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
	Perennial	Non-perennial	
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
	Perennial	Non-perennial	
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 "Surface Water Assessment Methods and Technical Support" document.

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APACHE LAKE

15060106A-0070
2192 Acres

Category 5
Impaired

Low dissolved oxygen (2006/8)
and mercury in fish tissue (EPA 2016)

DWS - Inconclusive • FC - Impaired • FBC - Inconclusive
AGI - Inconclusive • AGL - Inconclusive • AWW - Impaired

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Mercury in fish tissue	0.3 mg/kg	4/21/2015	0.31 mg/kg (mean-1SD) largemouth bass	FC is inconclusive.

Monitoring Summary

Sampling period: 5/12/2011 - 6/2/2015

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT DAM	SRAPA-A	100997	ADEQ	Ambient Monitoring
AT RIVERINE ZONE	SRAPA-C	101706	ADEQ	Ambient Monitoring
AT TRANSITION ZONE	SRAPA-B	101712	ADEQ	Ambient Monitoring
TWO BAR RIDGE AREA	SRAPA-B1	104398	AGF	Data Sharing Partnership
OPEN WATER NORTH-WEST FROM RESORT	SRAPA-NLS	105780	ADEQ	Clean Lakes Program

Metal Samples	Nutrients & Related Samples	Other Samples
(3) Arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(3-8) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-27) Dissolved oxygen, pH, total dissolved solids, fish tissue mercury

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Data Gaps and Monitoring Needs

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

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

Impairment Discussion
Remains impaired for low dissolved oxygen. Not enough dissolved oxygen data to determine if no longer impaired - only one sample collected at three different sites. Fish consumption advisory issued in February 2016 for largemouth bass. EPA overfiled for mercury in fish tissue in 2016.

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Salt

BEAR WALLOW CREEK

North and South Forks of Bear Wallow - Indian Res.
15060101-023A
5.9 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Attaining • AGL - Attaining
AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	6/11/2013	IBI 31	AWC is inconclusive. Post Wallow Fire sample.
Bottom deposits	< 30% fines	6/11/2013	37%	AWC is inconclusive. Post Wallow Fire sample.

Monitoring Summary

Sampling period: 9/1/2010 - 6/11/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW SOUTH FORK BEAR WALLOW CREEK	SRBWL005.79	101198	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Collect verification samples for biocriteria and bottom deposits. Use lower reporting limits for dissolved cadmium and dissolved copper - all samples had reporting limits greater than chronic criteria.

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BIG CANYON

Headwaters - Tonto Creek
15060105-373
4.385 Miles

Category 3
Inconclusive

SRBIC

PBC - Inconclusive • AWE - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	576 cfu/100 mL	7/25/2013	3972.6 cfu/100 mL	PBC is inconclusive. A minimum of 10 samples is required to make an impairment decision for storm related *E. coli* exceedances.
		9/11/2013	2419.6 cfu/100 mL	
		7/9/2014	866.4 cfu/100 mL	

Monitoring Summary

Sampling period: 7/25/2013 - 9/24/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE TONTO CREEK	SRBIC000.01	109762	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(7) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(5-7) Dissolved oxygen, *E. coli*, pH, total dissolved solids

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Collect more *E. coli* samples due to exceedances.

BIG LAKE

15060101-0160
440 Acres

Category 2
Attaining some uses

DWS - Inconclusive • FC - Attaining • FBC - Inconclusive
AGI - Inconclusive • AGL - Inconclusive • AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
pH	9.0 SU	10/22/2013	9.3 SU	AGI, AGL, AWC, FBC and DWS are inconclusive with 1 exceedance in 7 samples.

Monitoring Summary

Sampling period: 10/8/2010 - 10/22/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
SHORELINE	SRBIG-SH	101358	AGF	Data Sharing Partnership
MID LAKE	SRBIG-B	101355	ADEQ	Clean Lakes Program
AT DAM	SRBIG-A	101322	ADEQ	Clean Lakes Program

Metal Samples	Nutrients & Related Samples	Other Samples
(2-7) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(9-10) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(6-10) Dissolved oxygen, pH, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	pH
Missing Core Parameters	*E. coli*
Missing Seasonal Distribution	*E. coli*
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium, zinc (dissolved)

Priority	Monitoring Recommendations
Low	Collect more pH samples due to the exceedance. Use lower reporting limits for dissolved cadmium and dissolved copper - reporting limits were too high to determine A&W attainment.

BLACK RIVER

Beaver Creek - Reservation Creek
15060101-007
13.143 Miles

Category 2
Attaining some uses

DWS - Attaining • FC - Attaining • FBC - Attaining
AGI - Attaining • AGL - Attaining • AWC - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
SSC	25 mg/L	7/30/2012	42 mg/L	AWC is attaining with no median exceedance.

Monitoring Summary

Sampling period: 7/30/2012 - 6/19/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE FOREST ROAD #25	SRBLR102.24	101202	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	AWC attainment could not be determined due to reporting limits for dissolved cadmium and dissolved copper being too high for all samples. Total hardness averaged around 50 mg/L - choose appropriate reporting levels.

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Salt

BLACK RIVER EAST FORK

Headwaters - Black River
15060101-009
26.678 Miles

Category 2
Attaining some uses

DWS - Attaining • FC - Attaining • FBC - Inconclusive
AGI - Attaining • AGL - Attaining • AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL	8/17/2011	261 cfu/100 mL	FBC is inconclusive with 1 exceedance, which occurred immediately after the Wallow Fire.
SSC	25 mg/L	10/18/2012	46 mg/L	AWC is attaining with no median exceedance.
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	6/9/2014	IBI 38	AWC is inconclusive. Impairment decisions cannot be made until the Impaired Waters Identification Rule is updated.
		6/19/2013	IBI 41	

Monitoring Summary

Sampling period: 8/31/2010 - 6/9/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE DIAMOND ROCK CAMPGROUND	SREFB008.27	100539	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(15) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(15) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-15) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, bottom deposits, biocriteria

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	There were two biocriteria standard violations in this reach, but impairment decisions cannot be made until the Impaired Waters Identification Rule is updated. Collect additional samples to identify possible stressors on benthic macroinvertebrates. Use lower reporting limits for dissolved cadmium and dissolved copper - many samples had detection limit issues for AWC criteria (both acute and chronic).

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BLACK RIVER WEST FORK

Indian Reservation Boundary - Black River
15060101-048
14.629 Miles

Category 3
Inconclusive

DWS - Inconclusive • FC - Inconclusive • FBC - Inconclusive
AGI - Inconclusive • AGL - Inconclusive • AWC - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 6/12/2013 - 6/10/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE WEST FORK CAMPGROUND	SRWFB005.34	100691	ADEQ	Ambient Monitoring
AT FOREST ROAD 88	SRWFB003.45	102126	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(3-4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1-4) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria, bottom deposits

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Collect core parameters to represent at least 3 seasons during an assessment period. Use lower reporting limits for dissolved cadmium and dissolved copper - all samples had reporting limits greater than chronic criteria.

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BOGGY CREEK (BGY)

Headwaters - Centerfire Creek
15060101-361
7.147 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Inconclusive • AGL - Attaining
AGL - Attaining • AWC - Inconclusive

Insufficient

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL	6/11/2014	816.4 cfu/100 mL	FBC is inconclusive with 1 exceedance in 4 samples.

Monitoring Summary

Sampling period: 7/27/2010 - 6/11/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW FOREST SERVICE ROAD 25	SRBGY002.86	108402	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

Parameters Needing More Samples to Assess	Biocriteria, *E. coli*
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), zinc (dissolved), mercury (dissolved)

Priority	Monitoring Recommendations
Medium	Collect a follow-up macroinvertebrate sample to confirm tthe bioassessment result (IBI on 6/11/14 was 48 and inconclusive). Collect more *E. coli* samples due to the exceedance. Use lower reporting limits for dissolved cadmium and dissolved copper - all samples had reporting limits greater than chronic criteria.

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CANYON CREEK

Headwaters - White Mtn. Apache
15060103-014
8.594 Miles

Category 2
Attaining some uses

SWQS

DWS - Attaining • FC - Attaining • FBC - Attaining
AGI - Attaining • AGL - Attaining • AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	5/10/2011	IBI 42	AWC is attaining. The biocriterion is met for the most recent sample in 2014.

Monitoring Summary

Sampling period: 8/25/2010 - 4/16/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW FISH HATCHERY	SRCYN048.21	108442	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(8) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(8) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(2-8) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria, bottom deposits

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	AWC attainment could not be determined due to reporting limits of dissolved cadmium being too high for all samples.

CANYON LAKE

15060106A-0250
448 Acres

Category 5
Impaired

IMPAIRMENT STATUS

Low dissolved oxygen (2004)

DWS - Inconclusive • FC - Attaining • FBC - Inconclusive
AGI - Inconclusive • AGL - Inconclusive • AWW - Impaired

No Exceedances

Monitoring Summary

Sampling period: 1/20/2011 - 4/1/2012

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT INLET	SRCAN-C1	102615	AGF	Data Sharing Partnership
AT MARINA	SRCAN-MAR	101701	AGF	Data Sharing Partnership
DAM SITE IN LITTORAL ZONE	SRCAN-A	101697	AGF	Data Sharing Partnership

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(1-5) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1-7) Dissolved oxygen, pH, total dissolved solids, fish tssue mercury

Data Gaps and Monitoring Needs

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

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

Impairment Discussion
Remains impaired for low dissolved oxygen.

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CENTERFIRE CREEK

Headwaters - Black River
15060101-356
8.747 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Attaining • AGI - Attaining
AGL - Attaining • AWC - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 7/27/2010 - 4/20/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE FS RD #25	SRCTF004.17	103185	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	AWC attainment could not be determined due to reporting limits for dissolved cadmium and dissolved copper being too high for all samples. Total hardness averaged around 38 mg/L - choose appropriate reporting levels.

CHERRY CREEK

TRIBUTARY AT 340509 / 110560 - SALT RIVER
15060103-015B
40.9 Miles

Category 2
Attaining some uses

SALT

FC - Attaining • FBC - Inconclusive • AGL - Attaining
AGL - Attaining • AWW - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL	9/12/2012	3968 cfu/100 mL	FBC is inconclusive with 1 exceedance. Note: This exceedance is storm-related.
Lead	15 ug/L	9/12/2012	28 ug/L	FBC is inconclusive with 1 exceedance in 8 samples.
SSC	80 mg/L	9/12/2012	2300 mg/L	AWW is attaining with no median exceedance. This exceedance occurred during a storm event and was excluded from the median calculation.
Phosphorus	1 mg/L	9/12/2012	7.8 mg/L	AWW and FBC are inconclusive with 1 exceedance in 8 samples.

Monitoring Summary

Sampling period: 9/21/2010 - 5/8/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE DEVILS CHASM USGS 09497980	SRCHE013.65	100442	ADEQ	Ambient Monitoring
ABOVE ELLISON RANCH	SRCHE011.90	109342	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(11) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(11) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1-11) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria, bottom deposits

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Collect more phosphorus, lead, and *E. coli* samples due to the exceedances.

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CHRISTOPHER CREEK

Headwaters - Tonto Creek
15060105-353
8.022 Miles

Category 4A/5
Not attaining/Impaired

E. coli (2004)
Add dissolved oxygen to the 303(d) list.

IMPAIRMENT STATUS

FC - Inconclusive • FBC - Not Attaining • AGI - Inconclusive
AGL - Inconclusive • AWC - Impaired

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	8/24/2010	6.21 mg/L	AWC is impaired with 6 exceedances in 21 sample (binomial).
		9/8/2010	6.02 mg/L	
		6/26/2013	6.38 mg/L	
		7/8/2013	6.77 mg/L	
		7/24/2013	6.51 mg/L	
		7/22/2014	6.48 mg/L	
E. coli	235 cfu/100 mL	7/12/2010	3629.4 cfu/100 mL	FBC remains not attaining with 9 exceedances in 21 sample.
		7/8/2013	410.6 cfu/100 mL	
		7/24/2013	3465.8 cfu/100 mL	
		8/6/2013	656.4 cfu/100 mL	
		9/10/2013	3629.4 cfu/100 mL	
		7/8/2014	12033 cfu/100 mL	
		7/22/2014	313 cfu/100 mL	
		8/5/2014	920.8 cfu/100 mL	
		9/9/2014	275.5 cfu/100 mL	

Monitoring Summary

Sampling period: 7/12/2010 - 9/23/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW CHRISTOPHER CREEK CAMPGROUND	SRCRS002.25	100365	ADEQ	TMDL Monitoring
ABOVE RECREATION AREA	SRCRS006.20	101027	ADEQ	TMDL Monitoring
AT TOP OF BOX CANYON	SRCRS001.24	101033	ADEQ	TMDL Monitoring

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Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE TONTO CREEK AND BELOW BOX CANYON	SRCRS000.08	101034	ADEQ	TMDL Monitoring
ABOVE R-BAR-C SCOUT RANCH	SRCRS001.74	106060	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(2) Mercury	(86-95) Ammonia, nitrite/ nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(80-98) Dissolved oxygen, *E. coli*, pH, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), cadmium (dissolved), copper (dissolved), boron, manganese, copper, lead, mercury
Missing Seasonal Distribution	Zinc (dissolved), nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), *E. coli*, boron, manganese, copper, lead, mercury
Lab Detection Limits Not Low Enough	None

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

Impairment Discussion
Add low dissolved oxygen to the 303(d) list. There were no phosphorus exceedances in 20 aggregated samples - delist phosphorus from the 303(d) list. The reach remains not attaining for *E. coli* (TMDL completed in 2005).

ED_013248_00000486-00018

CONKLIN CREEK

Headwaters - Black River
15060101-026
7.406 Miles

Category 2
Attaining some uses

SWQA

FC - Attaining • FBC - Inconclusive • AGL - Attaining
AGL - Attaining • AWC - Inconclusive

Assessment

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	6/19/2012	3.28 mg/L	AWC is inconclusive with 1 exceedance in 7 samples.
E. coli	235 cfu/100 mL	8/17/2011	416 cfu/100 mL	FBC is inconclusive with 1 exceedance in 8 samples.
Phosphorus	0.8 mg/L	8/17/2011	1.2 mg/L	AWC and FBC are inconclusive with 1 exceedance in 8 samples.
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	6/19/2012	IBI 24	AWC is attaining. The exceedance occurred in the spring after the Wallow Fire. Subsequent sample in 2013 was attaining.

Monitoring Summary

Sampling period: 9/2/2010 - 6/11/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE FOREST ROAD #25	SRCKN001.61	100521	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(8) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(8) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(2-8) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, bottom deposits, biocriteria

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Phosphorus, dissolved oxygen, *E. coli*
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), zinc (dissolved), mercury (dissolved)

ED_013248_00000486-00019

Priority	Monitoring Recommendations
Low	Collect more samples to ensure post-fire attainment of FBC and AWC. Use lower reporting limits for dissolved cadmium and dissolved copper - all cadmium and 7 out of 8 copper samples had reporting limits greater than chronic criteria.

ED_013248_00000486-00020

COTTONWOOD GULCH

Headwaters - Pinto Creek
15060103-891
1.9 Miles

Category 2
Attaining some uses

SALT

PBC - Attaining • AWE - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 11/1/2010 - 4/12/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW OUTFALL PV004	SRCTG000.39	103443	BHP	Data Sharing Partnership

Metal Samples	Nutrients & Related Samples	Other Samples
(6-7) Arsenic, beryllium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, zinc	(7) Ammonia	(7) Dissolved oxygen, pH

Data Gaps and Monitoring Needs

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

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

ED_013248_00000486-00021

COYOTE CREEK (COY)

Headwaters - East Fork Black
15060101-027
8.942 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Inconclusive • AGL - Attaining
AGL - Attaining • AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL	7/30/2010	980 cfu/100 mL	FBC is inconclusive with 1 exceedance in 3 samples. Note: This exceedance was storm-related.

Monitoring Summary

Sampling period: 7/30/2010 - 4/19/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE FOREST SERVICE ROAD 276	SRCOY003.95	108403	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Collect more *E. coli* samples due to the exceedance. Use lower reporting limits for dissolved cadmium and dissolved copper - all 3 samples had reporting limits greater than chronic criteria and AWC attainment could not be determined.

CRESCENT LAKE

15060101-0420
157 Acres

Category 5
Impaired

SALINE

High pH (EPA 2002)

IMPAIRMENT STATUS

FC - Inconclusive • FBC - Impaired • AGI - Impaired
AGL - Impaired • AWC - Impaired

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
pH	9.0 SU	8/11/2011	9.2 SU	AWC, FBC, AGL and AGI remain impaired with 5 exceedances in 13 samples.
		9/13/2011	9.7 SU	
		8/6/2012	9.3 SU	
		8/13/2013	10 SU	
		10/22/2013	9.2 SU	
Nitrogen	2 mg/L SSM	8/5/2010	2.15 mg/L	AWC and FBC are inconclusive with 4 exceedances in 12 samples (binomial).
		8/6/2012	3.4 mg/L	
		11/5/2012	2.26 mg/L	
		8/13/2013	2.52 mg/L	

Monitoring Summary

Sampling period: 8/5/2010 - 10/22/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT BOAT RAMP	SRCRE-BR	101320	ADEQ	TMDL Monitoring
MID LAKE	SRCRE-B	100993	ADEQ	Clean Lakes Program
AT DAM	SRCRE-A	108762	ADEQ	Clean Lakes Program

Metal Samples	Nutrients & Related Samples	Other Samples
(2-8) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(1-15) Ammonia, nitrate, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(2-17) Dissolved oxygen, *E. coli*, pH, total dissolved solids

ED_013248_00000486-00023

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Nitrogen
Missing Core Parameters	*E. coli*, mercury (or mercury in fish tissue)
Missing Seasonal Distribution	Zinc (dissolved), cadmium (dissolved), copper (dissolved), *E. coli*, boron, copper, lead, mercury
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
High	Collect more pH samples in support of TMDL development. Collect more nitrogen samples due to the exceedances.

Impairment Discussion
EPA overfiled for pH in 2002.

DEER CREEK (D4E)

Headwater - Rye Creek
15060105-018
11.947 Miles

Category 3
Inconclusive

SWQS

FC - Inconclusive • FBC - Inconclusive • AWC - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 3/14/2011 - 3/14/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW HIGHWAY 87	SRD4E001.72	108682	ADEQ	TMDL Monitoring

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

Data Gaps and Monitoring Needs

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

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

ED_013248_00000486-00025

DEVILS CHASM CREEK

Tributary at 334846 / 1105235 - Cherry Creek
15060103-801B
1.6 Miles

Category 1
Attaining all uses

FC - Attaining • FBC - Attaining • AGL - Attaining
AWW - Attaining

UseAttain

No Exceedances

Monitoring Summary

Sampling period: 9/21/2010 - 5/6/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE CHERRY CREEK	SRDEV000.38	100533	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(8-9) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(8) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1-8) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria, bottom deposits

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	Beryllium, cadmium (dissolved), selenium

Priority	Monitoring Recommendations
Low	Collect more dissolved copper samples - there was one A&W exceedance in 2010, but the data was determined to be noncredible. (The dissolved fraction was 9 times greater than the total value, and the associated lab split sample did not exceed the standard.)

ED_013248_00000486-00026

Five Point Mountain Tributary

Headwaters - Pinto Creek
15060103-885
2.9 Miles

Category 5
Impaired

IMPAIRMENT STATUS

Dissolved copper (2006/8)

PBC - Inconclusive • AWE - Impaired

No Exceedances

Monitoring Summary

Sampling period: No samples

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
N/A				

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(0) None

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All core parameters
Missing Seasonal Distribution	All core parameters
Lab Detection Limits Not Low Enough	N/A

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

Impairment Discussion
Remains impaired for dissolved copper (2006/8).

ED_013248_00000486-00027

GIBSON MINE TRIBUTARY

Headwaters - Pinto Creek
15060103-887
1.14 Miles

Category 4A
Not attaining

IMPAIRMENT STATUS

Copper (2006/8)

PBC - Inconclusive • AWE - Not Attaining

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper	1300 ug/L	11/22/2013	9700 ug/L	PBC is inconclusive with 7 exceedances in 7 samples (binomial).
		2/28/2014	36000 ug/L	
		3/3/2014	6400 ug/L	
		7/27/2014	24600 ug/L	
		8/19/2014	16545 ug/L	
		1/30/2015	2078.571 ug/L	
		2/2/2015	1980 ug/L	
Copper (dissolved)	14.8 ug/L @ 62 mg/L hardness	11/22/2013	410 ug/L	AWE remains not attaining with 7 exceedances in 7 samples.
	22.2 ug/L @ 95 mg/L hardness	2/28/2014	800 ug/L	
	81.8 ug/L @ 380 mg/L hardness	3/3/2014	6400 ug/L	
	65.7 ug/L @ 301 mg/L hardness	7/27/2014	775 ug/L	
	18.5 ug/L @ 79 mg/L hardness	8/19/2014	1030 ug/L	
	16.2 ug/L @ 68 mg/L hardness	1/30/2015	1490 ug/L	
	18.8 ug/L @ 80 mg/L hardness	2/2/2015	1910 ug/L	
Lead	15 ug/L	11/22/2013	53 ug/L	PBC is inconclusive with 4 exceedances in 7 samples (binomial).
		2/28/2014	100 ug/L	
		7/27/2014	232 ug/L	
		8/19/2014	126.6 ug/L	
pH	6.5 SU	2/28/2014	6.1 SU	AWE is inconclusive with 3 exceedances in 7 samples (binomial).
		8/19/2014	5.72 SU	
		1/30/2015	5.7 SU	
		2/28/2014	6.1 SU	
		8/19/2014	5.72 SU	
		1/30/2015	5.7 SU	

ED_013248_00000486-00028

Monitoring Summary

Sampling period: 11/22/2013 - 2/2/2015

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
FIRST FLUSH SAMPLER JUST ABOVE BELOW GROUND CULVERT	SRGIB001.18	109907	ADEQ	TMDL Monitoring
AT THE MOUTH OF THE BELOW GROUND CUL-VERT	SRGIB001.06	109908	ADEQ	TMDL Monitoring
APPX 0.2 MILES BELOW CONF OF SOUTH GIBSON TRIB	SRGIB001.03	109911	ADEQ	TMDL Monitoring
AT PINTO CREEK	SRGIB000.11	101071	ADEQ	TMDL Monitoring
FIRST FLUSH SAMPLER #5 BELOW CULVERT	SRGIB001.05	109910	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(15) Copper, lead, zinc	(0) None	(5-13) Dissolved oxygen, pH, total dissolved solids

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Continue effectiveness monitoring for dissolved copper. Collect more pH and lead samples due to the exceedances.

Impairment Discussion
Remains impaired for dissolved copper. Pinto Creek copper TMDL completed in 2001.

ED_013248_00000486-00029

GOLD GULCH

Headwaters - Pinto Creek
15060103-894
3.3 Miles

Category 2
Attaining some uses

PBC - Attaining • AWE - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
pH	6.5 SU	9/1/2013	6.22 SU	AWE and PBC are attaining with 1 exceedance in 17 samples (binomial).

Monitoring Summary

Sampling period: 7/27/2010 - 11/20/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT WEIR	SRGDG000.03	102666	BHP	Data Sharing Partnership
NORTH OF #3 TAILING IMPOUNDMENT	SRGDG000.21	103442	BHP	Data Sharing Partnership

Metal Samples	Nutrients & Related Samples	Other Samples
(22-23) Arsenic, beryllium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, zinc	(22) Ammonia	(22-23) Dissolved oxygen, pH

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Nitrogen, phosphorus
Missing Seasonal Distribution	Nitrogen, phosphorus
Lab Detection Limits Not Low Enough	Lead, lead (dissolved)

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

ED_013248_00000486-00030

GORDON CANYON CREEK

headwaters - Hog Canyon
15060105-336A
12.7 Miles

Category 3
Inconclusive

SGW

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive
AWC - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 11/10/2010 - 11/10/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ALONG COLCORD ROAD, NEAR YOUNG, AZ	SRGOD012.05	100377	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(1) Dissolved oxygen, pH, total dissolved solids

Data Gaps and Monitoring Needs

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

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

ED_013248_00000486-00031

HAIGLER CREEK

Headwaters - Trib at 341223 / 1110011
15060105-012A
15.4 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Inconclusive • AGL - Attaining
AGL - Attaining • AWC - Attaining

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL	9/18/2013	461.1 cfu/100 mL	FBC is inconclusive with 1 exceedance in 4 samples.

Monitoring Summary

Sampling period: 9/18/2013 - 4/16/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
NEAR FISHERMANS POINT ON FR200	SRHAG013.09	105442	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Collect more *E. coli* samples due to the exceedance. Use a lower reporting limit for dissolved cadmium.

HAIGLER CREEK

Trib at 341223.1 / 1110011 - Tonto Creek
15060105-012B
7.8 Miles

Category 2
Attaining some uses

SRHAG

FC - Attaining • FBC - Inconclusive • AGI - Attaining
AGL - Attaining • AWW - Attaining

Under Appeal

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 ml	9/12/2012	1413.6 cfu/100 mL	FBC is inconclusive with 1 exceedance in 4 samples.
SSC	80 mg/L	9/12/2012	140 mg/L	AWW is attaining. This exceedance was storm-related and was excluded from assessment.

Monitoring Summary

Sampling period: 9/12/2012 - 6/17/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
1.4 MILES BELOW ALDERWOOD RECREATION	SRHAG007.47	100563	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	*E. coli*
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Selenium, mercury (dissolved)

Priority	Monitoring Recommendations
Medium	Collect more *E. coli* samples due to the exceedance.

HANNAGAN CREEK

Headwaters - Beaver Creek
15060101-034
7.161 Miles

Category 2
Attaining some uses

FC - Inconclusive • FBC - Attaining • AGL - Inconclusive
AWC - Inconclusive

UseSupport

No Exceedances

Monitoring Summary

Sampling period: 11/5/2014 - 5/20/2015

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT HIGHWAY 191, NEAR ALPINE, AZ	SRHAN002.27	102149	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(2) 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, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), copper, lead, mercury (or mercury in fish tissue)
Missing Seasonal Distribution	Zinc (dissolved), nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), copper, lead, mercury
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), mercury (dissolved)

Priority	Monitoring Recommendations
Low	Collect core parameters to represent at least 3 seasons during an assessment period. Use lower reporting limits for dissolved cadmium and dissolved copper - all samples had reporting limits greater than chronic criteria.

PINAL CREEK

Lower Pinal Creek WTP Outfall - See Ranch Crossing
15060103-280D
1.8 Miles

Category 3
Inconclusive

SW

PBC - Inconclusive • AWEDW - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 7/6/2010 - 12/3/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT SETKA RANCH USGS 09498380	SRPNL006.87	101491	PCG	Data Sharing Partnership

Metal Samples	Nutrients & Related Samples	Other Samples
(11-48) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(7) Nitrate, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(7-48) Dissolved oxygen, pH, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	*E. coli*
Missing Seasonal Distribution	Dissolved oxygen, *E. coli*
Lab Detection Limits Not Low Enough	Beryllium (dissolved), copper (dissolved)

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

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PINAL CREEK

See Ranch Crossing - Unnamed Trib @ 33 35 28/110 54 31
15060103-280E
4.4 Miles

Category 3
Inconclusive

FBC - Inconclusive • AWW - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 7/6/2010 - 12/3/2013

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
USGS SITE JJ15 USGS	SRPNL005.12	101518	PCG	Data Sharing Partnership
AT INSPIRATION DAM USGS 09498400	SRPNL003.79	100727	PCG	Data Sharing Partnership
180 METERS UPSTREAM OF INSPIRATION DAM	SRPNL003.93	110402	PCG	Data Sharing Partnership
1.2 KM DOWNSTREAM OF INSPIRATION DAM	SRPNL003.17	110403	PCG	Data Sharing Partnership

Metal Samples	Nutrients & Related Samples	Other Samples
(58-92) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(14) Nitrate, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(14-92) Dissolved oxygen, pH, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper (dissolved)
Missing Core Parameters	*E. coli*
Missing Seasonal Distribution	Dissolved oxygen, *E. coli*
Lab Detection Limits Not Low Enough	Beryllium (dissolved), copper (dissolved), selenium, mercury (dissolved)

Priority	Monitoring Recommendations
Medium	Collect core parameters to represent at least 3 seasons during an assessment period. Use lower reporting limits for dissolved beryllium, dissolved copper, total selenium and dissolved mercury.

ED_013248_00000486-00036

PINTO CREEK

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

Category 4A
Not attaining

STATUS

IMPAIRMENT STATUS

Copper (1998)

FC - Inconclusive • FBC - Inconclusive • AWC - Not Attaining
AGL - Inconclusive • AGI - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: No samples

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT SIMPSON DAM	SRPNT033.02	102428	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(0) None

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All core parameters
Missing Seasonal Distribution	All core parameters
Lab Detection Limits Not Low Enough	N/A

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

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

ED_013248_00000486-00037

PINTO CREEK

Trib at 331927 / 1105456 - West Fork Pinto Creek
15060103-018B
15.3 Miles

Category 4A
Not attaining

IMPAIRMENT STATUS

Copper (1998)

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • AWW - Not Attaining

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper	5000 ug/L (AGI) 500 ug/L (AGL) 1300 ug/L (FBC)	8/19/2014	6166 ug/L	AGI, AGL and FBC are inconclusive with 1 exceedance in 3 samples.
Copper (dissolved)	26.4 ug/L acute @ 205 mg/L hardness 29.3 mg/L chronic @ >400 mg/L hardness	8/19/2014	292 ug/L (max)/ 180 ug/L (median)	AWW remains not attaining with 3 exceedances in 3 samples.
	12.0 ug/L acute, 8.1 ug/L chronic @ 89 mg/L hardness	2/2/2015	136 ug/L	
	18.8 ug/L acute, 12.2 ug/L chronic @ 143 mg/L hardness	3/2/2015 4	42.7 ug/L (max)/ 40.8 ug/L (median)	
Dissolved oxygen	6.0 mg/L	8/19/2014	4.53 mg/L	AWW is inconclusive with 1 exceedance in 2 samples.
Lead	100 ug/L (AGL) 15 ug/L (FBC)	8/19/2014	119.3 ug/L	AGL and FBC are inconclusive with 1 exceedance in 3 samples.

Monitoring Summary

Sampling period: 8/19/2014 - 3/3/2015

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT OLD HIGHWAY 60	SRPNT027.51	101064	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(3) Copper, lead, zinc	(0) None	(3) Dissolved oxygen, pH, total dissolved solids

ED_013248_00000486-00038

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper, lead, dissolved oxygen
Missing Core Parameters	Nitrogen, phosphorus, cadmium (dissolved), *E. coli*, boron, manganese, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), *E. coli*, boron, manganese, copper, lead, mercury
Lab Detection Limits Not Low Enough	Copper (dissolved), lead (dissolved)

Priority	Monitoring Recommendations
Medium	Continue effectiveness monitoring.

Impairment Discussion
Remains impaired for dissolved copper. Pinto Creek copper TMDL completed in 2001.

ED_013248_00000486-00039

PINTO CREEK

West Fork Pinto Creek - Roosevelt Lake
15060103-018C
18.4 Miles

Category 4A/5
Not attaining/Impaired

Selenium (2004) and copper (1998)

IMPAIRMENT STATUS

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • AWW - Impaired

No Exceedances

Monitoring Summary

Sampling period: No samples

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE HENDERSON FORD	SRPNT008.48	100346	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(0) None

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All core parameters
Missing Seasonal Distribution	All core parameters
Lab Detection Limits Not Low Enough	N/A

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

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

RESERVATION CREEK

Headwaters - Indian Reservation
15060101-010
3.279 Miles

Category 2
Attaining some uses

SWQA

FC - Attaining • FBC - Attaining • AGL - Attaining
AWC - Inconclusive

UseAttain

No Exceedances

Monitoring Summary

Sampling period: 9/2/2010 - 5/5/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE BLACK RIVER	SRRES000.33	100629	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	AWC attainment could not be determined due to reporting limits for dissolved zinc, dissolved cadmium and dissolved copper being too high for all samples. Total hardness averaged around 27 mg/L - choose appropriate reporting levels.

ED_013248_00000486-00041

REYNOLDS CREEK

Headwaters - Workman Creek
15060103-202
6.796 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Inconclusive • AGL - Attaining
AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	6/8/2011	3.94 mg/L	AWC is attaining. Low dissolved oxygen is due to groundwater upwelling.
E. coli	235 cfu/100 mL	9/22/2010	525 cfu/100 mL	FBC is inconclusive with 1 exceedance in 4 samples.
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	6/2/2011	IBI 45	AWC is inconclusive with 1 violation.

Monitoring Summary

Sampling period: 9/22/2010 - 6/8/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW MCFADDEN CREEK	SRREY001.14	100630	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Biocriteria, *E. coli*
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved)

Priority	Monitoring Recommendations
Medium	Collect another macroinvertebrate sample to confirm the biocriteria violation. Collect more *E. coli* samples due to the exceedance. Use a lower reporting limit for dissolved cadmium - all 4 samples had reporting limits greater than chronic criteria.

ED_013248_00000486-00042

ROOSEVELT LAKE

15060103-1240
18345 Acres

Category 5
Impaired

Mercury in fish tissue (EPA 2006/8)

DWS - Inconclusive • FC - Impaired • FBC - Inconclusive
AGI - Inconclusive • AGL - Inconclusive • AWW - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 5/11/2011 - 6/3/2015

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW BUMBLEBEE CREEK OFF HIGHWAY 188	SRR00-B1	104417	ADEQ	Clean Lakes Program
AT DAM	SRR00-A	100075	ADEQ	Ambient Monitoring
AT SALT RIVER INLET	SRR00-SAL	108822	ADEQ	Clean Lakes Program
AZGF SALT ARM SITE	SRR00-B2	110424	AGF	Data Sharing Partnership
AZGF TONTO ARM SITE	SRR00-C3	110423	AGF	Data Sharing Partnership
BELOW SALT RIVER INLET	SRR00-B	100076	ADEQ	Ambient Monitoring
TONTO CREEK INLET	SRR00-C	100077	ADEQ	Ambient Monitoring
MID LAKE	SRR00-D	100078	ADEQ	Clean Lakes Program

Metal Samples	Nutrients & Related Samples	Other Samples
(9-16) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(18-24) Ammonia, nitrite/ nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1-24) Dissolved oxygen, pH, SSC, total dissolved solids, fish tissue mercury

ED_013248_00000486-00043

Data Gaps and Monitoring Needs

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

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

Impairment Discussion
EPA overfile for mercury in fish tissue (2006/8). Fish consumption advisory issued in January 2009 and still in effect. Three out of four flathead catfish samples exceeded the fish tissue mercury standard.

ED_013248_00000486-00044

RYE CREEK

Headwaters - Tonto Creek
15060105-014
17.81 Miles

Category 3
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive
AWW - Inconclusive

Use Only

No Exceedances

Monitoring Summary

Sampling period: 3/14/2011 - 3/14/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW RYE AZ	SRRYE006.15	102833	ADEQ	TMDL Monitoring

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

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), *E. coli*, copper, lead, mercury (or mercury in fish tissue)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), *E. coli*, copper, lead, mercury
Lab Detection Limits Not Low Enough	Cadmium (dissolved)

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

ED_013248_00000486-00045

SAGUARO LAKE

15060106A-1290
1022 Acres

Category 3
Inconclusive

DWS - Inconclusive • FC - Inconclusive • FBC - Inconclusive
AGI - Inconclusive • AGL - Inconclusive • AWW - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 4/20/2011 - 12/4/2012

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT DAM	SRSAG-A	100082	AGF	Data Sharing Partnership
MID LAKE SITE	SRSAG-B	104397	AGF	Data Sharing Partnership

Metal Samples	Nutrients & Related Samples	Other Samples
(2) Arsenic, manganese, mercury, selenium	(6) Nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(6) 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), *E. coli*, fluoride, arsenic, chromium, lead, boron, manganese, copper, mercury (or mercury in fish tissue)
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), *E. coli*, fluoride, arsenic, chromium, lead, boron, manganese, copper, mercury
Lab Detection Limits Not Low Enough	Selenium

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

ED_013248_00000486-00046

SALT RIVER

Canyon Creek - Cherry Creek
15060103-007
19.576 Miles

Category 5
Impaired

SALT

Selenium (2012/14)

FC - Attaining • FBC - Attaining • AGI - Attaining
AGL - Attaining • AWW - Impaired

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Selenium	2 ug/L	7/19/2010	2.2 ug/L	AWW remains impaired with 2 exceedances in 4 samples.
		5/25/2011	2.9 ug/L	

Monitoring Summary

Sampling period: 7/19/2010 - 5/25/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT GLEASON FLAT	SRSLR139.75	108422	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

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

ED_013248_00000486-00047

Impairment Discussion
Remains impaired for selenium (2012/14). No new data since last assessment.

SALT RIVER
Pinal Creek - Roosevelt Lake
15060103-004
7.526 Miles

Category 5
Impaired

STATUS

IMPAIRMENT

E. coli (2010)

FC - Attaining • FBC - Impaired • AGI - Attaining
AGL - Attaining • AWW - Attaining

STATUS

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL	8/20/2011	320 cfu/100 mL	FBC remains impaired with 2 exceedances in 23 samples.
		8/12/2014	290 cfu/100 mL	
Lead	15 ug/L	1/29/2013	36.5 ug/L	FBC is attaining with 1 exceedance in 23 samples (binomial).
SSC	80 mg/L	8/12/2014	463 mg/L	AWW is attaining with no median exceedance.
		12/9/2014	88 mg/L	
Nitrogen	2 mg/L	1/29/2013	6.37 mg/L	AWW and FBC are attaining with 1 exceedance in 23 samples (binomial).
Phosphorus	1 mg/L	1/29/2013	2.78 mg/L	AWW and FBC are attaining with 1 exceedance in 23 samples (binomial).

Monitoring Summary

Sampling period: 9/28/2010 - 12/9/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE LAKE ROOSEVELT USGS 09498500	SRSLR107.43	100745	USGS	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(23) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(2-23) Nitrate, nitrite, nitrite/nitrate, nitrogen, phosphate, phosphorus, total Kjeldahl nitrogen	(6-23) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

ED_013248_00000486-00049

Data Gaps and Monitoring Needs

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

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

Impairment Discussion
The reach remains impaired for *E. coli*. AWW is no longer impaired for suspended sediment, nitrogen and phosphorus. Delist SSC (2006/8), phosphorus and nitrogen (2010) from the 303(d) list.

SALT RIVER

Stewart Mountain Dam - Verde River
15060106A-003
10.143 Miles

Category 1
Attaining all uses

DWS - Attaining • FC - Attaining • FBC - Attaining
AGI - Attaining • AGL - Attaining • AWW - Attaining

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	6.0 mg/L	8/15/2012	5.3 mg/L	AWW is no longer impaired with only 1 exceedance in 17 samples (binomial).

Monitoring Summary

Sampling period: 7/12/2010 - 11/19/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW STEWART MOUNTAIN DAM	SRSLR054.32	103131	SRP	Data Sharing Partnership
BELOW STEWART MOUNTAIN DAM USGS 09502000	SRSLR051.32	100746	USGS	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(45-62) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(17-62) Nitrate, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1-62) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solidsstyrene, , 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	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Tetrachloroethane

Priority	Monitoring Recommendations
Low	Delist dissolved oxygen (2004) from the 303(d) list. Continue monitoring for low dissolved oxygen.

STINKY CREEK

Headwaters - Fort Apache Reservation
15060101-352A
2.1 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Inconclusive • AGL - Attaining
AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Nitrogen	2 mg/L	4/15/2014	3.45 mg/L	AWC and FBC are inconclusive with 1 exceedance in 4 samples (binomial).
Bottom deposits	< 30% fines	5/29/2014	32%	AWC is inconclusive.

Monitoring Summary

Sampling period: 9/17/2013 - 5/29/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE WEST FORK BLACK RIVER	SRSTI000.38	101303	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Collect more nitrogen and bottom deposit samples due to the exceedances. Use lower reporting limits for dissolved cadmium and dissolved copper - all samples had reporting limits greater than chronic criteria.

ED_013248_00000486-00052

THOMPSON DRAW

Headwaters - Billy Creek
15060105-378
7.08 Miles

Category 3
Inconclusive

SALT

PBC - Inconclusive • AWE - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	576 cfu/100 mL	7/23/2010	1723.87 cfu/100 mL	PBC is inconclusive with 1 exceedance outside the assessment window (7/1/12 - 6/30/15). No recent samples.

Monitoring Summary

Sampling period: 7/23/2010 - 7/23/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
UP STREAM FROM THOMPSON SUB DIVISION	SRTH0003.94	106366	ADEQ	TMDL Monitoring
DOWN STREAM FROM THOMPSON SUB DIVISION	SRTH0003.23	106365	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(2) *E. coli*

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Medium	Collect more *E. coli* samples due to the exceedance.

ED_013248_00000486-00053

Salt

TONTO CREEK (TON)

Greenback Creek - Roosevelt Lake
15060105-004
2.591 Miles

Category 5
Impaired

Mercury in fish tissue (EPA 2010)

IMPAIRMENT STATUS

FC - Impaired • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • AWW - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 11/10/2010 - 11/10/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT GREENBACK CREEK CONFLUENCE	SRTON011.00	108542	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(1) Dissolved oxygen, pH, total dissolved solids

Data Gaps and Monitoring Needs

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

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

Impairment Discussion
EPA overfile for mercury in fish tissue (2010). Fish consumprion advisory issued in July 2011 and still in effect.

ED_013248_00000486-00054

TONTO CREEK (TON)

Gun Creek - Greenback Creek
15060105-006
18.6 Miles

Category 5
Impaired

Mercury in fish tissue (EPA 2010)

IMPAIRMENT STATUS

FC - Impaired • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • AWW - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Mercury in fish tissue	0.3 mg/kg	12/8/2010	0.31 mg/kg (mean - 1SD) common carp	FC remains impaired.

Monitoring Summary

Sampling period: 11/10/2010 - 11/10/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW FR170	SRTON013.69	109862	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(22) Fish tissue mercury

Data Gaps and Monitoring Needs

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

ED_013248_00000486-00055

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

Impairment Discussion
EPA overfile for mercury in fish tissue (2010). Fish consumprion advisory issued in July 2011 and still in effect.

ED_013248_00000486-00056

TONTO CREEK (TON)

Rye Creek - Gun Creek
15060105-008
18.6 Miles

Category 5
Impaired

IMPAIRMENT STATUS

Mercury in fish tissue (EPA 2010)

FC - Impaired • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • AWW - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: No samples

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(0) None

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All core parameters
Missing Seasonal Distribution	All core parameters
Lab Detection Limits Not Low Enough	N/A

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

Impairment Discussion
No established sampling site, no available water quality data within the assessment period. EPA overfile for mercury in fish tissue (2010).

ED_013248_00000486-00057

TONTO CREEK (TON)

Spring Creek - Rye Creek
15060105-009
19.5 Miles

Category 5
Impaired

Mercury in fish tissue (EPA 2010)

IMPAIRMENT STATUS

FC - Impaired • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • AWW - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: No samples

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT OLD GAGING STATION ABOVE HOUSTON CREEK	SRTON032.38	107462	ADEQ	TMDL Monitoring
DOWNSTREAM OF HOUSTON CREEK	SRTON031.72	106722	ADEQ	TMDL Monitoring
US OF HOUSTON CREEK AT THE NARROWS	SRTON032.62	100668	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(0) None

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All core parameters
Missing Seasonal Distribution	All core parameters
Lab Detection Limits Not Low Enough	N/A

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

Impairment Discussion
EPA overfile for mercury in fish tissue (2010).

ED_013248_00000486-00058

TONTO CREEK (TON)

Haigler Creek - Spring Creek
15060105-011
7.8 Miles

Category 5
Impaired

Mercury in fish tissue (EPA 2010)

FC - Impaired • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • AWW - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: No samples

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW HAIGLER CREEK, AT HELLSGATE	SRTON046.90	100669	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(0) None

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All core parameters
Missing Seasonal Distribution	All core parameters
Lab Detection Limits Not Low Enough	N/A

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

Impairment Discussion
EPA overfile for mercury in fish tissue (2010).

ED_013248_00000486-00059

TONTO CREEK (TON)

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

Category 4A
Not attaining

E. coli (2004) IMPAIRMENT

FC - Inconclusive • FBC - Not Attaining • AGI - Attaining
AGL - Attaining • AWC - Attaining STATUS

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	10/11/2011	5.13 mg/L	AWC is attaining with 4 exceedances in 28 samples (binomial).
		5/16/2013	6.58 mg/L	
		6/27/2013	6.7 mg/L	
		8/22/2013	5.77 mg/L	
E. coli	235 cfu/100 mL	6/30/2011	365.4 cfu/100 mL	FBC remains not-attaining with 10 exceedances in 30 samples.
		6/12/2013	1119.9 cfu/100 mL	
		7/25/2013	7258.8 cfu/100 mL	
		8/7/2013	613.1 cfu/100 mL	
		9/11/2013	7258.8 cfu/100 mL	
		7/9/2014	920.8 cfu/100 mL	
		7/23/2014	686.7 cfu/100 mL	
		8/5/2014	325.5 cfu/100 mL	
		8/27/2014	290.9 cfu/100 mL	
		9/10/2014	2419.6 cfu/100 mL	
Thallium (dissolved)	7.2 ug/L	10/31/2011	13 ug/L	FC is inconclusive with 1 exceedance in 1 sample. Note: This exceedance is based on a dissolved fraction.

ED_013248_00000486-00060

Monitoring Summary

Sampling period: 7/12/2010 - 5/7/2015

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW KOHLS RANCH	SRTON057.70	100929	ADEQ	TMDL Monitoring
BELOW TONTO SPRING.	SRTON062.89	101016	ADEQ	TMDL Monitoring
BELOW TONTO FISH HATCHERY OUTFALL	SRTON062.65	108443	ADEQ	Ambient Monitoring
DOWN STREAM OF CHRISTIAN CAMP TRIBU-TARY	SRTON060.28	106059	ADEQ	TMDL Monitoring
ABOVE CHRISTIAN CAMP	SRTON061.37	101018	ADEQ	Ambient Monitoring, TMDL Monitoring
BELOW AGFD HATCHERY MIXING ZONE	SRTON062.28	101017	ADEQ	Ambient Monitoring, TMDL Monitoring
ABOVE HIGHWAY 260 AT KOHLS RANCH	SRTON058.63	100354	ADEQ	Ambient Monitoring
ABOVE CHRISTOPHER CREEK	SRTON056.59	100359	ADEQ	TMDL Monitoring
BELOW HORTON CREEK	SRTON059.43	100353	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(12-14) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(1-155) Ammonia, nitrate, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-158) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria, bottom deposits, fish tissue mercury

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Collect more samples for effectiveness monitoring.

Impairment Discussion
There were no nitrogen exceedances in 31 aggregated samples - nitrogen (EPA 2004) is delisted from the 303(d) list. AWC is no longer impaired for dissolved oxygen with 4 exceedances in 28 samples - delist dissolved oxygen (2006) from the 303(d) list. The reach remains not attaining for *E. coli* (TMDL completed in 2004).

ED_013248_00000486-00061

TONTO CREEK (TON)

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

Category 4A/5
Not attaining/Impaired

Mercury in fish tissue (EPA 2010), E. coli (2004)

IMPAIRMENT STATUS

FC - Impaired • FBC - Not Attaining • AGI - Inconclusive
AGL - Inconclusive • AWW - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 ml	7/12/2010	3629.4 cfu/100 mL	FBC remains not attaining with 8 exceedances in 22 samples.
		7/23/2010	3628.5 cfu/100 mL	
		7/24/2013	7258.8 cfu/100 mL	
		9/10/2013	7258.8 cfu/100 mL	
		7/8/2014	298.7 cfu/100 mL	
		7/22/2014	648.8 cfu/100 mL	
		8/5/2014	648.8 cfu/100 mL	
		9/9/2014	940.4 cfu/100 mL	
Nitrogen	2 mg/L	7/23/2010	8.89 mg/L	AWW and FBC are attaining with 1 exceedance in 23 samples (binomial).
Phospho-rus	0.8 mg/L	7/23/2010	4.1 mg/L	AWW and FBC are attaining with 1 exceedance in 23 samples (binomial).

Monitoring Summary

Sampling period: 7/12/2010 - 9/23/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW BEAR FLATS	SRTON053.87	100358	ADEQ	TMDL Monitoring
ABOVE BEAR FLATS	SRTON055.09	100357	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Mercury	(43-45) Ammonia, nitrite/ nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(39-45) Dissolved oxygen, *E. coli*, pH, total dissolved solids, fish tissue mercury

ED_013248_00000486-00062

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
High	Collect more samples in support of TMDL development and effectiveness monitoring. Collect core parameters to represent at least 3 seasons during an assessment period.

Impairment Discussion
There was only one nitrogen exceedance in 23 aggregated samples - nitrogen is delisted from the 303(d) list. The reach remains not attaining for *E. coli* (TMDL completed in 2004) and imapaired for fish tissue mercury (EPA overfile in 2010). Fish consumprion advisory issued in July 2011 and still in effect.

ED_013248_00000486-00063

Unnamed Trib to Black R NF of EF

Headwaters - Black River NF of EF
15060101-325
5.09 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Inconclusive • AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	9/17/2013	5.39 mg/L	AWC is inconclusive with 1 exceedance in 3 samples.
SSC	25 mg/L	10/21/2013	26 mg/L	AWC is attaining with no median exceedance.
Nitrogen	2 mg/L	4/16/2014	7.94 mg/L	AWC and FBC are inconclusive with 1 exceedance in 4 samples.
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	5/19/2014	IBI 31	AWC is inconclusive with 1 violation.

Monitoring Summary

Sampling period: 9/17/2013 - 5/19/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
UNNAMED TRIB TO BLACK RIVER NFORK EFORK	SRUNF002.31	109722	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

ED_013248_00000486-00064

Priority	Monitoring Recommendations
Medium	Collect another macroinvertebrate sample to confirm biocriteria violation. Collect more dissolved oxygen and nitrogen samples due to exceedances. Use lower reporting limits for dissolved cadmium and dissolved copper - all samples had reporting limits greater than chronic criteria.

ED_013248_00000486-00065

Unnamed Trib to Thompson Draw

Headwaters - Thompson Draw
15060105-379
0.82 Miles

Category 3
Inconclusive

PBC - Inconclusive • AWE - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 7/23/2010 - 7/23/2010

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW FR 405 CROSS-ING	SRUTD000.10	108462	ADEQ	TMDL Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(1) *E. coli*

Data Gaps and Monitoring Needs

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

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

WEST FORK PINTO CREEK

Headwaters - Pinto Creek
15060103-066
11.641 Miles

Category 3
Inconclusive

SWQS

FC - Inconclusive • FBC - Inconclusive • AWW - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	6.0 mg/L	6/2/2011	5.08 mg/L	AWW is inconclusive with 1 exceedance in 1 sample.

Monitoring Summary

Sampling period: 4/6/2011 - 6/2/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW KENNEDY RANCH	SRWPN004.47	102433	ADEQ	Ambient Monitoring

Metal Samples	Nutrients & Related Samples	Other Samples
(2) 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, *E. coli*, pH, total dissolved solids, biocriteria, bottom deposits

Data Gaps and Monitoring Needs

Parameters Needing More Samples to Assess	Biocriteria, dissolved oxygen
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), *E. coli*, mercury
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), *E. coli*, mercury
Lab Detection Limits Not Low Enough	Mercury (dissolved)

Priority	Monitoring Recommendations
Medium	Collect a verification sample for biocriteria (IBI on 6/2/2011 was 45 and inconclusive). Collect core parameters to represent at least 3 seasons during an assessment period.

ED_013248_00000486-00067

WILDCAT CREEK (WLD)

Headwaters - Centerfire Creek
15060101-362
6.03 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Inconclusive • AGL - Attaining
AWC - Inconclusive

Use Support

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Nitrogen	2 mg/L	4/15/2014	2.85 mg/L	AWC and FBC are inconclusive with 1 exceedance in 3 samples.

Monitoring Summary

Sampling period: 9/17/2013 - 4/15/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE CENTERFIRE CONFLUENCE	SRWLD000.86	109683	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	Collect more nitrogen samples due to the exceedance. Use lower reporting limits for dissolved cadmium and dissolved copper - all samples had reporting limits greater than chronic criteria.

ED_013248_00000486-00068

WORKMAN CREEK

Headwaters - Reynolds Creek
15060103-195A
7.1 Miles

Category 2
Attaining some uses

SWQA

FC - Attaining • FBC - Attaining • AGI - Attaining
AGL - Attaining • AWC - Inconclusive

Use Support

No Exceedances

Monitoring Summary

Sampling period: 9/24/2013 - 5/15/2014

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW FALLS	SRWRK007.97	100696	ADEQ	Ambient Monitoring

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

Data Gaps and Monitoring Needs

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

Priority	Monitoring Recommendations
Low	AWC attainment could not be determined due to reporting limits of dissolved cadmium being too high for all samples.

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