

## United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Texas Water Science Center
1505 Ferguson Lane
Austin, TX 78754

June 19, 2015

Ronald Olson City Manager City of Corpus Christi 1201 Leopard Street Corpus Christi, TX 78401

Dear Mr. Olson.

Enclosed are two signed originals of our standard joint-funding agreement for the project(s) Texas Water Science Center Water Resources Investigations, during the period October 1, 2015 through September 30, 2016 in the amount of \$157,060 cash from your agency. U.S. Geological Survey contributions for this agreement are \$28,950 for a combined total of \$186,010. Please sign and return one fully-executed original to Karen Beers at the address above.

Federal law requires that we have a signed agreement before we start or continue work. Please return the signed agreement by **September 1, 2015**. If, for any reason, the agreement cannot be signed and returned by the date shown above, please contact Meghan Roussel by phone number (512) 927-3503 or email mroussel@usgs.gov to make alternative arrangements.

This is a fixed cost agreement to be billed quarterly via Down Payment Request (automated Form DI-1040). Please allow 30-days from the end of the billing period for issuance of the bill. If you experience any problems with your invoice(s), please contact Kandis Becher at phone number (817) 263-9545 Ext 225 or email at kkbecher@usgs.gov.

The results of all work performed under this agreement will be available for publication by the U.S. Geological Survey. We look forward to continuing this and future cooperative efforts in these mutually beneficial water resources studies.

Sincerely,

Meghan Roussel Acting Director

Enc.: 16CMTX029000000(2)

Form 9-1366 (April 2015)

## U.S. Department of the Interior U.S. Geological Survey Joint Funding Agreement FOR

**Water Resource Investigations** 

Agreement#: 16CMTX029000000 Customer#: 6000000486

Project #: SJ009ME TIN #: 74-6000574

USGS DUNS #: 128821266

Fixed Cost Agreement YES[X]NO[]

THIS AGREEMENT is entered into as of the October 1, 2015, by the U.S. GEOLOGICAL SURVEY, Texas Water Science Center, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the City of Corpus Christi party of the second part.

- 1. The parties hereto agree that subject to the availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation Water Resource Investigations (per attachment), herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50, and 43 USC 50b.
- 2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) include In-Kind-Services in the amount of \$0.00

(a) \$28.950

by the party of the first part during the period

October 1, 2015 to September 30, 2016

(b) \$157,060

by the party of the second part during the period

October 1, 2015 to September 30, 2016

(c) Contributions are provided by the party of the first part through other USGS regional or national programs, in the amount of :

Description of the USGS regional/national program:

- (d) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties
- (e) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.
- The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.
- 4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.
- 5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.
- 6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.
- 7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.
- 8. The maps, records or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program and, if already published by the party of the first part shall, upon request; be furnished by the party of the first part; at cost, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records or reports published by either party shall contain a statement of the cooperative relations between the parties.
- 9. USGS will issue billings utilizing Department of the Interior Bill for Collection (form DI-1040). Billing documents are to be rendered quarterly. Payments of bills are due within 60 days after the billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30 day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717; Comptroller General File B-212222, August 23, 1983.).

Form 9-1366 (April 2015)

U.S. Department of the Interior U.S. Geological Survey Joint Funding Agreement FOR

Water Resource Investigations

Agreement#: 16CMTX029000000

Customer#: 6000000486 Project #: SJ009ME TIN #: 74-6000574

USGS DUNS #: 128821266

ISGS	Technical	Point of	Contact

**Customer Technical Point of Contact** 

Name: Meghan Roussel Supervisory Hydrologist Address:

1505 Ferguson Lane

Austin, TX 78754

Telephone: (512) 927-3503 Fax: (512) 927-3590 Email:

mroussel@usgs.gov

Name: Ronald Olson City Manager

> 1201 Leopard Street Corpus Christi, TX 78401

Telephone: (361) 826-3220

Fax:

Address:

Email: RonO@cctexas.com

## **USGS Billing Point of Contact**

Kandis Becher Name:

**Budget Analyst** 

2775 Altamesa Blvd. Address:

Name:

Fort Worth, TX 76133

Telephone: (817) 263-9545 Ext 225

Fax: (817) 361-0459 Email: kkbecher@usgs.gov **Customer Billing Point of Contact** 

M. P. Sudhakaran Water Resources Mgmt Advisor

Address: 2726 Holly Road

Corpus Christi, TX 78415

(361) 826-3667 Telephone: Fax: (361) 826-4420 Email: mp@cctexas.com

U.S. Geological Survey **United States** Department of Interior

City of Corpus Christi

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Date: Jun 19, 2015

Name: Meghan Roussel **Title: Acting Director** 

Signature	•

Ву	Date:	
Name:		
Γitle:		
Зу	Date:	
Name:		
Γitle:		
Зу	Date:	

Name:

Title:

## City of Corpus Christi 16CMTX029000000

1011   SURFACE WATER	STATION NUMBER	DESCRIPTION	USGS FUNDS	COOP	TOTAL
Full Range Streamflow Station		CE WATER	10100	10103	FUNDS
Full Range Streamflow Station	08194000	Nueces River at Cotulla TX			
08194500         Nueces River near Tilden, TX Full Range Streamflow Station         \$4,580.00         \$10,870.00         \$15,450           08205500         Frio River near Derby, TX Full Range Streamflow Station         \$4,580.00         \$10,870.00         \$15,450           08206600         Frio River at Tilden, TX Full Range Streamflow Station         \$4,580.00         \$10,870.00         \$15,450           08206900         Choke Canyon Reservoir nr Three Rivers, TX Reservoir Contents         \$2,465.00         \$5,215.00         \$7,380           08206910         Choke Canyon Res. outflow nr Three Rivers, TX Q below Base and Continous Stages         \$2,850.00         \$7,350.00         \$10,200           08210000         Nueces River near Three Rivers, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)         \$0.00<	00104000		64 500 00	040.070.00	
Full Range Streamflow Station   \$4,580.00 \$10,870.00 \$15,450.00		ruli Range Streamliow Station	\$4,580.00	\$10,870.00	\$15,450
08205500         Frio River near Derby, TX Full Range Streamflow Station         \$4,580.00         \$10,870.00         \$15,450           08206600         Frio River at Tilden, TX Full Range Streamflow Station         \$4,580.00         \$10,870.00         \$15,450           08206900         Choke Canyon Reservoir nr Three Rivers, TX Reservoir Contents         \$2,465.00         \$5,215.00         \$7,680           08206910         Choke Canyon Res. outflow nr Three Rivers, TX Q below Base and Continous Stages         \$2,850.00         \$7,350.00         \$10,200           08210000         Nueces River near Three Rivers, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)         \$0.00	08194500	Nueces River near Tilden, TX			
Full Range Streamflow Station		Full Range Streamflow Station	\$4,580.00	\$10,870.00	\$15,450
Full Range Streamflow Station	08205500	Frio River near Derby, TX			
Full Range Streamflow Station \$4,580.00 \$10,870.00 \$15,450.00  Choke Canyon Reservoir nr Three Rivers, TX Reservoir Contents \$2,465.00 \$5,215.00 \$7,680.00  Reservoir Contents \$2,465.00 \$5,215.00 \$7,680.00  Reservoir Contents \$2,850.00 \$7,350.00 \$10,200.00  Reservoir Continus Stages \$2,850.00 \$7,350.00 \$10,200.00  Reservoir Continus Stages \$2,850.00 \$7,350.00 \$10,200.00  Reservoir Contents \$2,465.00 \$5,215.00 \$7,680.00  Reservoir Contents \$2,465.00 \$5,215.00  Reservoir Contents \$2,465.00 \$5,2			\$4,580.00	\$10,870.00	\$15,450
Full Range Streamflow Station \$4,580.00 \$10,870.00 \$15,450.00  Choke Canyon Reservoir nr Three Rivers, TX Reservoir Contents \$2,465.00 \$5,215.00 \$7,680.00  Reservoir Contents \$2,465.00 \$5,215.00 \$7,680.00  Reservoir Contents \$2,850.00 \$7,350.00 \$10,200.00  Reservoir Continus Stages \$2,850.00 \$7,350.00 \$10,200.00  Reservoir Continus Stages \$2,850.00 \$7,350.00 \$10,200.00  Reservoir Contents \$2,465.00 \$5,215.00 \$7,680.00  Reservoir Contents \$2,465.00 \$5,215.00  Reservoir Contents \$2,465.00 \$5,2	08206600	Frio River at Tilden TX			
08206900         Choke Canyon Reservoir nr Three Rivers, TX Reservoir Contents         \$2,465.00         \$5,215.00         \$7,680           08206910         Choke Canyon Res. outflow nr Three Rivers, TX Q below Base and Continous Stages         \$2,850.00         \$7,350.00         \$10,200           08210000         Nueces River near Three Rivers, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)         \$0.00         \$0.00         \$0.00         \$6,215.00         \$7,680           08211000         Lake Corpus Christi near Mathis, TX Reservoir Contents         \$2,465.00         \$5,215.00         \$7,680           08211000         Nueces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)         \$0.00	0020000		£4 500 00	640.070.00	
Reservoir Contents		Tuli Range Streamliow Station	\$4,580.00	\$10,870.00	\$15,450
O8206910 Choke Canyon Res. outflow nr Three Rivers, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  O8210000 Nueces River near Three Rivers, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  O8210500 Lake Corpus Christi near Mathis, TX Reservoir Contents \$2,465.00 \$5,215.00 \$7,680  O8211000 Nueces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  O8211200 Nueces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  O8211500 Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  O8211500 Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,	08206900	Choke Canyon Reservoir nr Three Rivers, TX			
Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  Nucces River near Three Rivers, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08210500 Lake Corpus Christi near Mathis, TX Reservoir Contents \$2,465.00 \$5,215.00 \$7,680  08211000 Nucces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211200 Nucces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  08211500 Nucces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211503 Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00 \$13,050.00		Reservoir Contents	\$2,465.00	\$5,215.00	\$7,680
Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  Nucces River near Three Rivers, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08210500 Lake Corpus Christi near Mathis, TX Reservoir Contents \$2,465.00 \$5,215.00 \$7,680  08211000 Nucces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211200 Nucces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  08211500 Nucces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211503 Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00 \$13,050.00	08206910	Choke Canvon Res. outflow nr Three Rivers. TX			
Nueces River near Three Rivers, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08210500 Lake Corpus Christi near Mathis, TX Reservoir Contents \$2,465.00 \$5,215.00 \$7,680  08211000 Nueces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211200 Nueces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  08211500 Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211503 Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00			\$2 850 00	\$7.350.00	610 200
Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  1. Lake Corpus Christi near Mathis, TX Reservoir Contents  1. S2,465.00  1. S		a below base and commons stages	\$2,850.00	\$7,350.00	\$10,200
Funded by the National Stream Flow Information Program (NSIP)  Lake Corpus Christi near Mathis, TX Reservoir Contents \$2.465.00 \$5,215.00 \$7,680  Nueces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Nueces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00	08210000	Nueces River near Three Rivers, TX			
Lake Corpus Christi near Mathis, TX Reservoir Contents \$2,465.00 \$5,215.00 \$7,680  08211000 Nueces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211200 Nueces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  08211500 Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211503 Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00		Full Range Streamflow Station	\$0.00	\$0.00	\$0
Reservoir Contents \$2,465.00 \$5,215.00 \$7,680  08211000 Nueces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211200 Nueces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  08211500 Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211503 Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00		Funded by the National Stream Flow Information Program (NSIP)			
Reservoir Contents \$2,465.00 \$5,215.00 \$7,680  08211000 Nueces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211200 Nueces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  08211500 Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  08211503 Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00	08210500	Lake Corpus Christi near Mathis, TX			
Nueces River near Mathis, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Nueces River above Bluntzer, TX Q below Base and Continous Stages  Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage  \$0.00 \$0			\$2 465 00	\$5 215 00	\$7.690
Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Nueces River above Bluntzer, TX Q below Base and Continous Stages  Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage  \$0.00 \$			<b>42</b> ,400.00	ψ5,215.00	\$7,000
Funded by the National Stream Flow Information Program (NSIP)  Nueces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00	08211000				
Nueces River above Bluntzer, TX Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00			\$0.00	\$0.00	\$0
Q below Base and Continous Stages \$2,850.00 \$7,350.00 \$10,200  Nueces River at Calallen, TX Full Range Streamflow Station \$0.00 \$0.00 \$0.00  Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00		Funded by the National Stream Flow Information Program (NSIP)			
Nueces River at Calallen, TX Full Range Streamflow Station Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX Q below Base with AVM and Continuous Stage  \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	08211200	Nueces River above Bluntzer, TX			
Full Range Streamflow Station  Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX  Q below Base with AVM and Continuous Stage  \$0.00 \$0.00 \$0.00  \$0.00 \$0.00 \$0.00  \$0.00 \$0.00 \$0.00  \$0.00 \$0.00 \$0.00		Q below Base and Continous Stages	\$2,850.00	\$7,350.00	\$10,200
Full Range Streamflow Station  Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX  Q below Base with AVM and Continuous Stage  \$0.00 \$0.00 \$0.00  \$0.00 \$0.00 \$0.00  \$0.00 \$0.00 \$0.00  \$0.00 \$0.00 \$0.00	08211500	Nueces River at Calallen TX			
Funded by the National Stream Flow Information Program (NSIP)  Rincon Bayou Channel near Calallen, TX  Q below Base with AVM and Continuous Stage  \$0.00 \$13,050.00 \$13,050.00			90.00	00.00	60
Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00			\$0.00	φυ.υυ	\$0
Q below Base with AVM and Continuous Stage \$0.00 \$13,050.00 \$13,050.00	08211503	Rincon Rayou Channel near Calallan, TV			
CURRACE WATER TOTAL	302 1 1000		20.55	040 0== ==	
SURFACE WATER TOTAL: \$28,950 \$81,660 \$110,610		a below base with Avivi and Continuous Stage	\$0.00	\$13,050.00	\$13,050
		SURFACE WATER TOTAL:	\$28,950	\$81,660	\$110,610

STATION NUMBER	DESCRIPTION	USGS FUNDS	COOP FUNDS	TOTAL FUNDS
003:WATER	QUALITY			
08211200	Nueces Rv at Bluntzer, Tx			
	Temp., Cond., pH, Diss. Oxy., Turbidity Monitor (5-Parm)	\$0	\$43,000	\$43,000
		\$0	\$43,000	\$43,000
08211503	Rincon Bayou Channel near Calallen, TX			
	Temp. and Cond. Monitor (2-Parm)	\$0	\$16,200	\$16,200
		\$0	\$16,200	\$16,200
821150305	Rincon Bayou Channel near Odem, TX			
	Temp. and Cond. Monitor (2-Parm)	\$0	\$16,200	\$16,200
		\$0	\$16,200	\$16,200
	WATER-QUALITY TOTAL:	\$0	\$75,400	\$75,400
	PROJECT		12222	
	PROJECT	USGS FUNDS	COOP	TOTAL
	SURFACE WATER: 001	\$28,950	\$81,660	\$110,610
	WATER QUALITY: 003	\$0	\$75,400	\$75,400
	TOTAL	\$28,950	\$157,060	\$186,010

USGS Contributions	
USGS Cooperative Water Program Funding	\$28,950
National Stream Information Program Contribution (3 gages)	\$46,350
Total USGS Contribution	\$75,300