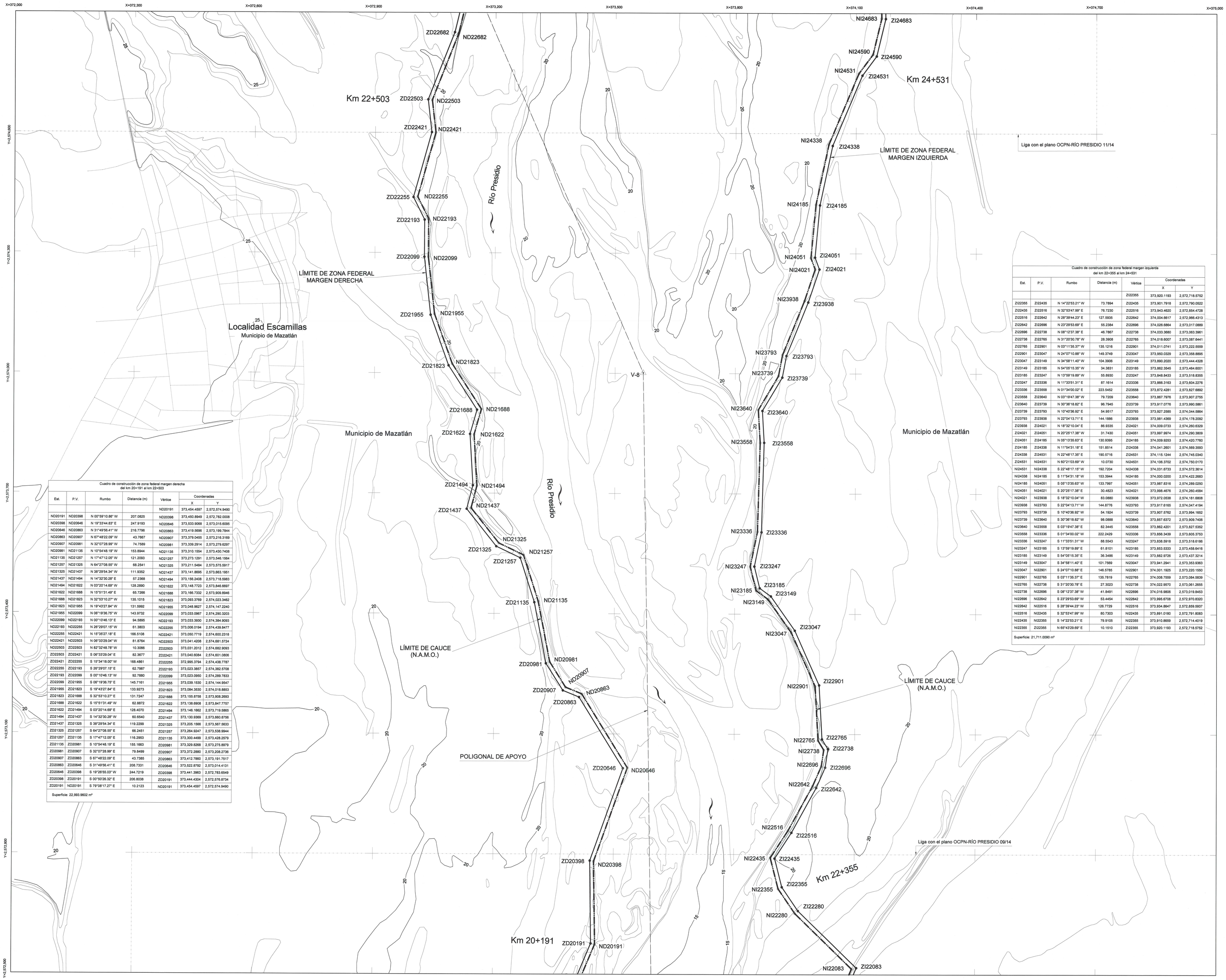


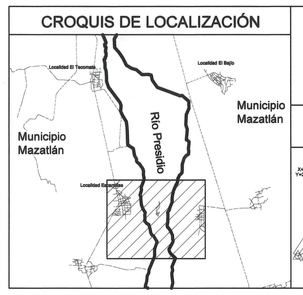
Cuadro de construcción de zona federal margen derecha del km 20+191 al km 22+503						
Est.	P.V.	Rumbo	Distancia (m)	Vértice	Coordenadas X	Coordenadas Y
				ND20191	373,454.4597	2,572,574.9490
ND20191	ND20398	N 00°59'10.86" W	207.0825	ND20398	373,450.8949	2,572,782.0008
ND20398	ND20646	N 19°33'44.83" E	247.9193	ND20646	373,533.9068	2,573,015.6095
ND20646	ND20863	N 31°49'56.41" W	216.7796	ND20863	373,419.5696	2,573,199.7844
ND20863	ND20907	N 67°48'22.09" W	43.7667	ND20907	373,379.0455	2,573,216.3169
ND20907	ND20981	N 32°07'28.99" W	74.7589	ND20981	373,339.2914	2,573,279.6297
ND20981	ND21135	N 10°54'48.19" W	153.8944	ND21135	373,310.1554	2,573,430.7408
ND21135	ND21257	N 17°47'12.05" W	121.2093	ND21257	373,273.1291	2,573,546.1564
ND21257	ND21325	N 64°27'08.55" W	68.2541	ND21325	373,211.5484	2,573,575.5917
ND21325	ND21437	N 38°29'54.34" W	111.9352	ND21437	373,141.8695	2,573,663.1951
ND21437	ND21494	N 14°32'30.28" E	57.2365	ND21494	373,156.2408	2,573,718.5983
ND21494	ND21622	N 03°20'14.69" W	128.2890	ND21622	373,148.7723	2,573,846.6697
ND21622	ND21688	N 15°51'31.49" E	65.7266	ND21688	373,166.7332	2,573,909.8946
ND21688	ND21823	N 32°53'10.27" W	135.1015	ND21823	373,093.3769	2,574,023.3462
ND21823	ND21955	N 19°43'27.84" W	131.5992	ND21955	373,048.9627	2,574,147.2240
ND21955	ND22099	N 06°19'36.75" W	143.9732	ND22099	373,033.0967	2,574,290.3203
ND22099	ND22193	N 00°10'46.13" E	94.5895	ND22193	373,033.3930	2,574,384.9093
ND22193	ND22255	N 26°29'07.15" W	61.3803	ND22255	373,006.0194	2,574,439.9477
ND22255	ND22421	N 15°35'27.18" E	166.5108	ND22421	373,050.7719	2,574,600.2318
ND22421	ND22503	N 06°33'29.04" W	81.8764	ND22503	373,041.4208	2,574,681.5724
ND22503	ND22503	N 82°32'48.78" W	10.3066	ZD22503	373,031.2012	2,574,682.9093
ZD22503	ZD22421	S 06°33'29.04" E	82.3677	ZD22421	373,040.6084	2,574,601.0806
ZD22421	ZD22255	S 15°34'18.00" W	168.4861	ZD22255	372,995.3794	2,574,438.7787
ZD22255	ZD22193	S 26°29'07.15" E	62.7987	ZD22193	373,023.3857	2,574,382.5708
ZD22193	ZD22099	S 00°10'46.13" W	92.7880	ZD22099	373,023.0950	2,574,289.7833
ZD22099	ZD21955	S 06°19'36.75" E	145.7161	ZD21955	373,039.1530	2,574,144.9547
ZD21955	ZD21823	S 19°43'27.84" E	133.9273	ZD21823	373,084.3530	2,574,015.8853
ZD21823	ZD21688	S 32°53'10.27" E	131.7247	ZD21688	373,155.8758	2,573,908.2693
ZD21688	ZD21622	S 15°51'31.49" W	62.8872	ZD21622	373,138.6908	2,573,847.7757
ZD21622	ZD21494	S 03°20'14.69" E	128.4070	ZD21494	373,146.1662	2,573,719.5865
ZD21494	ZD21437	S 14°32'30.28" W	60.6540	ZD21437	373,130.9369	2,573,660.8756
ZD21437	ZD21325	S 38°29'54.34" E	119.2299	ZD21325	373,205.1566	2,573,567.5633
ZD21325	ZD21257	S 64°27'08.55" E	68.2451	ZD21257	373,264.9247	2,573,538.9944
ZD21257	ZD21135	S 17°47'12.05" E	116.2953	ZD21135	373,300.4499	2,573,428.2579
ZD21135	ZD20981	S 10°54'48.19" E	155.1663	ZD20981	373,329.8268	2,573,275.8979
ZD20981	ZD20907	S 32°07'28.99" E	79.8499	ZD20907	373,372.2880	2,573,208.2736
ZD20907	ZD20863	S 67°48'22.09" E	43.7385	ZD20863	373,412.7860	2,573,191.7517
ZD20863	ZD20646	S 31°49'56.41" E	208.7331	ZD20646	373,522.8792	2,573,014.4131
ZD20646	ZD20398	S 19°26'55.03" W	244.7219	ZD20398	373,441.3963	2,572,783.6549
ZD20398	ZD20191	S 00°50'26.32" E	206.8038	ZD20191	373,444.4304	2,572,576.8734
ZD20191	ND20191	S 79°06'17.27" E	10.2123	ND20191	373,454.4597	2,572,574.9490

Superficie: 22,993.9602 m²

Cuadro de construcción de zona federal margen izquierda del km 22+355 al km 24+531						
Est.	P.V.	Rumbo	Distancia (m)	Vértice	Coordenadas X	Coordenadas Y
				ZI22355	373,920.1193	2,572,718.5752
ZI22355	ZI22435	N 14°22'53.21" W	73.7894	ZI22435	373,901.7918	2,572,790.0522
ZI22435	ZI22516	N 32°53'47.99" E	76.7230	ZI22516	373,943.4620	2,572,854.4728
ZI22516	ZI22642	N 28°38'44.23" E	127.5935	ZI22642	374,004.6617	2,572,966.4313
ZI22642	ZI22696	N 23°29'53.69" E	55.2384	ZI22696	374,026.6864	2,573,017.0889
ZI22696	ZI22738	N 08°12'37.38" E	46.7867	ZI22738	374,033.3680	2,573,063.3961
ZI22738	ZI22765	N 31°20'30.78" W	28.3908	ZI22765	374,018.6007	2,573,087.6441
ZI22765	ZI22901	N 03°11'35.37" W	135.1216	ZI22901	374,011.0741	2,573,222.5559
ZI22901	ZI23047	N 24°07'10.88" W	149.3749	ZI23047	373,950.0329	2,573,358.8895
ZI23047	ZI23149	N 34°58'11.40" W	104.3906	ZI23149	373,890.2020	2,573,444.4328
ZI23149	ZI23185	N 54°05'15.35" W	34.3831	ZI23185	373,862.3545	2,573,464.6001
ZI23185	ZI23247	N 13°59'19.89" W	55.8930	ZI23247	373,848.8433	2,573,518.8355
ZI23247	ZI23336	N 11°33'51.31" E	87.1614	ZI23336	373,866.3163	2,573,604.2276
ZI23336	ZI23558	N 01°34'00.02" E	223.5452	ZI23558	373,872.4281	2,573,827.6892
ZI23558	ZI23640	N 03°16'47.38" W	79.7209	ZI23640	373,867.7976	2,573,907.2755
ZI23640	ZI23739	N 30°36'18.82" E	96.7945	ZI23739	373,917.0776	2,573,990.5861
ZI23739	ZI23793	N 10°40'36.92" E	54.9517	ZI23793	373,927.2585	2,574,044.5864
ZI23793	ZI23938	N 22°04'13.71" E	144.1866	ZI23938	373,981.4369	2,574,178.2092
ZI23938	ZI24021	N 18°32'10.04" E	86.9335	ZI24021	374,009.0733	2,574,260.6329
ZI24021	ZI24051	N 20°25'17.38" W	31.7430	ZI24051	373,997.9974	2,574,290.3809
ZI24051	ZI24185	N 05°13'35.63" E	130.9395	ZI24185	374,009.9253	2,574,420.7760
ZI24185	ZI24338	N 11°54'31.18" E	151.8514	ZI24338	374,041.2601	2,574,569.3593
ZI24338	ZI24531	N 22°48'17.35" E	190.5716	ZI24531	374,115.1244	2,574,745.0340
ZI24531	NI24531	N 60°21'03.69" W	10.0730	NI24531	374,106.3702	2,574,750.0170
NI24531	NI24338	S 22°48'17.15" W	192.7204	NI24338	374,031.6733	2,574,572.3614
NI24338	NI24185	S 11°54'31.18" W	153.3944	NI24185	374,000.0200	2,574,422.2683
NI24185	NI24051	S 05°13'35.63" W	133.7997	NI24051	373,987.8316	2,574,289.0250
NI24051	NI24021	S 20°25'17.38" E	30.4823	NI24021	373,998.4676	2,574,260.4584
NI24021	NI23938	S 18°32'10.04" W	83.0880	NI23938	373,972.0538	2,574,181.6808
NI23938	NI23793	S 22°04'13.71" W	144.8776	NI23793	373,917.6165	2,574,047.4194
NI23793	NI23739	S 10°40'36.92" W	54.1924	NI23739	373,907.5762	2,573,994.1652
NI23739	NI23640	S 30°36'18.82" W	98.0888	NI23640	373,857.6372	2,573,909.7406
NI23640	NI23558	S 03°16'47.38" E	82.3445	NI23558	373,862.4201	2,573,827.5352
NI23558	NI23336	S 01°34'00.02" W	222.2429	NI23336	373,856.3439	2,573,605.3753
NI23336	NI23247	S 11°33'51.31" W	88.5543	NI23247	373,838.6918	2,573,518.6186
NI23247	NI23185	S 13°59'19.89" E	61.8101	NI23185	373,853.5333	2,573,458.6415
NI23185	NI23149	S 54°05'15.35" E	36.3486	NI23149	373,882.9728	2,573,437.3214
NI23149	NI23047	S 34°58'11.40" E	101.7559	NI23047	373,941.2941	2,573,353.9363
NI23047	NI22901	S 24°07'10.88" E	146.5785	NI22901	374,001.1925	2,573,220.1550
NI22901	NI22765	S 03°11'35.37" E	135.7819	NI22765	374,008.7559	2,573,084.5839
NI22765	NI22738	S 31°20'30.78" E	27.3023	NI22738	374,022.9570	2,573,061.2655
NI22738	NI22696	S 08°12'37.38" W	41.8491	NI22696	374,016.9806	2,573,019.8453
NI22696	NI22642	S 23°29'53.69" W	53.4454	NI22642	373,995.6708	2,572,970.8320
NI22642	NI22516	S 28°38'44.23" W	126.7729	NI22516	373,934.8647	2,572,859.5937
NI22516	NI22435	S 32°53'47.99" W	80.7303	NI22435	373,891.0180	2,572,791.8083
NI22435	NI22355	S 14°22'53.21" E	79.9105	NI22355	373,910.8659	2,572,714.4019
NI22355	ZI22355	N 65°43'29.69" E	10.1510	ZI22355	373,920.1193	2,572,718.5752

Superficie: 21,711.0090 m²

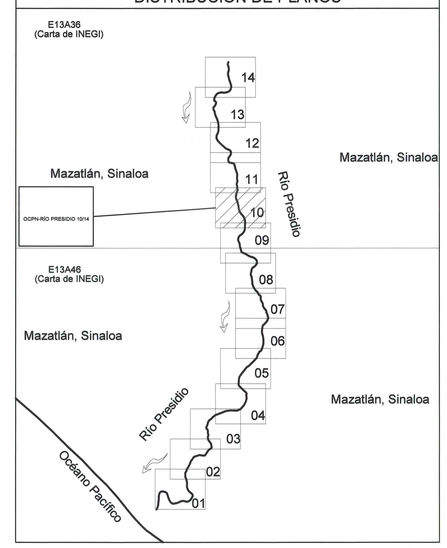
CROQUIS DE LOCALIZACIÓN



NORTE

REFERENCIACIÓN ESTACIÓN INICIAL

DISTRIBUCIÓN DE PLANOS



SIMBOLOGÍA

10.0	Curva de nivel maestra		Límite de cauce (N.A.M.O.)
	Curva de nivel ordinaria		Límite de zona federal
	Dirección del flujo		Poligonal de apoyo
	Vértice GPS		Planimetría
	Liga de plano		

NOTAS

1.- El Río Presidio o Mazatlán cuenta con Declaratoria de Propiedad Nacional No. 4097 de fecha 24 de agosto de 1917, publicada en el Diario Oficial de la Federación el día 12 de septiembre de 1917.

2.- El sistema de coordenadas:
U.T.M. en el Datum ITRF-92, Zona Geográfica 13.

3.- El gasto de diseño de la Delimitación de Zona Federal a Tr=5 años es:

Margen	Tramo	Q(m³/s)
Margen Derecha	0+000 al 31+256	1770
Margen Izquierda	0+000 al 34+292	1770

4.- El N.A.M.O. de este proyecto, es resultado de un análisis hidráulico bidimensional.

Escala gráfica 1:3,000

0 30 150 300

La equidistancia de las curvas de nivel es a cada 1.0 metros

CONAGUA
COMISIÓN NACIONAL DEL AGUA

SUBDIRECCIÓN GENERAL TÉCNICA
GERENCIA DE AGUAS SUPERFICIALES E INGENIERÍA DE RÍOS

APROBÓ:

M. en I. Alfredo R. Ocón Gutiérrez
GERENTE DE AGUAS SUPERFICIALES E INGENIERÍA DE RÍOS

CONAGUA
COMISIÓN NACIONAL DEL AGUA

ORGANISMO DE CUENCA
PACÍFICO NORTE
DIRECCIÓN TÉCNICA

REVISÓ:

Ing. José Martínez Angulo
ESPECIALISTA TÉCNICO

APROBÓ:

Ing. José Emerio Parra Flores
JEFE DE PROYECTO DE AGUAS SUPERFICIALES Y METEOROLOGÍA

SEMARNAT
SECRETARÍA DE MEDIO AMBIENTE Y RECURSOS NATURALES

COMISIÓN NACIONAL DEL AGUA
ORGANISMO DE CUENCA
PACÍFICO NORTE
DIRECCIÓN TÉCNICA

CONAGUA
COMISIÓN NACIONAL DEL AGUA

Proyecto de delimitación de zona federal del Río Presidio
Margen derecha del km 0+000 al km 31+256
Margen Izquierda del km 0+000 al km 34+292
Tramo margen derecha del km 20+191 al km 22+503
Tramo margen izquierda del km 22+355 al km 24+531

Plano No. OCPN-RÍO PRESIDIO 10/14

R.F.I.

Entidad: Sinaloa
Municipio: Mazatlán
Localidad: Escamillas

Escala: 1 : 3,000

RESPONSABLE DE LA DEPENDENCIA:
Mtro. José Antonio Quiñonez Contreras
DIRECTOR GENERAL DEL DESARROLLO DE CUENCA PACÍFICO NORTE

RESPONSABLE DEL PROYECTO:
Ing. Rafael Sanz Ramos
DIRECTOR TÉCNICO DEL ORGANISMO DE CUENCA PACÍFICO NORTE

PROYECTÓ:	LEVANTÓ:	CALCULÓ:	REVISÓ:	DIBUJÓ:	FECHA:
Ing. Edgar Enrique Castillo Ponce Cédi. Prof. 2268975	Ing. Edgar Enrique Castillo Ponce Cédi. Prof. 2268975	Ing. Edgar Enrique Castillo Ponce Cédi. Prof. 2268975	Ing. Edgar Enrique Castillo Ponce Cédi. Prof. 2268975	Ing. Jesús Javier Mendívil Rodeo	Junio 2018