Appendix D

Figures 4-1

Through

Figures 4-24

Figure 4-1. Hydoloic model grid for present.
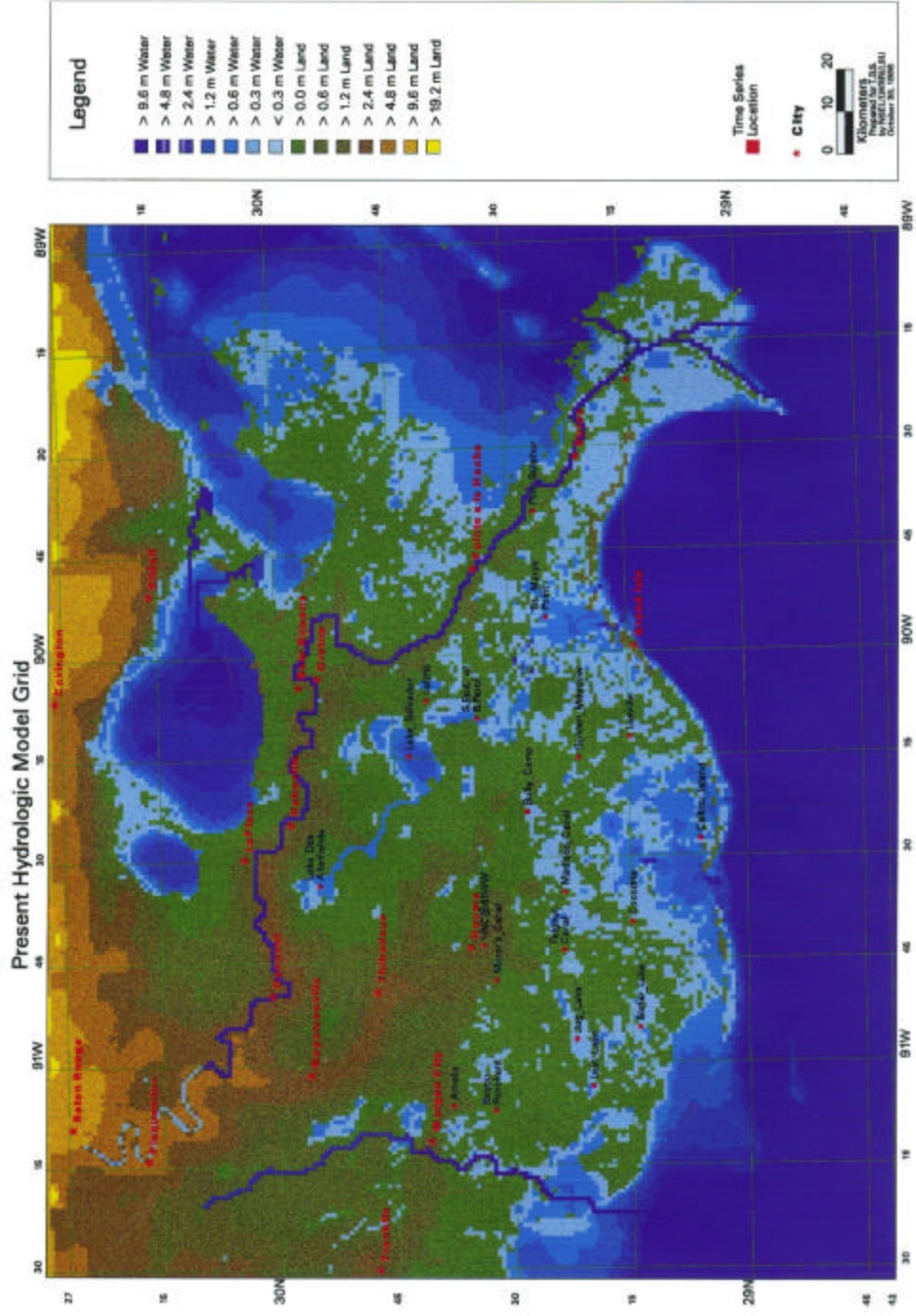
Present Hydrologic Model Grid

Legend

> 9.6 m Water
> 4.8 m Water
> 2.4 m Water
> 1.2 m Water
> 0.6 m Water
> 0.3 m Water
< 0.3 m Water
> 0.0 m Land
> 0.6 m Land
> 1.2 m Land
> 2.4 m Land
> 4.8 m Land
> 9.6 m Land
> 19.2 m Land

Time Series
Location

* City

Kilometers
0   10   20
Prepared for T.S.S.
by NOEL CUNNINGHAM
October 30, 1998

Figure 4-2. Hydologic model grid for year 30.
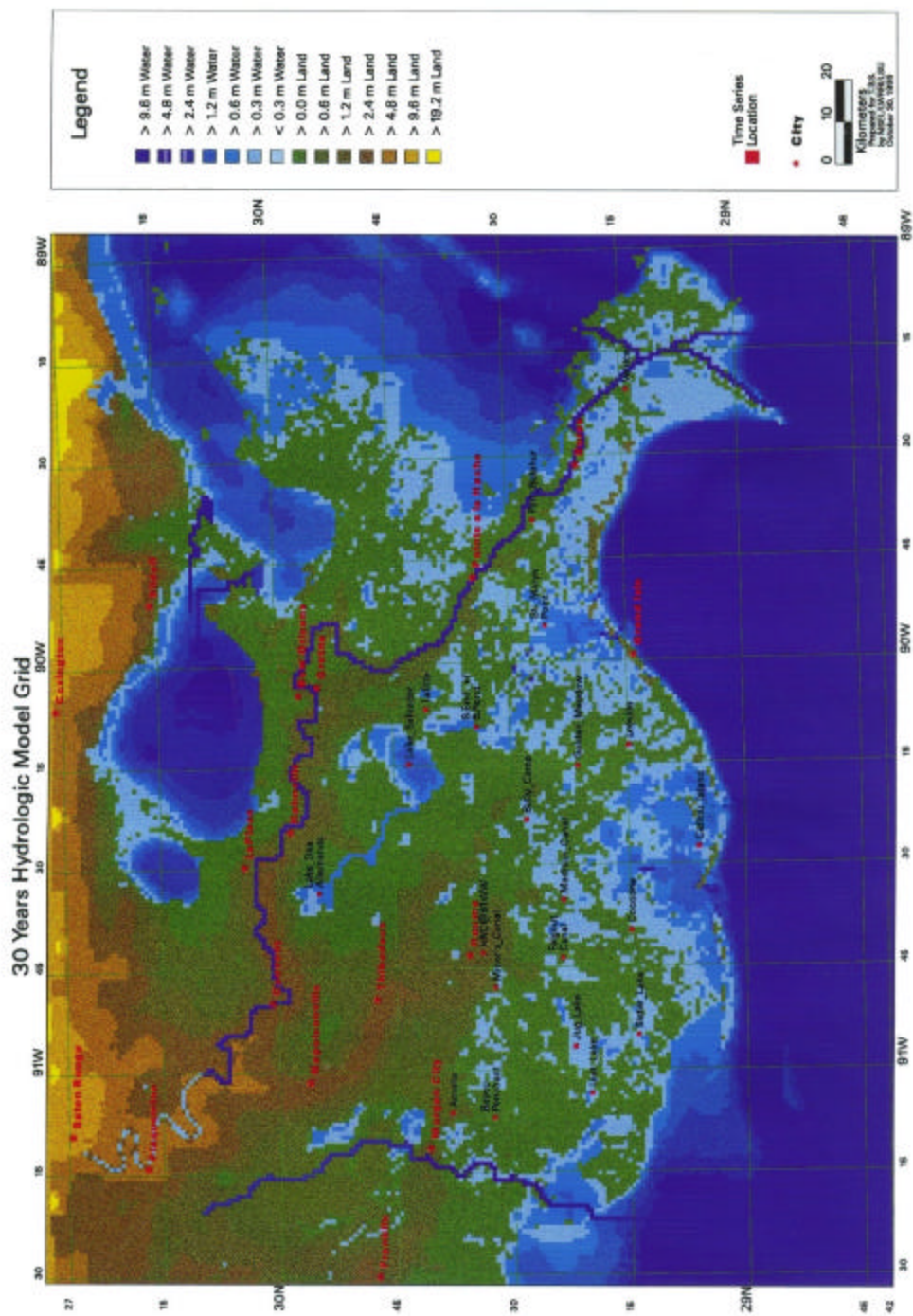
Figure 4-3. Hydologic model grid for year 100.
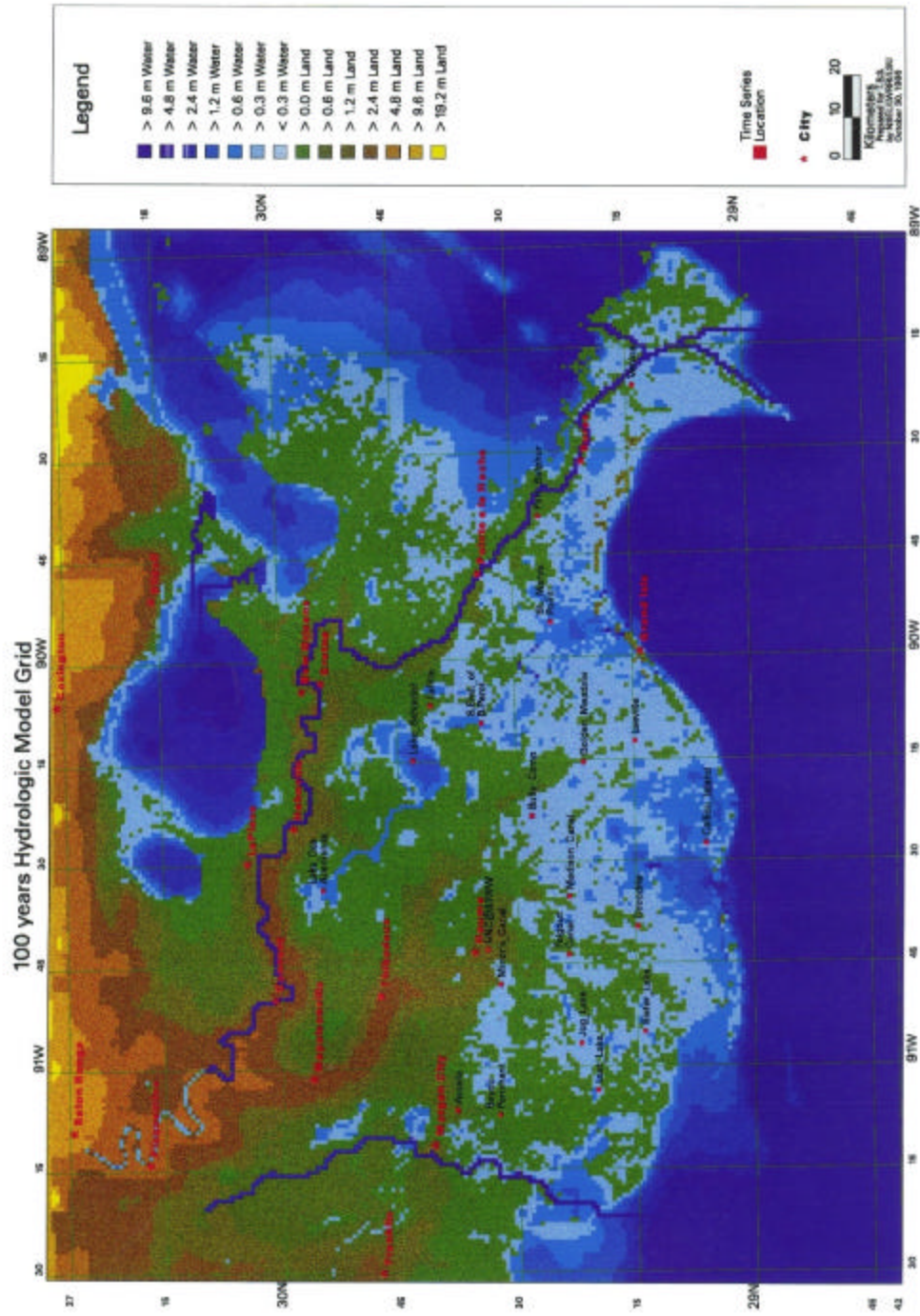

100 years Hydrologic Model Grid

Figure 4-4. Compression of observed and predicted maximum surge elevations for Hurricane Andrew.
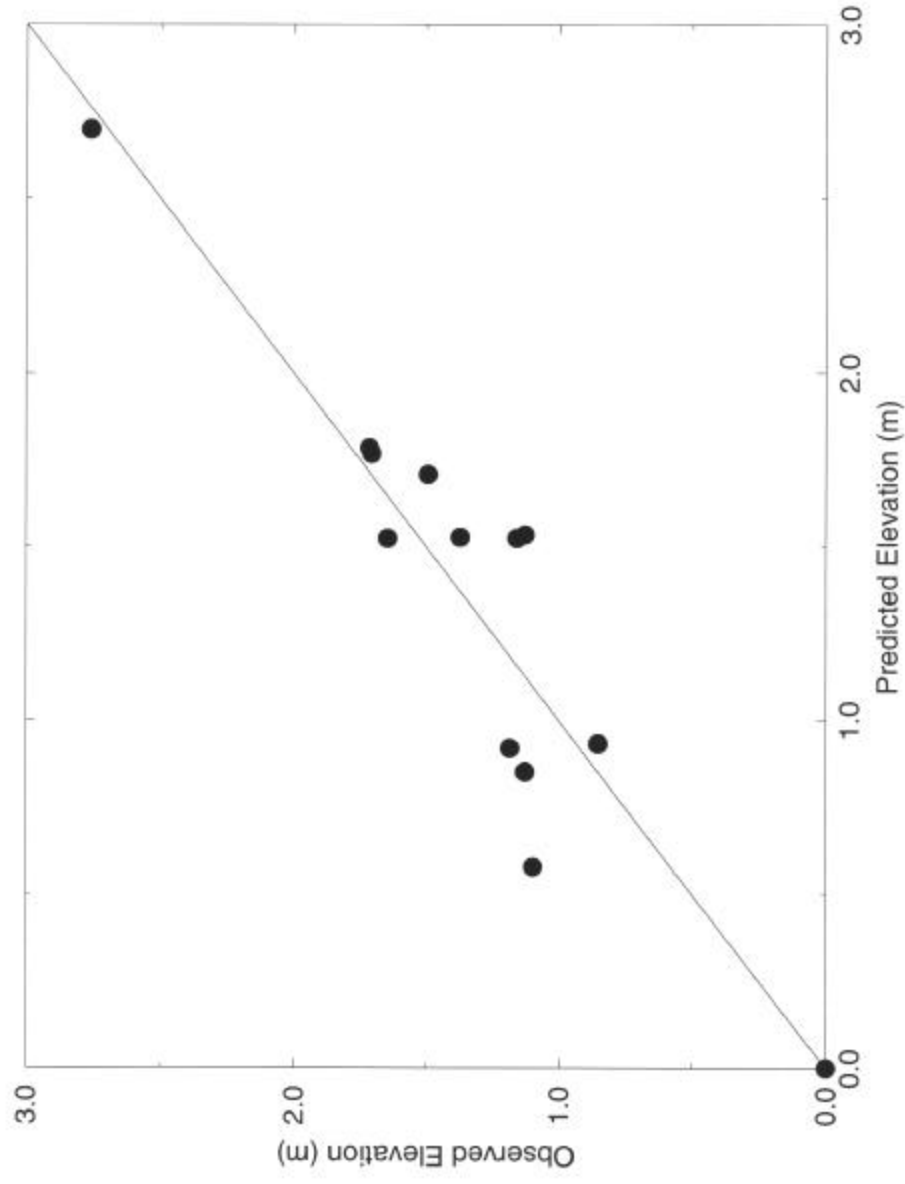
Calibration for Maximum Surge

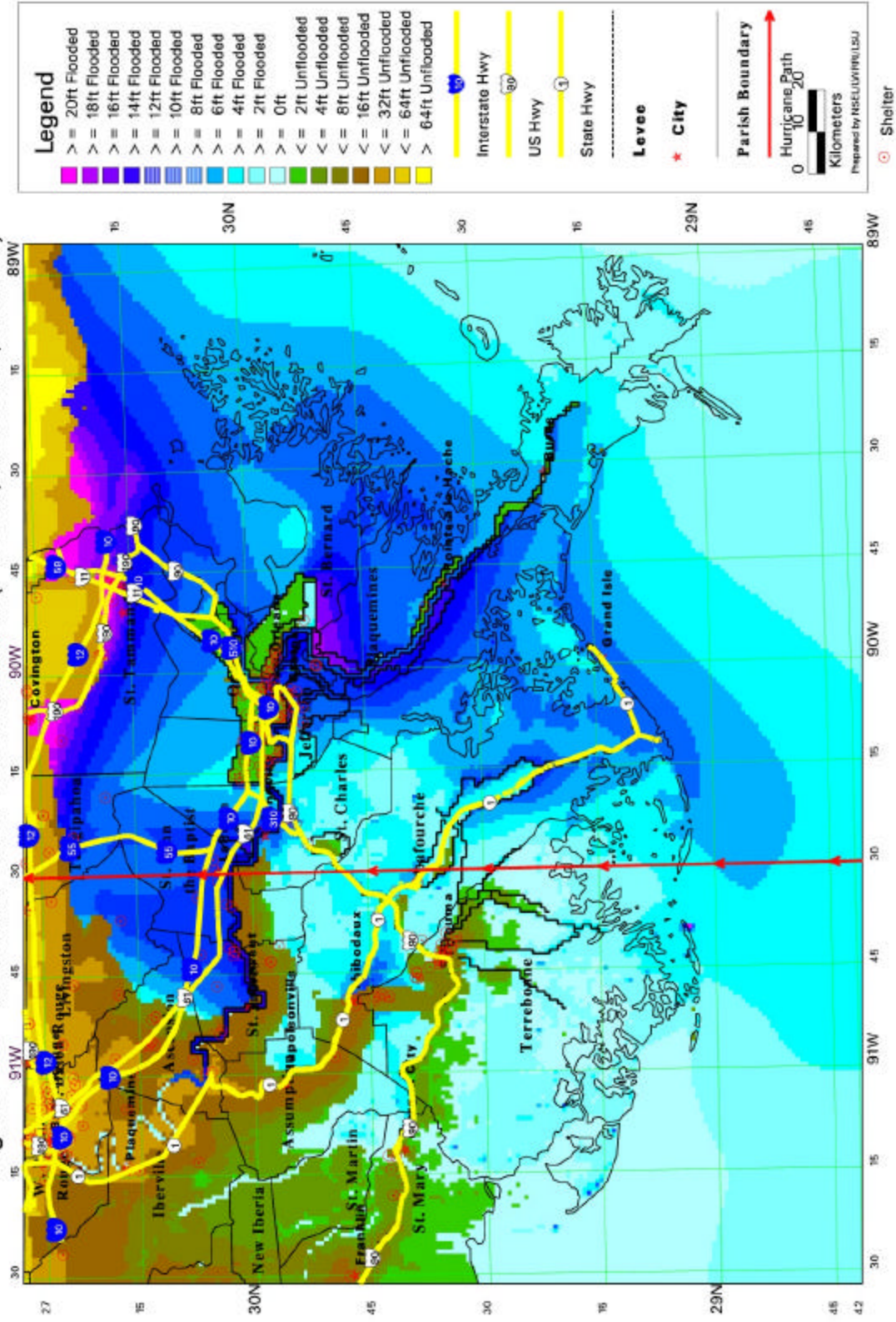Figure 4-5. Maximum Water Level Elevation (Present, No-Action, Track 1)

Figure 4-6.   Maximum Water Level Elevation (Present, No-Action, Track 2)

Legend

> = 20ft Flooded
> = 18ft Flooded
> = 16ft Flooded
> = 14ft Flooded
> = 12ft Flooded
> = 10ft Flooded
> = 8ft Flooded
> = 6ft Flooded
> = 4ft Flooded
> = 2ft Flooded
> = 0ft
< = 2ft Unflooded
< = 4ft Unflooded
< = 8ft Unflooded
< = 16ft Unflooded
< = 32ft Unflooded
> = 64ft Unflooded
> = 64ft Unflooded

Interstate Hwy
US Hwy
State Hwy
Levee
★ City

Parish Boundary

Hurricane Path
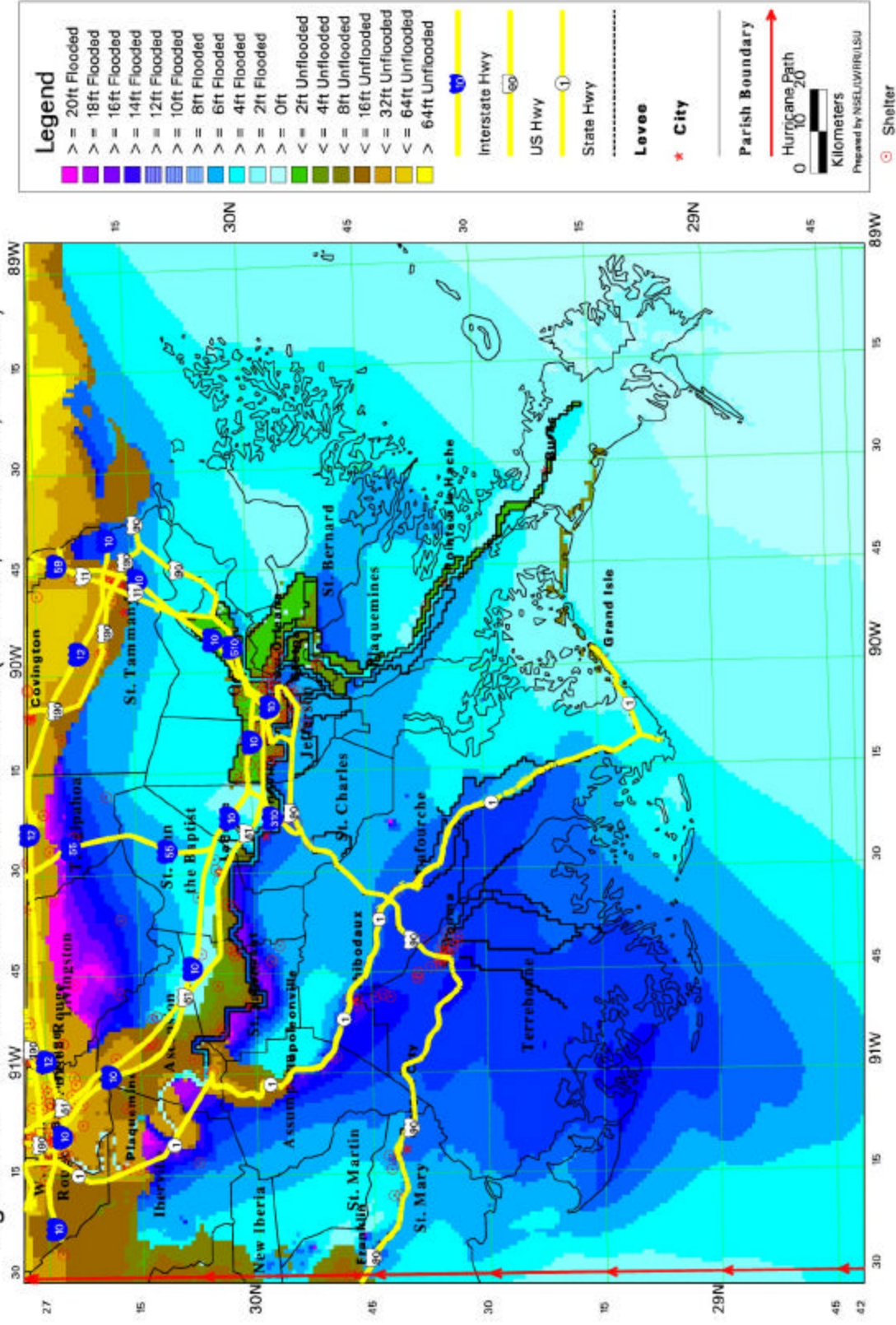
Kilometers
Prepared by NSEL/LWRRI/LSU

⊙ Shelter

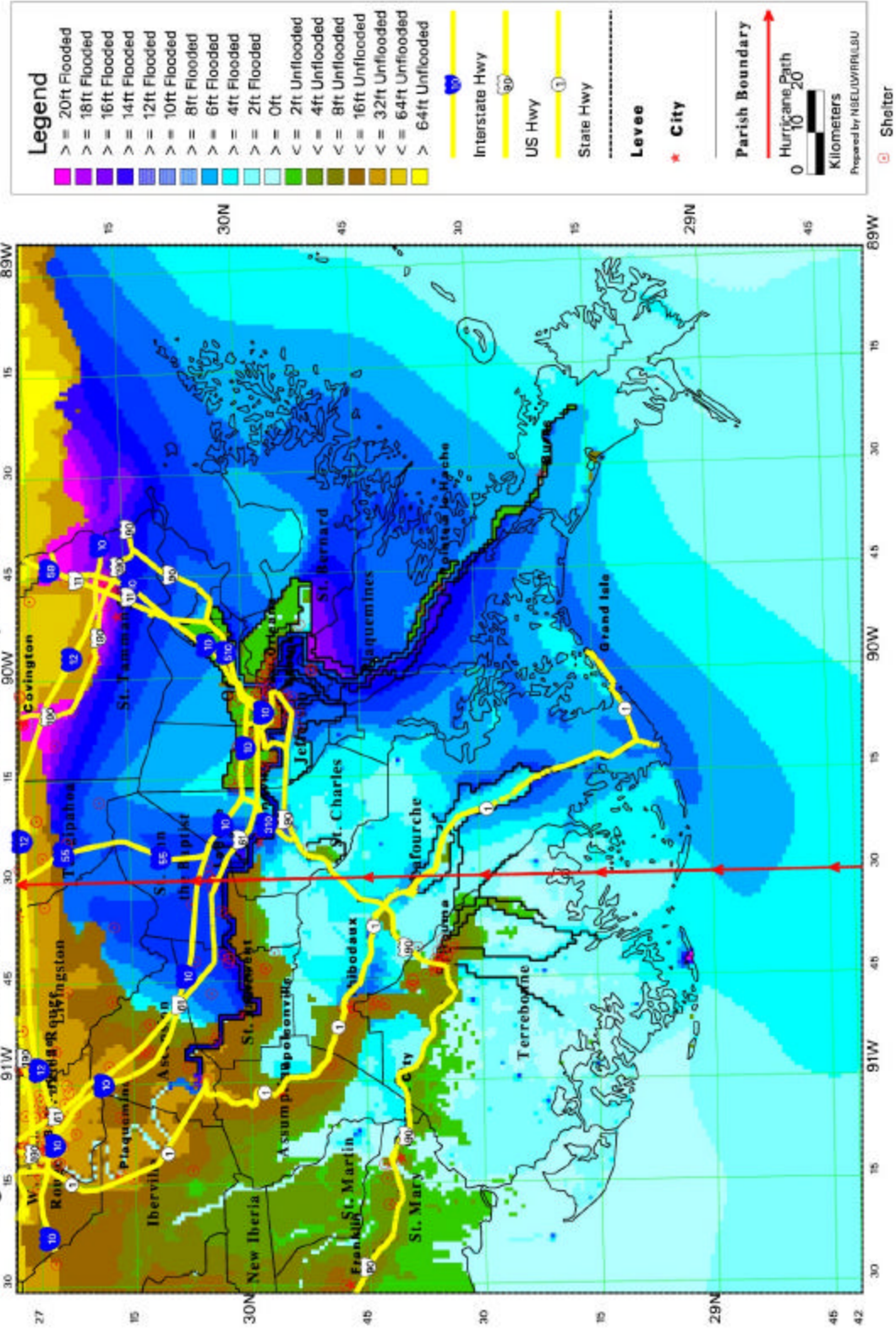Figure 4-7. Maximum Water Level Elevation (30-Year, No-Action, Track 1)

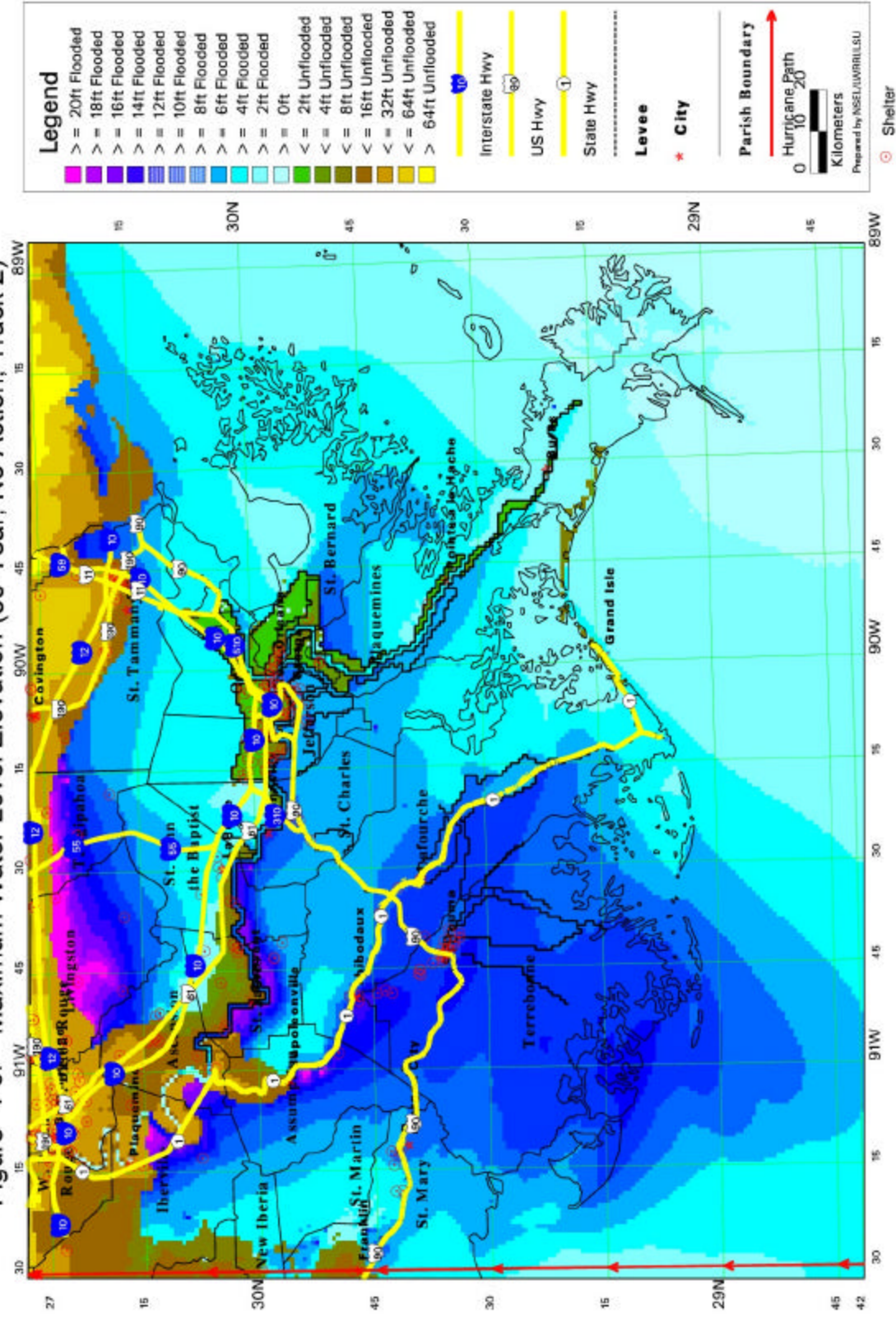Figure 4-8. Maximum Water Level Elevation (30-Year, No-Action, Track 2)

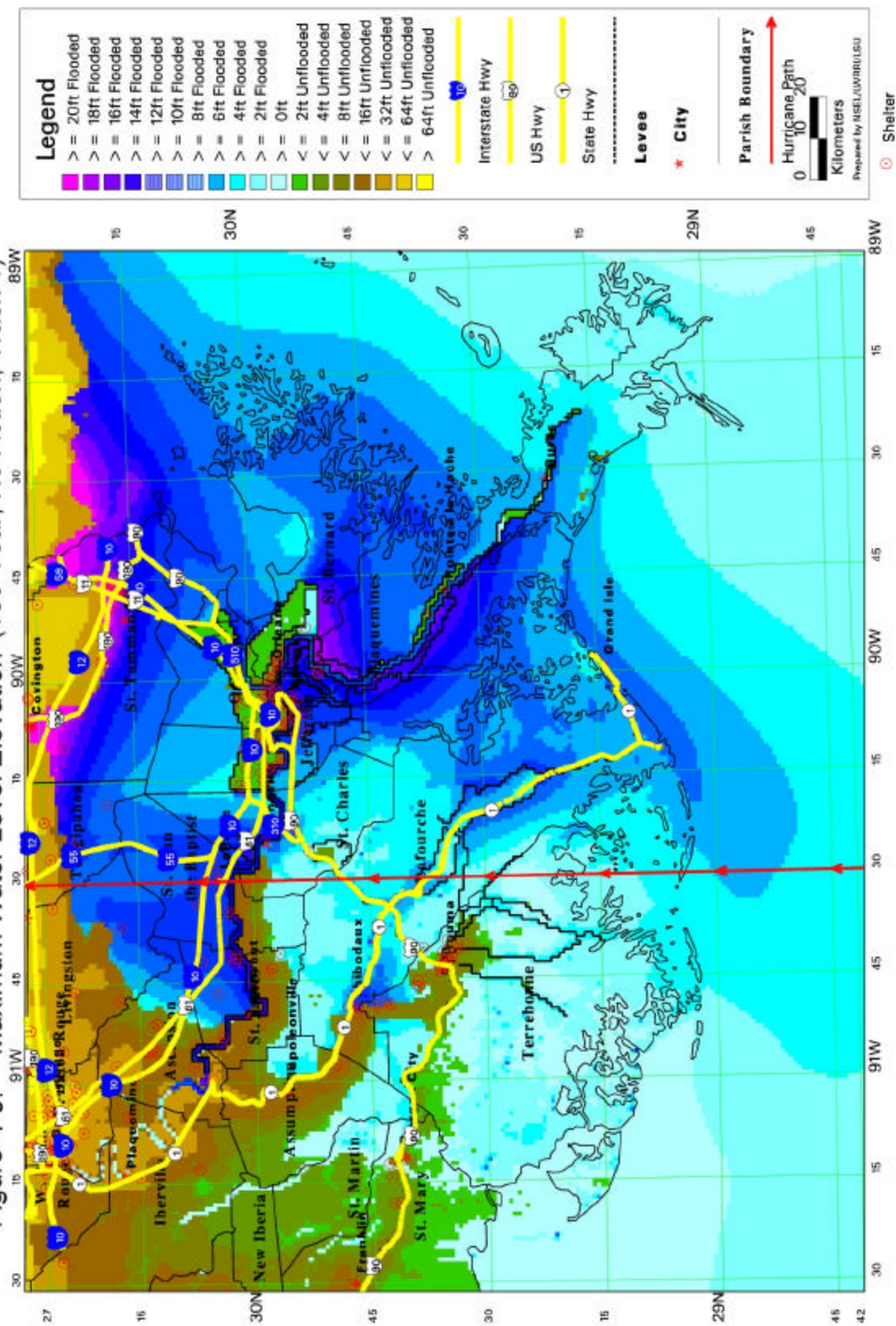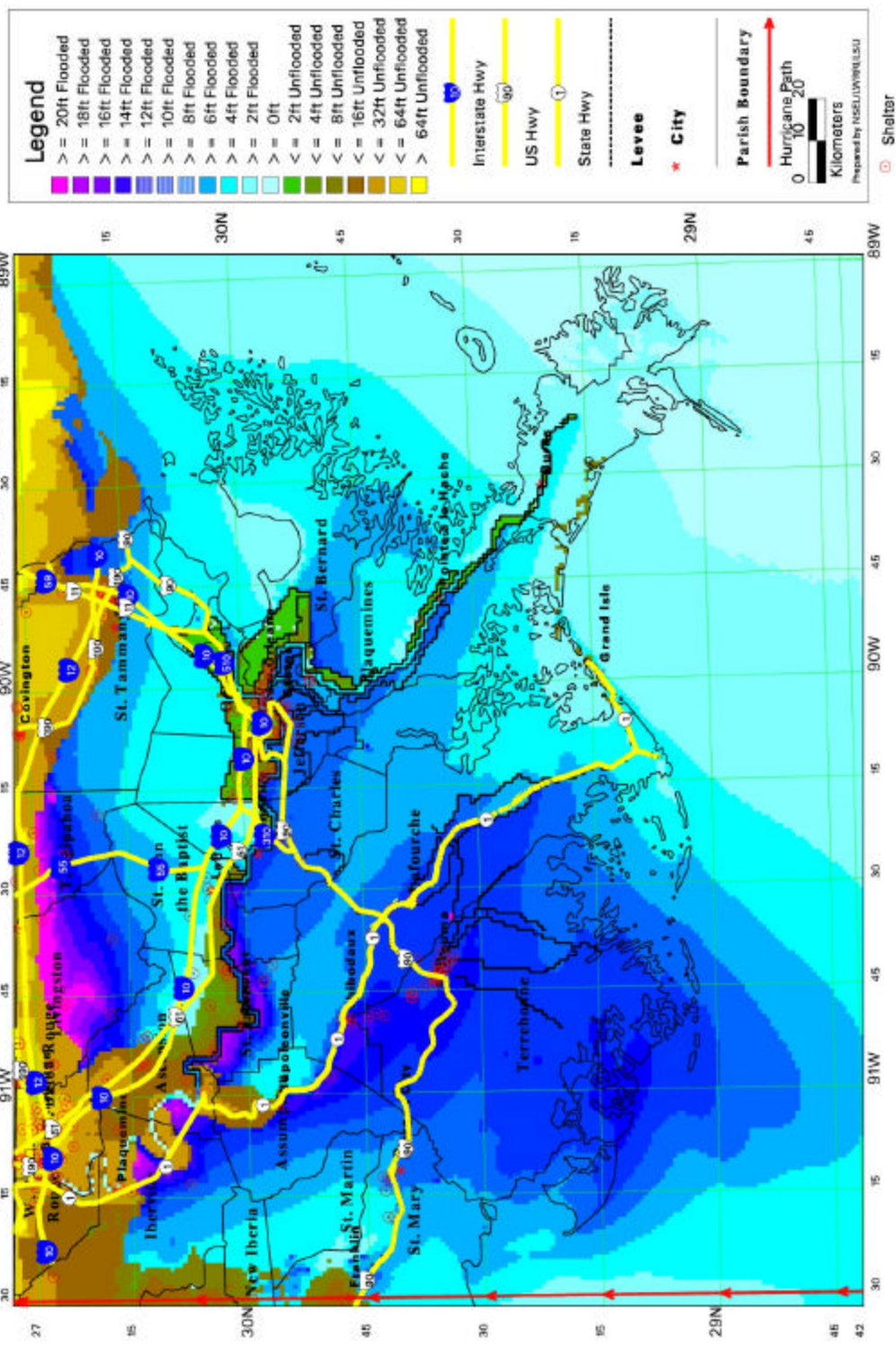Figure 4-9. Maximum Water Level Elevation (100-Year, No-Action, Track 1)

Legend

	>= 20ft Flooded
	>= 18ft Flooded
	>= 16ft Flooded
	>= 14ft Flooded
	>= 12ft Flooded
	>= 10ft Flooded
	>= 8ft Flooded
	>= 6ft Flooded
	>= 4ft Flooded
	>= 2ft Flooded
	>= 0ft
	< 2ft Unflooded
	< 4ft Unflooded
	< 8ft Unflooded
	< 16ft Unflooded
	< 32ft Unflooded
	< 64ft Unflooded
	> 64ft Unflooded

Interstate Hwy
US Hwy
State Hwy

Levee

★ City

Parish Boundary

Hurricane Path

Kilometers
0 10 20

Prepared by NSEL/LWRRI/LSU

⊙ Shelter

Figure 4-10. Maximum Water Level Elevation (100-Year, No-Action, Track 2)

Figure 4-11a. Time Series of Flood Elevation at Leeville for Track 1 Hurricane (Present Conditions) at grid point (129, 138) — Leeville

Track 1: Present
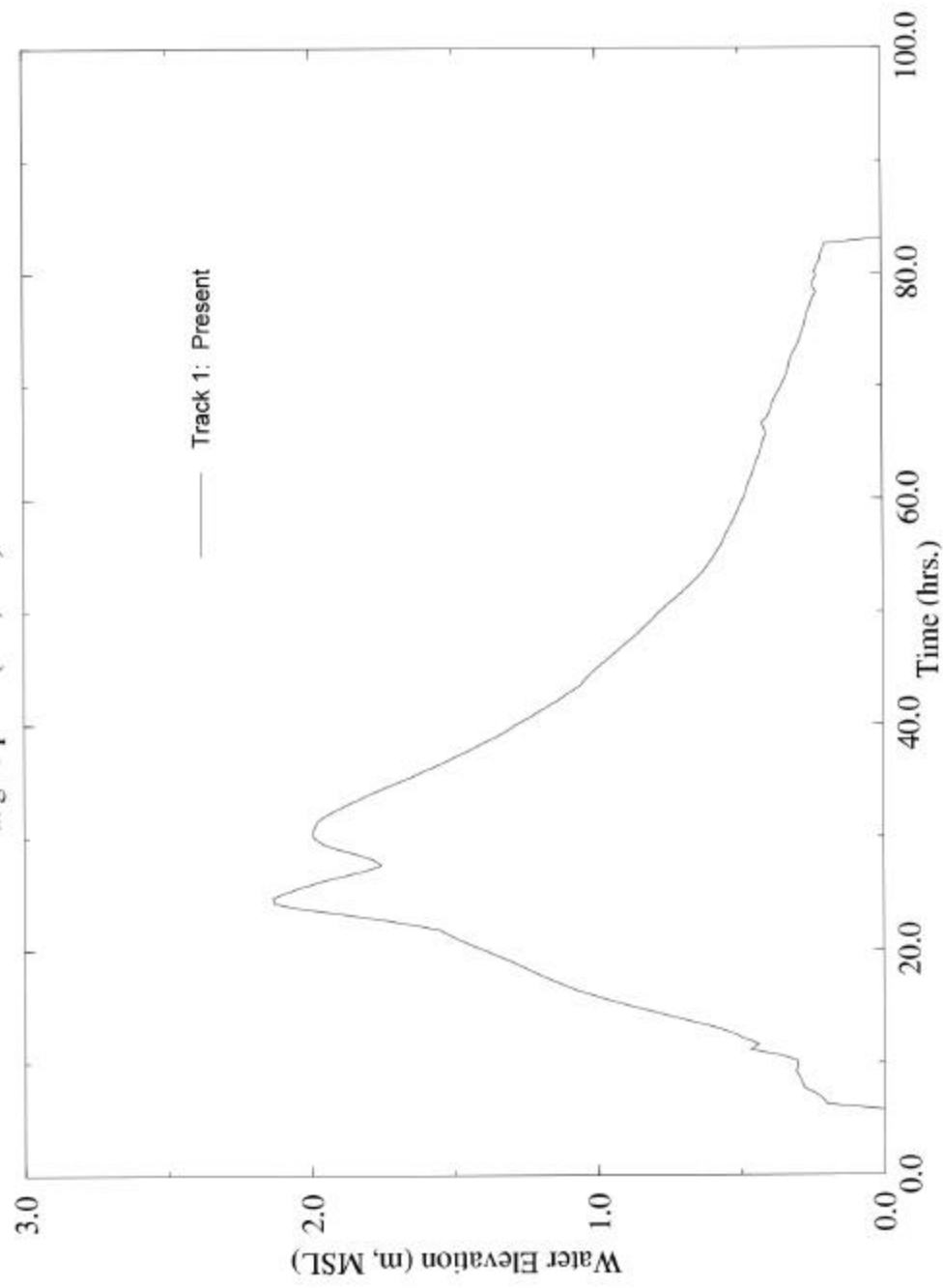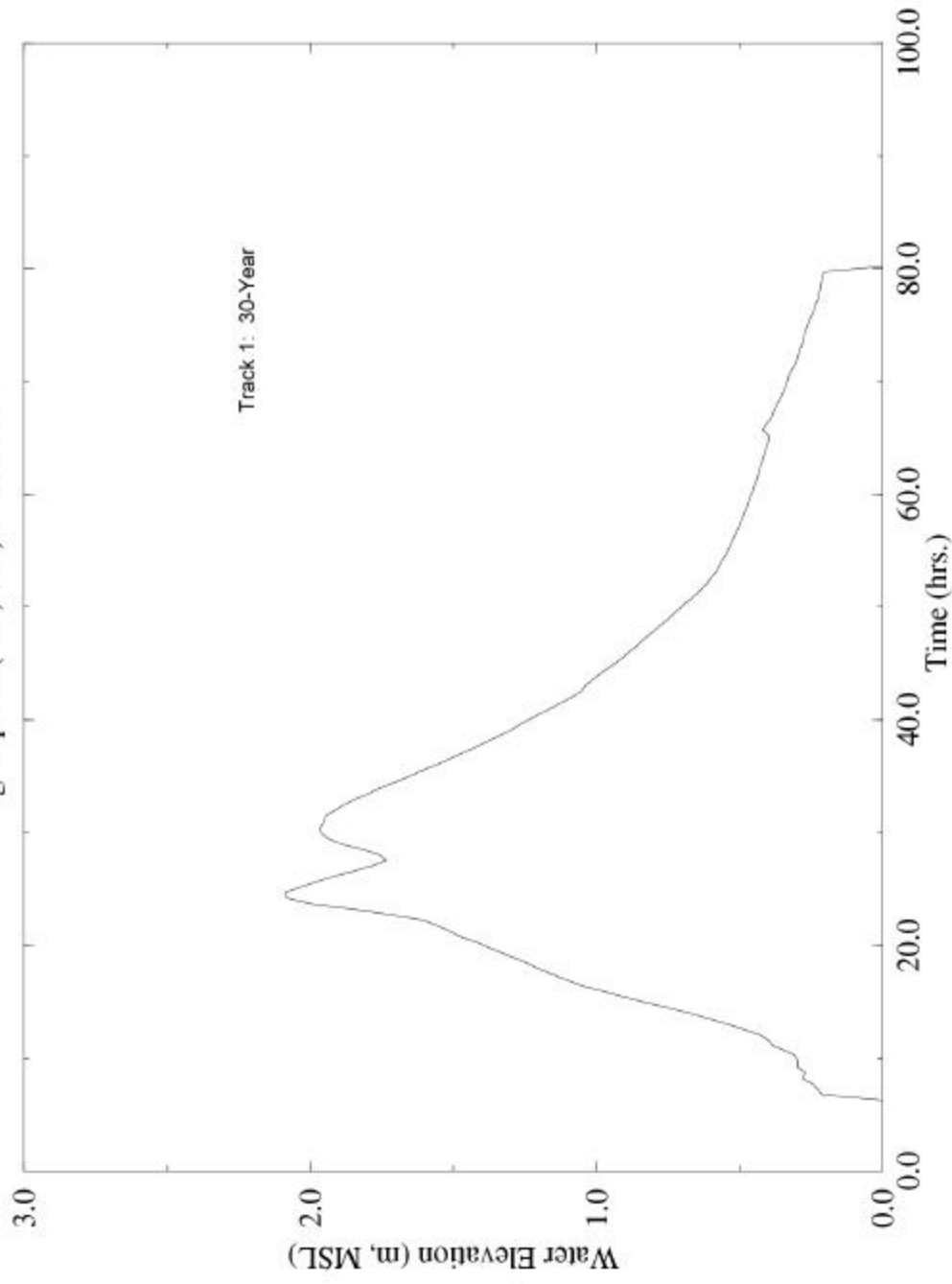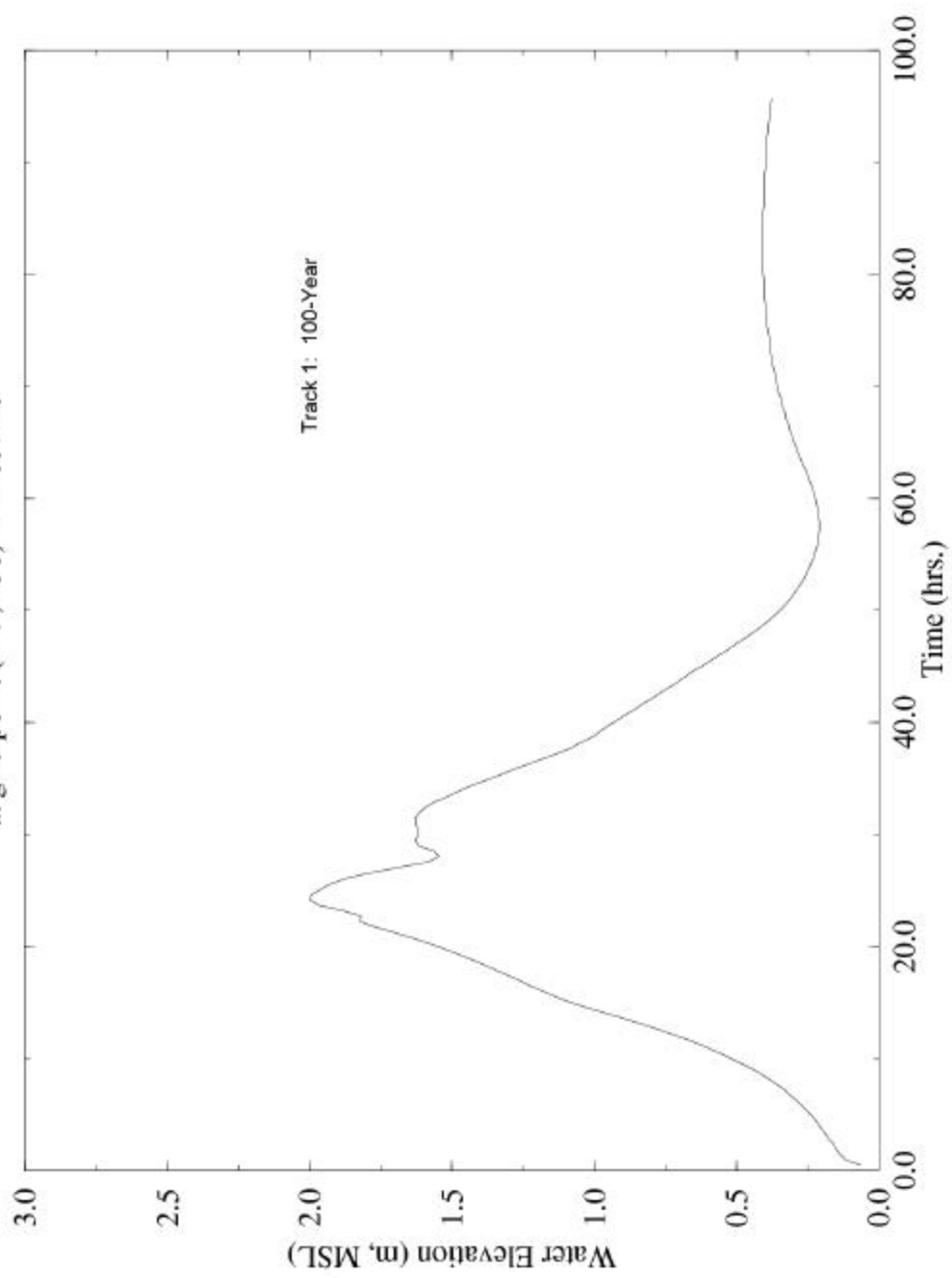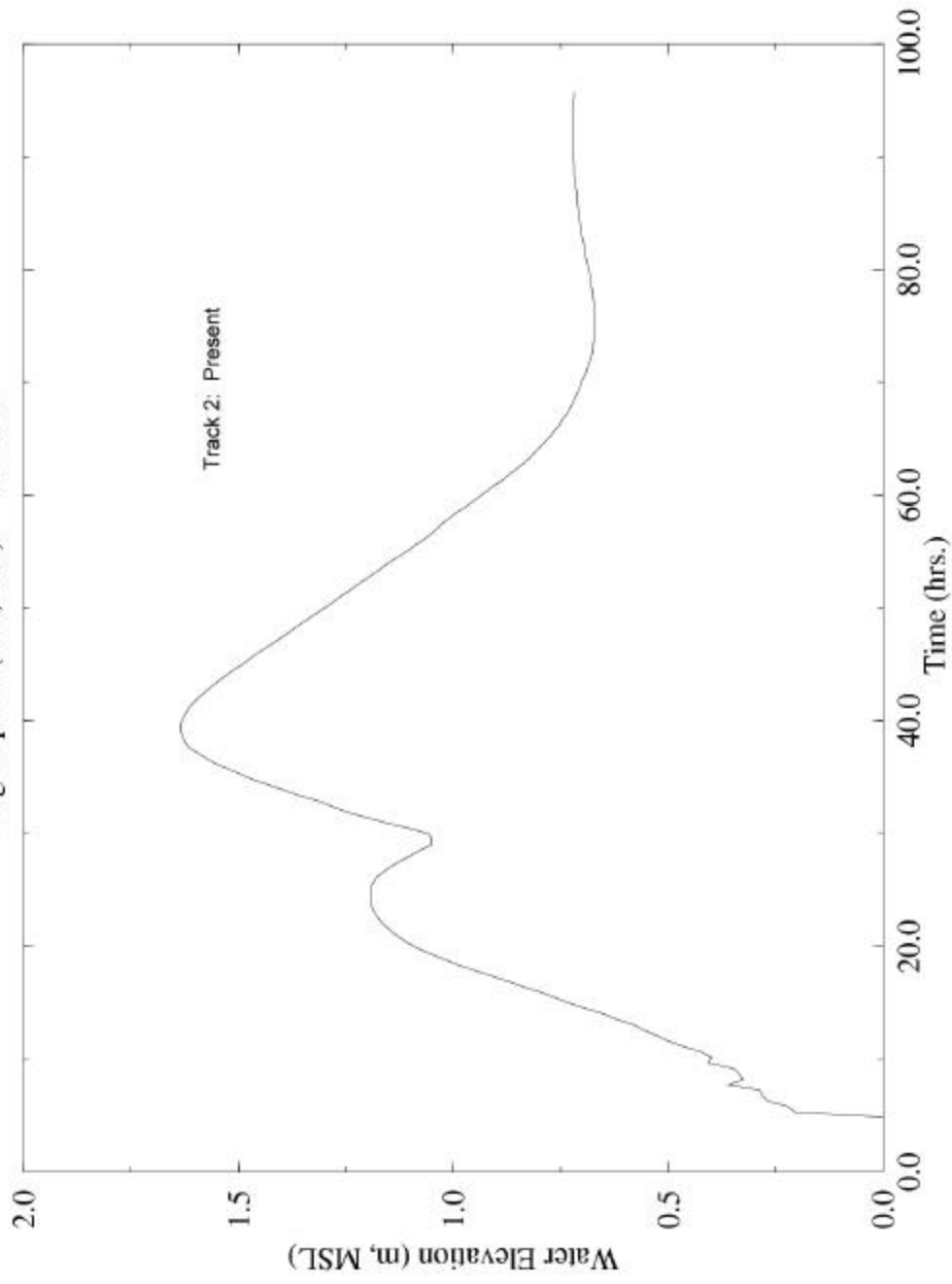
Water Elevation (m, MSL)

Time (hrs.)

Figure 4-11b. Time Series of Flood Elevation at Leeville for Track 1 Hurricane (30-Year) at grid point (129, 138) — Leeville

Figure 4-11c. Time Series of Flood Elevation at Leeville for Track 1 Hurricane (100-Year) at grid point (129, 138) -- Leeville
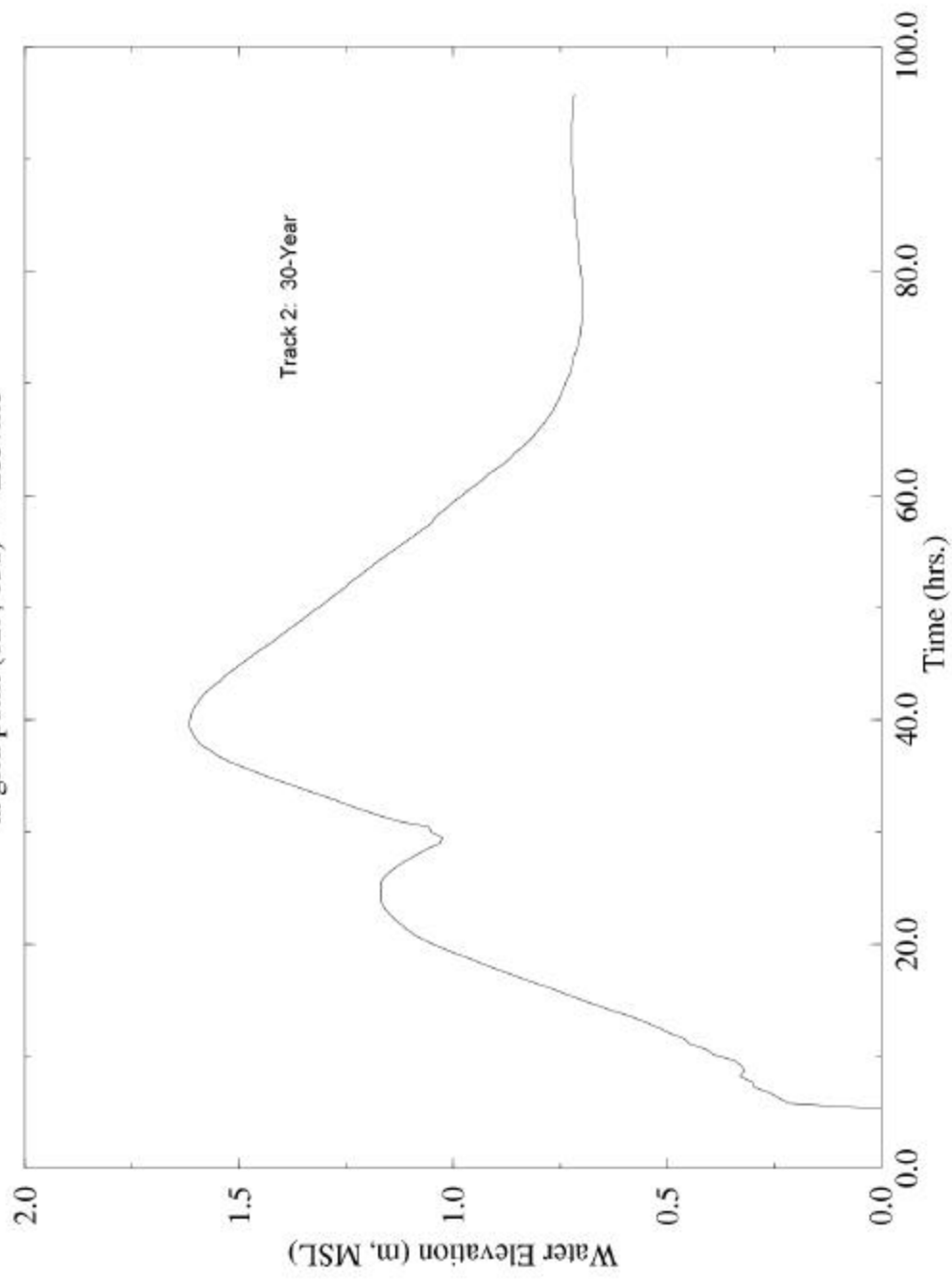
Track 1: 100-Year

Figure 4-12a. Time Series of Flood Elevation at Leeville for Track 2 Hurricane (Present Conditions) at grid point (129, 138) — Leeville

Figure 4-12b. Time Series of Flood Elevation at Leeville for Track 2 Hurricane (30-Year) at grid point (129, 138) — Leeville
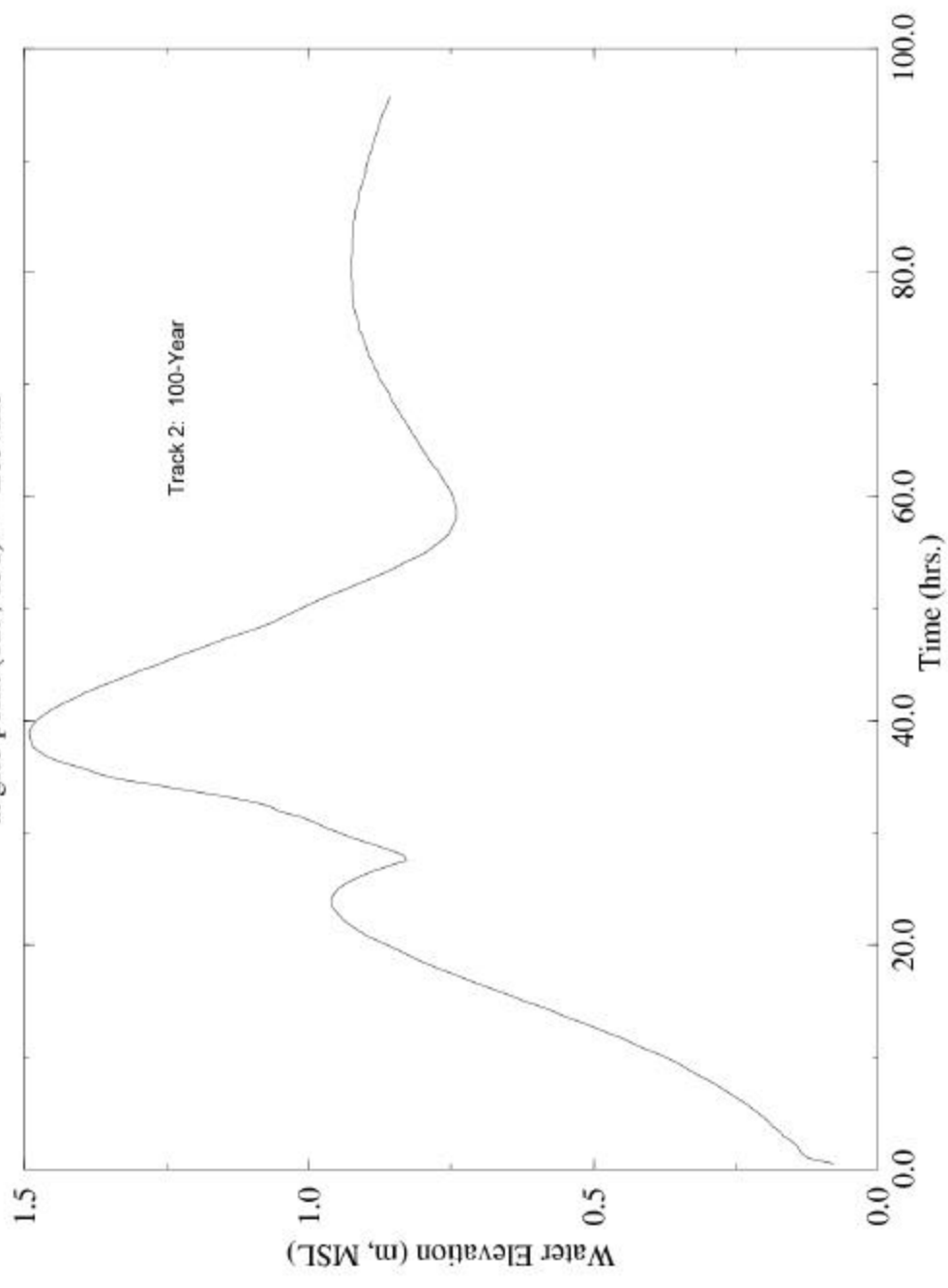
Track 2: 30-Year

Figure 4-12c. Time Series of Flood Elevation at Leeville for Track 2 Hurricane (100-Year) at grid point (129, 138) — Leeville

Track 2: 100-Year

Figure 4-13a. Time Series of Flood Elevation at Cocodrie for Track 1 Hurricane (Present Conditions) at grid point (85, 139) -- Cocodrie

Track 1: Present
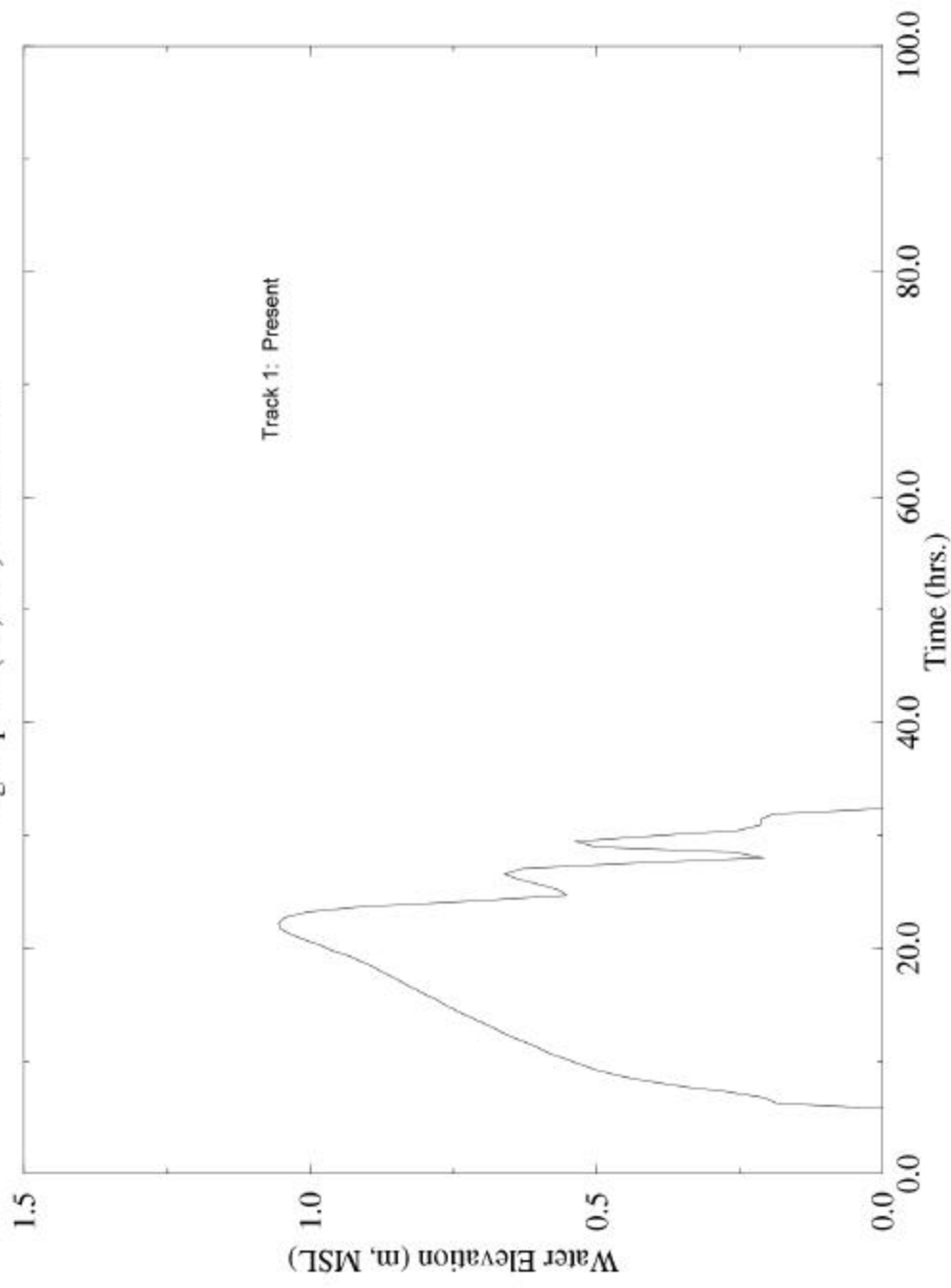
Figure 4-13b. Time Series of Flood Elevation at Cocodrie for Track 1 Hurricane (30-Year)
at grid point (85, 139) — Cocodrie

Track 1: 30-Year

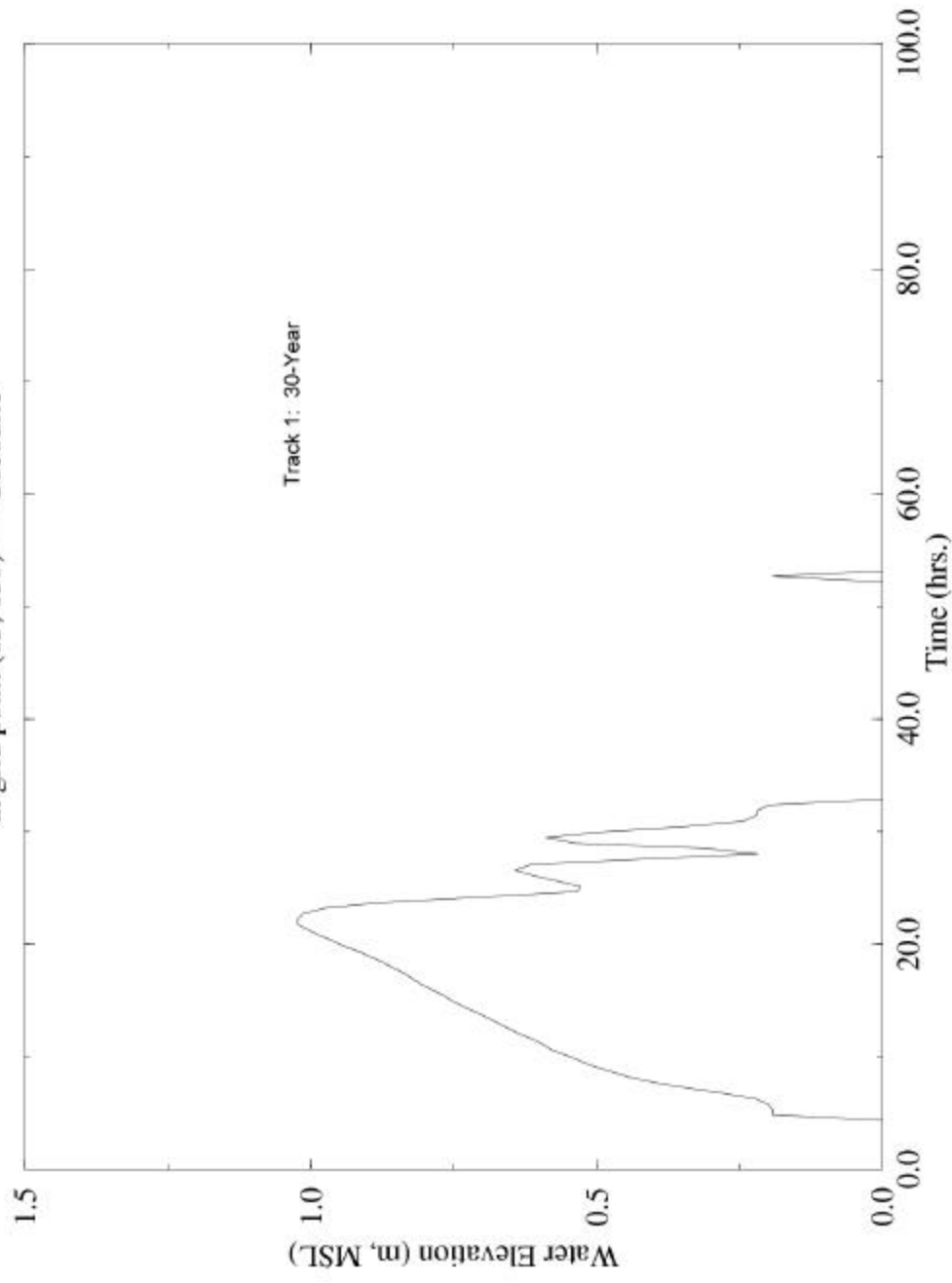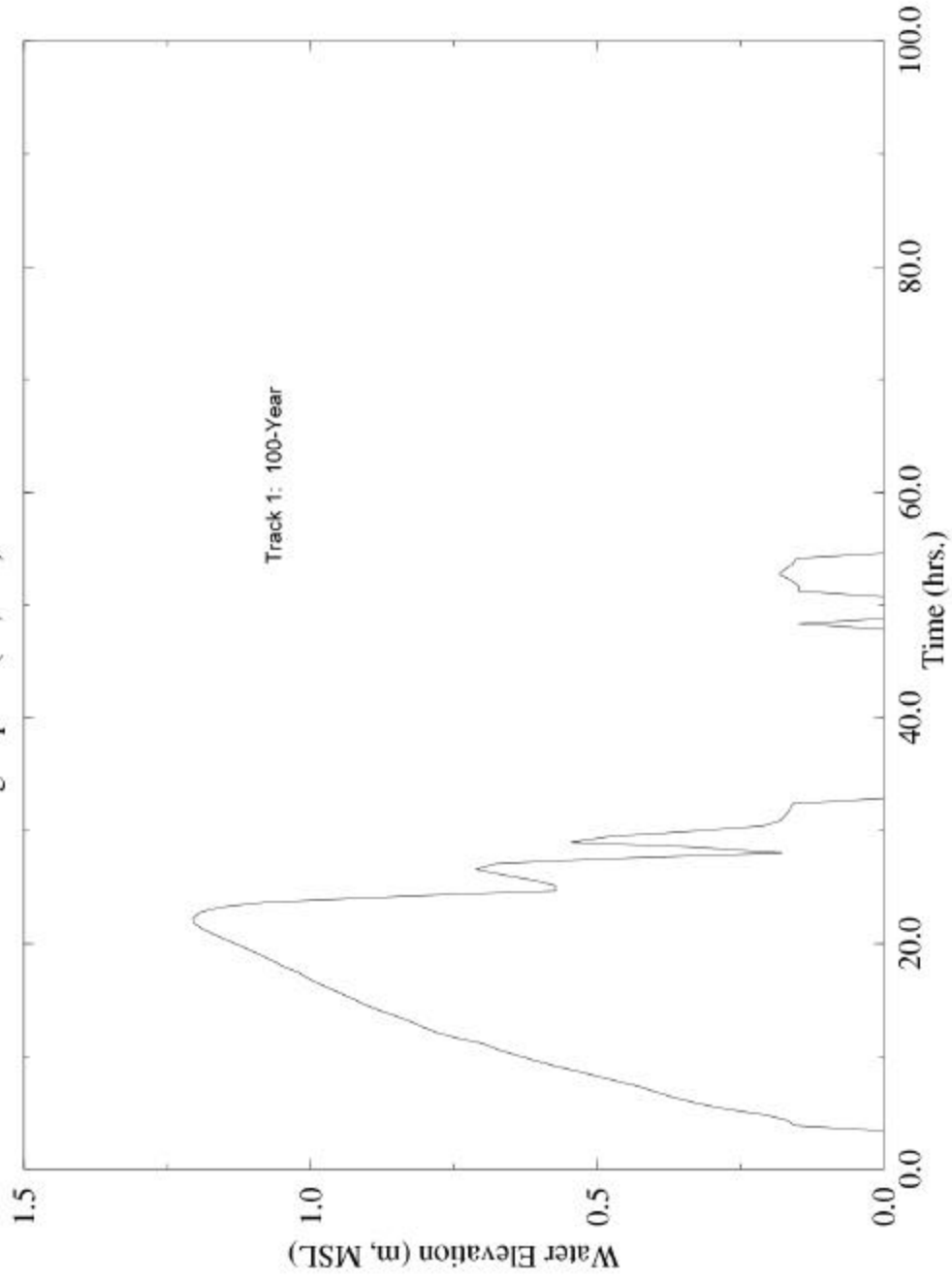Figure 4-13c. Time Series Flood Elevations at Cocodrie for Track 1 Hurricane (100-Year) at grid point (85, 139) — Cocodrie

Track 1: 100-Year

Figure 4-14a. Time Series Flood Elevations at Cocodrie for Track 2 Hurricane (Present Conditions) at grid point (85, 139) —– Cocodrie

Track 2: Present
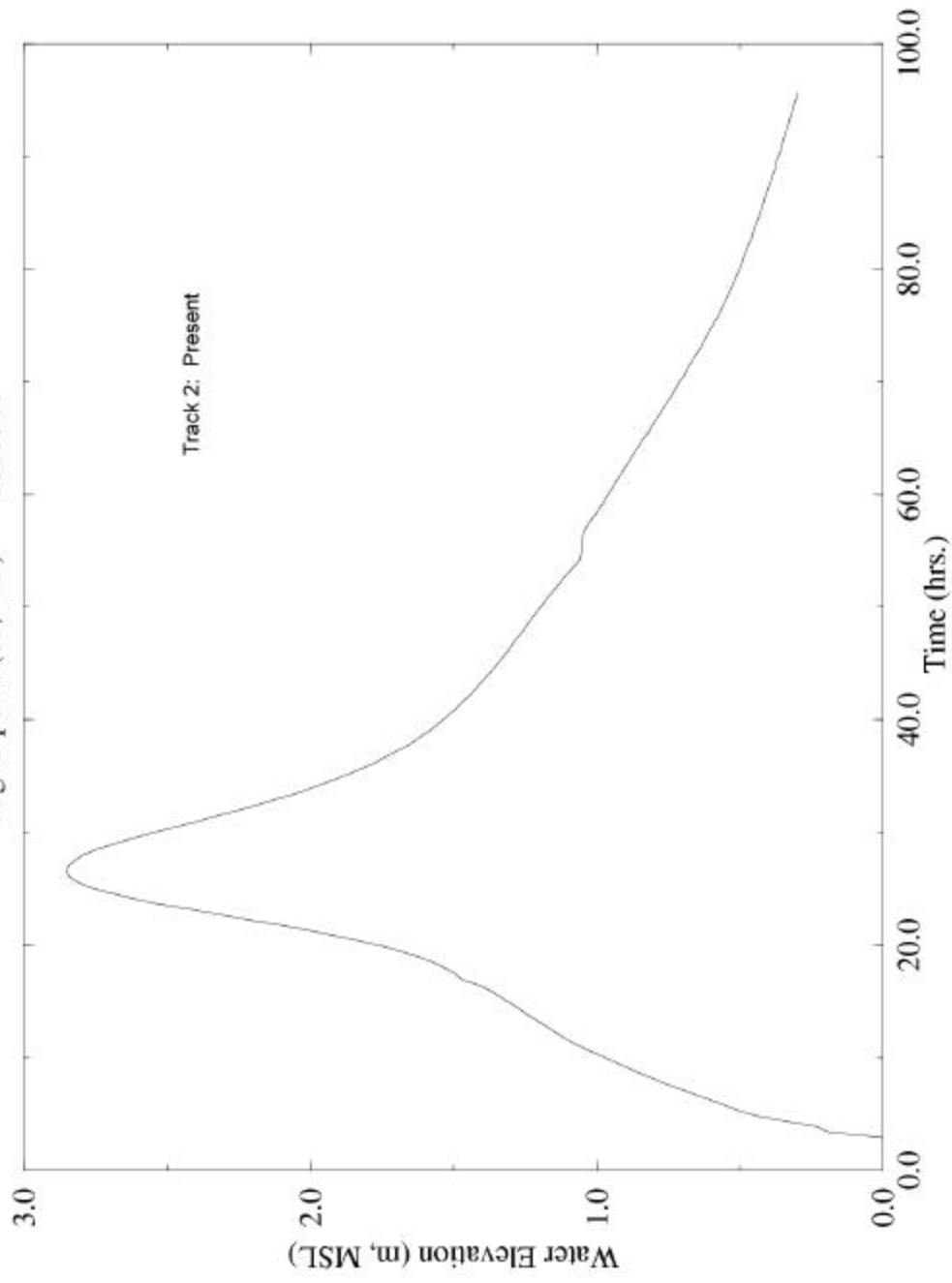
Figure 4-14b. Time Series of Flood Elevation at Cocodrie for Track 2 Hurricane (30-Year) at grid point (85, 139) — Cocodrie

Track 2: 30-Year
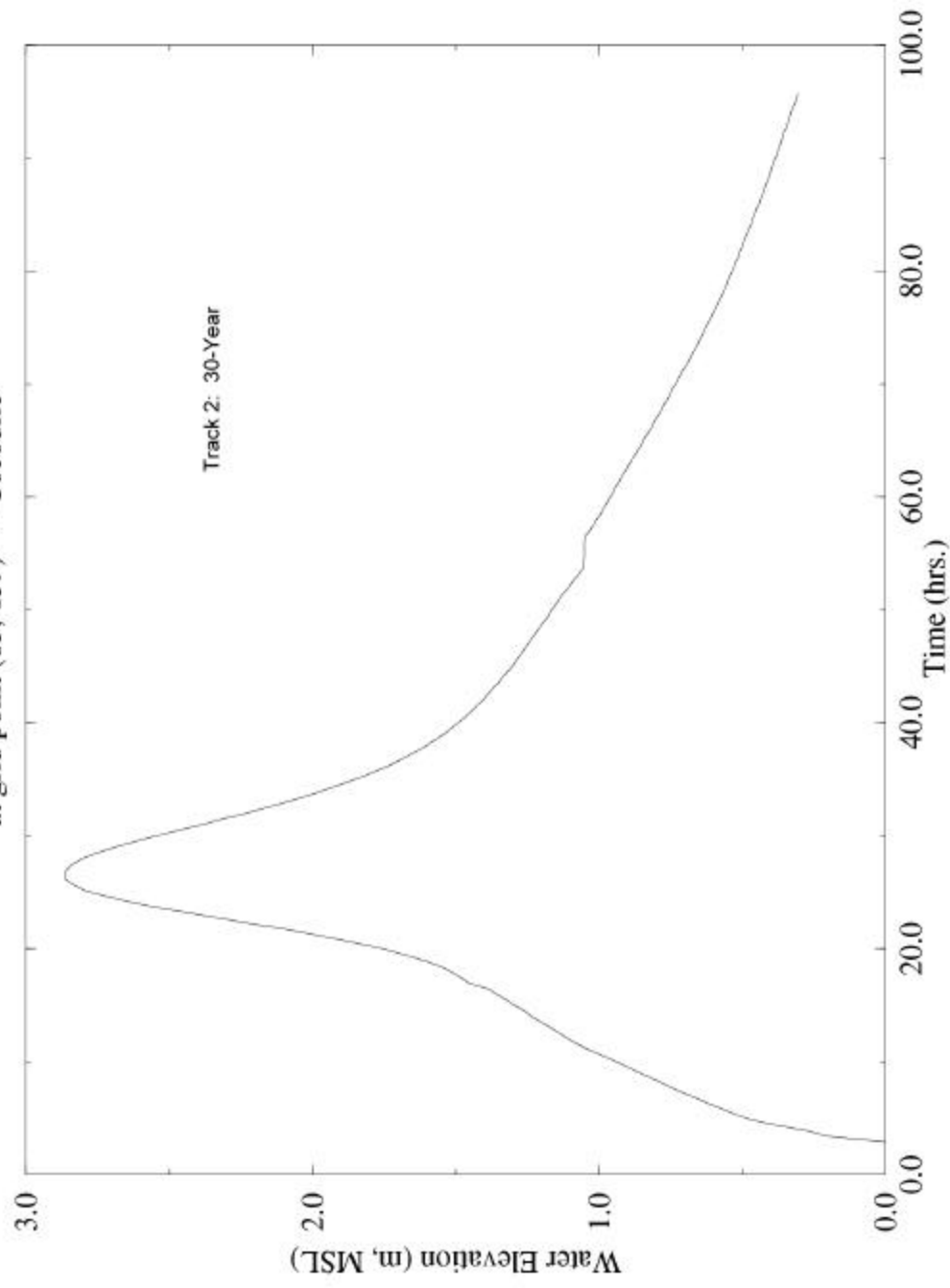
Figure 4-14c. Time Series of Flood Elevation at Cocodrie for Track 2 Hurricane (100-Year)
at grid point (85, 139) —— Cocodrie
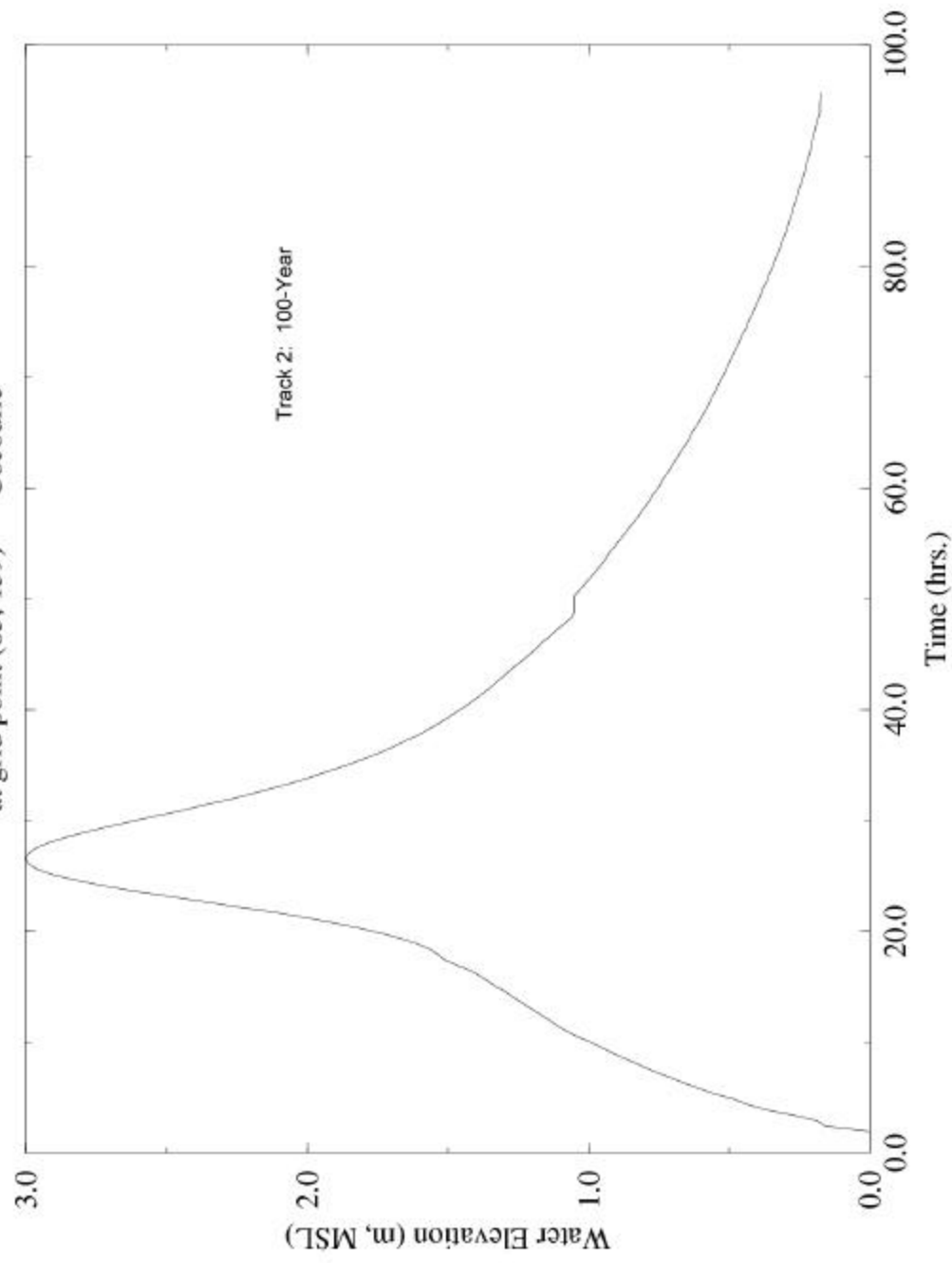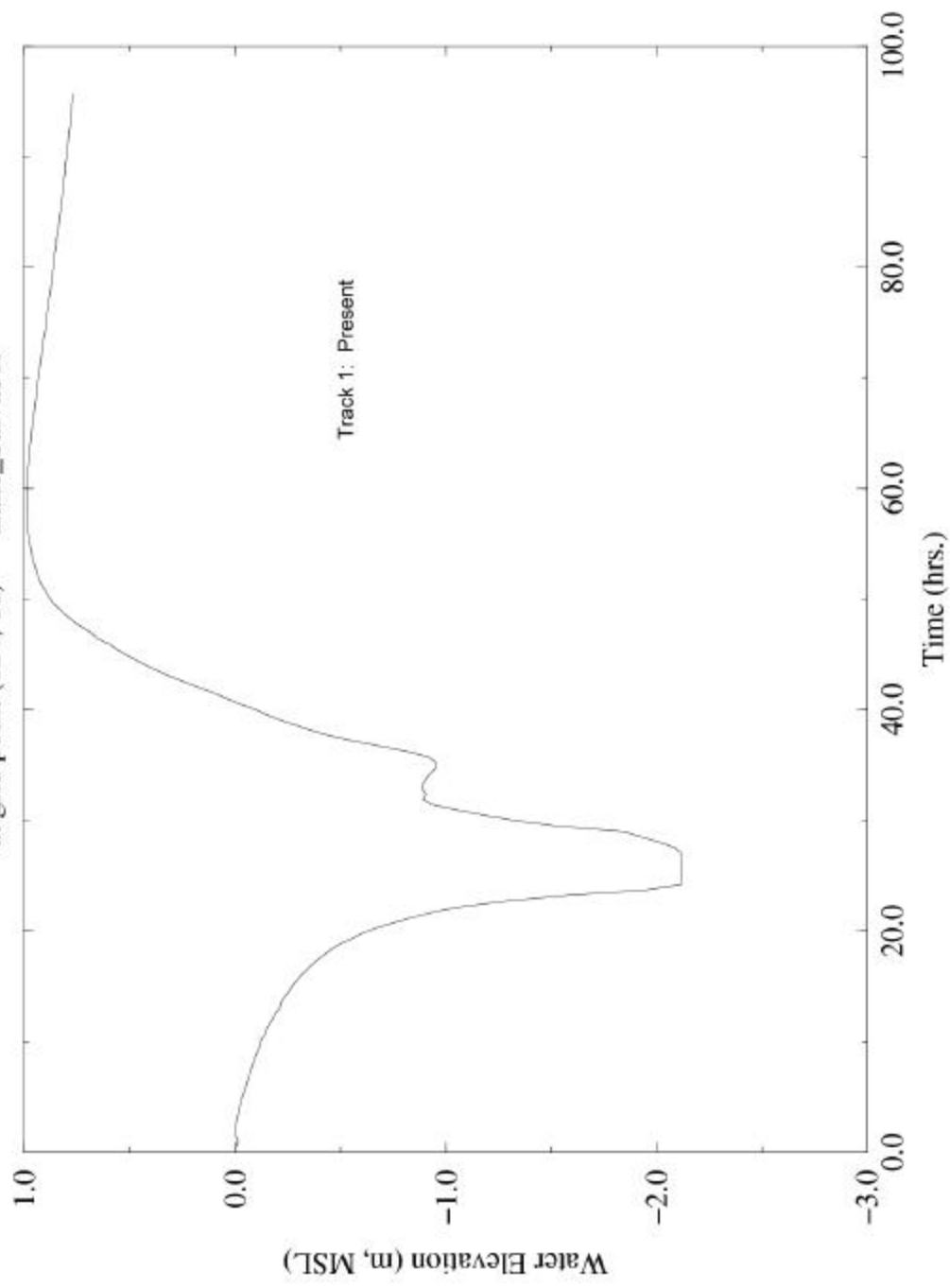
Track 2: 100-Year

Water Elevation (m, MSL)

Time (hrs.)

Figure 4-15a. Time Series of Flood Elevation at Lake Salvador for Track 1 Hurricane (Present Conditions) at grid point (124, 86) — Lake_Salvador
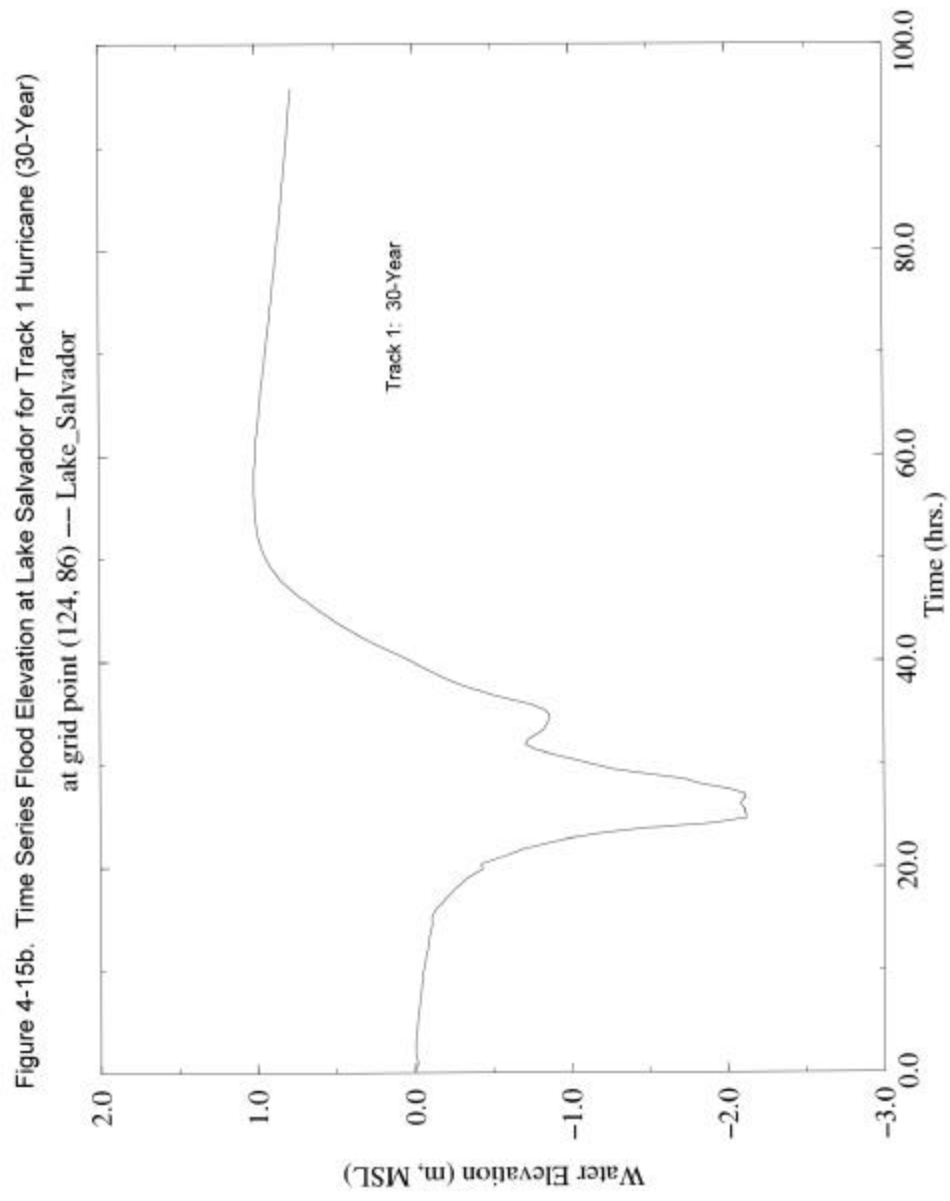
Track 1: Present

Figure 4-15b. Time Series Flood Elevation at Lake Salvador for Track 1 Hurricane (30-Year) at grid point (124, 86) — Lake_Salvador

Track 1: 30-Year

Figure 4-15c. Time Series Flood Elevation at Lake Salvador for Track 1 Hurricane (100-Year) at grid point (124, 86) — Lake_Salvador
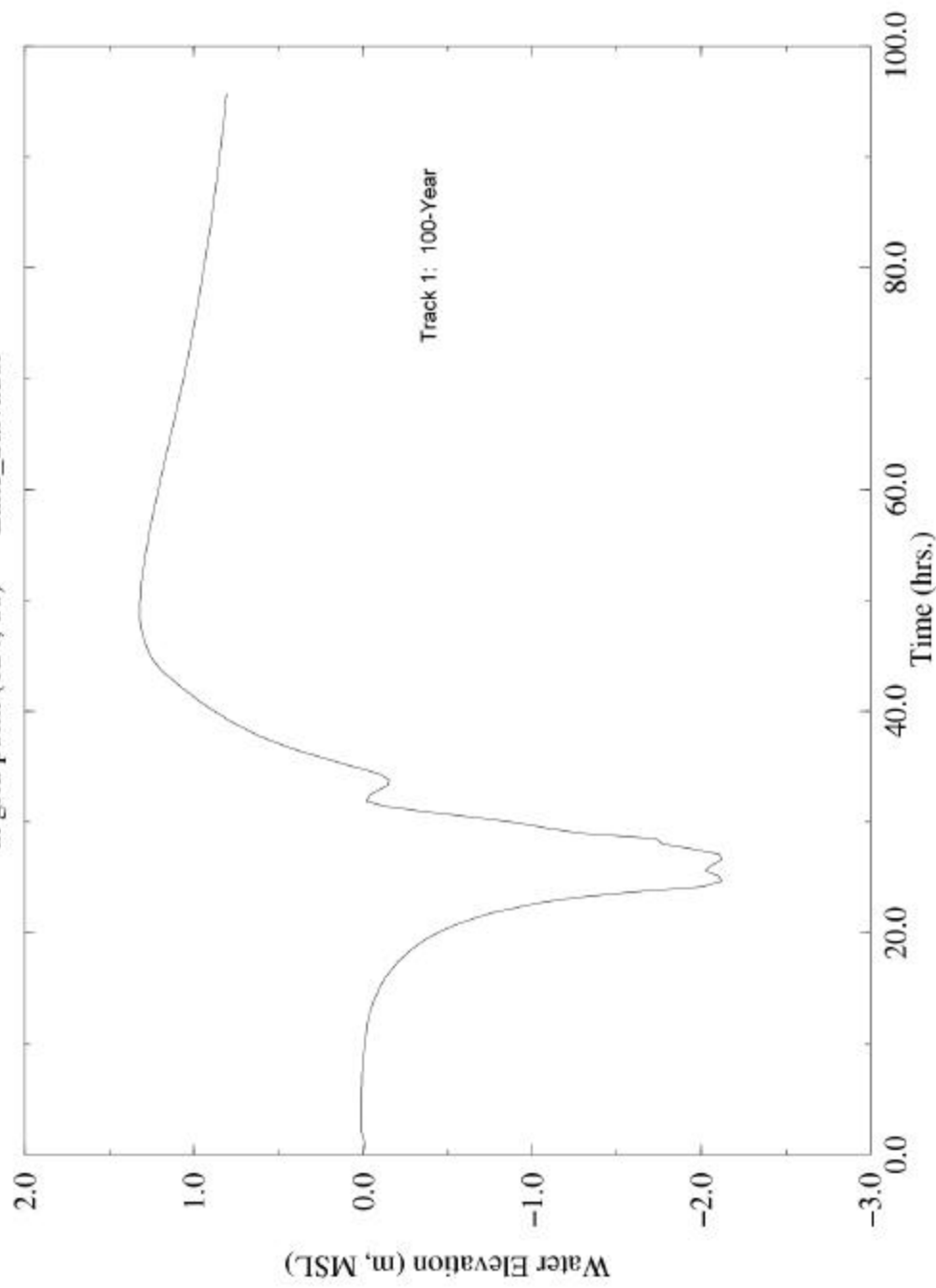
Track 1: 100-Year

Figure 4-16a. Time Series Flood Elevation at Lake Salvador for Track 2 Hurricane (Present Conditions) at grid point (124, 86) — Lake_Salvador
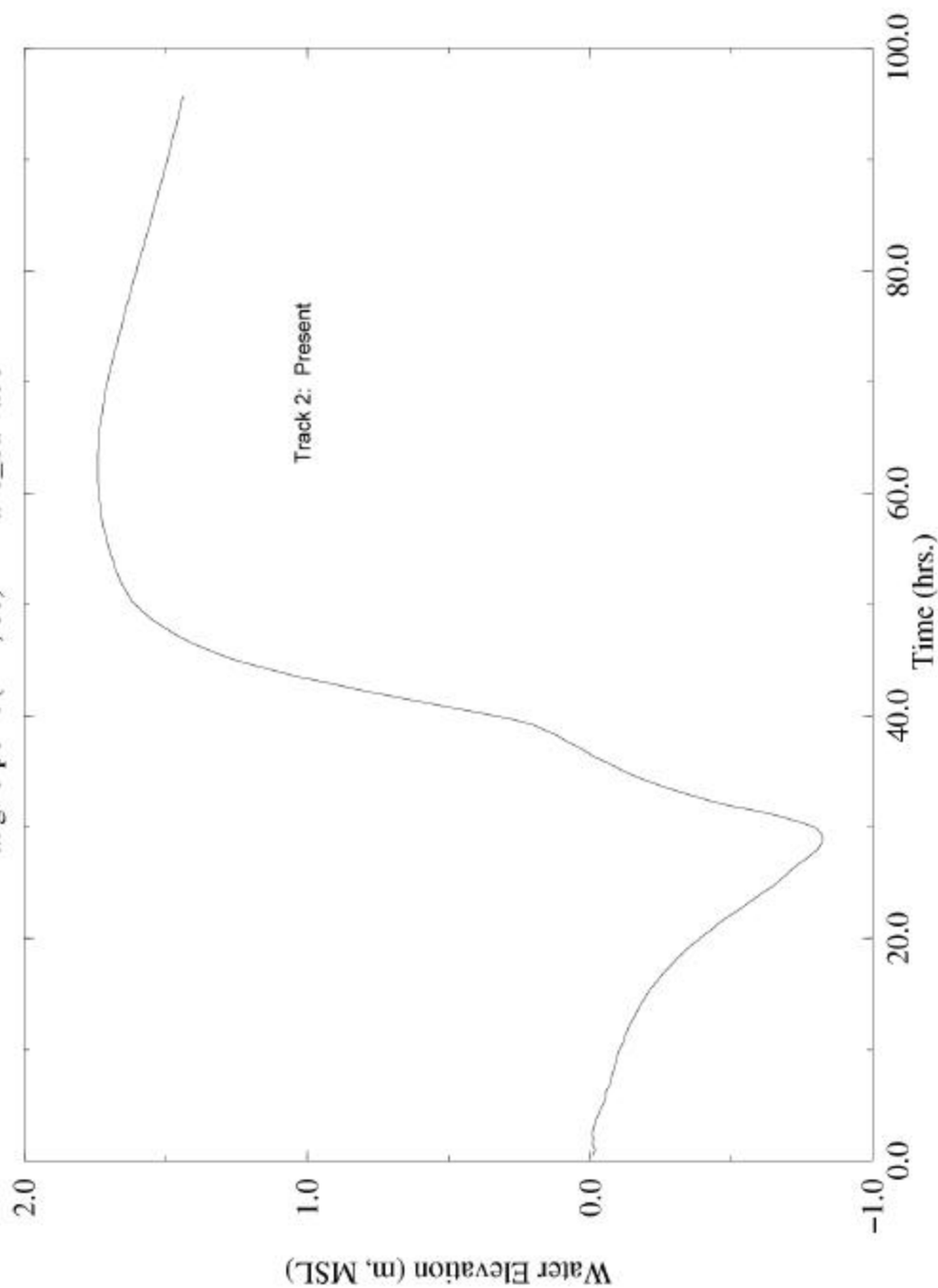
Track 2: Present

Water Elevation (m, MSL)

Time (hrs.)

Figure 4-16b. Time Series Flood Elevation at Lake Salvador for Track 2 Hurricane (30-Year) at grid point (124, 86) — Lake_Salvador
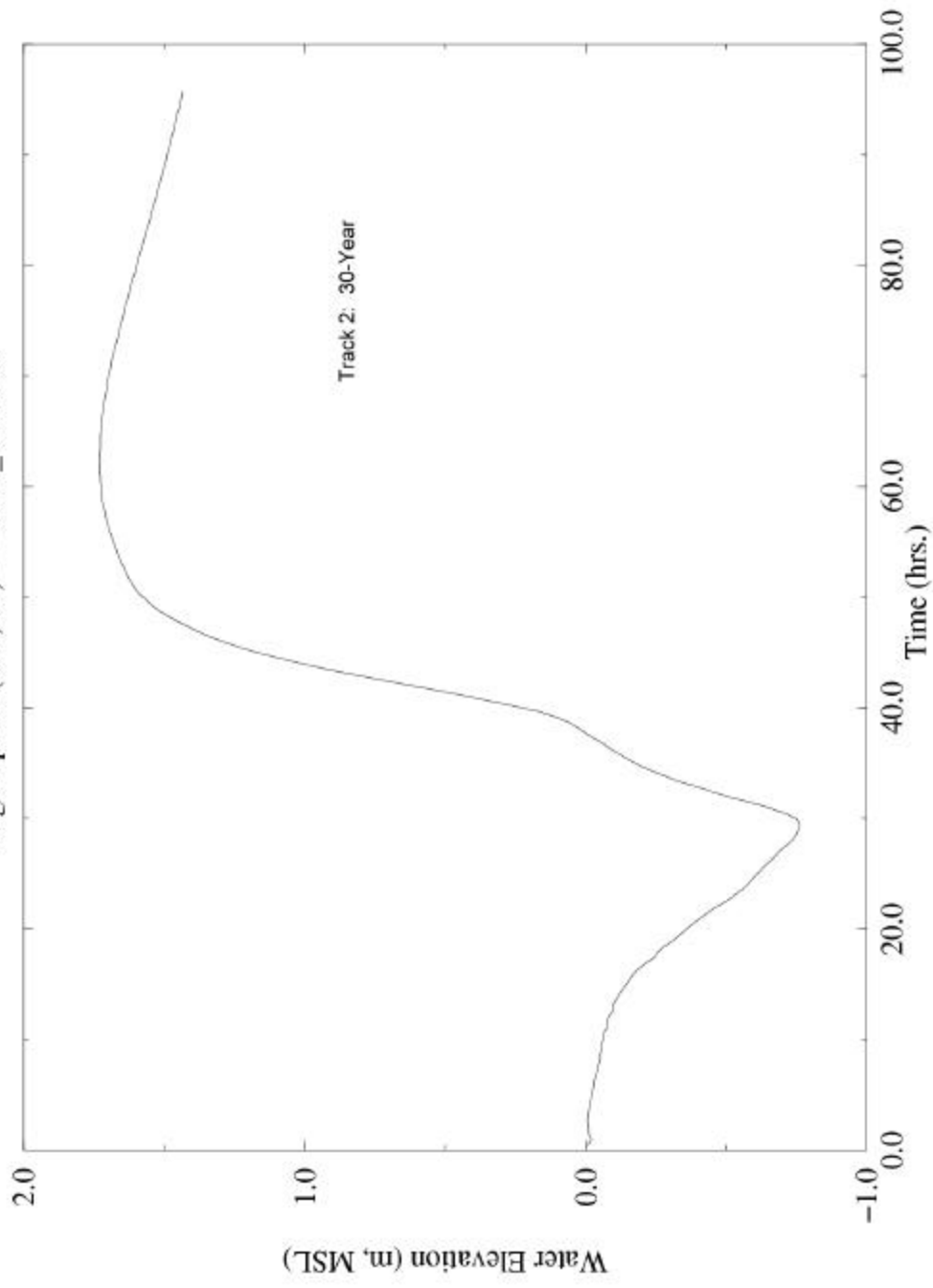
Track 2: 30-Year

Figure 4-16c. Time Series Flood Elevation at Lake Salvador for Track 2 Hurricane (100-Year) at grid point (124, 86) — Lake_Salvador

Track 2: 100-Year
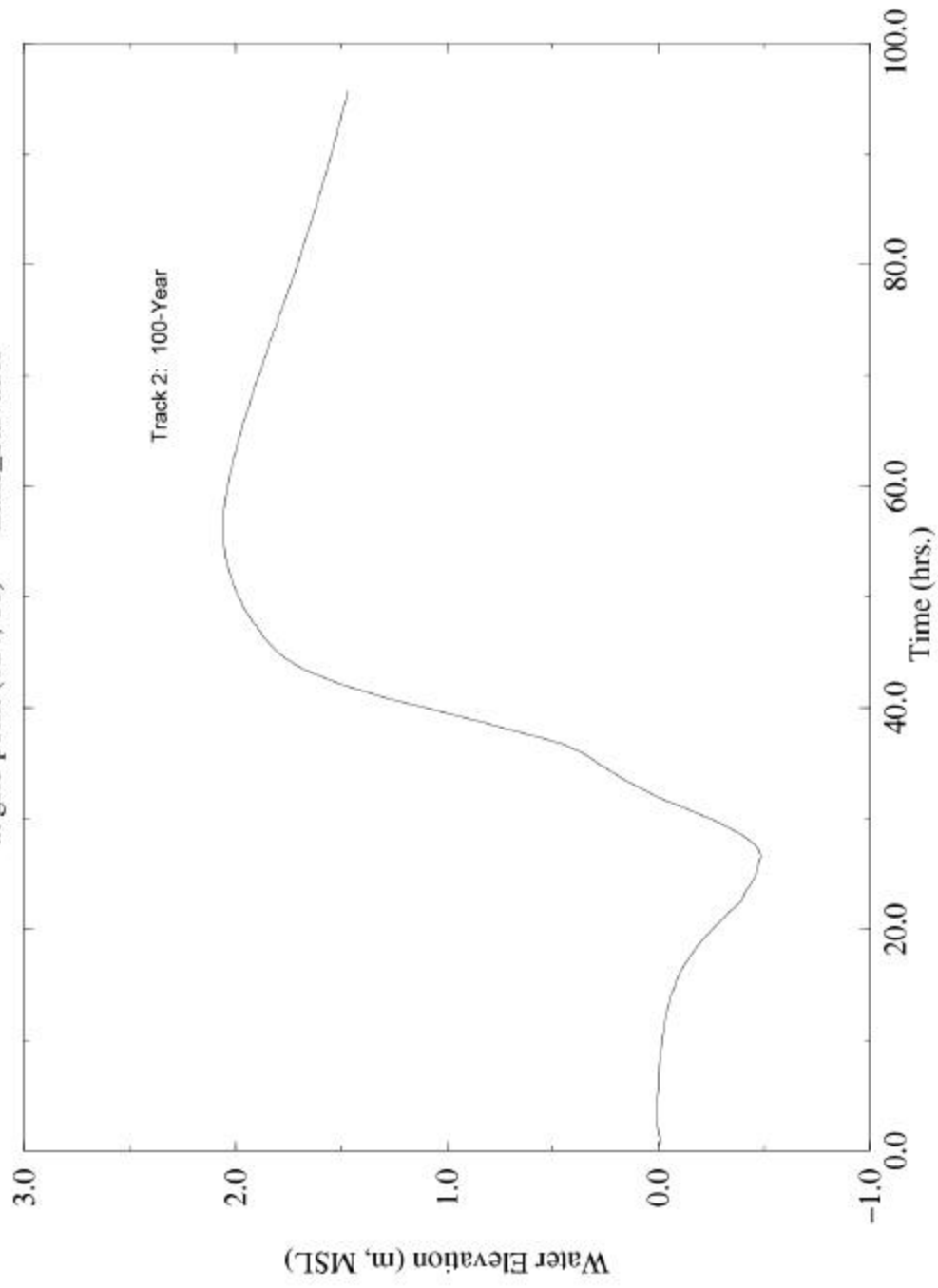
Figure 4-17a. Time Series Flood Elevation at Venice for Track 1 Hurricane (Present Conditions)
at grid point (213, 137) -— Venice

Track 1: Present
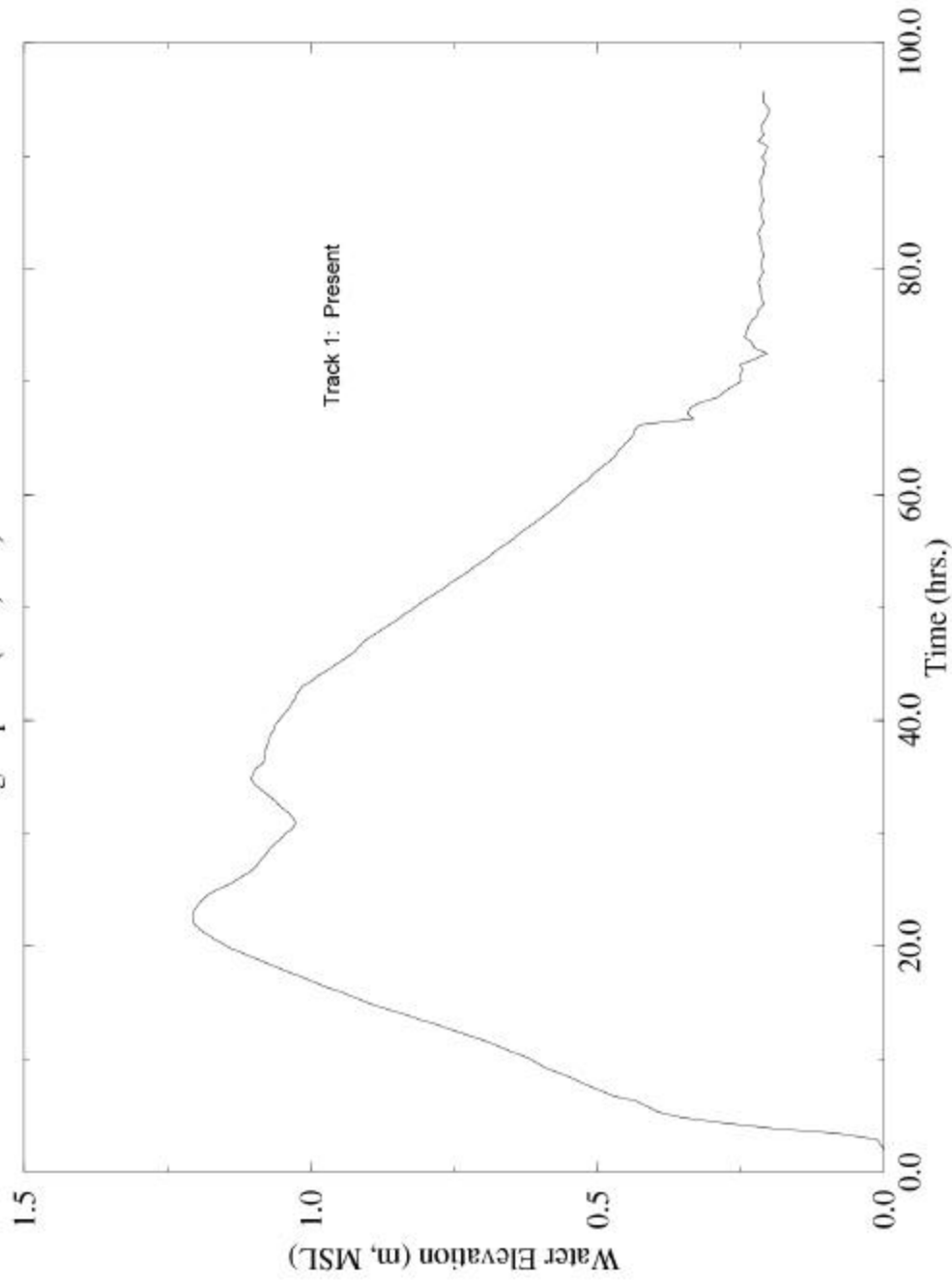
Water Elevation (m, MSL)

Time (hrs.)

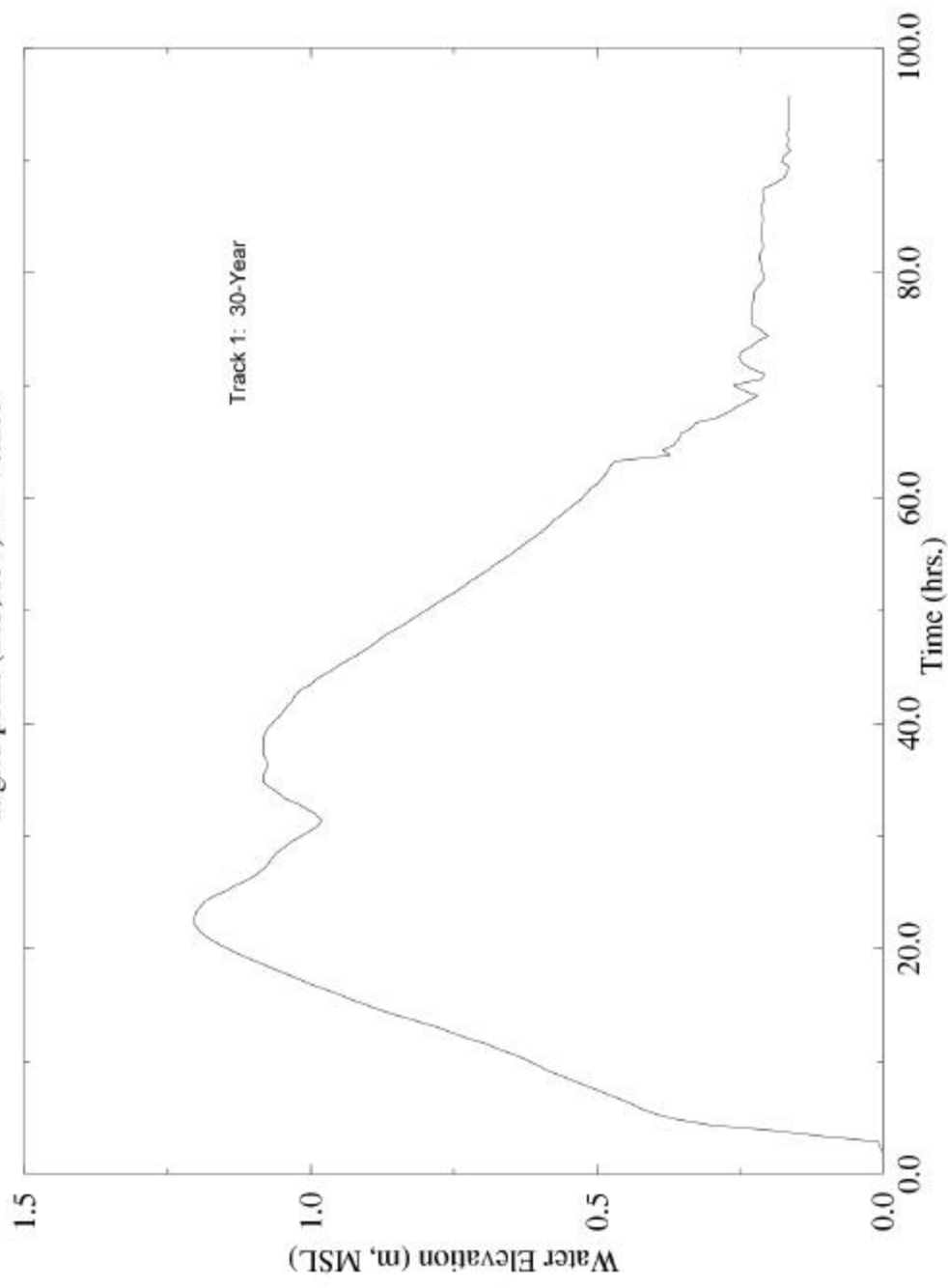Figure 4-17b. Time Series Flood Elevation at Venice for Track 1 Hurricane (30-Year) at grid point (213, 137) -- Venice

Track 1: 30-Year

Figure 4-17c. Time Series Flood Elevation at Venice for Track 1 Hurricane (100-Year) at grid point (213, 137) -- Venice
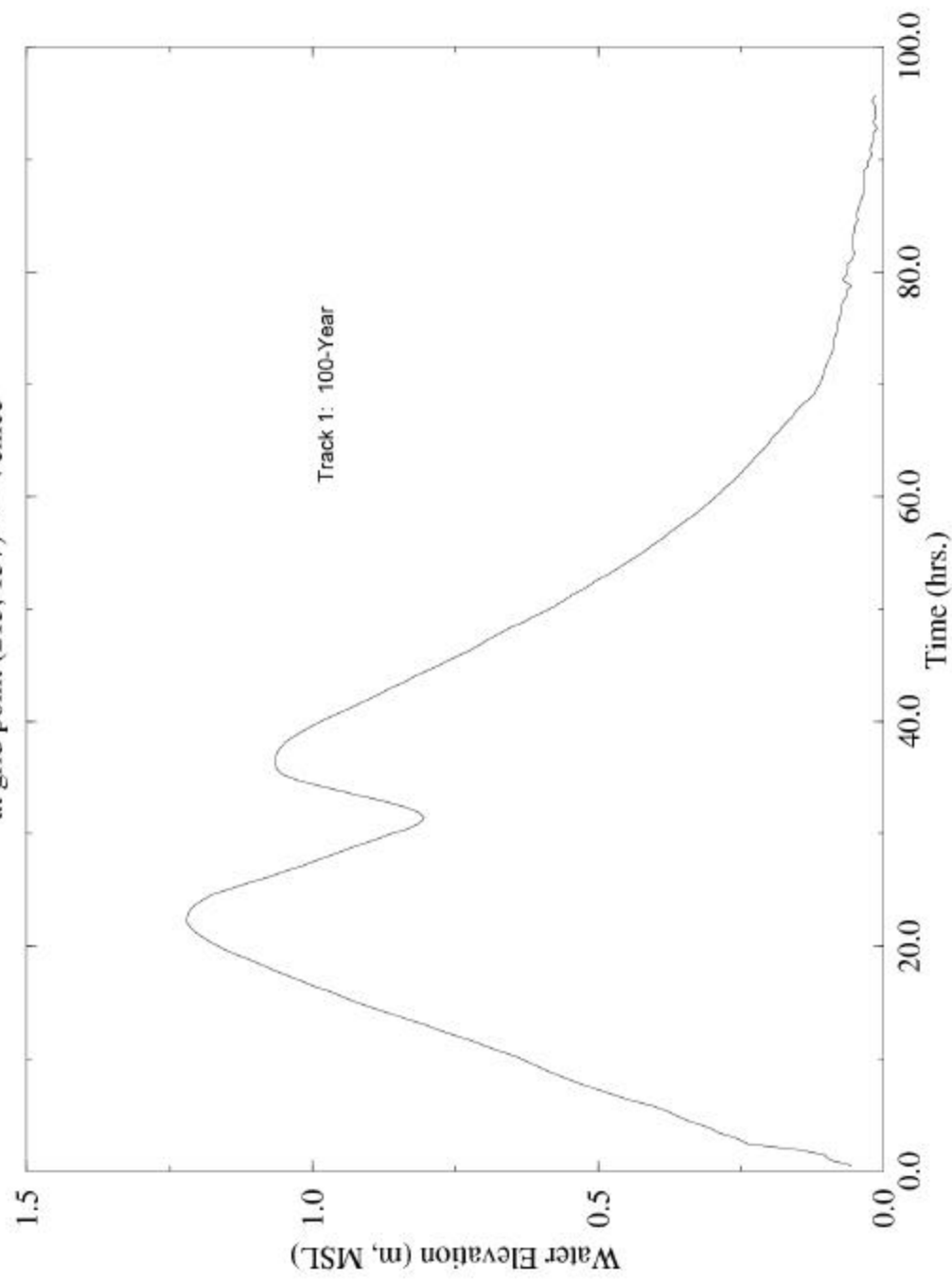
Track 1: 100-Year

Figure 4-18a. Time Series Flood Elevation at Venice for Track 2 Hurricane (Present Conditions) at grid point (213, 137) -- Venice

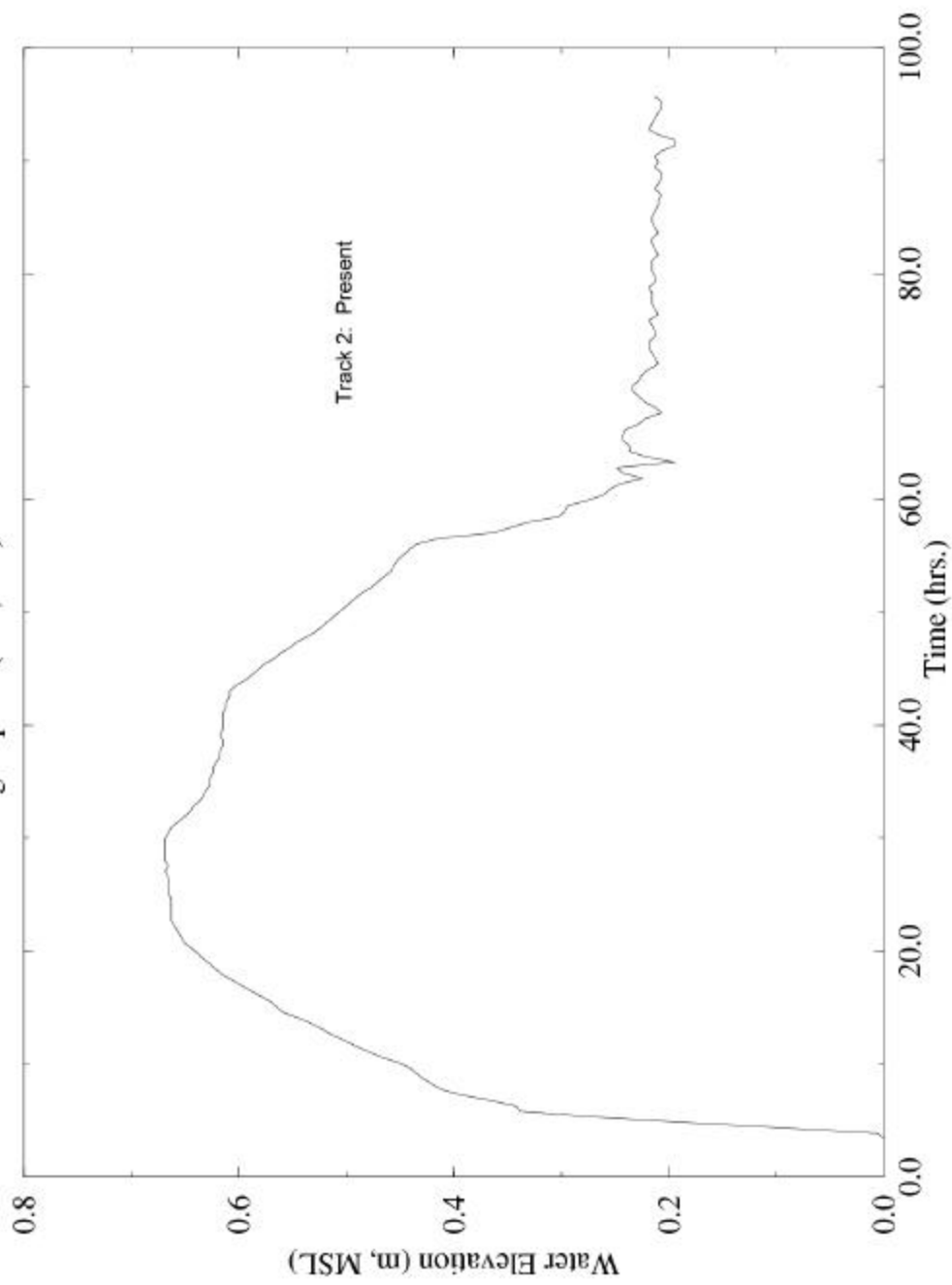Track 2: Present

Water Elevation (m, MSL)

Time (hrs.)

Figure 4-18b. Time Series Flood Elevation at Venice for Track 2 Hurricane (30-Year) at grid point (213, 137) -- Venice
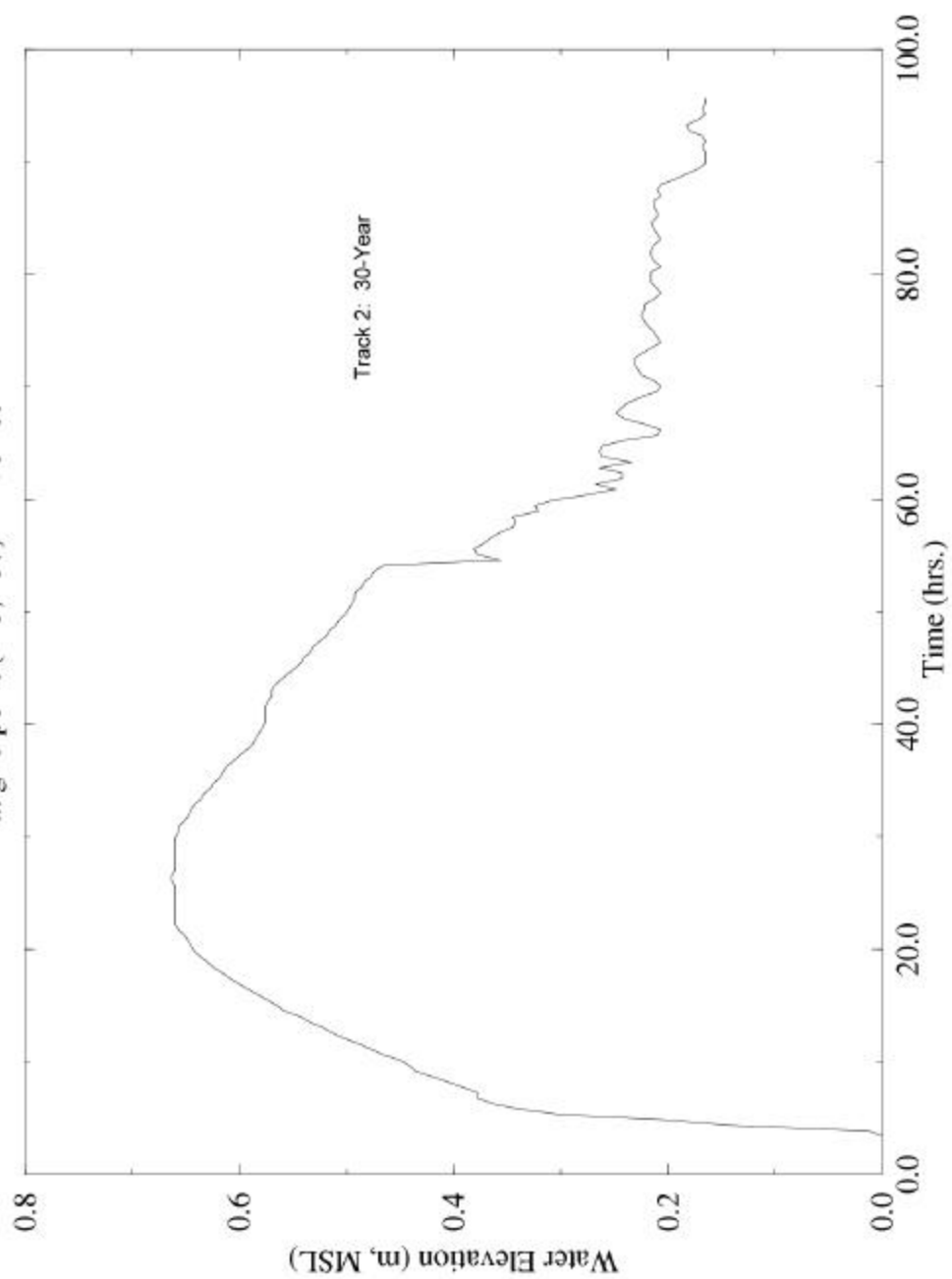
Track 2: 30-Year

Time (hrs.)

Water Elevation (m, MSL)

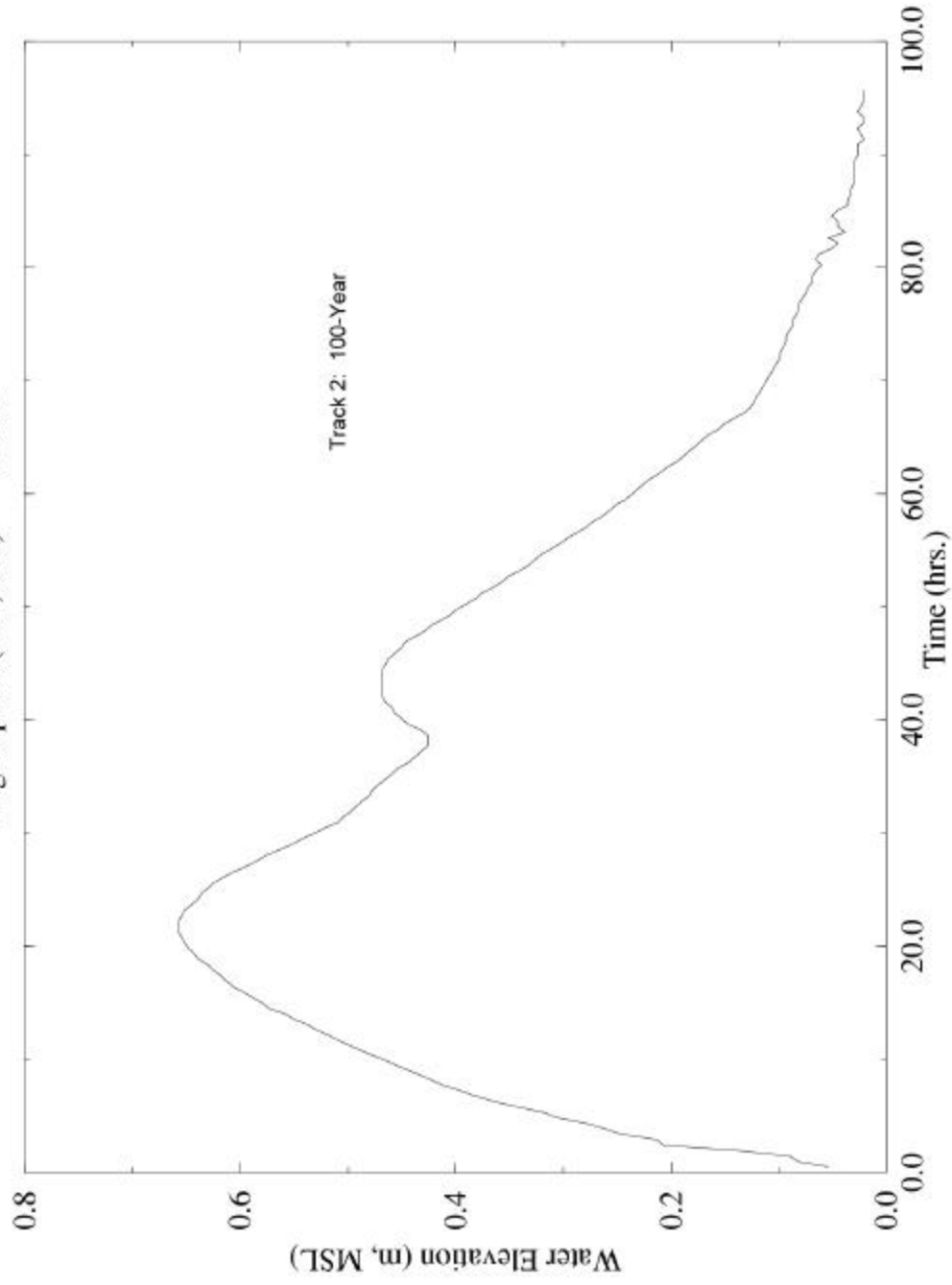Figure 4-18c. Time Series Flood Elevation at Venice for Track 2 Hurricane (100-Year) at grid point (213, 137) — Venice

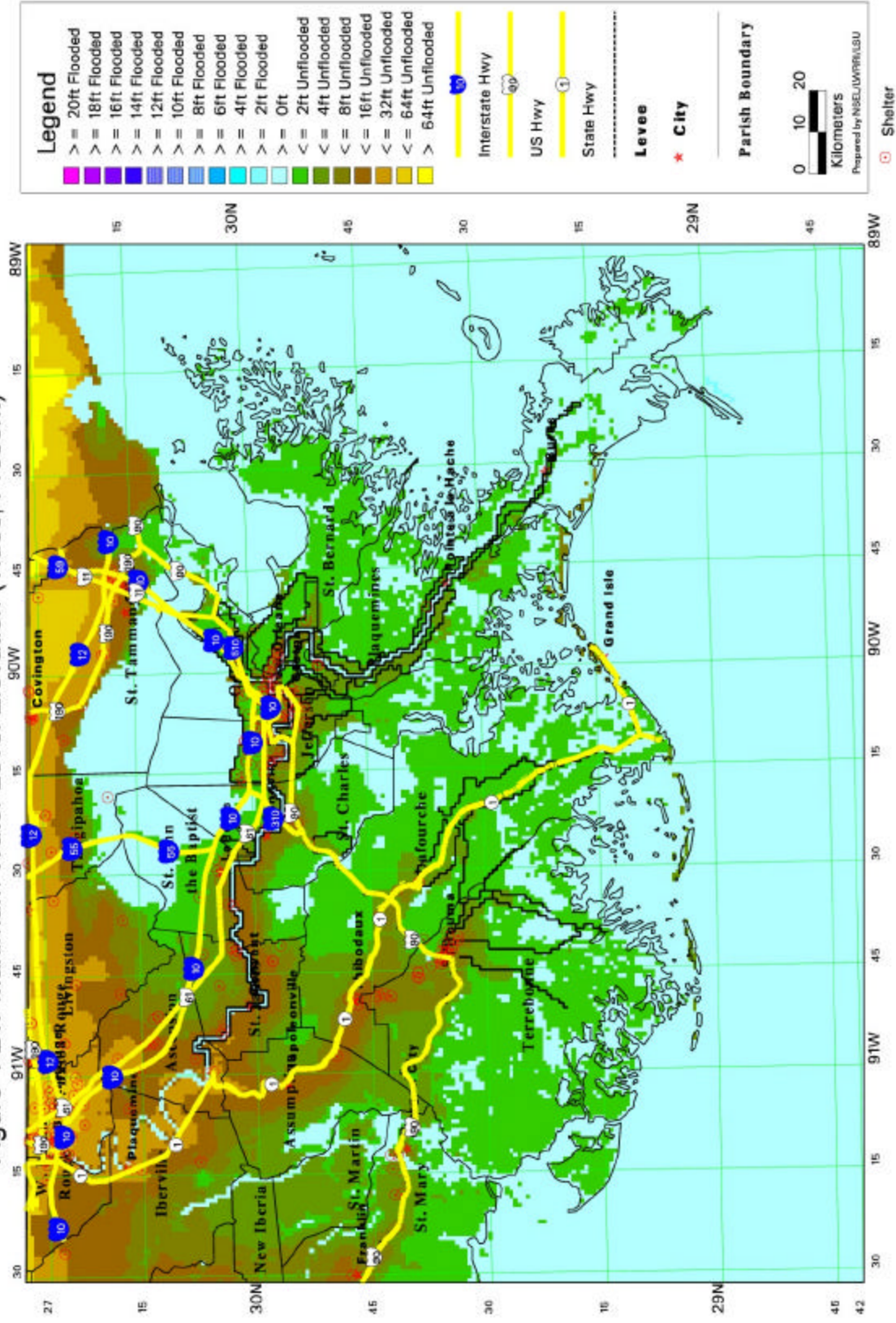Figure 4-21. Maximum Water Level Elevation (Tides, Present)

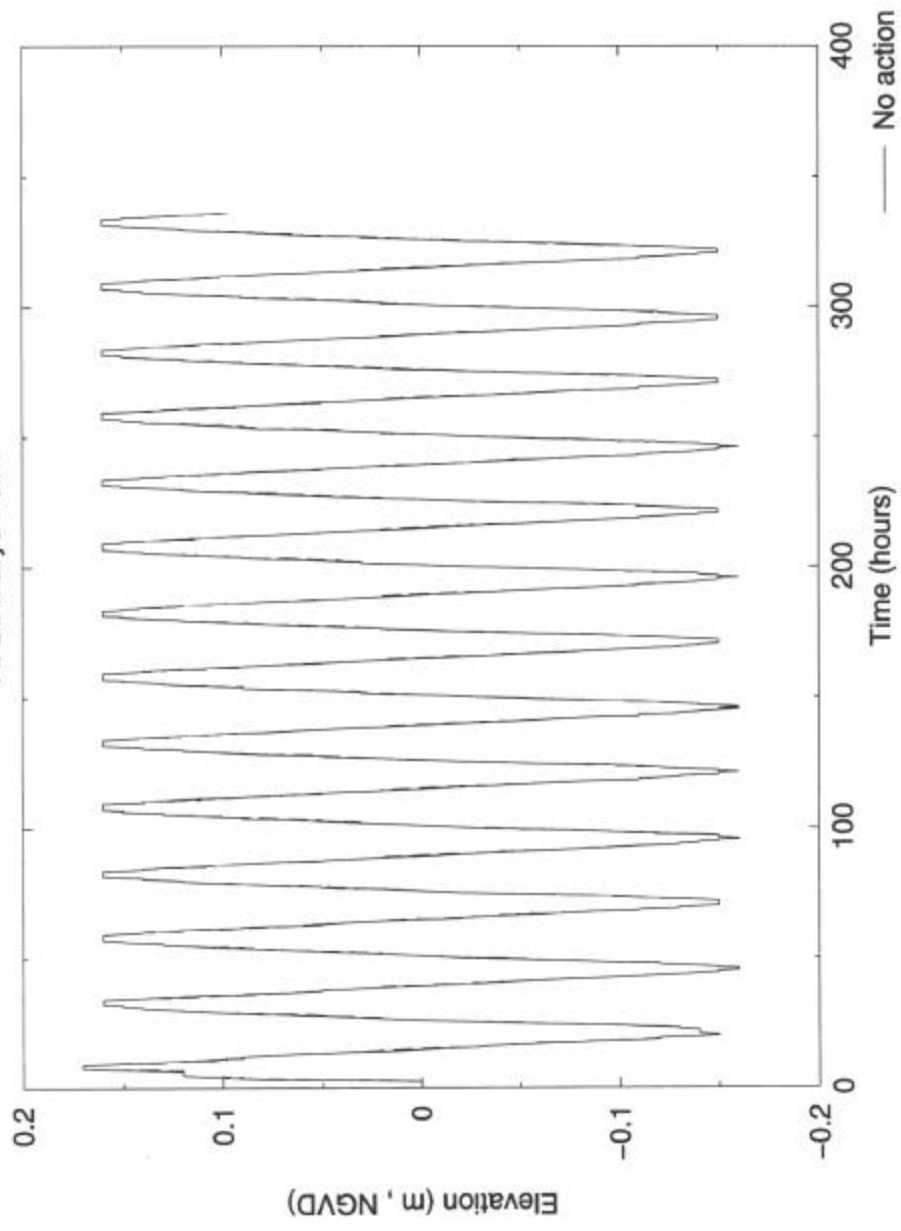Figure 4-22a. Tidal Elevation Simulations (Present) At St. Marys Point

Time (hours)

Elevation (m , NGVD)

—— No action

Figure 4-22b. Tidal Elevation Simulations (100-Year)
At St. Marys Point

Elevation (m , NGVD)

Time (hours)

—— No action

36

Figure 4-23a. Salinity Forecast for the Study Area (30-Year)

Legend

> Land
= 0 ppt
> 0 ppt
> 1 ppt
> 3 ppt
> 5 ppt
> 7 ppt
> 10 ppt
> 15 ppt

Rivers

Levees

Prepared by NSEL/LWRRI/LSU

By NSEL/LWRRI/LSU

Time = 2160 Hr. (90 Days)
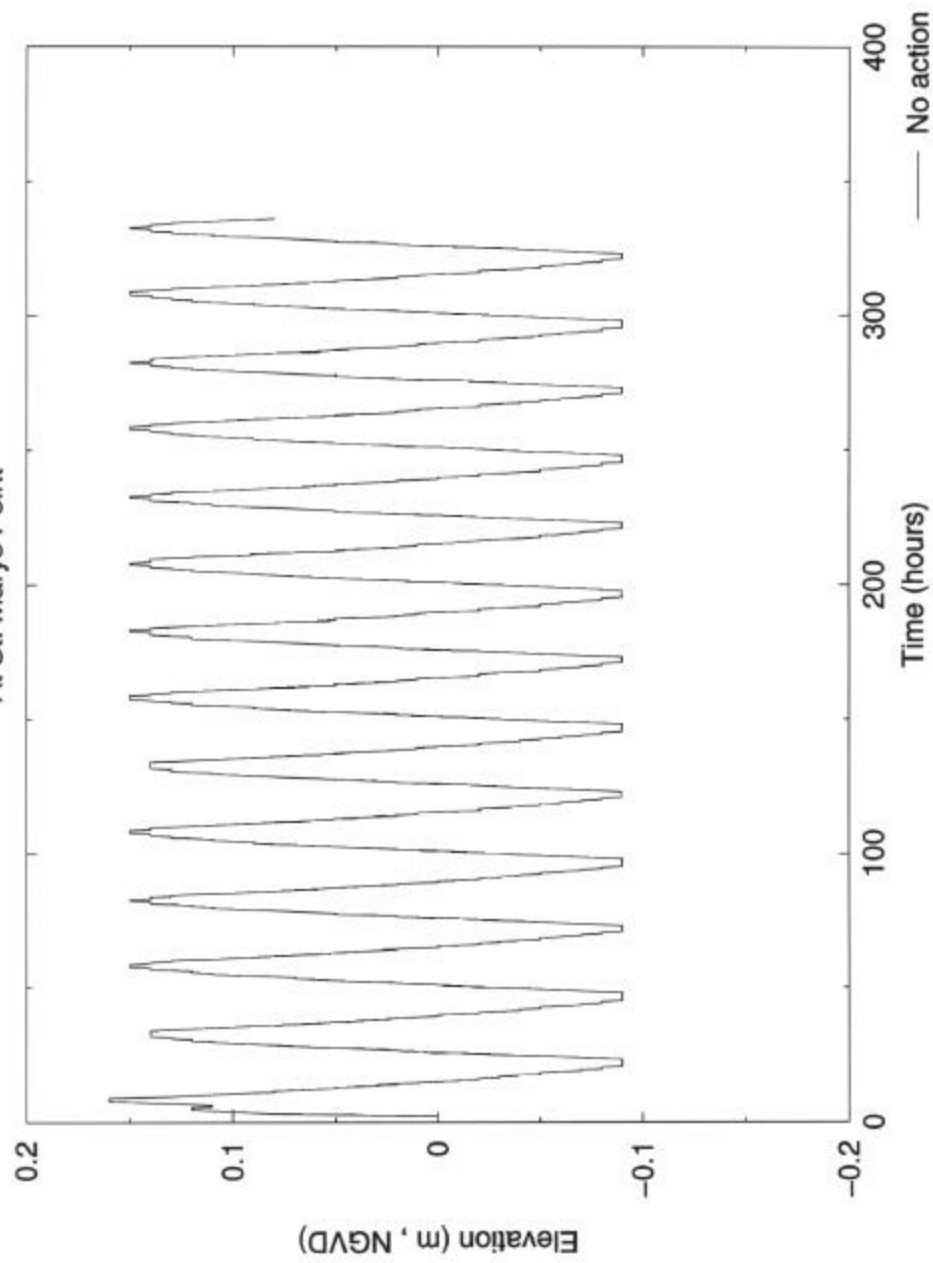
Figure 4-23b. Salinity Forecast for the Study Area (100-Year)

By NSEL/LWRRI/LSU

Time = 2160 Hr. (90 Days)

Legend

> Land
= 0 ppt
> 0 ppt
> 1 ppt
> 3 ppt
> 5 ppt
> 7 ppt
> 10 ppt
> 15 ppt

Rivers

Levees

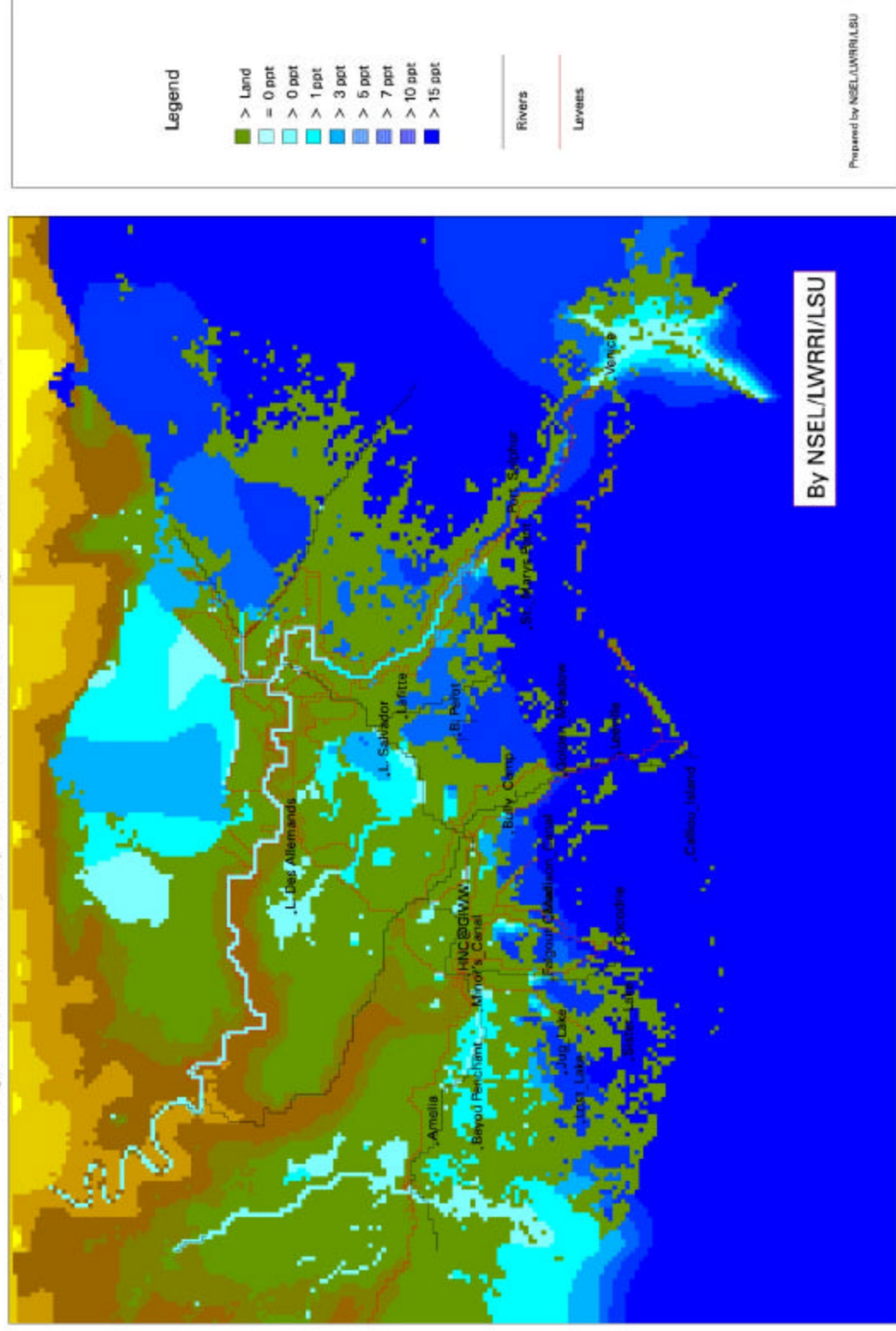Prepared by NSEL/LWRRI/LSU

Fig. 4-24 Forecast of salinity at St. Mary's Point for present and 100 year conditions at the end of the simulation.

Salinity at St. Mary's Point