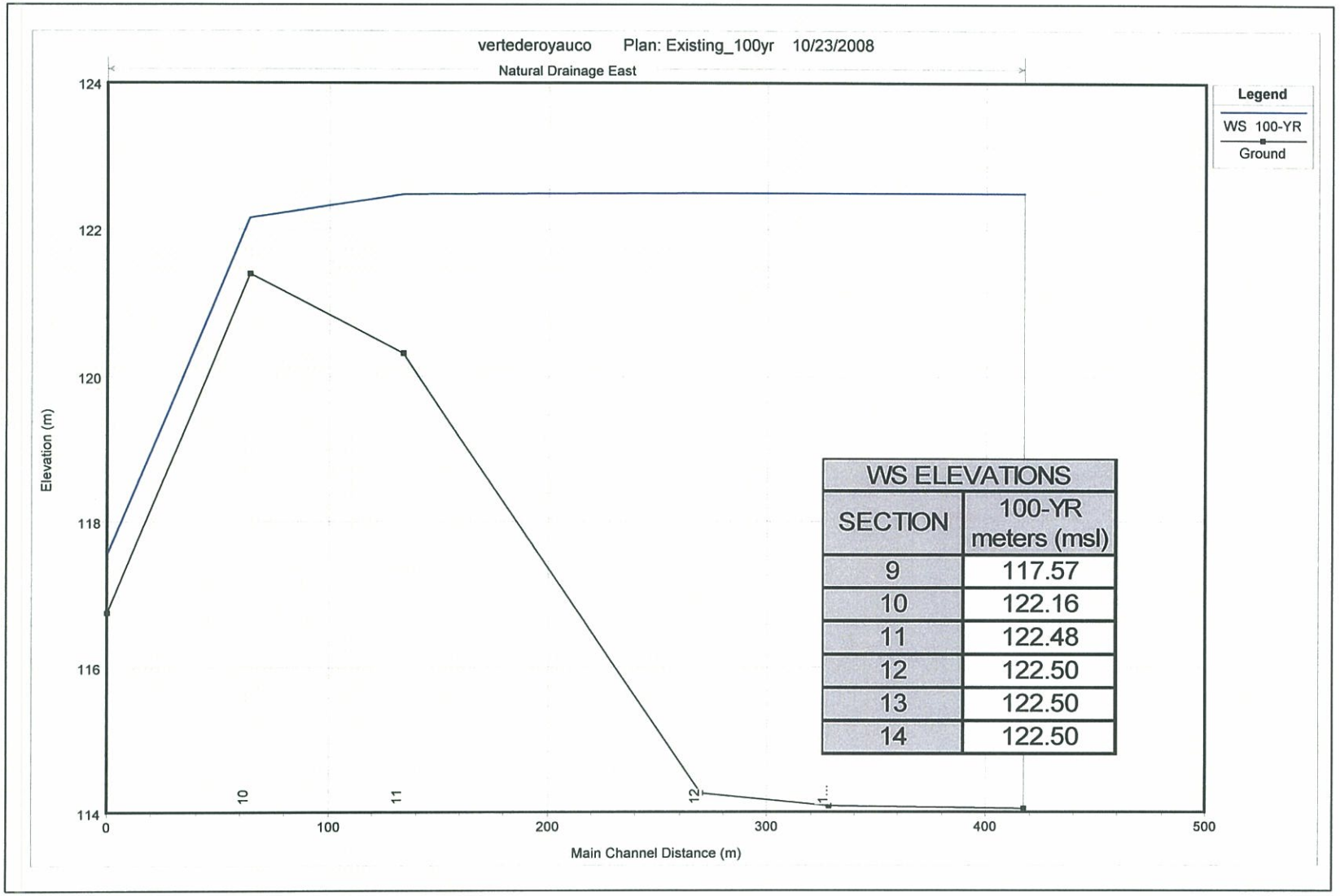

Figure 16. Water surface profiles for the existing condition: 100-year flood event for Natural Drainage at sections 9, 10, 11, 12, 13 and, 14 (scale as shown).

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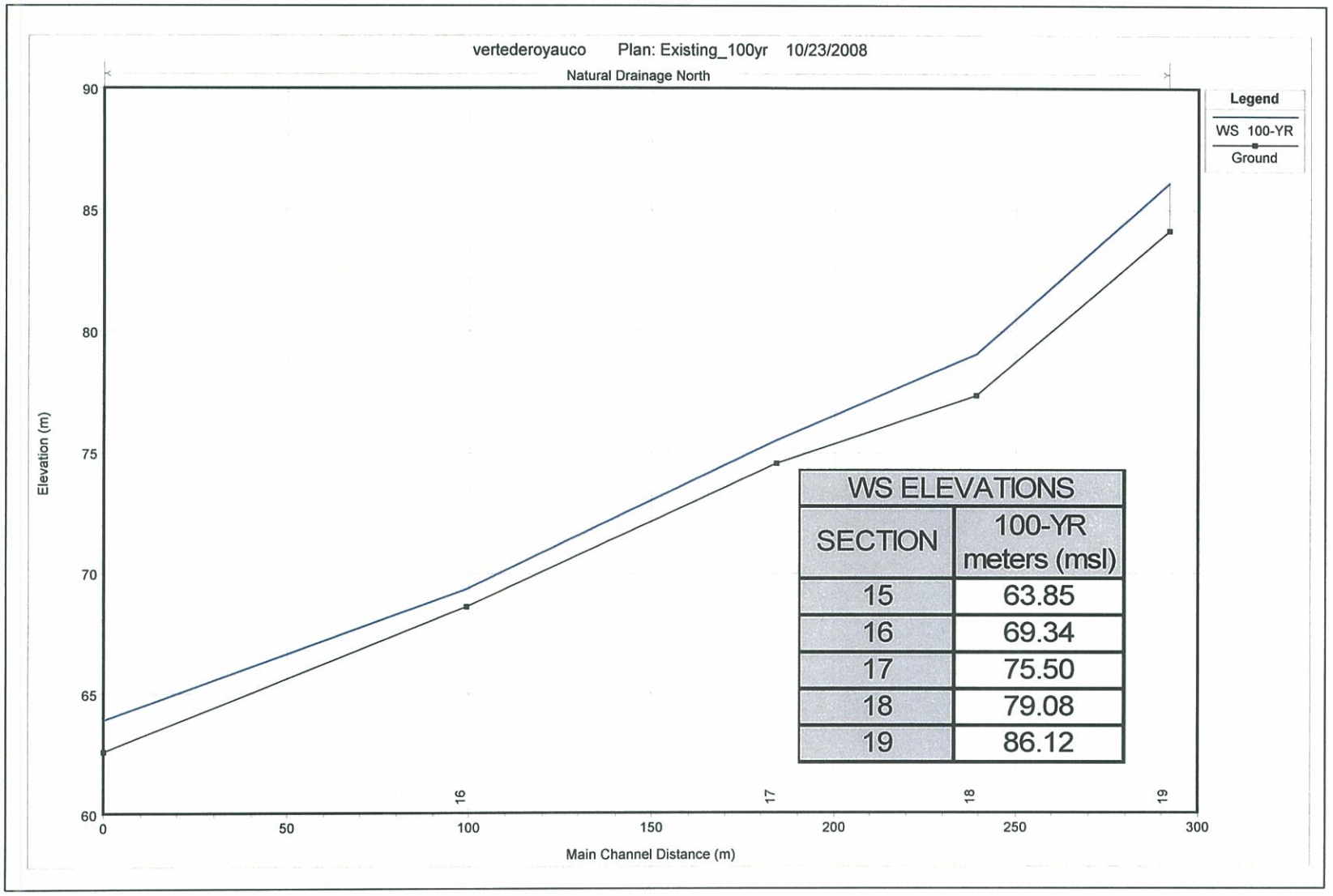

Figure 17. Water surface profiles for the existing condition: 100-year flood event for Natural Drainage at sections 15, 16, 17, 18 and, 19 (scale as shown).

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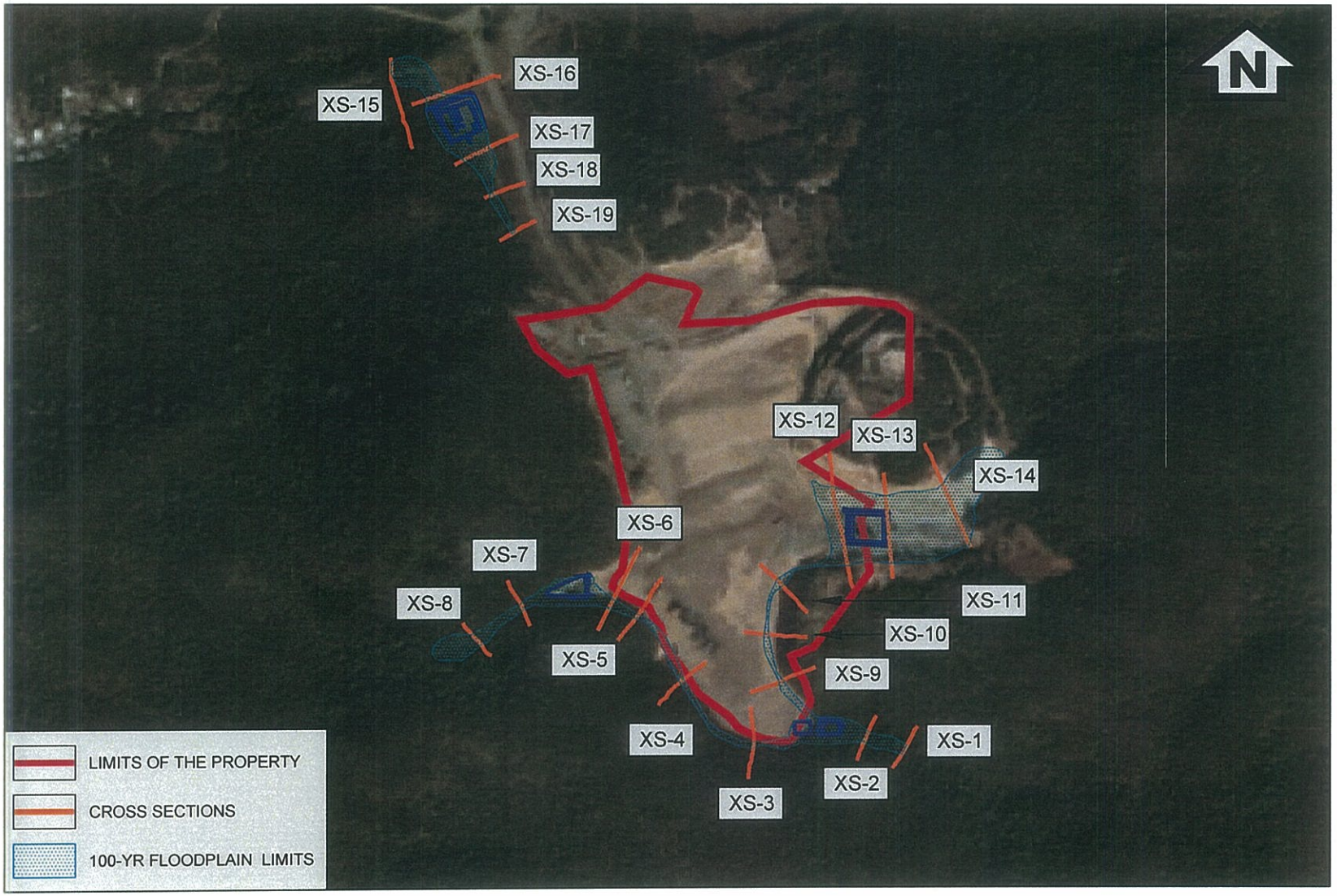

Figure 18. 100-year floodplain limits for the existing condition model (scale 1:7,500).

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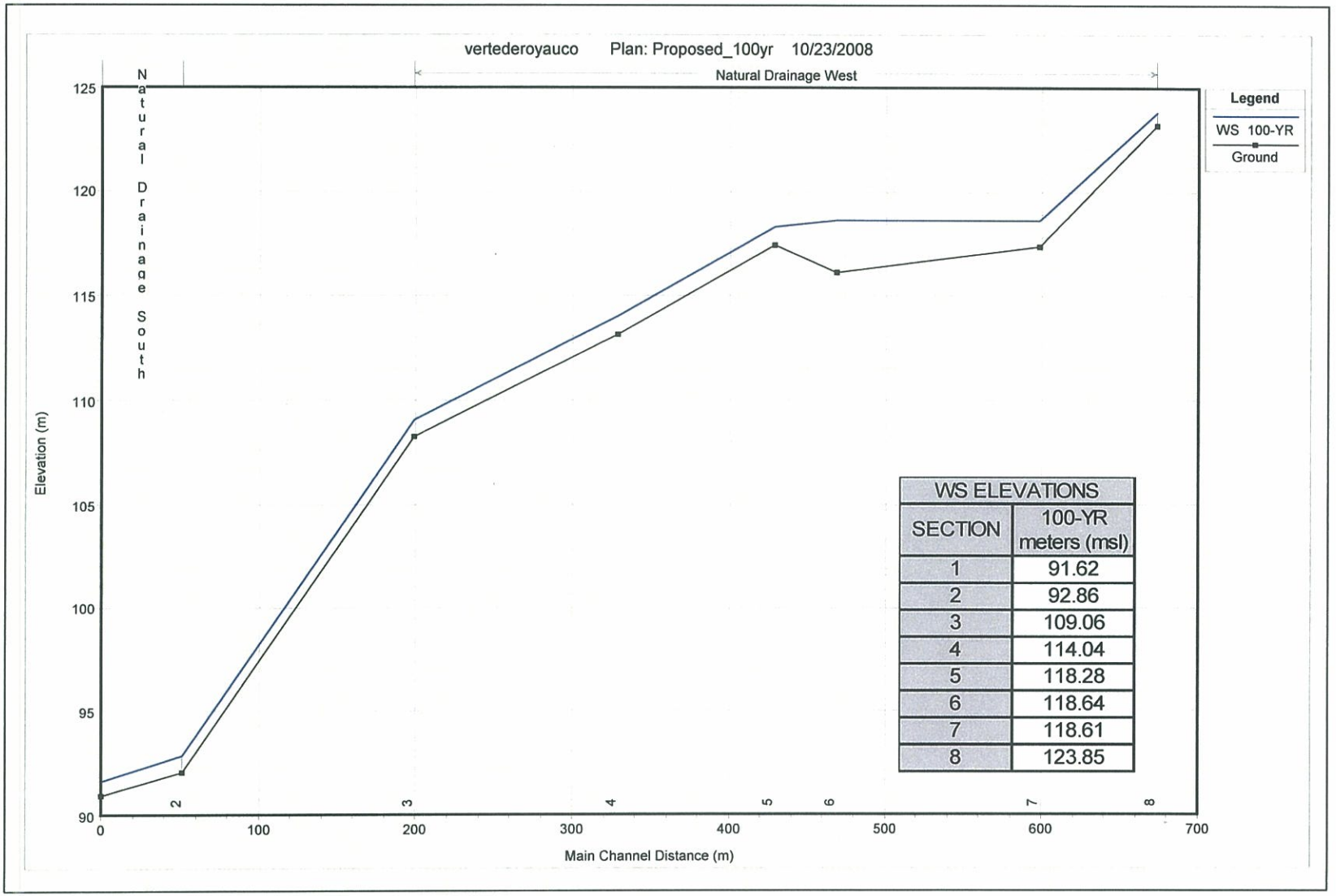

WS ELEVATIONS	
SECTION	100-YR meters (msl)
1	91.62
2	92.86
3	109.06
4	114.04
5	118.28
6	118.64
7	118.61
8	123.85

Figure 19. Water surface profiles for the proposed condition: 100-year flood event for Natural Drainage at sections 1, 2, 3, 4, 5, 6, 7 and, 8 (scale as shown).

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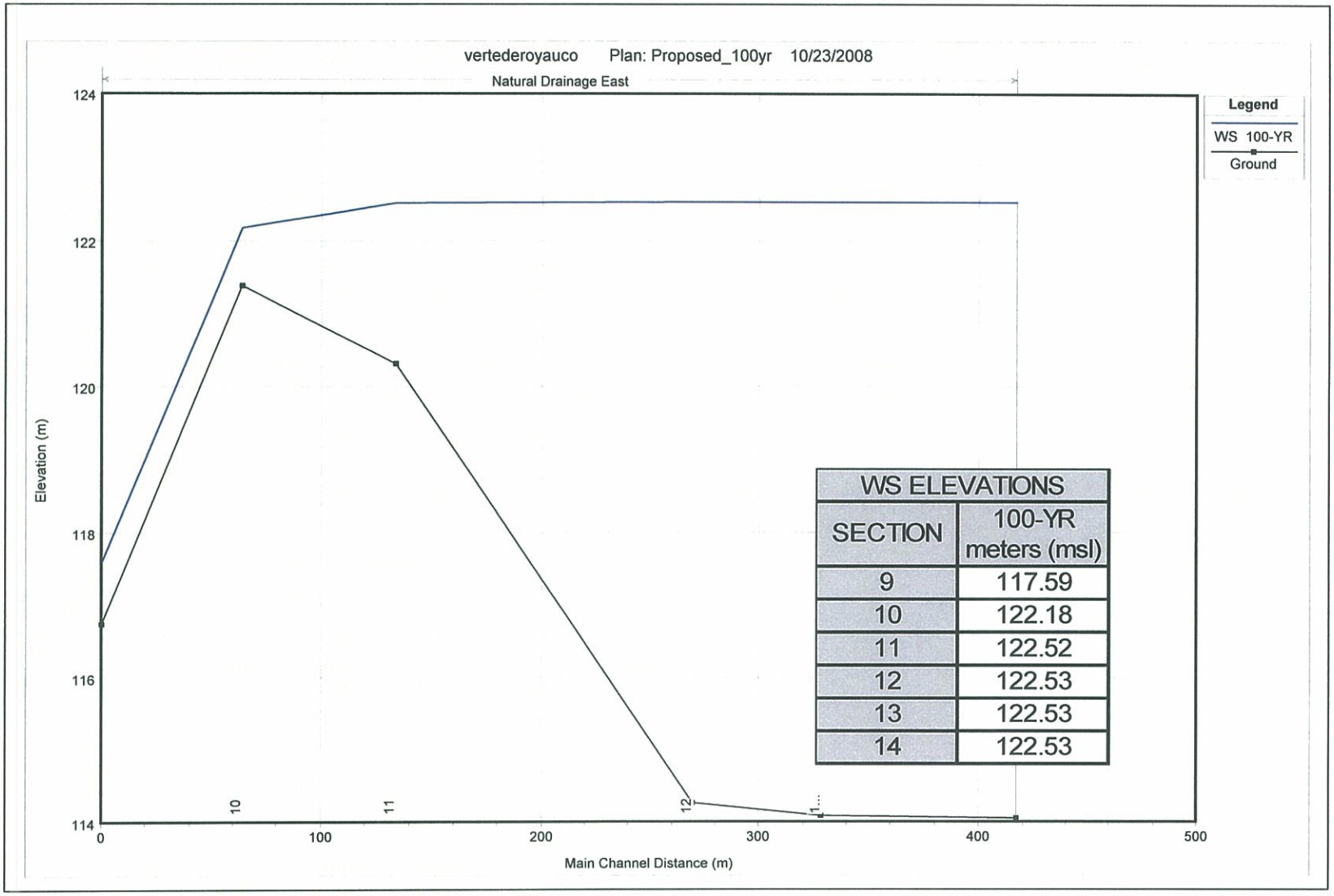

WS ELEVATIONS	
SECTION	100-YR meters (msl)
9	117.59
10	122.18
11	122.52
12	122.53
13	122.53
14	122.53

Figure 20. Water surface profiles for the proposed condition: 100-year flood event for Natural Drainage at sections 9, 10, 11, 12, 13 and, 14 (scale as shown).

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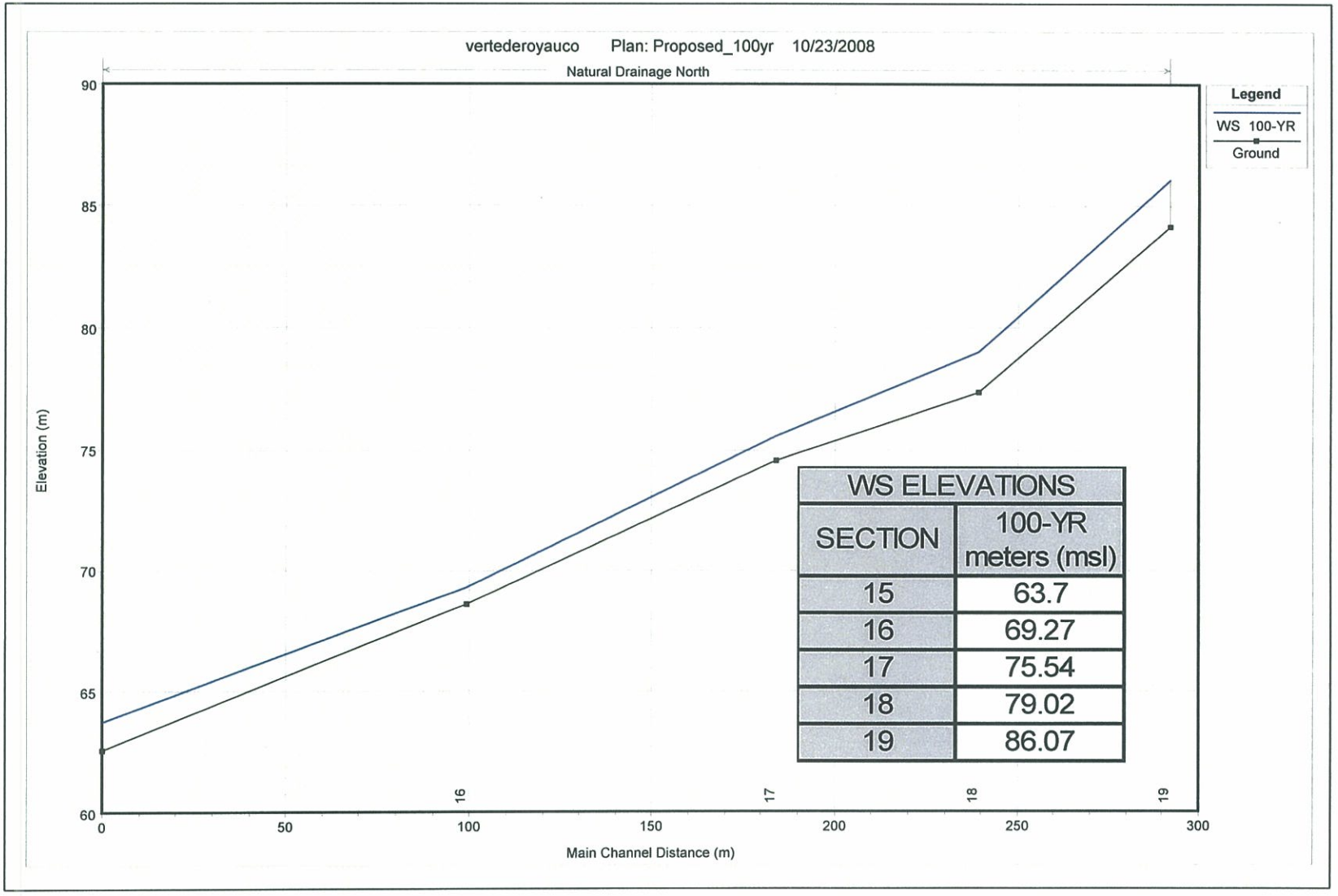

Figure 21. Water surface profiles for the proposed condition: 100-year flood event for Natural Drainage at sections 15, 16, 17, 18 and, 19 (scale as shown).

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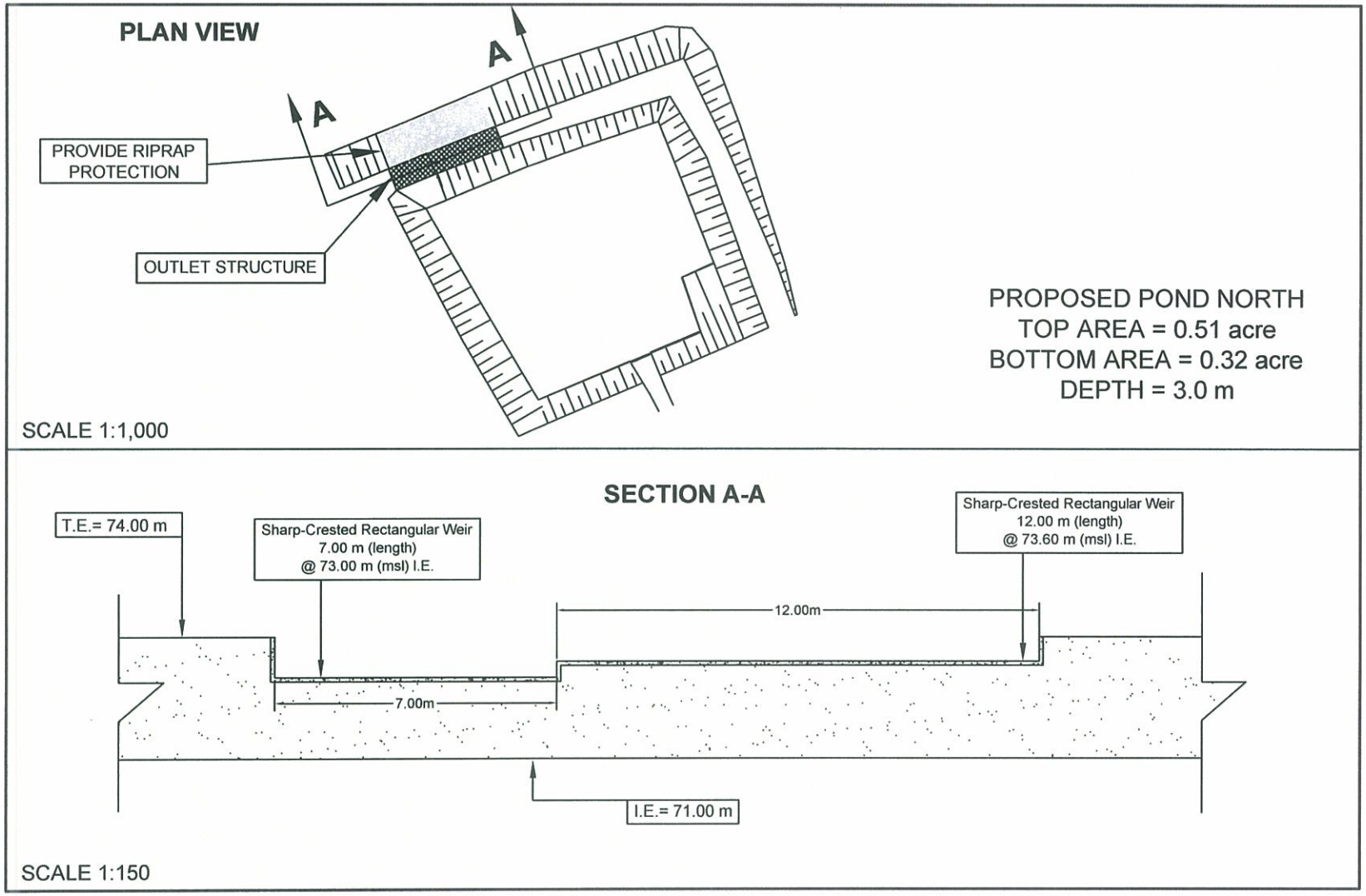

Figure 22. Conceptual scheme of the proposed retention pond: **North** (scale as shown).

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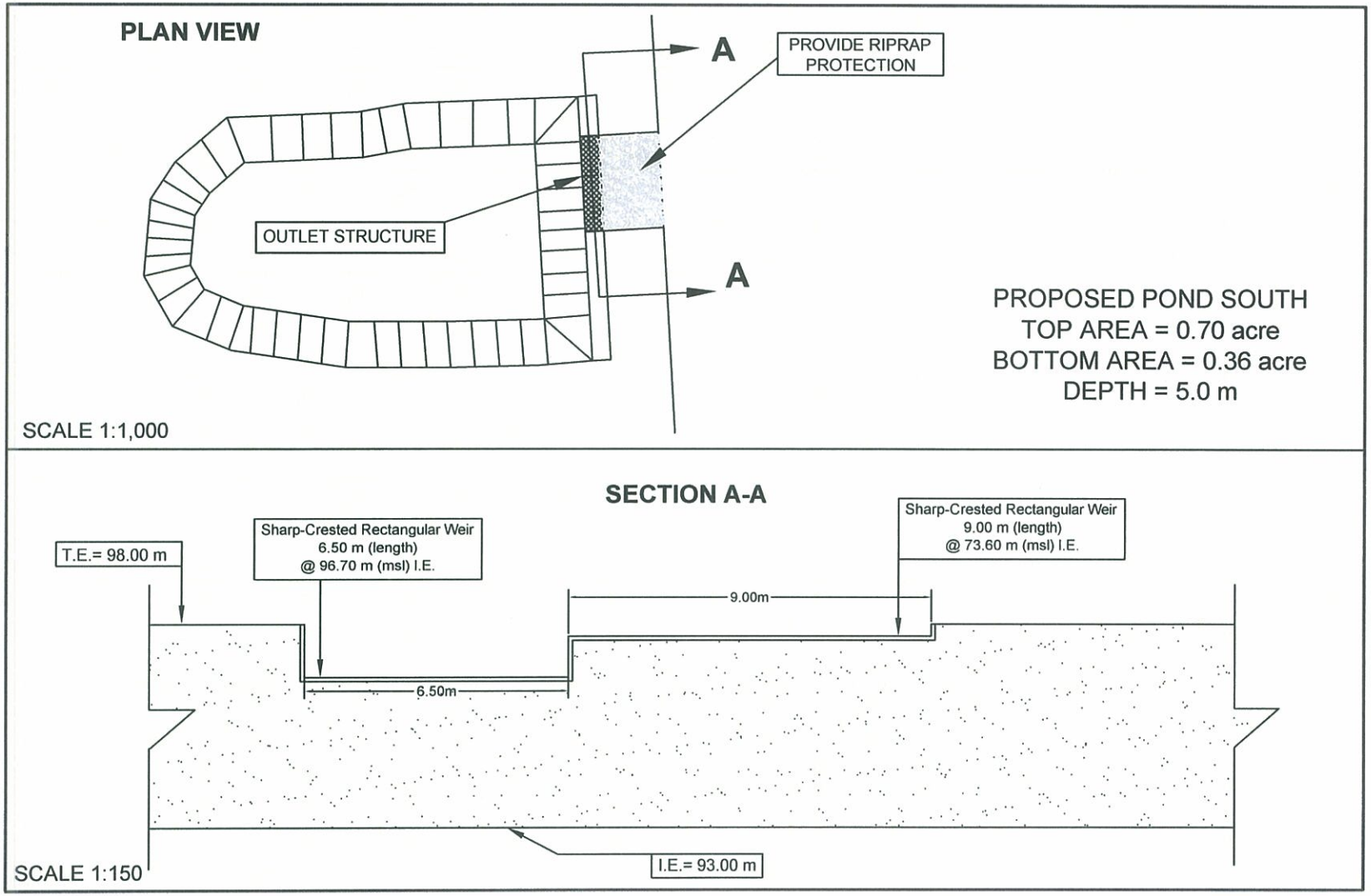

Figure 23. Conceptual scheme of the proposed retention pond: **South** (scale as shown).

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APPENDIX A

HYDROLOGIC DATA

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HYDROLOGY • HYDRAULICS • SEDIMENT TRANSPORT

WORKSHEET: CURVE NUMBER

Project: Yauco Landfill By: YACD Date: Sept 24 2008

Location: Yauco, PR Checked: MMF Date: Sept 24 2008

BASIN NAME: Basin North (BASN) **CONDITION: EXISTING**

BASIN AREA (Ac) = 45.45

BASIN AREA (mi^2) = 0.0710

SOILS NAME (SYMBOL), HYDROLOGIC SOIL GROUP	LAND USE	CN	AREA, (Ac)	PRODUCT OF AREA x CN
Costa-Pitahay (CuF), D	Grass	82	21.49	1762.18
Costa-Pitahay (CuF), D	Open Spaces	89	9.29	826.81
El Papayo (EpF), D	Grass	82	2.34	191.88
Guayacan (GyC), D	Grass	82	3.14	257.48
Landfill (LfC), D	Open Spaces	89	2.07	184.23
Melones (MnC), D	Grass	82	0.12	9.84
Pithaya-Limestone (PsF), D	Grass	82	7.00	574
				0
		Totals	45.45	3806

CN	84

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WORKSHEET: CURVE NUMBER

Project: Yauco Landfill By: YACD Date: Sept 24 2008

Location: Yauco, PR Checked: MMF Date: Sept 24 2008

BASIN NAME: Basin West (BASW) **CONDITION: EXIS & PROP**

BASIN AREA (Ac) = 36.89

BASIN AREA (mi^2) = 0.0576

SOILS NAME (SYMBOL), HYDROLOGIC SOIL GROUP	LAND USE	CN	AREA, (Ac)	PRODUCT OF AREA x CN
Landfill (LfC), D	Open Spaces	89	0.51	45.39
Pithaya-Limestone (PsF), D	Grass	82	36.38	2983.16
				0
				0
				0
				0
				0
				0
		Totals	36.89	3029

CN	82

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WORKSHEET: CURVE NUMBER

Project: Yauco Landfill By: YACD Date: Sept 24 2008

Location: Yauco, PR Checked: MMF Date: Sept 24 2008

BASIN NAME: Basin East (BASE) **CONDITION: EXISTING**

BASIN AREA (Ac) = 70.97

BASIN AREA (mi^2) = 0.1109

SOILS NAME (SYMBOL), HYDROLOGIC SOIL GROUP	LAND USE	CN	AREA, (Ac)	PRODUCT OF AREA x CN
Landfill (LfC), D	Open Spaces	89	0.29	25.81
Pithaya-Limestone (PsF), D	Grass	82	65.99	5411.18
Pithaya-Limestone (PsF), D	Open Spaces	89	4.69	417.41
				0
				0
				0
				0
				0
		Totals	70.97	5854

CN	82

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WORKSHEET: CURVE NUMBER

Project: Yauco Landfill By: YACD Date: Sept 24 2008

Location: Yauco, PR Checked: MMF Date: Sept 24 2008

BASIN NAME: Basin South (BASS) **CONDITION: EXIS & PROP**

BASIN AREA (Ac) = 7.61

BASIN AREA (mi^2) = 0.0119

SOILS NAME (SYMBOL), HYDROLOGIC SOIL GROUP	LAND USE	CN	AREA, (Ac)	PRODUCT OF AREA x CN
Pithaya-Limestone (PsF), D	Grass	82	7.61	624.02
				0
				0
				0
				0
				0
				0
				0
		Totals	7.61	624

CN	82

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WORKSHEET: CURVE NUMBER

Project: Yauco Landfill By: YACD Date: Sept 24 2008

Location: Yauco, PR Checked: MMF Date: Sept 24 2008

BASIN NAME: Basin South West (BASSW) **CONDITION: EXIS & PROP**

BASIN AREA (Ac) = 10.85

BASIN AREA (mi^2) = 0.0170

SOILS NAME (SYMBOL), HYDROLOGIC SOIL GROUP	LAND USE	CN	AREA, (Ac)	PRODUCT OF AREA x CN
Landfill (LfC), D	Open Spaces	89	1.43	127.27
Pithaya-Limestone (PsF), D	Grass	82	9.42	772.44
				0
				0
				0
				0
				0
				0
		Totals	10.85	900

CN	83

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WORKSHEET: CURVE NUMBER

Project: Yauco Landfill By: YACD Date: Sept 24 2008

Location: Yauco, PR Checked: MMF Date: Sept 24 2008

BASIN NAME: Basin South East (BASSE) **CONDITION: EXIS & PROP**

BASIN AREA (Ac) = 1.57

BASIN AREA (mi^2) = 0.0025

SOILS NAME (SYMBOL), HYDROLOGIC SOIL GROUP	LAND USE	CN	AREA, (Ac)	PRODUCT OF AREA x CN
Landfill (LfC), D	Open Spaces	89	0.05	4.45
Pithaya-Limestone (PsF), D	Grass	82	1.52	124.64
				0
				0
				0
				0
				0
				0
		Totals	1.57	129

CN	82