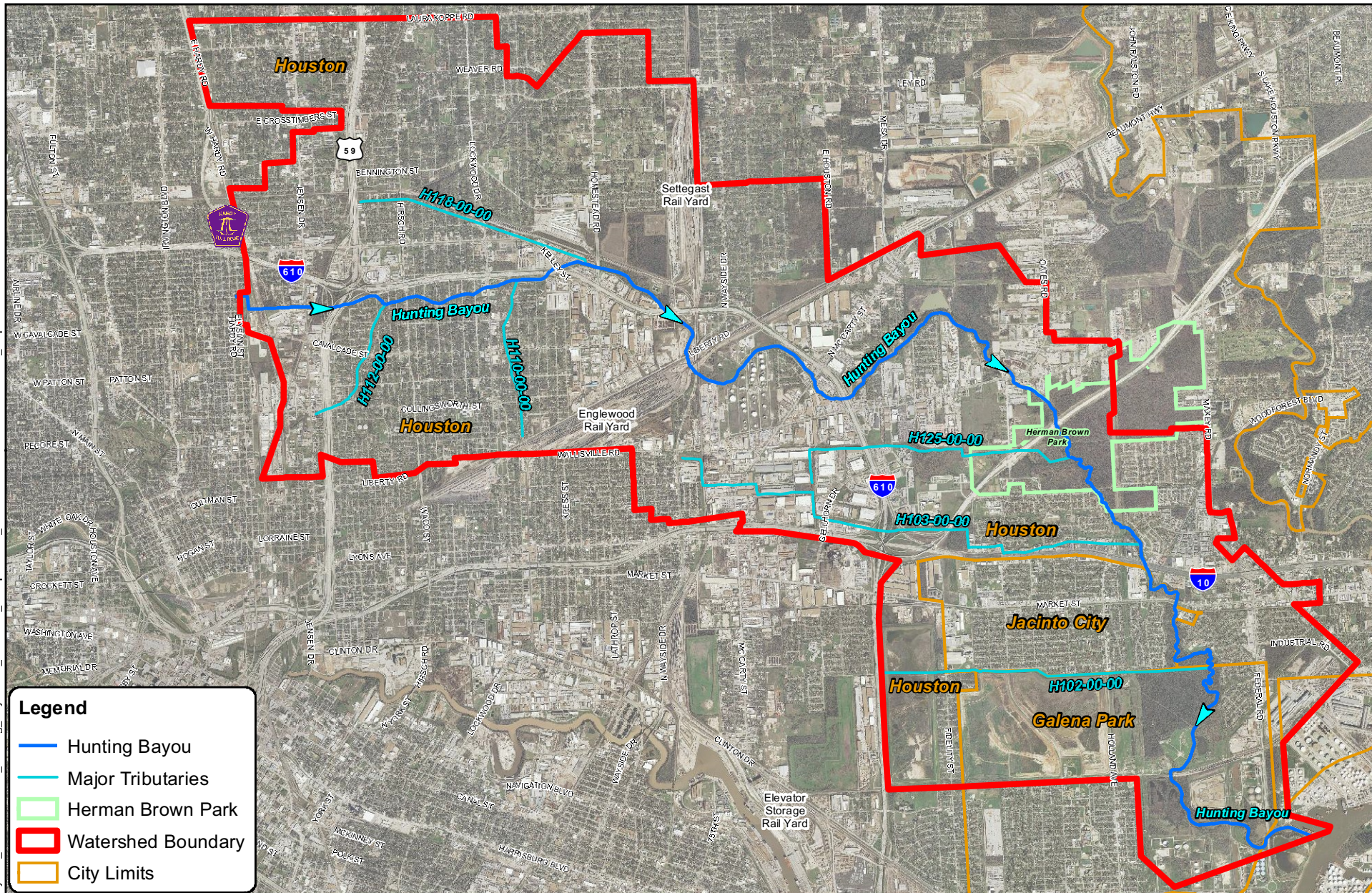


Exhibit A2-1: Watershed Map

Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFC
Park - H-GAC
Aerials - H-GAC (2012)

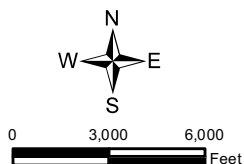
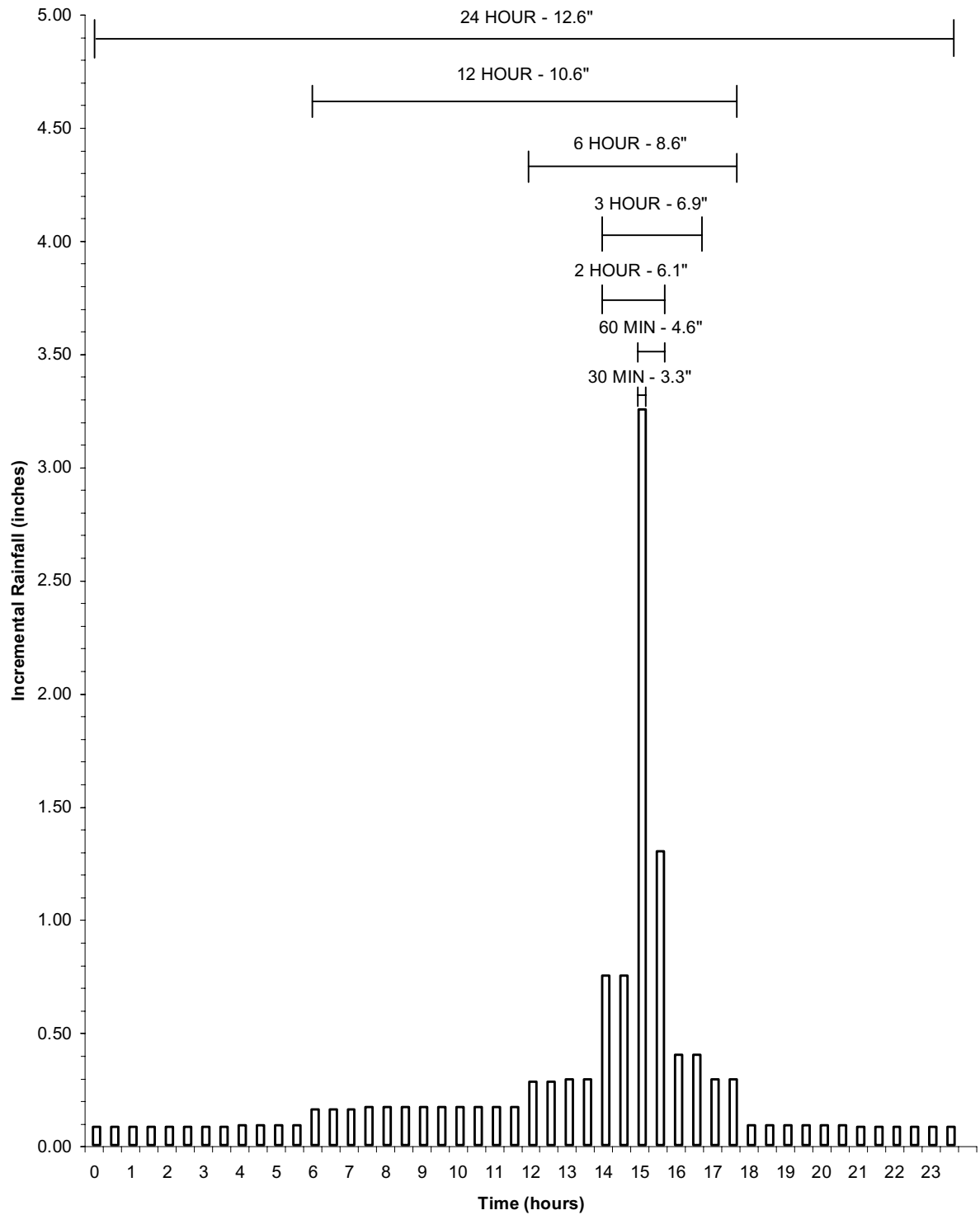
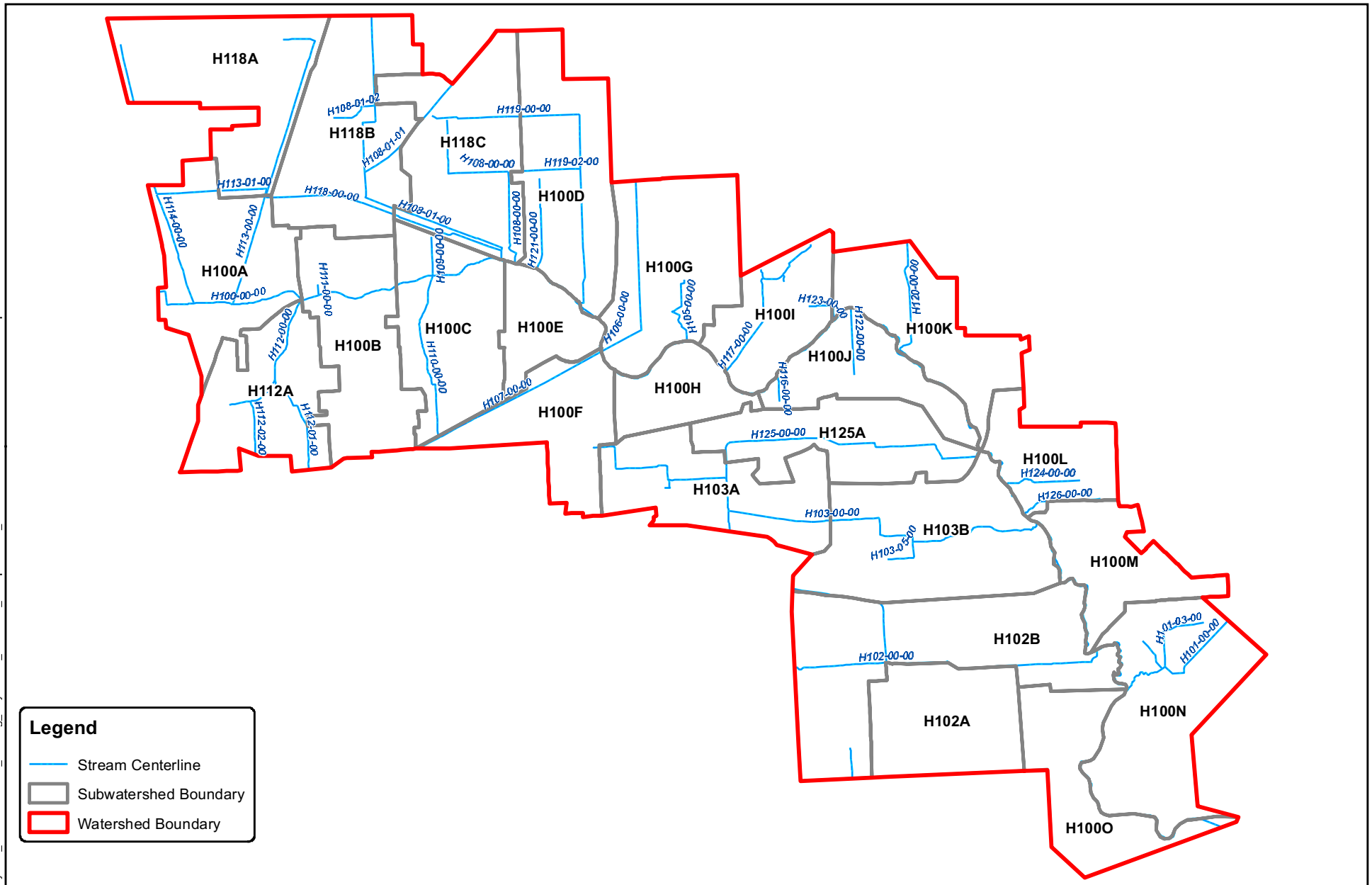


EXHIBIT A2-2
24-HOUR DURATION RAINFALL PATTERN
HYPOTHETICAL 1 PERCENT ANNUAL EXCEEDANCE PROBABILITY EVENT





Legend

- Stream Centerline
- Subwatershed Boundary
- Watershed Boundary



Exhibit A2-3: HEC-1 Subwatershed Map

Hunting Bayou Flood Risk Management Project

Sources:
Subwatershed - HCFC

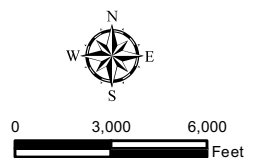
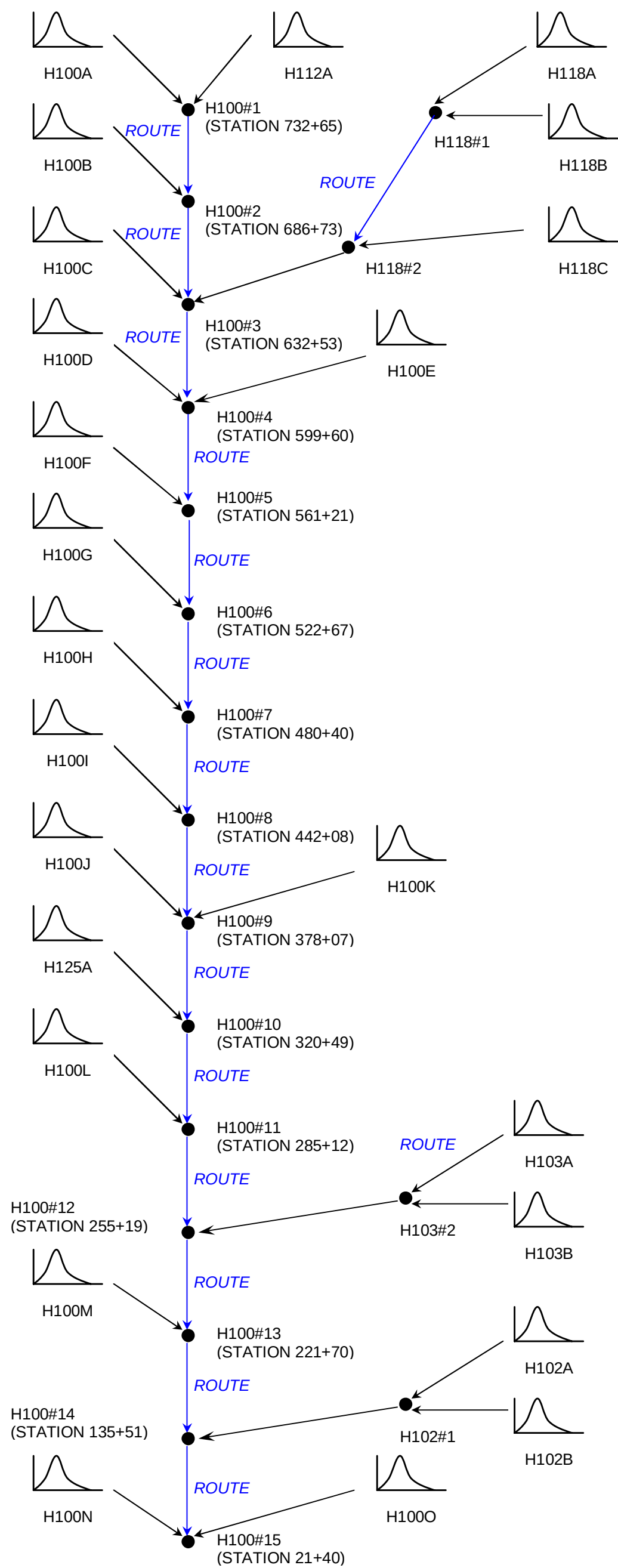
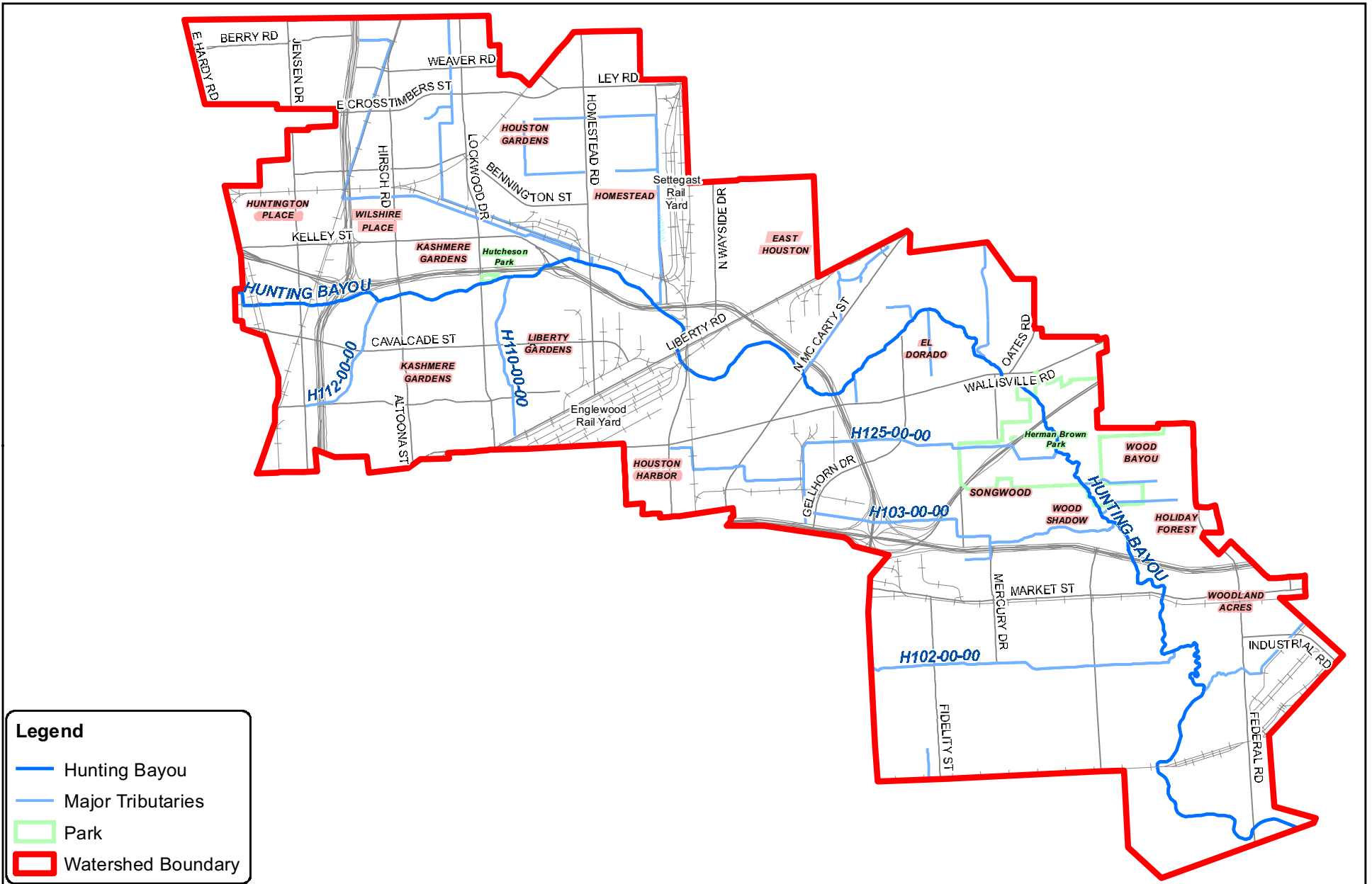


EXHIBIT A2-4
SCHEMATIC DIAGRAM
WITHOUT PROJECT CONDITIONS HEC-1 MODEL





Legend

- Hunting Bayou
- Major Tributaries
- Park
- Watershed Boundary

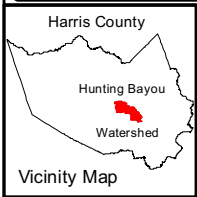


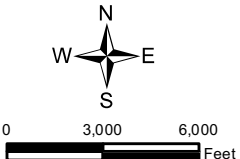
Exhibit A2-5: Major Tributaries of Hunting Bayou

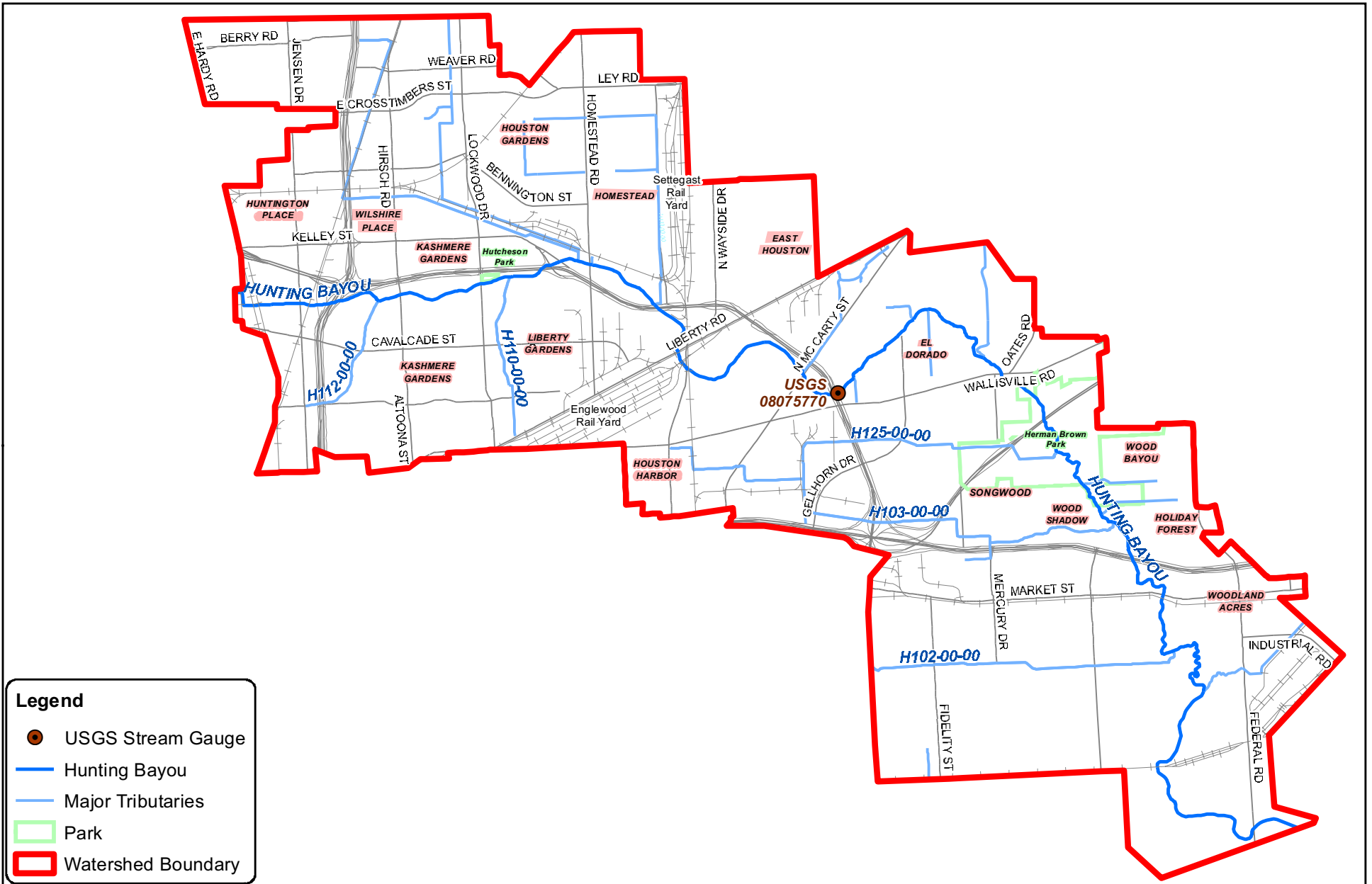
Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFC
Park - H-GAC



US Army Corps of Engineers
Galveston District





Legend

- USGS Stream Gauge
- Hunting Bayou
- Major Tributaries
- Park
- Watershed Boundary

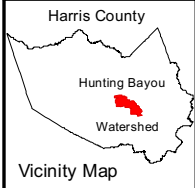


Exhibit A2-6: USGS Stream Gauge Location
Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFC
Park - H-GAC
Stream Gauge - USGS

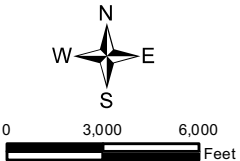


EXHIBIT A2-7
ANNUAL PEAK DISCHARGES - 1964 TO 2012
USGS STREAM GAUGE 08075770 - HUNTING BAYOU @ IH 610

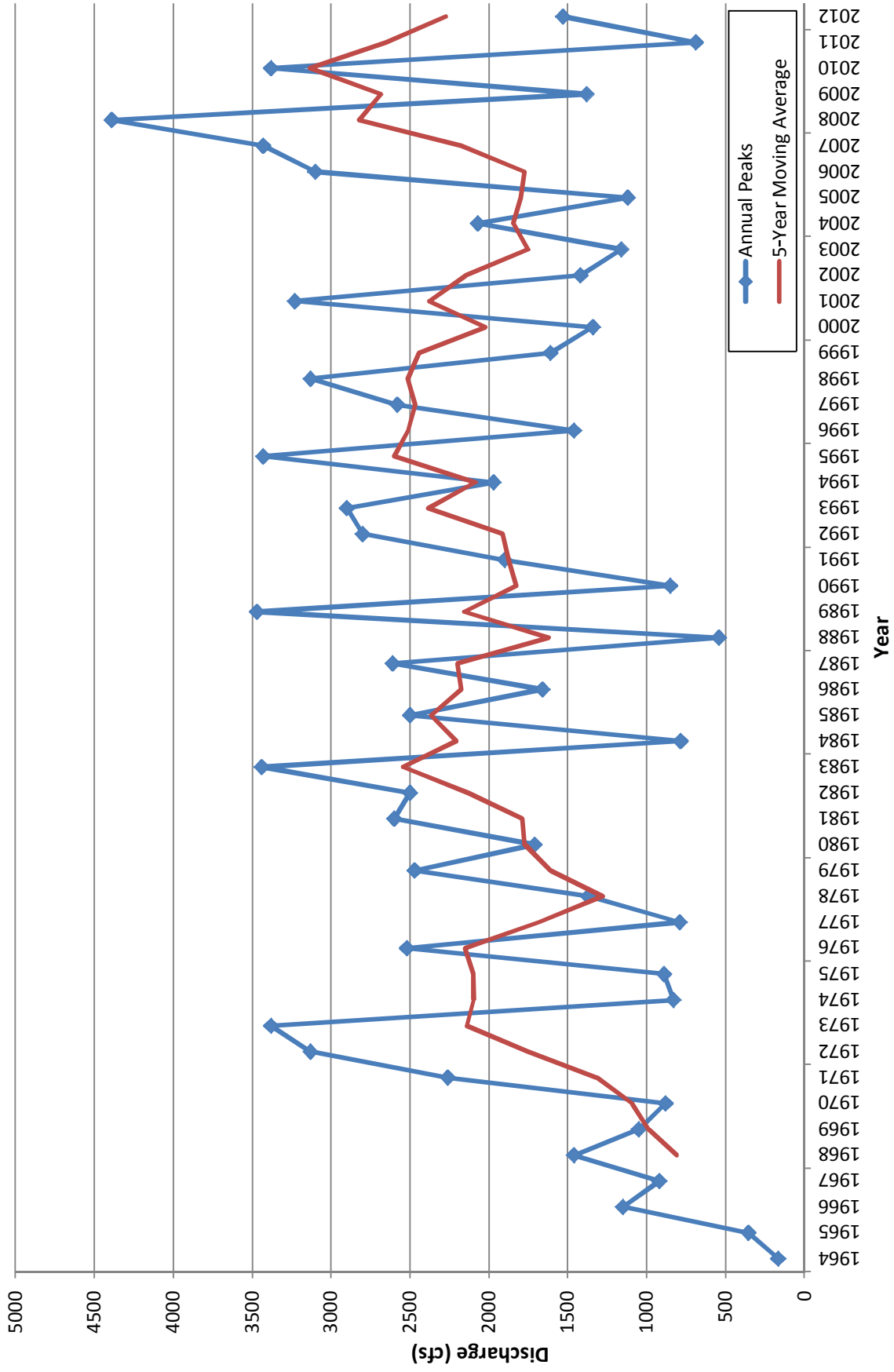


Exhibit A2-8 **Comparison of Gauge Frequency Analysis Versus HEC-1 Model** **(Same Loss Rates for All Events)**

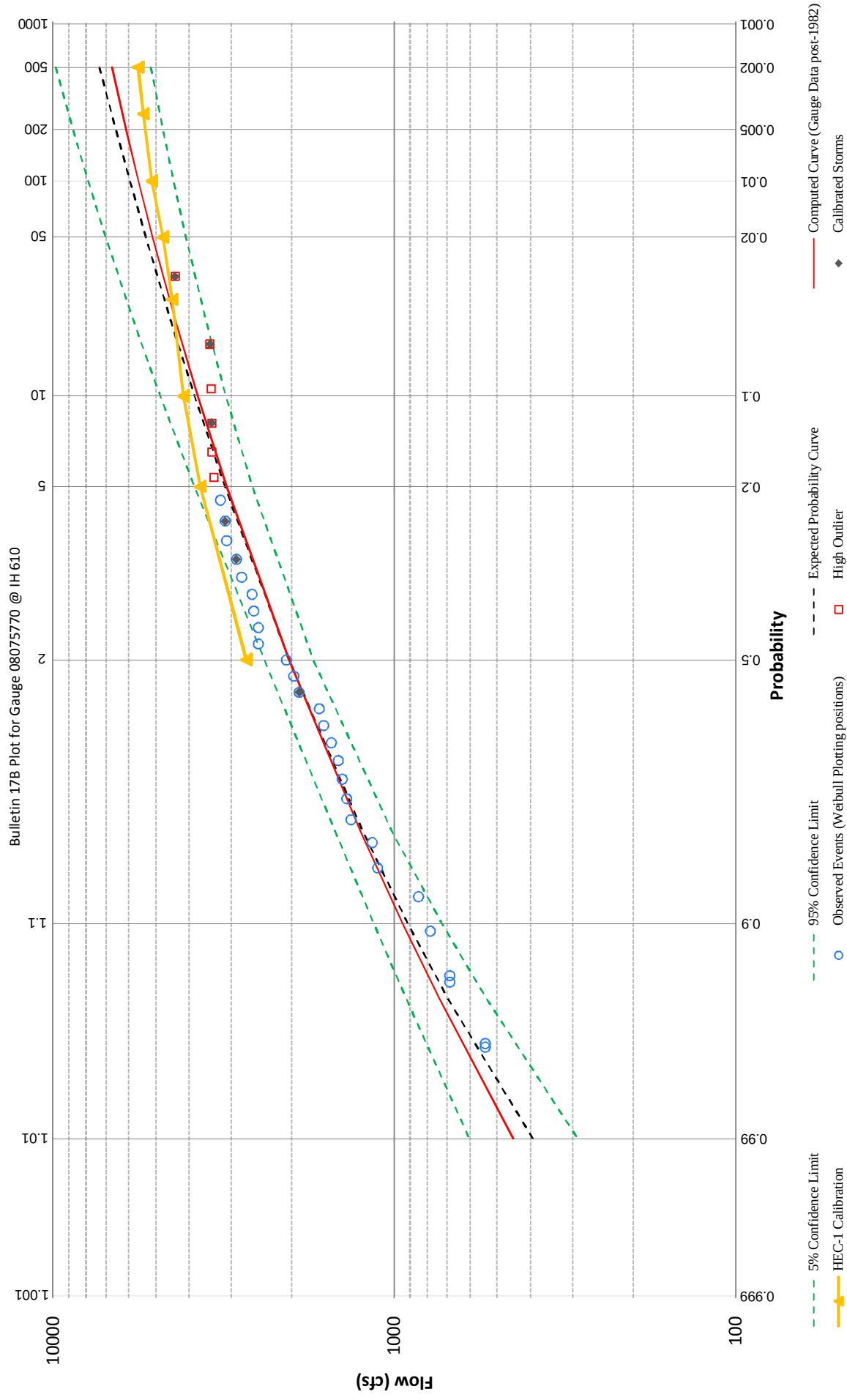
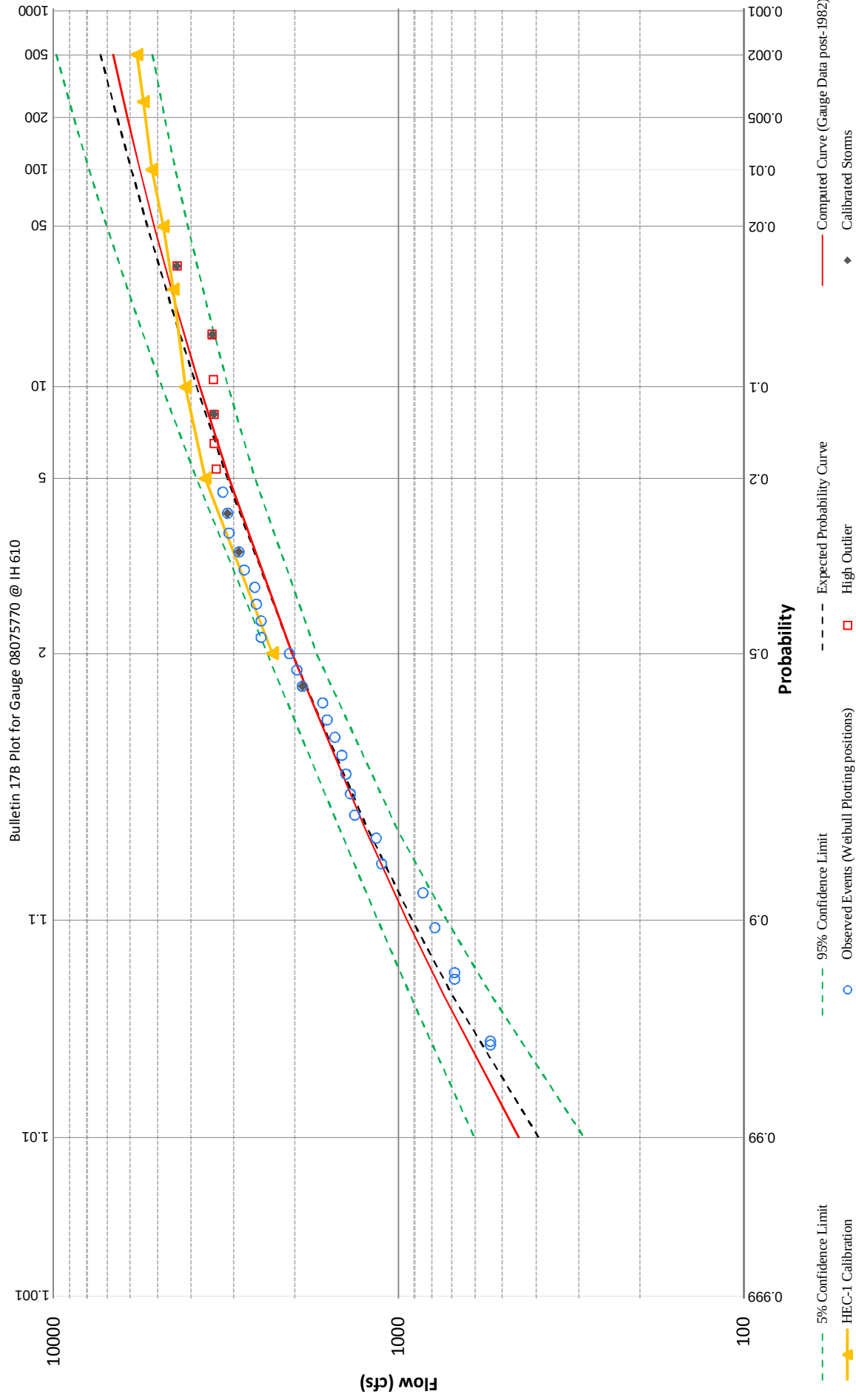
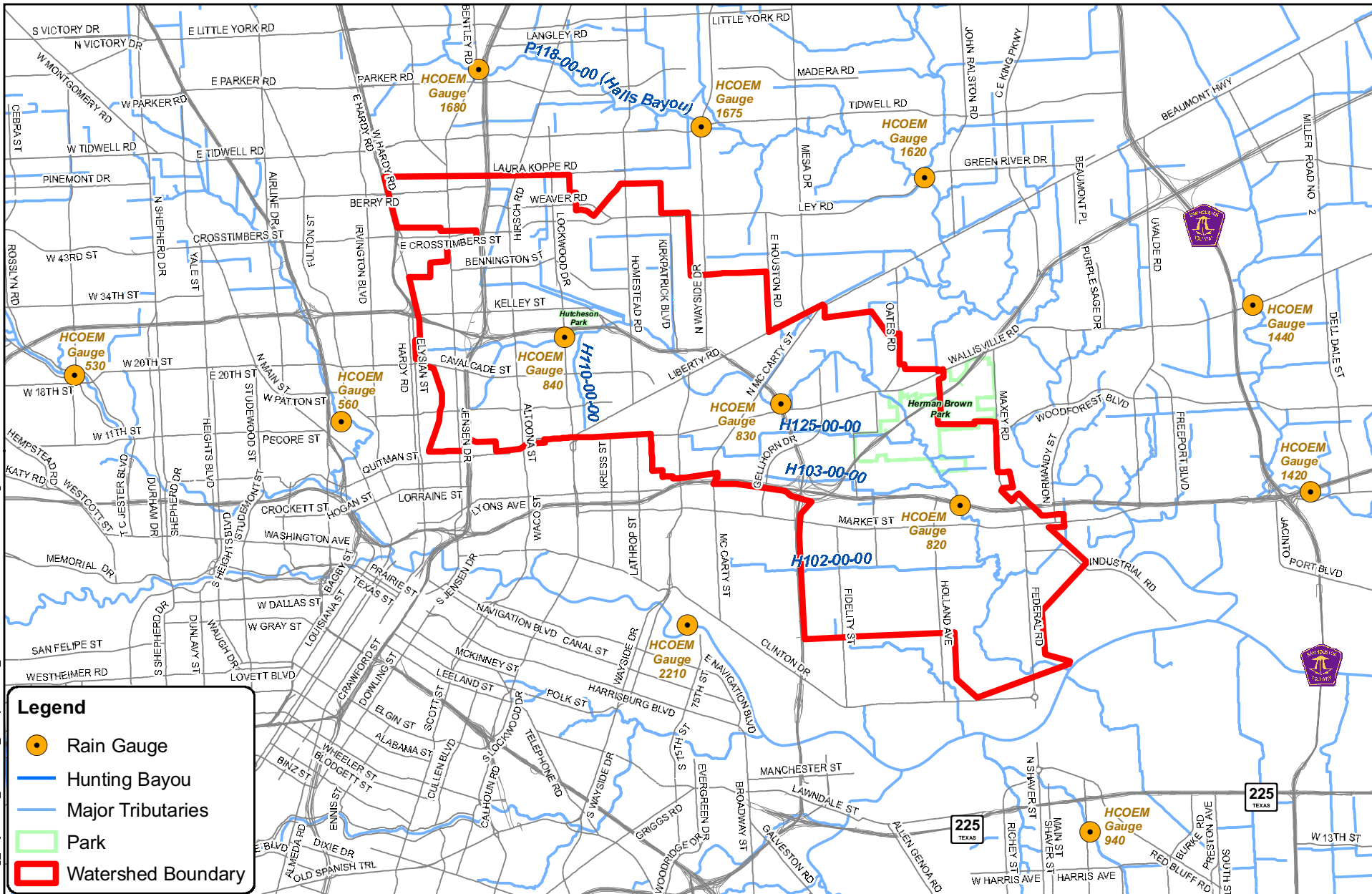


Exhibit A2-9 **Comparison of Gauge Frequency Analysis Versus HEC-1 Model** **(Higher Loss Rates For 50% and 20% Events)**





Legend

- Rain Gauge
- Hunting Bayou
- Major Tributaries
- Park
- Watershed Boundary

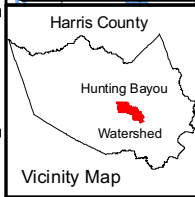


Exhibit A2-10: Rain Gauge Locations

Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFC
Park - H-GAC
Rain Gauge - HCFC

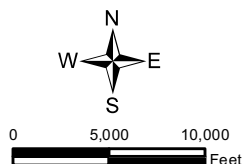


EXHIBIT A2-11
JUNE 1989 STORM EVENT
RECORDED RAINFALL DATA

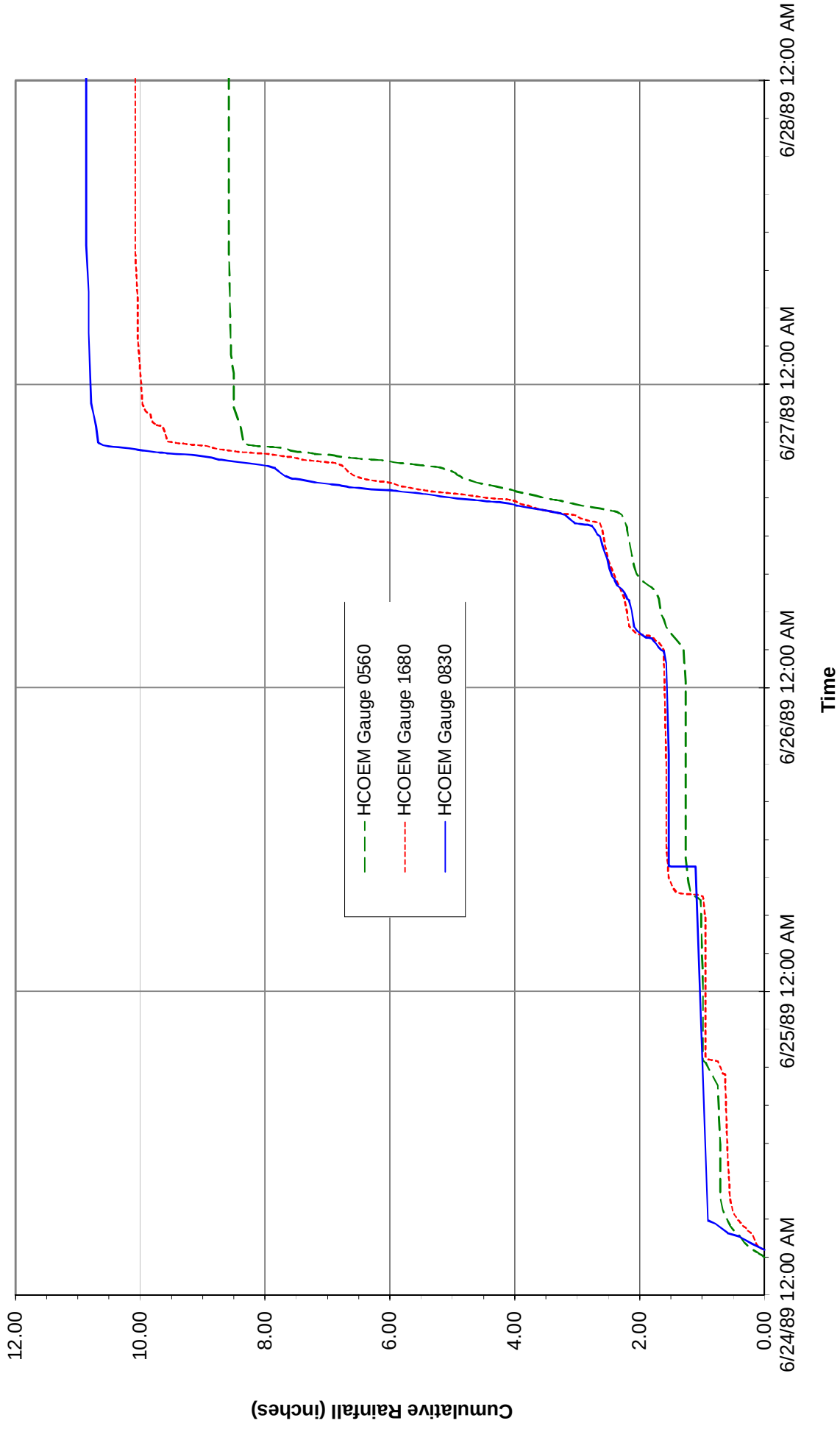


EXHIBIT A2-12
JUNE 1989 STORM EVENT
HYDROGRAPHS @ USGS STREAM GAUGE 08075770 - HUNTING BAYOU @ IH 610

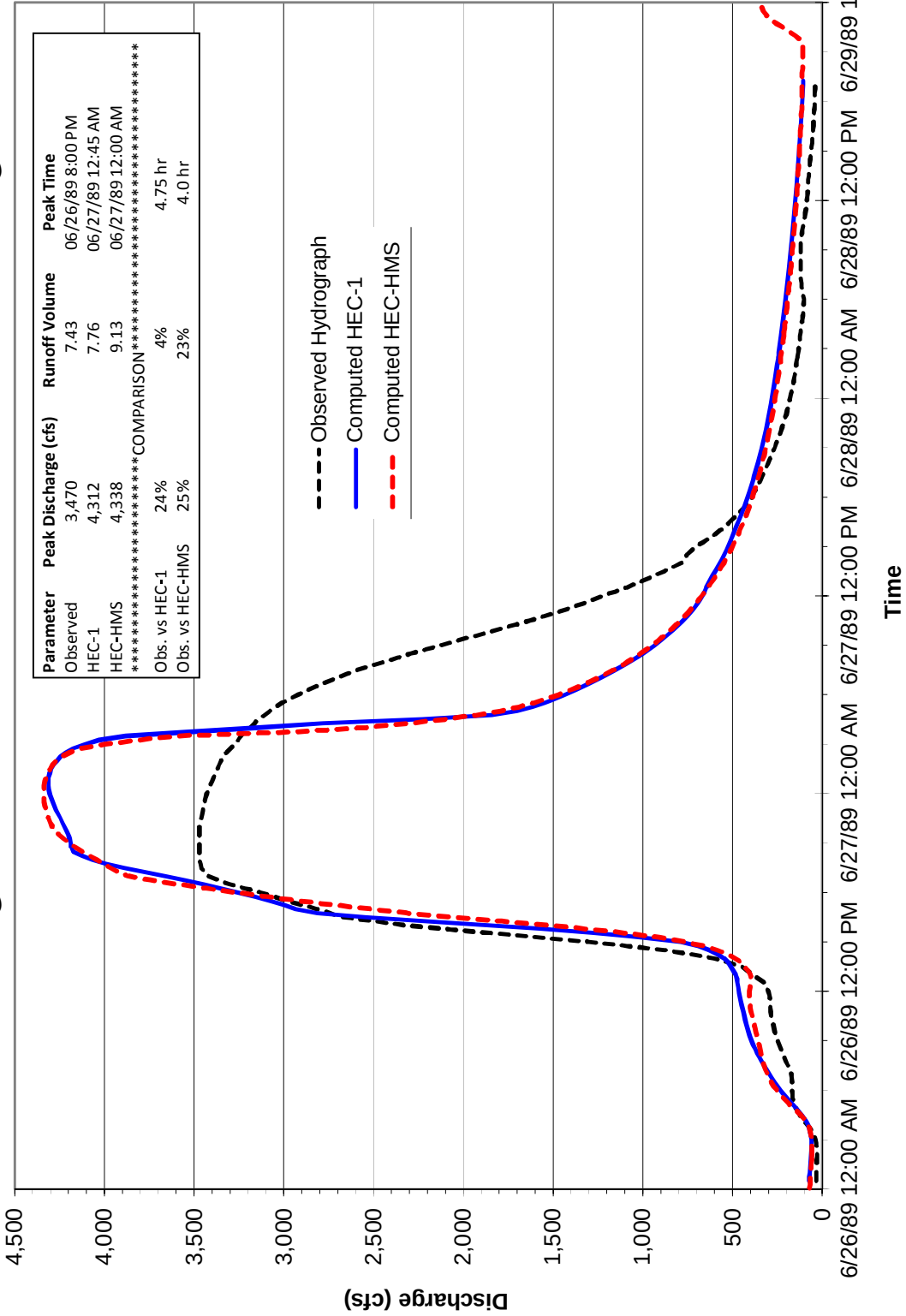


EXHIBIT A2-13
JANUARY 1991 STORM EVENT
RECORDED RAINFALL DATA

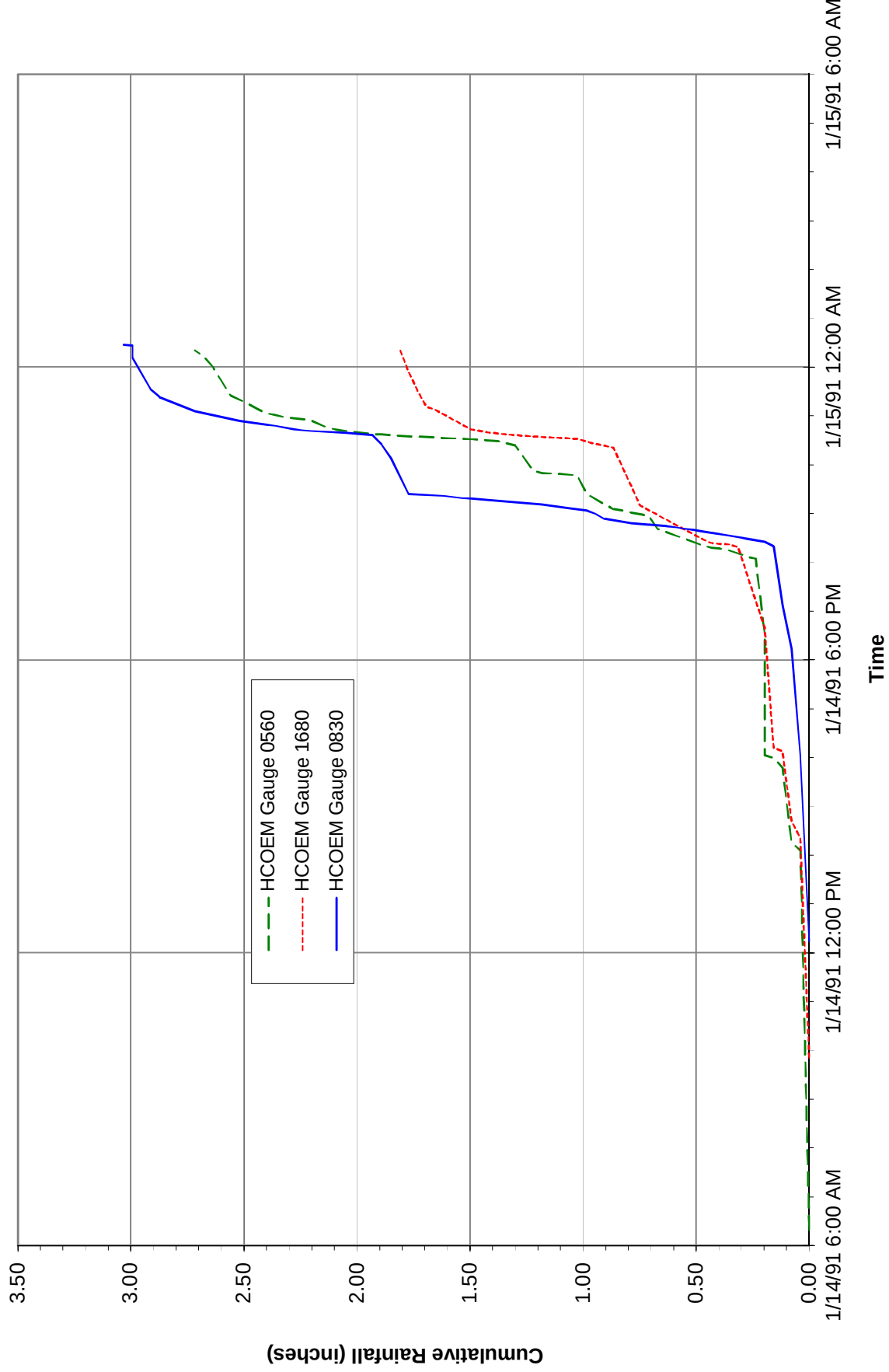


EXHIBIT A2-14
JANUARY 1991 STORM EVENT
HYDROGRAPHS @ USGS STREAM GAUGE 08075770 - HUNTING BAYOU @ IH 610

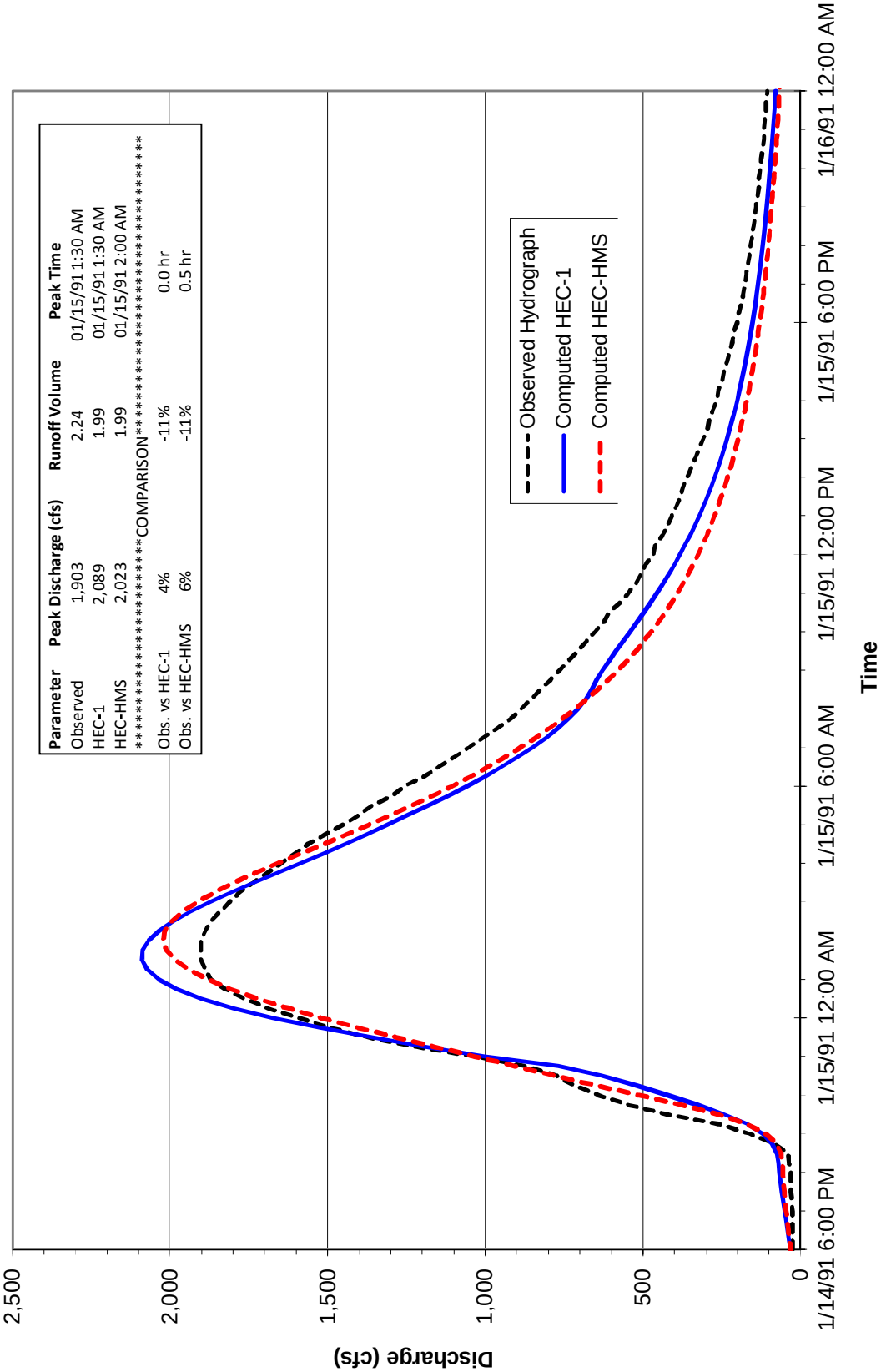


EXHIBIT A2-15
OCTOBER 1993 STORM EVENT
RECORDED RAINFALL DATA

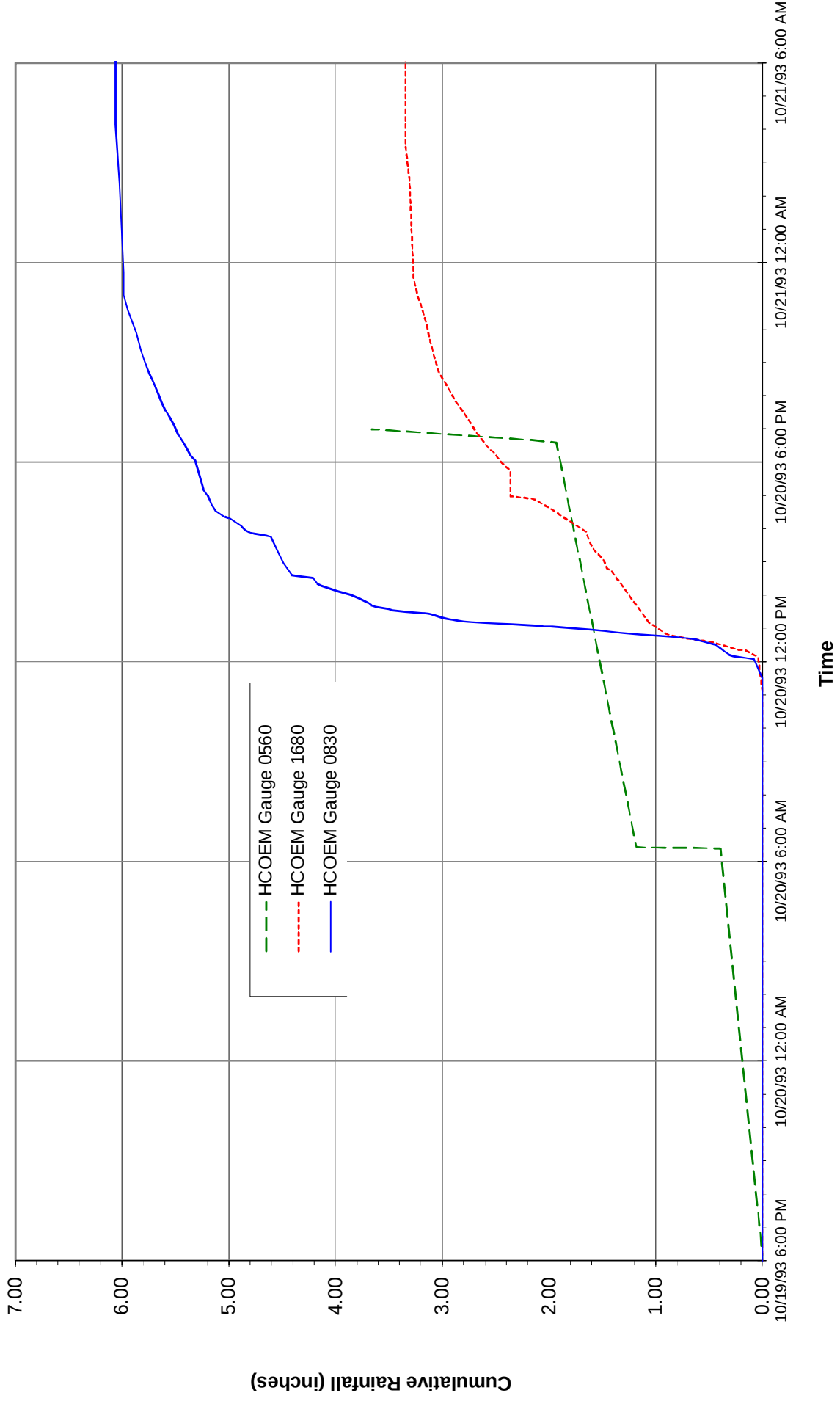


EXHIBIT A2-16
OCTOBER 1993 STORM EVENT
HYDROGRAPHS @ USGS STREAM GAUGE 08075770 - HUNTING BAYOU @ IH 610

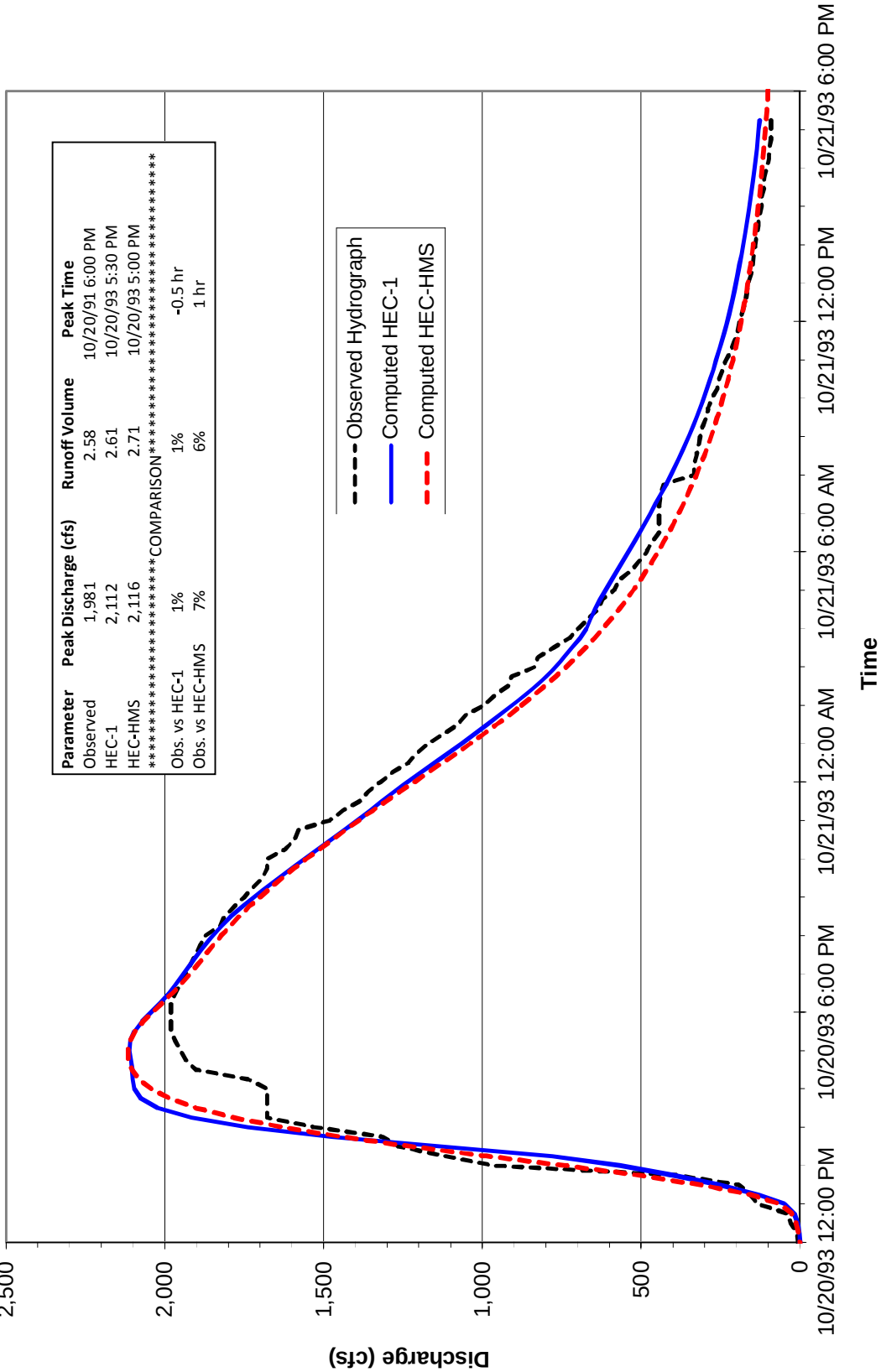


EXHIBIT A2-17



EXHIBIT A2-18
OCTOBER 1994 STORM EVENT
HYDRDOGRAPHS @ USGS STREAM GAUGE 08075770 - HUNTING BAYOU @ IH 610

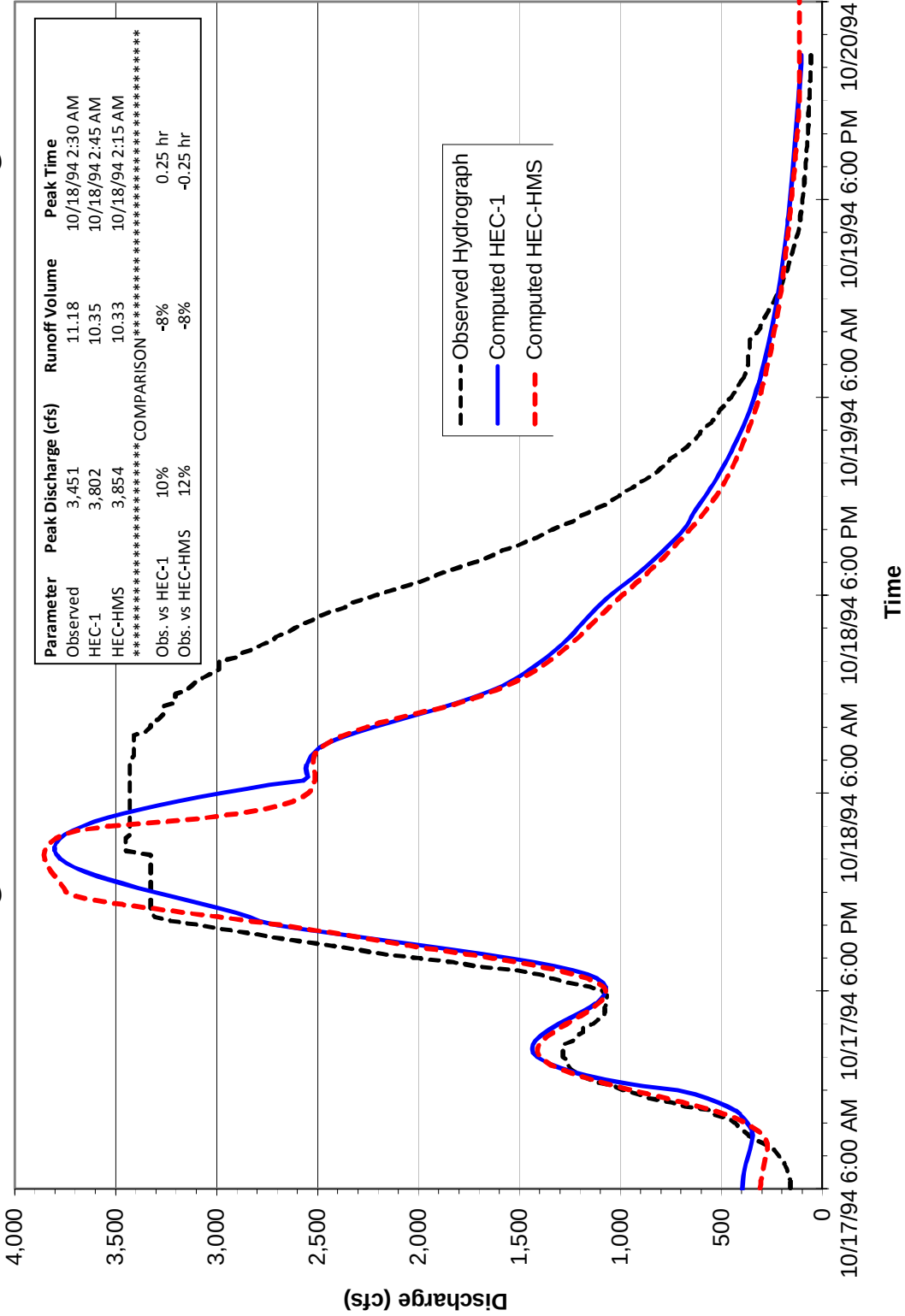


EXHIBIT A2-19
SEPTEMBER 1998 STORM EVENT
RECORDED RAINFALL DATA

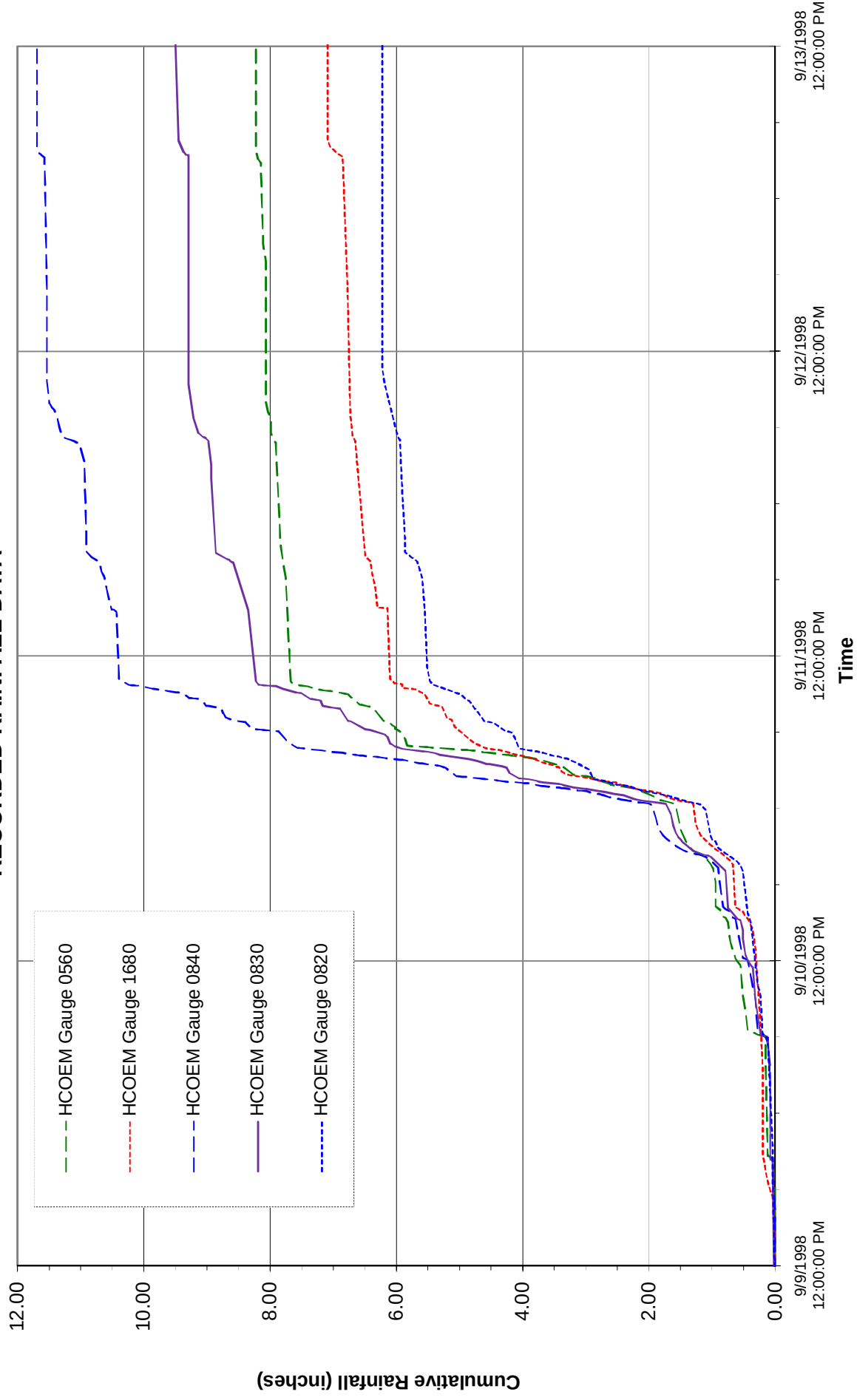


EXHIBIT A2-20
SEPTEMBER 1998 STORM EVENT
HYDROGRAPHS @ USGS STREAM GAUGE 08075770 - HUNTING BAYOU @ IH 610

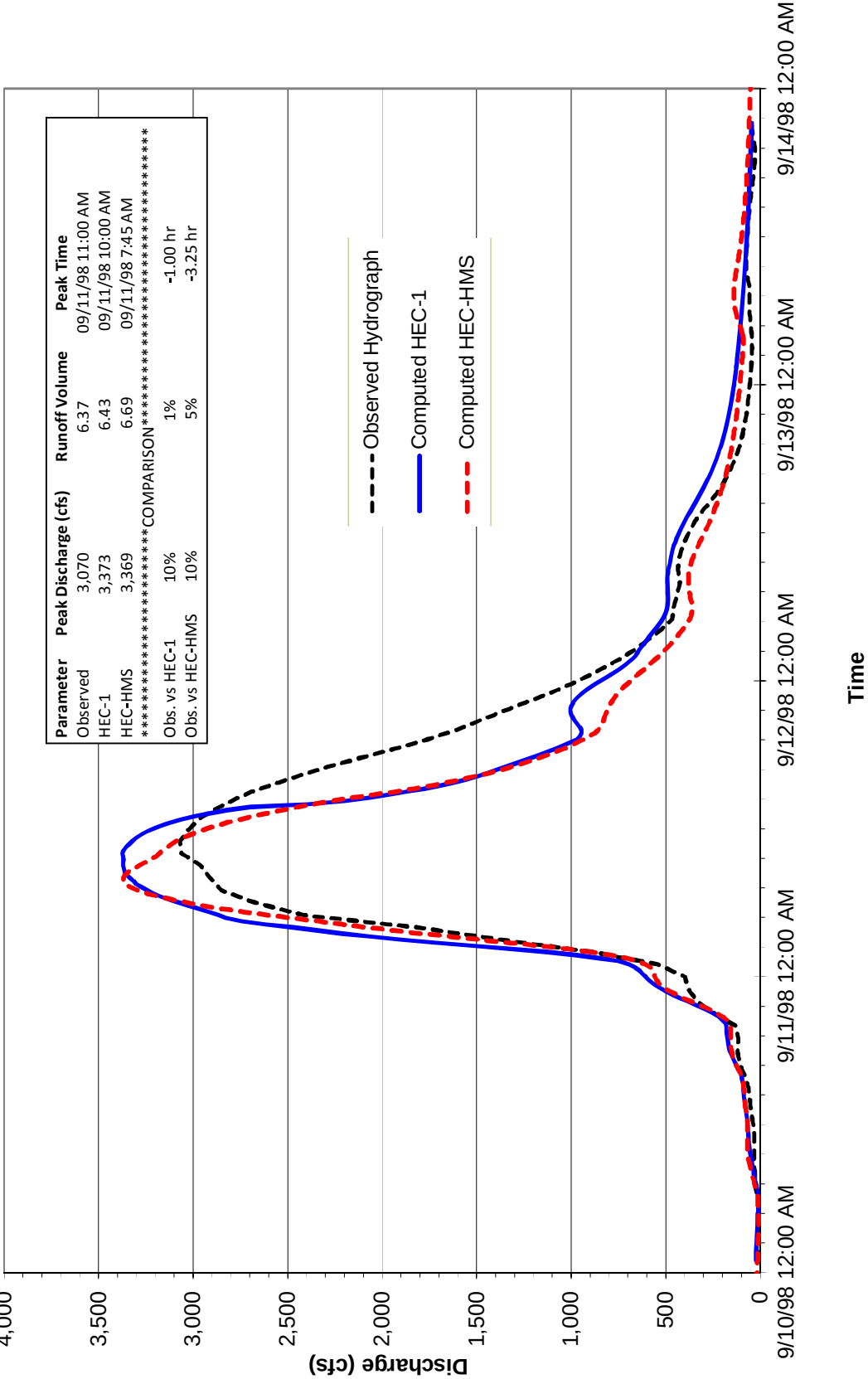


EXHIBIT A2-21 SEPTEMBER 2008 STORM EVENT RECORDED RAINFALL DATA

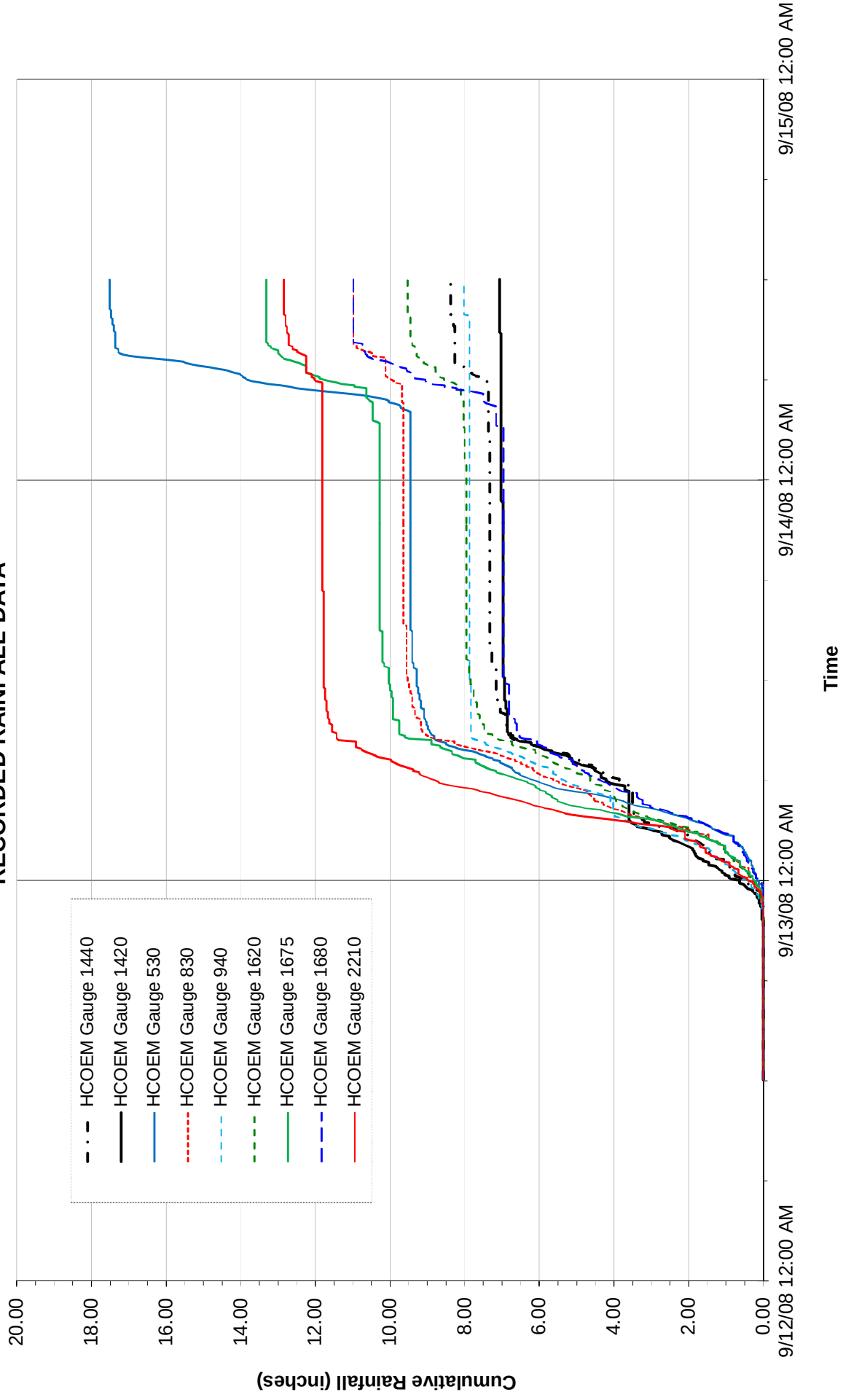


EXHIBIT A2-22
SEPTEMBER 2008 STORM EVENT
HYDROGRAPHS @ USGS STREAM GAUGE 08075770 - HUNTING BAYOU @ IH 610

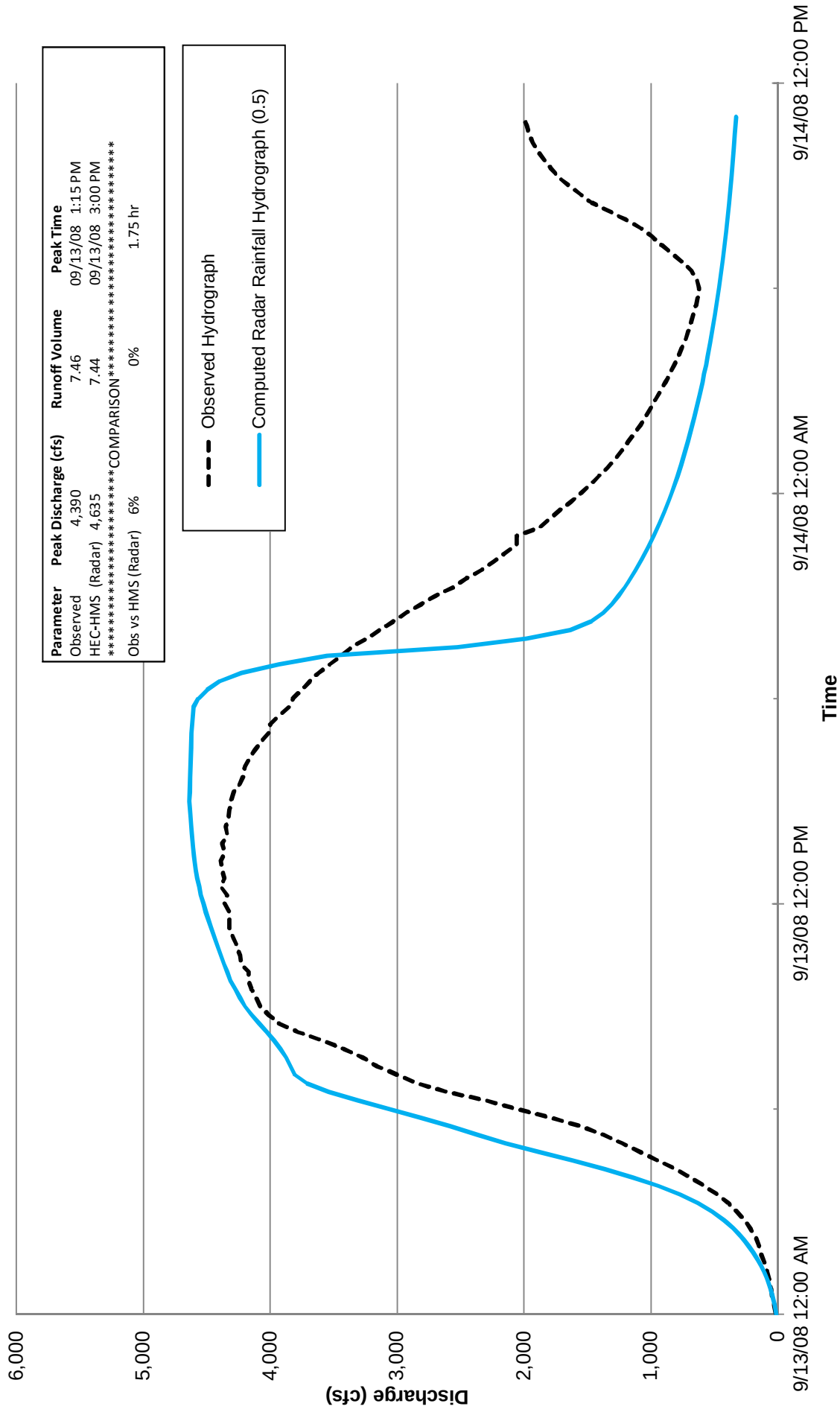
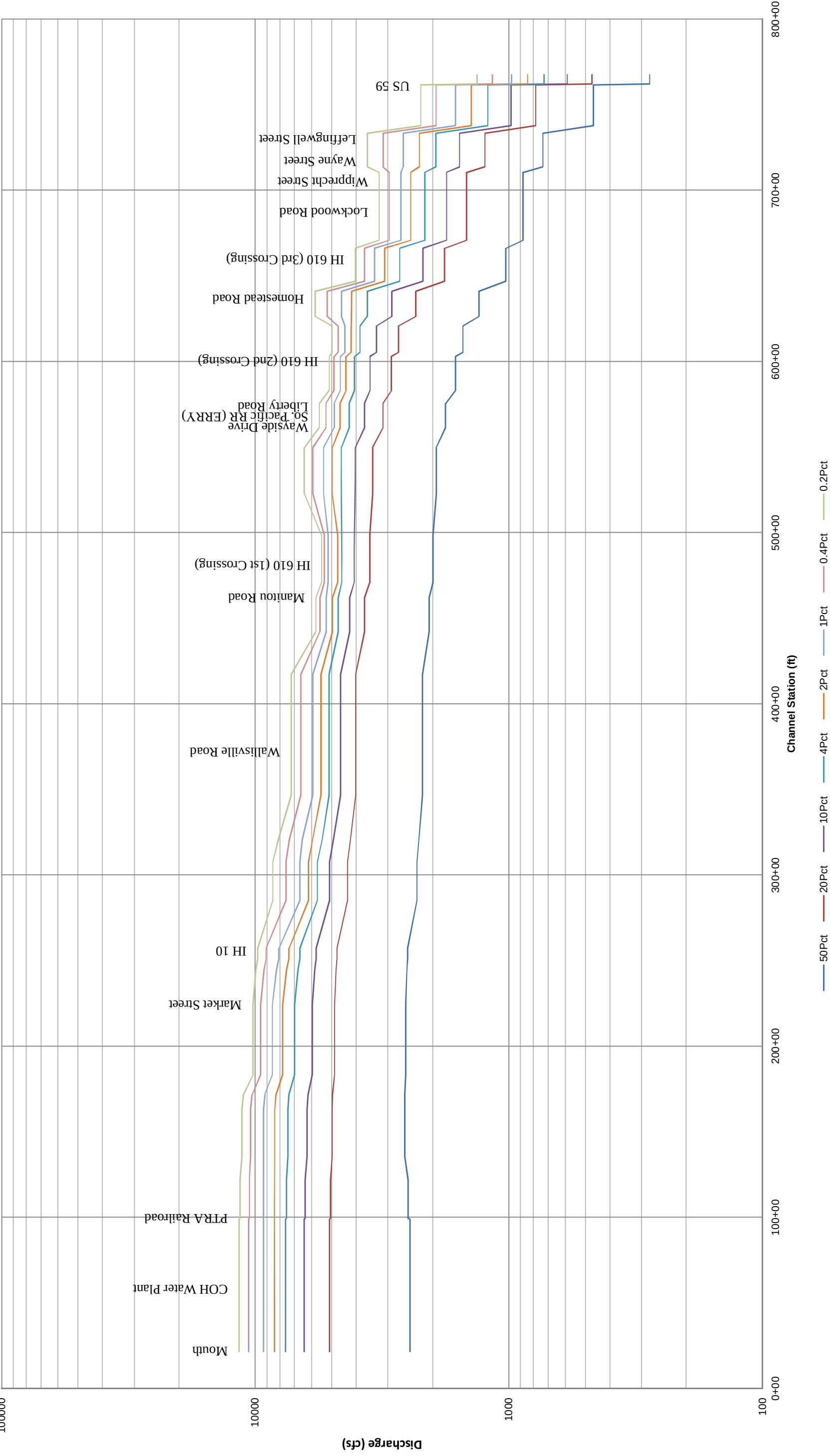
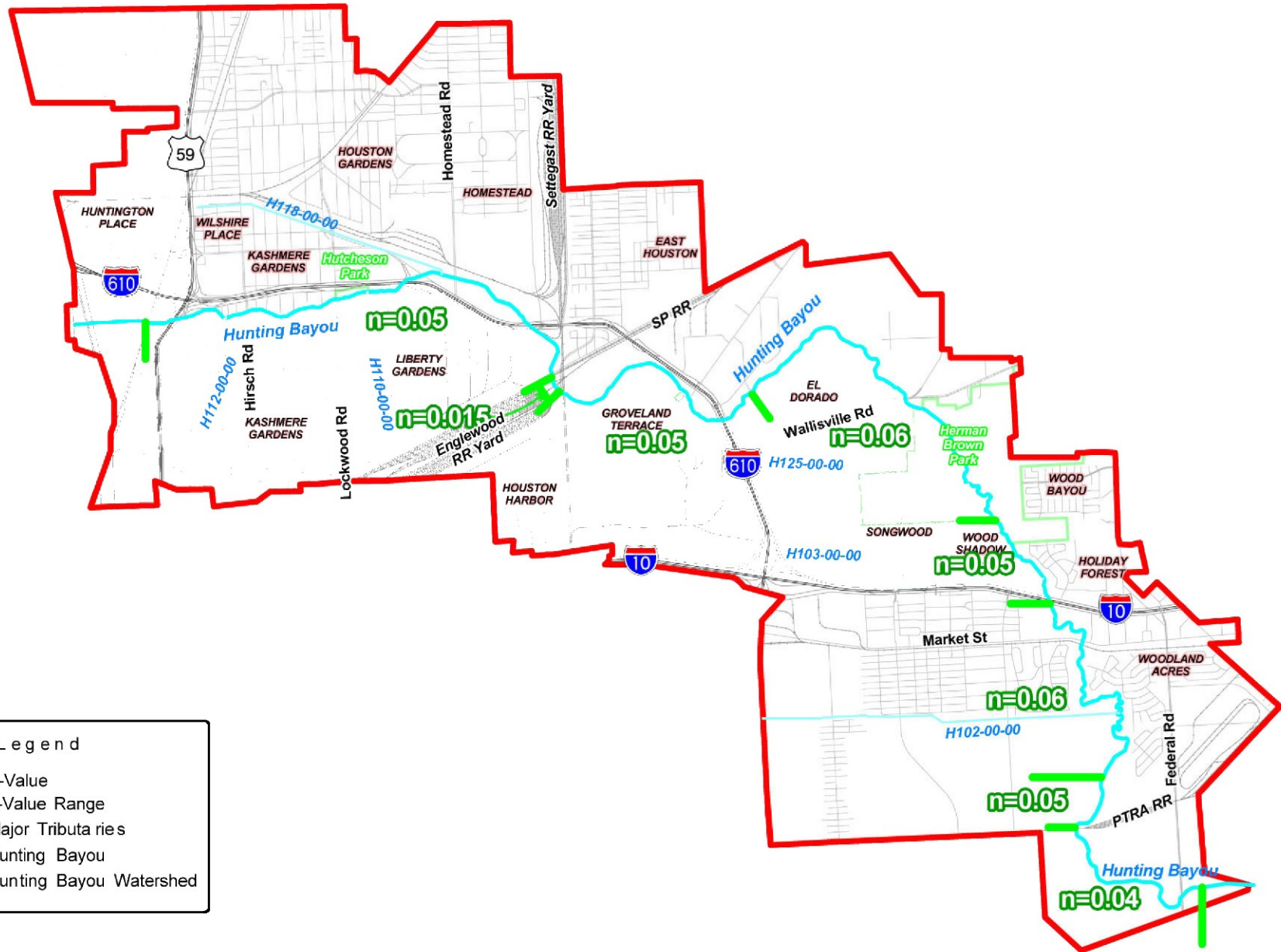


EXHIBIT A2-23
Station-Discharge for Existing Without Project Conditions





Legend

- n=0.05 n-Value
- [] n-Value Range
- ~ Major Tributaries
- ~ Hunting Bayou
- [] Hunting Bayou Watershed



Exhibit A2-24: Without Project Manning's n-Values

Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFCD
Park - H-GAC

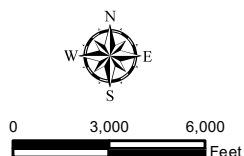


EXHIBIT A-25
TYPICAL CROSS-SECTIONS DEPICTING MANNING'S N-VALUES



N = 0.05: Looking upstream at bridge on Manitou Street.



N = 0.05: Looking downstream at pedestrian bridge in Hutcheson Park.

EXHIBIT A2-25
TYPICAL CROSS-SECTIONS DEPICTING MANNING'S N-VALUES



Photograph Date 6/3/98

N = 0.06: Looking downstream from RR crossings 100 feet east of Wayside.



Photograph Date 4/20/98

N = 0.06: Looking upstream from bridge at Market Street.

EXHIBIT A2-26
STATION-DISCHARGE FOR SEPTEMBER 1998 STORM EVENT
(PEAK ON PEAK ASSUMPTION)

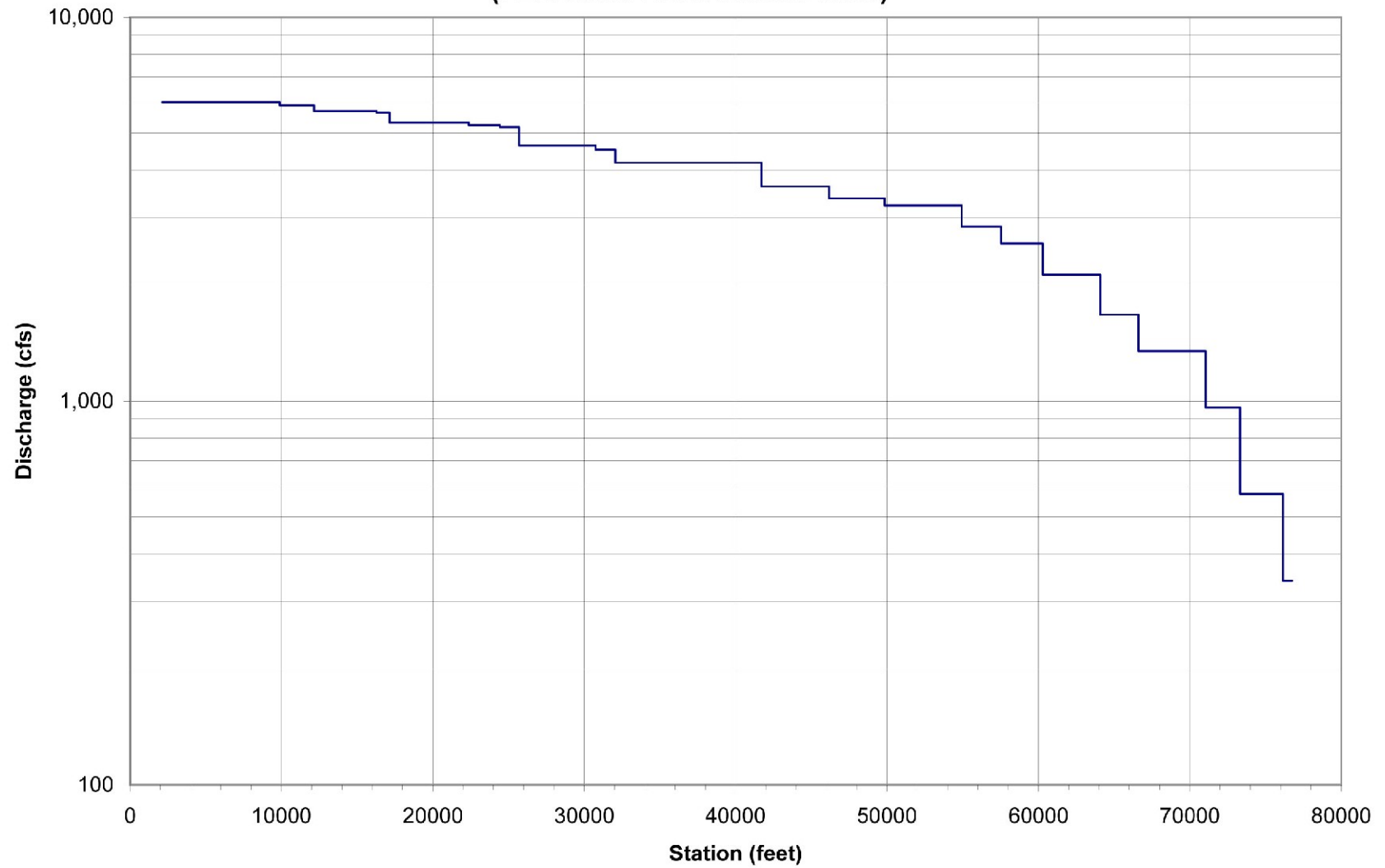


EXHIBIT A2-27
STATION-DISCHARGE FOR SEPTEMBER 1998 STORM EVENT
(COINCIDENTAL PEAKS UPSTREAM OF USGS STREAM GAGE)

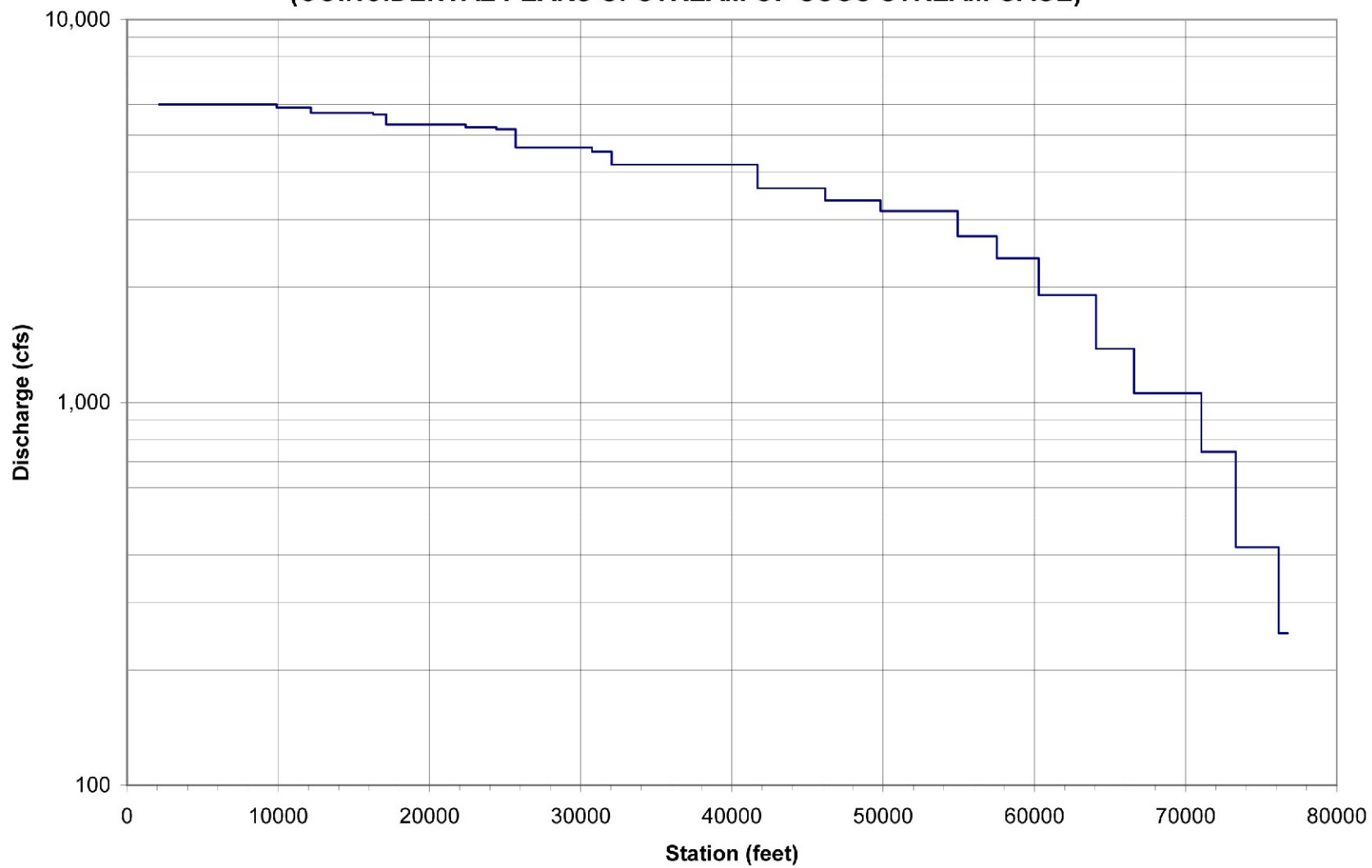
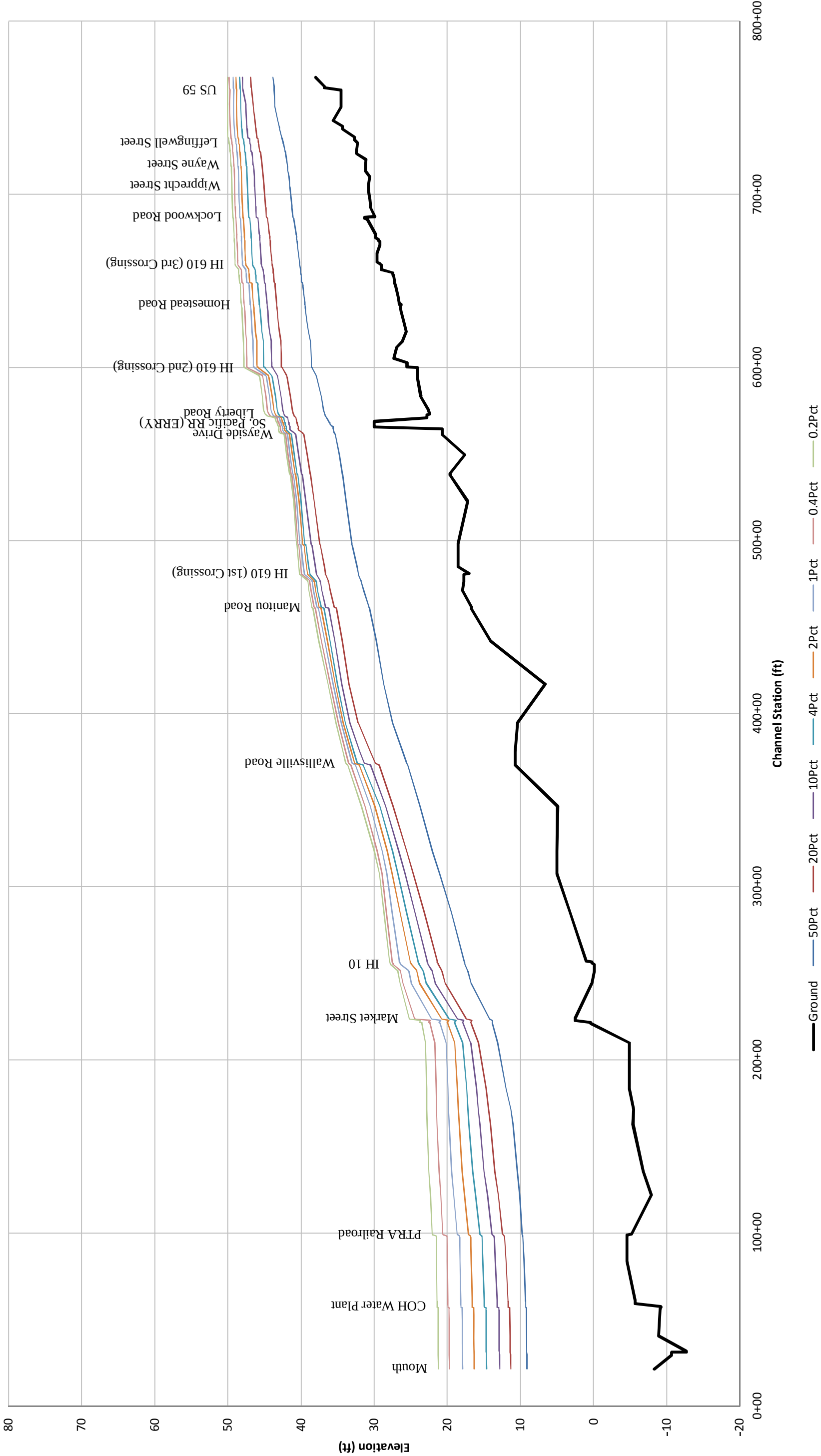
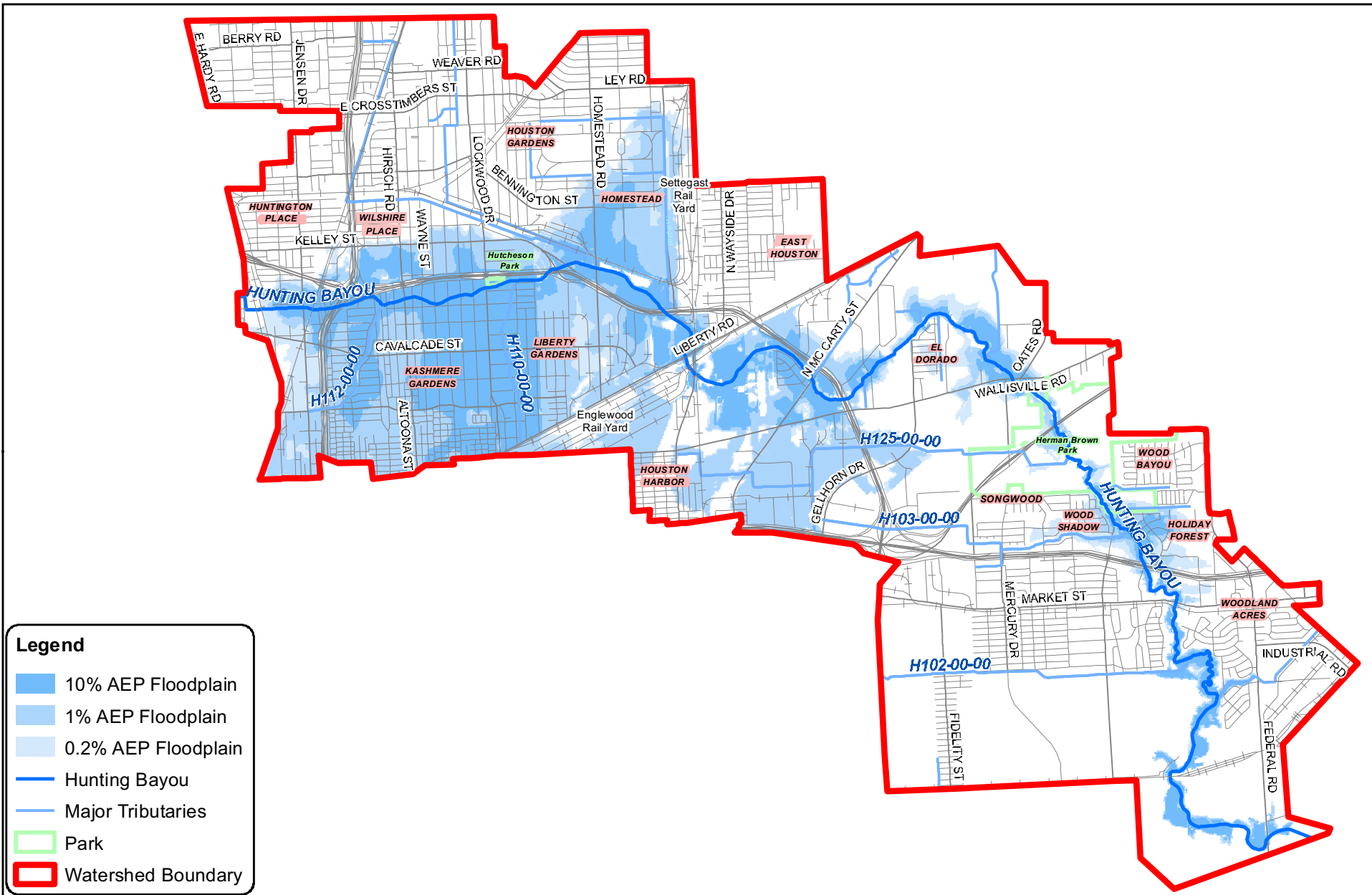


EXHIBIT A2-28
Water Surface Profiles
Without Project Conditions





Legend

- 10% AEP Floodplain
- 1% AEP Floodplain
- 0.2% AEP Floodplain
- Hunting Bayou
- Major Tributaries
- Park
- Watershed Boundary

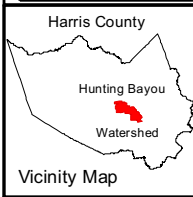
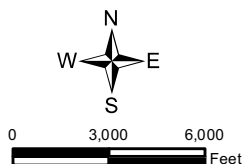
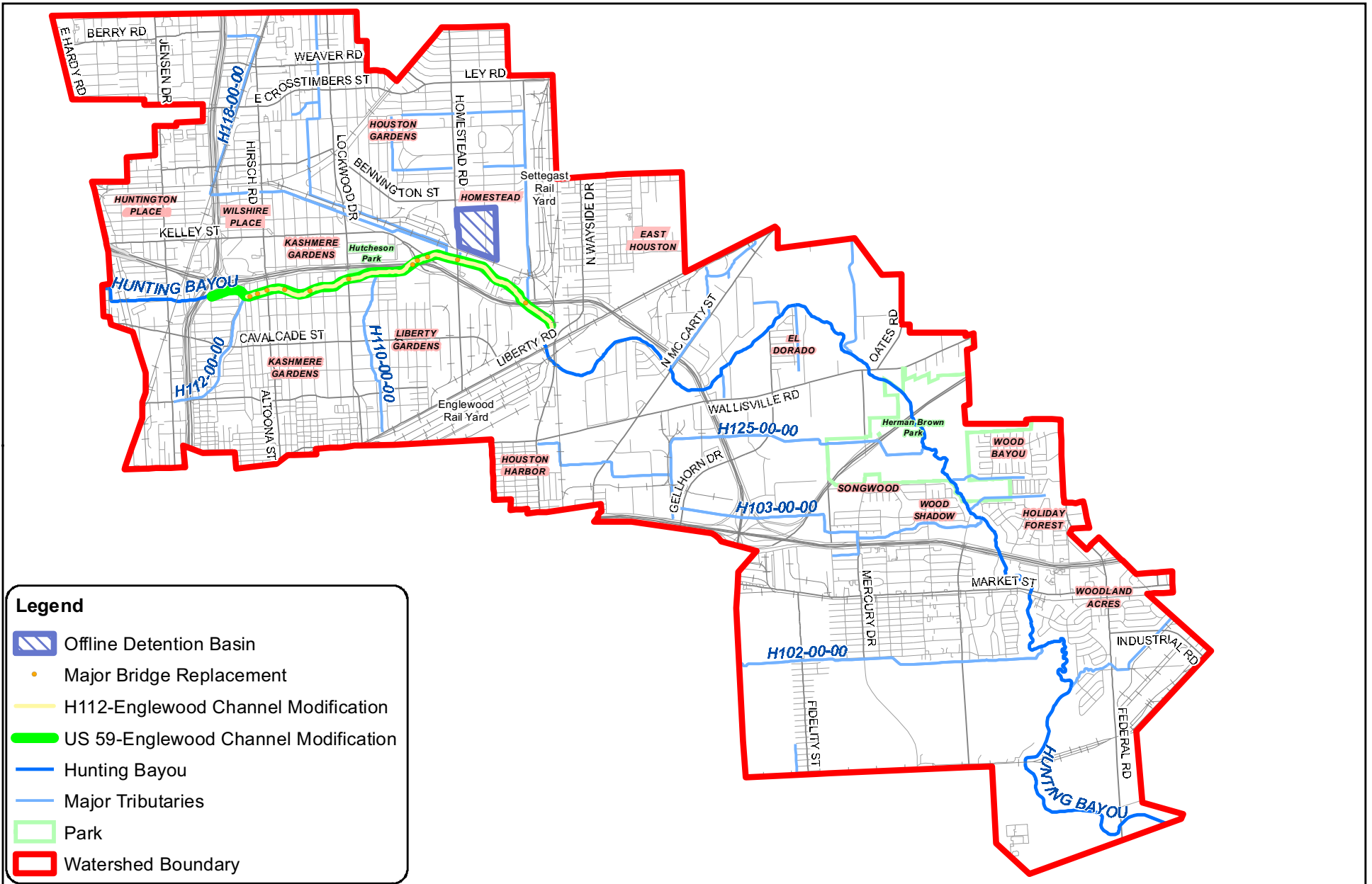


Exhibit A2-29: AEP Floodplains, Existing Conditions

Hunting Bayou Flood Risk Management Project

Sources:
 Hunting Bayou - HCFC
 Park - H-GAC
 AEP Floodplains - AECOM





Legend

-  Offline Detention Basin
-  Major Bridge Replacement
-  H112-Englewood Channel Modification
-  US 59-Englewood Channel Modification
-  Hunting Bayou
-  Major Tributaries
-  Park
-  Watershed Boundary

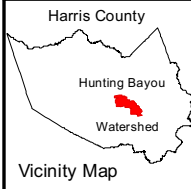
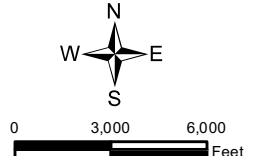
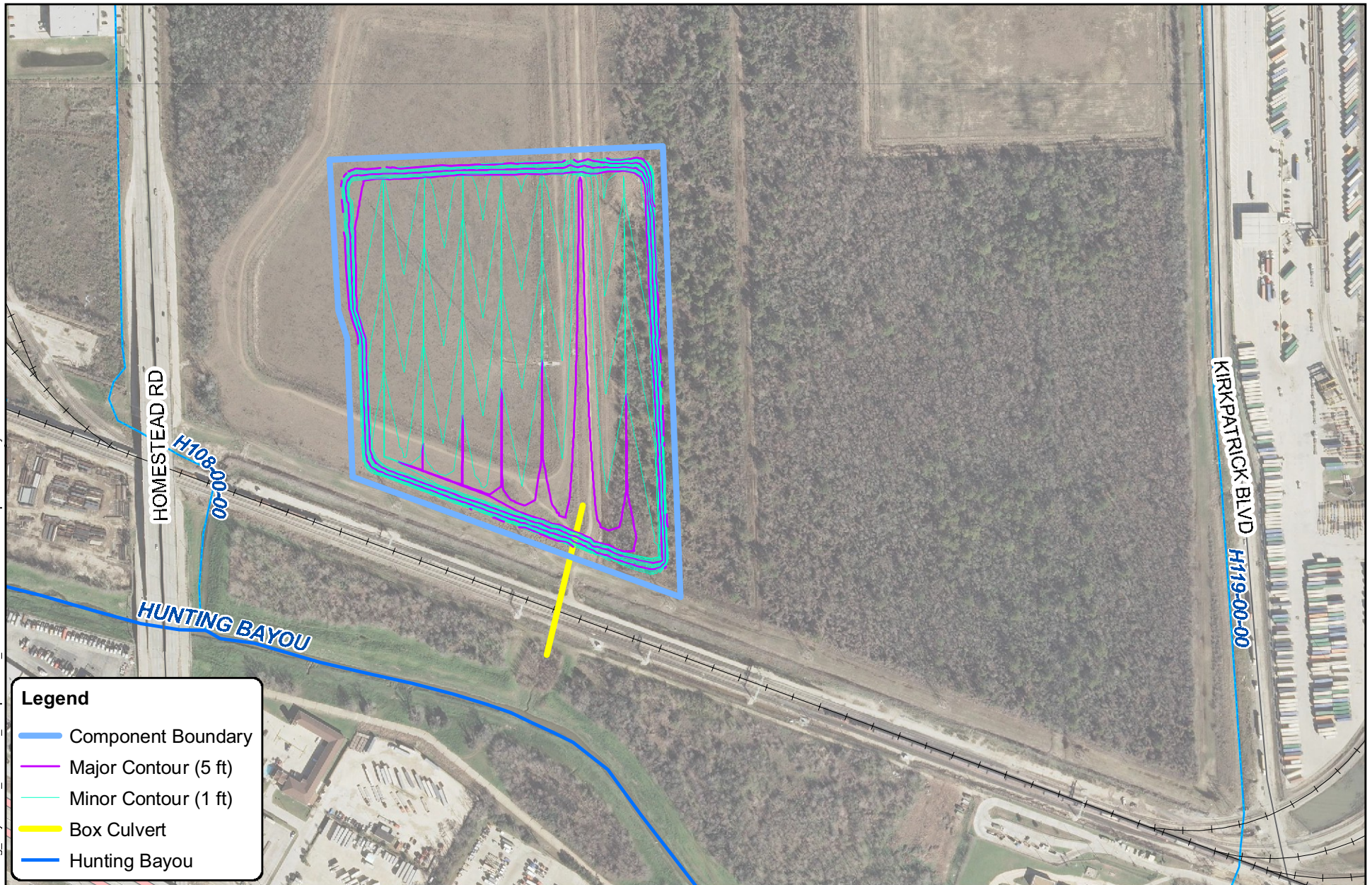


Exhibit A2-30: B-A Alternative General Layout

Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFC
Park - H-GAC





Legend

- Component Boundary
- Major Contour (5 ft)
- Minor Contour (1 ft)
- Box Culvert
- Hunting Bayou

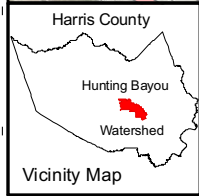
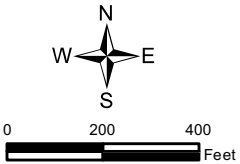


Exhibit A2-31: Component A1 Layout

Hunting Bayou Flood Risk Management Project

Sources:
Aerials - H-GAC (2012)
Streams - HCFC



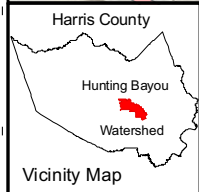
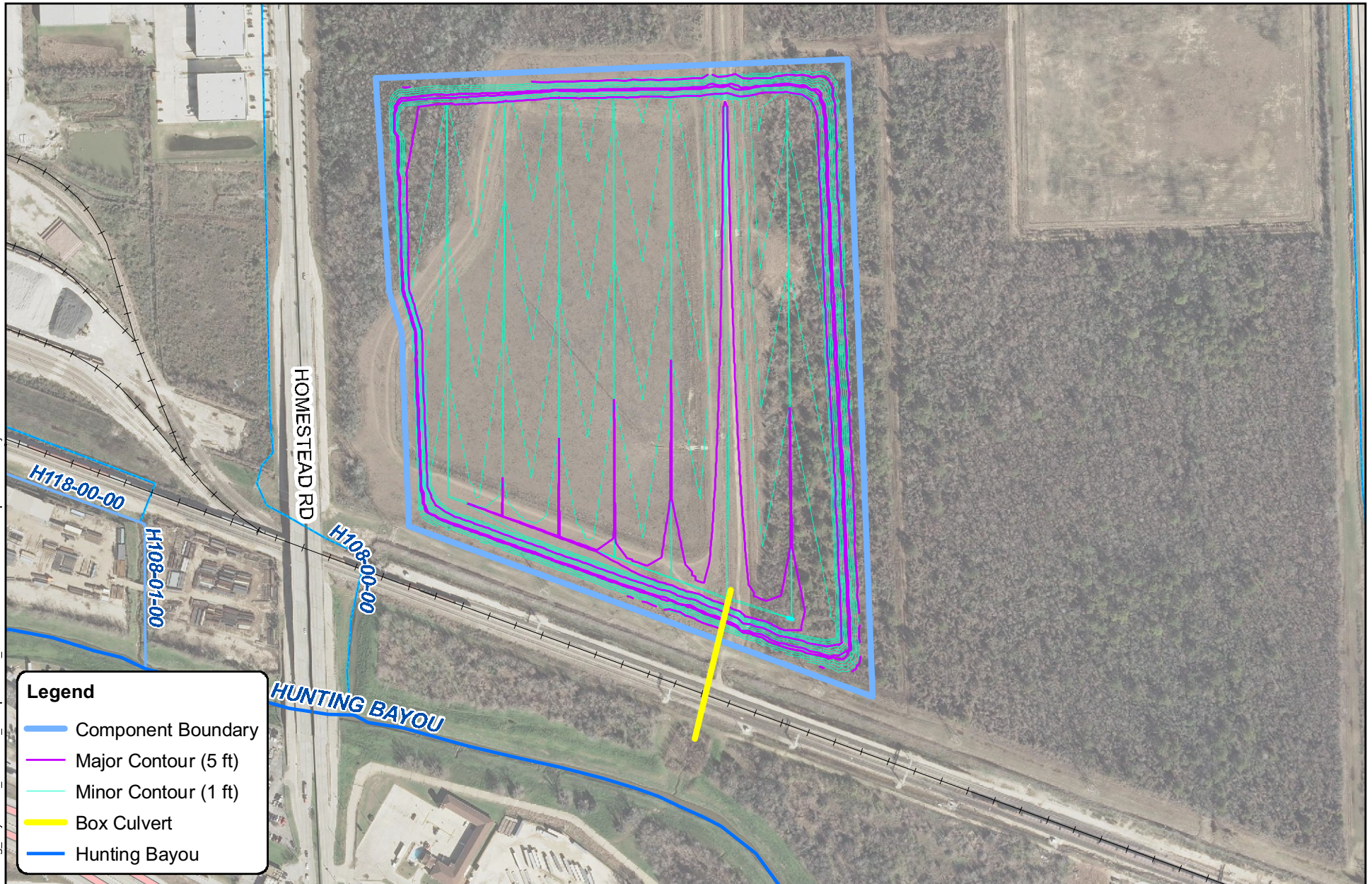


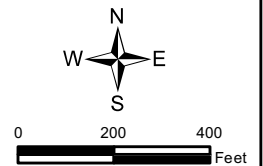
Exhibit: A2-32: Component A2 Layout

Hunting Bayou Flood Risk Management Project

Sources:
Aerials - H-GAC (2012)
Streams - HCFCD



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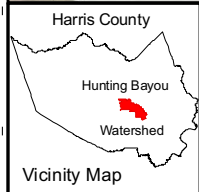
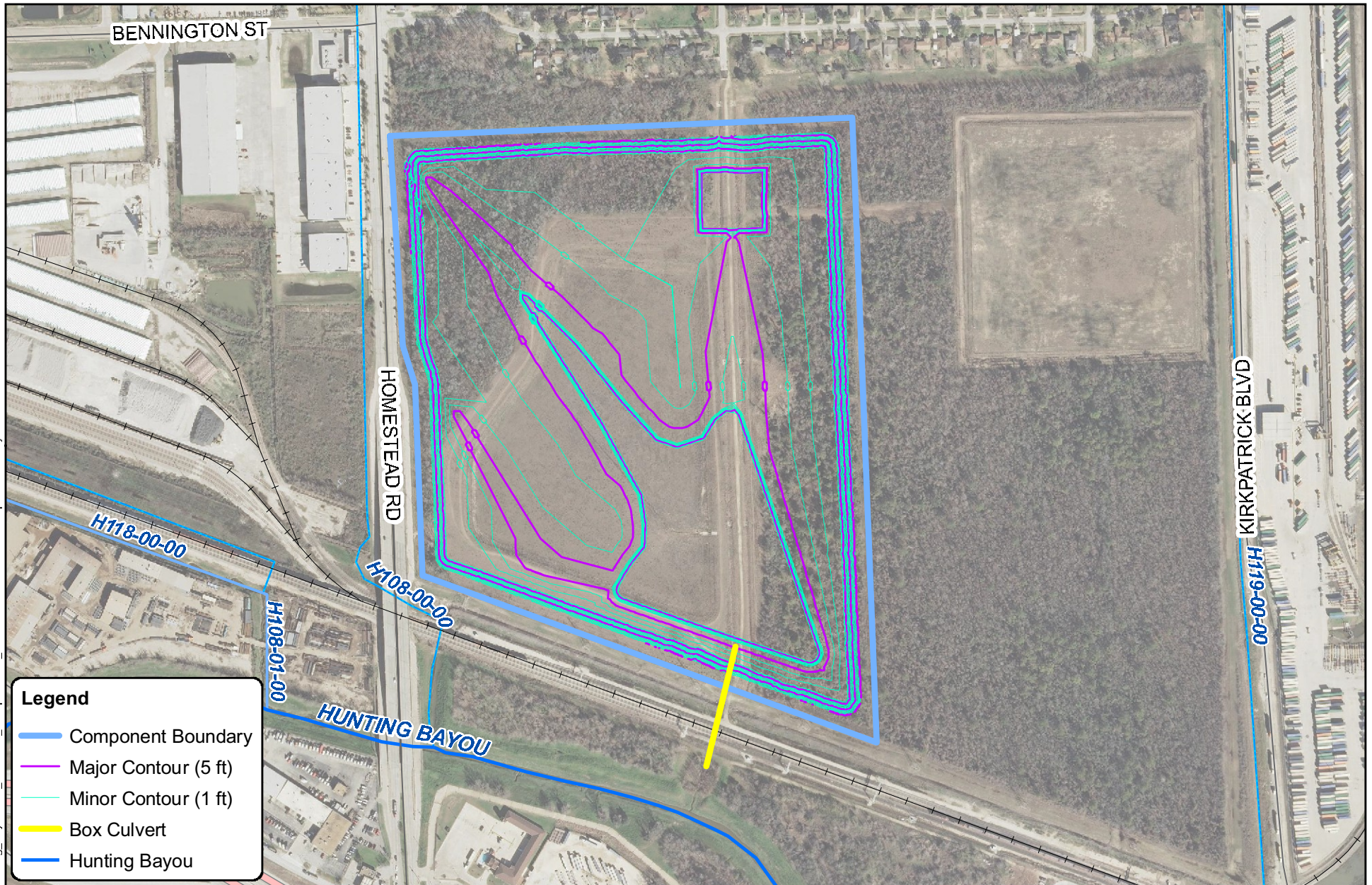
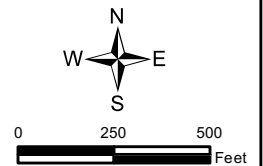
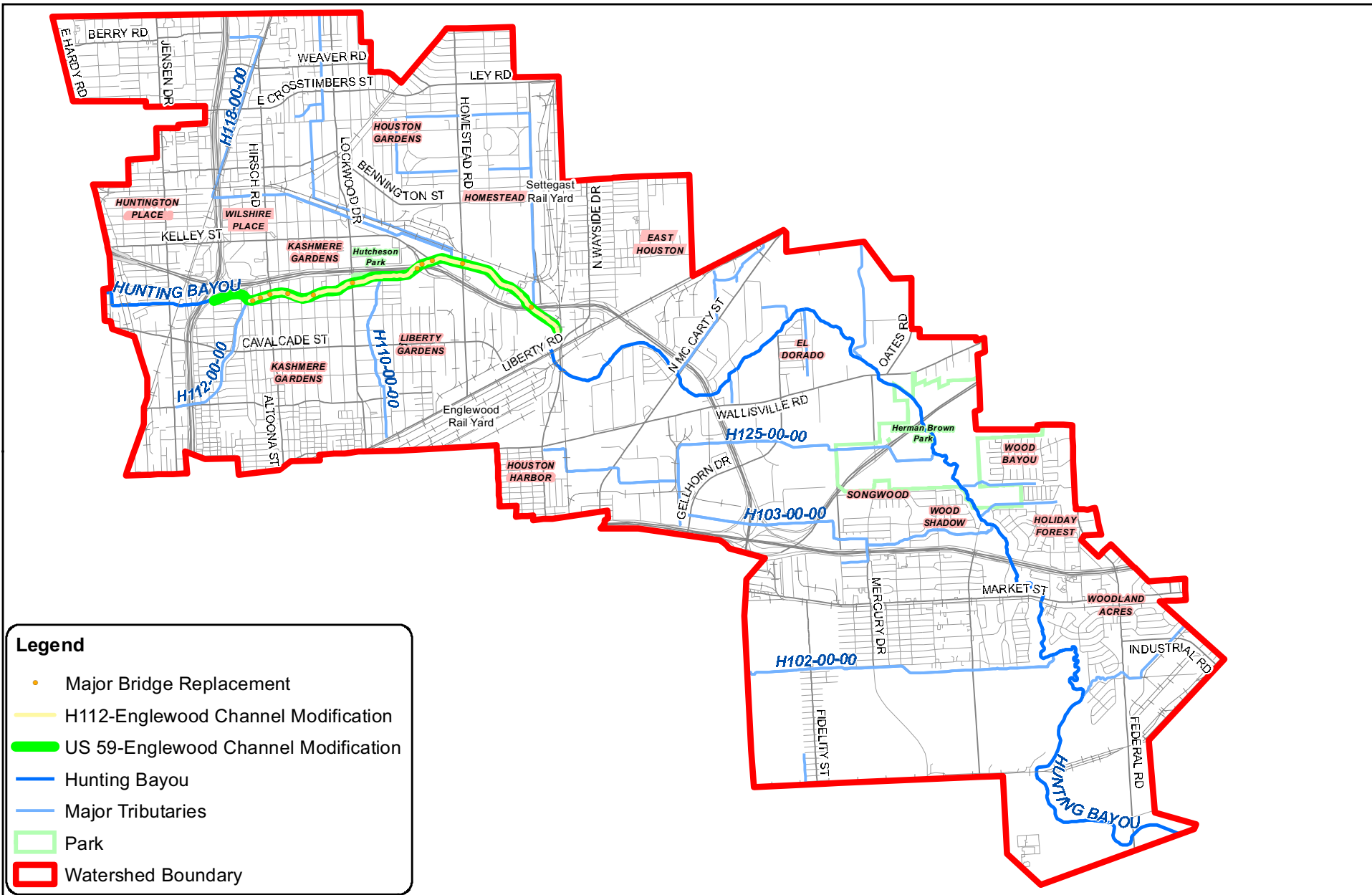


Exhibit: A2-33: Component A3 Layout **Hunting Bayou Flood Risk Management Project**

Sources:
Aerials - H-GAC (2012)
Streams - HCFC





Legend

- Major Bridge Replacement
- H112-Englewood Channel Modification
- US 59-Englewood Channel Modification
- Hunting Bayou
- Major Tributaries
- Park
- Watershed Boundary

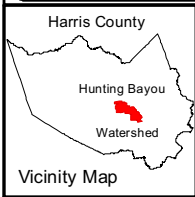


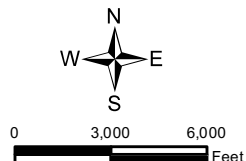
Exhibit A2-34: Component B

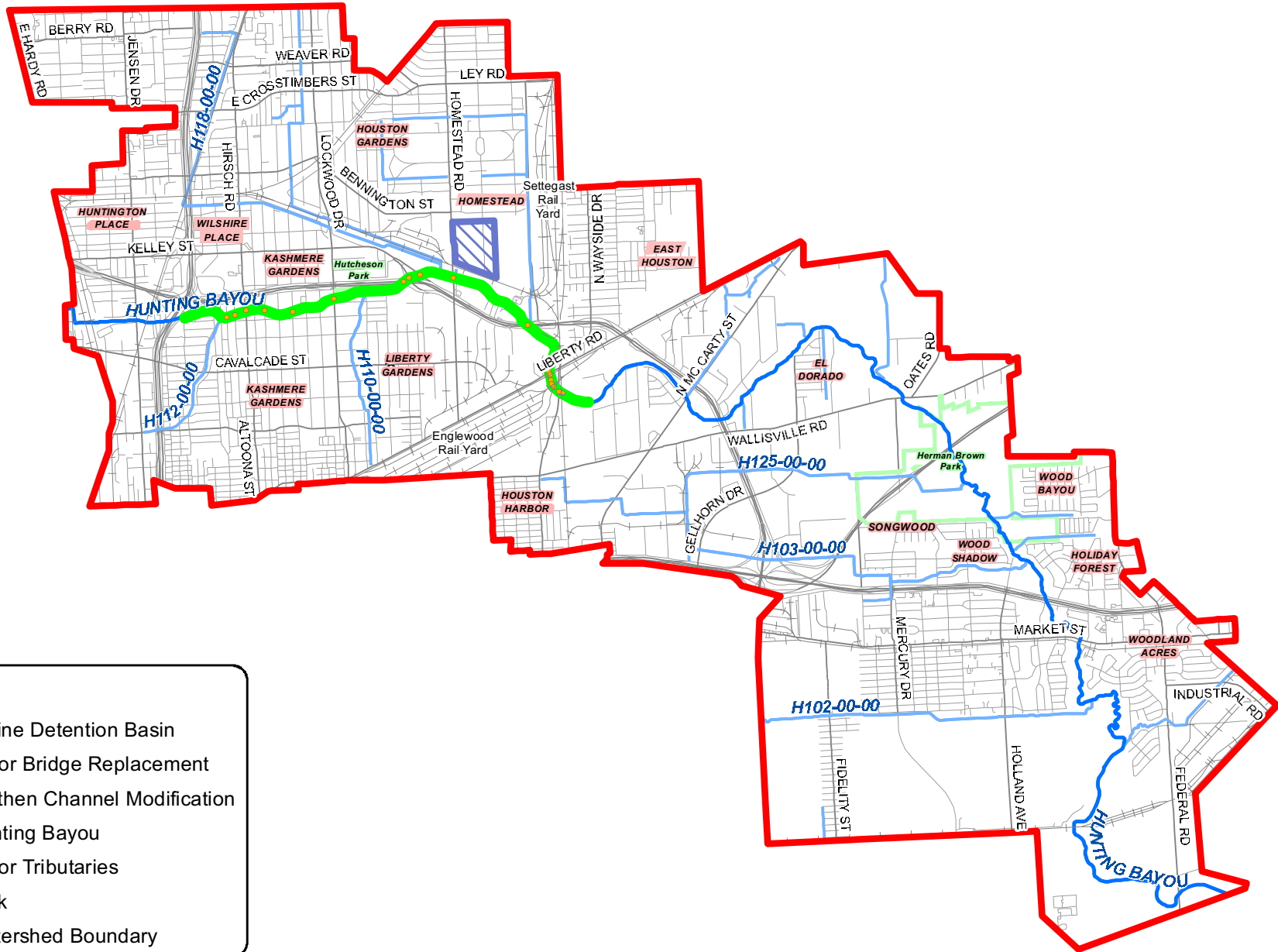
Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFC
Park - H-GAC



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Legend

-  Offline Detention Basin
-  Major Bridge Replacement
-  Earthen Channel Modification
-  Hunting Bayou
-  Major Tributaries
-  Park
-  Watershed Boundary

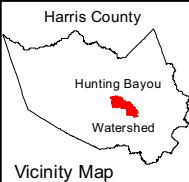


Exhibit A2-36: Alternative B60-A75

Hunting Bayou Flood Risk Management Project

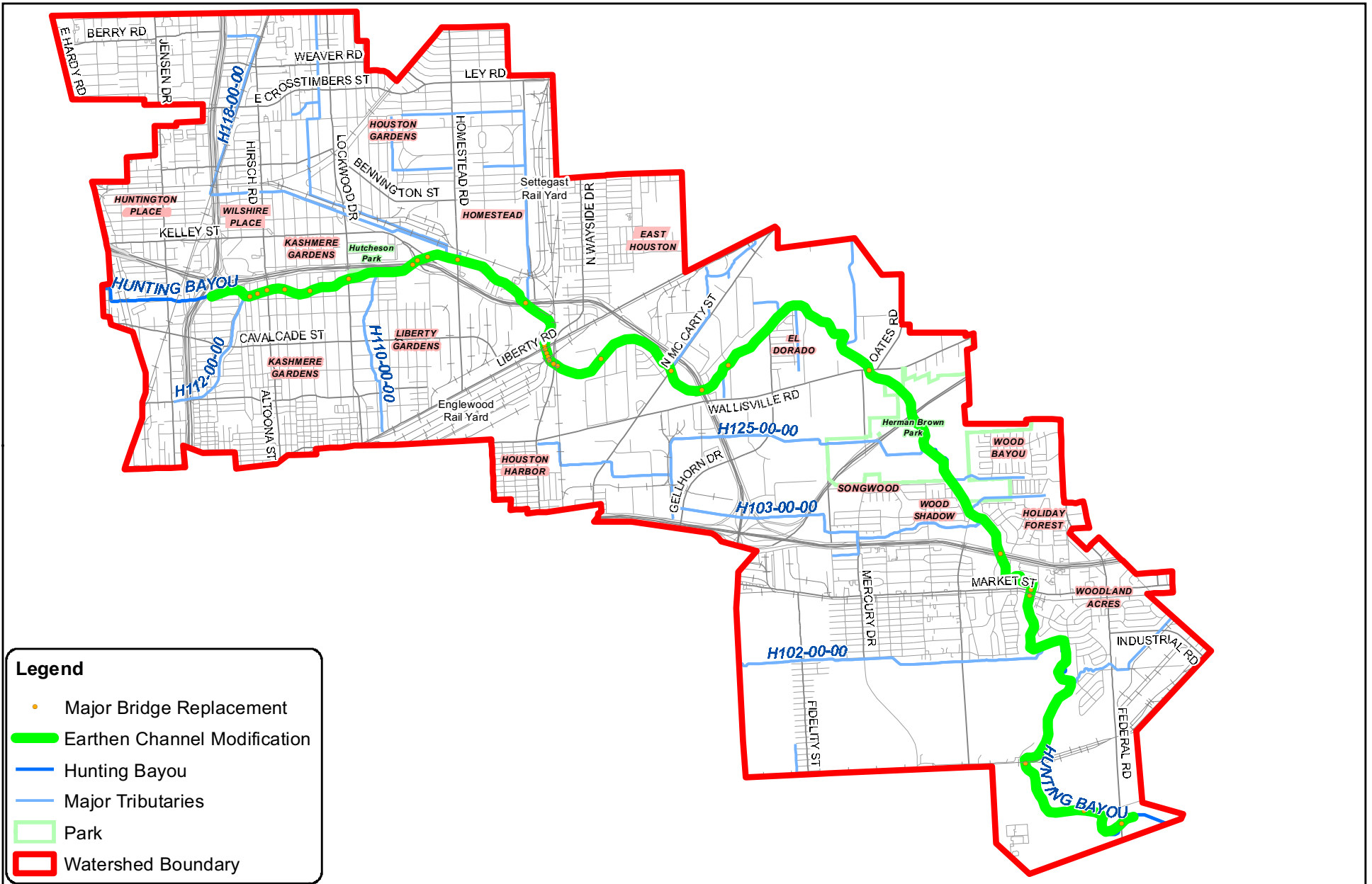
Sources:
Hunting Bayou - HCFC
Park - H-GAC



**US Army Corps
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Galveston District



0 3,000 6,000
Feet



Legend

- Major Bridge Replacement
- Earthen Channel Modification
- Hunting Bayou
- Major Tributaries
- Park
- Watershed Boundary

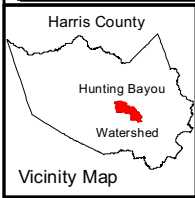


Exhibit A2-37: Alternative 1
Full Earthen Channel Modification
Hunting Bayou Flood Risk Management Project

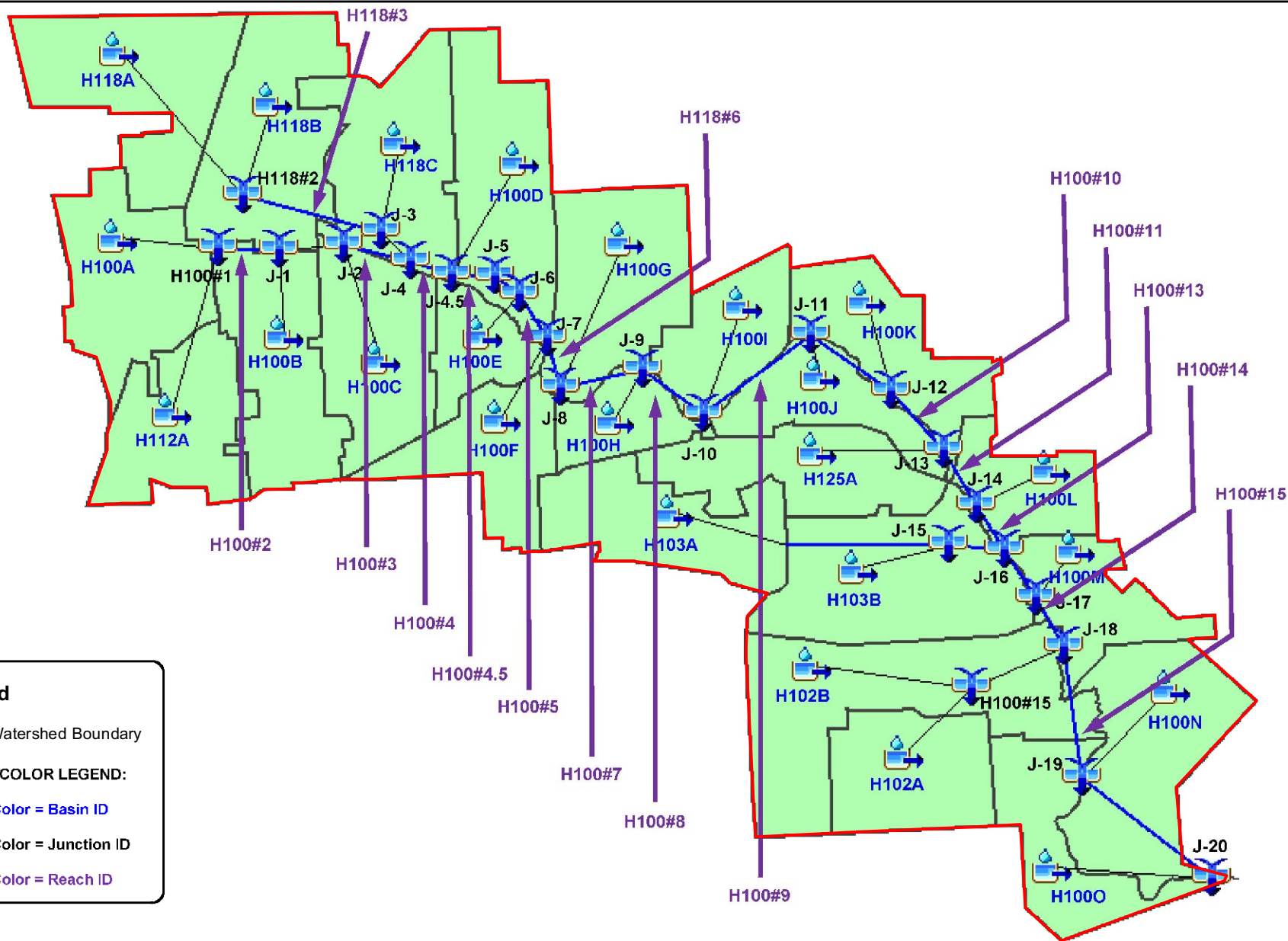
Sources:
Hunting Bayou - HCFC
Park - H-GAC



US Army Corps of Engineers
Galveston District



0 3,000 6,000
Feet



Legend

Watershed Boundary

FONT COLOR LEGEND:

Font Color = Basin ID

Font Color = Junction ID

Font Color = Reach ID

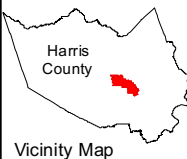


Exhibit A2-38: HEC-HMS Model Schematic Hunting Bayou Flood Risk Management Project

Sources:
Model - AECOM



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Galveston District



0 3,000 6,000
Feet

EXHIBIT A2-39
HEC-HMS Results for Without Project Conditions

Hydrologic Element	Peak Flow (cfs)							
	50% AEP	20% AEP	10% AEP	4% AEP	2% AEP	1% AEP	0.40% AEP	0.20% AEP
H100A	464	785	981	1211	1406	1625	1937	2225
H112A	270	462	587	733	861	1000	1207	1398
H100#1	734	1245	1564	1938	2254	2611	3133	3611
H100#2	592	968	1151	1398	1501	1567	1685	1797
H100B	330	561	710	886	1040	1208	1453	1678
Junction-1	880	1470	1760	2145	2439	2664	2964	3249
H100#3	798	1378	1665	2043	2295	2399	2577	2764
H100C	304	519	658	822	966	1122	1352	1565
Junction-2	1030	1796	2184	2693	3088	3389	3707	4029
H118B	128	232	306	399	480	569	709	838
H118A	69	130	174	230	277	330	413	489
H118#2	195	359	477	625	752	893	1113	1317
H118#3	193	359	477	623	744	879	1094	1291
H118C	95	176	234	308	371	441	550	651
Junction-3	286	535	711	930	1107	1308	1628	1919
Junction-4	1313	2329	2893	3615	4177	4570	5197	5808
H100#4	1310	2320	2848	3467	3902	4216	4652	5281
H100D	320	562	717	898	1055	1229	1488	1723
Junction-4.5	1558	2787	3416	4136	4679	5048	5634	6180
H100#4.5	1518	2729	3326	3865	4189	4432	4713	4976
Junction-5	1518	2729	3326	3865	4189	4432	4713	4976
H100E	147	245	307	382	446	517	621	718
Junction-6	1622	2905	3530	4066	4392	4619	4900	5106
H100#5	1600	2857	3419	3982	4330	4575	4835	5075
H100F	296	470	583	720	836	966	1154	1329
Junction-7	1778	3140	3710	4264	4629	4886	5263	5587
H100#6	1747	3097	3654	4186	4550	4840	5174	5455
H100G	259	466	601	761	901	1053	1283	1493
Junction-8	1934	3449	4037	4580	4974	5380	5934	6407
H100#7	1916	3411	3962	4476	4675	5102	5311	5372
H100H	132	229	291	364	426	495	599	693
Junction-9	1989	3541	4071	4563	4730	5164	5346	5472
H100#8	1963	3520	4062	4552	4725	5137	5342	5433
H100I	155	279	359	453	536	626	762	886
Junction-10	2061	3706	4239	4716	4958	5257	5565	5771
H100#9	2022	3672	4222	4703	4941	5248	5549	5761
H100J	170	308	395	497	585	682	827	959
Junction-11	2100	3826	4365	4837	5144	5438	5909	6312
H100K	198	361	468	591	699	818	997	1159
Junction-12	2193	4022	4610	5114	5506	5935	6611	7212
H100#10	2172	4010	4598	5105	5498	5926	6579	7157
H125A	227	419	541	682	805	939	1140	1323
Junction-13	2265	4218	4913	5452	5946	6526	7345	8108
H100#11	2246	4202	4898	5446	5902	6361	7167	7990
H100L	126	231	300	380	450	526	641	746

EXHIBIT A2-39
HEC-HMS Results for Without Project Conditions

Hydrologic Element	Peak Flow (cfs)							
	50% AEP	20% AEP	10% AEP	4% AEP	2% AEP	1% AEP	0.40% AEP	0.20% AEP
Junction-14	2304	4329	5089	5693	6174	6677	7571	8525
H100#12	2295	4320	5080	5690	6170	6671	7427	8014
H103B	524	904	1139	1413	1644	1904	2276	2623
H103A	112	194	252	326	390	461	572	675
H103#2	110	193	251	325	388	459	568	673
Junction-15	560	972	1239	1555	1833	2136	2587	3000
Junction-16	2510	4761	5752	6669	7364	8069	9053	9785
H100#13	2498	4751	5744	6657	7339	8022	8825	9543
H100M	273	472	591	732	853	987	1178	1355
Junction-17	2549	4870	5953	6995	7794	8563	9524	10201
H100#14	2444	4671	5745	6701	7449	8184	9100	9793
H102B	795	1350	1679	2065	2404	2774	3304	3791
H102A	81	180	249	329	399	475	594	703
H102#1	806	1386	1745	2168	2537	2939	3523	4057
Junction-18	2577	4975	6242	7440	8383	9277	10425	11296
H100#15	2349	4833	6054	7133	7898	8701	9902	10753
H100N	224	413	538	689	819	964	1185	1390
Junction-19	2424	5028	6314	7457	8239	9078	10383	11286
H100O	42	87	120	161	196	235	296	352
Junction-20	2454	5099	6418	7596	8404	9272	10629	11582

EXHIBIT A2-40
HEC-HMS Results for Alternative B50-A25

Hydrologic Element	Peak Flow (cfs)							
	50% AEP	20% AEP	10% AEP	4% AEP	2% AEP	1% AEP	0.40% AEP	0.20% AEP
H100A	464	785	981	1211	1406	1625	1937	2225
H112A	270	462	587	733	861	1000	1207	1398
H100#1	734	1245	1564	1938	2254	2611	3133	3611
H100#2	566	1012	1290	1632	1927	2289	2728	3036
H100B	330	561	710	886	1040	1208	1453	1678
Junction-1	845	1513	1926	2437	2879	3412	4087	4599
H100#3	720	1335	1738	2230	2673	3201	3940	4501
H100C	304	519	658	822	966	1122	1352	1565
Junction-2	930	1727	2256	2898	3478	4166	5138	5911
H118B	128	232	306	399	480	569	709	838
H118A	69	130	174	230	277	330	413	489
H118#2	195	359	477	625	752	893	1113	1317
H118#3	193	359	477	623	744	879	1094	1291
H118C	95	176	234	308	371	441	550	651
Junction-3	286	535	711	930	1107	1308	1628	1919
Junction-4	1216	2262	2965	3819	4570	5392	6619	7637
H100#4	1186	2232	2951	3804	4549	5350	6421	7348
BASIN	198	353	468	601	737	863	1069	1174
Junction-4.5	1186	2187	3157	4248	5031	5825	6950	8050
H100#4.5	1180	2175	3156	4235	5021	5789	6925	7943
Junction-5	1180	2175	3156	4235	5021	5789	6925	7943
H100E	147	245	307	382	446	517	621	718
Junction-6	1268	2351	3345	4519	5346	6174	7326	8388
H100#5	1245	2308	3292	4395	5188	5945	7069	7921
H100F	296	470	583	720	836	966	1154	1329
Junction-7	1393	2585	3590	4809	5676	6483	7648	8503
H100#6	1372	2561	3490	4464	5364	6315	7368	8217
H100G	259	466	601	761	901	1053	1283	1493
Junction-8	1534	2913	3876	4928	5929	7004	8129	8983
H100#7	1523	2898	3757	4619	5030	5297	6402	7980
H100H	132	229	291	364	426	495	599	693
Junction-9	1585	3035	3877	4728	5110	5359	6495	8093
H100#8	1570	3009	3863	4697	5092	5353	6406	7774
H100I	155	279	359	453	536	626	762	886
Junction-10	1657	3202	4051	4876	5244	5517	6564	7956
H100#9	1633	3169	4015	4839	5239	5510	6506	7823
H100J	170	308	395	497	585	682	827	959
Junction-11	1700	3332	4164	4964	5370	5676	6593	7920
H100K	198	361	468	591	699	818	997	1159
Junction-12	1782	3538	4365	5152	5625	6035	6743	8082
H100#10	1769	3523	4360	5144	5617	6023	6723	8011
H125A	227	419	541	682	805	939	1140	1323
Junction-13	1850	3742	4571	5358	5901	6469	7316	8126
H100#11	1839	3720	4568	5353	5895	6369	7190	8098
H100L	126	231	300	380	450	526	641	746
Junction-14	1890	3852	4721	5563	6127	6632	7560	8497
H100#12	1885	3843	4718	5559	6124	6626	7409	8069

EXHIBIT A2-37
HEC-HMS Results for Alternative B50-A25

Hydrologic Element	Peak Flow (cfs)							
	50% AEP	20% AEP	10% AEP	4% AEP	2% AEP	1% AEP	0.40% AEP	0.20% AEP
H103B	524	904	1139	1413	1644	1904	2276	2623
H103A	112	194	252	326	390	461	572	675
H103#2	110	193	251	325	388	459	568	673
Junction-15	560	972	1239	1555	1833	2136	2587	3000
Junction-16	2080	4299	5404	6442	7211	8027	8964	9790
H100#13	2073	4287	5396	6429	7195	7957	8784	9486
H100M	273	472	591	732	853	987	1178	1355
Junction-17	2117	4413	5615	6780	7629	8470	9451	10168
H100#14	2062	4209	5419	6518	7329	8106	9054	9753
H102B	795	1350	1679	2065	2404	2774	3304	3791
H102A	81	180	249	329	399	475	594	703
H102#1	806	1386	1745	2168	2537	2939	3523	4057
Junction-18	2181	4526	5919	7237	8244	9188	10372	11265
H100#15	2028	4392	5771	7000	7822	8649	9848	10705
H100N	224	413	538	689	819	964	1185	1390
Junction-19	2094	4591	6040	7335	8166	9030	10324	11231
H100O	42	87	120	161	196	235	296	352
Junction-20	2123	4663	6145	7476	8331	9224	10570	11525
H100D	320	562	717	898	1055	1229	1488	1723

EXHIBIT A2-41
HEC-HMS Results for Alternative B60-A75

Hydrologic Element	Peak Flow (cfs)							
	50% AEP	20% AEP	10% AEP	4% AEP	2% AEP	1% AEP	0.40% AEP	0.20% AEP
H100A	464	785	981	1211	1406	1625	1937	2225
H112A	270	462	587	733	861	1000	1207	1398
H100#1	734	1245	1564	1938	2254	2611	3133	3611
H100#2	563	1008	1284	1647	1983	2359	2921	3294
H100B	330	561	710	886	1040	1208	1453	1678
Junction-1	842	1506	1918	2456	2946	3500	4331	4905
H100#3	706	1314	1717	2209	2738	3318	4187	4840
H100C	304	519	658	822	966	1122	1352	1565
Junction-2	912	1700	2226	2875	3566	4321	5456	6317
H118B	128	232	306	399	480	569	709	838
H118A	69	130	174	230	277	330	413	489
H118#2	195	359	477	625	752	893	1113	1317
H118#3	193	359	477	623	744	879	1094	1291
H118C	95	176	234	308	371	441	550	651
Junction-3	286	535	711	930	1107	1308	1628	1919
Junction-4	1198	2235	2937	3797	4653	5518	6846	7935
H100#4	1191	2225	2933	3791	4634	5494	6772	7699
BASIN	98	211	338	614	761	776	911	1098
Junction-4.5	1191	2205	2555	3169	3647	4431	6029	7629
H100#4.5	1157	2161	2529	3146	3626	4408	5875	7174
Junction-5	1157	2161	2529	3146	3626	4408	5875	7174
H100E	147	245	307	382	446	517	621	718
Junction-6	1243	2328	2755	3453	3993	4641	6236	7597
H100#5	1221	2288	2721	3371	3897	4585	6059	7246
H100F	296	470	583	720	836	966	1154	1329
Junction-7	1363	2557	3086	3853	4482	5128	6581	7819
H100#6	1344	2532	3042	3689	4201	4897	6516	7546
H100G	259	466	601	761	901	1053	1283	1493
Junction-8	1503	2879	3505	4256	4866	5512	7316	8413
H100#7	1492	2865	3423	4039	4502	5035	5551	7044
H100H	132	229	291	364	426	495	599	693
Junction-9	1552	2995	3578	4200	4663	5117	5620	7158
H100#8	1538	2974	3568	4168	4640	5101	5599	7042
H100I	155	279	359	453	536	626	762	886
Junction-10	1623	3162	3802	4414	4896	5276	5741	7236
H100#9	1600	3131	3771	4378	4864	5273	5736	7124
H100J	170	308	395	497	585	682	827	959
Junction-11	1666	3293	3970	4573	5060	5492	5944	7226
H100K	198	361	468	591	699	818	997	1159
Junction-12	1746	3491	4233	4901	5359	5879	6556	7399
H100#10	1733	3481	4229	4880	5354	5864	6529	7363
H125A	227	419	541	682	805	939	1140	1323
Junction-13	1812	3691	4520	5259	5770	6334	7203	7987
H100#11	1801	3674	4515	5248	5738	6234	7077	7894
H100L	126	231	300	380	450	526	641	746
Junction-14	1852	3801	4701	5487	6030	6521	7452	8404
H100#12	1846	3793	4698	5481	6024	6515	7324	7978

EXHIBIT A2-41
HEC-HMS Results for Alternative B60-A75

Hydrologic Element	Peak Flow (cfs)							
	50% AEP	20% AEP	10% AEP	4% AEP	2% AEP	1% AEP	0.40% AEP	0.20% AEP
H103B	524	904	1139	1413	1644	1904	2276	2623
H103A	112	194	252	326	390	461	572	675
H103#2	110	193	251	325	388	459	568	673
Junction-15	560	972	1239	1555	1833	2136	2587	3000
Junction-16	2038	4242	5384	6431	7193	8000	8921	9746
H100#13	2032	4231	5375	6419	7176	7930	8734	9437
H100M	273	472	591	732	853	987	1178	1355
Junction-17	2074	4356	5593	6773	7619	8454	9428	10131
H100#14	2021	4160	5387	6486	7290	8060	9012	9708
H102B	795	1350	1679	2065	2404	2774	3304	3791
H102A	81	180	249	329	399	475	594	703
H102#1	806	1386	1745	2168	2537	2939	3523	4057
Junction-18	2139	4474	5896	7224	8228	9168	10345	11235
H100#15	1985	4338	5720	6963	7771	8594	9812	10672
H100N	224	413	538	689	819	964	1185	1390
Junction-19	2051	4537	5997	7308	8126	8980	10293	11205
H100O	42	87	120	161	196	235	296	352
Junction-20	2080	4609	6103	7450	8292	9174	10540	11500
H100D	320	562	717	898	1055	1229	1488	1723

EXHIBIT A2-42

HEC-HMS Results Comparison for Without Project Condition and B60-A75

Hydrologic Element	Peak Flow (cfs)							
	50% AEP	20% AEP	10% AEP	4% AEP	2% AEP	1% AEP	0.40% AEP	0.20% AEP
H100A	0	0	0	0	0	0	0	0
H112A	0	0	0	0	0	0	0	0
H100#1	0	0	0	0	0	0	0	0
H100#2	29	-40	-133	-249	-482	-792	-1236	-1497
H100B	0	0	0	0	0	0	0	0
Junction-1	39	-37	-158	-312	-507	-836	-1367	-1657
H100#3	92	65	-52	-165	-443	-919	-1610	-2075
H100C	0	0	0	0	0	0	0	0
Junction-2	117	96	-42	-182	-478	-932	-1749	-2288
H118B	0	0	0	0	0	0	0	0
H118A	0	0	0	0	0	0	0	0
H118#2	0	0	0	0	0	0	0	0
H118#3	0	0	0	0	0	0	0	0
H118C	0	0	0	0	0	0	0	0
Junction-3	0	0	0	0	0	0	0	0
Junction-4	115	95	-44	-182	-476	-949	-1649	-2127
H100#4	118	95	-85	-324	-732	-1277	-2120	-2418
H100D	0	0	0	0	0	0	0	0
Junction-4.5	367	582	861	967	1032	618	-396	-1449
H100#4.5	361	568	797	718	563	24	-1162	-2198
Junction-5	361	568	797	718	563	24	-1162	-2198
H100E	0	0	0	0	0	0	0	0
Junction-6	379	577	775	613	398	-22	-1336	-2491
H100#5	380	569	698	611	433	-11	-1225	-2171
H100F	0	0	0	0	0	0	0	0
Junction-7	415	584	624	410	148	-243	-1318	-2231
H100#6	403	565	612	497	349	-56	-1342	-2091
H100G	0	0	0	0	0	0	0	0
Junction-8	432	570	532	324	109	-133	-1383	-2006
H100#7	424	546	539	437	173	67	-239	-1672
H100H	0	0	0	0	0	0	0	0
Junction-9	437	546	493	364	67	47	-274	-1686
H100#8	425	546	493	384	85	36	-257	-1609
H100I	0	0	0	0	0	0	0	0
Junction-10	438	544	437	302	62	-20	-176	-1464
H100#9	422	541	451	326	77	-25	-187	-1362
H100J	0	0	0	0	0	0	0	0
Junction-11	434	533	395	264	84	-54	-35	-914
H100K	0	0	0	0	0	0	0	0
Junction-12	448	531	377	213	147	56	54	-187
H100#10	440	529	369	224	144	61	50	-206
H125A	0	0	0	0	0	0	0	0
Junction-13	453	527	393	193	176	192	142	121
H100#11	445	528	383	198	165	127	90	96
H100L	0	0	0	0	0	0	0	0
Junction-14	452	528	387	206	144	156	120	121
H100#12	448	528	382	209	146	156	103	36

EXHIBIT A2-42

HEC-HMS Results Comparison for Without Project Condition and B60-A75

Hydrologic Element	Peak Flow (cfs)							
	50% AEP	20% AEP	10% AEP	4% AEP	2% AEP	1% AEP	0.40% AEP	0.20% AEP
H103B	0	0	0	0	0	0	0	0
H103A	0	0	0	0	0	0	0	0
H103#2	0	0	0	0	0	0	0	0
Junction-15	0	0	0	0	0	0	0	0
Junction-16	472	519	368	238	171	69	133	39
H100#13	466	520	369	238	163	92	90	106
H100M	0	0	0	0	0	0	0	0
Junction-17	475	514	360	222	174	109	96	70
H100#14	423	510	358	215	159	124	88	85
H102B	0	0	0	0	0	0	0	0
H102A	0	0	0	0	0	0	0	0
H102#1	0	0	0	0	0	0	0	0
Junction-18	437	501	346	215	155	110	80	62
H100#15	364	495	334	171	127	108	90	80
H100N	0	0	0	0	0	0	0	0
Junction-19	373	490	317	149	114	98	90	80
H100O	0	0	0	0	0	0	0	0
Junction-20	374	490	315	146	112	98	90	82

EXHIBIT A2-43
10% AEP Water Surface Profile Comparison
for Existing Without Project Conditions and B50-A25, B60-A75, and Authorized Plans

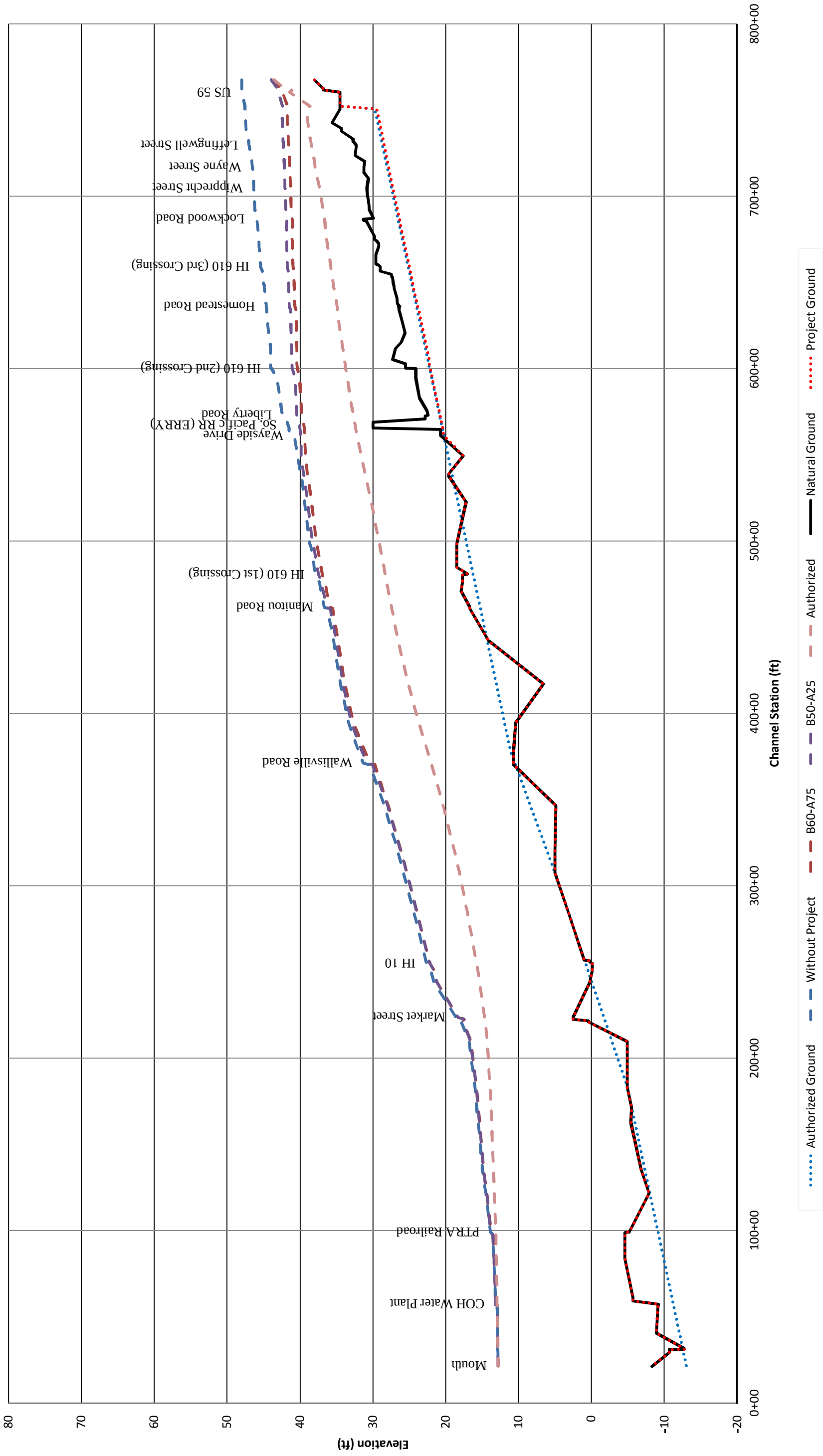


EXHIBIT A2-44
4% AEP Water Surface Profile Comparison
for Existing Without Project Conditions and B50-A25, B60-A75, and Authorized Plans

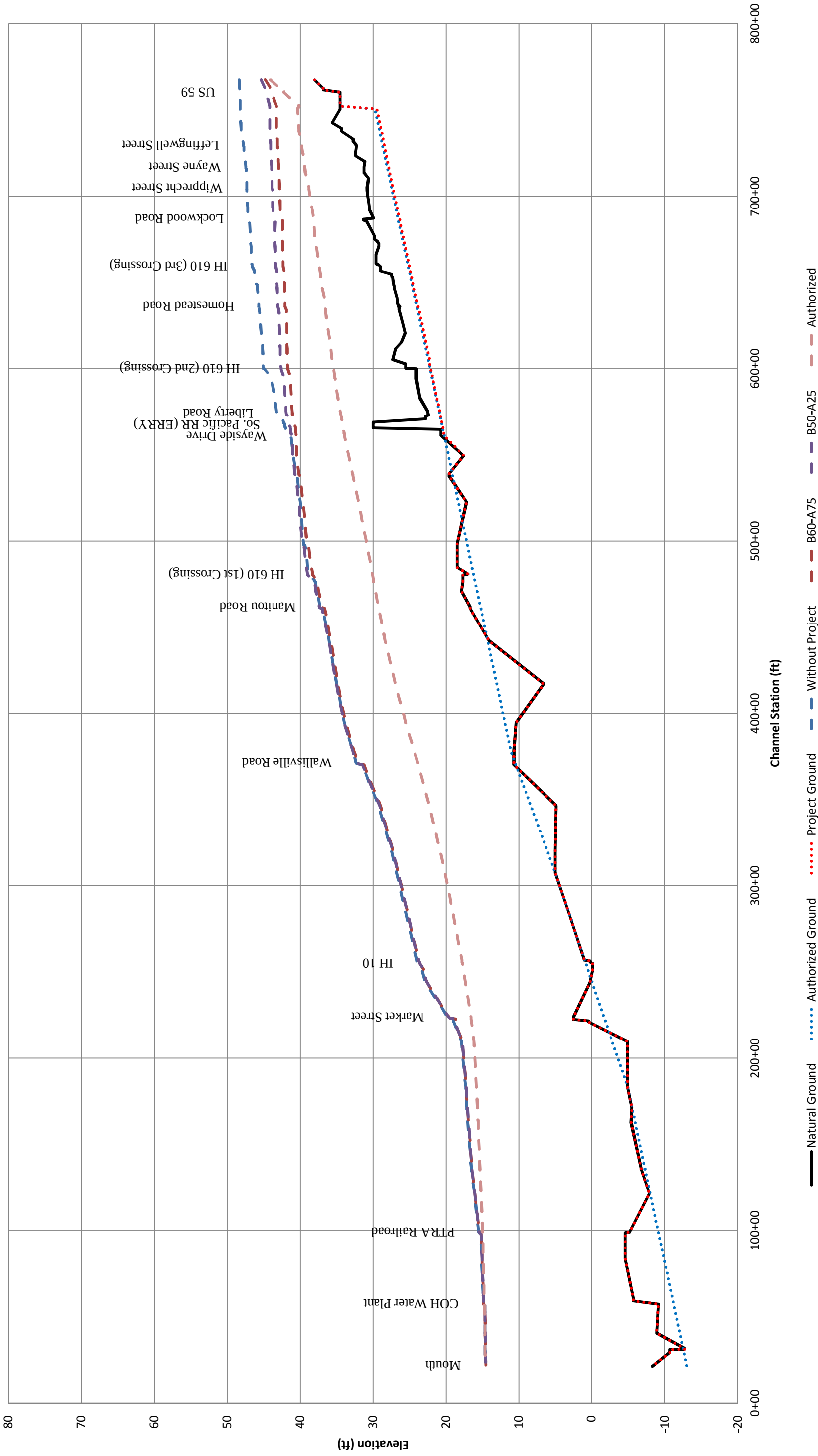


EXHIBIT A2-45
1% AEP Water Surface Profile Comparison
for Existing Without Project Conditions and B50-A25, B60-A75, and Authorized Plans

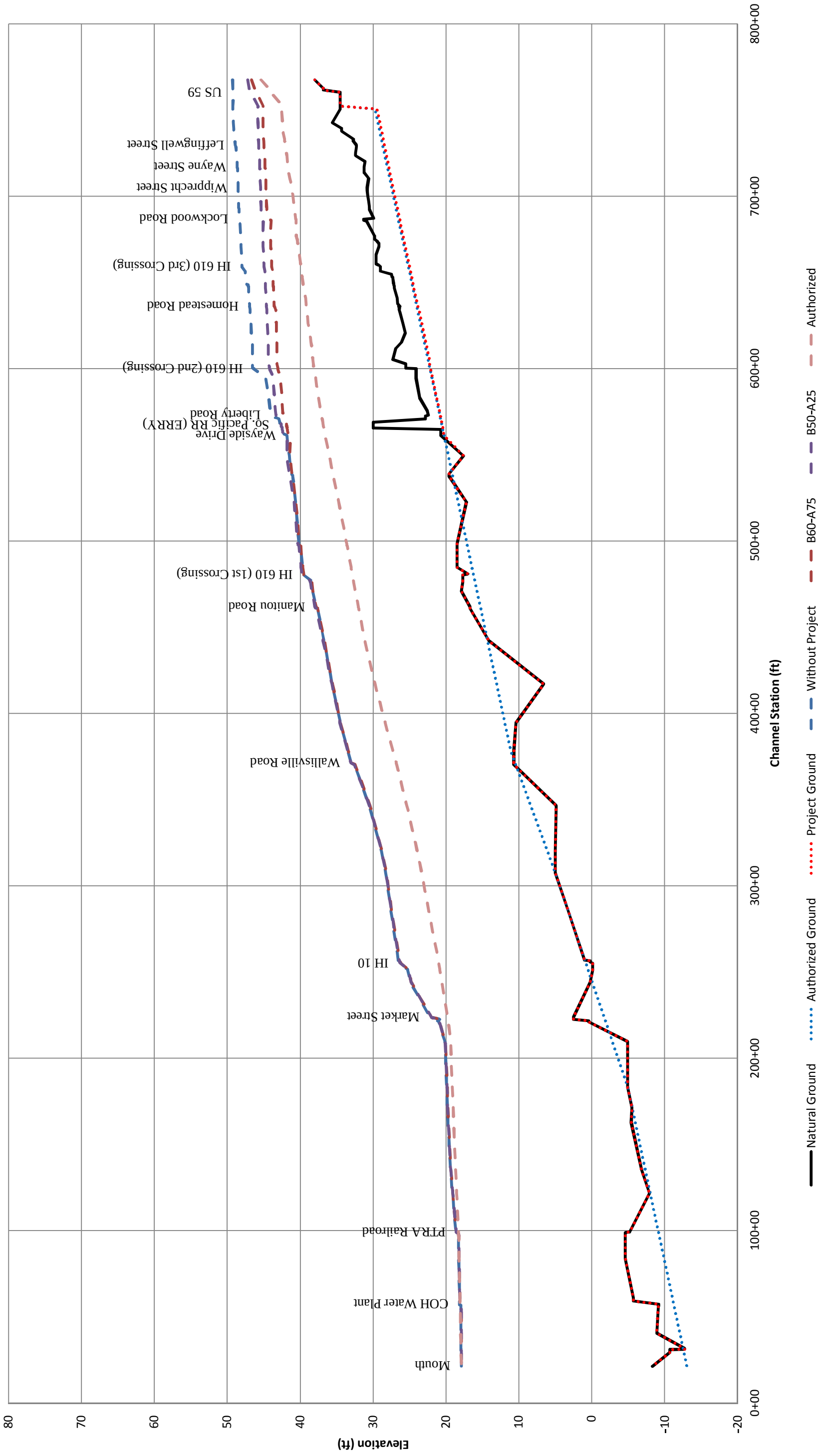
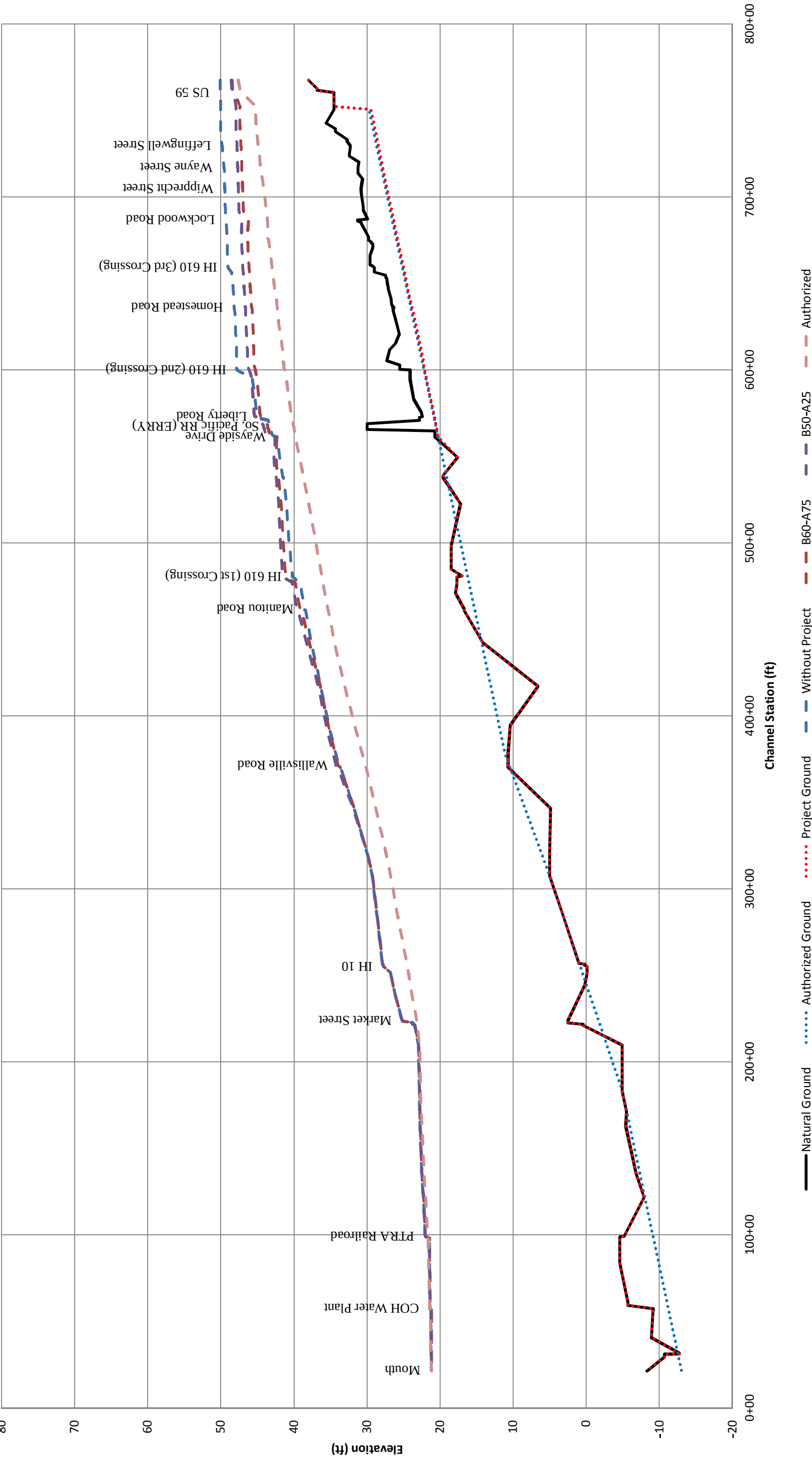


EXHIBIT A2-46
0.2% AEP Water Surface Profile Comparison
for Existing Without Project Conditions and B50-A25, B60-A75, and Authorized Plans



Path: P:\PWP\60184037_Hunting_Bayou\400_Technical_Discipline\444_GIS\H&H\Exhibit A2-43_10% AEP Floodplain Comparison for the TSP and WOP Conditions.mxd

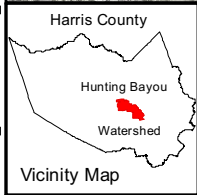
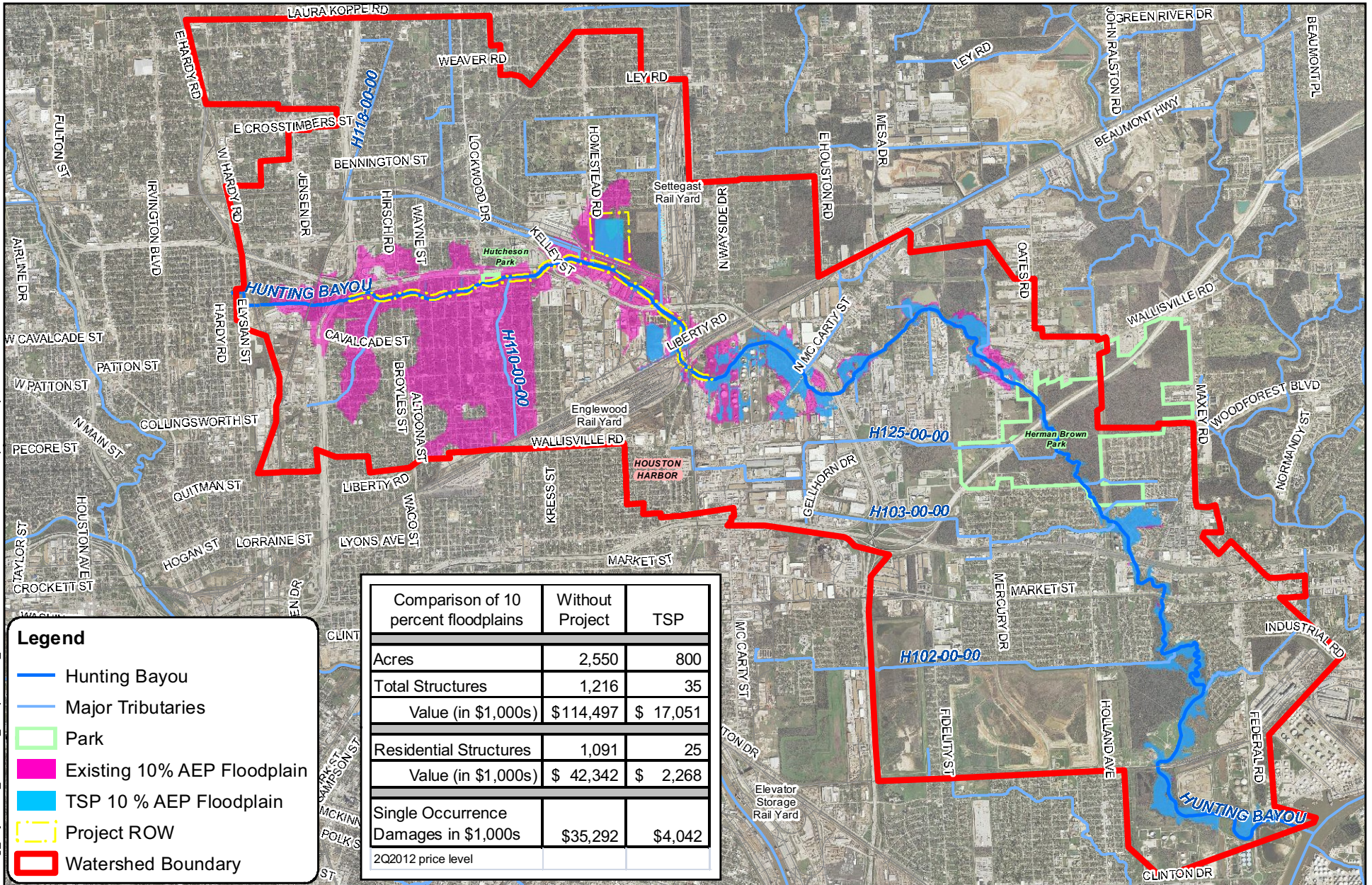
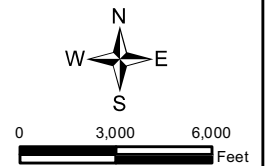


Exhibit A2-47: 10% AEP Floodplain Comparison
for the TSP and WOP Conditions
Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFCD
Park - H-GAC
AEP Floodplains - AECOM
TSP Floodplain - AECOM



Path: P:\PWP\60184037_Hunting_Bayou\400_Technical_Discipline\444_GIS\H&H\Exhibit A2-44 4% AEP Floodplain Comparison for the TSP and WOP Conditions.mxd

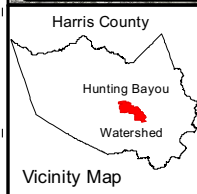
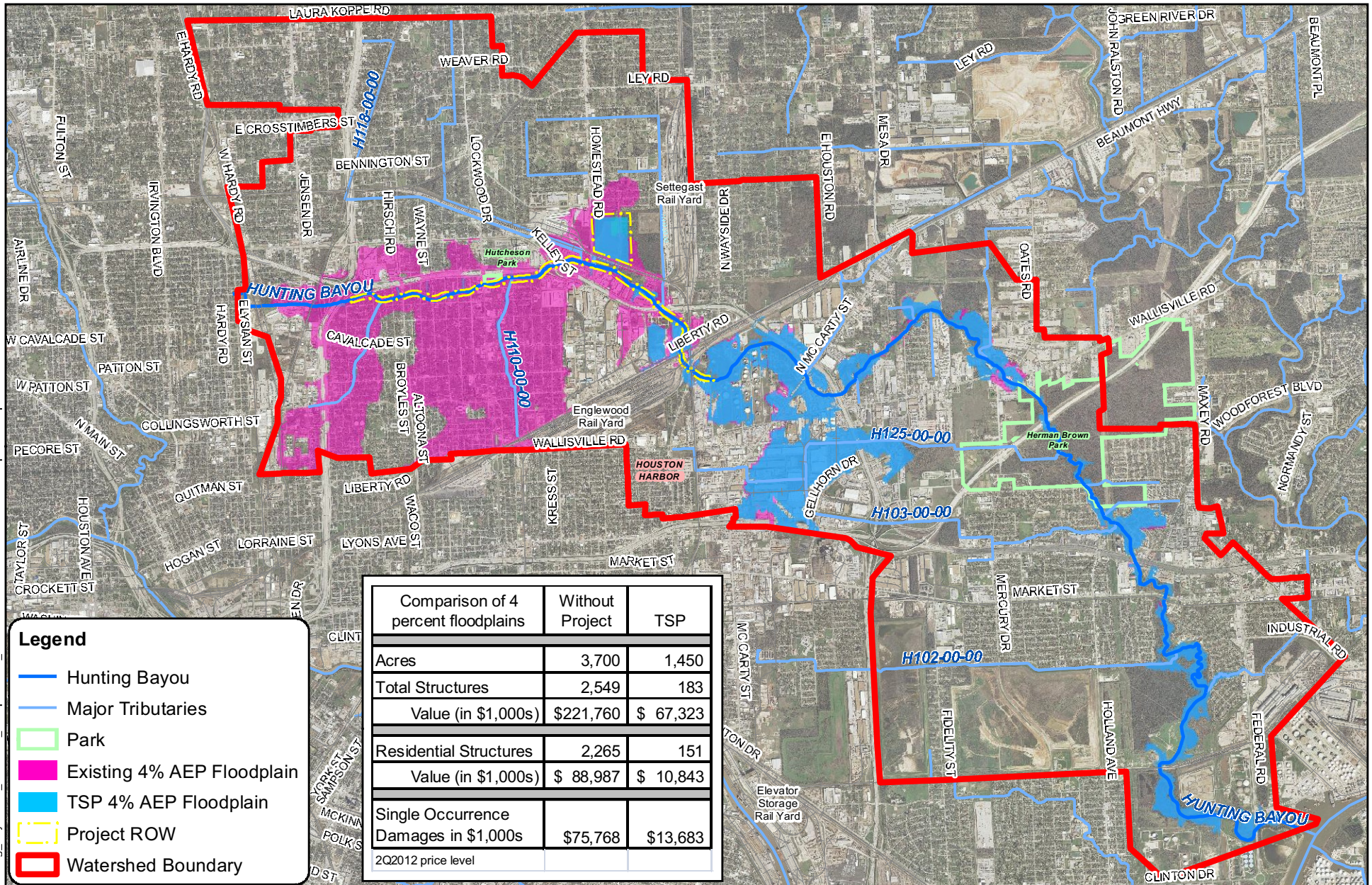
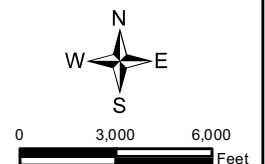


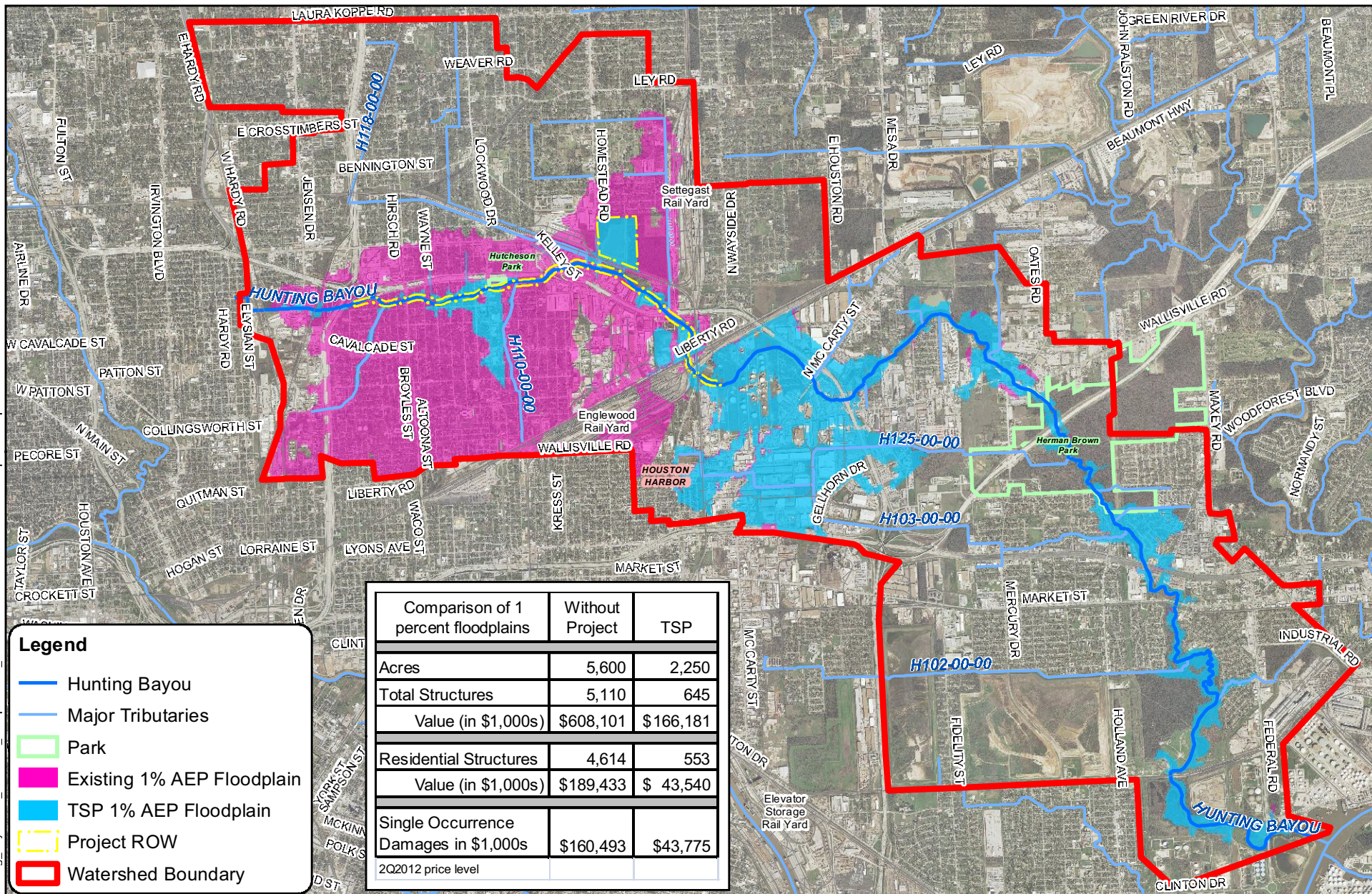
Exhibit A2-48: 4% AEP Floodplain Comparison for the TSP and WOP Conditions

Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFC
Park - H-GAC
AEP Floodplains - AECOM
TSP Floodplain - AECOM



Path: P:\PWP\60184037_Hunting_Bayou\400_Technical_Discipline\444_GIS\H8\HIE\Exhibit A2-45 1% AEP Floodplain Comparison for the TSP and WOP Conditions.mxd



Legend

Hunting Bayou

Major Tributaries

Park

Existing 1% AEP Floodplain

TSP 1% AEP Floodplain

Project ROW

Watershed Boundary

Comparison of 1 percent floodplains	Without Project	TSP
Acres	5,600	2,250
Total Structures	5,110	645
Value (in \$1,000s)	\$608,101	\$166,181
Residential Structures	4,614	553
Value (in \$1,000s)	\$189,433	\$ 43,540
Single Occurrence Damages in \$1,000s	\$160,493	\$43,775
2Q2012 price level		

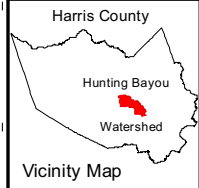
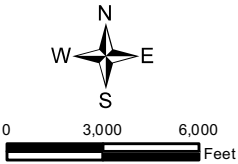


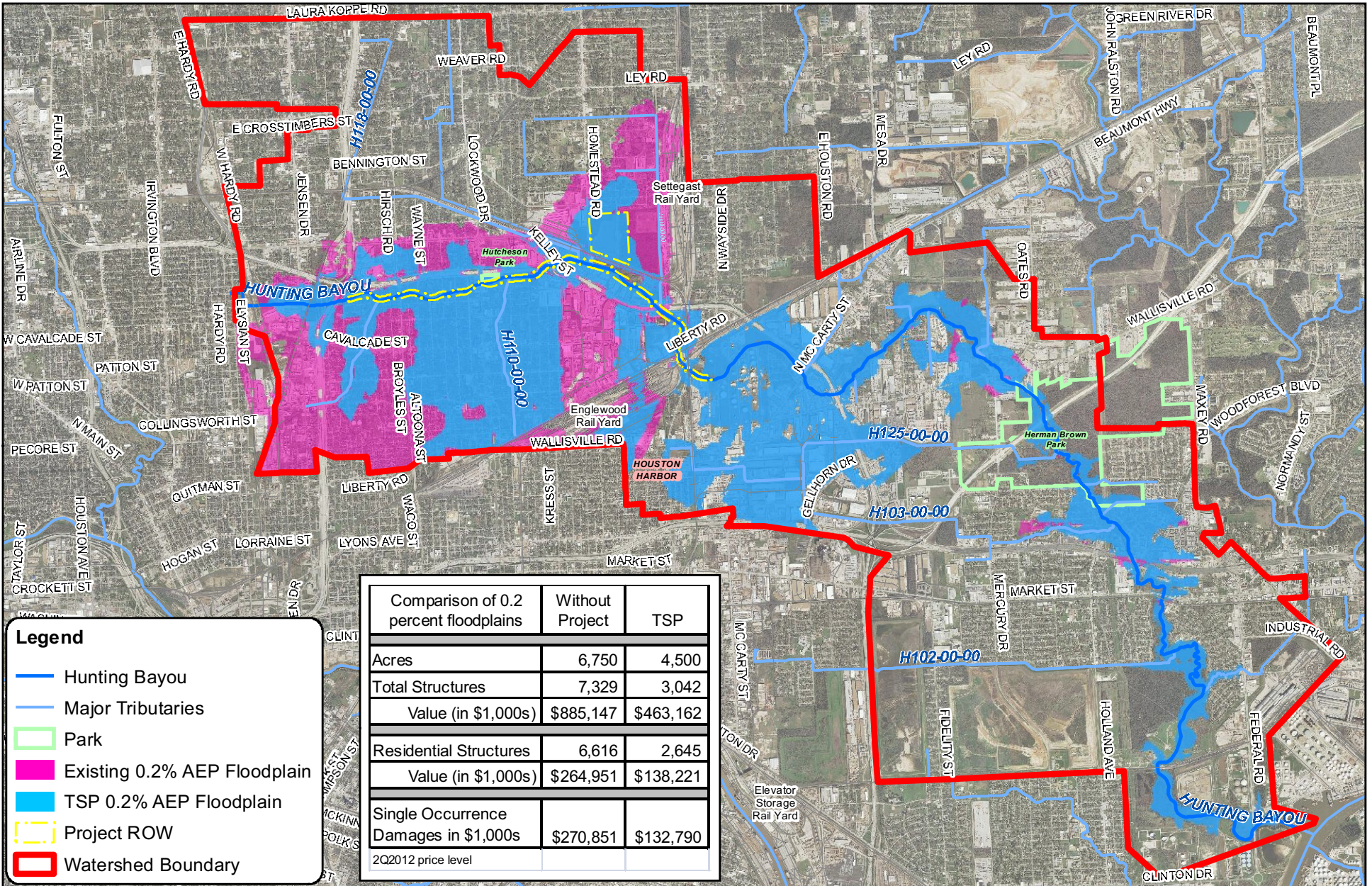
Exhibit A2-49: 1% AEP Floodplain Comparison for the TSP and WOP Conditions

Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFC
Park - H-GAC
AEP Floodplains - AECOM
TSP Floodplain - AECOM



Path: P:\PWP\60184037_Hunting_Bayou\400_Technical_Discipline\444_GIS\H&H\Exhibit A2-46 0.2% AEP Floodplain Comparison for the TSP and WOP Conditions.mxd



Legend

- Hunting Bayou
- Major Tributaries
- Park
- Existing 0.2% AEP Floodplain
- TSP 0.2% AEP Floodplain
- Project ROW
- Watershed Boundary

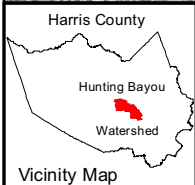


Exhibit A2-50: 0.2% AEP Floodplain Comparison for the TSP and WOP Conditions Hunting Bayou Flood Risk Management Project

Sources:
Hunting Bayou - HCFCD
Park - H-GAC
AEP Floodplains - AECOM
TSP Floodplain - AECOM

