

## **APPENDIX B**

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### **Basin Action Summary**

The Basin Action Summary is a table-formatted summarization of impaired water bodies, assessment results, water protection activities, and recommendations for each watershed in the Colorado River basin. This Basin Action Summary is provided to summarize activities that have taken place in the basin since 1996.

Upper Basin

Water body	Impaired Use	Cause	Possible Source	Actions Taken	Recommended Actions	Priority	Possible Funding Sources	Active Participants
E.V. Spence Reservoir, Segment 1411	Public Water Supply	Low stream flow, elevated levels of sulfate and total dissolved solids (salinity)	Natural and oil field brines	TCEQ currently has a EPA 319(h) grant project with the Texas RRC to plug abandoned oil wells in Coke County.		High		TCEQ, EPA, UCRA, LCRA and the Texas RRC, CRMWD
Colorado River below Lake J.B. Thomas, Segment 1412	Contact Recreation	Low stream flows, elevated levels of fecal coliform bacteria, chlorides and sulfates (salinity), Other water quality concerns include elevated levels of nickel, manganese, selenium and barium in sediment below Colorado City	Nonpoint sources and natural and abandoned oil and gas wells. Col-Tex Refinery superfund site	TCEQ currently has a EPA 319(h) grant project with the Texas RRC to plug abandoned oil wells in Mitchell County.  Water quality monitoring is ongoing.	Continue routine water quality monitoring to assess well plugging project and Col-Tex cleanup success	Medium	EPA, TCEQ	CRMWD, UCRA, LCRA, Texas Railroad Commission
Colorado River below E.V. Spence Reservoir, Segment 1426	Public Water Supply (Irrigation and Domestic)	Salinity, Low stream flows, High Irrigation use	Releases from E.V. Spence Reservoir, Natural sources, Abandoned Oil and Gas wells	Routine water quality monitoring		High		UCRA, CRMWD
Oak Creek Reservoir (in Segment 1426 subwatershed)	Public Water Supply	Elevated levels of Sulfates	Unknown Natural Sources	Water quality monitoring	Future CRP monitoring	Low	CRP	
O.H. Ivie Reservoir, Segment 1433	Water supply	Elevated levels of Nitrate + nitrite in the Concho River arm of the Reservoir	Natural sources and oil field brines	Water quality monitoring		High	Texas RRC and the CRP (CRP)	CRMWD, Texas Railroad Commission

Concho River

<b>Water body</b>	<b>Impaired Use</b>	<b>Cause</b>	<b>Possible Source</b>	<b>Actions Taken</b>	<b>Recommended Actions</b>	<b>Priority</b>	<b>Possible Funding Sources</b>	<b>Active Participants</b>
Upper Concho River Above San Angelo, Segment 1421	Contact Recreation, High Aquatic Life	Fish Kills, Algae Blooms, Aesthetics,	Nonpoint-source urban runoff	319(h) Programs, City of San Angelo Master Plan to control nonpoint-source urban runoff, BMP's	Continue Implementation of City of San Angelo Master Plan	High	319(h) Funds, City of San Angelo, Private funds	UCRA, Citizen Groups, City of San Angelo
Concho River San Angelo, Segment 1421	Public Water Supply	Low stream flows, Low DO, Salinity, Algae Blooms, Aesthetics, increased nutrients	Nonpoint-source urban runoff & Groundwater Interaction	Water Quality Monitoring and Analysis  CRP study of Lipan aquifer/Concho River completed in September 2000	Public outreach for farm/ranch water conservation measures  Residents have asked TCEQ to investigate a watermaster program for the Concho River	High	CRP, Lipan, Kickapoo, Underground Water District	UCRA, LKUWD, CRMWD
Lake Nasworthy, Segment 1422	Contact Recreation, Public Water Supply	Access, Shallow Depths, Fecal Coliform, Taste and Odors	Sedimentation, Aquatic Plants	Lake Dredging Program initiated by City of San Angelo, Water Quality Monitoring	Continue water quality monitoring	medium	City of San Angelo, TCEQ, UCRA, TPWD	UCRA, NRCS, TAEX, Texas State Soil and Water Conservation Board, State Legislature
South and Middle Concho River, Segment 1424	None	Elevated levels of nitrate-nitrogen	Natural spring flow and groundwater seeps failing septic systems	Water quality monitoring	Continue water quality monitoring	Low	CRP	UCRA, TCEQ
O.C. Fisher Reservoir, Stream Segment 1425	Public Water Supply	Elevated levels of chlorides (salinity)	Brush Infestation of Watershed	O.C. Fisher Reservoir/North Concho River Watershed Brush Management Feasibility Study	Implementation of recommendations from O.C. Fisher Reservoir/North Concho River Watershed Brush Management Feasibility Study	High	TWDB, CRP, local, private and Texas State Soil and Water Conservation Board	UCRA, NRCS, TAEX, Texas State Soil and Water Conservation Board, State Legislature

Lake Buchanan

Water body	Impaired Use	Cause	Possible Source	Actions Taken	Recommended Actions	Priority	Possible Funding Sources	Active Participants
San Saba River, Segment 1416	Contact Recreation	Elevated levels of fecal coliform bacteria, nutrients, chlorides and sulfates	Municipal WWTP facilities		Continue routine water quality monitoring programs.	Medium	LCRA, CRP  LCRA, TCEQ	
Brady Creek below Brady, (Tributary of Segment 1416)	High Aquatic Life	Nutrient Enrichment, Elevated levels of Toxic substances	NPS, Municipal wwtp facilities	City of Brady Master Plan for NPS remediation mid-2001	UCRA has received funding for a 319(h) grant from TCEQ to address NPS contributions. Continue routine water quality monitoring	Medium	TCEQ, 319(h) grant project	UCRA, TCEQ, City of Brady, EPA
Brady Lake, (Within the Segment 1416 subwatershed)	Public Water Supply	Salinity	Unknown	Routine water quality monitoring	Additional water quality monitoring	Low	TCEQ, CRP	TCEQ, UCRA

Austin

Water body	Impaired Use	Cause	Possible Source	Actions Taken	Recommended Actions	Priority	Possible Funding Sources	Active Participants
Lake Austin, Segment 1403	High Aquatic Life	Depressed dissolved oxygen levels	Releases of low-oxygen bottom water from Lake Travis during the summer months	Total Maximum Daily Load study – installation of aerators in Mansfield dam resulting in increased downstream DO	Continue routine monitoring program. Implement targeted monitoring to track success of the aerators.	Low	Local, state and federal funding	LCRA, City of Austin, TCEQ
Bull Creek (1403A )	Contact Recreation, High Aquatic Life	Elevated levels of fecal coliform bacteria	Urban nonpoint-source runoff	Study of biology of Bull Creek completed in 1998	Public meetings and public education on Nonpoint-Source pollution issues in watershed.	High		LCRA, City Of Austin
Town Lake, Segment 1429	Contact Recreation, High Aquatic Life, Public Water Supply	Elevated levels of fecal coliform bacteria, nutrients and metals	Urban nonpoint-source runoff	City of Austin (COA) base and high flow water quality monitoring in segment tributaries, ambient water quality monitoring in segment, local water quality ordinances, educational outreach	Total Maximum Daily Load study, Improve and maintain riparian corridors	High	Local, state and federal funding	City of Austin, several local nonprofit organizations, LCRA, TCEQ, EPA

Lower Basin

Water body	Impaired Use	Cause	Possible Source	Actions Taken	Recommended Actions	Priority	Possible Funding Sources	Active Participants
Colorado River below Town Lake, Segment 1428	Contact Recreation, Exceptional Aquatic Life	Elevated levels of fecal coliform bacteria immediately downstream of Austin, nutrients, chlorides, sulfates and TDS	Urban Nonpoint-source runoff and Municipal WWTP discharges	Continue routine water quality monitoring		Medium		LCRA, TCEQ, EPA, City of Austin and other municipal and county agencies
Colorado River above La Grange, Segment 1434	Contact Recreation	Elevated levels of fecal coliform bacteria	Failing septic systems	Routine water quality monitoring	Continue routine monitoring	Medium	CRP	LCRA and TCEQ
Gilleland Creek (Tributary of Segment 1428)	Contact Recreation, Exceptional aquatic life	Elevated levels of fecal coliform bacteria, chlorides, sulfates and TDS and depressed dissolved oxygen levels	Agricultural and urban nonpoint source runoff; municipal wastewater discharges	Receiving water assessment conducted on Gilleland Creek in 1998 receiving stream for the City of Pflugerville WWTP.	Continue Routine water quality monitoring	Low	CRP	LCRA TCEQ, EPA, City of Austin, other municipal and county agencies
Caney Creek tidal 1304	Contact Recreation, High Aquatic Life	Elevated Levels of fecal coliform bacteria			LCRA became the Clean Rivers Partner for Caney Creek in 1998. Monitoring efforts ongoing			
Onion Creek, Segment 1427	Aquatic life use	Low dissolved oxygen	Intermittent stream creates summer pools. In-situ DO values sometimes fall below standard.	Data verification and sampling	Sample biology, 24-hour DO and physical/chemical parameters	High	TCEQ TMDL and CRP	TCEQ, Texas A&M Kingsville, City of Austin, LCRA

Matagorda Bay

<b>Water body</b>	<b>Impaired Use</b>	<b>Cause</b>	<b>Possible Source</b>	<b>Actions Taken</b>	<b>Recommended Actions</b>	<b>Priority</b>	<b>Possible Funding Sources</b>	<b>Active Participants</b>
Colorado River Tidal, Segment 1401	Contact Recreation	Elevated levels of fecal coliform bacteria and nutrients and depressed levels of dissolved oxygen	Agricultural nonpoint-source pollution; failing septic systems	Routine water quality monitoring	Explore the issues surrounding the Parker's Cut including the reduction in current in the Colorado River Locks.	High	LCRA	Natural Resource Conservation Services, local groups, LCRA
Tres Palacios Creek Tidal, Segment 1501	Contact Recreation, Exceptional Aquatic Life, Oyster Waters	Elevated levels of fecal coliform bacteria and nutrients and depressed levels of dissolved oxygen	Agricultural nonpoint-source runoff; failing septic systems	Routine water quality monitoring, Tres Palacios watershed study completed in January 2000	TCEQ fecal coliform study  Increase education outreach	High	Coastal Zone Grants, County agencies, CRP, local and federal funding  Soil Water	Conservation Districts, Natural Resource Conservation Services, local homeowner groups, Sea Grant, county agencies, LCRA
Tres Palacios Creek above Tidal, Segment 1502	Contact Recreation, High Aquatic Life	Elevated levels of fecal coliform bacteria and nutrients and depressed levels of dissolved oxygen	Agricultural and urban nonpoint-source runoff. Industrial and stormwater runoff and WWTP from El Campo, failing septic systems.	Routine water quality monitoring, Tres Palacios watershed study completed January 2000	TCEQ fecal coliform study.  Increase education outreach.	Medium	Matagorda County Navigational District, county agencies, CRP, local and federal funding, City of El Campo R.I.C.E., SWCS, NRCS, LCRA	local homeowner groups, county agencies, City of El Campo
East Matagorda Bay, Segment 2441	Oyster Waters	Fecal coliform bacteria	Wadsworth WWTP, ranching activities, failing septic systems along Chinquapin	Continue water quality monitoring	Additional data collection to determine status.	High		Matagorda Bay Foundation, General Land Office, Sea Grant
Matagorda Bay/Powderhorn Lake, Segment 2451	Oyster Waters	Elevated levels of fecal coliform bacteria	Point and Nonpoint-Source from upstream tributaries	Continue water quality monitoring	Additional data collection to determine status.	High		Matagorda Bay Foundation, General Land Office, Sea Grant