For current assessment, inconclusive with 1 exceedance.
Selenium ^d	2 ug/L	04/01/2004	3.0 ug/L	A&Wedw remains impaired (2004). For current assessment, inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 4/1/2004 - 1/5/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Diversion At Gillespie Dam USGS 09518000	MGGLR167.44	100734	USGS	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
2-4 (dissolved), 2-4 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	2-4: ammonia, nitrite/nitrate, nitrite/nitrate (dissolved), nitrogen, phosphorus, total Kjeldahl nitrogen	2-4: dissolved oxygen, <i>E. coli</i> , pH, SSC, solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Collect more samples to develop TMDL and cover core parameter seasonal distribution needs. Check to see why so many parameters have detection limit issues

Impairment Discussion
Remains impaired for boron and selenium. Overfile listing for pesticides in fish tissue by EPA in 2002.

Gila River

Dripping Spring - San Pedro River
15050100-009
11.0 Miles

Category 3
Inconclusive

FC- Inconclusive • FBC- Inconclusive • A&Ww - Inconclusive
• AGL- Inconclusive • AGL- 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 Near Winkleman	MGGLR337.14	104638	ADEQ	Special Studies
Below Dripping Spring Wash	MGGLR343.27	101652	ADEQ	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	1-2: dissolved oxygen, <i>E. coli</i> , pH, turbidity

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, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , boron, manganese, copper, lead, mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Inconclusive due to lack of data and all core parameters needing sample and seasonal coverage.

Hassayampa River

Buckeye Canal - Gila River
15070103-001B
2.3 Miles

Categories

DEQ - Inconclusive
EPA - Impaired

Pesticides in fish tissue (2002, EPA)

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

EPA FC - Impaired

No Exceedances

Monitoring Summary

Sampling period: 9/15/2008 - 12/19/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Gila River	MGHSR000.77	101197	USGS, ADEQ	Ambient, Fixed Station Network
Near Alington, AZ USGS 09517000	MGHSR002.67	101496	USGS	USGS

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	1-4: ammonia, nitrate (dissolved), nitrite (dissolved), nitrite/nitrate, nitrite/nitrate (dissolved), nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	1-5: dissolved oxygen, <i>E. coli</i> , fluoride, delta hexachlorocyclohexane, isophorone, methoxychlor, naphthalene, nitrobenzene, nitrophenol, nitrosodiphenylamine, pH, phenol, pyrene, SSC, simazine (dissolved), total dissolved solids, trichlorobenzene, turbidity

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, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead, mercury
Lab Detection Limits Not Low Enough	Nitrate (dissolved), nitrite (dissolved), nitrosodiphenylamine

Priority	Monitoring Recommendations
Low	All core parameters have coverage needs and so, inconclusive.

Impairment Discussion
EPA overfile in 2002 due to pesticides in fish tissue (DDT metabolites, toxaphene, chlordane) .

Hassayampa River

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

Category 3
Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	08/15/2008	5.22 mg/L	A&Ww is inconclusive with 1 exceedance in 2 samples (binomial).
Manganese	10000 ug/L	08/15/2008	77000 ug/L	AGI is inconclusive with 1 exceedance in 3 samplers (binomial).
Bottom Deposits	< 50 % Fines	10/22/2008	59 %	A&Ww is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 8/15/2008 - 10/22/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Hassayampa River Preserve	MGHSR047.05	100567	ADEQ	Biocriteria
At Nature Conservancy	MGHSR048.20	100462	ADEQ	Ambient, Fixed Station Network, Stream Ecological Monitoring

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2-3 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-2: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, total dissolved solids, turbidity, bottom deposits

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	All core parameters need coverage so, inconclusive. More data needed to determine attainment. Collect more bottom deposits, dissolved oxygen and boron samples.

Hassayampa River

Cottonwood Creek - Martinez Wash
15070103-004
32.1 Miles

Category 2
Attaining some uses

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	08/12/2008	5.46 mg/L	A&Ww is inconclusive with 1 exceedance in 3 samples (binomial).
<i>E. coli</i>	235 cfu/100 ml	02/17/2004	480 cfu/100 ml	FBC is attaining. 0 single sample maximum exceedance in last 3 year period (8 samples). No geomean exceedances.

Monitoring Summary

Sampling period: 2/17/2004 - 10/22/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At BLM Gage, Box Canyon Dam	MGHSR058.80	100463	ADEQ, USGS	Fixed Station Network, Ambient, Biocriteria, USGS
Below Cottonwood Creek	MGHSR082.11	100566	ADEQ	Biocriteria

Metals Samples	Nutrients & Related Samples	Other Samples
2-8 (dissolved), 5-8 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	8: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	8: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Good core parameter coverage.

Hassayampa River

Copper Creek - Blind Indian Creek
15070103-007B
20.0 Miles

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 2/17/2004 - 4/19/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Blind Indian Creek	MGHSR083.94	101003	ADEQ	TMDL
At Climax Mine	MGHSR102.01	101196	ADEQ	TMDL
At Gaging Station	MGHSR092.07	100940	ADEQ	TMDL
At Intermittent Site	MGHSR095.83	101193	ADEQ	TMDL
At Milk Creek	MGHSR086.26	101128	ADEQ, USGS	TMDL, USGS
Behind Walnut Grove School	MGHSR089.46	101004	ADEQ	TMDL
Below Board Creek	MGHSR102.66	100565	ADEQ	Biocriteria
Below Milk Creek, Near Wagoner, Az	MGHSR085.79	100464	USGS, ADEQ	USGS, Fixed Station Network, Biocriteria

Metals Samples	Nutrients & Related Samples	Other Samples
1-6 (dissolved), 1-6 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, zinc	5: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	5-6: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, total dissolved solids, turbidity, biocriteria

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need seasonal coverage.

Hassayampa River

Headwaters - Copper Creek
15070103-007A
11.0 Miles

Category 4A

Not Attaining

Copper, Cadmium, and Zinc (1992), low pH (2006/8)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Cadmium ^d	0.89 ug/L (acute), 0.14 ug/L (chronic) @ hardness 43 mg/L	03/04/2005	1.1 ug/L	A&Wc remains not attaining.
	0.37 ug/L (chronic) @ hardness 180 mg/L	02/15/2007	2.8 ug/L	
	0.51 ug/L (chronic) @ hardness 280 mg/L	10/20/2008	3.3 ug/L	
Copper ^d	15.9 ug/L (acute), 10.5 ug/L (chronic) @ hardness 120 mg/L	02/15/2007	18 ug/L	A&Wc remains not attaining.
Zinc ^d	193 ug/L @ hardness 180 mg/L	02/15/2007	370 ug/L	A&Wc remains not attaining.
	132 ug/L @ hardness 115 mg/L	3/4/2005	2400 ug/L	

Monitoring Summary

Sampling period: 3/4/2005 - 10/20/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Hassayampa Lake	MGHSR113.60	103431	Weston	WQRF
Above Mccleure Mine Tributary	MGHSR113.17	101067	ADEQ	TMDL
Above Senator Mine	MGHSR113.09	100465	ADEQ, Weston	TMDL, WQRF, Fixed Station Network
At Headwaters	MGHSR115.34	101151	ADEQ	TMDL
At Jersey	MGHSR108.19	101195	ADEQ	TMDL
At Mccleure Mine Tributary	MGHSR113.16	101066	ADEQ	TMDL
At Senator Mine Adit	MGHSR113.01	101084	Weston, ADEQ	WQRF, TMDL
At Wetland Mine	MGHSR113.91	103436	Weston	WQRF

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Whispe	MGHSR111.40	100941	ADEQ	TMDL
Below McClellan Mine Tributary	MGHSR113.15	101065	ADEQ	TMDL
Below Senator Mine	MGHSR112.91	100466	Weston, ADEQ	Fixed Station Network, TMDL
Downstream Of Senator Mine	MGHSR112.97	103355	Weston	WQRF
Downstream Of Wetland Mine Babble	MGHSR113.86	100942	ADEQ, Weston	TMDL, WQRF
Just Downstream Of Spring	MGHSR114.54	101005	ADEQ	TMDL
Lower Wolf Creek Camp-ground	MGHSR110.58	106662	ADEQ	Ambient
Upstream Of Wetland Mine	MGHSR113.96	103435	Weston	WQRF

Metals Samples	Nutrients & Related Samples	Other Samples
1-5 (dissolved), 2-5 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	1: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-5: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved)

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Collect more samples to assess exceedance in copper.

Impairment Discussion
TMDL for cadmium, copper, zinc completed and approved 2002. On the ground improvements meant to improve metal concentrations should also improve pH levels.

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

No Exceedances

Monitoring Summary

Sampling period: 6/15/2005 - 10/10/2007

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Boat Ramp	MGKEA-BR	102550	AGFD	Ambient
At Inflow	MGKEA-IN	102551	AGFD	Ambient
Mid Lake	MGKEA-B	102552	AGFD	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
1-2 (total): arsenic, cadmium, chromium, copper, lead, manganese, zinc	3: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-3: dissolved oxygen, fluoride, pH, solids

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> , mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Inconclusive due to lack of data, all designated uses having core parameter needs.

Lake Pleasant

15070102-1100
8000 Acres

Categories

DEQ - Attaining some uses
EPA - Impaired

Mercury in fish tissue (2006/8, EPA)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	09/24/2004	4.56 mg/L	A&Ww is inconclusive with 1 exceedance in 3 samples (binomial).

Monitoring Summary

Sampling period: 2/10/2004 - 3/23/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Agua Fria Arm	MGPLE-AGUA	102553	AGFD	Ambient
At Dam	MGPLE-A	100067	UA, ADEQ, AGFD, UDCL	Clean Lakes Program, Ambient, USGS
At Riverine Zone	MGPLE-C	101708	UA, ADEQ	Ambient, Clean Lakes Program
Castle Creek	MGPLE-CSTL	102554	AGFD	Ambient
Marina	MGPLE-MAR	101000	USGS, UA, ADEQ	USGS, Clean Lakes Program
Mid Lake	MGPLE-B	100068	UA, AGFD, ADEQ	Clean Lakes Program, Ambient

Data Gaps and Monitoring Needs

Metals Samples	Nutrients & Related Samples	Other Samples
5-7 (dissolved), 7 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	11: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-14: dissolved oxygen, <i>E. coli</i> , fluoride, pH, total dissolved solids, turbidity

Exceedances Needing More Samples to Assess	Dissolved oxygen
Missing Core Parameters	<i>E. coli</i>
Missing Seasonal Distribution	<i>E. coli</i>
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	<i>E. coli</i> sample/seasonal coverage needed, otherwise good coverage. Need more samples to evaluate dissolved oxygen exceedance.

Little Ash Creek

Headwaters - Ash Creek
15070102-039
17.7 Miles

Category 3
Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
<i>E. coli</i>	235 cfu/100 ml	08/14/2008	250 cfu/100 ml	FBC is attaining. 0 single sample maximum exceedance over 3 year period (2 samples). Result not over screening value. Not enough samples to calculate geomean exceedances.

Monitoring Summary

Sampling period: 8/14/2008 - 10/21/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Near Douglas Road	MGLAS004.25	103979	USGS	USGS
Near Estler Peak	MGLAS004.52	100578	ADEQ	Ambient, Biocriteria, Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-2: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Inconclusive due to lack of data and fact that all core parameters need coverage. Collect more samples to evaluate exceedance in <i>E. coli</i> .



Lynx Creek

Headwaters - trib at 343429/1122105
15070102-033A
13.1 Miles

Category 3

Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	7.0 mg/L	6/1/2006	5.16 mg/L	A&Wc is inconclusive with 1 exceedance, 1 sample (binomial).

Monitoring Summary

Sampling period: 6/1/2006 - 6/1/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Lynx Lake	MGLNX013.41	100469	ADEQ	Fixed Station Network
At Breached Sediment Dam	MGLNX015.08	105368	AGFD	Ambient
Near Hilltop Camp-ground	MGLNX012.98	103434	Weston	WQRF

Metals Samples	Nutrients & Related Samples	Other Samples
1 (total): arsenic, copper, manganese, 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	Do
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead, mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Inconclusive because all core parameters need coverage and only one sample. Collect more dissolved oxygen samples to assess exceedance.

Lynx Lake
15070102-0860
49.2 Acres

Category 3
Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Manganese	980 ug/L	06/01/2006	1040 ug/L	DWS is inconclusive with 1 exceedance, 1 sample (binomial).

Monitoring Summary

Sampling period: 6/1/2006 - 6/1/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Boat Ramp	MGLYN-BR	101399	AGFD, ADEQ	Ambient, Clean Lakes Program
At Dam	MGLYN-A	100037	ADEQ, Weston, AGFD	Clean Lakes Program, WQRF, Ambient
At Lynx Creek Inlet	MGLYN-C	100039	AGFD, ADEQ, Weston	Clean Lakes Program, WQRF
Mid Lake	MGLYN-B	100038	ADEQ	Clean Lakes Program

Metals Samples	Nutrients & Related Samples	Other Samples
2 (total): arsenic, copper, manganese, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2: dissolved oxygen, pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	More data needed to determine attainment, all core parameters need coverage.

McKellips Park Lake

15060106B-0920
5.98 Acres

Category 2
Attaining some uses

FC - Attaining • AGI - Attaining • PBC - Inconclusive
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	MG MPL-W	107122	SRP	SRP

Metals Samples	Nutrients & Related Samples	Other Samples
19-20 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	20: nitrate, nitrite	2-20: fluoride, naphthalene, pH, 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, 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	Nitrate, nitrite, selenium

Priority	Monitoring Recommendations
Low	Several core parameters needed to determine PBC and A&Ww attainment.

Mineral Creek

Headwaters - Cedar Canyon Creek
15070102-823
4.0 Miles

Category 3
Inconclusive

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 7/20/2006 - 12/18/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Mouth	MGMNR000.21	102520	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): arsenic, boron, chromium, copper, manganese, mercury	none	1: dissolved oxygen, fluoride, pH, SSC

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more data to determine assessment (only one sample). Inconclusive because all core parameters need sample and seasonal coverage'

*Dissolved oxygen (2006/8), selenium (2004),
copper (1992)*

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	6.7 ug/L (acute), 4.8 ug/L (chronic) @ hardness = 48 mg/L	03/11/2004	17 ug/L	A&W remains impaired. (Results notation: X/Y = max/median).
	8.95 ug/L (chronic) @ hardness = 100 mg/L	05/05/2004	10 ug/L	
	9.0 ug/L(acute), 6.3 ug/L (chronic) @ hardness = 66 mg/L	02/15/2005	20 ug/L	
	12.2 ug/L (acute), 8.2 ug/L (chronic) @ hardness = 90 mg/L	03/08/2005	13 ug/L	
	3.4 ug/L (acute), 2.6 ug/L (chronic) @ hardness = 23 mg/L	12/17/2007	21 ug/L	
	26 ug/L (acute) @ hardness = 203 mg/L, 14.6 (chronic) @ hardness = 177 mg/L	07/16/2008	43/39 ug/L	
	15.3 ug/L (chronic) @ hardness = 187 mg/L	09/09/2008	23 ug/L	
	29.2 ug/L (chronic) @ hardness = 405(400) mg/L	10/07/2008	48 ug/L	
Dissolved Oxygen	6.0 mg/L	06/09/2004	2.87 mg/L	A&Ww remains impaired.
		07/21/2004	3.44 mg/L	
		07/15/2005	3.96 mg/L	
		09/15/2005	4.5 mg/L	
		10/18/2005	4.0 mg/L	
		12/09/2005	5.5 mg/L	
		06/15/2006	5.7 mg/L	
		09/09/2006	1.1 mg/L	
		12/05/2006	2.3 mg/L	
		04/16/2007	4.3 mg/L	
		05/18/2007	2.2 mg/L	
		06/26/2007	3.6 mg/L	
		07/11/2007	4.9 mg/L	
		08/03/2007	4.2 mg/L	
		09/14/2007	5.1 mg/L	
		10/5 2007	5.1 mg/L	

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen (continued)	6.0 mg/L	04/08/2008	5.2 mg/L	A&Ww remains impaired.
		05/14/2008	4.13 mg/L	
		06/10/2008	2.8 mg/L	
		07/16/2008	3.79 mg/L	
		08/13/2008	3.96 mg/L	
		09/09/2008	3.68 mg/L	
		10/07/2008	3.01 mg/L	
Selenium	2 ug/L	01/09/2004	4.3 ug/L	A&Ww remains impaired.
		06/09/2004	5.7 ug/L	
		07/21/2004	3.9 ug/L	
		08/12/2004	5.8 ug/L	
		09/30/2004	7.4 ug/L	
		10/28/2004	7.2 ug/L	
		11/23/2004	6.0 ug/L	
		12/15/2004	5.0 ug/L	
		03/08/2005	2.85 ug/L	
		06/17/2005	2.5 ug/L	
		07/15/2005	3.1 ug/L	
		09/15/2005	3.3 ug/L	
		10/18/2005	4.5 ug/L	
		11/16/2005	4.8 ug/L	
		12/09/2005	6.2. ug/L	
		01/07/2006	3.3 ug/L	
		01/12/2006	3.6 ug/L	
		03/15/2006	2.6 ug/L	
		04/11/2006	2.6 ug/L	
		06/15/2006	5.6 ug/L	
		12/05/2006	4.1 ug/L	
		05/18/2007	5.1 ug/L	
		06/26/2007	6.1 ug/L	
		07/11/2007	8.7 ug/L	
		08/03/2007	5.95 ug/L	
		09/14/2007	6.9ug/L	
		10/05/2007	5.5 ug/L	
		11/20/2007	9.1 ug/L	
		11/11/2008	5 ug/L	
		12/10/2008	5.4 ug/L	
Hydrogen Sulfide	2 ug/L	11/20/2007	606 ug/L	A&Ww is inconclusive, 1 exceedance, 1 sample.
Hex Chromium ^d	11 ug/L	09/14/2007	12 ug/L	A&Ww is inconclusive. 1 exceedance, 1 sample.
pH	6.5 - 9.0 SU	08/18/2005	9.3 SU	AGL, FBC, and A&Ww are attaining. 4 exceedances in 53 samples (binomial)
		04/11/2006	9.6 SU	

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
pH (continued)	6.5 - 9.0 SU	12/05/2006	5.0 SU	
		12/17/2007	5.3 SU	
SSC	80 mg/L	07/16/2008	96.8 mg/L	A&Ww is attaining with no median exceedances. One single sample exceedance in 1 sample.

Monitoring Summary

Sampling period: 1/9/2004 - 12/10/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Confluence With Gila River Near Kelvin, AZ	MGMIN000.08	103645	USGS	USGS
At Highway 177 Bridge North Of Kelvin, AZ	MGMIN001.38	100472	ASARCO, ADEQ, ASARCO	Permit Monitoring, Fixed Station Network, TMDL, Permit Monitoring
Channel Outlet	MGMIN002.65	103334	ASARCO	Permit Monitoring
T Indian Gardens	MGMIN008.81	103331	ASARCO	Permit Monitoring
Tunnel Inlet	MGMIN006.99	103332	ASARCO	Permit Monitoring
Tunnel Outlet	MGMIN003.69	103333	ASARCO	Permit Monitoring

Metals Samples	Nutrients & Related Samples	Other Samples
1-155 (dissolved), 1-154 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	1-151: ammonia, nitrate, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-154: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids, turbidity

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Hexavalent chromium (dissolved), 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), mercury, nickel (dissolved), selenium

Priority	Monitoring Recommendations
High	FBC has core parameter needs (<i>E. coli</i>). Many parameters showing lab detection limit issues

Impairment Discussion
Remains impaired for copper, selenium, and dissolved oxygen.

Minnehaha Creek

Headwaters - Hassayampa Creek
15070103-029
12.7 Miles

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 3/5/2005 - 3/5/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Near Confluence With Hassayampa	MGMHA000.24	102955	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, zinc	None	1: dissolved oxygen, 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> , copper, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, mercury
Lab Detection Limits Not Low Enough	Lead (dissolved), nickel (dissolved)

Priority	Monitoring Recommendations
Low	Inconclusive since all core parameters need coverage.

Painted Rock Reservoir

15070101-1020A
100 Acres

Categories

DEQ - Inconclusive
EPA - Impaired

Pesticides in fish tissue (2002, EPA)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
pH	9.0 SU	02/08/2005	9.0 SU	AGI, AGL, A&Ww, and FBC are inconclusive. 1 exceedance in 7 samples (binomial).
		03/18/2005	9.0 SU	
		04/12/2005	9.3 SU	
Ammonia	0.36 mg/L (chronic) @ pH 8.7, T = 27.3 °C	07/26/2005	1.2 mg/L	A&Ww is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 1/20/2005 - 7/27/2005

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	

Metals Samples	Nutrients & Related Samples	Other Samples
5 (total): arsenic, boron, chromium, manganese, mercury, thallium	9: ammonia, nitrite/nitrate, nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	9-14: dissolved oxygen, pH, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Many core parameters need coverage.

Impairment Discussion
EPA overfile for pesticides in fish tissue.

Potts Canyon

Whitford Canyon - Queen Creek
15050100-1856
3.4 Miles

Category 2

Attaining some uses

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Arsenic	200 ug/L	07/31/2006	230 ug/L	AGL is attaining. 1 exceedance in 12 samples (binomial).
Lead	100 ug/L (AGL), 15 ug/L (PBC)	08/10/2005	170 ug/L	AGL and PBC are inconclusive. AGL with 3 exceedances, PBC with 8 exceedances in 12 samples (binomial).
		03/12/2006	78 ug/L	
		07/31/2006	300 ug/L	
		08/16/2007	280 ug/L	
		12/01/2007	41.8 ug/L	
		12/08/2007	63.2 ug/L	
		12/11/2007	17.8 ug/L	
		01/06/2008	37 ug/L	

Monitoring Summary

Sampling period: 8/10/2005 - 3/4/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Just Above Confluence With Queen Creek	MGPTC000.15	104438	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1-12 (dissolved), 11-12 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	1-2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-12: dissolved oxygen, fluoride, pH, SSC, total dissolved solids, turbidity

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	Lead

Priority	Monitoring Recommendations
Medium	Need <i>E. coli</i> coverage and more lead samples to determine PBC attainment. Part of Queen Creek TMDL project.

Add Lead to 303(d) list, Copper (2002)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	10.4 ug/L (acute), 7.0 ug/L (chronic) @ hard. = 76 mg/L	12/29/2004	44 ug/L	A&Ww remains impaired (results notation X/Y = max/median).
	40 ug/L (acute), 24 ug/L (chronic) @ hard. = 318 mg/L	04/19/2005	52 ug/L	
	5 ug/L (acute), 3.7 ug/L (chronic) @ hard. = 35 mg/L	08/10/2005	49 ug/L	
	24.7ug/L (acute) @ 191 mg/L, 29 ug/L (chronic) @ hard. = 400 mg/L	7/31/2006	25/34 ug/L	
	8.7 ug/L (acute), 6 ug/L (chronic) @ hard. = 63 mg/L	3/24/2007	29 ug/L	
	21.2 ug/L (acute) @ hard. = 162, 29 ug/L (chronic) @ hard. = 400 mg/L	7/22/2007	46/37 ug/L	
	16.1 ug/L (acute), 10.5 ug/L (chronic) @ hard. = 121 mg/L	5/16/2007	63 ug/L	
	49.6 ug /L (acute) @ 400 mg/L, 15.6 ug/L (chronic) @ 192 mg/L	8/7/2007	78/31 ug/L	
	49.6 ug/L (acute), 29.3 ug/L (chronic) @ hard. = 400 mg/L	8/17/2007	57/54 ug/L	
	49.6 ug/L (acute), 29.3 ug/L (chronic) @ hard. = 400 mg/L	9/22/2007	92 ug/L	
	9.1 ug/L (acute), 6.3 ug/L (chronic) @ hard. = 66 mg/L	12/1/2007	38 ug/L	
	14.7 ug/L (acute) @ hard. = 110 mg/L, 10.5 ug/L (chronic) @ hard. = 120 mg/L	12/8/2007	29/25 ug/L	
	12.4 ug/L (acute), /8.3 ug/L (chronic) @ hard. = 92 mg/L	12/14/2007	20 ug/L	
	9.5 ug/L (acute), 6.5 ug/L (chronic) @ hard. = 69 mg/L	1/11/2008	24 ug/L	
	9.7 ug/L (chronic) @ hard. = 110	1/30/2008	12 ug/L	
	8.2 ug/L (acute), 5.7 ug/L (chronic) @ hard. = 59 mg/L	2/5/2008	20 ug/L	

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Arsenic	200 ug/L (AGL), 280 ug/L (PBC)	07/31/2006	330 ug/L	AGL is attaining. 2 exceedances in 25 samples (binomial).
		05/16/2007	310 ug/L	
Chromium	1000 ug/L	09/22/2007	1690 ug/L	AGL is attaining with 1 exceedance in 27 samples (binomial).
Lead	100 ug/L (AGL), 15 ug/L (PBC)	07/31/2006	187.5 ug/L	AGL and PBC are impaired. AGL has 6 exceedances (12/03/2007 is an AGL exceedance before but not after aggregation), PBC has 11 exceedances in 31 samples (binomial).
		08/07/2006	53 ug/L	
		05/16/2007	214.2 ug/L	
		07/21/2007	186.5ug/L	
		07/23/2007	49.4 ug/L	
		08/06/2007	187.5 ug/L	
		08/16/2007	381.9 ug/L	
		09/22/2007	456.7 ug/L	
		12/03/2007	65.7ug/L	
		12/07/2007	91.6ug/L	
		01/06/2008	23 ug/L	
pH	9.0 SU	12/04/2007	9.2 SU	A&Ww, AGL, and PBC are attaining. 1 exceedance in 25 samples (binomial).

Monitoring Summary

Sampling period: 2/9/2004 - 12/26/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Confluence With Unnamed Tributary	MGQEN041.42	105658	ADEQ	TMDL
Above Omya Pit At Bed-rock Outcrop	MGQEN045.03	105980	Resolution Copper, ADEQ	TMDL
At Boulder Hole	MGQEN040.17	103463	Resolution Copper	Ambient
At Highway 60 Culverts	MGQEN041.74	103093	ADEQ	TMDL
Below BHP NPDES Permit	MGQEN037.09	103096	ADEQ, BHP, Resolution Copper, ADEQ	TMDL
Below Oak Flat	MGQEN041.34	103094	ADEQ	TMDL
Below Omya Mine Above Pump Station Spring	MGQEN044.42	103092	Resolution Copper, ADEQ	Ambient, TMDL
Below Superior Water Tank	MGQEN039.75	103564	ADEQ	TMDL
Below Mine Discharge	MGQEN037.17	103316	ADEQ	TMDL
Just Below Headwaters	MGQEN045.93	103091	ADEQ	TMDL
Magma Ave & Queen Creek	MGQEN038.73	103095	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
6-90 (dissolved), 4-95 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	6-10: nitrate, nitrite, nitrite/nitrate	5-73: dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, total dissolved solids, turbidity

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	Arsenic (dissolved), lead, selenium, selenium (dissolved)

Priority	Monitoring Recommendations
Medium	Good core parameter coverage. TMDL sampling complete.

Impairment Discussion
Impaired for lead (AGL and PBC). Remains impaired for copper.

IMPAIRMENT

Copper (2002)

A&Wedw - Impaired • PBC - Inconclusive

STATUS

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Lead	15 ug/L	07/31/2006	82 ug/L	PBC is inconclusive. 2 exceedances in 9 samples (binomial).
		01/28/2008	26 ug/L	
Copper ^d	23.5 ug/L (chronic) @ 310 mg/L hardness	8/10/2005	33 ug/L	A&Wedw remains impaired.
	28.5 ug/L (acute), 17.7 ug/L (chronic) @ hardness 222 mg/L	7/31/2006	32 ug/L	
	24.8 ug/L (acute), 15.6 ug/L (chronic) @ hardness 192 mg/L	3/24/2007	25 ug/L	
	37.2 ug/L (acute), 22.6 ug/L (chronic) @ 295 mg/L hardness	7/24/2007	51 ug/L	
	13.4 ug/L (chronic) @ 160 mg/L hardness	12/14/2007	18 ug/L	
	11.5 ug/L (acute), 7.8 ug/L (chronic) @ 85 mg/L hardness	1/28/2008	23 ug/L	

Monitoring Summary

Sampling period: 4/13/2005 - 1/28/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Boyce-Thompson Arboretum	MGQEN034.66	100624	ADEQ	TMDL, Biocriteria, Fixed Station Network
At The High Trail Bridge (Boyce Thompson Arboretum)	MGQEN034.25	103544	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
3-9 (dissolved), 1-9 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	1: nitrite/nitrate	1-9: dissolved oxygen, fluoride, pH, SSC, total dissolved solids, turbidity

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), lead, selenium, selenium (dissolved)

Priority	Monitoring Recommendations
Medium	Need <i>E. coli</i> coverage to determine PBC attainment and more lead samples to assess exceedances.

Impairment Discussion
Remains impaired for copper.

Add Copper to 303(d) list

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Arsenic	30 ug/L (FBC), 80 ug/L (FC), 200 ug/L AGL	08/10/2005	52 ug/L	FBC is inconclusive with 6 exceedances in 11 samples (binomial). FC and AGL are attaining with 1 exceedance in 11 samples (binomial).
		07/31/2006	460 ug/L	
		03/12/2006	33 ug/L	
		07/24/2007	42 ug/L	
		08/16/2007	50 ug/L	
		12/08/2007	40 ug/L	
Dissolved Oxygen	6.0 mg/L	07/31/2006	5.19 mg/L	A&Ww is inconclusive with 1 exceedance in 2 samples (binomial).
Lead	100 ug/L (AGL), 15 ug/L (FBC)	03/12/2006	76 ug/L	FBC and AGL are inconclusive. FBC has 8 exceedances and AGL has 4 exceedances in 11 samples.
		07/31/2006	1200 ug/L	
		07/24/2007	130 ug/L	
		08/16/2007	860 ug/L	
		12/01/2007	65 ug/L	
		12/08/2007	130 ug/L	
		12/11/2007	84 ug/L	
		01/06/2008	34 ug/L	
SSC	80 mg/L	08/10/2005	88 mg/L	A&Ww is inconclusive with one median exceedance. Only 6 samples (1/6/2008,12/11/2007,12/8/2007, 8/16/2007,3/12/2006, 8/10/2005) not taken within 48 hours of storm/peak flow event. 11 single sample exceedances in 11 samples.
		03/12/2006	800 mg/L	
		07/31/2006	42900 mg/L	
		07/24/2007	252.5 mg/L	
		08/16/2007	35600 mg/L	
		12/01/2007	1402.5 mg/L	
		12/08/2007	3100 mg/L	
		12/11/2007	3200 mg/L	
		01/06/2008	1710 mg/L	
		01/29/2008	230 mg/L	
		02/05/2008	307 mg/L	

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	24.6 ug/L (acute), 15.5 ug/L (chronic) @ 190 mg/L hardness	8/10/2005	39 ug/L	A&Ww is impaired with six exceedances.
	18.3 ug/L (acute), 11.9 ug/L (chronic) @ 139 mg/L hardness	7/24/2007	44 ug/L	
	29.3 ug/L (chronic) @ 2786 (400) mg/L hardness	8/16/2007	30 ug/L	
	13.1 ug/L (acute), 8.7 ug/L (chronic) @ 97 mg/L hardness	12/1/2007	15 ug/L	
	10.2 ug/L (acute), 7.0 ug/L (chronic) @ 75 mg/L hardness	12/8/2007	22 mg/L	
	12.4 ug/L (acute), 8.3 ug/L (chronic) @ 92 mg/L hardness	12/11/2007	17 ug/L	

Monitoring Summary

Sampling period: 8/10/2005 - 2/5/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Just Above Queens Station At Railroad Trestle	MGQEN030.06	103098	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1-11 (dissolved), 10-11 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	1-2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-11: dissolved oxygen, fluoride, pH, SSC, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Impairment Discussion
Impaired for copper with exceedances in lead, dissolved oxygen, SSC and arsenic.

Priority	Monitoring Recommendations
High	<i>E. coli</i> coverage and more lead samples needed to determine FBC attainment.

Tributary To Queen Creek

Headwaters - Queen Creek
15050100-991
2.0 Miles

Category 5
Impaired

IMPAIRMENT

Add Copper to the 303(d) list

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

STATUS

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Lead	15 ug/L	08/16/2007	17.71 ug/L	PBC is attaining. 1 exceedance in 16 samples (binomial).
pH	6.5 SU	08/16/2007	5.53 SU	AGL, PBC, and A&We attaining. 2 exceedances in 14 samples (binomial).
		12/11/2007	6.16 SU	
Copper ^d	7.7 ug/L @ 31 mg/L hardness	2/2/2007	34 ug/L	A&We is impaired with 14 exceedances.
	6.1 ug/L @ 24 mg/L hardness	3/23/2007	37 ug/L	
	5.8 ug/L @ 23 mg/L hardness	3/28/2007	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	8/7/2007	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	1/7/2008	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	

Monitoring Summary

Sampling period: 1/31/2006 - 3/4/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Auto Sampler At High Flow Site	MGUQE000.38	106019	ADEQ	TMDL
At Hairpin Turn Of Trib To Oak Flat	MGUQE001.08	106224	ADEQ	TMDL
Draining Oak Flat	MGUQE000.01	104522	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
2-22 (dissolved), 22 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	none	3-20: dissolved oxygen, pH, SSC, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Need <i>E. coli</i> sample and seasonal coverage to determine PBC attainment.

Impairment Discussion
Impaired for copper. Included in Queen Creek TMDL project.

Unnamed Trib To Queen Creek

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

Category 5
Impaired

Add Copper to the 303(d) list

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	16.4 ug/L @ 69 mg/L hardness	8/7/2007	23 ug/L	A&We is impaired with 4 exceedances.
	12.8 ug/L @ 53 mg/L hardness	12/01/2007	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: 8/1/2007 - 1/6/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
660 Meters East Of Highway 60 Tunnel	MGUQ3000.03	105761	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1-5 (dissolved), 5 (total): 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	Zinc (dissolved), dissolved oxygen, <i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, <i>E. coli</i>
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	A&We, PBC have core parameter needs.

Impairment Discussion
Impaired for copper. Included as part of Queen Creek TMDL.

Unnamed Trib To Queen Creek

Headwaters - Queen Creek
15050100-1000
0.5 Miles

Category 5
Impaired

IMPAIRMENT STATUS

Add Copper to the 303(d) list

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Lead	15 ug/L	12/8/2007	24.75 ug/L	PBC is inconclusive. 1 exceedance in 3 samples.
Copper ^d	14.6 ug/L @ 61 mg/L hardness	8/17/2007	40 ug/L	A&We is impaired with 3 exceedances.
	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	

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

Metals Samples	Nutrients & Related Samples	Other Samples
1-3 (dissolved), 3 (total): 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, <i>E. coli</i>
Missing Seasonal Distribution	Zinc (dissolved), pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect lead samples to determine attainment. All core parameters needing seasonal coverage, Dissolved oxygen and <i>E. coli</i> need sample coverage as well.

Impairment Discussion
Impaired for copper. Included as part of Queen Creek TMDL.

Salt River

Granite Reef Dam - downstream 2 Kilometers
15060106B-001A
1.6 Miles

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 4/13/2005 - 4/13/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Diversion Dam	MGSLR041.57	102769	AGFD	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
None	1: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1: dissolved oxygen, fluoride, pH, solids, total dissolved solids, turbidity

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> , nitrate, fluoride, arsenic, chromium, lead, boron, manganese, copper, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , nitrate, fluoride, arsenic, chromium, lead, boron, manganese, copper, mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	More data needed. Inconclusive since all core parameters need coverage.

Pesticides in fish tissue in fish tissue (2002, EPA)

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

No Exceedances

Monitoring Summary

Sampling period: 1/12/2005 - 1/21/2005

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 Dis-charge USGS 09512407	MGSLR003.96	100768	ADEQ	Fixed Station Network
below Tres Rios dis-charge	MGSLR003.33	101265	ADEQ	Ambient, Fixed Station Network
at 91st Ave center chan-nel	MGSLR003.56	103738	ADEQ	Fixed Station Network
at 51st Ave. bridge	MGSLR009.30	104060	ADEQ	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
None	None	None

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	All core parameters need coverage to assess attainment. Collect data to support TMDL development.

Impairment Discussion
EPA overfile in 2002 due to pesticides in fish tissue (DDT metabolites, toxaphene, chlordane) .

Use Support
PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 1/12/2005 - 1/21/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Priest Drive USGS 09512165	MGSLR022.76	101493	USGS, ADEQ	USGS, Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2: dissolved oxygen, <i>E. coli</i> , fluoride, pH, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Inconclusive due to all core parameters needing sample and seasonal coverage.

Silver King Wash

Headwaters - Queen Creek
15050100-2085
5.1 Miles

Category 3
Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Arsenic	200 ug/L (AGL), 280 ug/L (PBC)	07/31/2006	350 ug/L	AGL, PBC inconclusive. 1 exceedance in 8 samples.
Lead	100 ug/L (AGL), 15 ug/L (PBC)	07/31/2006	840 ug/L	AGL and PBC are inconclusive. 8 exceedances in 8 samples. (Note that the required number of exceedances for impairment with 20 samples has already been reached and would not be changed by collecting more samples.)
		08/16/2007	740 ug/L	
		12/01/2007	213 ug/L	
		12/08/2007	491 ug/L	
		12/11/2007	110 ug/L	
		01/07/2008	690 ug/L	
		01/28/2008	171.6 ug/L	
		01/28/2008	115.3 ug/L	
Copper ^d	38.3 ug/L (A&We) @ 170 mg/L hardness	12/8/2007	62 ug/L	A&We is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 3/12/2006 - 1/28/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Boyce Thompson Arboretum	MGSKW000.07	103545	ADEQ	TMDL
At Windmill	MGSKW004.11	106233	ADEQ	TMDL
Below Silver King Mine At FS Road	MGSKW004.60	106288	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1-12 (dissolved), 12 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	1: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-10: dissolved oxygen, fluoride, pH, SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Need <i>E. coli</i> sample and seasonal coverage to determine PBC attainment. Collect lead samples.

Sycamore Creek

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

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

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

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Agua Fria River	MGSYD000.09	104109	USGS	USGS
Above Sycamore Ranger Station	MGSYD009.13	100704	ADEQ, USGS	Fixed Station Network, Biocriteria, Ambient, USGS
At Dugas	MGSYD006.73	104108	USGS	USGS

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	1: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1: <i>E. coli</i> , fluoride, pH, SSC, turbidity

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, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , copper, lead, mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	Inconclusive due to lack of data. All core parameters need coverage to determine attainment.

Tempe Town Lake

15060106B-1588
220 Acres

Category 3*

Inconclusive

Middle Gila

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
<i>E. coli</i>	235 cfu/100 ml (FBC)	01/25/2005	240 cfu/100 ml	FBC is inconclusive(*). 4 single sample maximum exceedances within last 3 year period. (1/25/2005 sample not above screening value.) No geomean exceedances.
		12/3/2007	500 cfu/100 ml	
		12/10/2007	900 cfu/100 ml	
		1/28/2008	1600 cfu/100 ml	
		7/14/2008	613 cfu/100 ml	
pH	9.0 SU	01/09/2006	9.3 SU	A&Ww and FBC are inconclusive(*) with 36 exceedances in 261 samples (binomial).
		02/07/2006	9.3 SU	
		03/09/2006	9.3 SU	
		05/30/2006	9.3 SU	
		06/05/2006	9.5 SU	
		06/13/2006	9.5 SU	
		06/19/2006	9.6 SU	
		06/26/2006	9.4 SU	
		07/05/2006	9.4 SU	
		07/17/2006	9.3 SU	
		07/31/2006	9.3 SU	
		08/08/2006	9.3 SU	
		08/21/2006	9.3 SU	
		09/05/2006	9.5 SU	
		09/11/2006	9.5 SU	
		09/18/2006	9.5 SU	
		09/25/2006	9.4 SU	
		10/2/2006	9.4 SU	
		10/9/2006	9.4 SU	
		10/16/2006	9.4 SU	* see monitoring recommendations

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
pH	9.0 SU	10/23/2006	9.4 SU	A&Ww and FBC are inconclusive(*) with 36 exceedances in 261 samples (binomial). * see monitoring recommendations
		11/13/2006	9.5 SU	
		11/27/2006	9.3 SU	
		01/22/2007	9.3 SU	
		02/14/2007	9.5 SU	
		02/26/2007	9.5 SU	
		03/05/2007	9.4 SU	
		03/13/2007	9.4 SU	
		03/26/2007	9.4 SU	
		04/02/2007	9.4 SU	
		05/14/2007	9.3 SU	
		06/04/2007	9.4 SU	
		06/12/2007	9.4 SU	
		03/24/2007	9.4 SU	
		07/11/2007	9.3 SU	
		08/25/2008	9.5 SU	
Dissolved Oxygen	6.0 mg/L	7/15/2004	5.4 mg/L	A&Ww is attaining with 10 exceedances in 253 samples (binomial).
		7/22/2004	4.1 mg/L	
		7/29/2004	5.1 mg/L	
		8/5/2004	5.1 mg/L	
		10/22/2004	5.4 mg/L	
		8/29/2005	5.7 mg/L	
		8/8/2006	5.0 mg/L	
		8/28/2006	5.1 mg/L	
		9/5/2006	5.5 mg/L	
		9/11/2006	5.5 mg/L	
Thallium ^d	0.001 ug/L (FC), 0.075 ug/L (FBC)	04/08/2004	3 ug/L	FC, FBC are attaining – 1 exceedance in 34 samples (binomial).

Monitoring Summary

Sampling period: 1/8/2004 - 12/5/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
50 Feet Off Shore	MGTTL-SHOR	104917	Aquatic Consulting and Testing	
At Marina	MGTTL-MAR	104918	Aquatic Consulting and Testing	
DSD	MGTTL-A	101316	Aquatic Consulting and Testing, ADEQ	Clean Lakes Program
Mid Lake Site	MGTTL-MID	102452	AGFD, Aquatic Consulting and Testing	Ambient, Clean Lakes Program
USD	MGTTL-B	101315	Aquatic Consulting and Testing, ADEQ	Clean Lakes Program

Metals Samples	Nutrients & Related Samples	Other Samples
58-207 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	57-100: ammonia, nitrite, nitrite/nitrate, nitrogen, total Kjeldahl nitrogen	9-2109: <i>E. coli</i> , pH, solids, total dissolved solids, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	*Given the number of exceedances listed above the lake would normally be listed as “impaired” for pH and <i>E. coli</i> , however, 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. The water quality data collected post-dam failure is similar to the initial 1999 water quality data showing no exceedances. The refilling of the lake has effectively reset the clock with regard to lake productivity and associated issues, therefore, ADEQ has determined that listing the lake as impaired is not warranted at this time.”

Turkey Creek

tributary at 341928 / 1122128 - Poland Creek
15070102-036B
21.0 Miles

Category 4A
Not attaining

Copper, Lead (1992)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Lead	15 ug/L	12/01/2007	10.31 ug/L	FBC remains not attaining (1992). In current assessment, inconclusive with 1 exceedances in 4 samples (binomial).(12/1 result not an exceedance after aggregation.)
		01/06/2008	15.56 ug/L	
pH	9.0 SU	12/01/2007	9.9 SU	AGI, AGL, FBC, A&Ww are inconclusive. 1 exceedance in 4 samples (binomial).
SSC	80 mg/L	12/01/07	573 mg/L	A&Ww is attaining with 0 median exceedances. Samples at four sites aggregate to reach weekly sample – not enough to calculate median.

Monitoring Summary

Sampling period: 2/23/2004 - 12/18/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Bottom	MGTRK003.38	104459	ADEQ	TMDL
At Corral	MGTRK015.90	101538	ADEQ	TMDL
At Golden Belt Mine Drain Below Tailing Pile	MGTRK004.34	102607	ADEQ	TMDL
At New Bend	MGTRK003.79	104458	ADEQ	TMDL
At Old Bend Below Golden And Turkey Mines	MGTRK003.71	101082	ADEQ	TMDL
At Poland Creek Confluence	MGTRK000.01	102513	ADEQ	TMDL
At Silver Cord Mine	MGTRK001.53	100587	ADEQ	Biocriteria, TMDL
At Spring	MGTRK003.31	104460	ADEQ	TMDL
At Trail 202	MGTRK016.12	102517	ADEQ	TMDL

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Ditch Below Tailing Piles	MGTRK004.22	102509	ADEQ	TMDL
Downstream Of Tributary And Of Mines	MGTRK004.33	102518	ADEQ	TMDL
North Of Cleator At Forest Road 93 Crossing	MGTRK007.28	101083	ADEQ	TMDL
On Crown King Road At Bridge	MGTRK004.42	101627	ADEQ	TMDL
Upstream Of Bear Creek	MGTRK015.47	102511	ADEQ	TMDL
Upstream Of Confluence With Poland Creek	MGTRK000.10	104500	ADEQ	TMDL
Between Mineral Creek And Wolf Creek Near Stump Tank	MGTRK010.80	104880	ADEQ	TMDL
Below Golden Turkey Mine Upstream Of Spring	MGTRK003.89	102510	ADEQ	TMDL
Below Confluence With Pine Creek	MGTRK018.67	104881	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
8-14 (dissolved), 1-15 (total):arsenic, boron, cadmium, chromium, copper, lead, manganese, zinc	1: phosphorus	4-15: dissolved oxygen, pH, SSC, solids (dissolved)

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Inconclusive because most core parameters need coverage.

Impairment Discussion
TMDL completed in 2006.

Water Ranch Lake

15050100-6650
514.1 Acres

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 1/24/2004 - 3/30/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Mid Lake	MGWTR-MID	102839	AGFD	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
1-2 (total): arsenic, chromium, copper, lead, manganese, nickel, selenium, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-2: dissolved oxygen, pH, solids, total dissolved solids, turbidity

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> , mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), <i>E. coli</i> , mercury
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Low	More data needed to determine attainment, all core parameters need sample and seasonal coverage.

Salt Watershed

Watershed Description

This watershed is composed of the Salt River drainage from its headwaters to Granite Reef Dam, excluding the Verde River drainage. This watershed can be divided into four very distinct sub-basins: White River, Black River, Tonto Creek, and the main stem Salt River.

The population of this 6,242 square mile watershed is approximately 40,500 people (2000 census), with most of this population in the Superior-Globe-Miami mining district. Land ownership is approximately: 49% Tribal, 48% federal, 2% private, and 1% state. The principal land uses are open range grazing, recreation, forestry, and mining. Nine wilderness areas have been set aside, which have restricted land uses and activities.

Elevations range from 10,600 feet (above sea level) in the White Mountains, to about 2,000 feet at Granite Reef Dam. The watershed above Roosevelt Lake (White River, Black River, and Tonto Creek) is above 5,000 feet elevation with high desert flora and fauna, and coldwater aquatic communities where perennial waters exist. The area below Roosevelt Lake is below 5,000 feet, and therefore, contains primarily warmwater aquatic communities.

Water Resources

This Watershed receives more precipitation than most of the state, with approximately 20 inches of rain and 20 inches of snowfall. Roosevelt Lake and a chain of other reservoirs (Apache, Canyon, and Saguaro) were constructed to store perennial flow from this watershed and provide much of the water used in the Phoenix metropolitan area.

An estimate of surface water resources in the Salt 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 Salt Watershed

	Perennial	Intermittent	Ephemeral
Stream miles	510	1,190	2,785
Lake acres	25,544	0	

Additional Surface Water Resources Locate on Tribal Lands – Not Assessed

	Perennial	Intermittent	Ephemeral
Stream miles On Tribal Lands	825	0	4,275
Lake acres On Tribal Lands	1,858	0	

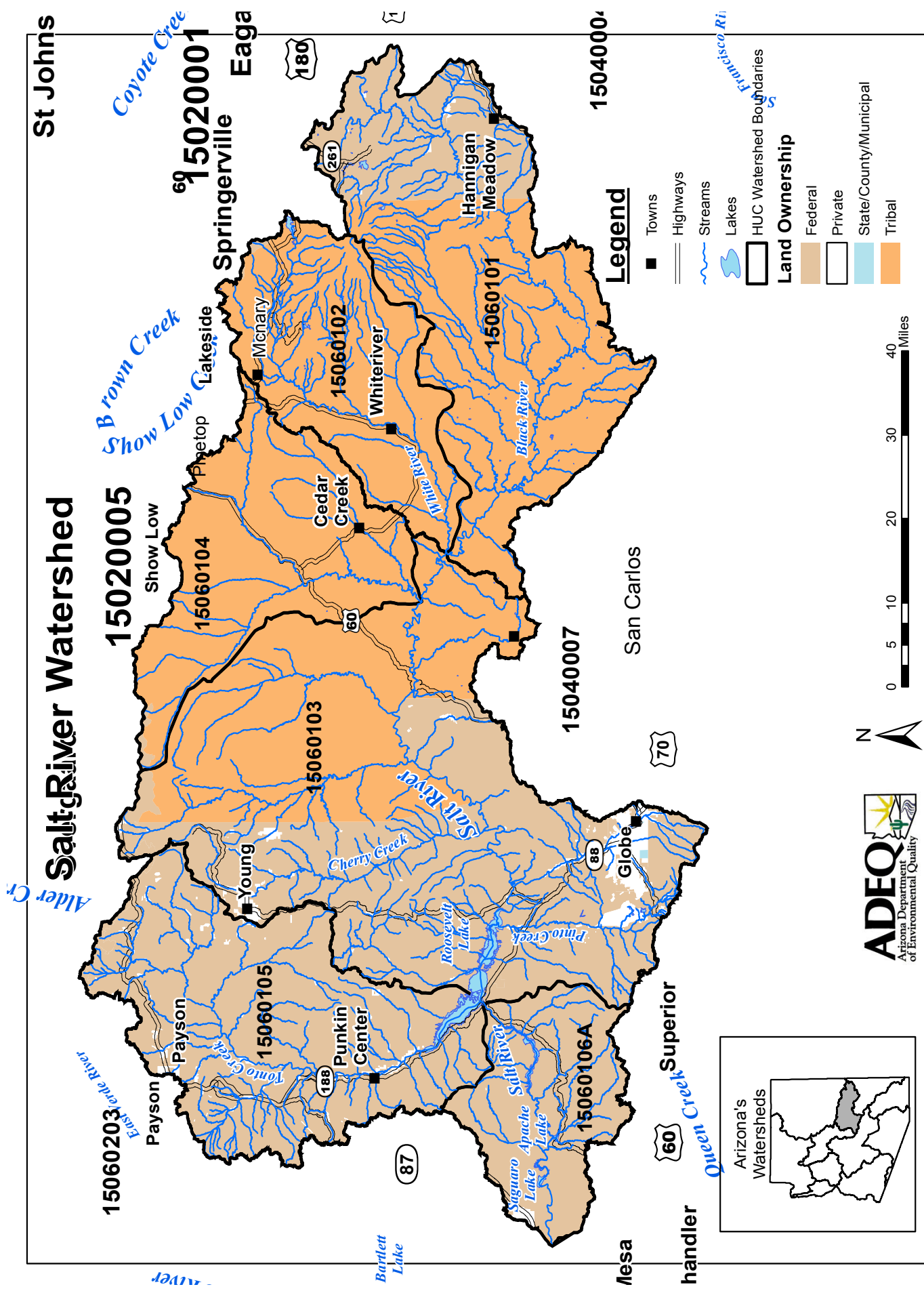
Ambient monitoring focuses on perennial waters; however, special investigations may identify water quality problems on intermittent and even ephemeral waters. Estimated miles and acres are based on USGS digitized hydrology at 1:100,000 and have been rounded to the nearest 5 miles or 5 acres.

Assessments

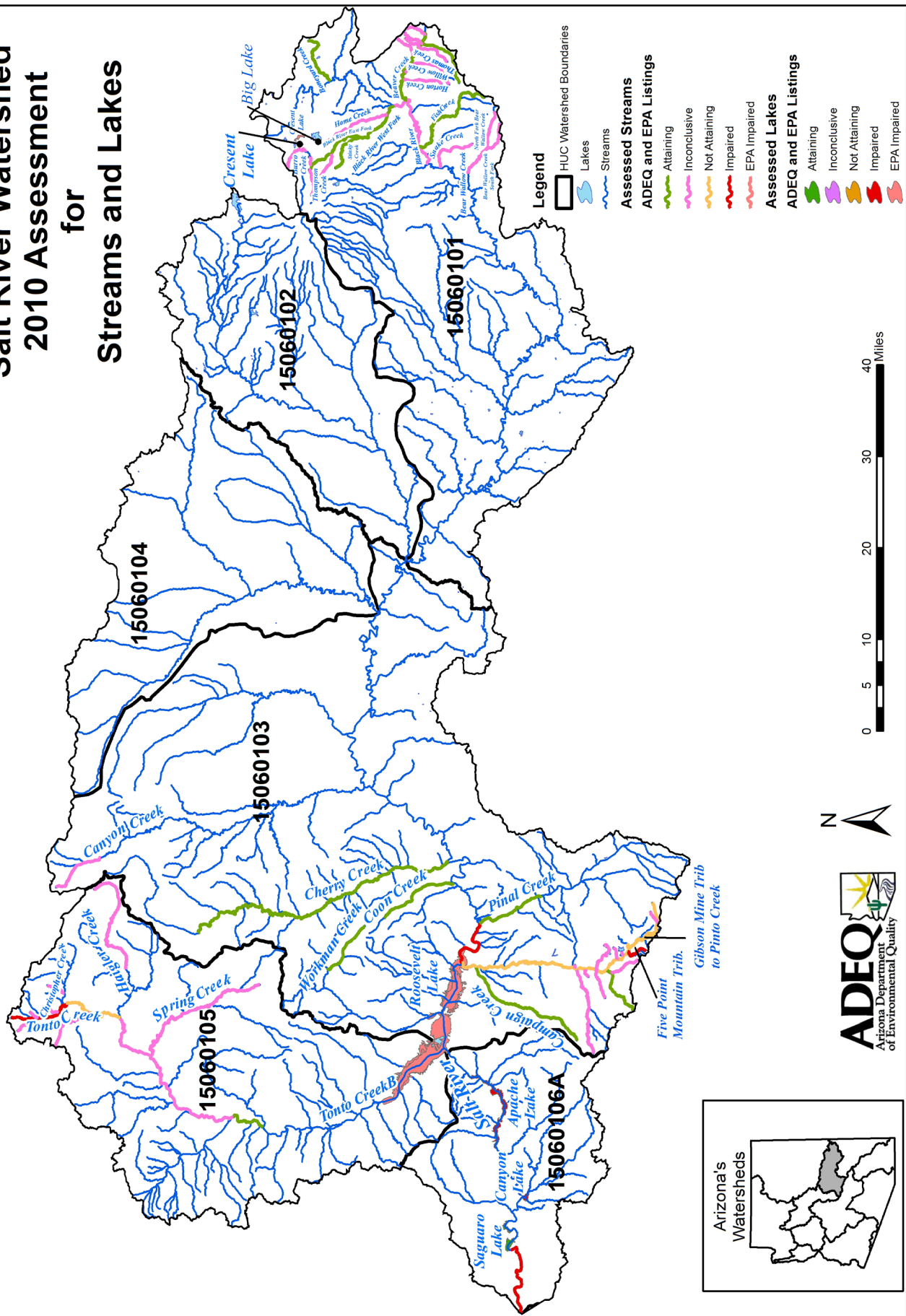
The Salt Watershed can be separated into the following drainage areas (subwatersheds):

15060101	Black River
15060102	White River (Tribal land – Not assessed)
15060103	Upper Salt River
15060104	Carrizo Creek (Tribal land – Not assessed)
15060105	Tonto Creek
15060106A	Lower Salt River

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 “2010 Surface Water Assessment Methods and Technical Support” document.

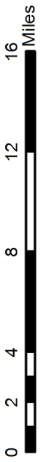
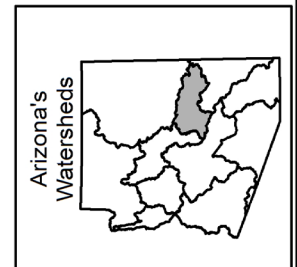
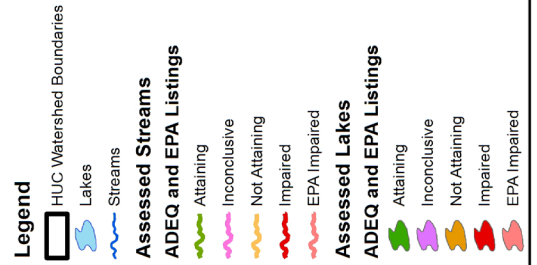
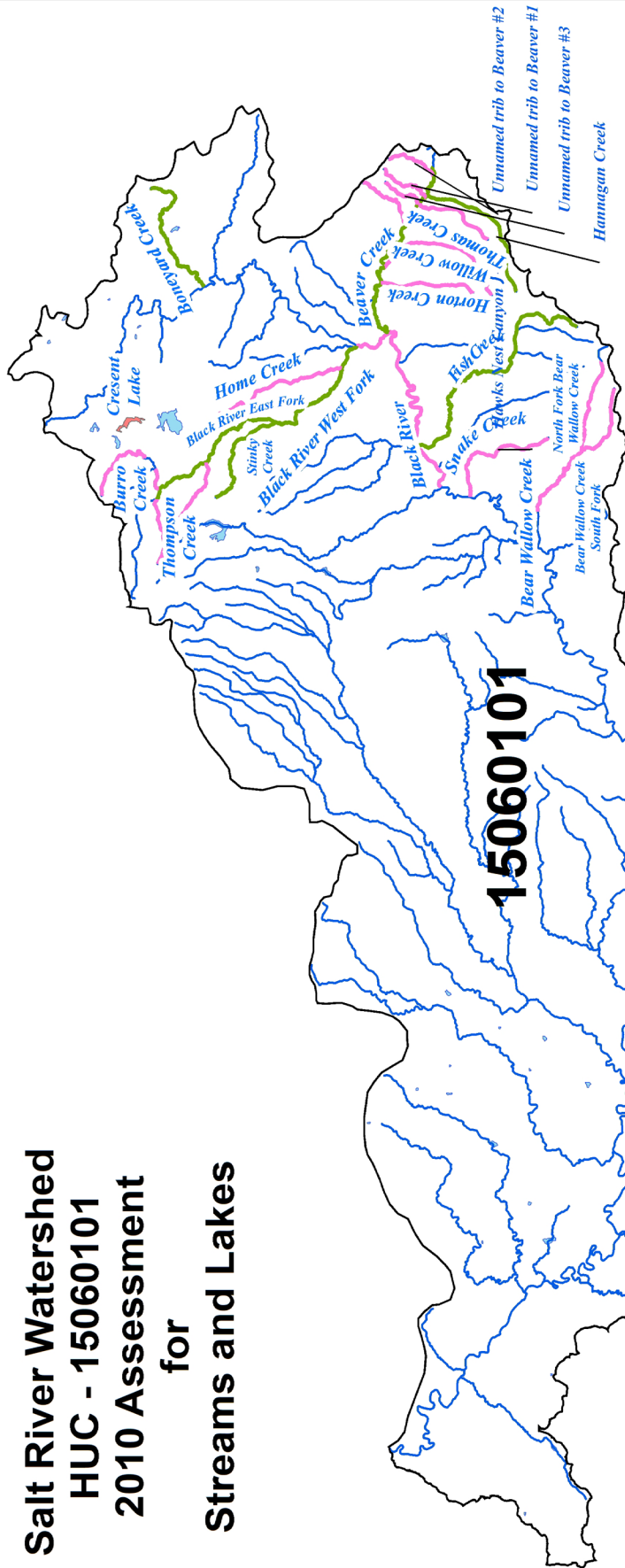


Salt River Watershed 2010 Assessment for Streams and Lakes

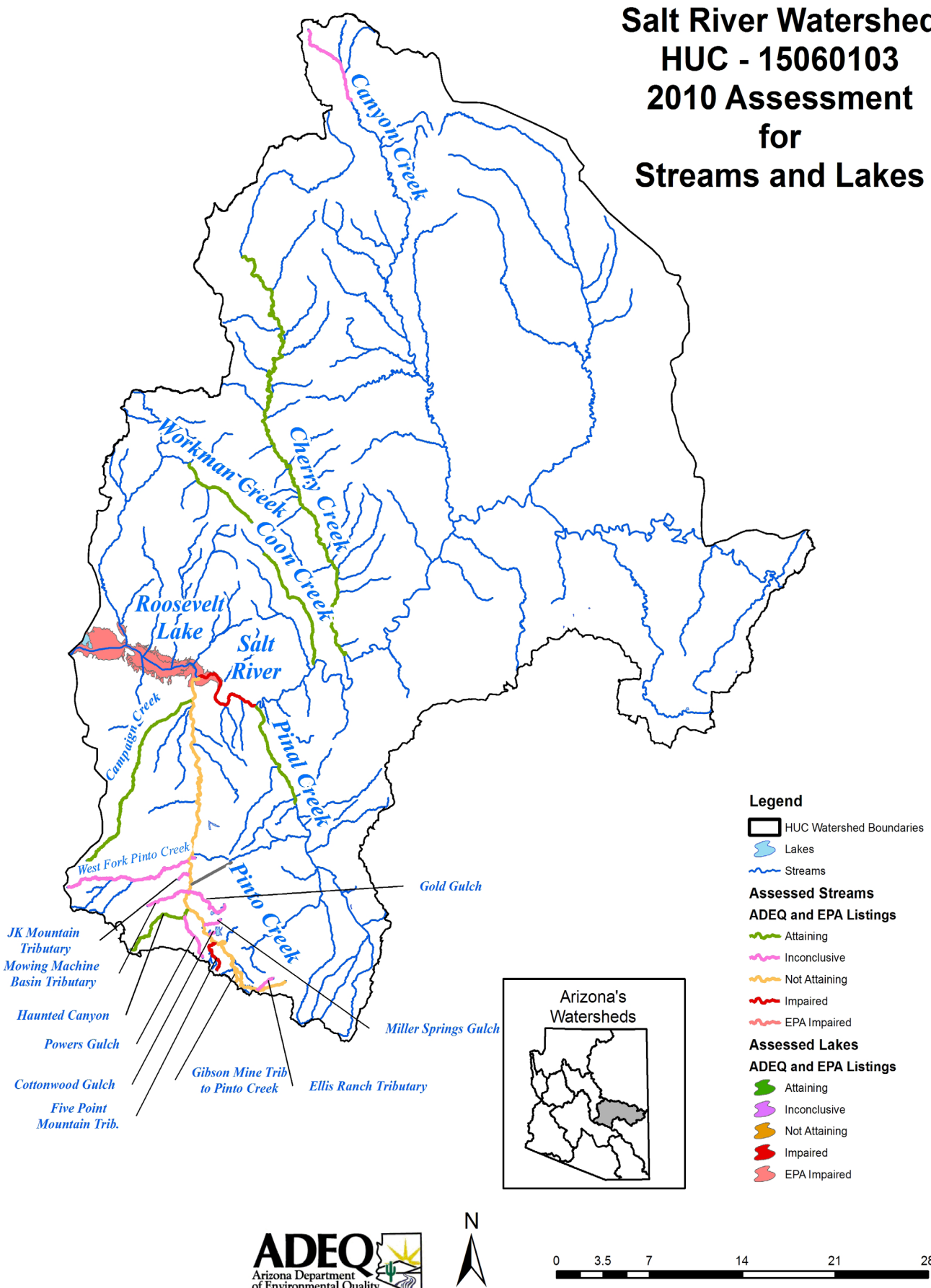


Salt River Watershed HUC - 15060101 2010 Assessment for Streams and Lakes

15060101



Salt River Watershed HUC - 15060103 2010 Assessment for Streams and Lakes



IMPAIRMENT STATUS

Dissolved Oxygen (2006/8)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Arsenic	10 ug/L	09/23/2008	12 ug/L	DWS is attaining with 1 exceedance in 10 samples (binomial)
Cadmium ^d	3.54 ug/L (chronic) @ hardness = 185 mg/L	01/23/2008	6.1 ug/L	A&Ww is inconclusive with 1 exceedance.
Dissolved Oxygen	6.0 mg/L	06/10/2004	5.09 mg/L	A&Ww remains impaired.
		11/05/2004	2.94 mg/L	
		04/13/2006	3.7 mg/L	
		06/21/2006	1.89 mg/L	
		12/12/2007	5.69 mg/L	
Manganese	980 ug/L(DWS), 10000 ug/L (AGi)	07/22/2008	20000 ug/L	DWS & AGI are inconclusive with 1 exceedance in 9 samples
Nitrogen	1.0 mg/L (SSM)	1/23/2008	2.61 mg/L	A&Ww is attaining. 1 exceedance, 20 samples (binomial)
	0.3 mg/L	2004	0.82 mg/L	A&Ww is attaining. 3 numeric annual average exceedances but none were composites at 1, 2, and 5 meters as required.
		2006	0.63 mg/L	
		2008	1.01 mg/L	
Phosphorus	0.06 mg/L (SSM)	6/29/2005	0.065 mg/L	A&Ww is attaining. 1 exceedance, 20 samples (binomial)
	0.03 mg/L	2004	0.04 mg/L	A&Ww is attaining. 3 numeric annual average exceedances but none were composites at 1, 2, and 5 meters as required.
		2006	0.04 mg/L	
		2008	0.04 mg/L	
Lead ^d	4 mg/L (chronic) @ hardness = 152 mg/L	7/22/2008	6 mg/L	A&Ww is inconclusive with 1 exceedance.

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Beach	SRAPA-BCH	101704	UA	Clean Lakes Program
At Camping Area	SRAPA-BC	101707	UA	Clean Lakes Program
At Dam	SRAPA-A	100997	AGFD, ADEQ, UA	Clean Lakes Program, Ambient,
At Marina	SRAPA-MAR	100998	ADEQ, AGFD, UA	Ambient, Clean Lakes Program
At Riverine Zone	SRAPA-C	101706	UA, ADEQ, AGFD	Clean Lakes Program, Ambient
At Transition Zone	SRAPA-B	101712	UA, ADEQ, AGFD	Clean Lakes Program
Burnt Corral	SRAPA-COR	102753	AGFD	Clean Lakes Program, Ambient
Mid Lake	SRAPA-E	100008	AGFD, ADEQ	Ambient, Clean Lakes Program
Open Water Northwest From Resort	SRAPA-NLS	105780	ADEQ	Clean Lakes Program
Open Waters Across From Camp Ground And Resort	SRAPA-OP	104399	ADEQ	Clean Lakes Program
Two Bar Ridge Area	SRAPA-B1	104398	AGFD, ADEQ	Clean Lakes Program

Metals Samples	Nutrients & Related Samples	Other Samples
6-16 (dissolved), 12-20 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium	2-51: ammonia, nitrate, nitrite, nitrite/nitrate, nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	5-56: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, solids, solids (dissolved)

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	<i>E. coli</i> needs seasonal coverage. Need composite samples at 1,2, and 5 meters to assess nitrogen and phosphorus.

Impairment Discussion
Remains impaired for low dissolved oxygen.

Bear Wallow Creek

N. & S. Forks Bear Wallow - Indian Res.
15060101-023A
5.9 Miles
Outstanding Arizona Water

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Below South Fork Bear Wallow Creek	SRBWL005.79	101198	ADEQ	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	none

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	No data collected within current assessment period.

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	7.0 mg/L	06/18/2008	6.5 mg/L	A&Wc is inconclusive with 1 exceedance in 6 samples (binomial).
Phosphorus	0.1 mg/L	04/16/2003	4.4 mg/L	A&Wc is attaining with no exceedances. This is an AZAC annual average but date assigned is outside assessment time frame.
SSC	25 mg/L	03/09/2004	27.2 mg/L	A&Wc is attaining with no median exceedances. ! single sample exceedance in 13 samples.

Monitoring Summary

Sampling period: 3/9/2004 - 6/18/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road 26 Bridge	SRBEV007.28	102135	ADEQ	TMDL, Ambient
Above Hannagan Creek	SRBEV009.66	102140	ADEQ	TMDL
At USGS Gage Near Sprucedale, AZ	SRBEV001.40	100373	ADEQ	Fixed Station Network, TMDL, Ambient
Below Hannagan Creek	SRBEV009.56	102139	ADEQ	TMDL, Ambient
Headwater Above Forest Road 26	SRBEV012.04	102145	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
2-11 (dissolved), 9-12 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	9-13: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	8-24: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Salt Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	A&Wc inconclusive because copper needs seasonal coverage, otherwise good coverage.

Trib To Beaver Creek

Headwaters - Beaver Creek
15060101-290
2.8 Miles

Category 3
Inconclusive

Salt

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

No Exceedances

Monitoring Summary

Sampling period: 3/10/2004 - 3/23/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Beaver Creek	SRUB2000.11	102142	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	1: phosphorus	1-2: dissolved oxygen, % dissolved oxygen, pH, SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Inconclusive due to lack of information. All core parameters need coverage therefore unit is inconclusive.

Trib To Beaver Creek

Headwaters - Beaver Creek
15060101-602
1.0 Miles

Category 3

Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 3/10/2004 - 3/10/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Beaver Creek	SRUB3000.08	102144	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	1: SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more than one sample to assess attainment. All core parameters need coverage so inconclusive.

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

No Exceedances

Monitoring Summary

Sampling period: 3/10/2004 - 3/23/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road 26	SRUB1000.49	102143	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	1: phosphorus	1-2: dissolved oxygen, % dissolved oxygen, pH, SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	More information needed to determine attainment status. Need coverage on all core parameters.

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

No Exceedances

Monitoring Summary

Sampling period: 7/10/2008 - 7/10/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road #25	SRBLR102.24	101202	ADEQ	Fixed Station Network, Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	1 sample: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1: dissolved oxygen, % dissolved oxygen, fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Inconclusive due to lack of data, all core parameters needing coverage.

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
SSC	25 mg/L	3/9/2004	78.8 mg/L	A&Wc is attaining with 0 median exceedances. 1 single sample exceedance in 23 samples.
		3/24/2005	32.7 mg/L	

Monitoring Summary

Sampling period: 1/16/2004 - 6/17/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road 116	SRWFB013.89	102120	ADEQ	TMDL
Above Home Creek	SRWFB001.47	102130	ADEQ	TMDL
Above Thompson Creek	SRWFB015.22	100692	ADEQ	TMDL, Biocriteria
Above West Fork Camp-ground	SRWFB005.34	100691	ADEQ	Ambient, Biocriteria
At Buffalo Crossing	SRWFB001.13	100376	ADEQ, ASLS	Fixed Station Network, TMDL
At Forest Road 88	SRWFB003.45	102126	ADEQ	TMDL
Below Forest Road #116	SRWFB013.67	101204	ADEQ	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
1-4 (dissolved), 3-4 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	3-4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	4-26: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Salt Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Only attaining some uses because A&Wc inconclusive; copper needs sample/seasonal coverage.

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

No Exceedances

Monitoring Summary

Sampling period: 9/30/2004 - 6/16/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Clabber City	SRBON001.69	102125	ADEQ	Ambient, TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1-5 (dissolved), 3-6 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	3-5: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	<i>E. coli</i> needs seasonal coverage, otherwise good coverage with few samples.

Burro CreekHeadwaters-West Fork Black River
15060101-349
5.7 Miles**Category 3**
Inconclusive

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

No Exceedances**M**onitoring Summary

Sampling period: 3/24/2004 - 3/24/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Lower Forest Road 116	SRBUR001.33	102116	ADEQ	TMDL
Above Upper Forest Road 116	SRBUR003.96	102115	ADEQ	TMDL
Above West Fork Black River	SRBUR000.01	102117	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	3: SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Inconclusive due to lack of data and all core parameters needing coverage.

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	08/29/2007	5.04 mg/L	A&Ww is inconclusive with 1 exceedance in 2 samples (binomial).
SSC	80 mg/L	08/29/2007	248 mg/L	A&Ww is attaining with no median exceedances. 1 single sample exceedance in 4 samples.

Monitoring Summary

Sampling period: 8/29/2007 - 6/17/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Superstition Wilderness Boundary	SRCGN009.78	100431	ADEQ	Biocriteria, Fixed Station Network, Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
3-4 (dissolved), 4 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	3-4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-4: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Dissolved oxygen, <i>E. coli</i> , and copper need seasonal coverage, <i>E. coli</i> needs sample coverage as well.

Canyon Creek

Headwaters - White Mtn. Apache Res.
15060103-014
8.6 Miles

Category 3

Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 8/18/2007 - 5/13/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Valentine Canyon	SRCYN045.73	100528	ADEQ	Ambient, Biocriteria
Below OW Ranch Road, Near Young, AZ	SRCYN046.07	100370	ADEQ	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
2-4 (dissolved), 4 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	3: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-4: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need seasonal coverage so all designated uses and unit are inconclusive.

IMPAIRMENT STATUS

Dissolved Oxygen (2004)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	01/08/2004	5.01 mg/L	A&Ww remains impaired (2004).
		10/20/2004	4.22 mg/L	
		06/20/2006	3.45 mg/L	
		09/27/2006	0.69 mg/L	
		10/25/2006	2.58 mg/L	
		07/11/2007	3.6 mg/L	
		06/26/2008	4.54 mg/L	
Manga-nese	980 ug/L	9/30/2008	10000 ug/L	DWS is attaining with 1 exceedance in 12 samples (binomial).
Nitrogen	1.0 mg/L (SSM)	3/3/2004	1.17 mg/L	A&Ww is inconclusive 4 exceedances in 22 samples (binomial).
		2/25/2008	3.08 mg/L	
		3/20/2008	2.75 mg/L	
		4/15/2008	2 mg/L	
	0.3 mg/L	2004	0.86 mg/L	A&Ww is attaining. 4 numeric exceedances (annual averages) but none composites at 1, 2, and 5 meters as required.
		2006	0.70 mg/L	
		2007	0.69 mg/L	
		2008	1.62 mg/L	
pH	9.0 SU	04/03/2007	9.0 SU	AGI, AGL, FBC, A&Ww are attaining. 3 exceedances in 21 samples (binomial).
		06/26/2008	9.7 SU	
		07/30/2008	9.51 SU	
Phospho-rus	0.03 mg/L	2004	0.035 mg/L	A&Ww is attaining. 4 numeric exceedances (annual averages) but none are composites at 1, 2, and 5 meters as required.
		2006	0.059 mg/L	
		2007	0.046 mg/L	
		2008	0.065 mg/L	
	0.06 mg/L (SSM)	9/27/2006	0.07 mg/L	A&Ww is attaining. 3 exceedances in 22 samples (binomial).
		2/25/2008	0.079 mg/L	
		3/20/2008	0.07 mg/L	

Monitoring Summary

Sampling period: 1/8/2004 - 6/26/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Across From Restaurant Lounge	SRCAN-RL	105720	ADEQ	Clean Lakes Program
At Campground	SRCAN-CG1	101700	ADEQ, UA, AGFD	Clean Lakes Program
At Inflow Below Horse Mesa Dam	SRCAN-1	102538	UA, AGFD	Ambient
At Inlet	SRCAN-C1	102615	UA, AGFD, ADEQ	Clean Lakes Program
At Marina	SRCAN-MAR	101701	AGFD, UA	Clean Lakes Program
At Steep Cliffs	SRCAN-STE	105719	ADEQ	Clean Lakes Program
Boat Ramp	SRCAN-BR	104401	ADEQ	Clean Lakes Program
Canyon Area	SRCAN-CAN	102754	AGFD	Ambient
Dam Site In Littoral Zone	SRCAN-A	101697	ADEQ, UA, AGFD	Clean Lakes Program, Ambient
In Transitional Zone	SRCAN-B	101699	UA, ADEQ	Clean Lakes Program
Mid Lake	SRCAN-2	102539	AGFD	
Mid Lake 2	SRCAN-ML	104400	ADEQ	Clean Lakes Program
Upper Middle	SRCAN-MID	102837	AGFD	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
6-22 (dissolved), 16-22 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	3-68: ammonia, nitrate, nitrite, nitrite/nitrate, nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	4-67: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, solids, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Plenty of data and good core parameter coverage but need to address nitrogen/phosphorus problems.

Impairment Discussion
Remains impaired for low dissolved oxygen.

Cherry Creek

Tributary at 340509 / 1105604 - Salt River
15060103-015B
40.9 Miles

Category 2

Attaining some uses

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

No Exceedances

Monitoring Summary

Sampling period: 10/4/2007 - 6/18/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
50 Meters Above Road Crossing	SRCHE032.78	101323	ADEQ	Fixed Station Network
Above Devils Chasm USGS 09497980	SRCHE013.65	100442	ADEQ	Ambient, Biocriteria, Fixed Station Network
Above Forest Road #203	SRCHE004.32	100347	ADEQ	Fixed Station Network
Above Turkey Creek	SRCHE033.95	100441	ADEQ	Biocriteria

Metals Samples	Nutrients & Related Samples	Other Samples
3-4 (dissolved), 4-5 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	3-4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	3-4: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	Phosphorus, nitrogen, <i>E. coli</i>
Lab Detection Limits Not Low Enough	Selenium

Priority	Monitoring Recommendations
Low	<i>E. coli</i> , phosphorus, nitrogen need seasonal coverage, otherwise good coverage with few samples.

E. coli (2004), Phosphorus (2006/8)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	7.0 mg/L	05/27/2008	6.77 mg/L	A&Wc is inconclusive with 1 exceedance, 1 sample (binomial).
<i>E. coli</i>	235 cfu/100 ml	09/03/2008	365.4 cfu/100 ml	FBC remains not attaining.
Phosphorus	0.1 mg/L	07/09/2003	0.591 mg/L	A&Wc remains impaired.

Monitoring Summary
Sampling period: 10/11/2006 - 9/4/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Christopher Creek Campground	SRCRS002.82	100364	ADEQ	Fixed Station Network, TMDL, Biocriteria
Above Highway 260 At Christopher Creek, AZ	SRCRS004.43	100362	ADEQ	TMDL, Fixed Station Network
Above R-Bar-C Scout Ranch	SRCRS001.74	106060	ADEQ	TMDL
Above Recreation Area	SRCRS006.20	101027	ADEQ	TMDL
Above Tonto Creek And Below Box Canyon	SRCRS000.08	101034	ADEQ	TMDL
At Mid. Reference Site	SRCRS005.42	100436	ADEQ	Biocriteria
At RC Ranch Below Springs	SRCRS001.54	100366	ADEQ	Biocriteria, Fixed Station Network

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At See Springs	SRCRS006.19	100361	ADEQ	Biocriteria, Fixed Station Network
At Top Of Box Canyon	SRCRS001.24	101033	ADEQ	TMDL
Below Box Canyon	SRCRS000.34	100367	ADEQ	Fixed Station Network
Below Christopher Creek Campground	SRCRS002.25	100365	ADEQ	TMDL, Biocriteria, Fixed Station Network
Below Christopher Creek, AZ	SRCRS003.48	100363	ADEQ	Biocriteria, Fixed Station Network
Below Christopher, Creek, Above Highway	SRCRS002.97	101030	ADEQ	TMDL
Below Recreation Area	SRCRS005.68	101028	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	34: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	6-34: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , pH, SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Plenty of samples but AGI, AGL, and AW all have core parameter coverage needs.

Impairment Discussion
Not attaining for <i>E. coli</i> with TMDL approved in 2005. Remains impaired for phosphorus (2006/8).

Trib To Christopher Creek

Headwaters - Christopher Creek
15060105-362
2.4 Miles

Category 3

Inconclusive

Salt

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 3/4/2008 - 3/4/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
R-Bar-C Trib	SRUCR000.01	106364	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	1: <i>E. coli</i>

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need coverage. Need more information to determine attainment status.

Coon CreekTributary at 334642 / 1105425 - Salt River
15060103-039B
10.1 Miles**Category 2**

Attaining some uses

FC - Attaining • FBC - Inconclusive • A&Ww - Inconclusive
AGL - Attaining**No Exceedances****M**onitoring Summary

Sampling period: 10/4/2007 - 6/18/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Forest Road #203	SRC00001.92	100379	ADEQ	Fixed Station Network, Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
1-4 (dissolved), 3-4 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2-4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	3-4: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Nitrogen
Missing Seasonal Distribution	Phosphorus, nitrogen, <i>E. coli</i>
Lab Detection Limits Not Low Enough	Selenium

Priority	Monitoring Recommendations
Low	<i>E. coli</i> , nitrogen and phosphorus need seasonal, nitrogen also needs sample coverage for unit to be attaining all uses.

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 2/3/2004 - 4/7/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Below Outfall PV004	SRCTG000.39	103443	BHP	Permit Monitoring

Metals Samples	Nutrients & Related Samples	Other Samples
4-12 (dissolved), 11-12 (total): arsenic, beryllium, cadmium, copper, manganese, selenium, zinc	none	7-9: dissolved oxygen, pH, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	<i>E. coli</i> , cadmium, nitrogen and phosphorus need sample and/or seasonal coverage.

IMPAIRMENT STATUS

pH (2002, EPA)

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

EPA FBC - Impaired • A&Wc - Impaired • AGL - Impaired • AGI - Impaired

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Nitrogen	0.5 mg/L	05/15/2008	1.6 mg/L	A&Wc is inconclusive. 1 exceedance.
pH	9.0 SU	08/07/2008	9.4 SU	AGI, AGL, FBC and A&Wc are inconclusive. 1 exceedance in 3 samples (binomial).

Monitoring Summary

Sampling period: 10/30/2007 - 10/31/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Boat Ramp	SRCRE-BR	101320	ADEQ, AGFD	Clean Lakes Program
Mid Lake	SRCRE-B	100993	AGFD, ADEQ	TMDL, Clean Lakes Program

Metals Samples	Nutrients & Related Samples	Other Samples
1 (total): arsenic, cadmium, copper, lead, manganese, zinc	4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	3: dissolved oxygen, % dissolved oxygen, pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	All designated uses have core parameter coverage needs, therefore unit is inconclusive.

Impairment Discussion
EPA overfiled for pH in 2002.

Ellis Ranch Tributary

Headwaters - Pinto Creek
15060103-888
1.0 Miles

Category 3

Inconclusive

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

Use Support

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
pH	6.5 SU	3/5/2004	6.08 SU	FBC, A&Ww are inconclusive with 1 exceedance in 3 samples (binomial).
Copper ^d	17.2 ug/L (acute), 11.2 ug/L (chronic) @ 130 mg/L hardness	3/5/2004	26 ug/L	A&W is inconclusive. Field investigations for the Pinto Creek TMDL have indicated that copper loads are entirely due to natural background conditions. Exceedances entirely due to natural background conditions are not violations of copper criteria and are not used to list a surface water as impaired.
	3.4 ug/L (acute), 2.6 ug/L (chronic) @ 23 mg/L hardness	12/29/2004	36 ug/L	
	3.0 ug/L (acute) @ hardness = 21 mg/L, 2.6 ug/L (chronic) @ 23 mg/L hardness	1/4/2005	96/57	
	4.3 ug/L (acute), 3.2 ug/L (chronic) @ 30 mg/L hardness	1/12/2005	37 ug/L	

Monitoring Summary

Sampling period: 3/5/2004 - 1/12/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road 349	SRERT000.48	102647	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
5 (dissolved), 5 (total): copper, selenium, zinc	none	3: pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	All core parameters need seasonal coverage, many need sample coverage as well.

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

No Exceedances

Monitoring Summary

Sampling period: 7/31/2007 - 6/24/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Black River	SRFIS000.01	101200	ADEQ	Fixed Station Network
Near Bear Wallow Wilderness	SRFIS004.49	100553	ADEQ	Ambient, Biocriteria

Metals Samples	Nutrients & Related Samples	Other Samples
1-4 (dissolved), 4 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-4: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	<i>E. coli</i> needs sample/seasonal coverage otherwise good core parameter coverage with few samples.

Five Point Mountain Tributary

Headwaters - Pinto Creek
15060103-885
2.9 Miles

Category 5
Impaired

Dissolved Copper (2006/8)

PBC - Inconclusive • A&We - Impaired

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
pH	6.5 SU	2/23/2004	6.09 SU	A&We, PBC are inconclusive with 1 exceedance in 3 samples (binomial).
Copper ^d	7.7 ug/L @ 31 mg/L hardness	2/23/2004	62 ug/L	A&We remains impaired.
	5.6 ug/L @ 22 mg/L hardness	12/29/2004	72 ug/L	
	4.4 ug/L @ 17 mg/L hardness	1/4/2005	46 ug/L	

Monitoring Summary

Sampling period: 2/23/2004 - 1/4/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
60W3	SRFPM002.24	102657	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
3 (dissolved), 3 (total): copper, selenium, zinc	none	1-3: dissolved oxygen, % dissolved oxygen, pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more data. All core parameters need seasonal coverage.

Impairment Discussion
Remains impaired for dissolved copper.

IMPAIRMENT

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

STATUS

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	4.9 ug/L (acute), 3.6 ug/L (chronic) @ hardness = 34 mg/L, 1300 ug/L (FBC)	03/05/2004	2400 ug/L	A&Ww remains not attaining (2006/8).
pH	6.5 SU	03/05/2004	6.05 SU	A&Ww and FBC are inconclusive with 1 exceedance, 1 sample (binomial).

Monitoring Summary

Sampling period: 3/5/2004 - 3/5/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Pinto Creek	SRGIB000.11	101071	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): copper, selenium, zinc	none	1: pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Need more samples to determine attainment status. All core parameters need coverage.

Impairment Discussion
Not attaining for dissolved copper. Pinto Creek copper TMDL completed in 2001.

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 2/2/2004 - 10/14/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Weir	SRGDG000.03	102666	BHP, ADEQ	Permit Monitoring, TMDL
North Of #3 Tailing Impoundment	SRGDG000.21	103442	BHP	Permit Monitoring

Metals Samples	Nutrients & Related Samples	Other Samples
11-23 (dissolved), 18-21 (total): arsenic, beryllium, cadmium, copper, manganese, selenium, zinc	1: nitrite/nitrate	2-16: dissolved oxygen, fluoride, pH, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	<i>E. coli</i> , nitrogen and phosphorus need sample/seasonal coverage.

H **aigler Creek**Headwaters - Trib at 341223/1110011
15060105-012A
15.4 Miles**Category 3**
InconclusiveFC - Inconclusive • FBC - Inconclusive • A&Wc - Inconclusive
AGL - Inconclusive • AGI - Inconclusive**No Exceedances****M** **onitoring Summary**
Sampling period: 9/18/2007 - 5/14/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Near Boy Scout Camp	SRHAG009.01	100372	ADEQ	Fixed Station Network
Near Fishermans Point On FR200	SRHAG013.09	105442	ADEQ	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
3-4 (dissolved), 4-5 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2-3 ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-4: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Inconclusive because all core parameters need seasonal and <i>E. coli</i> needs sample coverage.

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
SSC	25 mg/L	03/10/2004	95 mg/L	A&Wc is attaining with no median exceedances. 2 single sample exceedances in 7 samples.
		03/23/2004	110 mg/L	

Monitoring Summary

Sampling period: 3/10/2004 - 6/24/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Beaver Creek	SRHAN000.06	102141	ADEQ	TMDL, Ambient
At Highway 191, Near Alpine, AZ	SRHAN002.27	102149	ADEQ	TMDL, Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
6-7 (dissolved), 7 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	7-9: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	3-10: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	<i>E. coli</i> needs seasonal coverage for assessment unit to be attaining all uses.

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	12.9 ug/L (acute), 8.6ug/L (chronic) @ 96 mg/L hardness	3/10/2004	17 ug/L	A&Ww is inconclusive based on weight of evidence discussed in 2006/08 Assessment questioning the 3/10/2004 result.
	7.5 ug/L (acute), 5.3 ug/L (chronic) @ 54 mg/L hardness	12/31/2004	23/19 mg/L	
Nitrogen	2.0 mg/L (SSM)	12/17/2007	2.76 mg/L	A&Ww is inconclusive, 1 exceedance in 2 samples (binomial).

Monitoring Summary

Sampling period: 2/23/2004 - 4/30/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Below Powers Gulch	SRHNC000.45	101131	ADEQ	Fixed Station Network
Carlota Weir	SRHNC000.14	101072	ADEQ	Ambient, TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
2-6 (dissolved), 3-7 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2-3: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-6: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Nitrogen
Missing Core Parameters	Phosphorus, nitrogen, <i>E. coli</i>
Missing Seasonal Distribution	Phosphorus, nitrogen, <i>E. coli</i>
Lab Detection Limits Not Low Enough	Lead (dissolved)

Priority	Monitoring Recommendations
Medium	<i>E. coli</i> , nitrogen and phosphorus need sample/seasonal coverage. Collect more dissolved copper samples to conclusively determine A&We attainment status.

Hawks Nest Canyon

Headwaters - Beaver Creek
15060101-291
3.3 Miles

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 3/10/2004 - 3/10/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road 26	SRHWC000.04	102137	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	1: SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	More data needed to assess attainment. All core parameters need sample and seasonal coverage.

Hay Creek

Headwaters - West Fork Black River
15060101-353
4.5 Miles
Outstanding Arizona Water

Category 2

Attaining some uses

Salt

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

No Exceedances

Monitoring Summary

Sampling period: 4/20/2004 - 6/17/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above West Fork Black River	SRHAY000.04	101299	ADEQ	Fixed Station Network, TMDL, Ambient
In Exclusion	SRHAY003.25	102121	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1-4 (dissolved), 3-4 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-6: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	<i>E. coli</i> needs seasonal coverage, otherwise good coverage with low number of samples.

Home CreekHeadwaters - West Fork Black River
15060101-339
9.1 Miles**Category 3**
InconclusiveFC - Inconclusive • FBC - Inconclusive • A&Wc - Inconclusive
AGL - Inconclusive**No Exceedances****M**onitoring Summary
Sampling period: 3/23/2004 - 3/23/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Fish Barrier	SRHOM001.01	102128	ADEQ	TMDL
Above West Fork Black River	SRHOM000.02	102129	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	1: phosphorus	2: dissolved oxygen, % dissolved oxygen, pH, SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need coverage. Need more data to assess.

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

No Exceedances

Monitoring Summary

Sampling period: 3/23/2004 - 3/23/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road #26	SRHRT002.34	100573	ADEQ	Biocriteria
Above Forest Road 26	SRHRT001.06	102134	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	1: phosphorus	1: dissolved oxygen, % dissolved oxygen, pH, SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Inconclusive due to lack of data and no core parameter coverage.

PBC - Inconclusive • A&We - Inconclusive

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	13.9 ug/L @ 58 mg/L hardness	3/5/2004	28 ug/L	A&W is inconclusive. Field investigations for the Pinto Creek TMDL have indicated that copper loads are entirely due to natural background conditions. Exceedances entirely due to natural background conditions are not violations of copper criteria and are not used to list a surface water as impaired.
	9.1 ug/L @ 37 mg/L hardness	1/4/2005	18 ug/L	

Monitoring Summary

Sampling period: 3/5/2004 - 1/4/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Pinto Creek	SRJKM000.22	102668	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): copper, selenium, zinc	none	2: pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more samples. All core parameters need coverage.

Little E Creek
 Headwaters - Burro Creek
 15060101-347
 2.9 Miles

Category 3
 Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 3/24/2004 - 3/24/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road 116	SRLTL000.25	102118	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	1: SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	No core parameter coverage, therefore inconclusive.

Miller Springs Gulch

Headwaters - Pinto Creek
15060103-892
1.6 Miles

Category 3
Inconclusive

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 1/18/2006 - 10/3/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Headwaters To Pinto Creek	SRMSG22.83	104979	BHP	

Metals Samples	Nutrients & Related Samples	Other Samples
8 (dissolved), 8 (total): arsenic, beryllium, cadmium, copper, manganese, selenium, zinc	none	7-8: dissolved oxygen, pH, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All designated uses have core parameter needs therefore inconclusive.



Monitoring Machine Basin Tributary

Headwaters - Pinto Creek
15060103-874
3.6 Miles

Category 3

Inconclusive

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 3/5/2005 - 1/4/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Near Pinto Creek	SRMMB000.22	102667	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
3 (dissolved), 3 (total): copper, selenium, zinc	none	2: pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All designated uses have core parameter requirement needs: inconclusive. Need more samples/data.

North Fork Bear Wallow Creek

Headwaters - Bear Wallow Creek.
15060101-022
5.2 Miles
Outstanding Arizona Water

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Just above South Fork Bear Wallow Creek	SRNBE000.10	101262	ADEQ	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	none

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Inconclusive: no data in current assessment.

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Cadmium ^d	6.22 ug/L (chronic) @ hardness = 1296(400) mg/L	07/14/2004	7 ug/L	A&Ww is inconclusive. 1 exceedance.
Copper ^d	49.6 ug/L (acute), 29.3 ug/L (chronic) @ hardness = 963(400) mg/L	11/16/2005	50 ug/L	A&Ww is inconclusive. 1 exceedance. (result notation X/Y = max/median)
Dissolved Oxygen	6.0 mg/L	05/18/2004	5.4 mg/L	A&Ww is inconclusive with 1 exceedance in 4 samples (binomial).
Thallium	1 ug/L	11/06/2007	1.2 ug/L	FC is attaining with 1 exceedance in 33 samples
pH	6.5 SU	03/29/2006	5.93 SU	AGL, FBC and A&Ww are attaining. 9 exceedances in 70 samples (binomial).
		06/27/2006	6 SU	
		03/06/2007	6.03 SU	
		08/20/2007	5.55 SU	
		09/04/2007	6.12 SU	
		10/02/2007	5.3 SU	
		11/06/2007	6.17 SU	
		02/05/2008	5.14 SU	
		07/01/2008	6.28 SU	
Bottom Deposits	< 50 % Fines	09/30/2008	54 %	A&Ww is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 1/21/2004 - 12/2/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
USGS Site Z6.2	SRPNL006.17	101510	USGS	USGS
USGS Site Z6.7	SRPNL006.06	101511	USGS	USGS
USGS Site Z7	SRPNL005.96	101512	USGS	USGS
USGS Site Z9A	SRPNL005.65	101513	USGS	USGS

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Inspiration Dam USGS 09498400	SRPNL003.79	100727	ADEQ, Pinal Creek Group, USGS, DCL	Fixed Station Network, Permit Monitoring, USGS
At Mouth	SRPNL000.01	104029	USGS	USGS
At Setka Ranch USGS 09498380	SRPNL006.87	101491	USGS, Pinal Creek Group	USGS, Permit Monitoring
At Z10Sw	SRPNL005.51	102171	USGS	USGS
USGS Site	SRPNL005.82	101515	USGS	USGS
USGS Site D10	SRPNL004.51	101517	USGS	USGS
USGS Site Jj15	SRPNL005.12	101518	ADEQ, USGS, Pinal Creek Group	Ambient, Permit Monitoring, USGS, Stream Ecological Monitoring
USGS Site Z1	SRPNL006.80	101502	USGS	USGS

Metals Samples	Nutrients & Related Samples	Other Samples
3-177 (dissolved), 17-186 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	9-10: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	4-196: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids, solids (dissolved), turbidity, bottom deposits

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper (dissolved), cadmium (dissolved), dissolved oxygen, bottom deposits
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Zinc (dissolved), thallium (dissolved), selenium, mercury, manganese (dissolved), copper (dissolved), cadmium (dissolved), beryllium (dissolved)

Priority	Monitoring Recommendations
High	Good core parameter coverage. Need to check why so many parameters have lab detection limit issues. Collect more bottom deposits samples.

Pinto Creek

Headwaters - Tributary at 331927/1105456
15060103-018A
2.5 Miles

Category 4A
Not attaining

Salt

Dissolved Copper (1998)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
pH	6.5 SU	3/5/2004	5.7 SU	AGL, AGI, FBC & A&Wc are inconclusive. 1 exceedance, 1 sample (binomial).
Copper ^d	16 ug/L (acute), 10.5 ug/L (chronic) @ 120 mg/L hardness	3/5/2004	18 ug/L	A&Wc remains not attaining (1998).

Monitoring Summary

Sampling period: 3/5/2004 - 3/5/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Simpson Dam	SRPNT033.02	102428	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): copper, selenium, zinc	none	1: pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more than one sample to determine attainment. All core parameters need coverage.

Impairment Discussion
Remains not attaining for dissolved copper. Pinto Creek copper TMDL completed in 2001.

Dissolved Copper (1998)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	10/03/2005	5.66 mg/L	A&Ww is attaining with 3 exceedances in 18 samples (binomial).
		07/11/2006	5.26 mg/L	
		01/23/2007	2.67 mg/L	
pH	6.5 SU	03/05/2004	5.66 SU	AGL, FBC, AGI, and A&Ww are attaining. 1 exceedance in 25 samples (binomial).
Selenium	2 ug/L	02/03/2004	3 ug/L	A&Ww chronic is attaining. 2 exceedances attributed to low flow and excluded in 2006/08 Assessment and not used for assessment determination
		10/18/2004	3 ug/L	
Copper ^d	49.6 ug/L (acute), 29.3 ug/L (chronic) @ 750(400) mg/L	2/23/2004	93 ug/L	A&Ww remains not attaining.
	6.5 ug/L (acute), 4.6 ug/L (chronic) @ hardness = 46 mg/L	3/5/2004	450 ug/L	
	24 ug/L (chronic) @ 320 mg/L hardness	3/10/2004	37 ug/L	
	22.2 ug/L (acute), 14.1 ug/L (chronic) @ hardness = 170 mg/L	12/29/2004	83 ug/L	
	12.7 ug/L (acute) @ hardness = 94 mg/L, 6.8 ug/L (chronic) @ hardness = 72 mg/L	1/5/2005	77 ug/L	

Monitoring Summary

Sampling period: 2/2/2004 - 12/26/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Below Gibson Mine Tributary	SRPNT028.62	101063	ADEQ	TMDL
Below Henderson Ranch Mines	SRPNT031.74	101061	ADEQ	TMDL
Below USGS Gage 09498501 Below Haunted Canyon	SRPNT019.77	102432	ADEQ	TMDL

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
300 Feet Downstream Of The Iron Bridge	SRPNT019.23	103313	BHP	Permit Monitoring
Above Carlota Cactus Breccia	SRPNT024.04	102430	BHP, ADEQ	Permit Monitoring, TMDL
Above Cottonwood Gulch And Below Cactus Breccia	SRPNT024.85	103311	Resolution Copper, BHP	Permit Monitoring
Above Gibson Mine Tributary	SRPNT028.85	101062	ADEQ	TMDL
Above Henderson Ranch Mines	SRPNT032.25	101039	ADEQ	TMDL
At Henderson Ranch Mines	SRPNT031.89	102429	ADEQ	TMDL
At Old Highway 60	SRPNT027.51	101064	ADEQ	TMDL
At USGS Gage Below Haunted Canyon USGS 09498501	SRPNT020.12	101068	ADEQ	TMDL
Below Carlota Cactus Breccia	SRPNT023.29	102431	ADEQ, BHP	Permit Monitoring, TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
4-47 (dissolved), 4-51 (total): arsenic, beryllium, cadmium, copper, lead, manganese, mercury, selenium, zinc	none	2-42: dissolved oxygen, % dissolved oxygen, pH, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Lots of samples but inadequate core parameter coverage.

Impairment Discussion
Remains not attaining for dissolved copper. Pinto Creek copper TMDL completed in 2001.

Copper (1998), Selenium (2004)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Cadmium	50 ug/L (AGI & AGL) and 84 ug/L (FC)	04/27/2004	200 ug/L	AGI, AFG, FC are attaining. 1 exceedance in 10 samples (binomial).
Dissolved Oxygen	6.0 mg/L	08/31/2004	3.86 mg/L	A&Ww is inconclusive with 1 exceedance in 6 samples (binomial).
Copper ^d	20.9 ug/L (acute), 13 ug/L (chronic) @ 160 mg/L hardness	3/5/2004	27 ug/L	A&Ww remains not attaining.
	22 ug/L (acute), 14 ug/L (chronic) @ 170 mg/L hardness	1/5/2005	32 ug/L	

Monitoring Summary

Sampling period: 3/5/2004 - 6/17/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Henderson Ford	SRPNT008.48	100346	USGS, ADEQ	Fixed Station Network, Stream Ecosystem Monitoring, Ambient, TMDL
Above USGS Gage 09498502 At Pinto Valley Weir	SRPNT014.93	102436	ADEQ	TMDL
At State Route 188	SRPNT004.37	102437	ADEQ	TMDL
At USGS Gage, Pinto Valley Weir USGS 09498502	SRPNT014.51	101070	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
3-13 (dissolved), 9-13 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	9-10: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	8-13: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Salt 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	Selenium

Priority	Monitoring Recommendations
Low	Good core parameter coverage.

Impairment Discussion
Remains impaired for selenium and not attaining for copper. Pinto Creek copper TMDL completed in 2001.



Unnamed Trib To Pinto Creek

Headwaters - Pinto Creek
15060103-562
0.42 Miles

Category 3

Inconclusive

PBC - Inconclusive • A&We - Inconclusive

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	11.9 ug/L @ 49 mg/L hardness	3/5/2004	30 ug/L	A&We is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 3/5/2004 - 1/4/2005

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Ripper Spring Tributary	SRUPA000.42	102941	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): copper, selenium, zinc	none	2: pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Core parameter coverage needed.

Powers Gulch

Headwaters - Haunted Canyon
15060103-884
3.8 Miles

Category 3
Inconclusive

PBC - Inconclusive • A&We - Inconclusive

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Copper ^d	9.81 ug/L @ 40 mg/L hardness	3/10/2004	21 ug/L	A&We is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 2/3/2004 - 10/14/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Near Haunted Canyon	SRPWG000.15	102665	ADEQ, BHP	TMDL, Permit Monitoring

Metals Samples	Nutrients & Related Samples	Other Samples
5-12 (dissolved), 11-12 (total): arsenic, beryllium, cadmium, copper, manganese, selenium, zinc	none	1-9: dissolved oxygen, % dissolved oxygen, pH, turbidity

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper (dissolved)
Missing Core Parameters	Phosphorus, nitrogen, <i>E. coli</i>
Missing Seasonal Distribution	Phosphorus, nitrogen, <i>E. coli</i> , pH
Lab Detection Limits Not Low Enough	Arsenic (dissolved)

Priority	Monitoring Recommendations
Medium	Two more copper exceedances (50 & 66 ug/L) would probably have been exceedances if hardness data had been available. Both designated uses have core parameter needs, therefore inconclusive.

Mercury in Fish Tissue (2006/8, EPA)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	10/08/2004	4.5 mg/L	A&Ww is inconclusive with 2 exceedances in 7 samples (binomial).
		09/24/2007	5.47 mg/L	
pH	9.0 SU	09/30/2004	10 SU	AGI, AGL, DWS, FBC and A&Ww are inconclusive. 4 exceedances in 17 samples (binomial).
		06/20/2006	9.4 SU	
		07/21/2008	9.3 SU	
		09/22/2008	9.54 SU	
Phosphorus	0.06 mg/L (SSM)	2/12/2008	0.09 mg/L	A&Ww is attaining, 1 exceedance in 15 samples (binomial).

Monitoring Summary

Sampling period: 3/9/2004 - 7/21/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At Boat Ramp	SRR00-BR	104419	ADEQ	Clean Lakes Program
At Dam	SRR00-A	100075	USGS, AGFD, ADEQ, UA	USGS, Clean Lakes Program, , Ambient, Clean Lakes Program
At Marina	SRR00-MAR	101711	ADEQ, UA	Clean Lakes Program
Below Bumblebee Creek Off Highway 188	SRR00-B1	104417	ADEQ	Clean Lakes Program
Mid Lake	SRR00-E	100079	ADEQ, AGFD	Clean Lakes Program, Ambient, Clean Lakes Program
Northeast Of Boat Ramp	SRR00-C2	106243	ADEQ	Clean Lakes Program
Salt River Inlet	SRR00-B	100076	UA, AGFD, ADEQ, USGS	Clean Lakes Program, , Clean Lakes Program, , USGS, Ambient, Clean Lakes Program
Tonto Creek Inlet	SRR00-C	100077	ADEQ, AGFD, UA	Clean Lakes Program, , Ambient, Clean Lakes Program, , Ambient
Windy Hill	SRR00-WIND	102557	AGFD, USGS	Ambient, , USGS
Windy Hill West Of Steamboat Rock	SRR00-WIN	102612	USGS	USGS

Metals Samples	Nutrients & Related Samples	Other Samples
7-23 (dissolved), 18-25 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	4-46: ammonia, nitrate, nitrite, nitrite/nitrate, nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	2-48: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, solids, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	<i>E. coli</i> needs seasonal coverage otherwise good coverage and plenty of data.

Impairment Discussion
Impaired, EPA overfile for mercury in fish tissue.

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	6.0 mg/L	10/11/2006	2 mg/L	A&Ww is inconclusive with 3 exceedances in 11 samples (binomial).
		09/27/2007	4.2 mg/L	
		12/04/2007	6 mg/L	
Nitrogen	1.0 mg/L (SSM)	5/13/2004	1.14 mg/L	A&Ww is attaining. 8 exceedances in 27 samples is impaired (binomial) but none were composites at 1, 2, and 5 meters as required.
		4/6/2005	1.08 mg/L	
		4/11/2005	1.06 mg/L	
		4/27/2005	1.18 mg/L	
		1/29/2008	2.31 mg/L	
		2/26/2008	1.23 mg/L	
		3/19/2008	1.45 mg/L	
		4/9/2008	1.68 mg/L	
	0.3 mg/L	2004	0.92 mg/L	A&Ww is attaining. 4 numeric exceedances (annual averages) but none were composites at 1, 2, and 5 meters.
		2005	0.85 mg/L	
		2006	0.73 mg/L	
		2008	1.69 mg/L	
pH	9.0 SU	04/11/2005	9.0 SU	AGI, AGL, FBC, DWS and A&Ww are inconclusive. 5 exceedances in 28 samples (binomial).
		04/27/2005	9.4 SU	
		05/29/2008	9.4 SU	
		06/19/2008	9.0 SU	
		07/31/2008	9.75 SU	
Phosphorus	0.06 mg/L (SSM)	4/6/2005	0.06 mg/L	A&Ww is attaining. 9 exceedances in 28 samples is impaired (binomial) but none were composites at 1, 2, and 5 meters as required.
		4/11/2005	0.14 mg/L	
		4/27/2005	0.09 mg/L	
		6/3/2005	0.4 mg/L	
		10/11/2006	0.07 mg/L	
		6/1/2007	23 mg/L	
		1/29/2008	0.23 mg/L	
		2/26/2008	0.06 mg/L	
		3/19/2008	0.07 mg/L	
	0.03 mg/L	2004	0.031 mg/L	A&Ww is attaining. 4 numeric exceedances (annual averages) but all excluded since not composites at 1, 2, and 5 meters.
		2005	0.190 mg/L	
		2006	0.099 mg/L	
		2008	0.07 mg/L	
Thallium	7.2 ug/L (FC), 2 ug/L (DWS)	02/26/2008	34 ug/L	FC, DWS are attaining. 1 exceedance in 15 samples (binomial).

Monitoring Summary

Sampling period: 2/20/2004 - 6/19/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
850 Meters Across From Butcher Jones Site	SRSAG-NLS	105800	ADEQ	Clean Lakes Program
At Bagley Flat	SRSAG-BAG	101001	AGFD, ADEQ	Ambient, Clean Lakes Program
At Butcher Jones	SRSAG-BJ	100081	ADEQ, UA	Clean Lakes Program
At Campground	SRSAG-MFLAT	101698	UA, ADEQ, AGFD	Clean Lakes Program, Ambient
At Dam	SRSAG-A	100082	ADEQ, UA, AGFD	Clean Lakes Program, Ambient
At Marina Site 1	SRSAG-MAR1	100994	UA, ADEQ	Clean Lakes Program
At Marina Site 2	SRSAG-MAR2	100995	ADEQ, AGFD	Clean Lakes Program, Ambient
Below Shiprock	SRSAG-SHIP	105371	AGFD	
Mid Lake	SRSAG-BG	104418	ADEQ	Clean Lakes Program
Mid Lake Site	SRSAG-B	104397	ADEQ, UA, AGFD	Clean Lakes Program, Ambient
Near Perrigrin Cove	SRSAG-2	102559	AGFD	Ambient
Southeast Of Bagley Flat	SRSAG-C	101810	ADEQ, AGFD, UA	Clean Lakes Program, Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
6-17 (dissolved), 15-18 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	3-74: ammonia, nitrate, nitrite, nitrite/nitrate, nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	1-74: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, solids, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Exceedances in pH, dissolved oxygen, nitrogen, phosphorus and thallium. Need to reconsider standards and/or sampling protocols to address nitrogen and phosphorus problems (other data available to corroborate)

Dissolved Oxygen (2004)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Arsenic ^d	10 ug/L (DWS), 30 ug/L (FBC)	08/15/2005	66 ug/L	DWS, FBC are attaining. 1 exceedance in 54 samples (binomial).
Dissolved Oxygen	6.0 mg/L	08/24/2006	3 mg/L	A&Ww remains impaired.
		07/25/2007	5.5 mg/L	
		09/24/2008	5.7 mg/L	
Nitrogen	0.6 mg/L	02/06/2007	0.621 mg/L	A&Ww is inconclusive. 1 annual average exceedance.
SSC	80 mg/L	02/12/2005	426 mg/L	A&Ww is attaining with no median exceedances. 4 single sample exceedances in 20 samples.
		07/19/2005	3202 mg/L	
		05/09/2007	531 mg/L	
		12/12/2007	136 mg/L	

Monitoring Summary

Sampling period: 1/27/2004 - 12/8/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Below Stewart Mountain Dam	SRSLR054.32	103131	SRP	SRP
Below Stewart Mountain Dam USGS 09502000	SRSLR051.32	100746	USFS, USGS, AGFD	319 Grant, , Fixed Station Network, Ambient, USGS
Bus Stop 4	SRSLR047.21	103272	USFS	319 Grant
Near Coon Bluff, AZ USGS	SRSLR045.57	101514	USGS	USGS
Phon-D-Sutton Quarter Mile Upstream Of Confluence With Verde	SRSLR044.95	103273	USFS	319 Grant
Saguaro Lake Ranch	SRSLR054.49	103271	USFS	319 Grant

Metals Samples	Nutrients & Related Samples	Other Samples
2-56 (dissolved), 23-80 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	3-60: ammonia, nitrate, nitrite, nitrite/nitrate, nitrite/nitrate (dissolved), nitrogen, phosphorus, total Kjeldahl nitrogen	1-81: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, naphthalene, pH, SSC, solids, solids (dissolved), styrene, tetrachloroethylene, toluene, trichlorobenzene, trichloroethane_111, trichloroethane_112, trichloroethylene, trihalomethanes, turbidity_lab, vinylchloride, xylene

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Nitrogen, dissolved oxygen
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Selenium, nitrate, manganese (dissolved), manganese, fluoride (dissolved), dibromochloropropane, cadmium, boron (dissolved), boron, barium (dissolved), barium, arsenic (dissolved), arsenic

Priority	Monitoring Recommendations
Medium	Good core parameter coverage though many parameters showing detection limit issues.

Impairment Discussion
Remains impaired for dissolved oxygen.

Add *E. coli*, Nitrogen, Phosphorus to the 303(d) list, SSC (2006/8)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
<i>E. coli</i>	235 cfu/100 ml	08/16/2005	1800 cfu/100 ml	FBC is impaired. 3 single sample maximum exceedances within last 3 year period (17 samples). No geomean exceedances.
		08/15/2006	7100 cfu/100 ml	
		12/04/2007	1600 cfu/100 ml	
Lead	15 ug/L	08/16/2005	33.6 ug/L	FBC is attaining. 3 exceedances in 30 samples (binomial).
		08/15/2006	32.8 ug/L	
		01/29/2008	25.9 ug/L	
Mercury ^d	0.01 ug/L	04/11/2007	0.12 ug/L	A&Ww chronic is inconclusive, 1 exceedance.
Nitrogen	2.0 mg/L (SSM)	8/16/2005	5.86 mg/L	A&Ww is attaining. 3 exceedances in 30 samples (binomial).
		8/15/2006	4.75 mg/L	
		1/29/2008	3.18 mg/L	
	0.6 mg/L	2005	1.21 mg/L	A&Ww is impaired. 3 annual average exceedances.
		2006	1.12 mg/L	
		2008	0.7 mg/L	
Phosphorus	1.0 mg/L (SSM)	8/16/2005	1.33 mg/L	A&Ww is attaining. 2 exceedances in 30 samples (binomial).
		1/29/2008	2.44 mg/L	
	0.12 mg/L	2005	0.296 mg/L	A&Ww is impaired. 4 annual average exceedances.
		2006	0.221 mg/L	
		2007	0.146 mg/L	
		2008	0.448 mg/L	
SSC	80 mg/L	03/31/2004	273 mg/L	A&Ww remains impaired (2006/8). 11 single sample exceedances in 30 samples. Only 4 samples (3/20/2007, 4/20/2006, 8/31/2004, 3/31/2004) not taken within 48 hours of storm/peak flow event.
		04/21/2004	331 mg/L	
		08/31/2004	492 mg/L	
		04/26/2005	316 mg/L	
		08/16/2005	2860 mg/L	
		04/20/2006	82 mg/L	
		08/15/2006	2520 mg/L	
		03/20/2007	102 mg/L	
		09/11/2007	631 mg/L	
		12/04/2007	488 mg/L	
		01/29/2008	3470 mg/L	
Selenium	2 ug/L	08/16/2005	2.7 ug/L	A&Ww is inconclusive. 1 exceedance.

Monitoring Summary

Sampling period: 2/27/2004 - 12/2/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Lake Roosevelt USGS 09498500	SRSLR107.43	100745	USGS	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
4-30 (dissolved), 4-30 (total): antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	2-30: ammonia, nitrite (dissolved), nitrite/nitrate, nitrite/nitrate (dissolved), nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	1-30: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , pH, SSC, solids, turbidity

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Selenium, mercury (dissolved)
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Zinc, nickel, manganese (dissolved), manganese, lead, fluorine (dissolved), copper, chromium, boron (dissolved), boron, barium (dissolved), barium, arsenic (dissolved), arsenic

Priority	Monitoring Recommendations
High	Good core parameter coverage but need to check why so many parameters have lab detection issues.

Impairment Discussion
Remains impaired for SSC. Additional the reach is impaired for <i>E. coli</i> , nitrogen and phosphorus.

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

No Exceedances

Monitoring Summary

Sampling period: 7/31/2007 - 5/20/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
1.3 Miles Above Black River	SRSNK001.33	101298	ADEQ	Ambient, Fixed Station Network
Near Bear Wallow Wilderness	SRSNK001.96	100643	ADEQ	Biocriteria

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need coverage so inconclusive.

South Fork Bear Wallow Creek

Headwaters - Bear Wallow Creek.
15060101-258
3.8 Miles
Outstanding Arizona Water

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above pack trail crossing	SRSBE000.13	101261	ADEQ	Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	none

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Inconclusive - no recent data collected.

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

No Exceedances

Monitoring Summary

Sampling period: 8/18/2007 - 5/12/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Bryant Canyon	SRSPI011.63	100651	ADEQ	Ambient, Biocriteria
West Of Young, AZ	SRSPI011.54	100380	ADEQ	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
3 (dissolved), 4-5 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2-3: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-4: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need seasonal coverage, <i>E. coli</i> needs sample coverage as well.

Stinky Creek

Headwaters - Fort Apache Reservoir
15060101-352A
2.1 Miles
Outstanding Arizona Water

Category 3
Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	7.0 mg/L	6/18/2008	4.24 mg/L	A&Wc is inconclusive with 1 exceedance in 2 samples (binomial).
SSC	25 mg/L	7/30/2007	30 mg/L	A&Wc is attaining with no median exceedances. 1 single sample exceedance in 3 samples.

Monitoring Summary

Sampling period: 7/30/2007 - 6/18/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above West Fork Black River	SRSTI000.38	101303	ADEQ	Fixed Station Network, Ambient, Biocriteria
Below Forest Road #116	SRSTI002.67	100652	ADEQ	Biocriteria

Metals Samples	Nutrients & Related Samples	Other Samples
1-3 (dissolved), 3 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	2-3: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-3: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need seasonal coverage, many also need sample coverage.

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

No Exceedances

Monitoring Summary

Sampling period: 3/23/2004 - 3/23/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Beaver Creek	SRTH0000.05	102138	ADEQ	TMDL
East Weir #1	SRTH0002.92	102148	ADEQ	TMDL
East Weir #2	SRTH0002.86	102147	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	1: phosphorus	1: dissolved oxygen, % dissolved oxygen, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need sample and seasonal coverage. Need more than one sample to determine attainment.

Thompson Creek

Headwaters - West Fork Black
15060101-350
3.2 Miles

Category 3
Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
SSC	25 mg/L	3/24/2004	82.1 mg/L	A&Wc is attaining with no median exceedances. 1 single sample exceedance, 1 sample. Need minimum of 4 samples to calculate median.

Monitoring Summary

Sampling period: 3/24/2004 - 3/24/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above West Fork Black River	SRTHM000.01	102119	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	1: SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Only one sample. No core parameter coverage.

Use Support

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 3/4/2004 - 3/4/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Down Stream From Thompson Sub Division	SRTH0003.23	106365	ADEQ	TMDL
Up Stream From Thompson Sub Division	SRTH0003.94	106366	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
2 (dissolved), 2 (total): antimony, arsenic, barium, beryllium, boron, cadmium, lead, manganese, mercury, selenium, zinc	2: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1-2: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need coverage. Need more information, only 2 samples.

Tonto Creek
Spring Creek - Rye Creek
15060105-009
19.5 Miles

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 9/3/2008 - 9/3/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
OF Houston Creek At The Narrows	SRTON032.62	100668	ADEQ	Biocriteria, TMDL
At Old Gaging Station Above Houston Creek	SRTON032.38	107462	ADEQ	TMDL
Downstream Of Houston Creek	SRTON031.72	106722	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	1: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , pH, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more than one sample to assess attainment. All core parameters need coverage.

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

No Exceedances

Monitoring Summary

Sampling period: 3/15/2004 - 2/22/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above USGS Gage Above Gun Creek	SRTON019.37	100349	USGS, ADEQ	Fixed Station Network

Metals Samples	Nutrients & Related Samples	Other Samples
1-8 (dissolved), 5-8 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	7-8: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	8: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

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	Selenium, lead (dissolved)

Priority	Monitoring Recommendations
Low	Good core parameter coverage.

Tonto Creek

Tributary at 341810 / 1110414 to Haigler Creek
15060105-013B
8.5 Miles

Category 4A

Not Attaining

E. coli (2004), *nitrogen* (2004, EPA)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
<i>E. coli</i>	235 cfu/100 ml	07/07/2008	461.1 cfu/100 ml	FBC remains not attaining (2004).
		08/12/2008	866.4 cfu/100 ml	
		09/03/2008	1299.7 cfu/100 ml	

Monitoring Summary

Sampling period: 10/11/2006 - 9/3/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Bear Flats	SRTON055.09	100357	ADEQ	TMDL, Biocriteria, Fixed Station Network
Below Bear Flats	SRTON053.87	100358	ADEQ	Fixed Station Network, Ambient, TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
3-4 (dissolved), 4-5 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	18-19: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	4-20: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	Copper (dissolved), cadmium (dissolved), zinc (dissolved), manganese, boron, lead, copper, mercury
Lab Detection Limits Not Low Enough	Selenium, nickel (dissolved)

Priority	Monitoring Recommendations
Low	Many core parameters need seasonal coverage.

Impairment Discussion
Remains not attaining for nitrogen and for <i>E. coli</i> .

Tonto Creek

Headwaters - Tributary at 341810 / 1110414
15060105-013A
8.1 Miles

Category 4A/5
Not attaining/Impaired

Dissolved Oxygen (2006), E. coli (2004), Nitrogen (2004, EPA)

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	7.0 mg/L	10/11/2006	5.92 mg/L	A&Wc remains impaired. (8/12/2008 sample gathered at Tonto Spring which is influenced by groundwater.)
		10/24/2006	6.68 mg/L	
		07/08/2008	5.98 mg/L	
		08/12/2008	5.71 mg/L	
E. coli	235 cfu/100 ml	08/12/2008	325.5 cfu/100 ml	FBC remains not attaining. No geomean exceedances.
Nitrogen	0.5 mg/L	03/04/2008	0.66 mg/L	A&Wc remains not attaining (2004).
SSC	25 mg/L	8/3/2004	74.4 mg/L	A&Wc is attaining with no median exceedances. 1 single sample exceedance in 12 samples.

Monitoring Summary

Sampling period: 3/16/2004 - 9/4/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Horton Creek	SRTON059.53	101020	ADEQ	TMDL
Above Horton Creek And Waterfall	SRTON059.65	101759	ADEQ	TMDL
At Headwaters Spring	SRTON062.88	100350	ADEQ	Fixed Station Network
Below AGFD Hatchery	SRTON062.40	100351	ADEQ	Fixed Station Network
Below AGFD Hatchery Mixing Zone	SRTON062.28	101017	ADEQ	TMDL
Below Camp Tontazona	SRTON057.55	100707	ADEQ	Fixed Station Network

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Below Christian Camp Road	SRTON060.50	100352	ADEQ	TMDL, Fixed Station Network
Below Christopher Creek	SRTON056.39	100360	USGS, ADEQ	Fixed Station Network
Below Horton Creek	SRTON059.43	100353	ADEQ	Fixed Station Network, Ambient, TMDL
Below Kohls Ranch	SRTON057.70	100929	ADEQ	Fixed Station Network, TMDL
Below Tonto Spring.	SRTON062.89	101016	ADEQ	TMDL
Down Stream Of Christian Camp Tributary	SRTON060.28	106059	ADEQ	TMDL
Upstream From Camp-ground	SRTON058.93	101629	ADEQ	TMDL
Above Christian Camp	SRTON061.37	101018	ADEQ	TMDL
Above Christopher Creek	SRTON056.59	100359	ADEQ	Fixed Station Network, TMDL
Above Highway 260 At Kohls Ranch	SRTON058.63	100354	ADEQ	Fixed Station Network, TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
3-10 (dissolved), 5-10 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	64: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	10-66: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Lots of information and good core parameter coverage but impaired.

Impairment Discussion
Remains impaired for dissolved oxygen and not attaining for nitrogen and <i>E. coli</i> . Delist phosphorus, no exceedances in current assessment. Nutrient (2005) and <i>E. coli</i> (2004) TMDLs completed.

Tonto Creek

Haigler Creek - Spring Creek
15060105-011
7.8 Miles

Category 3
Inconclusive

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

No Exceedances

Monitoring Summary

Sampling period: 10/12/2007 - 10/12/2007

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Below Haigler Creek, At Hellsgate	SRTON046.90	100669	ADEQ	Biocriteria, Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
1 (dissolved), 1 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	1: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more data to assess. All core parameters need coverage therefore inconclusive.

Use Support

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 3/19/2008 - 3/19/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Christian Camp	SRUT1000.01	106363	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	1: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	1: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , pH

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more samples. All core parameters need coverage.

Trib To Tonto Creek

Headwaters - Tonto Creek
15060105-365
1.8 Miles

Category 3

Inconclusive

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

No Exceedances**M**onitoring Summary

Sampling period: 8/2/2008 - 7/8/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Mouth Point	SRUT2000.01	106682	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	none

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Most core parameters need coverage therefore inconclusive.

Trib To Tonto Creek

Headwaters - Tonto Creek
15060105-372
2.9 Miles

Category 3

Inconclusive

Salt

PBC - Inconclusive • A&We - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 3/4/2004 - 3/4/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
From West Side Of Tonto Creek Road	SRUTO000.02	106362	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	1: <i>E. coli</i>

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more than one sample to assess. All core parameters need coverage.

West Fork Pinto Creek

Headwaters - Pinto Creek
15060103-066
11.6 Miles

Category 3
Inconclusive

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Bottom Deposits	< 50 % Fines	09/30/2008	51 %	A&Ww is inconclusive with 1 exceedance.

Monitoring Summary

Sampling period: 3/5/2004 - 3/5/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
WEST FORK PINTO CREEK - AT MOUTH	SRWPN000.01	102435	ADEQ	TMDL
WEST FORK PINTO CREEK - BELOW KENNEDY RANCH	SRWPN004.47	102433	ADEQ	TMDL, AMB, Stream Ecological Monitoring
WEST FORK PINTO CREEK - AT WF	SRWPN000.39	102434	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	none	2 bottom deposits

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Need more samples to determine attainment. All core parameters need coverage. Collect more bottom deposit samples.

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

No Exceedances

Monitoring Summary

Sampling period: 3/23/2004 - 3/23/2004

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Forest Road 26	SRW1L001.73	102146	ADEQ	TMDL
Above Weir #2	SRW1L006.08	102150	ADEQ	TMDL

Metals Samples	Nutrients & Related Samples	Other Samples
none	1: phosphorus	1: dissolved oxygen, % dissolved oxygen, pH, SSC, turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	All core parameters need coverage, therefore inconclusive.

Workman Creek

Headwaters - Reynolds Creek
15060103-195A
7.1 Miles

Category 2

Attaining some uses

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

Exceedances

Pollutant	Applicable Standard	Date & Result		Designated use support, supporting evidence, comments
Dissolved Oxygen	7.0 mg/L	8/29/2007	6.71 mg/L	A&Wc is inconclusive with 1 exceedance in 2 samples (binomial).

Monitoring Summary

Sampling period: 6/29/2007 - 6/16/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Below Falls	SRWRK007.97	100696	ADEQ	Biocriteria, Ambient

Metals Samples	Nutrients & Related Samples	Other Samples
2-4 (dissolved), 4 (total): antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	3-4: ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	2-4: dissolved oxygen, % dissolved oxygen, <i>E. coli</i> , fluoride, pH, SSC, solids (dissolved), turbidity

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	<i>E. coli</i> , dissolved oxygen need seasonal, <i>E. coli</i> needs sample coverage.



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Water Quality Division: Monitoring and Assessment: Assessment

Arizona's Integrated 305(b) Assessment and 303(d) Listing Report describes the status of surface water in Arizona in relation to state water quality standards. The report contains a 303(d) list of Arizona's impaired surface waters requiring the development of a Total Maximum Daily Load (TMDL) and fulfills requirements of the federal Clean Water Act sections 305(b) (assessments), 303(d) (impaired water identification), and 314 (status of lake water quality).

NOTE: This report does not provide information about the quality of water being provided by Arizona's public drinking water systems. See [Safe Drinking Water](#) for more information.

The Draft 2010 Status of Water Quality in Arizona 305(b) Assessment and 303(d) Listing Report has been revised based upon stakeholder comments received during the 30-day public comment period and has been broken down into sections for easier viewing and downloading.

- [Chapter I & II: Introduction and Purpose, Water Quality Assessments by Watershed](#)
- [Water Quality Assessments by Watershed](#)
 - [Bill Williams Watershed](#)
 - [Colorado - Grand Canyon Watershed](#)
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Monitoring Arizona's streams

Impaired Waters Lists

- [2010 Impaired Waters List](#) waters that have been determined to be impaired and require TMDL development.
- [2006/2008 303\(d\) Impaired Waters List](#) - Current U.S. EPA approved list.

The public comment period which ended April 02, 2012, was the first step in the approval process for the 2010 Status of Water Quality in Arizona 305(b) Assessment and 303(d) Listing Report. A summary of responses to comments and the 303(d) List were published in the Arizona Administrative Register (A.A.R.) for a 45-day Public Notice on June 22, 2012. ADEQ submitted the draft 2010 303(d) list of impaired waters to the U.S. EPA on October 17, 2012. The U.S. EPA [partially approved and partially disapproved](#) ☹️ ADEQ's 2010 303(d) list on March 1, 2013. All interested persons wishing to submit comments on the U.S. EPA's action to add waters to Arizona's 2010 list of impaired waters may do so in writing on or before April 8, 2013.

For more information, please contact [Jason Sutter](#) - (602) 771-4468.