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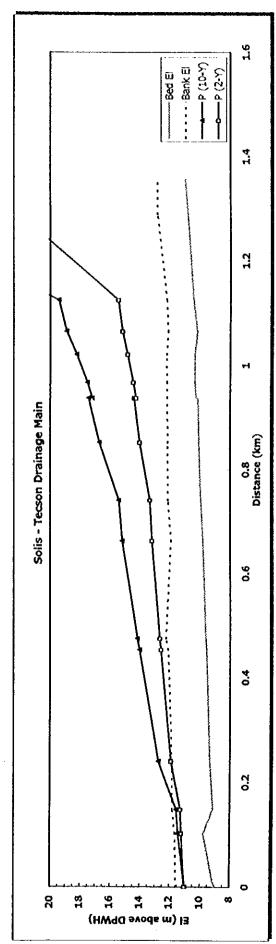
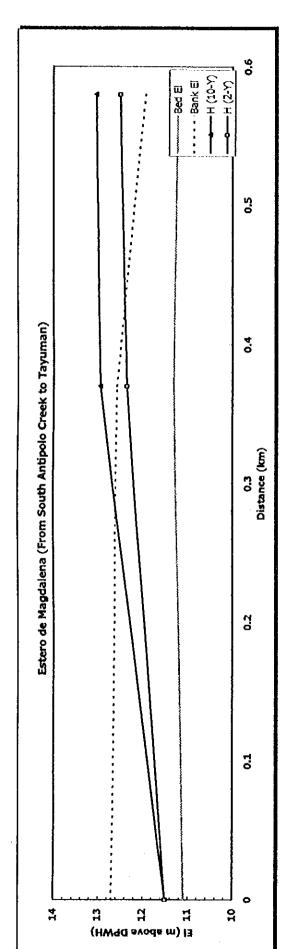


Figure 4.10 FLOW PROFILE
Pampanga - Earnshaw Drainage Main
Solis - Tecson Drainage Main



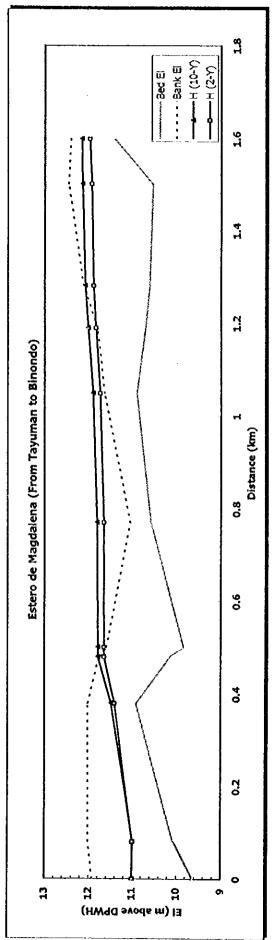
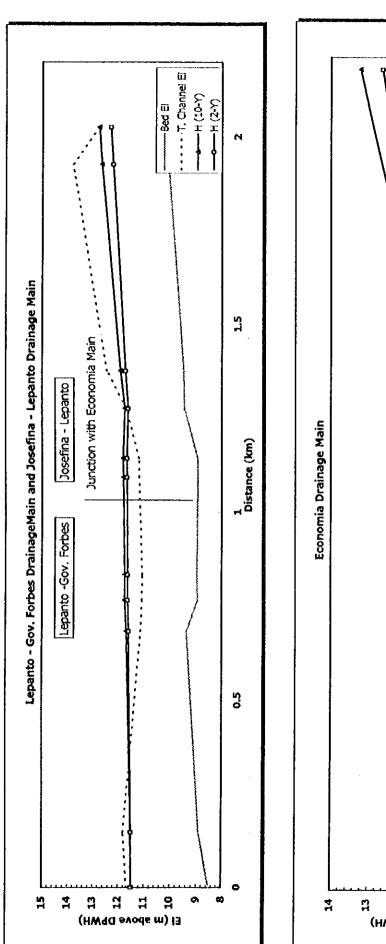


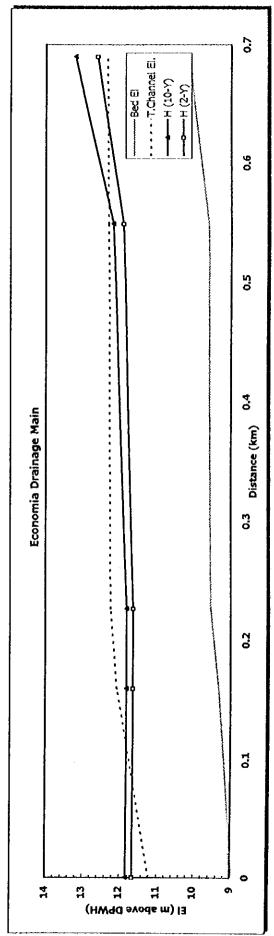
Figure 4.11 FLOW PROFILE
Estero de Magdalena (From South Antipolo Creek to Tayuman)
Estero de Magdalena (From Tayuman to Binondo)

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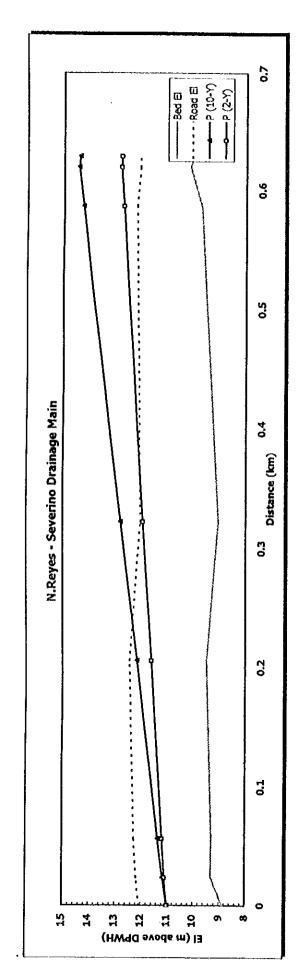
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Lepanto - Gov. Forbes DrainageMain and Josefina - Lepanto Drainage Main Figure 4.12 FLOW PROFILE Economia Drainage Main



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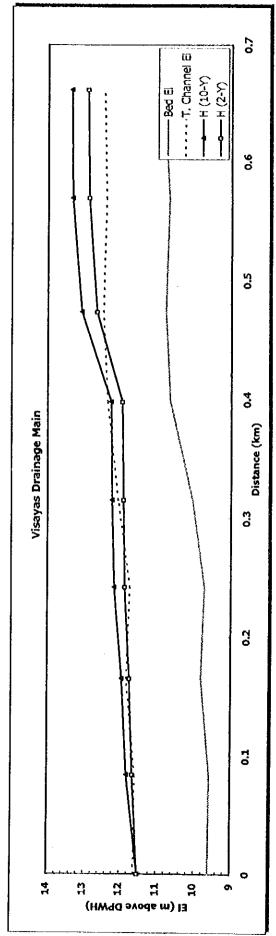
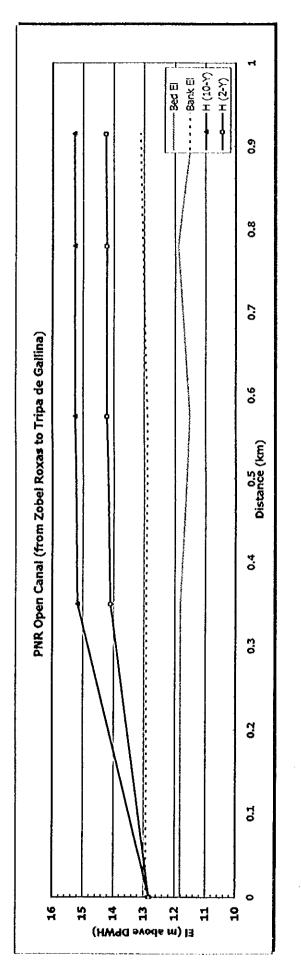


Figure 4.13 FLOW PROFILE
N.Reyes - Severino Drainage Main
Visayas Drainage Main



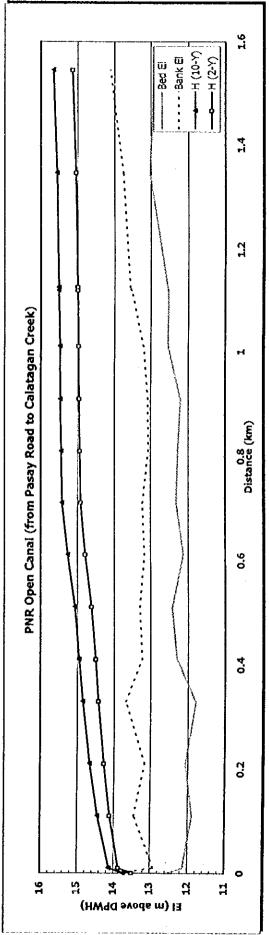


Figure 4.14 FLOW PROFILE
PNR Open Canal (from Zobel Roxas to Tripa de Gallina)
PNR Open Canal (from Pasay Road to Calatagan Creek)

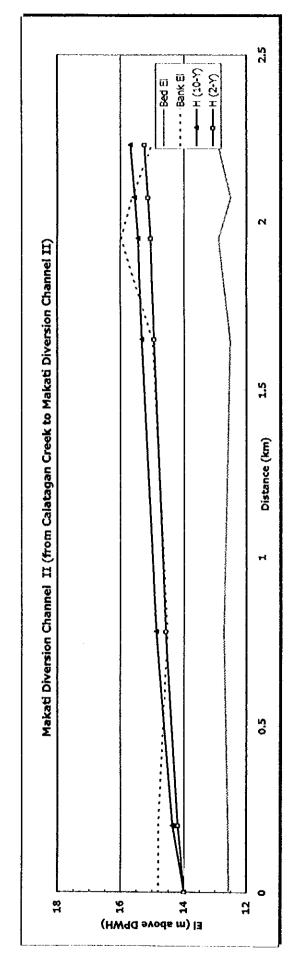
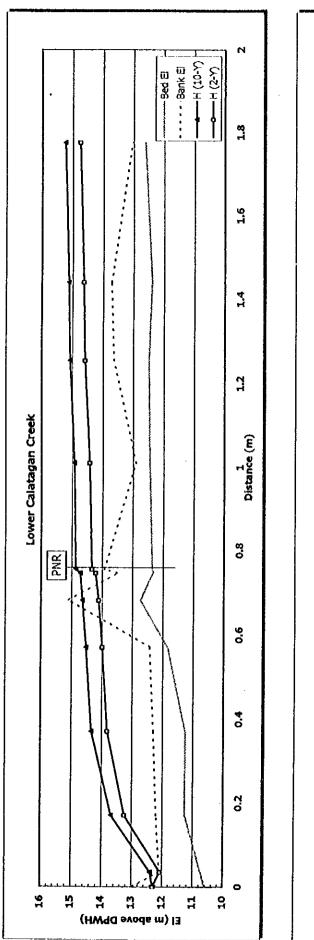


Figure 4.15 FLOW PROFILE Makati Diversion Channel

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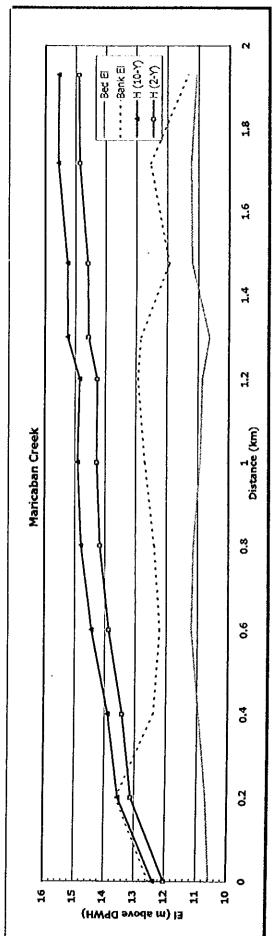


Figure 4.16 FLOW PROFILE Lower Calatagan Creek Maricaban Creek

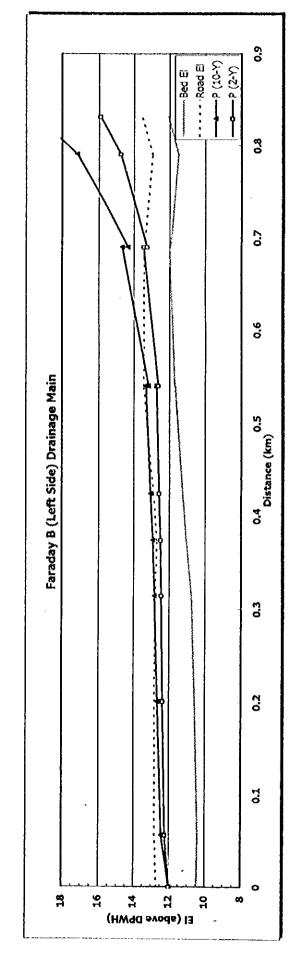
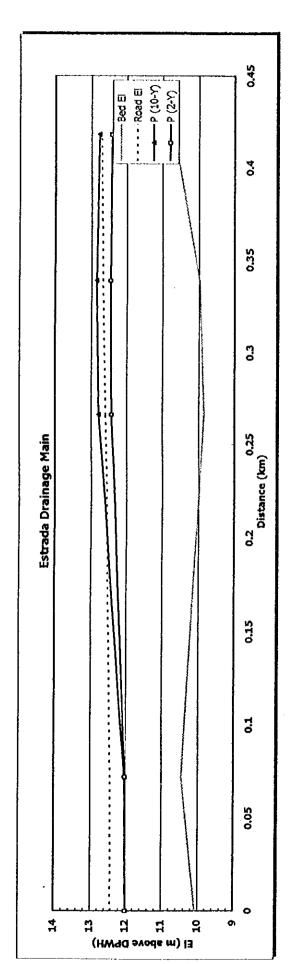


Figure 4.17 FLOW PROFILE Faraday Drainage Main

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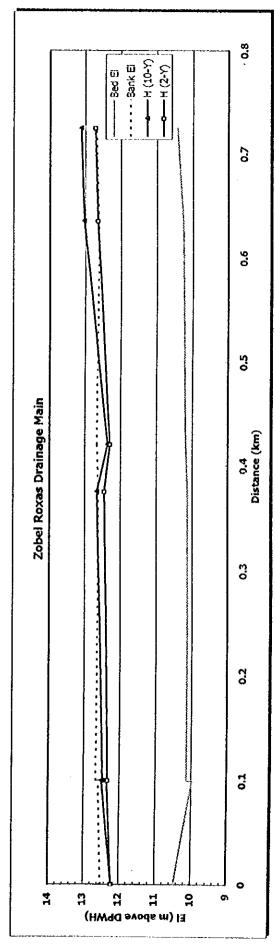
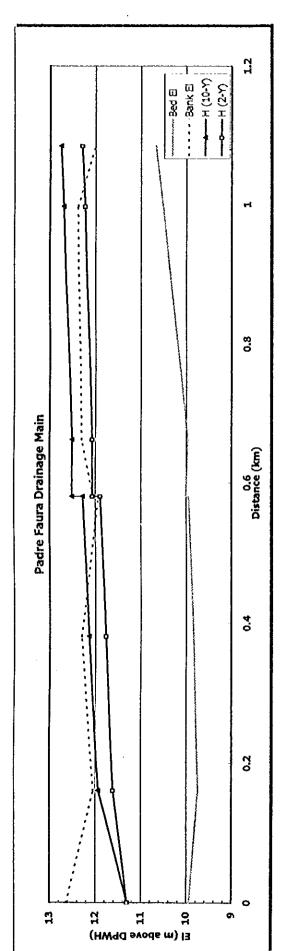


Figure 4.18 FLOW PROFILE Estrada Drainage Main Zobel Roxas Drainage Main



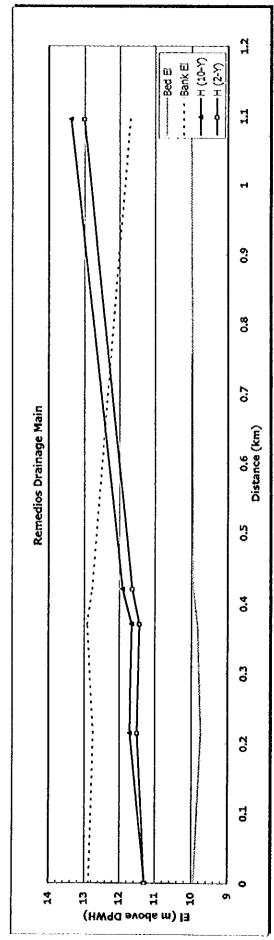


Figure 4.19 FLOW PROFILE Padre Faura Drainage Main Remedios Drainage Main

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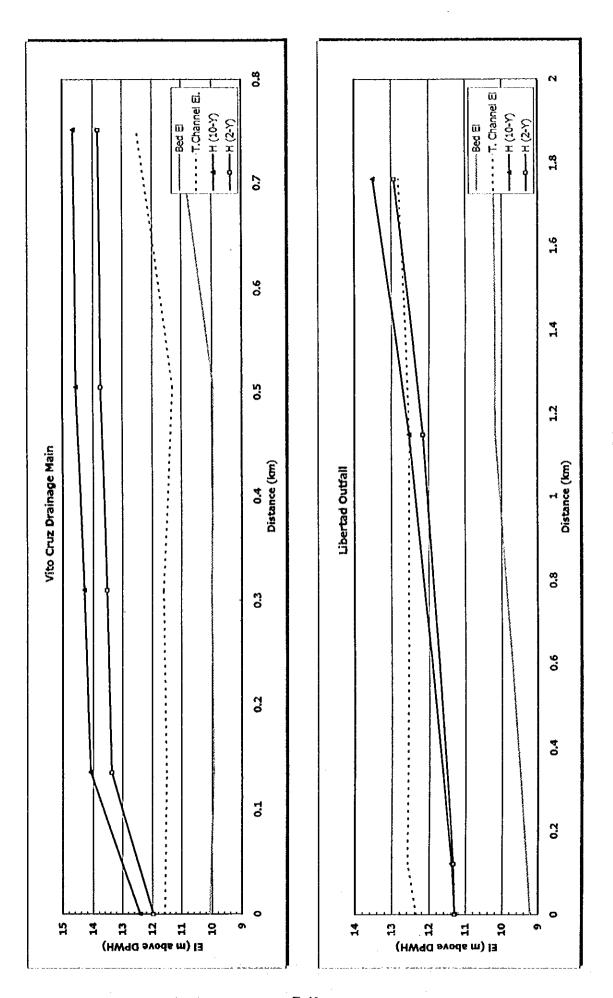


Figure 4.20 FLOW PROFILE Vito Cruz Drainage Main Libertad Outfall

El (m above DPWH)

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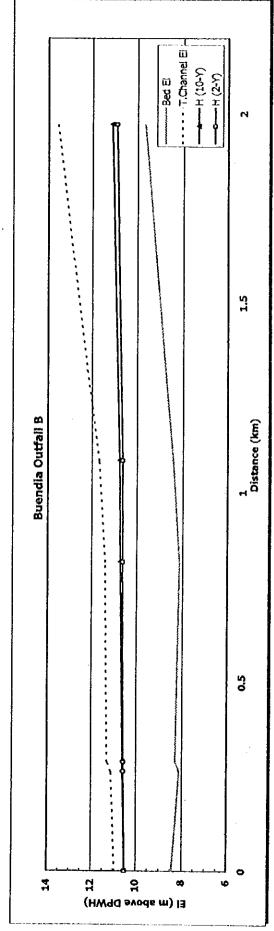
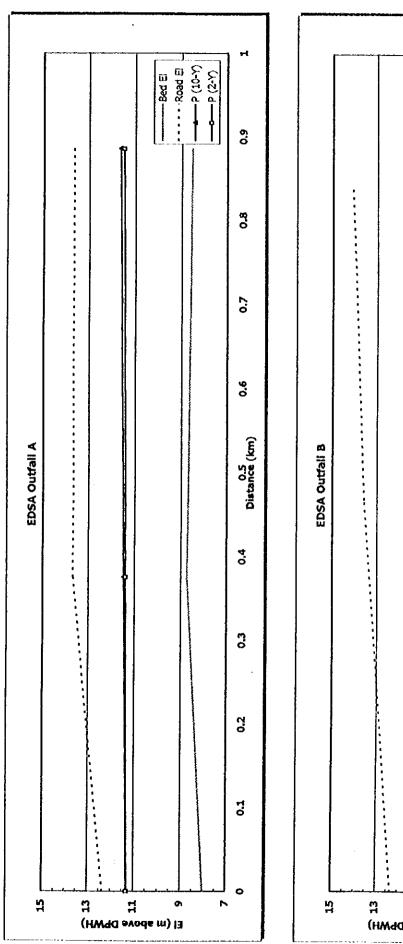


Figure 4.21 FLOW PROFILE Buendia Outfall

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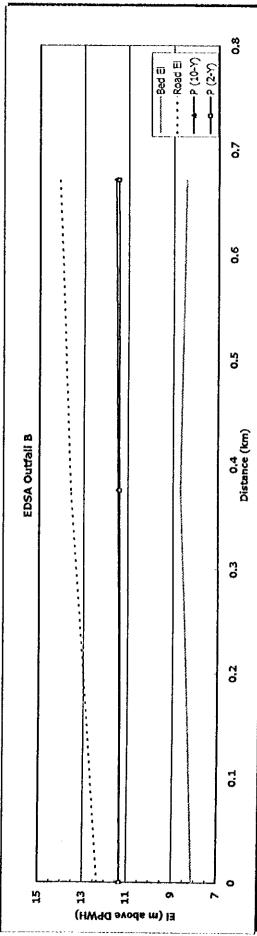


Figure 4.22 FLOW PROFILE EDSA Outfall

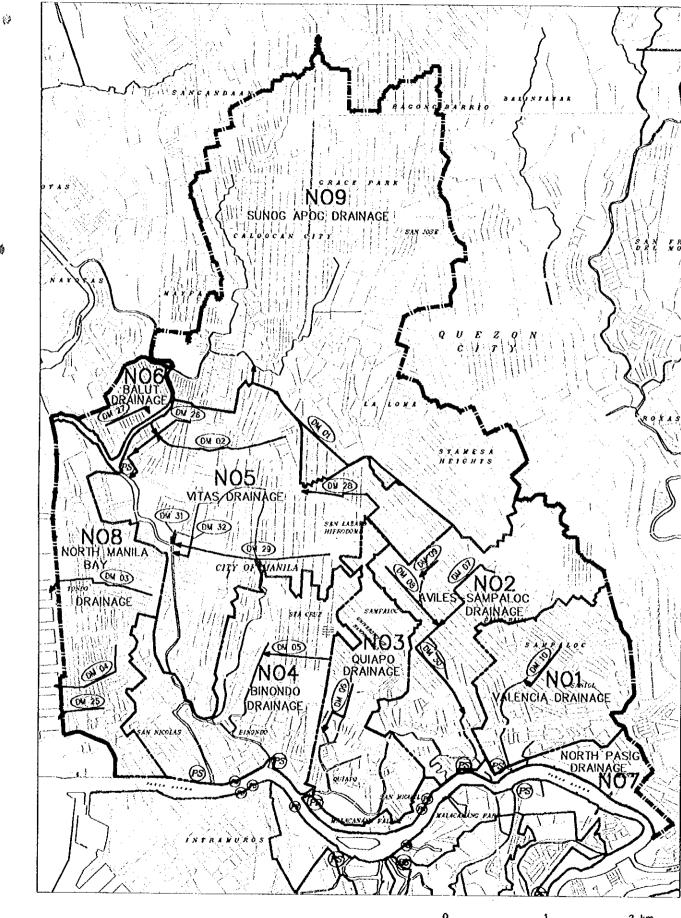


Figure 4.23 DRAINAGE BLOCKS - NORTH MANILA

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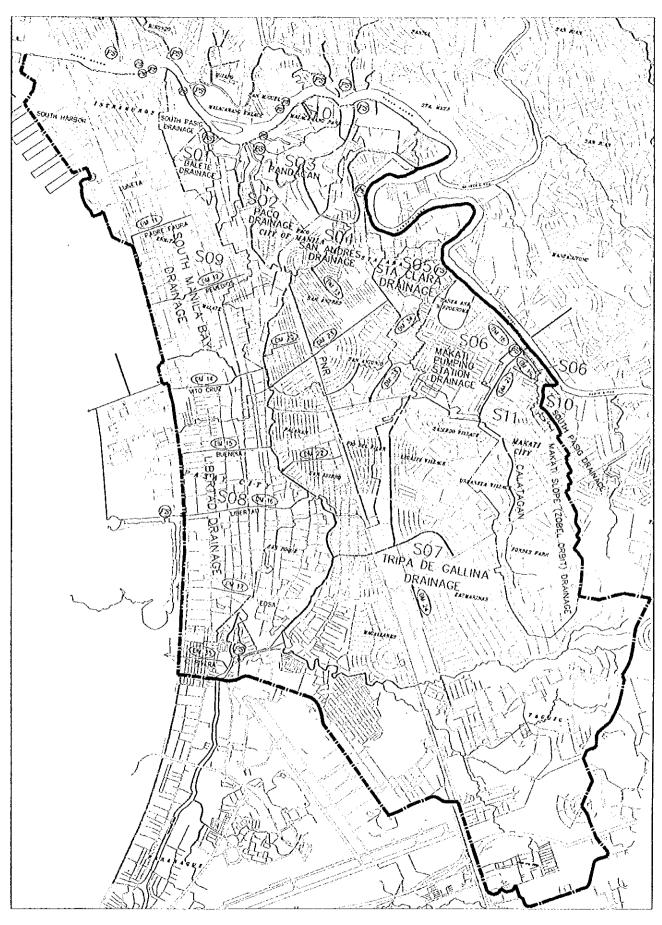
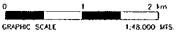


Figure 4.24 DRAINAGE BLOCKS-SOUTH MANILA



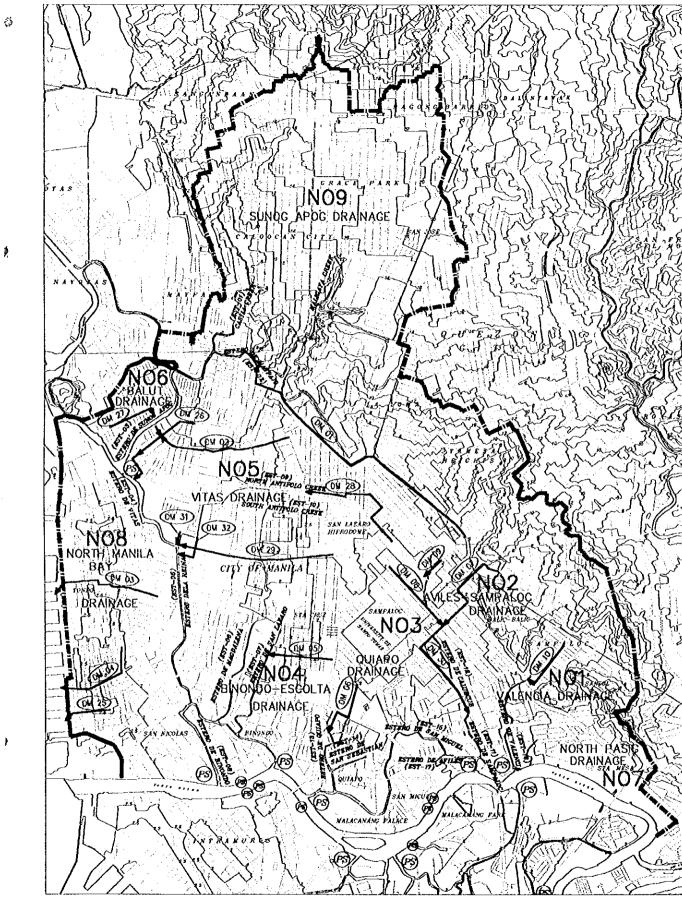


Figure 4.25 TOPOGRAPHY AND DRAINAGE SYSTEM **NORTH MANILA** GRAPHIC SCALE 1:37,500 MTS.

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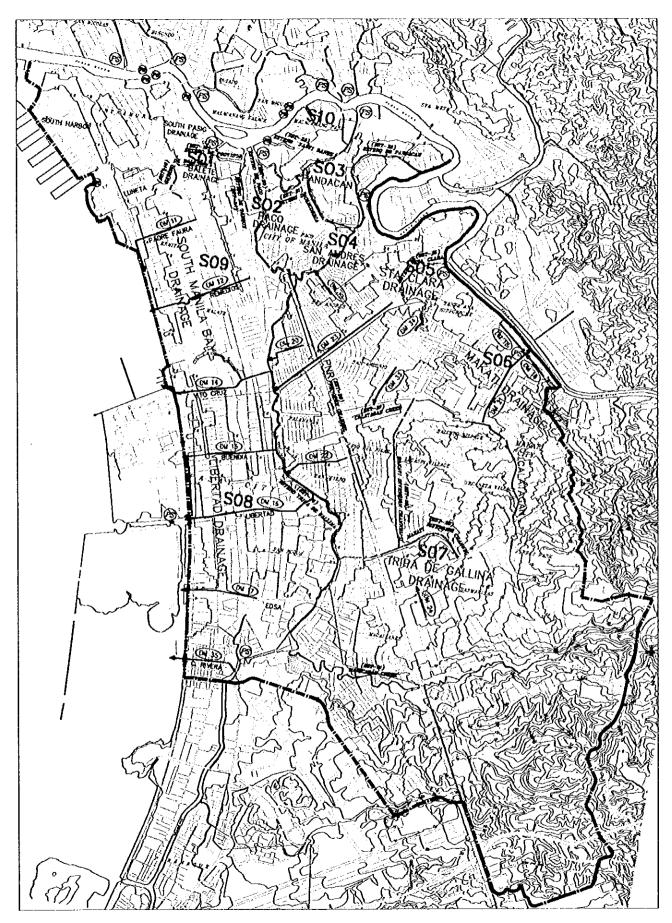


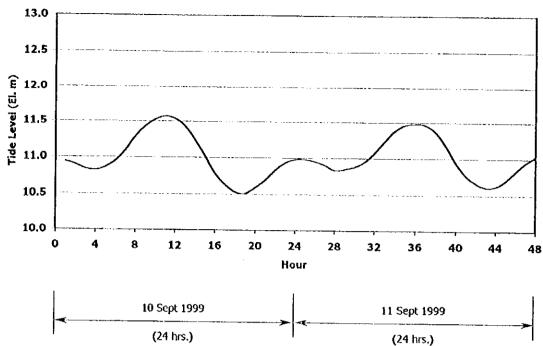
Figure 4.26 TOPOGRAPHY AND DRAINAGE SYSTEM SOUTH MANILA





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## **TIDE LEVEL, SEPTEMBER 1999 FLOOD**



The tidal heights specified are referred to Mean Lower Low Water (MLLW).

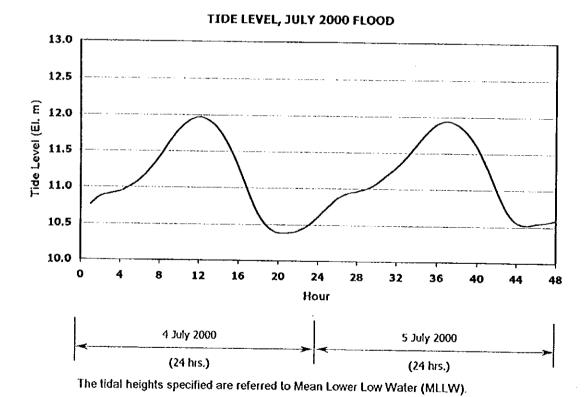


Figure 5.1 Tide Levels during the September 1999 and July 2000 Floods

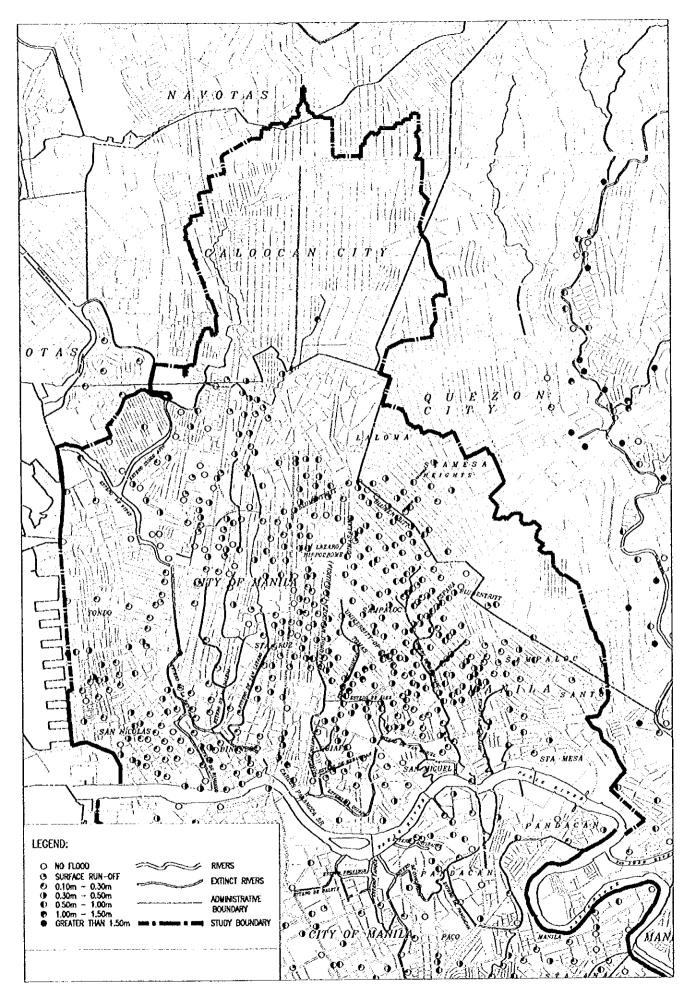
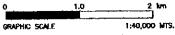


Figure 5.2 INUNDATION DEPTH OF SEPTEMBER 1999 FLOOD NORTH MANILA



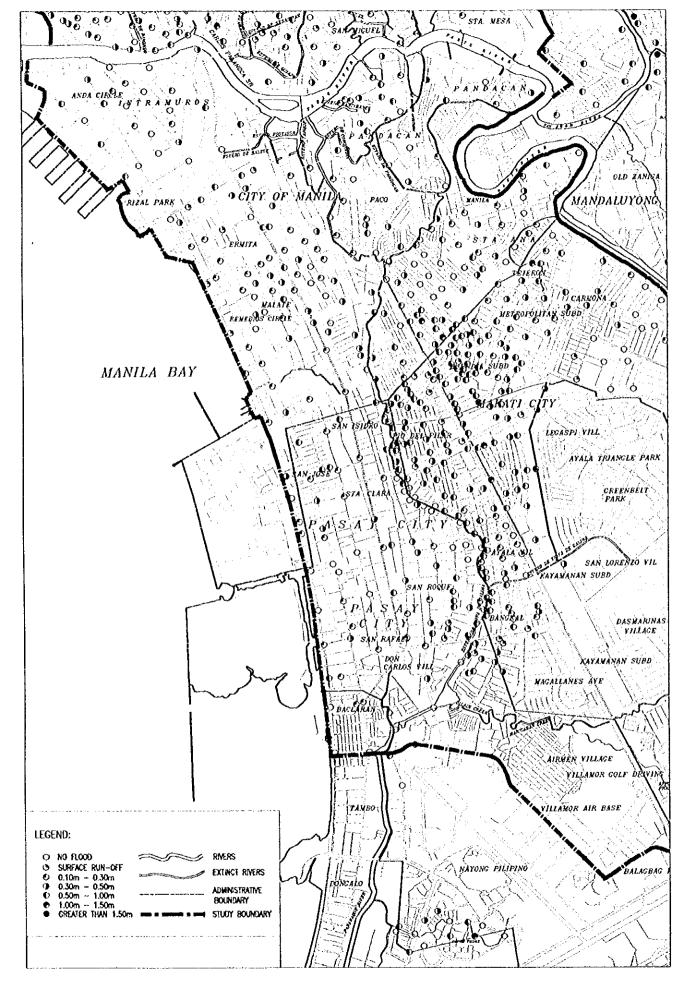


Figure 5.3 INUNDATION DEPTH OF SEPTEMBER 1999 FLOOD SOUTH MANILA

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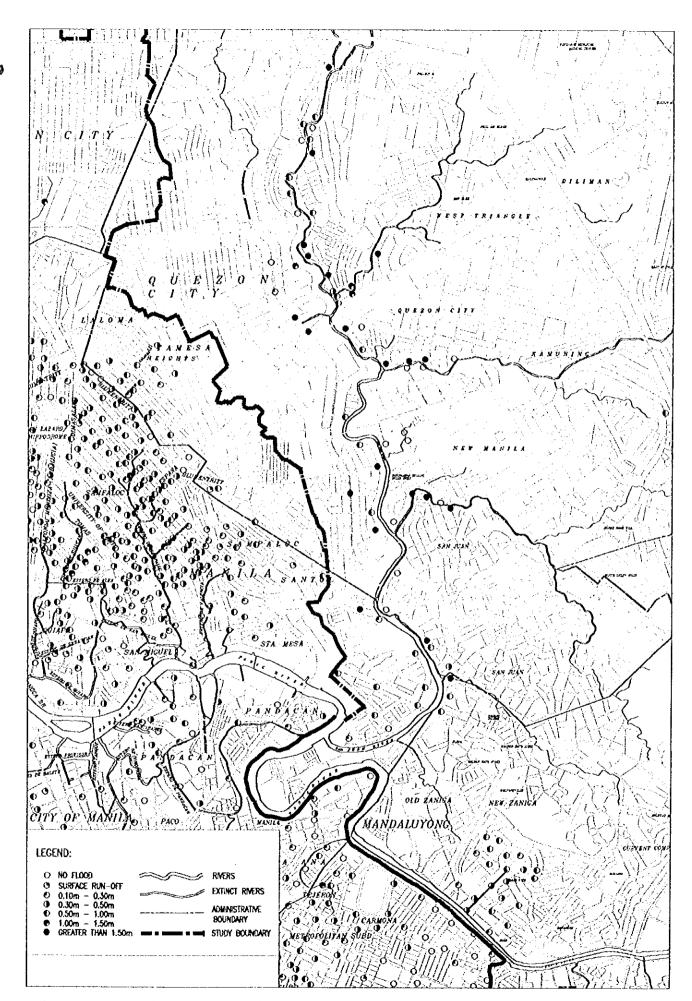


Figure 5.4 INUNDATION DEPTH OF SEPTEMBER 1999 FLOOD SAN JUAN RIVER



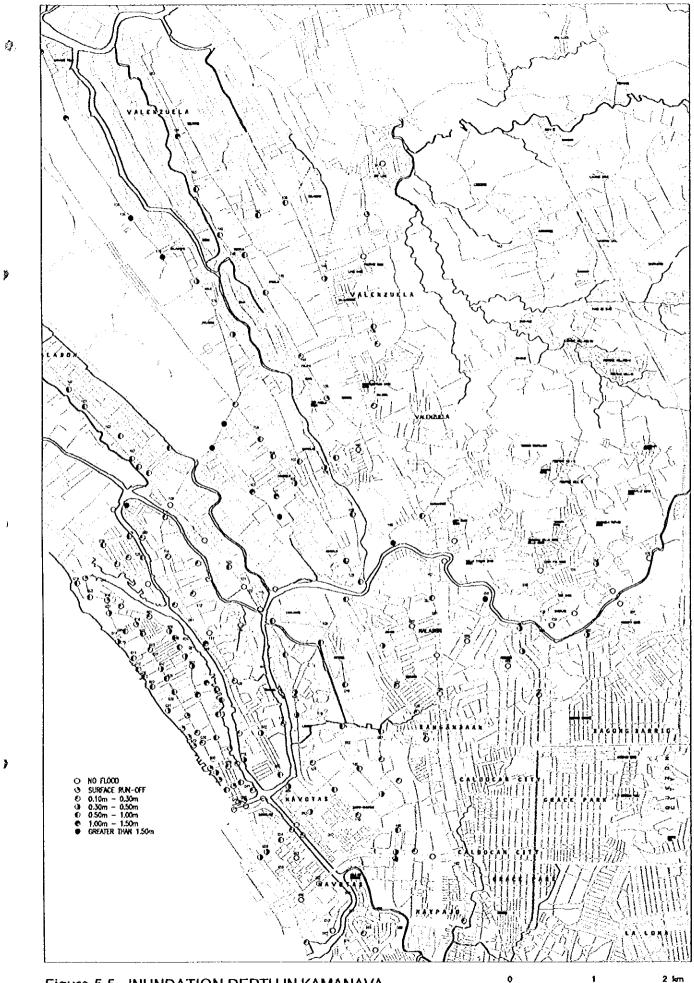
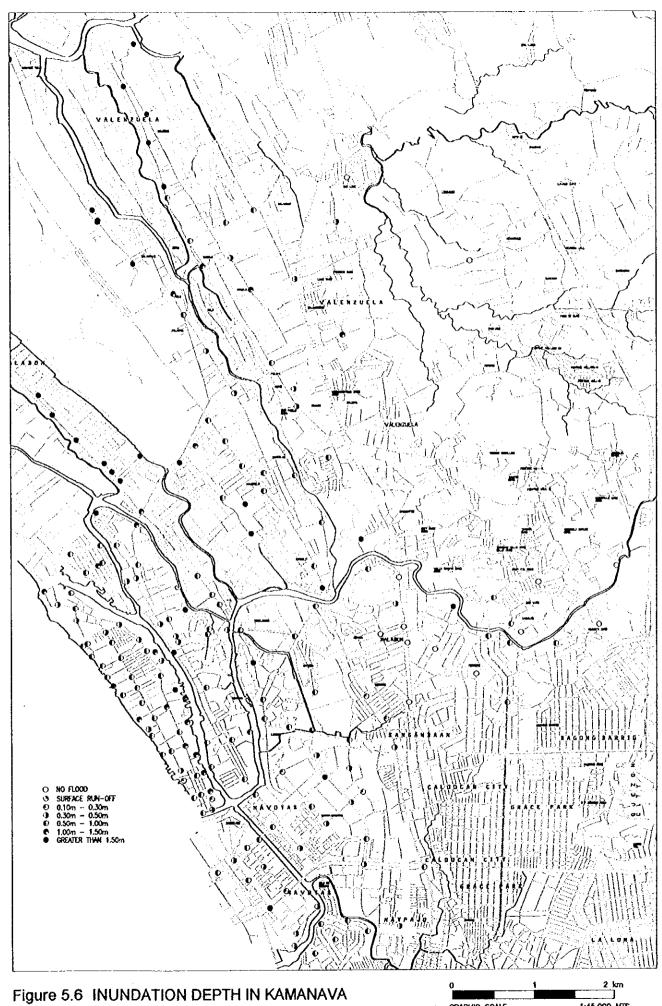


Figure 5.5 INUNDATION DEPTH IN KAMANAVA
OF SEPTEMBER 1999 FLOOD

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OF JULY 2000 FLOOD

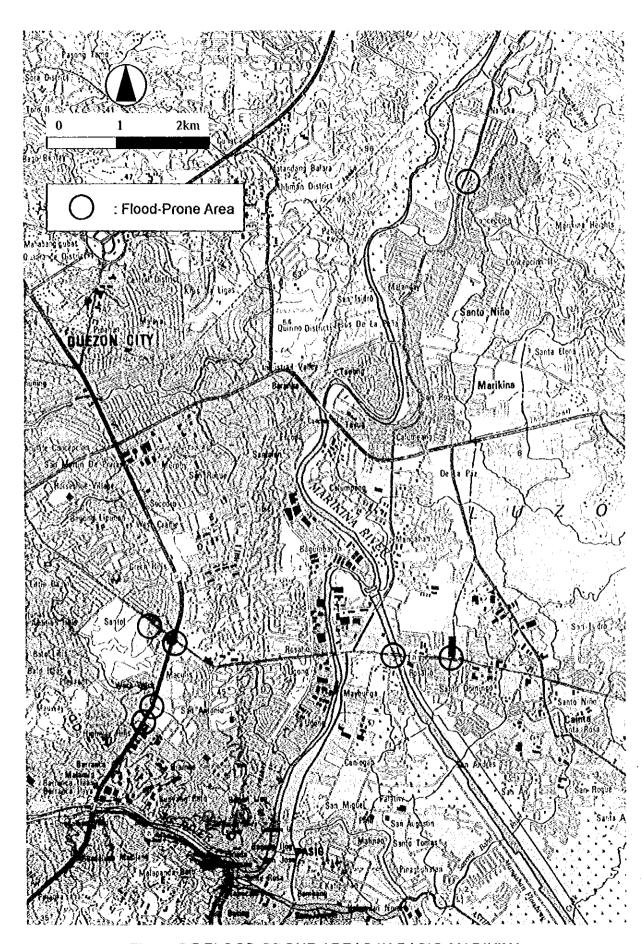


Figure 5.7 FLOOD-PRONE AREAS IN PASIG-MARIKINA

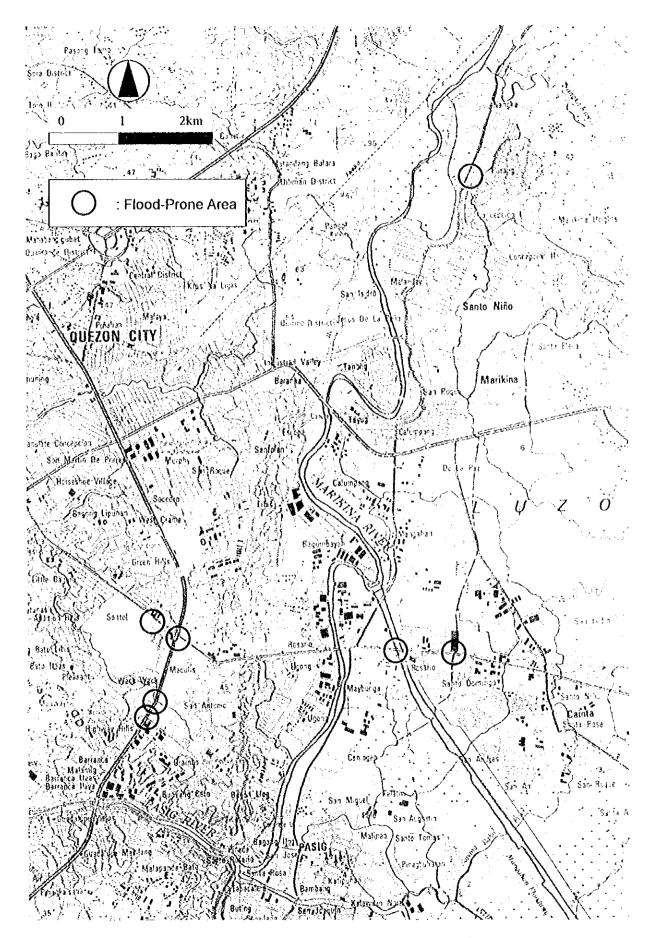
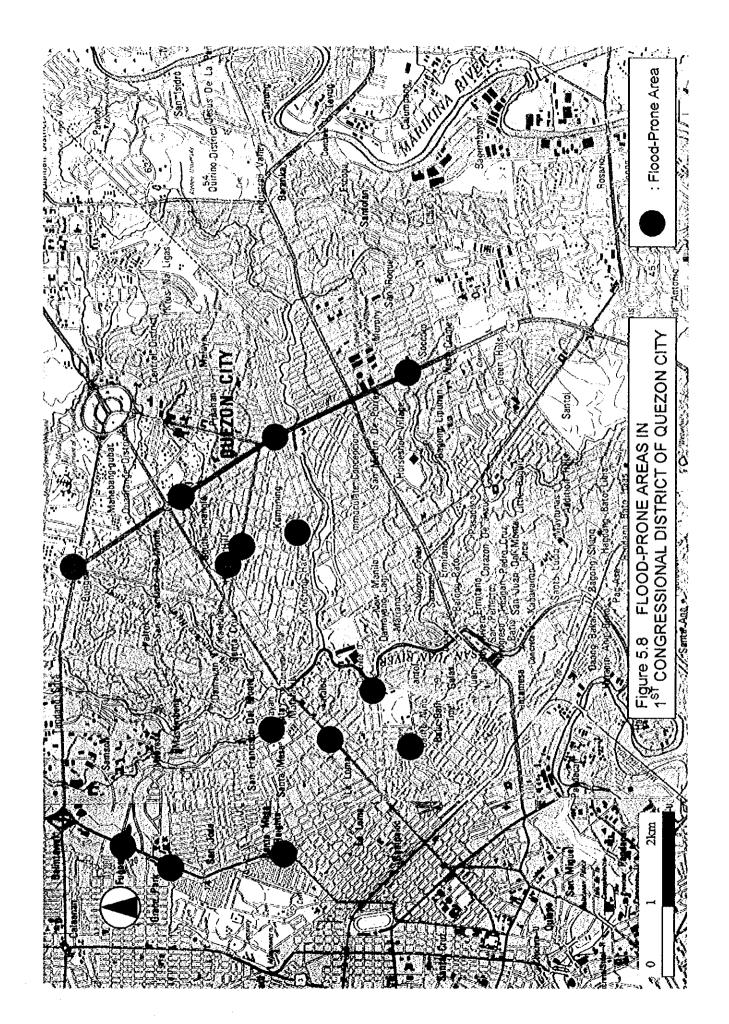
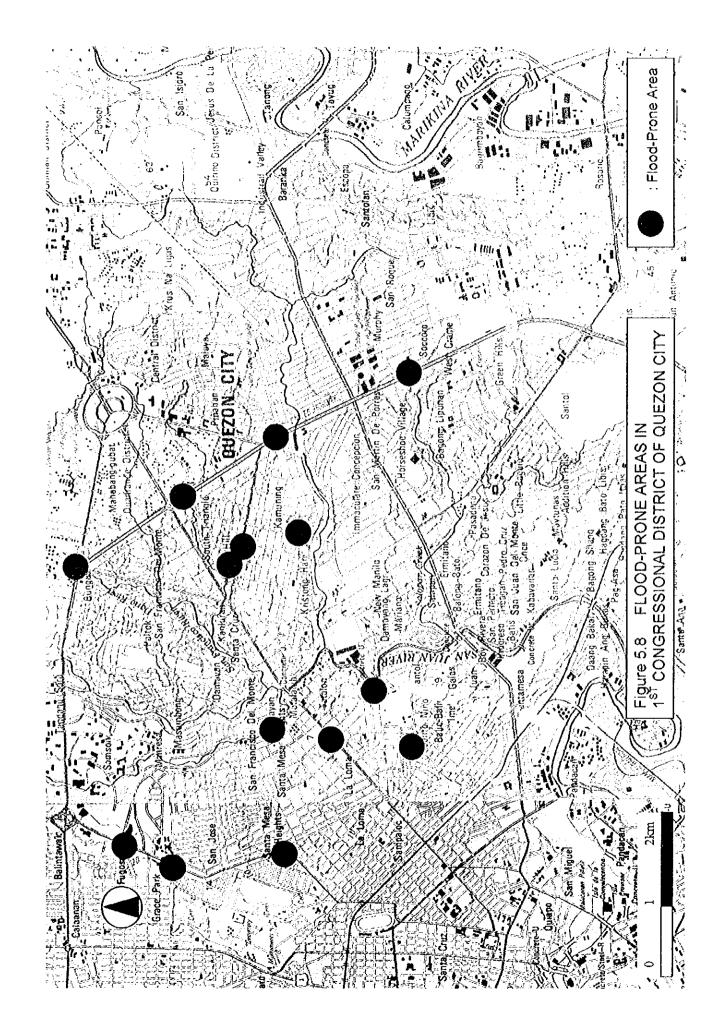
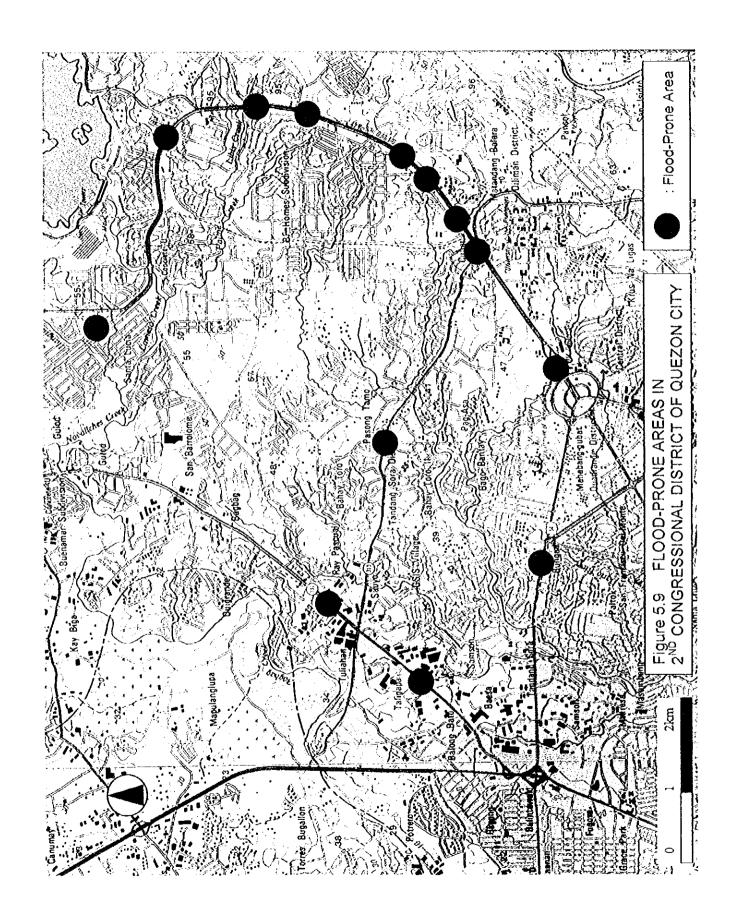


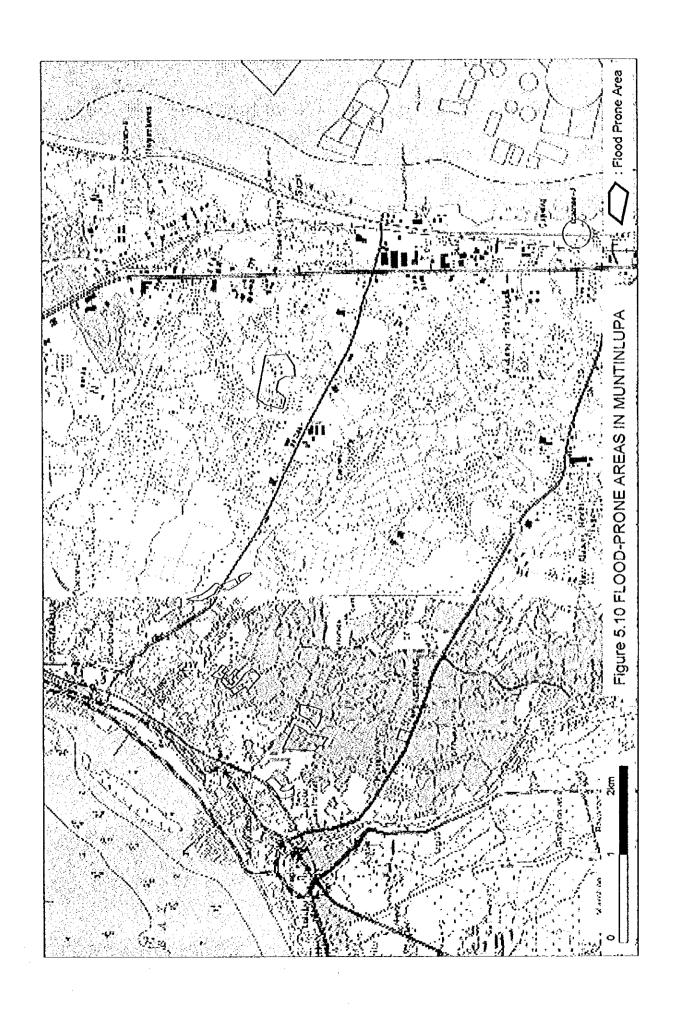
Figure 5.7 FLOOD-PRONE AREAS IN PASIG-MARIKINA

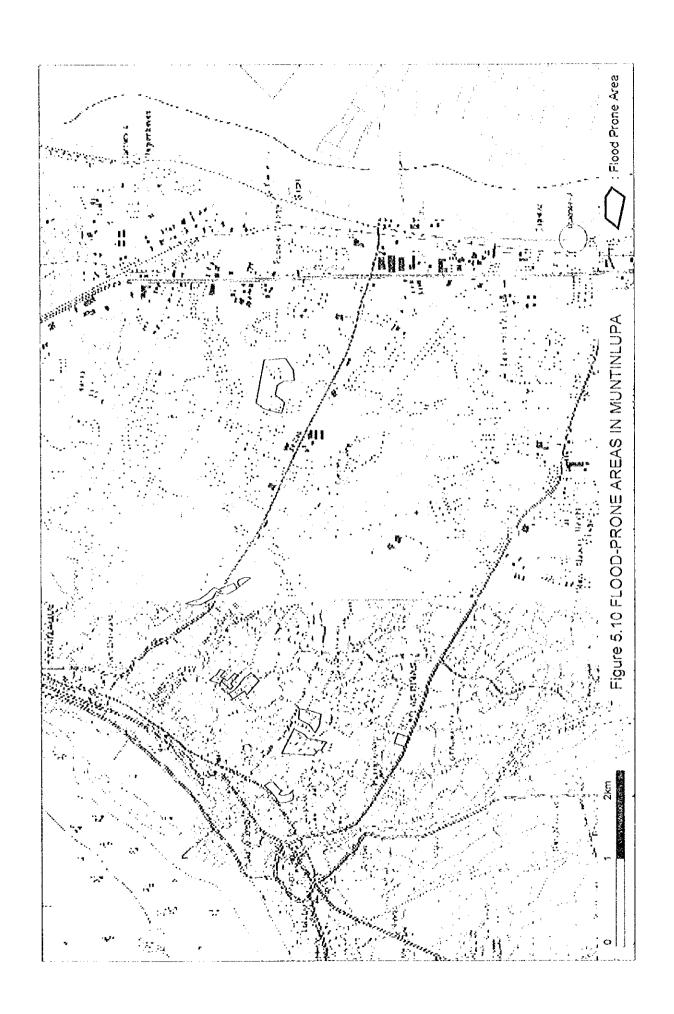




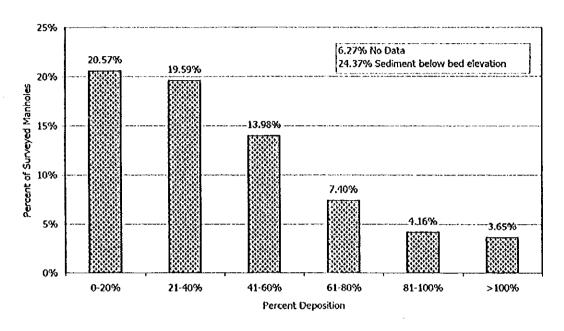
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## North Manila and Suburbs



## South Manila and Suburbs

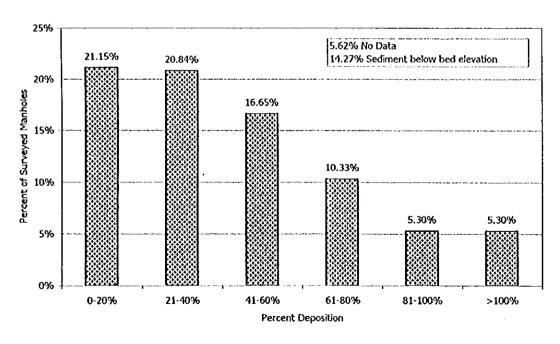


Figure 6.1 SEDIMENT DEPOSITION IN SURVEYED MANHOLES

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Photos



Photo 1 SURVEY TEAM OPENING MANHOLE

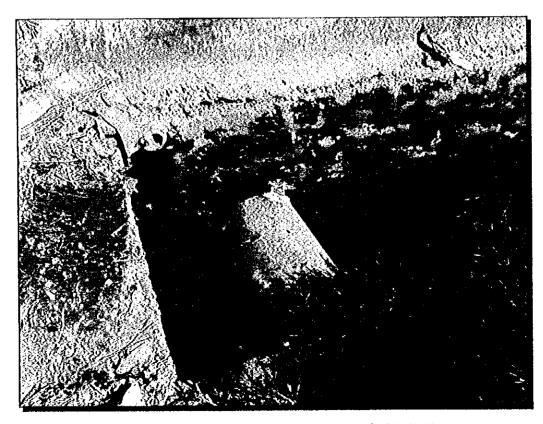


Photo 2 SHORT PIPE BLOCKING CREEK

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Photo 3 GARBAGE AND SEDIMENT (TAKEN AFTER FLOOD)



Photo 4 CONSTRUCTION MATERIALS/WASTES ALONG SIDEWALK

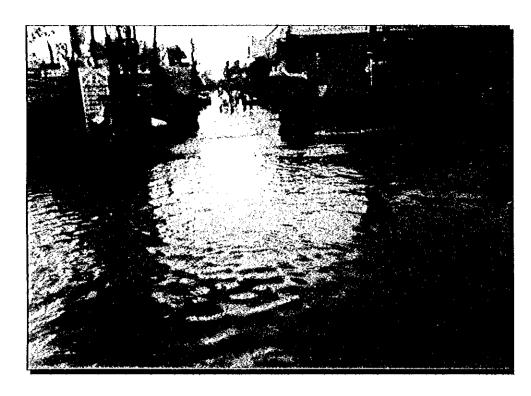


Photo 5 RUNOFF CASCADING OVER BLUMENTRITT INTERCEPTOR

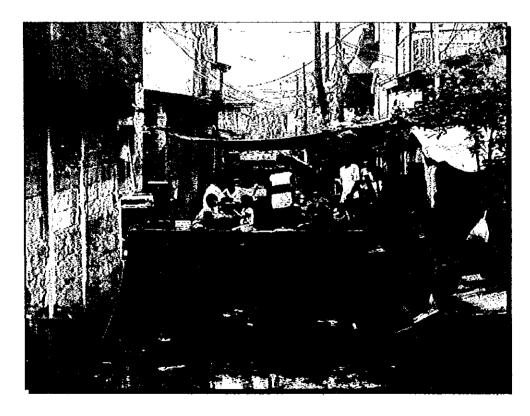


Photo 6 ACCESS BRIDGE DOWNSTREAM OF BATANGAS

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Photo 7 INFORMAL SETTLERS INSIDE ESTERO DE MAGDALENA (LA TORRE)

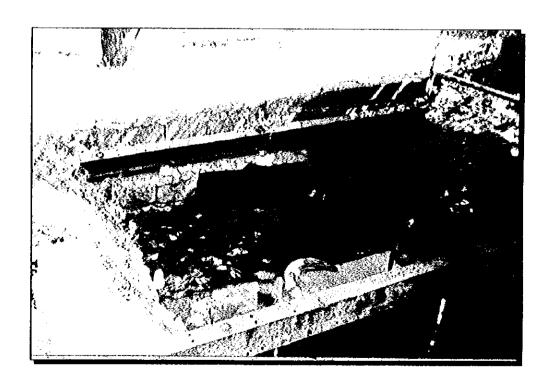


Photo 8 CONSTRICTED ROAD CROSSING (PNR OPEN CANALIVITO CRUZ)



Photo 9 ROAD CROSSING (ESTERO DE SAN LAZARO/LAGUNA)



Photo 10 RAILROAD CROSSING (ESTERO DE MAYPAJO)

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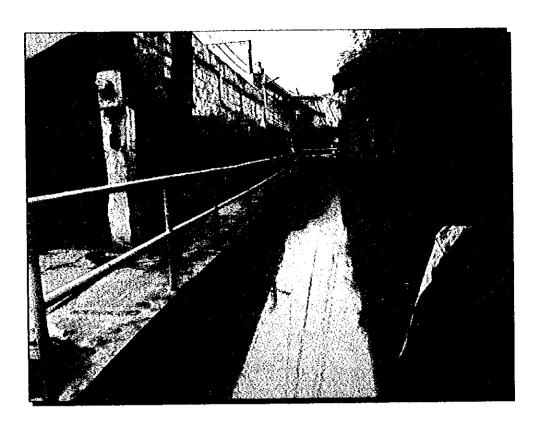


Photo 11 PEDESTRIAN FOOT BRIDGE ALONG ESTERO DE MAGDALENA

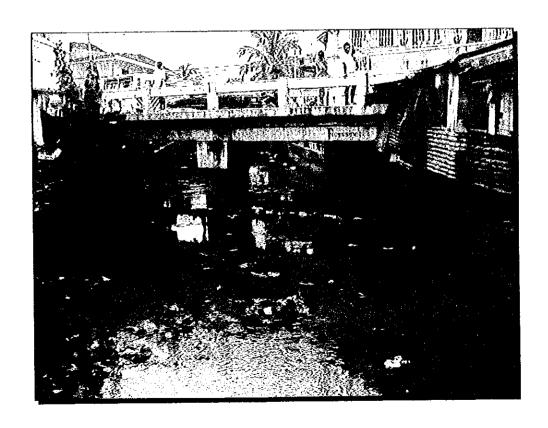
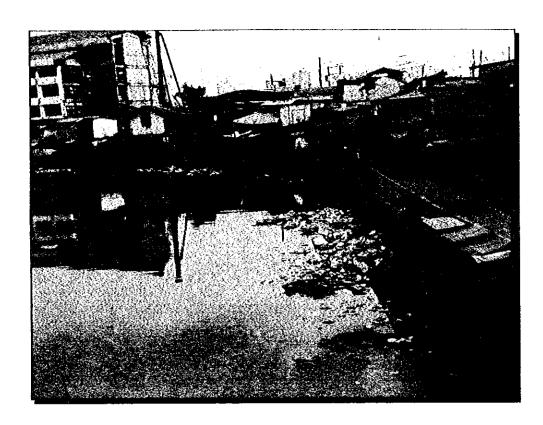


Photo 12 SEWER LINE CROSSING ESTERO DE CALUBCUB



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Photo 13 GARBAGE MOUNDS ALONG ESTERO DE VITAS

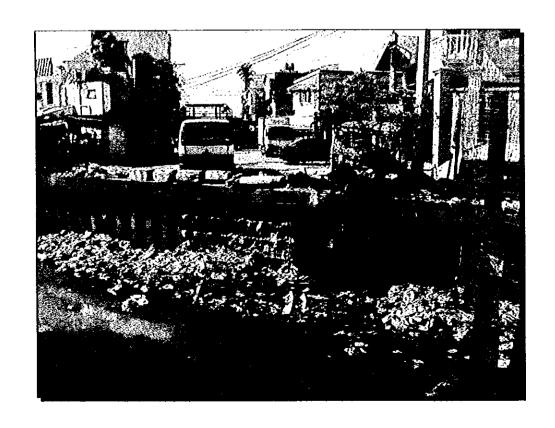
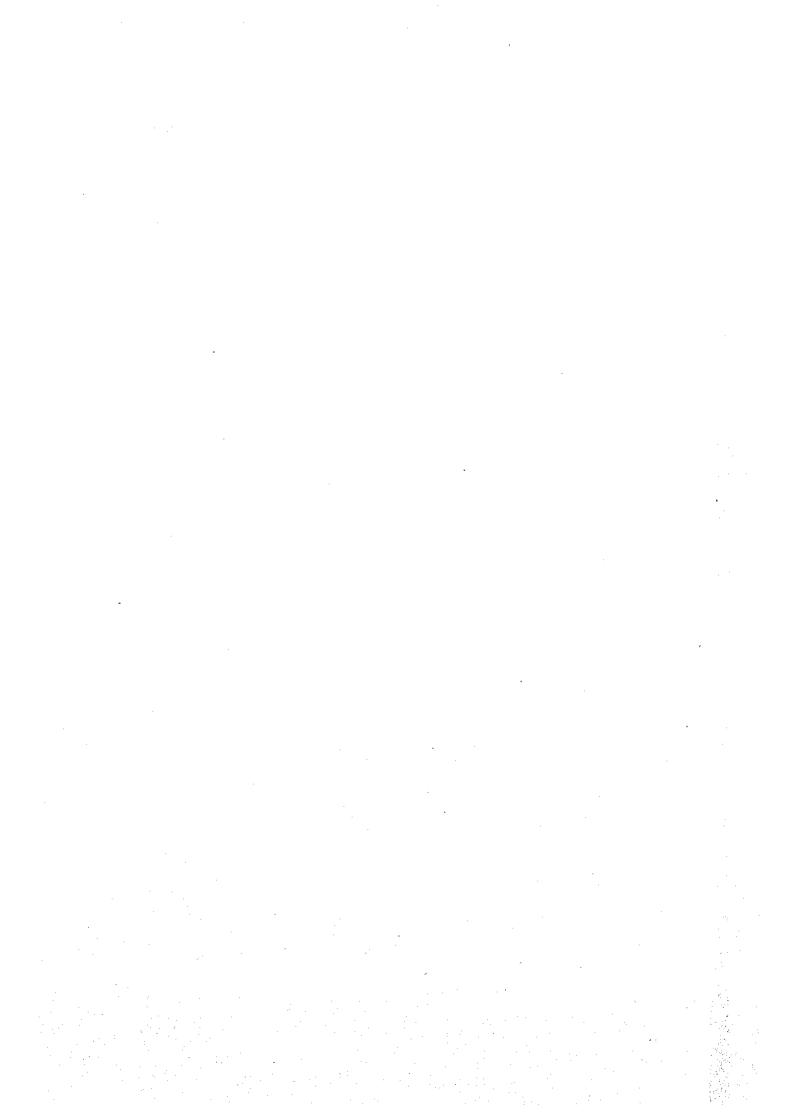


Photo 14 TRASH RACK AT LIBERTAD OUTFALL (DIAN SIDE)

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