Amendment #2
Update to Appendix B Sampling Process Design and Monitoring Schedule to the Rio Grande Basin Clean Rivers Program FY 2014/2015 QAPP

Prepared by the U.S. International Boundary and Water Commission in Cooperation with the Texas Commission on Environmental Quality (TCEQ)

Effective: Immediately upon approval by all parties

Questions concerning this QAPP should be directed to:
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Justification

This document details the changes made to the basin-wide Quality Assurance Project Plan to update Appendix B for fiscal year 2015. This document also updates the field quality control activities and bacteria holding time requirements to match those of the TCEQ SWQM program to ensure a consistent state-wide monitoring program.

Summary of Changes

The USIBWC CRP Program Manager position is currently vacant. Signature page has been adjusted to reflect that change.

The organizational chart has been updated to reflect changes in USIBWC CRP staff.

Table B2 footnote regarding E. coli sample hold time is amended to allow a maximum of 30 hours between sample collection and analysis.

Section B5 Quality Control is amended to remove the requirement for field split collection.

There have been changes made to the text in the adherence letter sent out to all partners. Text updates the QAPP year mentioned and references this amendment.

The following table in Appendix A is amended to allow a maximum of 30 hours' time elapsed between sample collection and analysis:

- Table A7.3, Measurement Performance Specifications for A&B Environmental Services Inc.

The following tables in Appendix A are amended to remove references to extended holding time for E. coli analyses:

- Table A7.10, Measurement Performance Specifications for Brownsville Public Utilities Board
- Table A7.12, Measurement Performance Specifications for City of Laredo Health Department
- Table A7.15, Measurement Performance Specifications for El Paso Water Utilities Lab

The following table in Appendix A is amended to include primary contact recreation codes:

- Table A7.11, Measurement Performance Specifications for City of Laredo Health Department

The following table in Appendix A has been amended to allow to accurately reflect the LOQs of the contract lab:

- Table A7.6, Measurement Performance Specifications for A&B Environmental Services Inc., the methods for Benzene have been edited to include only those that can reach the LOQ of 2 ug/L.

The following information in Appendix B is amended to reflect changes to:

- Sample design rationale FY 2015
- Monitoring Sites table with updated legends
- Maps of sampling sites

Detail of Changes

Sample Design Rationale FY 2015

- Two additional metals in sediment sampling events have been added to Station 20997 at the request of TCEQ Region 16, in response to the opening of a mine in Eagle Pass, TX. The station is below the confluence of the discharge arroyo (Elm Creek) with the Rio Grande.
- Station 15816, Rio Grande at Rio Bravo, will be reactivated and will be monitored quarterly by RGISC for conventionals, bacteria, and field.
- Station 13196, Rio Grande Below Laredo – Pipeline Crossing 8.7 mi downstream Laredo (Quintero Property), will remain inactive. A new station, Station 21542, Rio Grande at El Cenizo Park 220 Meters West of Intersection of Cadena and Jimenez, has been added to the monitoring schedule and will be monitored by RGISC. For the time being, station will be monitored on a quarterly basis for conventionals, bacteria, and field.
- Station 15795, Rio Grande at Alamo Control Structure near Ft. Hancock, will be reactivated and will be monitored by IBWC CRP on a quarterly basis for conventionals, bacteria and field.

Monitoring Sites Table

The attached monitoring Table 17 in Appendix B is added to reflect monitoring for FY 2015.

Maps

The attached maps are added to Appendix C to reflect monitoring sites for FY 2015.

These changes will be incorporated into the QAPP document and TCEQ and the USIBWC will acknowledge and accept these changes by signing this document.

Texas Commission on Environmental Quality

Water Quality Planning Division

8/7/14
Sarah Eagle Date
Project Manager
Clean Rivers Program

8/7/2014
Patricia Wise, Work Leader Date
Clean Rivers Program

8-7-2014
Allison Fischer Date
Project Quality Assurance Specialist
Clean Rivers Program

Monitoring Division

8/8/2014
Daniel R. Burke Date
Lead CRP Quality Assurance Specialist

USIBWC

Leslie Grijalva — 8-6-14
Leslie Grijalva — Date
Acting USIBWC Program Manager

Leslie Grijalva — 8-6-14
Leslie Grijalva — Date
USIBWC Quality Assurance Officer

A&B Environmental Services Inc.

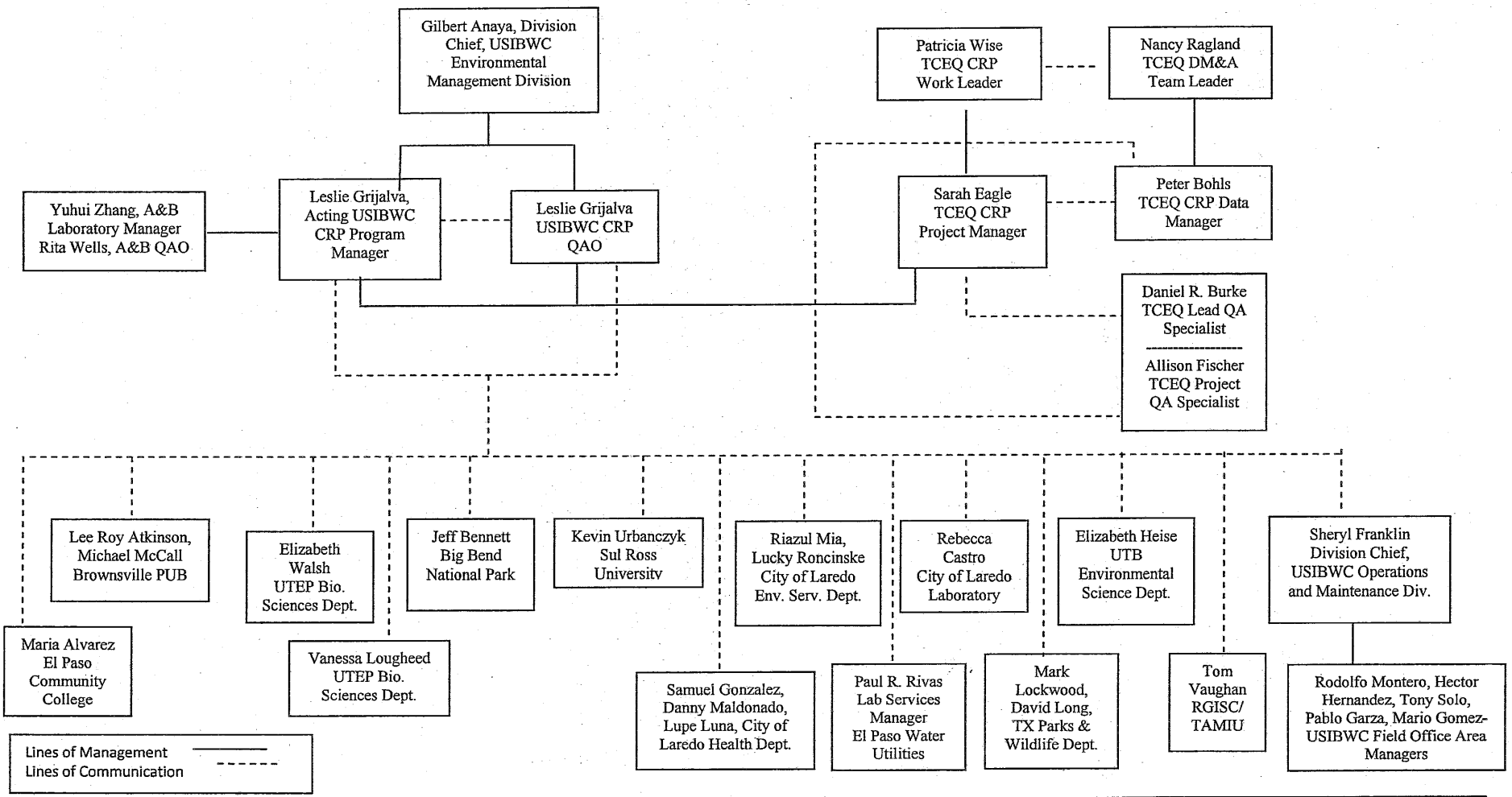
Yuhui Zhang — 8/6/2014
Yuhui Zhang — Date
A&B Laboratory Manager

Rita Wells — 8/1/2014
Rita Wells — Date
A&B Quality Assurance Office

The USIBWC will provide copies of this project plan and any amendments or appendices of this plan to each person on this list and to each sub-tier project participant, e.g., subcontractors, other units of government. The USIBWC will document distribution of the plan and any amendments and appendices. The USIBWC will secure written documentation from each sub-tier project participant (e.g., subcontractors, other units of government) stating the organization's awareness of and commitment to requirements contained in this quality assurance project plan and any amendments or added appendices of this plan. The USIBWC will maintain this documentation as part of the project's quality assurance records, and will ensure the documentation is available for review.

PROJECT ORGANIZATION CHART

Figure 1: A4.1. Organization Chart - Lines of Communication



City of Laredo Health Dept. uses the City of Laredo Health Dept. lab, BPUB analyzes their own data and the *enterrococcus* samples for the Brownville area, and American Dam uses the El Paso Water Utilities lab. All other partners use A&B

B2 Sampling Methods

Table 3, B2.1 Sample Storage, Preservation and Handling Requirements, A&B Environmental Services Inc.

Routine Conventionals-in-Water Samples (8 containers: 3 unpreserved, 1 preserved with HNO_3, 2 preserved with H_2S0_4, 2 preserved with $Na_2S_2O_3$,)				
Parameters	Containers	Sample Volume (ml)	Preservation	Maximum Holding Time
CONTAINER 1				
	HDPE	500	Cool to <6 C but not frozen	
TSS(00530)/VSS (00535)		200	Cool to <6 C but not frozen	7 days
Chloride (Cl) (00940)		50	Cool to <6 C but not frozen	28 days
Sulfate (SO_4) (00945)		50	Cool to <6 C but not frozen	28 days
Fluoride (00951)		50	Cool to <6 C but not frozen	28 days
TDS(70300)		50	Cool to <6 C but not frozen	7 days
Bromide (71870)		50	Cool to <6 C but not frozen	28 days
Alkalinity (00410)		50	Cool to <6 C but not frozen	14 days
CONTAINER 2				
	HDPE	250	1-2 ml conc.HNO_3 to pH <2 and cool to <6 C but not frozen	
Calcium (00916)		50	1-2 ml conc.HNO_3 to pH <2 and cool to <6 C but not frozen	6 months
Magnesium (00927)		50	1-2 ml conc.HNO_3 to pH <2 and cool to <6 C but not frozen	6 months
Sodium (00929)		50	1-2 ml conc.HNO_3 to pH <2 and cool to <6 C but not frozen	6 months
Potassium (00937)		50	1-2 ml conc.HNO_3 to pH <2 and cool to <6 C but not frozen	6 months
Hardness (00900)		50	1-2 ml conc.HNO_3 to pH <2 and cool to <6 C but not frozen	6 months
CONTAINER 3				
	HDPE	250	1-2 ml conc.H_2SO_4 to pH <2 and Cool <6 C but not frozen	
Ammonia (NH_3) (00610)		50	1-2 ml conc.H_2SO_4 to pH <2 and Cool <6 C but not frozen	28 days

Total Phosphorus (TPO_4) (00665)		50	1-2 ml conc.H_2SO_4 to pH <2 and Cool <6 C but not frozen	28 days
Nitrate + Nitrite (00630) ($NO_3 + NO_2$)		50	1-2 ml conc.H_2SO_4 to pH <2 and Cool <6 C but not frozen	28 days
CONTAINER 4				
Chlorophyll *a* (32211)	glass amber	500	Cool to <6 C but not frozen, dark	Filter within 48 hours. Filters may be stored frozen up to 24 days
Pheophytin-a (32218)	glass amber	500	Cool to <6 C but not frozen, dark	Filter within 48 hours Filters may be stored frozen up to 28 days
CONTAINER 5 and 6				
E. coli bacteria (31699)	Sterilized plastic container	100	Cool <6 C but not frozen Sodium thiosulfate	8 hours *extended 30 hours
E. coli bacteria (31699)	Sterilized plastic container	290	Cool <6 C but not frozen Sodium thiosulfate	8 hours *extended 30 hours
CONTAINER 7				
BOD (00310)	HDPE	1000	Cool <6 C but not frozen	48 hours
CONTAINER 8				
Total Organic Carbon (TOC) (00680)	H2SO4, cleaned plastic bottle	120	1.0 ml conc H2SO4 to pH <2 and Cool <6 C but not frozen	28 days
Metals -In-Water				
Parameters	Containers	Sample Volume (ml)	Preservation	Maximum Holding Time
CONTAINER 1				
TOTAL	HNO_3 cleaned plastic bottle	500	Pre-acidified container with 5 ml ultra-pure HNO_3 to pH<2	180 days
CONTAINER 2 and 3				
Total Mercury	2- 40-mL VOA vials	80	pre-cleaned, HCl-preserved	28 days
Metals in Sediment				
CONTAINER 1				
	1 pint glass jar with Teflon- lined lid	1000 grams		
Metals		500 grams	Cool <6 C but not frozen	180 days
CONTAINER 1				

Total Mercury		500 grams	Dark and Cool <6 C but not frozen	28 days
Organics in Water				
CONTAINER 1, 2, 3				
BTEX	3- 40 ml VOA	120	Pre-acidified with 0.5 ml HCl	14 days
CONTAINER 4 and 5				
SVOCs	glass bottle with teflon lined lid	2x1000	Pre-rinsed, Cool <6 C but not frozen	7 days
Organics in Sediment				
CONTAINER 1				
	1 pint glass jar with Teflon- lined lid	1000 grams	Cool <6 C but not frozen	
Pesticides		500	Cool <6 C but not frozen	14 days
SVOC's		500	Cool <6 C but not frozen	14 days

*E.coli samples should always be processed as soon as possible and within 8 hours. When transport conditions necessitate delays in delivery, the holding time may be extended and samples must be processed as soon as possible and within 30 hours.

B5 Quality Control

Field Split

Field split samples are not required as part of the routine Clean Rivers Program, but if needed, may be inserted into the sample regime. The frequency is determined by the needs of the project.

Appendix A: Measurement Performance Specifications (Table A7.1)

Appendix B Sampling Process Design and Monitoring Schedule (plan)

Sample Design Rationale FY 2015

The sample design is based on the legislative intent of CRP. Under the legislation, the Basin Planning Agencies have been tasked with providing data to characterize water quality conditions in support of the Texas Water Quality Integrated Report, and to identify significant long-term water quality trends. Based on Steering Committee input, achievable water quality objectives and priorities and the identification of water quality issues are used to develop work plans which are in accord with available resources. As part of the Steering Committee process, the USIBWC coordinates closely with the TCEQ and other participants to ensure a comprehensive water monitoring strategy within the watershed.

Changes to FY15 Coordinated Monitoring Schedule

Lower:

- No Changes.

Middle:

- Site at City of Rio Bravo, Station 15816, will be reactivated and monitored on a quarterly basis by RGISC for conventionals, bacteria and field. This station is upstream of the WWTP effluent drain at the City of Rio Bravo.
- Site at Quintero Property, Station 13196, will be kept inactive and a new site, 21542, will be activated at the town of El Cenizo. Station will be monitored by RGISC. The new site is downstream of the WWTP effluent drain at the City of Rio Bravo.

Upper2:

- Two additional metals in sediment sampling events have been added to Station 20997 at the request of TCEQ Region 16, in response to the opening of a mine in Eagle Pass, TX. The station is below the confluence of the discharge arroyo (Elm Creek) with the Rio Grande. This station will now monitor for metals in sediment 4x/year.

Upper1:

- Site at the Ft. Hancock Alamo Control Structure (Station 15795) has been reactivated and will be monitored on a quarterly basis by the USIBWC CRP for conventionals, bacteria and field.

Pecos:

- No changes

Monitoring Sites for FY 2015

The sample design for SWQM is shown in Table B1.1 below.

Table 17: B.4 Sample Design and Schedule, FY 2015.

Table available for download at http://cms.lcra.org

Site Description	Station ID	Water body ID	Basin	Region	SE	CE	MT	Field	Conv	Bact	Flow	24 hr DO	Aq Hab	Ben	Nek	Met Wat	Org Wat	Met Sed	Org Sed	Fish Tissue	Amb Tox Wat	Amb Tox Sed	Comments
RIO GRANDE AT SABAL PALM SANCTUARY AT NORTHEAST BOUNDARY OFF PARK ROAD APPROX 1MI SOUTH OF FM1419 NEAR PALM GROVE	16288	2301	23	15	IB	UB	RT	4	4	4													entero analyzed by BPUB. Conventionals by IBWC lab.
RIO GRANDE TIDAL AT SH 4 NEAR BOCA CHICA	13176	2301	23	15	IB	UB	RT	4	4	4													
RIO GRANDE 0.5 MI DOWNSTREAM ANZALDUAS DAM 12.2 MI FROM HIDALGO	13664	2302	23	15	IB	IB	RT	8	8	8	8												
RIO GRANDE 200M UPSTREAM OF PHARR INTERNATIONAL BRIDGE/US281	15808	2302	23	15	IB	IB	RT	8	8	8	8												
RIO GRANDE AT FM 886 NEAR LOS EBANOS	13184	2302	23	15	IB	IB	RT	7	7	7	7												

Site Description	Station ID	Water body ID	Basin	Region	SE	CE	MT	Field	Conv	Bact	Flow	24 hr DO	Aq Hab	Ben	Nek	Met Wat	Org Wat	Met Sed	Org Sed	Fish Tissue	Amb Tox Wat	Amb Tox Sed	Comments
RIO GRANDE AT FORT RINGGOLD 1 MI DOWNSTREAM OF RIO GRANDE CITY	13185	2302	23	15	IB	IB	RT	12	12	12	12								1				
RIO GRANDE DOWNSTREAM RIO ALAMO NEAR FRONTON	13186	2302	23	15	IB	IB	RT	8	8	8	8												
RIO GRANDE EL JARDIN PUMP STATION AT LOW WATER DAM 140 M DOWNSTREAM INTAKE	13177	2302	23	15	IB	IB	RT	8	8	8	8								1				
RIO GRANDE INTERNATIONAL BRIDGE AT US 281 AT HIDALGO	13181	2302	23	15	IB	IB	RT	8	8	8	8								1				
RIO GRANDE INTERNATIONAL BRIDGE ON US 77 AT BROWNSVILLE	13178	2302	23	15	IB	UB	RT	4	4	4									1				
RIO GRANDE NEAR RIVER BEND BOAT RAMP APPROXIMATELY 5 MI WEST OF BROWNSVILLE ON US 281	13179	2302	23	15	IB	UB	RT	4	4	4									1				

RIO GRANDE RIVER AT BROWNSVILLE PUB WATER TREATMENT PLANT NUMBER 1 INTAKE BETWEEN WTP RESERVOIR AND RIO GRANDE LEVEE 910 METERS WEST AND 335 METERS SOUTH TO THE INTERSECTION OF WEST ELIZABETH STREET AND SOUTH MILITARY ROAD	20449	2302	23	15	IB	BO	RT		12	12													E. coli and limited conventionals
ARROYO LOS OLMOS BRIDGE ON US 83 SOUTH OF RIO GRANDE CITY	13103	2302A	23	15	IB	IB	BF	3	3	3													Bacteria nitrates and field collected when flowing
FALCON LAKE AT INTERNATIONAL BOUNDARY MONUMENT I	13189	2303	23	16	IB	IB	RT	4	4	4													
FALCON RESERVOIR AT SAN YGNACIO WTP INTAKE WEST OF US 83 INTERSECTION WITH FM 3169	15818	2303	23	16	IB	RN	RT	2	2	2													

RIO GRANDE 115 METERS SOUTH AND 304 METERS WEST FROM THE INTERSECTION OF RANCHO VIEJO DRIVE/ZEBU COURT AND RIENDA DRIVE IN FATHER MCNABOE CITY PARK IN LAREDO	20650	2304	23	16	IB	LA	RT	12		12														ecoli and fecal
RIO GRANDE 12.8 MI DOWNSTREAM AMISTAD DAM NEAR GAGE 340 M UPSTREAM OF US 277 BRIDGE IN DEL RIO	13208	2304	23	16	IB	IB	RT	2	2	2	2													
RIO GRANDE 4.5 MI DOWNSTREAM OF DEL RIO AT MOODY RANCH	13560	2304	23	16	IB	IB	RT	4	4	4	4								1					frequency reduced FY12 to add another station in Eagle Pass (20997)
RIO GRANDE 50 YD UPSTREAM OF CONFLUENCE OF ZACATA CREEK AND RIO GRANDE	13200	2304	23	16	IB	LA	RT	12		12														site used to be reported as 13201 but site is still same - Azteca park

RIO GRANDE AT APACHE RANCH WEST OF INTERSECTION OF PRIVATE ROAD AND EASTERN AIRSTRIP NO BETWEEN LARADO AND EAGLE PASS	17596	2304	23	16	IB	IB	RT	4	4	4	4											
RIO GRANDE AT JUAREZ-LINCOLN INTERNATIONAL BRIDGE / BRIDGE #2 IN LAREDO	15814	2304	23	16	IB	LA	RT	12		12	12											E. coli and FC; flow from IBWC gage; field data
RIO GRANDE AT JUAREZ-LINCOLN INTERNATIONAL BRIDGE / BRIDGE #2 IN LAREDO	15814	2304	23	16	IB	RN	RT	4	4	4	4								1			
RIO GRANDE AT KICKAPOO CASINO BOAT RAMP SOUTH OF EAGLE PASS	20999	2304	23	16	IB	IB	RT	8	8	8	8								1			replaces 18795 and 18792
RIO GRANDE AT MAIN STREET BOAT RAMP APPROX 400 METERS UPSTREAM OF US 57/INTERNATIONAL BRIDGE IN EAGLE PASS	20997	2304	23	16	IB	IB	RT	4	4	4	4							4				new station FY12 to fill data gap in AU 2304_08

RIO GRANDE AT MASTERSON RD IN LAREDO 9.9KM DWNSTR INTL BRIDGE #1/WEST BRIDGE DWNSTR SOUTHSIDE WWTP AND UPSTREAM NUEVO LAREDO WWTP	15815	2304	23	16	IB	LA	RT	12		12													ecoli and fecal coliform, and field data
RIO GRANDE AT RIO BRAVO 0.5KM DWNSTR OF THE COMMUNITY OF EL CENIZO	15816	2304	23	16	IB	RN	RT	4	4	4													Reactivated for FY15
RIO GRANDE AT EL CENIZO PARK 220 METERS WEST OF INTERSECTION OF CADENA AND JIMENEZ	21542	2304	23	16	IB	RN	RT	4	4	4													Added FY15
RIO GRANDE AT THE COLOMBIA BRIDGE 2.7KM UPSTREAM OF THE DOLORES PUMP STATION 45.1KM UPSTREAM OF THE LAREDO WTP INTAKE	15839	2304	23	16	IB	LA	RT	12		12	12												E. coli and FC; flow from IBWC gage; field data
RIO GRANDE AT WEBB/ZAPATA COUNTY LINE	15817	2304	23	16	IB	RN	RT	12	12	12	12								1				
RIO GRANDE AT WORLD TRADE BRIDGE ON FM 3484	17410	2304	23	16	IB	RN	RT	4	4	4	4								1				

RIO GRANDE LAREDO WATER TREATMENT PLANT PUMP INTAKE	13202	2304	23	16	IB	LA	RT	12		12												E. coli and FC, and field
RIO GRANDE LAREDO WATER TREATMENT PLANT PUMP INTAKE	13202	2304	23	16	IB	RN	RT	4	4	4	4											
MANADAS CREEK AT FM 1472 NORTH OF LAREDO	13116	2304B	23	16	IB	LE	RT	4	4	4								4	1			Also collecting metals in water, lab-filtered not field filtered. therefore not submitted to SWQMIS but available on IBWC website.
RIO GRANDE 1.04 KILOMETERS EAST AND 367 METERS SOUTH FROM THE SOUTH END OF FOSTERS RANCH ROAD IN VAL VERDE COUNTY	20627	2305	23	16	IB	BB	RT	1														field data collected at least once a year by canoe

RIO GRANDE 1.35 KILOMETERS DOWNSTREAM FROM LANGTRY CREEK AND PUMP CANYON AND 870 METERS EAST AND 350 METERS SOUTH FROM THE INTERSECTION OF STATE PARK ROAD 25 AND TORRES AVENUE IN VAL VERDE COUNTY	20630	2305	23	16	IB	BB	RT	1															field data collected at least once a year by canoe
RIO GRANDE 3.03 KILOMETERS UPSTREAM OF RATTLESNAKE CANYON SOUTHWEST OF LANGTRY	20624	2305	23	16	IB	BB	RT	1															field data collected at least once a year by canoe
RIO GRANDE 1.3 KILOMETERS DOWNSTREAM OF BEAR CANYON AND APPROXIMATELY 9.3 KILOMETERS DOWNSTREAM OF COOK CREEK IN TERRELL COUNTY	20628	2306	23	7	IB	BB	RT	1															field data collected at least once a year by canoe

RIO GRANDE 1.895 KILOMETERS SOUTH AND 552 METERS WEST FROM THE INTERSECTION OF UNNAMED STREET AND FOSTER RANCH ROAD AND 10.1021 KILOMETERS SOUTH AND 4.37 KILOMETERS WEST FROM THE INTERSECTION OF US HIGHWAY 90 AND FOSTERS RANCH ROAD IN VAL VERDE COUNTY CAMS 759	13223	2306	23	16	IB	BB	RT	1															field data will be reported at least once in the year.
RIO GRANDE 449 METERS WEST AND 121 METERS SOUTH FROM THE INTERSECTION OF RANCH ROAD 170 AND RANCH ROAD 169 IN PRESIDIO COUNTY CAMS 758	13229	2306	23	6	IB	IB	RT	8	8	8	8					2			1				Metals - Total Mercury sampled FY12
RIO GRANDE 50 METERS UPSTREAM OF SILBER CANYON SOUTH OF SANDERSON IN BREWSTER COUNTY	20625	2306	23	6	IB	BB	RT	1															field data collected at least once a year by canoe

RIO GRANDE 570 METERS NORTH AND 605 METERS WEST FROM THE SOUTH END OF SHAFTER CROSSING ROAD AND 1.90 KILOMETERS DOWNSTREAM OF BRITTON CANYON IN TERRELL COUNTY	20629	2306	23	7	IB	BB	RT	1															field data collected at least once a year by canoe
RIO GRANDE 7.5 KILOMETERS UPSTREAM FROM THE CONFLUENCE WITH SAN FRANCISCO CREEK IN BREWSTER COUNTY	20632	2306	23	6	IB	BB	RT	1															field data collected at least once a year by canoe
RIO GRANDE AT BOAT RAMP AT RIO GRANDE VILLAGE IN BIG BEND NATIONAL PARK	16730	2306	23	6	IB	BB	RT	8	8	8	8					2							Metals - Total Mercury sampled FY12
RIO GRANDE AT BOQUILLAS CROSSING IN BIG BEND NATIONAL PARK	20619	2306	23	6	IB	BB	RT	1															field data collected at least once a year by canoe
RIO GRANDE AT FM 2627/GERSTACKER BRIDGE DOWNSTREAM BIG BEND	13225	2306	23	6	IB	BB	RT	1															field data will be reported at least once in the year

RIO GRANDE AT HORSE CANYON 2.4 MI DOWNSTREAM OF GERSTACKER BRIDGE	13224	2306	23	6	IB	BB	RT	1														field data will be reported at least once in the year
RIO GRANDE AT LAJITAS RESORT/FM 170 BOAT RAMP 240 M UPSTREAM OF BLACK HILLS CREEK CONFLUENCE NEAR LAJITAS	18441	2306	23	6	IB	P W	RT	4	4	4						2						Metals - Total Mercury sampled FY12
RIO GRANDE AT PRESIDIO RAILROAD BRIDGE 3.25KM DOWNSTREAM OF US67 SOUTH OF PRESIDIO	17000	2306	23	6	IB	IB	RT	8		8	8											
RIO GRANDE AT PRESIDIO/OJINAGA TOLL BRIDGE/INTERNATIONAL 0.75KM DOWNSTREAM OF US67 IN PRESIDIO	17001	2306	23	6	IB	IB	RT	8		8	8											
RIO GRANDE AT STILLWELL CROSSING	13226	2306	23	6	IB	BB	RT	1														field data collected by canoe at least once a year.

RIO GRANDE AT TAYLORS FARM SOUTHWEST OF SANDERSON	20623	2306	23	6	IB	BB	RT	1															field data collected at least once a year by canoe
RIO GRANDE AT THE CONFLUENCE WITH INDIAN CREEK IN TERRELL COUNTY	20631	2306	23	7	IB	BB	RT	1															field data collected at least once a year by canoe
RIO GRANDE AT THE MOUTH OF SANTA ELENA CANYON	13228	2306	23	6	IB	BB	RT	8	8	8	8					2							Metals - Total Mercury sampled FY12
RIO GRANDE DOWNSTREAM OF RODEO RAPIDS SOUTH OF SANDERSON IN BREWSTER COUNTY	20626	2306	23	6	IB	BB	RT	1															field data collected at least once a year by canoe
RIO GRANDE IMMEDIATELY DOWNSTREAM FROM MOUTH OF LOZIER CANYON 44 KM SE OF DRYDEN	13722	2306	23	7	IB	BB	RT	1															field data collected at least once a year by canoe

RIO GRANDE RIVER AT COLORADO CANYON APPROX 30KM SE OF REDFORD ON RR170 IN PRESIDIO COUNTY	16862	2306	23	6	IB	P W	RT	4	4	4						2							Metals - Total Mercury sampled FY12; sampling frequency reduced to quarterly
RIO GRANDE 3.38 KILOMETERS UPSTREAM FROM THE CONFLUENCE WITH THE RIO CONCHOS 6.72 KILOMETERS WEST AND 2.445 KILOMETERS NORTH FROM THE INTERSECTION OF RANCH ROAD 170 AND RODRIQUEZ ROAD IN PRESIDIO COUNTY CAMS 757	13230	2307	23	6	IB	IB	RT	8	8	8	8					2							Metals - Total Mercury sampled FY12
RIO GRANDE AT ALAMO CONTROL STRUCTURE 9.7KM UPSTREAM OF FT HANCOCK PORT OF ENTRY	15795	2307	23	6	IB	IB	RT	4	4	4													
RIO GRANDE AT GUADALUPE POINT OF ENTRY BRIDGE AT FM 1109 WEST OF TORNILLO	15704	2307	23	6	IB	UE	RT	4	4	4	4					2			1				Metals - Total Mercury collected FY12

RIO GRANDE 1.3 KM DOWNSTREAM FROM HASKELL ST WWTP OUTFALL	15528	2308	23	6	IB	IB	RT	12	12	12	12												partial conventional analysis
RIO GRANDE 2.4 KM UPSTREAM FROM HASKELL ST WWTP OUTFALL SOUTH OF BOWIE HIGH SCHOOL FOOTBALL STADIUM IN EL PASO	15529	2308	23	6	IB	IB	RT	12	12	12	12												partial conventional analysis
RIO GRANDE AT RIVERSIDE CANAL 1.8 KM DOWNSTREAM OF ZARAGOSA INTERNATIONAL BRIDGE	14465	2308	23	16	IB	IB	RT	12	12	12	12												partial conventional analysis
PECOS RIVER 0.1 KM UPSTREAM OF THE CONFLUENCE WITH INDEPENDENCE CREEK CHANDLER RANCH	13248	2310	23	7	IB	MC	RT	6	3		6												Collecting conv, field, flow 3x/yr; field and flow only 3 additional times/yr
PECOS RIVER APPROXIMATELY 0.5 MILES DOWNSTREAM FROM THE CONFLUENCE WITH INDEPENDENCE CREEK	14163	2310	23	7	IB	MC	RT	6	3		6												Collecting conv, flow, field 3x/yr; field and flow only 3 additional times/yr

KOKERNOT SPRINGS 105 METERS SOUTH 20 METERS EAST FROM THE INTERSECTION OF ALPINE CREEK AND HENDRYX DRIVE/HARRISON STREET/SH 223 AND 40 METERS EAST OF THE KOKERNOT LODGE ON SUL ROSS UNIVERSITY CAMPUS IN ALPINE	20558	2311	23	6	IB	SL	RT	4	4	4							2		2				
RIO GRANDE 40M SOUTH OF VINTON BRIDGE APPROXIMATELY 4 KM S OF ANTHONY	13275	2314	23	6	IB	IB	RT	4	4	4						2			1				in support of Paso del Norte Watershed Councils 319h grant and for stakeholder concerns for bacteria. Total Mercury collected twice a year.

RIO GRANDE AT ANAPRA BRIDGE ON SUNLAND PARK DRIVE 4.2 KM UPSTREAM OF AMERICAN DAM IN NEW MEXICO	17040	2314	23	6	IB	EP	RT	4	4	4						2							total mercury collected twice a year
RIO GRANDE AT BORDERLAND RD NW OF EL PASO	13274	2314	23	6	IB	IB	RT	4		4						2							added for FY12 in response to public concerns about recreation . Metals in water is Total Mercury.
RIO GRANDE AT COURCHESNE BRIDGE 1.7 MI UPSTREAM FROM AMERICAN DAM CAMS 718	13272	2314	23	6	IB	IB	RT	12	12	12	12												partial conventio nal analysis. Additional non-accredited data available with IBWC for metals, organics, and other conventio nals.

RIO GRANDE IMMED UPSTREAM OF THE CONFL WITH ANTHONY DRAIN WEST OF LA TUNA PRISON NEAR THE STATE LINE	13276	2314	23	6	IB	IB	RT	4	4	4						2							In support of Paso del Norte Watershed Councils 319h grant and for stakeholder recreation concerns. Total Mercury collected twice a year
RIO GRANDE RIVER AT AMERICAN EAGLE BRICK FACTORY BRIDGE ABANDONED RR 0.1 MI DOWNSTREAM FROM SOUTHERN PACIFIC RR AT SMELTERTOWN	15089	2314	23	6	IB	IB	RT	3	3	3						2							total mercury twice a year
RIO GRANDE RIVER AT AMERICAN EAGLE BRICK FACTORY BRIDGE ABANDONED RR 0.1 MI DOWNSTREAM FROM SOUTHERN PACIFIC RR AT SMELTERTOWN	15089	2314	23	6	IB	UE	RT	2		2													

Critical vs. non-critical measurements

All data collected under this QAPP and entered into SWQMIS are considered critical.

Appendix C: Station Location Maps

Station Location Maps

Maps of stations monitored by the USIBWC are provided below. The maps were generated by the USIBWC. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact Lisa Ramirez at 915-832-4779.

Figure 2, A5.1, Map of the Rio Grande Basin

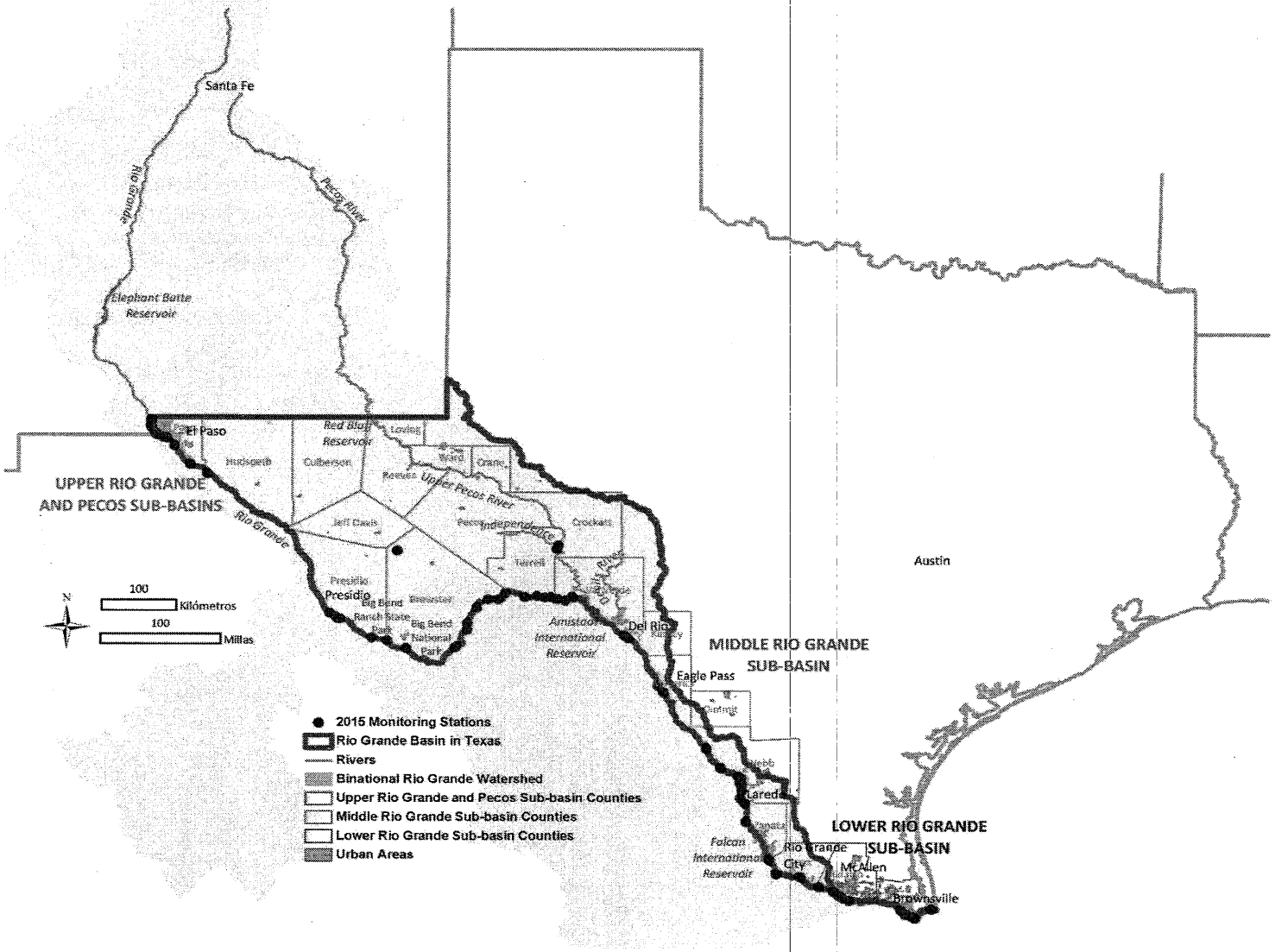


Figure 4: Map of the Upper Rio Grande Basin, Northern Half

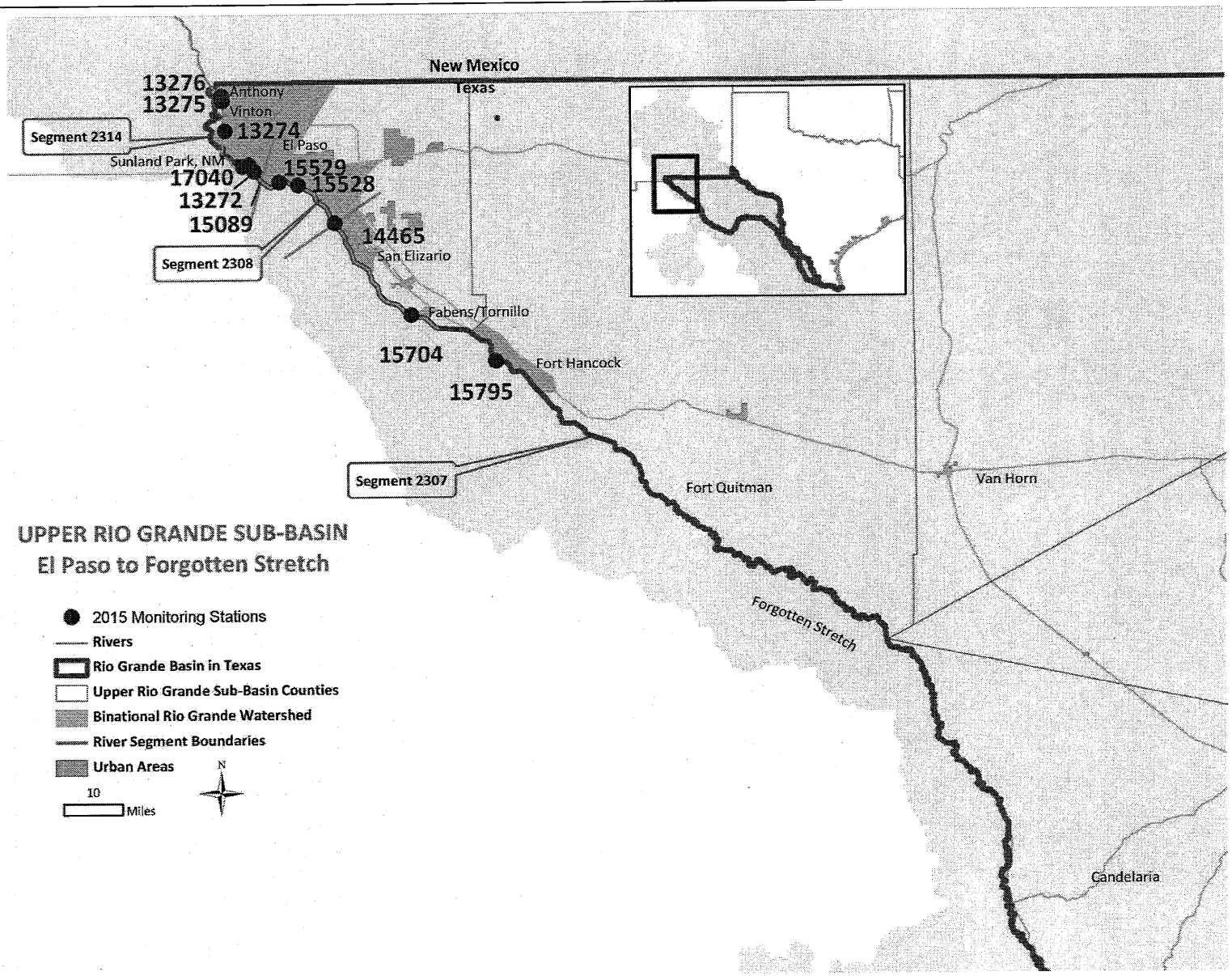


Figure 5: Map of the Upper Rio Grande Basin, Southern Half

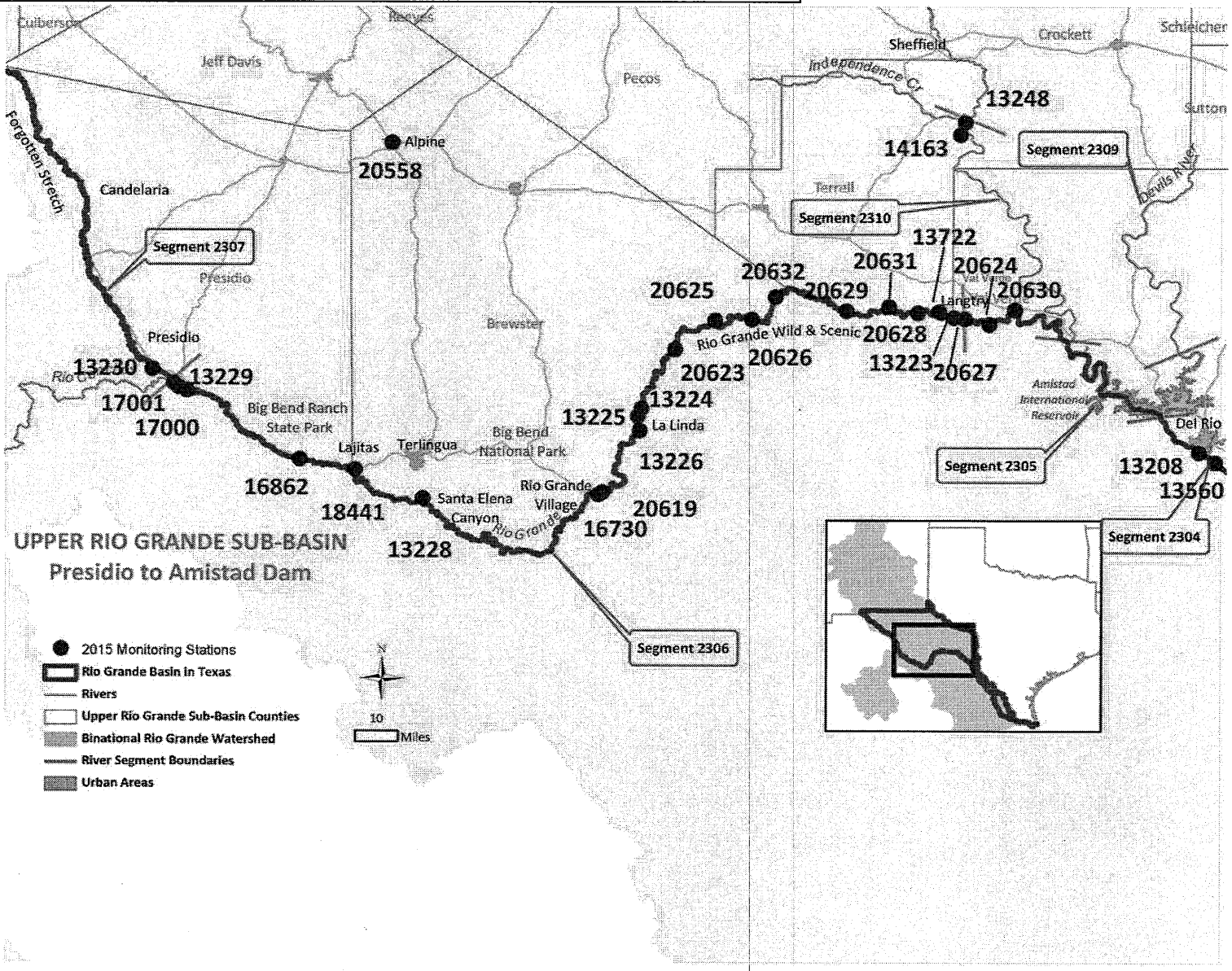


Figure 6: Map of the Middle Rio Grande Basin

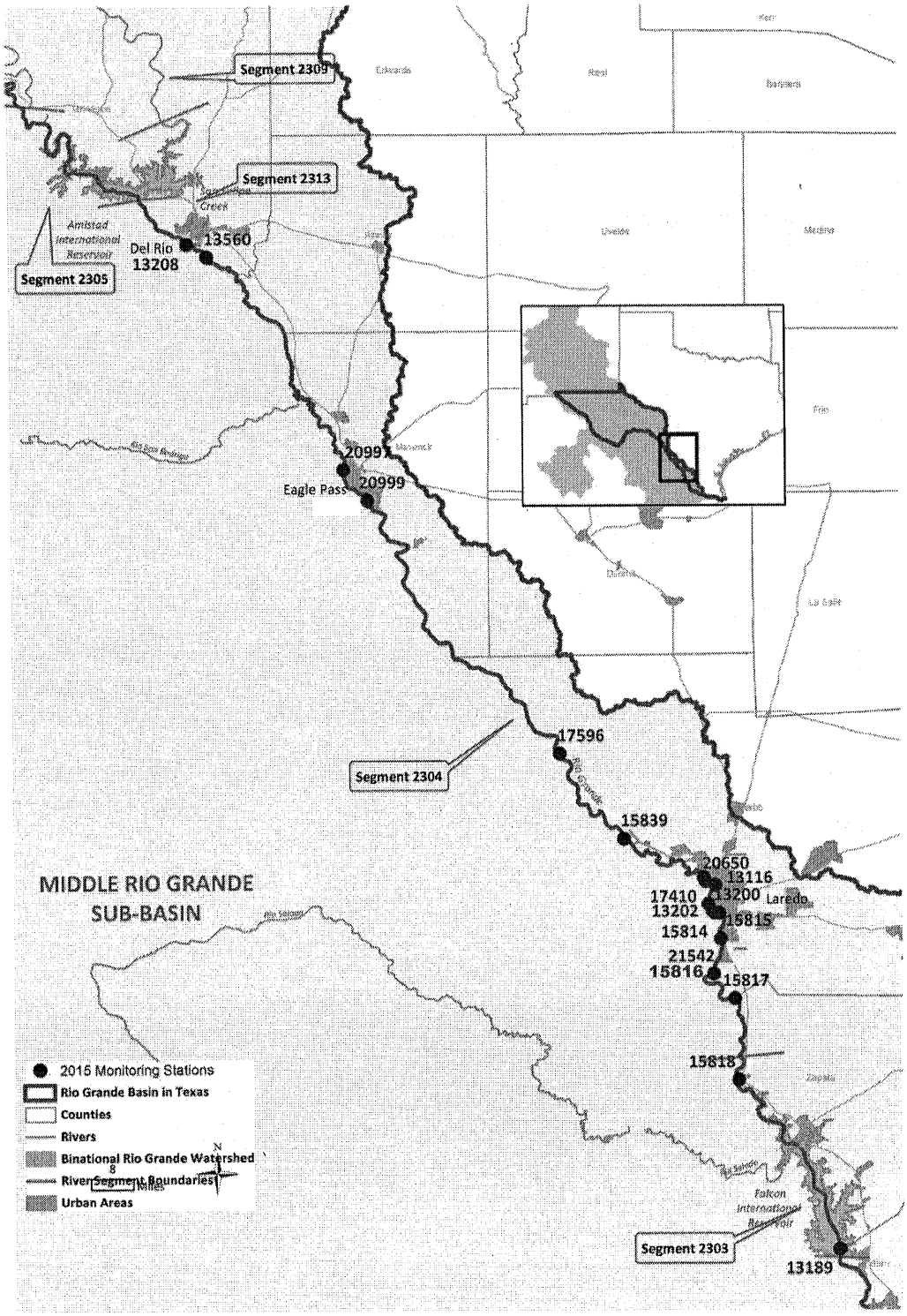
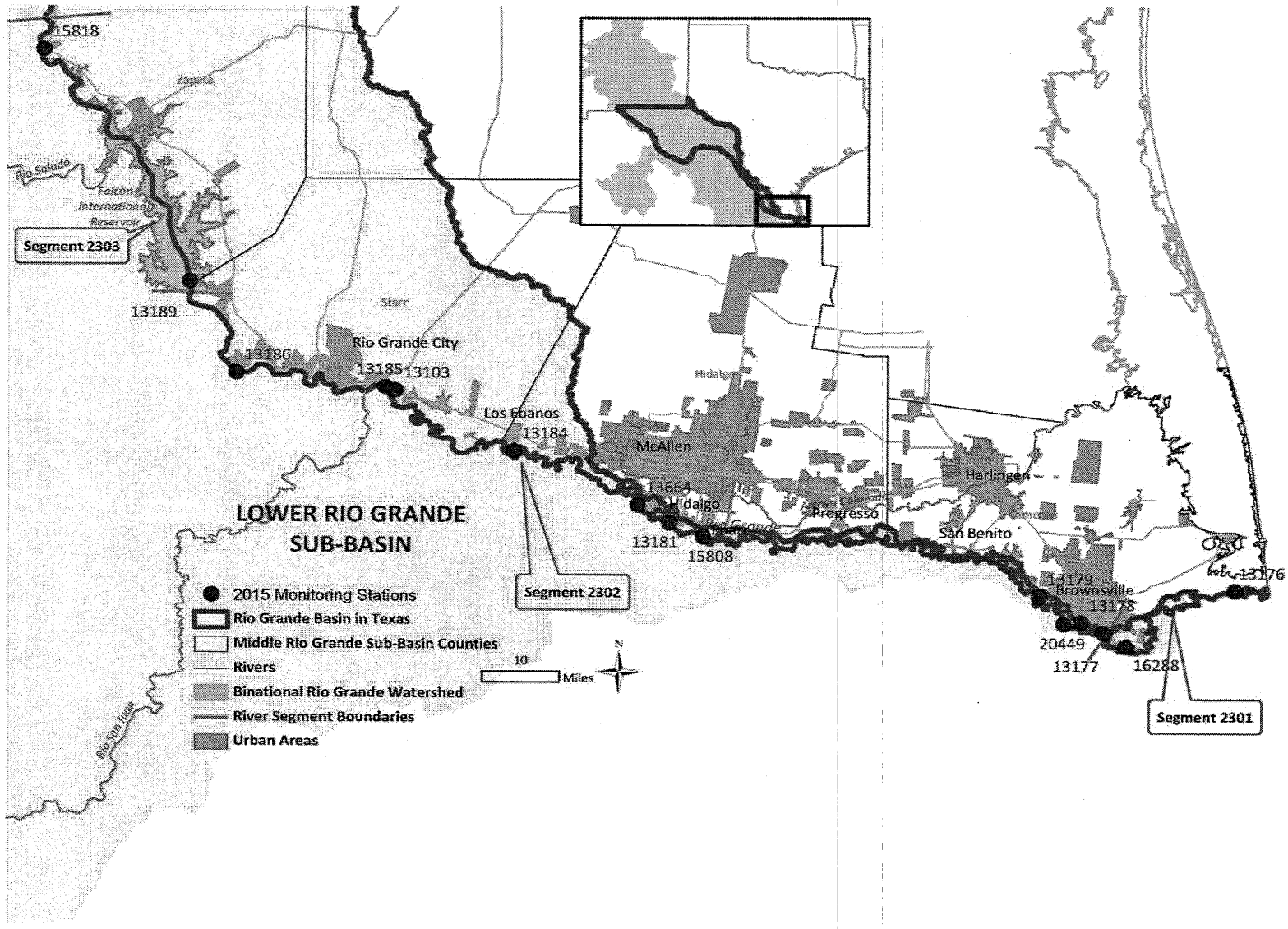


Figure 7: Map of the Lower Rio Grande Basin



TO: (name)
(organization)

RE: FY2014-15 USIBWC CRP QAPP

This letter will summarize the understanding between the United States Section, International Boundary and Water Commission (USIBWC) Texas Clean Rivers Program (CRP) and the Partner on the surface water quality-monitoring program for the Rio Grande. Enclosed is a copy of the FY14-15 Rio Grande Basin Monitoring Program (RGBMP) Quality Assurance Project Plan (QAPP), Amendment #2, which outlines the procedures and quality assurance requirements of the RGBMP. ***Please indicate your acceptance and adherence to the RGBMP QAPP by signing and returning the terms of agreement/endorsement (Attachment 1) at the bottom of this letter to the USIBWC.***

The following lists the responsibilities of Partner and USIBWC to fulfill this understanding:

Partner

1. Partner will collect water quality samples during the period of September 1, 2014 through August 31, 2015, as listed in the Coordinated Monitoring Schedule.

2. Partner will perform the field data collection to include instantaneous flow and submit the results to the USIBWC CRP.

3. For each water sample designated for conventional analysis, including duplicates, Partner will complete and attach to each shipment a Chain of Custody Form and submit to the USIBWC contract laboratory for analysis. Partner will submit the Field Data Reporting Forms to the USIBWC.

4. Partner will follow the procedures for sampling as described in the Surface Water Quality Procedures Manual, TCEQ, 2012 or subsequent editions, the RGBMP QAPP and the USIBWC CRP SOP for YSI 556 Calibration and Maintenance.

5. Partner will notify the USIBWC CRP staff of any problems with the monitoring effort and will work with staff to resolve problems as they occur.

6. If possible, Partner should participate in the annual coordinated monitoring meeting to be scheduled between March 15 and April 30, 2015 in order to provide input on the monitoring schedule and local water quality issues.

7. Partner will participate in a monitoring systems audit every two years to ensure proper monitoring procedures.

US International Boundary and Water Commission

1. Staff from the USIBWC CRP will meet as needed with Partner to assess the effectiveness of this monitoring effort and will work with Partner to resolve problems as they occur. USIBWC CRP will perform a monitoring systems audit of Partner once every two years.

2. The USIBWC will incur laboratory costs for the samples and field splits collected by Partner.

3. The USIBWC will also incur the shipping costs for the samples being sent to the contract laboratory. Please contact the CRP staff to obtain shipping account information.

4. On an as-needed basis, staff from the USIBWC CRP will provide any training and supplies necessary to accomplish the objectives of the CRP monitoring program.

The USIBWC appreciates the willingness of Partner to participate in this cooperative effort to collect water quality information in the Rio Grande Basin. If you have any questions please contact me at the 915-832-4770.

Sincerely,

Leslie Grijalva
Quality Assurance Officer
USIBWC Clean Rivers Program

Terms of Agreement

The USIBWC Clean Rivers Program Sampling Partners agree to the long- term collection or analysis of water quality samples and environmental data at designated monitoring stations on a prescribed schedule. The types of samples and data collected by each partner may vary in time, commitment, and geography. A Sampling Partner's signature on the Section A1 Approval Page of the Rio Grande Basin Monitoring Program Quality Assurance Project Plan or of this letter indicates acknowledgment that the Sampling Partner does not expect to be paid for his/her work, compensated for expenses associated with said volunteer work, and will abide by the Texas Commission on Environmental Quality procedures.

In addition, USIBWC non-federal entity Sampling Partners release, waive, discharge and covenant not to sue the USIBWC, including its officers and employees, with respect to any and all liability, claims or causes of action whatsoever related to any damages or injury that they may sustain, whether caused by the negligence of the USIBWC or otherwise, while performing tasks under this QAPP. USIBWC Sampling Partners are aware and fully responsible for guarding against any risks involved with such activity, and choose to participate voluntarily and at their own risk. They voluntarily assume full responsibility for any property damage or personal injury that they may sustain while participating in, or related to the above activity.

ENDORSEMENT

I acknowledge receipt of the "RIO GRANDE BASIN MONITORING PROGRAM QUALITY ASSURANCE PROJECT PLAN, FY2014-2015, AMENDMENT #2". I understand the document(s) describe quality assurance, quality control, data management and reporting, and other technical activities that must be implemented to ensure the results of work performed will satisfy stated performance criteria. My signature on this document signifies that I have read and approved the document contents pertaining to my program. Furthermore, I will ensure that all staff members participating in Clean Rivers Program activities will be required to familiarize themselves with the document contents and adhere to them as well.

_____

Signature Date

_____

Sampling Partner

Adherence letters may vary as needed to address specific partners. Copies of the signed forms should be sent by the USIBWC to the TCEQ CRP Project Manager within 60 days of TCEQ approval of the QAPP.