

SUPPLEMENTAL WATERSHED PLAN AGREEMENT

between the

El Paso-Hudspeth Soil and Water Conservation District
Local Organization

Hudspeth County Commissioners Court
Local Organization

Hudspeth County Underground Water Conservation District No. 1
Local Organization

City of Dell City
Local Organization

State of Texas

(hereinafter referred to as the Sponsoring Local Organization)

and the

Soil Conservation Service
United States Department of Agriculture
(hereinafter referred to as the Service)

Whereas, the Watershed Plan Agreement for Hitson, C&L and Washburn Draws watershed, State of Texas, executed by the sponsoring local organization named herein and the Service became effective on the 15th day of April 1974; and

Whereas, in order to carry out the Watershed Plan for said watershed, it has become necessary to modify said Watershed Plan Agreement; and

Whereas, it has become necessary to modify the Watershed Plan and Agreement to delete irrigation storage from structure Nos. 1 and 2;

Now, therefore, the sponsoring local organization and the Service hereby agree upon the following modifications of the terms, conditions and stipulations of said Watershed Plan Agreement:

1. Paragraph number 4 is modified to read as follows:

The percentages of construction costs of structural measures to be paid by the sponsoring local organization and by the Service are as follows:

<u>Works of Improvement</u>	<u>Sponsoring Local Organization</u> (percent)	<u>Service</u> (percent)	<u>Estimated Construction Cost</u> (dollars)
3 Floodwater Retarding Structures	0	100	3,050,700
Diversion	0	100	162,640

2. Paragraph number 5 is modified to read as follows:

The percentage of the engineering cost to be borne by the sponsoring local organization and the Service are as follows:

<u>Works of Improvement</u>	<u>Sponsoring Local Organization</u> (percent)	<u>Service</u> (percent)	<u>Estimated Engineering Costs</u> (dollars)
3 Floodwater Retarding Structures	0	100	162,300
Diversion	0	100	12,300

3. Tables 1, 2 and 3 referred to in the Watershed Plan are modified to conform with Tables 1, 2 and 3 dated January 1979, attached to this agreement.

The sponsoring local organization and the Service further agree to all other terms, conditions and stipulations of said Watershed Plan Agreement not modified herein.

El Paso-Hudspeth Soil and Water
Conservation District

By R. Y. Adams

Local Organization

Title Chairman

6326 Gateway East El Paso Texas
Address 79905 Zip Code

Date 2-13-79

The signing of this agreement was authorized by a resolution of the governing body of the El Paso-Hudspeth Soil and Water Conservation District adopted at a meeting held on 2-13-79.

Gene Stecher
Secretary, Local Organization

6326 Gateway East El Paso, TX 79905
Address Zip Code

2-13-79
Date

Hudspeth County Commissioners Court
Local Organization

By Clayton S. Spahr

P.O. Box 68 Sierra Blanca, TX.
Address 79851 Zip Code

Title County Judge

Date 2-12-79

The signing of this agreement was authorized by a resolution of the governing body of the Hudspeth County Commissioners Court adopted at a meeting held on February 12, 1979.

Patricia Bramblett, County Clerk
Secretary, Local Organization

P.O. Drawer A - Sierra Blanca
Address Jwan 79851 Zip Code

Feb. 12, 1979
Date

Hudspeth County Underground Water
Conservation District No. 1
Local Organization

By Jerry Kram

P.O. Box 235 Dell City TX 79837
Address Zip Code

Title President

Date 3/22/79

The signing of this agreement was authorized by a resolution of the governing body of the Hudspeth County Underground Water Conservation District No. adopted at a meeting held on 3/22/79.

Derald Gentry
Secretary, Local Organization

P.O. Box 235 Dell City TX 79837
Address Zip Code

3/22/79
Date

City of Dell City
Local Organization

P. O. Box 125 Dell City, Tx. 79837
Address Zip Code

By *Bob Templeton*
Bob Templeton

Title Mayor

Date February 13, 1979

The signing of this agreement was authorized by a resolution of the governing body of the City of Dell City adopted at a meeting held on February 13, 1979.
Local Organization

Kathleen Foreman
Secretary, Local Organization

P. O. Box 125 Dell City, Tx 79837
Address Zip Code

February 13, 1979
Date

Soil Conservation Service
United States Department of Agriculture

Approved by:

George C. Mark
State Conservationist

MAR 29 1979
Date

TABLE 1 - ESTIMATED PROJECT INSTALLATION COST
Hitson, C&L and Washburn Draws Watershed, Texas

Installation Cost Item	: Unit	: Number	: Estimated Cost (Dollars) ^{1/}		
			: To Be	: Public Law	: Other
<u>LAND TREATMENT</u>					
Soil Conservation Service					
Cropland	Acre	14,530	-	1,771,997	1,771,997
Grassland	Acre	15,349	-	69,897	69,897
Technical Assistance			46,633	76,496	123,129
SCS Subtotal			46,633	1,918,390	1,965,023
<u>TOTAL LAND TREATMENT</u>			46,633	1,918,390	1,965,023
<u>STRUCTURAL MEASURES</u>					
<u>Construction</u>					
Soil Conservation Service					
Floodwater Retarding					
Structure	No.	3	3,050,700	-	3,050,700
Diversion	Foot	25,150	162,640	-	162,640
Subtotal - Construction			3,213,340	-	3,213,340
<u>Engineering Service</u>					
Soil Conservation Service					
Floodwater Retarding					
Structure	No.	3	162,300	-	162,300
Diversion	Foot	25,150	12,300	-	12,300
Subtotal - Engineering			174,600	-	174,600
<u>Project Administration</u>					
Soil Conservation Service					
Construction Inspection			202,290	-	202,290
Other			278,930	2,500	281,430
Subtotal - Administration			481,220	2,500	483,720
<u>Other Costs</u>					
Land Rights			-	35,069	35,069
Subtotal - Other			-	35,069	35,069
<u>TOTAL STRUCTURAL MEASURES</u>			3,869,160	37,569	3,906,729
<u>TOTAL PROJECT</u>			3,915,793	1,955,959	5,871,752

^{1/} Price Base: 1978

January 1979

TABLE 2 - ESTIMATED STRUCTURAL COST DISTRIBUTION
Histon, C&L and Washburn Draws Watershed, Texas
(Dollars) 1/

Item	Installation Cost - PL-566 Funds		Installation Cost		Total
	Construction	Engineering	Other Funds	Installation Cost	
			Land	Total	Cost
		PL-566	Rights	Other	
Floodwater Retarding Structures					
1	873,700	46,900	8,525	8,525	929,125
2	850,500	45,750	7,505	7,505	903,755
3	1,326,500	69,650	17,145	17,145	1,413,295
Subtotal	3,050,700	162,300	33,175	33,175	3,246,175
Diversions					
1	13,080	1,830	274	274	15,184
2	149,560	10,470	1,620	1,620	161,650
Subtotal	162,640	12,300	1,894	1,894	176,834
Subtotal - Watershed	3,213,340	174,600	35,069	35,069	3,423,009
Project Administration	XXX	XXX	481,220	XXX	2,500
Total	3,213,340	174,600	3,869,160	35,069	37,569

1/ Price Base: 1978

REVISED TABLE 3 - STRUCTURAL DATA

DAMS WITH PLANNED STORAGE CAPACITY

Hitson, C&L, and Washburn Draws Watershed, Texas

Item	Unit	Structure Number			Total
		1	2	3	
Class of Structure		A	A	A	xxx
Drainage area	Sq. Mi.	102.06	56.49	93.10	251.65
Curve No. (1-Day)(AMC II)		80	81	83	xxx
Tc	Hr.	4.68	2.81	3.70	xxx
Elevation Top of Dam	Ft.	3814.4	3866.0	3996.6	xxx
Elevation Crest Emergency Spillway	Ft.	3804.0	3856.6	3985.5	xxx
Elevation Crest Principal Spillway	Ft.	3773.2	3835.3	3950.2	xxx
Elevation Crest Lowest Ungated Outlet	Ft.	3773.2	3835.3	3946.8	xxx
Maximum Height of Dam	Ft.	54	50	66	xxx
Volume of Fill ^{1/}	Cu. Yd.	554,000	806,700	1,148,800	2,509,500
Total Capacity ^{1/}	Ac. Ft.	6,311	4,500	7,050	17,861
Sediment (100 Years) ^{2/}	Ac. Ft.	479	373	884	1,736
Sediment Submerged ^{2/}	Ac. Ft.	396	308	731	1,435
Sediment Aerated	Ac. Ft.	83	65	153	301
Sediment Pool (Lowest Ungated Outlet)	Ac. Ft.	3/396	4/308	200	904
Floodwater Retarding	Ac. Ft.	5,832	4,127	6,166	16,125
Surface Area					
Sediment Pool (Lowest Ungated Outlet)	Acre	57	68	44	169
Sediment Pool (Principal Spillway Crest)	Acre	57	68	62	187
Retarding Pool	Acre	427	362	333	1,122
Principal Spillway					
Rainfall Volume (Areal)(1-Day)	In.	5.12	4.16	4.48	xxx
Rainfall Volume (Areal)(10-Day)	In.	9.66	7.11	7.26	xxx
Runoff Volume (10-Day)	In.	2.00	1.12	1.38	xxx
Capacity (Maximum)	C.F.S.	52	52	52	xxx
Frequency Operation - Emer. Spillway	% Chance	0.3	0.8	0.5	xxx
Size of Conduit	In.	24	24	24	xxx
Emergency Spillway					
Rainfall Volume (ESH) Areal)	In.	1.89	2.34	1.96	xxx
Runoff Volume (ESH)	In.	0.49	0.81	0.67	xxx
Type		Rock	Rock	Rock	xxx
Bottom Width	Ft.	400	500	500	xxx
Velocity of Flow (V _e)	Ft./Sec.	-	-	-	xxx
Slope of Exit Channel	Ft./Ft.	0.035	0.022	0.022	xxx
Maximum Water Surface Elevation	Ft.	-	-	-	xxx
Freeboard					
Rainfall Volume (FH)(Areal)	In.	6.58	8.17	6.83	xxx
Runoff Volume (FH)	In.	4.30	5.90	4.87	xxx
Maximum Water Surface Elevation	Ft.	3814.4	3866.0	3996.6	xxx
Capacity Equivalents					
Sediment Volume	In.	0.088	0.124	0.177	xxx
Retarding Volume	In.	1.071	1.370	1.240	xxx

^{1/} Crest of emergency spillway.

^{2/} Includes volume in sediment pool (lowest ungated outlet)

^{3/} Does not include anticipated borrow volume. Capacity including anticipated borrow volume is 540 acre-feet.

^{4/} Does not include anticipated borrow volume. Capacity including anticipated borrow volume is 620 acre-feet.

January 1979