



**NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM (NPDES) PHASE II, REGULATED SMALL MUNICIPAL
SEPARATE STORM SEWER SYSTEMS (MS4's)**

PERMIT (NOTICE OF INTENT) APPLICATION

U.S. ENV. PROT. AGENCY
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CEPD-DIRECTOR OFFICE

MUNICIPALITY OF GUAYAMA

P.O. Box 360
Guayama, P.R. 00785-0360

U.S. ENVIRONMENTAL PROTECTION AGENCY – REGION II

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TABLE OF CONTENT

1.0	NPDES (Notice of Intent) Permit APPLICATION	1
1.1	Background	1
1.2	Municipality of Guayama	1
1.3	Activities Subject to NPDES Permit Applicability	3
1.4	Name, Mailing Address, and Location of Facility for which the Application is Submitted	3
1.4.1	NPDES (MS4s) Program Point of Contact Municipality of Guayama.....	3
1.5	Standard Industrial Classification (SIC) Code	3
1.6	Operators Name, Mailing Address, Telephone, Ownership Status, and as Federal, State, Local, Tribal or Other Public Entity.	3
1.7	Permits or Construction Approvals Received or Applied Under EPA.....	4
1.7.1	Municipal Permits or Construction Approvals.....	4
1.7.2	Federal Permits issued within the Municipality.....	5
1.7.3	Municipal State Permits or Construction Approvals	7
1.8	Storm Water Sewer Map.....	7
1.9	Description of the Municipal Stormwater Sewer System.....	8
1.10	Estimated Square Mileage Served by the MS4s System.....	9
1.11	Proposed Storm Water Management Plan.....	9
1.11.1	Proposed Work Plan	10
1.12	Description of the Best Management Practices to be Implemented for each MCM ..	10
1.12.1	Minimum Control Measure 1 – Public Education and Outreach.....	11
1.12.2	Minimum Control Measure 2 – Public Involvement and Participation	11
1.12.3	Minimum Control Measure 3 – Illicit Discharge Detection and Elimination	11
1.12.4	Minimum Control Measure4 – Construction Site Storm Water Runoff Control	12
1.12.5	Minimum Control Measure 5 – Post-Construction Storm Water Management in Development and Redevelopment.....	12
1.12.6	Minimum Control Measure 6 – Pollution Prevention (Good Housekeeping for Municipal Operations.....	13
1.13	BMP Implementation Schedule.....	13
1.14	Person Responsible for Implementing or Coordinating the Applicant’s Storm Water Management Program.....	14
1.15	Eligibility Criteria for Endanger Species, Historic Properties and Marine Fisheries ..	14
1.15.1	Eligibility Criteria for Endanger Species	14
1.16	Signatories to Permit Application and reports	16
1.16.1	Certification	16

APPENDICES

APPENDIX A – FIGURES

- FIGURE 1- URBANIZED AREA MAP
- FIGURE 2-LOCATION MAP
- FIGURE 3 - URBANIZED AREA WARDS
- FIGURE 4 - WATER BODIES
- FIGURE 5A-GIS MAP PUEBLO WARD
- FIGURE 5B-GIS MAP JOBOS WARD
- FIGURE 5C-GIS MAP MACHETE WARD
- FIGURE 5D-GIS MAP ALGARROBOS WARD
- FIGURE 5E-GIS MAP CAIMITAL WARD
- FIGURE 5F-GIS MAP GUAMANÍ WARD

FIGURE 5G-GIS MAP PALMAS WARD

1.0 NPDES (NOTICE OF INTENT) PERMIT APPLICATION

1.1 BACKGROUND

In 1972, Congress amended the Federal Water Pollution Control Act, commonly referred as the Clean water Act (CWA) to prohibit the discharge of any pollutant to waters of the United States from point sources unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Initial efforts under the NPDES program focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage. As pollution control measures have been implemented, it has become evident that diffuse sources or non-point sources are also contributors of water quality degradation. In 1990, the US Environmental Protection Agency (USEPA) promulgated rules establishing Phase I of the NPDES storm water program. The Phase I program for MS4s requires operators of "medium" and "large" MS4s, that is, those that generally serve populations of 100,000 or greater, to implement a storm water management program as a means to control polluted discharges from these MS4s. USEPA published the Storm Water Phase II Rule on December 9, 1999. Since the USEPA has not delegated the NPDES permitting program to the Puerto Rico Environmental Quality Board (PREQB). Thus, on November 6, 2006 USEPA Region 2 issued the National Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4 GP PRR040000) for Puerto Rico.

Based on the 2000 Census, the USEPA published the Guayama, PR Urbanized Area Storm Water Map; which updates the Appendix 6 and 7 of the Preamble to the Final Phase II regulations. As such the Municipality of Guayama is required to submit a Notice of Intent (NOI) to seek coverage of the said permit¹.

The following wards of the of Municipality of Guayama fall within an Urbanized Area (See Figure 1 of Appendix A) as defined in Section 9 of the National Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (PRR040000).

- Barrio Pueblo
- Jobos
- Machete
- Algarrobo
- Caimital
- Guamaní
- Palmas

1.2 MUNICIPALITY OF GUAYAMA

The Municipality of Guayama is located in the Southern Coastal Region of Puerto Rico; South of Cayey; East of Patillas; West of Salinas; and North of the Caribbean Sea (see Figure 2 of Appendix A). The topography is mostly leveled and steep to the north region. The Municipality of Guayama has a territorial extension of 107.0 square miles and a population of 44,301 inhabitants², according to the 2000 Census.

¹ National Pollutant Discharge Elimination System Regulations of Water Pollution Control Program Addressing Storm Water Discharge Final Rule - Federal Register Vol. 64 Num. 23; pages 60721-61851 (December 8, 1999).

² Based Census 2000 Population, Housing Units, Area, and Density Summary, Guayama, Puerto Rico.
http://factfinder.census.gov/servlet/SAFFacts?_event=&geo_id=05000US72057&_geoContext=01000US%7C04000US72%7C05000US72057&_street=&_county=Guayama&_cityTown=Guayama&_state=04000US72&_zip=&_lang=en&_sse=on&ActiveGeoDiv=geoSelect&_useEV=&_pctxt=fph&pgsl=050&_submenuld=factsheet_1&ds_name=null&_ci_nbr=null&qf_name=null®=null%3Anull&_keyword=&_industry=

The main access to Guayama is through State Roads PR-3 and PR-54. The municipality is composed of 9 wards: Barrio Pueblo, Pozo Hondo, Carite, Caimital, Carmen, Guamaní, Jobos, Machete y Palmas. Of these, only 7 (Barrio Pueblo, Jobos, Machete, Algarrobo, Caimital, Guamaní and Palmas) fall within the Urbanized Area as defined in Section 9 of the National Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (PRR040000).

The Municipality of Guayama has many surface water resources of importance. Figure 3 of Appendix A shows the superficial water resources of the Municipality of Guayama. Many of the rivers present in the municipality boundaries are part of La Plata Watershed. These rivers are

- Guamaní River (discharge to the Caribbean Sea),
- La Plata River (originates in the Carite Reservoir, and runs through the North towards Cayey);
- Chiquito River (originates in the Carite Reservoir);
- Guavate River (runs through Cayey)

La Plata Watershed covers about 63.0 sq. miles and extends through the municipalities of Toa Alta, Naranjito, Comerio, Cidra, Barranquitas, Aibonito, Cayey, Comerio Reservoir, La Plata Lake and the North portion of Guayama. This portion drains to the Carite Reservoir.

Some of the creeks present at the Municipality are:

- Culebras Creek (is a tributary of Guamani River)
- Los Barros Creek (is a tributary of Guamani River)
- Caimital Creek (discharge directly into the Caribbean Sea)
- Corazón Creek (forms the Caimital Creek and discharges to the Caribbean Sea)
- Branderi Creek (discharge directly into the Caribbean Sea)

The Carite Reservoir is in Carite Ward. It has a capacity of 17,310 acres-feet (13.9 hm³) above sea level. The PR Electric Energy Authority is the owner of the reservoir. It was used for hydroelectric generation but at this moment is used to cover the domestic, industrial agricultural demand.

The Melanía Lake is formed less than a mile West of Guayama. It is part of the irrigation system of the South Region and receives water from the Guamaní River and the Carite Reservoir. It has a capacity of 312 acre-feet

Another water resource of the Municipality of Guayama is the Jobos Estuarine System. This natural reserve is located in Jobos Bay, between the Municipalities of Guayama and Salinas. It covers a surface of 11 km² (aprox. 1,133 cdas).

The municipal operations are mostly categorized as administrative and community service. Some of the mayor responsibilities of the Municipality of Guayama are monitor butget, draft local legislation, develop local policy, and execute legally mandated government activities

design to provide services to its residents. The most important municipal operations include the creation of local policies, strategies and plans aimed to develop our future growth; design, organize and develop projects, programs and activities for the general welfare and public service; construct, improve, repair, rebuild and/or rehabilitate facilities for the better service of their communities; organize and supervise the Municipal Police Force; establish programs to prevent incidents, including assisting the community in emergencies or natural disasters, catastrophic accidents or disasters and civil protection in general; protect and preserve our resources and promote the protection of health and safety of our citizens by giving maintenance to all the municipal facilities, regulate and administer the program concerning stray domestic animals; provide services and programs for the collection of waste and provide ongoing maintenance to the storm sewer system.

1.3 ACTIVITIES SUBJECT TO NPDES PERMIT APPLICABILITY

Municipal separate storm water sewer system located in Guayama, Puerto Rico

1.4 NAME, MAILING ADDRESS, AND LOCATION OF FACILITY FOR WHICH THE APPLICATION IS SUBMITTED

Municipio de Guayama
P.O. Box 360
GUAYAMA, P.R. 00785-0360

1.4.1 NPDES (MS4s) Program Point of Contact of Municipality of Guayama

Municipio de Guayama
Attn: Francisco González,
P.O. Box 360
Guayama, P.R. 00785-0360

Telephone: (787) 864-0600
Fax: (787) 864-5070

1.5 STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE

Standard Industrial Classification (SIC) Code for the Municipality of Guayama is 9199.

1.6 OPERATORS NAME, MAILING ADDRESS, TELEPHONE, OWNERSHIP STATUS, AND AS FEDERAL, STATE, LOCAL, TRIBAL OR OTHER PUBLIC ENTITY.

Municipio de Guayama
P.O. Box 360
Guayama, P.R. 00785-0360

1.7 PERMITS OR CONSTRUCTION APPROVALS RECEIVED OR APPLIED UNDER EPA**1.7.1 MUNICIPAL PERMITS OR CONSTRUCTION APPROVALS****1.7.1.1 Resource Conservation and Recovery Act**

NUMBER	OWNER/OPERATOR NAME	APPLICATION TYPE	LAST UPDATED
PRS009000472	Guayama Municipal Landfill	CEG	01/14/2006
PRS009000472	Guayama Municipal Landfill	Used Oil Program	07/14/2009

Data Source: RCRA Info http://oaspub.epa.gov/enviro/ef_home3.html?p_zipcode=00785&p_type=zip&x=3&y=2

1.7.1.2 Underground Injection Control

Information Not Available

1.7.1.3 NPDES Program under the Clean Water Act

For a list of permits see Appendix B.

1.7.1.4 Nonattainment Program under the Clean Air Act

None

1.7.1.5 National Emissions Standards for Hazardous Air Pollutants Preconstruction Approvals under the Clean Air Act

None

1.7.1.6 Ocean Dumping Permits under the Marine Protection Research and Sanctuaries Act

None

1.7.1.7 Dredge or Fill Permits under Section 404 of the Clean Water Act

None

1.7.2 FEDERAL PERMITS ISSUED WITHIN THE MUNICIPALITY**1.7.2.1 Resource Conservation and Recovery Act**

NUMBER	OWNER/OPERATOR'S NAME	APPLICATION TYPE	LAST UPDATED
PRD105750236	Ayerst Wyeth Pharmaceuticals Inc.	LQG	09/25/2008
PRD000692525	Baxter Caribe Inc.	LQG	09/25/2008
PRD991291972	Chevron Phillips Chemical PR Core	LQG	09/25/2008
PRD090613357	Tapi Puerto Rico, Inc./Chemosource	LQG.	09/25/2008
PRR000021568	Casa Luis Pales Matos	SQG	07/29/2008
PRR0000067911	PR Aqueduct & Sewer Authority	CEG	06/06/2007
PRD000692665	Ball Metal Beverage Container	Used Oil Program	06/06/2007

*Data Source: RCRA INFO http://oaspub.epa.gov/enviro/ef_home3.html?p_zipcode=00785&p_type=zip&x=3&y=2

1.7.2.2 Underground Injection Control

Information Not Available

1.7.2.3 NPDES Program under the Clean Water Act

NUMBER	NOI SUBMITTED DATE	APPLICATION TYPE	OWNER/OPERATOR NAME	STATUS
PRR05A812	January 19, 2001	Industrial	Alfa Caribe Inc.	Expired
PRR05A823	January 23, 2001	Industrial	Eidol Ghigliotty	Expired
PRR05A848	January 25, 2001	Industrial	CPC Puerto Rico Core Inc.	Expired
PRR05A915	January 29, 2001	Industrial	Colgate Palmolive of Puerto Rico	Expired
PRR05A921	January 29, 2001	Industrial	Chemsorce Corporation	Expired
PRR05A799	February 21, 2001	Industrial	Wyeth Pharmaceuticals CO-OTC	Expired
PRR05B113	August 02, 2002	Industrial	Chemsorce Corporation	Expired
PRR05B149	April 02, 2003	Industrial	AES Puerto Rico, L.P	Expired
PRR05BK79	January 05, 2009	Industrial	TAPI Puerto Rico Inc	Active

NUMBER	NOI SUBMITTED DATE	APPLICATION TYPE	OWNER/OPERATOR NAME	STATUS
PRR05BH93	January 07, 2009	Industrial	Baxter Healthcare Corporation	Active
PRR05BL65	January 26, 2009	Industrial	AES Puerto Rico, L.P	Active
PRR05BN36	March 30, 2009	Industrial	Wyeth Pharmaceuticals Company	Active
PRR10BA07	February 07, 2006	Construction	Desarrollo el Molino Inc.	Active
PRR10BA33	March 07, 2006	Construction	Brisas de Evelimar Inc.	Active
PRR10BA44	March 28, 2006	Construction	Lilly del Caribe Inc.	Terminated
PRR10BH31	March 13, 2008	Construction	General Builders Construction Corp.	Active
PRR10BH32	March 13, 2008	Construction	General Builders Construction Corp.	Active

Data Source NPDES Permits http://oaspub.epa.gov/enviro/ef_home2.water

1.7.2.4 Nonattainment Program under the Clean Air Act

None

1.7.2.5 National Emissions Standards for Hazardous Air Pollutants Preconstruction Approvals under the Clean Air Act

NUMBER	OWNER/OPERATOR NAME	APPLICATION TYPE	LAST UPDATED
7205700013	Puerto Rico Brake MFG	Air Minor	October 16, 2003
7205700039	Wyeth Pharmaceuticals	Air Minor	October 16, 2003
7205700030	Ayerst Wyeth Pharmaceuticals Inc	Air Minor	October 4, 2006
7205700053	Executive Dry Cleaners	Air Minor	April 15, 2009
7205700052	Guayama Super Cleaners	Air Minor	April 6, 2009
7205700005	PREPA Jobos Gas Turbines Power Plant	Air Mayor	July 16, 2009
7205700004	Phillips PR Core Inc.	Air Mayor	October 1, 2008
7205700015	Phillips PR Core Inc	Air Mayor	November 10, 2008
7205770037	Phillips PR Core Inc	Air Mayor	January 12, 2005
7205700011	Baxter Caribe Inc	Air Mayor	September 26, 2006

NUMBER	OWNER/OPERATOR NAME	APPLICATION TYPE	LAST UPDATED
7205700002	Ball Metal Beverage Container	Air Mayor	May 29, 2009
7205700008	Tapi Puerto Rico, Inc./Chemosource	Air Mayor	April 6, 2009
Data Source AIRS/AFS: http://oaspub.epa.gov/enviro/ef_home2.air			

1.7.2.6 Ocean Dumping Permits under the Marine Protection Research and Sanctuaries Act

None

1.7.2.7 Dredge or Fill Permits under Section 404 of the Clean Water Act

None

1.7.3 MUNICIPAL STATE PERMITS OR CONSTRUCTION APPROVALS

1.7.3.1 Puerto Rico Environmental Quality Board

Information Not Available

1.7.3.2 Puerto Rico Department of Natural Resources and the Environment

Information Not Available

1.8 STORM WATER SEWER MAP

Included in Figure 3 of Appendix A is a map depicting the geographical extension of the Municipality of Guayama and the urbanized wards. Figure 4 illustrates the surface water bodies within the municipal boundaries (lakes, rivers, creeks, ocean). Figure 5 illustrates the municipal owned and operated roads, water filtration plants owned and operated by the Puerto Rico Aqueduct and Sewer Authority (PRASA), waste water treatment plants owned and operated by the Puerto Rico Aqueduct and Sewer Authority, hazardous waste treatment, storage and disposal facilities, non-hazardous solid waste treatment, storage and disposal facilities, NPDES permitted industrial facilities, drinking, irrigation or commercial groundwater wells.

At the present time, the municipality lacks the required information and resources needed to develop a detail storm sewer map for the municipal operated MS4, as required by the MS4 GP PRR40000. As part of the implementation phase of the NPDES it is the intention of the Municipality of Guayama to develop such map.

It is anticipated that at a minimum the map will include information related to:

- Municipal Storm Sewer System, including conveyance or system of conveyances and outfall locations.
- Municipal Owned and Operated Roads Storm Sewer Systems interconnected with the Municipal Storm Sewer System;
- State Owned and Operated Roads Storm Sewer Systems interconnected with the Municipal Storm Sewer System;
- Surface water bodies (lakes, rivers, creeks, ocean);
- Water Filtration Plants Owned and Operated by the Puerto Rico Aqueduct and Sewer Authority (PRASA), including intakes and outfalls;
- Waste Water Treatment Plants Owned and Operated by the Puerto Rico Aqueduct and Sewer Authority, including outfalls;
- Hazardous Waste Treatment, Storage and Disposal Facilities;
- Non-Hazardous Solid Waste Treatment, Storage and Disposal Facilities;
- NPDES permitted industrial facilities interconnected with the Municipal Storm Sewer System;
- NPDES permitted industrial facilities discharging to a surface water body;
- Commercial Facilities (Regulated under the PRASA Pretreatment Program) interconnected with the Municipal Storm Sewer System or discharging to a surface water body;
- Drinking, Irrigation or Commercial Groundwater Wells;
- Underground Injection Systems (including residential septic tanks)
- Illegal/Illicit Discharges to MS-4
- Gas Stations

1.9 DESCRIPTION OF THE MUNICIPAL STORMWATER SEWER SYSTEM

The Municipality of Guayama Storm Water Sewer System (MS4s) in the urban areas, in general, consist of a series of catch basins, typically located within the right-of-way of municipal and state roads, interconnected by underground concrete or PVC pipes, which normally discharge to the Caribbean Sea. In the rural areas, the Municipal MS4 system typically consists of a series of interconnected open channel culverts, which run parallel to municipal and state roads, and usually discharge to a surface water body. Interconnected to the Municipal MS4s system are the storm water sewer systems owned and operated by the

Puerto Rico Department of Public Works and Transportation and the Puerto Rico Highway and Transportation Authority. Also, interconnected to the Municipal MS4s systems are the discharges from NPDES (Storm water) permitted facilities and PRASA Pre-treatment permitted industrial and commercial facilities.

As the Municipality of Guayama implements the proposed Storm Management Plan a more accurate description (capacity, operation, etc.) of the Municipal MS4s system can be provided.

1.10 ESTIMATED SQUARE MILEAGE SERVED BY THE MS4S SYSTEM

The estimated square mileage served by the MS4s System is 21.7 mi² (56.23 Km²). However, it must be noted that a more accurate estimate can be provided as the Municipality implements the proposed Storm Management Plan.

1.11 PROPOSED STORM WATER MANAGEMENT PLAN

The Municipality of Guayama has many regulatory and public responsibilities. One of these is the development of a Comprehensive Storm Water Management Plan (SWMP). The SWMP was developed to meet the regulatory requirements of the National Pollutant Discharge Elimination System (NPDES) Phase II Rule and to assist the municipality in maintaining and improving the municipality drainage facilities which include pipelines, structures, basins, ditches, swales, ponds, under drains and drainage wells, to ensure that they perform to design capacity and that all receiving bodies meet state and federal standards for water quality. It will also be an important tool for use in the day-to-day operations and as a public reference document. Along with regulatory issues, this plan will address protection of property from flooding and erosion, identifies health and safety issues related to water resources, and will make recommendations for the preservation of environmental and aesthetic benefits to the community.

Through the use of field observations, results of past and future studies, hydrologic/hydraulic computer modeling, and input from Municipality staff and a proposed Citizens Advisory Committee, the plan will identify existing problems and potential future problems within the municipality. A combination of regulatory requirements, public education, increased maintenance activities, and capital improvements will be recommended to solve identified problems. The major plan elements include the following:

- Development of a proposed storm water ordinance that, among other things, establishes minimum requirements for new development and redevelopment, prohibits illicit discharges into surface waters, and requires maintenance of privately owned storm water facilities.
- Development of public education opportunities to inform the community of water quality issues, and, specifically, the new ordinance and its requirements.
- Develop a Storm Water Assistance Program, to assist businesses and persons in their efforts to comply with NPDES storm water regulations and will educate citizens about storm water runoff and associated concerns.

- Hydrologic and hydraulic computer modeling analysis of the major drainage basins in the Municipality to simulate existing flows, project future flows, and evaluate system requirements.
- Analysis of localized flooding and water quality problems and solutions, and development of a prioritized list of recommended drainage system improvements.
- Development of a Capital Improvements Program.
- Development of a Maintenance and Operations Program.
- Development of a Public Education.
- Development of a Compliance Management Program to among other things, monitor illicit discharges into surface waters, storm water discharges associated with industrial activity and construction sites.
- Description of the overall program costs.
- Analysis of funding options and the creation of a storm water utility.

The Stormwater Management Plan will be developed, under the direction of the Municipal Land Management Office. The SWMP will focus initially on community education, dissemination of storm water pollution prevention information, system inventory and analysis of drainage and water quality issues followed by a facilities maintenance program, and a comprehensive storm and surface water code and policy. As envisioned, the SWMP will address the drainage network base map, hydrologic and hydraulic analysis and modeling, if required, for the principal surface water bodies (creeks and rivers), environmental and water quality issues, capital improvement program, storm water facilities maintenance program and a comprehensive Storm Water Management Code and Policy.

Semiannual meetings will be held to update all partnership members and Citizens Advisory Committee on the status of the planned activities. A written annual report will be prepared, submitted to USEPA and distributed each year.

1.11.1 PROPOSED WORK PLAN

Under the direction of the Municipal Land Management Office, a work plan will be developed at the beginning of each year based on priorities. Semiannual meetings will be held to update all partnership members on the status of the planned activities. A written annual report will be prepared and distributed at the end of each year. The anticipated activities are currently divided into six major tasks:

1.12 DESCRIPTION OF THE BEST MANAGEMENT PRACTICES TO BE IMPLEMENTED FOR EACH MCM

Next is a description of the preliminary Best Management Practices (BMPs) that the Municipality of Guayama is planning to undertake to meet the requirements of the permit..

1.12.1 MINIMUM CONTROL MEASURE 1 – PUBLIC EDUCATION AND OUTREACH

The Municipality of Guayama is planning to implement a public education program that would include the distribution of educational materials within the general community regarding the potential impacts of storm water discharges on water bodies. It would also include the measures that the community may take to reduce pollutants in storm water. The program will include the preparation and distribution of written materials as well as the coordination of public meetings. The following BMP's will be implemented:

- Storm Water-Related Public Service Announcements
- Development and Distribution of Storm Water-Related Materials
- Storm Water Web Page
- Storm Water Pamphlets, Booklets, and Flyers

1.12.2 MINIMUM CONTROL MEASURE 2 – Public Involvement and Participation

The Municipality of Guayama is planning to implement a public involvement and participation program. Public participation meetings are planned to obtain input from the community. Functionaries responsible for the program would coordinate the meetings to assure the participation of the community. The following BMP's will be implemented:

- Storm Drain Stenciling Program
- Annual Cleanup
- Public Involvement Program
- Community Hotline

1.12.3 MINIMUM CONTROL MEASURE 3 – Illicit Discharge Detection and Elimination

To meet the requirements of this measurement the Municipality of Guayama is planning to develop a map of the storm sewer system showing the location of all outfalls, inflows, manholes, and waters of the United States that receive discharges from the outfalls. The Municipality of Guayama is planning to implement a program for the detection of possible illegal non-storm water discharges into the system. The program may include visual assessments, connectivity testing, dye testing and/or smoke tests. Allowable discharges, as included in Section 1.4 of the permit, will be addressed as part of this control measure only if the Municipality of Guayama identifies them as significant contributors of pollutants to the small MS4. As part of the SWMP development the Municipality of Guayama will list occasional incidental non-stormwater discharges that will not be addressed as illicit discharges such as non-commercial or charity car washes. A prohibition of any non-storm water discharge that it is determined to be contributing significant amounts of pollutants to the MS4 would be included in the SWMP. The following BMP's will be implemented:

- Storm Sewer System Map - Develop a storm sewer system map.
- Implement Regulations to Enforce Nonstorm Water Discharges
- Educational Outreach
- Program to Detect, Identify, and Eliminate Illicit Discharges
- Program to Detect, Identify, and Eliminate Illegal Dumping
- Program to Detect, Identify, and Eliminate Wastewater Connections to the Storm Drain System

- Program to Detect and Eliminate Sanitary Sewer Overflows -
- Program to Detect and Eliminate Failing Septic Systems

1.12.4 MINIMUM CONTROL MEASURE4 – Construction Site Storm Water Runoff Control

The Municipality of Guayama is planning to develop, implement and enforce a program to reduce pollutants in any storm water runoff to their MS4 from construction activities. For construction activities covering one acre or more of land or covering less than one acre that are part of a larger common plan, the Municipality of Guayama will require that the construction activity be implemented in accordance to the NPDES General Permit for Storm Water Discharges from Construction Activities issued by the EPA in July 1,2003. To ensure that this requirement is met the Municipality of Guayama will develop an administrative procedure or guideline to assure that the requirement for the request of compliance with the NPDES General Permit for construction activities is met.

By implementing the requirement of meeting the conditions of the Construction Activities General Permit Municipality of Guayama will assure that adequate erosion and sedimentation controls are implemented and inspected during the project construction phase. The following BMP's will be implemented:

- Ordinances or Other Regulatory Mechanisms
- General Construction Site Waste Controls
- Information Submitted by the Public
- Construction Site Inspection and Enforcement

1.12.5 MINIMUM CONTROL MEASURE 5 – Post-Construction Storm Water Management in Development and Redevelopment

The Municipality of Guayama is planning to develop a post construction runoff control management program for areas within the Municipality that would undergo new development or redevelopment. The program would be aimed to reducing pollutants in post construction runoff from these areas. BMP's that may be considered during the development of the SWMP could include:

- Development of administrative procedures and ordinances that require the implementation of post-construction runoff control measures
- Development of administrative procedures or guidelines to ensure the inspection and maintenance of the runoff control measures
- Development of administrative procedures or guidelines to ensure that new development or redevelopment plans are reviewed and verified for the inclusion of post-construction runoff control measures
- Development of administrative procedures or guidelines to ensure that one or more of the following general BMPs are included in the design plans of any new or redeveloped project: innovative BMPs, infiltration systems, filtration systems or retention/detention ponds. The Best Management Practices are

Structural

- (a) Porous Pavement Program
- (b) Vegetative Practices (Stormwater Wetland Program)

- (c) Vegetative Practices (Grassed Swale Program)
- (d) Runoff Pretreatment Practices

Nonstructural

- (a) Develop a regional growth planning process to contain sprawl development and direct new growth into previously developed areas, discouraging excessive low-density development.
- (b) Develop green parking techniques to reduce the contribution of parking lots to the total impervious and, consequently, the amount of storm water runoff. All of the green parking techniques shall be applied in new developments and some redevelopment projects, depending on the extent and parameters of the project.
- (c) Develop an alternative paver program that can replace asphalt and concrete and can be used for driveways, parking lots, and walkways. Alternative pavers shall replace impervious surfaces, creating less storm water runoff.

Inspection and Maintenance Program

- (a) Develop an inspection and repair program to maintain the effectiveness of post-construction storm water control BMPs.

1.12.6 MINIMUM CONTROL MEASURE 6 – Pollution Prevention (Good Housekeeping for Municipal Operations)

The Municipality of Guayama is planning to develop and implement a pollution prevention/good housekeeping program to minimize or to reduce potential pollutants from reaching the storm sewer system. The program will consist of the following BMP's:

a) Source Controls

Pet Waste Collection Program
 Vehicle Maintenance Program
 Vehicle Washing Program
 Parking Lot and Street Cleaning Program
 Roadway and Bridge Maintenance Program
 Storm Drain System Cleaning Program

b) Materials Management

Alternative Products -
 Hazardous Materials Storage Program
 Spill Response and Prevention Program
 Used Oil Recycling Program
 Materials Management Program

1.13 **BMP IMPLEMENTATION SCHEDULE**

BMP Implementation Schedule and MCM 1 Performance Measures will begin in 2009 and ends in 2011. A detail implementation schedule will be included in the Stormwater Management Plan.

1.14 PERSON RESPONSIBLE FOR IMPLEMENTING OR COORDINATING THE APPLICANT'S STORM WATER MANAGEMENT PROGRAM

Attn: Francisco González,
Municipality of Guayama
P.O. Box 360
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1.15 ELIGIBILITY CRITERIA FOR ENDANGER SPECIES, HISTORIC PROPERTIES AND MARINE FISHERIES

1.15.1 ELIGIBILITY CRITERIA FOR ENDANGER SPECIES

In this section is discussed the eligibility and screening procedures relating to species and critical habitat designated under the Endanger Species Act (ESA). The MS4 operated by the Municipality of Guayama meets **Criterion E: Storm water discharges associated with industrial activity and allowable non-storm water discharges are not likely to adversely affect any federally listed endangered and threatened (listed) species or designated critical habitat.** The threatened and endangered species that have been reported for the Municipality of Guayama are identified in the table below:

SCIENTIFIC NAME	COMMON SPANISH NAME	GROUP	STATUS*	DISTRIBUTION
<i>Accipiter striatus ventur</i>	Falcon de Sierra	Bird	E	Carite State Forest
<i>Agelaius xanthomus</i>	Mariquita	Bird	E, CH	Coastal Forest
<i>Buteo platypterus brunnescens</i>	Guaraguao de bosque	Bird	E	Carite State Forest
<i>Charadrius meloodus</i>	Playero melodico	Bird	T	Coastal Zones, No nesting
<i>Patagioenas (Columba) Inornata wetmorei</i>	Plaoma sabanera	Bird	E	Lower Montane Forest and Riparian Habitats
<i>Dermodochelys coriacea</i>	Tinglar	Reptile	E, CH	Coastal Zones
<i>Epicrates inornatus</i>	Boa Puertorriqueña	Reptile	E	Forested Volcanic & Limestone (karst) Hills
<i>Eretmochelys imbricata</i>	Carey	Reptile	E, CH	Coastal Zones
<i>Eugenia haematocarpa</i>	Uvillo	Plant	E	Carite Ward
<i>Pelecanus occidentalis</i>	Pelicano pardo	Bird	E	Coastal Zones, No Nesting
<i>Styrax potoricensis</i>	Palo de Jazmin	Plant	E	Carite State Forest
<i>Trichetus manatus manatus</i>	Manati antillano	Mammal	E	Coastal Zones
*Status E= Endanger; T=Threatened; CH=Critical Habitat				

This information was reviewed with the official List of Endangered Species of the US Fish & Wildlife Service. The Best Management Practices proposed to control storm water pollutants in the MS4 operated by the Municipality of Guayama will not affect these species or their habitat.

1.15.2 ELIGIBILITY CRITERIA FOR HISTORIC PROPERTIES

In this section is discussed the eligibility and screening procedures relating to historic properties and National Historic Preservation Act. The MS4 operated by the Municipality of Guayama meets **Criterion B: Stormwater discharges related activities (i.e. construction and/or installation of stormwater best Management practices that involve subsurface disturbance) would not affect historic properties.**

1.16 SIGNATORIES TO PERMIT APPLICATION AND REPORTS

1.16.1 CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designated to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


MAYOR, MUNICIPALITY OF GUAYAMA

Oct. 14, 2009.
DATE

APPENDIX A

FIGURES

Figure 1- Urbanized Area Map - Municipality of Guayama, Puerto Rico
 Notice of Intent, NPDES MS4 PRR40000, Municipality of Guayama

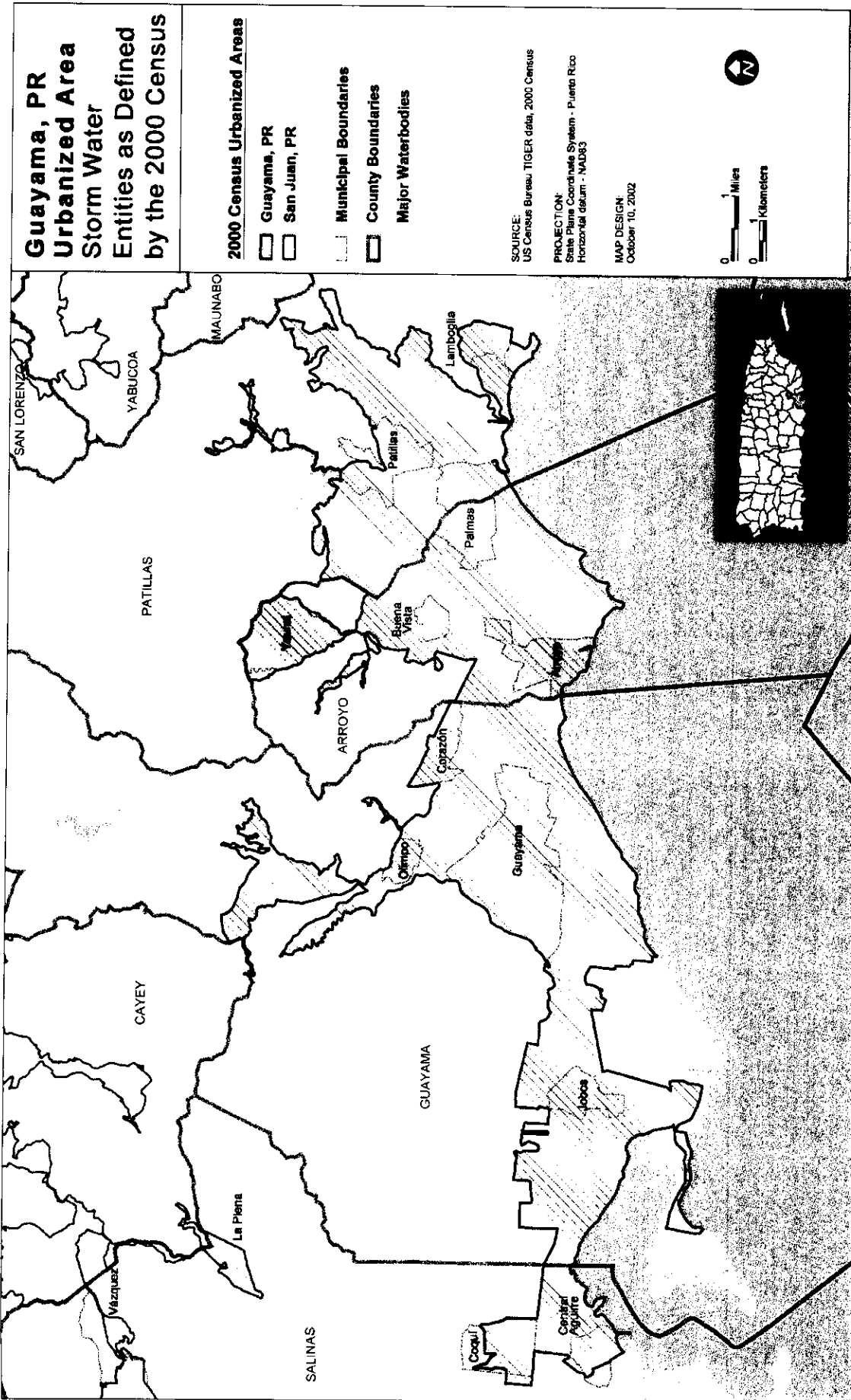


Figure 2 - Location Map - Municipality of Guayama, Puerto Rico
Notice of Intent NPDES MS4 PRR40000, Municipality of Guayama

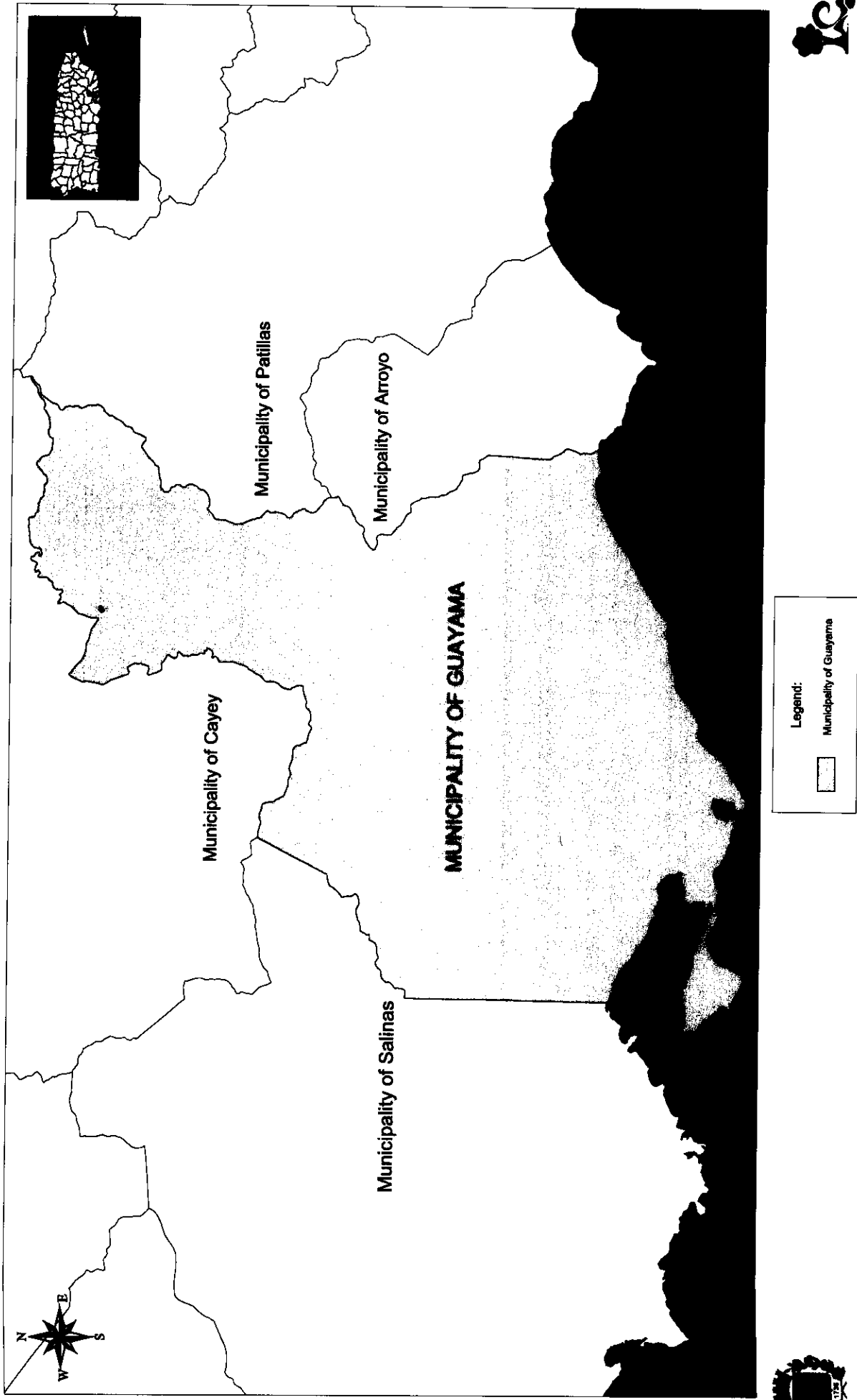


Figure 3 - Urbanized Areas and Ward Limits - Municipality of Guayama, Puerto Rico
 Notice of Intent NPDES MS4 PRR40000, Municipality of Guayama

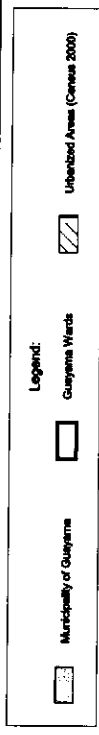
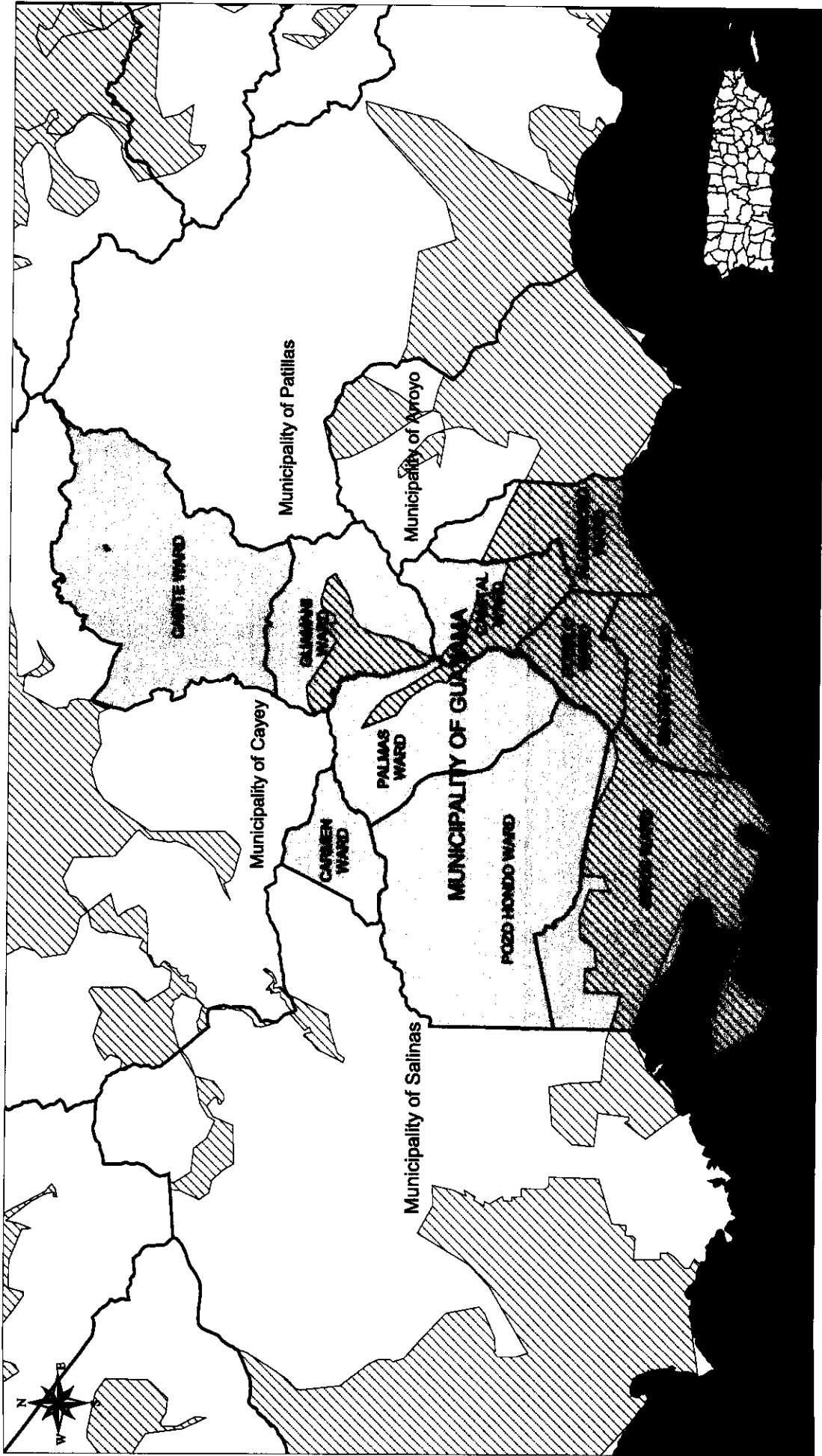


Figure 5C - GIS Map Machete Ward - Municipality of Guayama, Puerto Rico
 Notice of Intent NPDES MS4 PRR40000, Municipality of Guayama

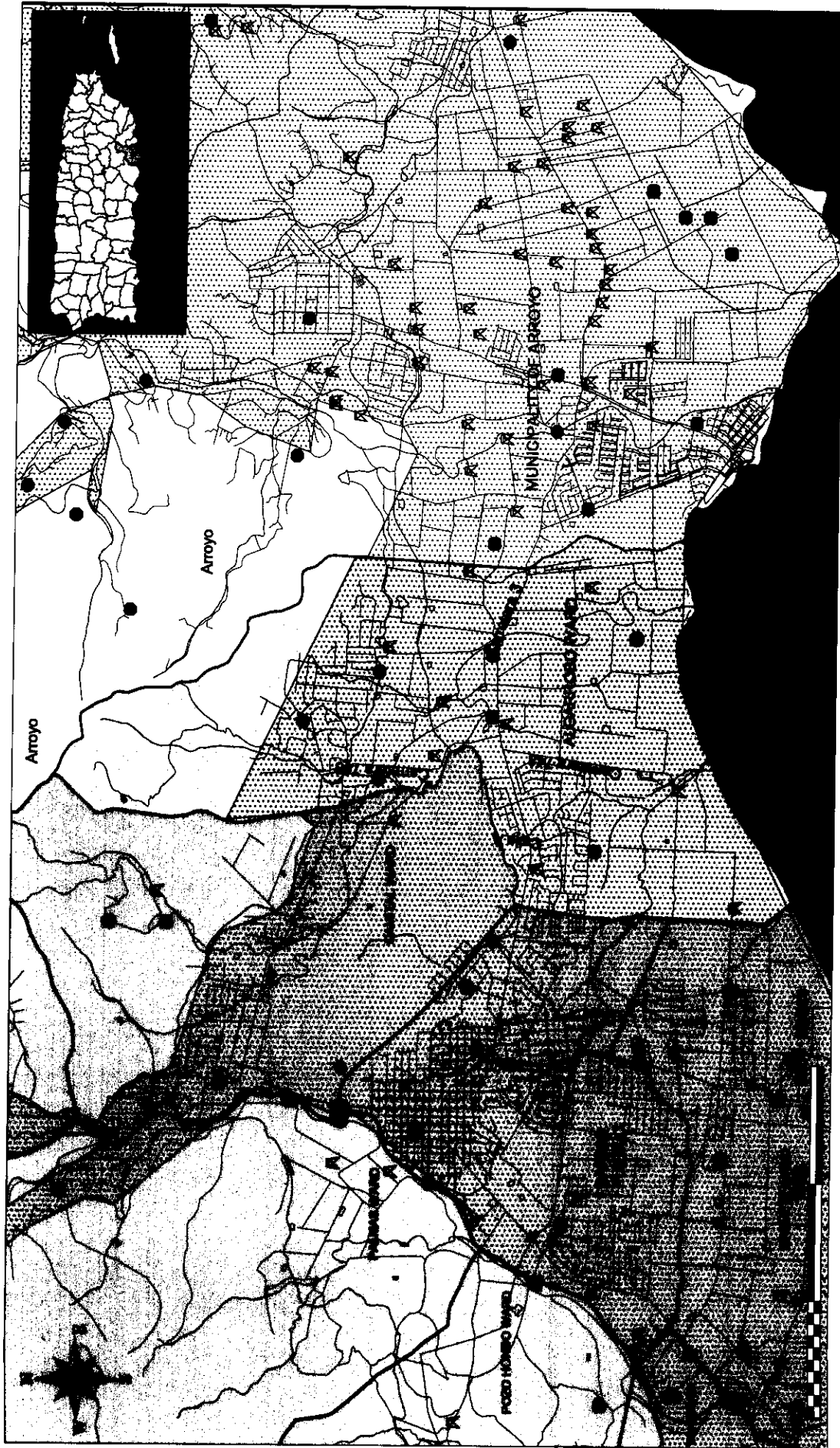


Legend:

- Superfund (orcas) sites
- ▲ Air quality subsystem (aq) monitoring locations
- ▲ PRASA Aqueduct Pump
- Permit & compliance (pc) facilities ship
- ▲ Air quality subsystem (aq) monitoring locations
- ▲ PRASA Sewer System
- PRASA Filtration Plants
- ▲ National priority list (npl)
- ▲ PRASA Filtration Plants
- ▲ Leases & Lagoons
- ▲ Roads (2000)
- ▲ Rivers & Creeks
- ▲ Urbanized Areas (Census 2000)
- ▲ Machete Ward
- ▲ Municipality of Guayama



Figure 5D - GIS Map Algarrobo Ward - Municipality of Guayama, Puerto Rico
 Notice of Intent NPDES MS4 PRR40000, Municipality of Guayama



- Legend:
- Superfund (cerdas) sites
 - ▲ PRASA Aspasnet Pump
 - ▲ Air quality subsystem (aq) monitoring locations
 - Perms & compliance (com) facilities sfp
 - PRASA Sewer System
 - Air facility subsystem (afs) facilities
 - PRASA Filtration Plants
 - National priority list (npl)
 - Lakes & Lagoons
 - Rivers & Creeks
 - Urbanized Areas (Census 2000)
 - Algarrobo Ward
 - Guayama Wards
 - Municipality of Guayama



Figure 5E - GIS Map Caimital Ward - Municipality of Guayama, Puerto Rico
 Notice of Intent NPDES MS4 PRR40000, Municipality of Guayama

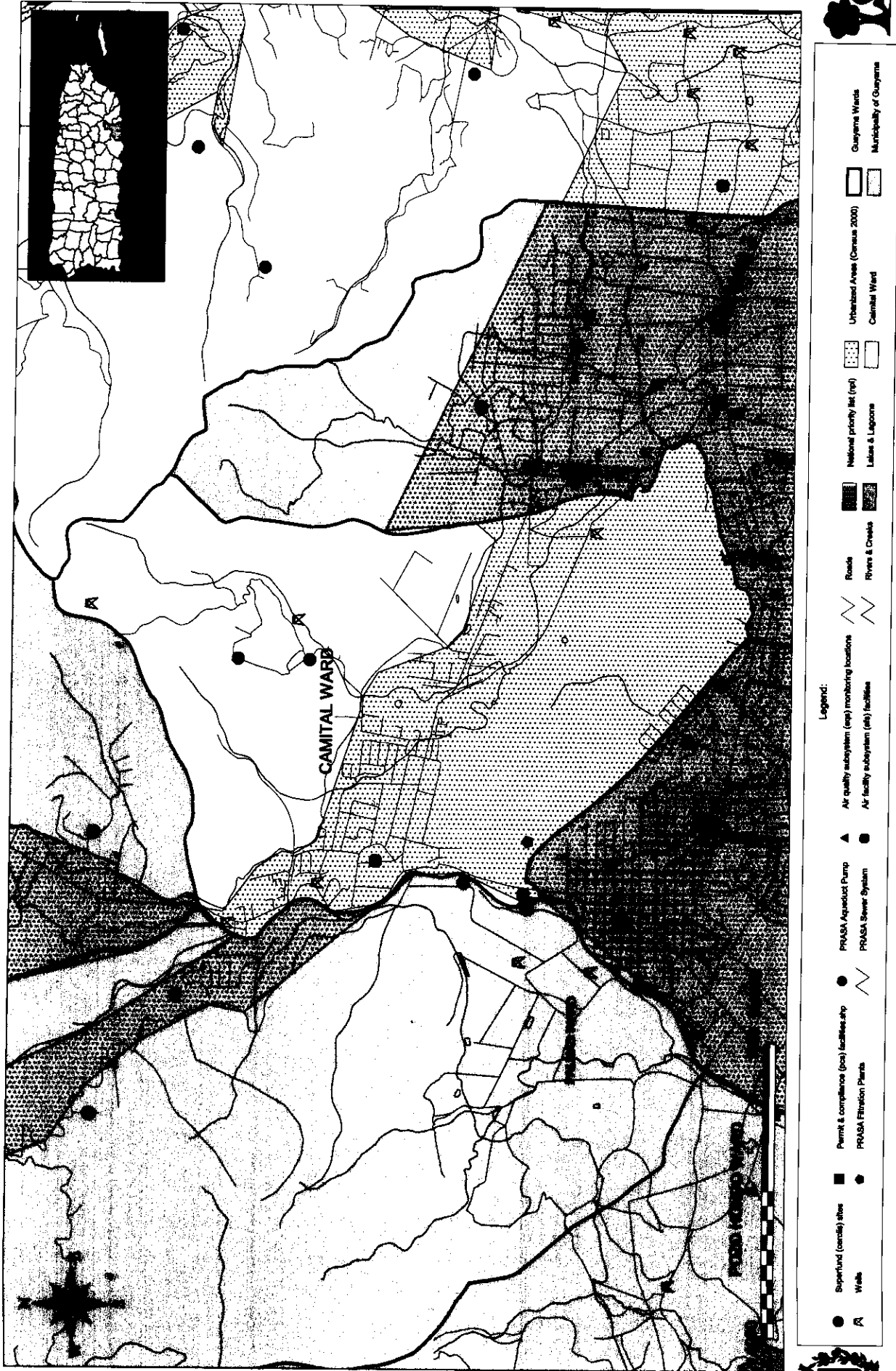


Figure 5F - GIS Map Guamani Ward - Municipality of Guayama, Puerto Rico
 Notice of Intent NPDES MS4 PRR40000, Municipality of Guayama

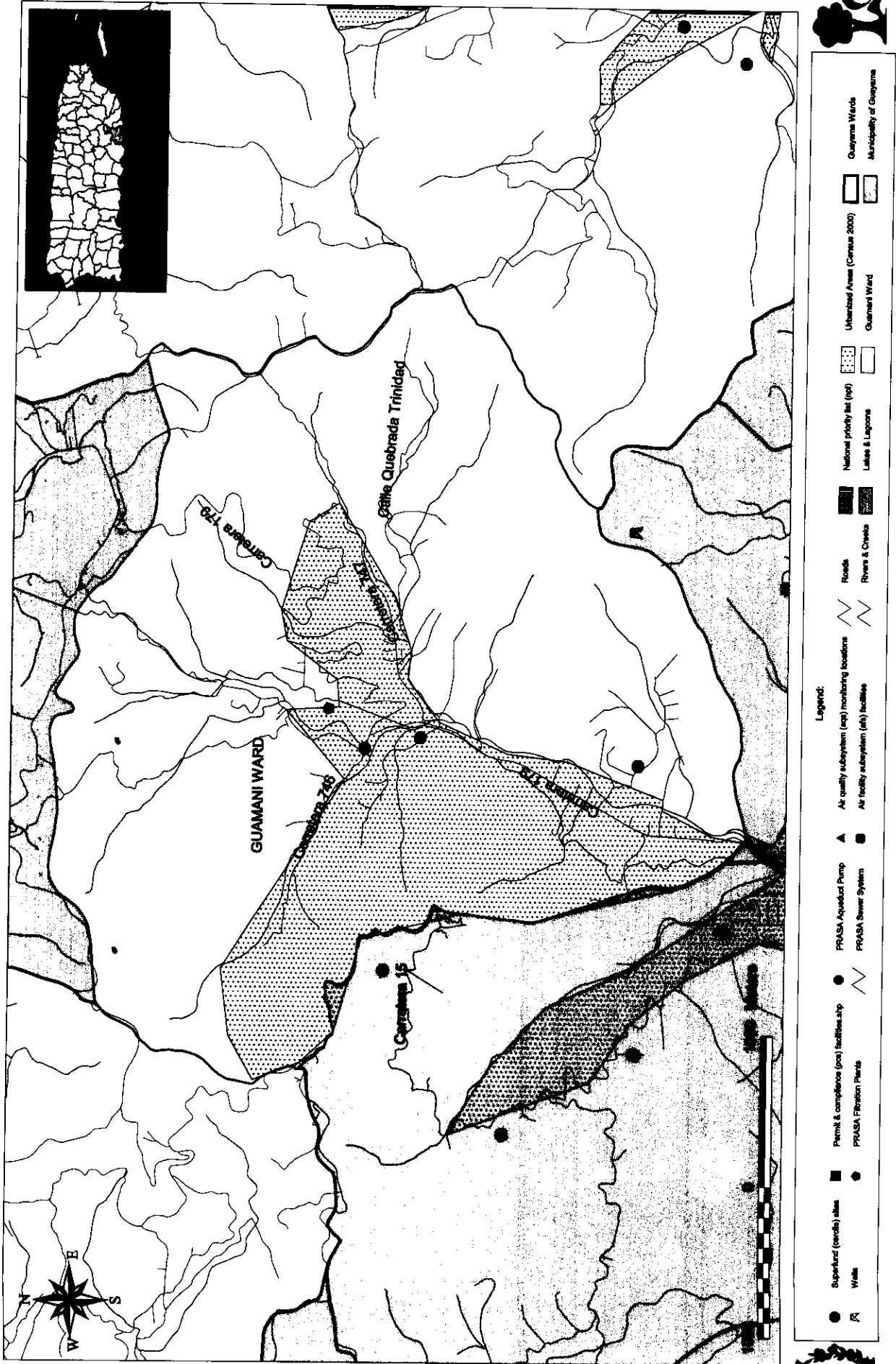


Figure 5G- GIS Map Palmas Ward - Municipality of Guayama, Puerto Rico
 Notice of Intent NPDES MS4 PRR40000, Municipality of Guayama

