

United States Environmental Protection Agency
National Pollutant Discharge Elimination System
Notice of Intent (NOI) for coverage under the Small Municipal Separate
Storm Sewer System (MS4) General Permit (PRR040000) for Puerto Rico (PR)

Part A. General Information

1. Name of Municipality or Organization: Municipality of Añasco
2. Type: ☐ Federal ☐ State ☒ Municipality ☐ Other: _____
3. Existing Permittee: ☒ Yes ☐ No If yes, provide EPA NPDES Permit Number: P R R 0 4 0 0 4 0
4. Location Address:
 - a. Street: Casa Alcaldía del Municipio de Añasco
65 de Infanteria Street
 - b. City: Añasco State: PR Zip Code: 00610
5. Mailing Address:
 - a. Street: P.O. Box 1385
 - b. City: Añasco State: PR Zip Code: 00610
6. Telephone: 787-826-3100 Fax: _____
7. E-mail: escorrentiasanasco@gmail.com
8. Standard Industrial Classification (SIC) Code (see instructions for common codes): 9 1 9 9
9. Latitude: (use the format provided.) Longitude: (use the format provided.)
2.2.4.2 Approximate center of the regulated portion of the MS4.
1 8° 1 8' 5 8" N (degrees, minutes, seconds) 6 7° 0 8' 2 3" W (degrees, minutes, seconds)

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Part B. Primary MS4 Program Manager Contact Information

1. Name: Yarelis Irrizary
2. Position Title: Municipal Administrator
3. Stormwater Management Program (SWMP) Location (web address or physical location):
Municipal Federal Programs Office
4. Mailing Address:
 - a. Street: Federal Programs Office
65 Infanteria Street
 - b. City: Mayagüez State: PR Zip Code: 00610
5. Telephone: 787-826-2009
6. E-mail: escorrentiasanasco@gmail.com

Part C. Eligibility Determination

1. Endangered Species Act (ESA) determination complete? ☒ Yes ☐ No
 - a. Eligibility Criteria (check all that apply): ☒ A ☐ B ☐ C ☐ D ☐ E ☐ F
2. National Historic Preservation Act (NHPA) determination complete? ☒ Yes ☐ No
 - a. Eligibility Criteria (check all that apply): ☒ A ☐ B ☐ C ☐ D

Part D. Map/Boundaries

1. MS4/Organization Description of regulated boundaries (narrative):
2. The Urbanized Area within the Municipality of Añasco identified by the United States Census 2010 occupies approximately 2.15 square miles. The geographic boundaries of the MS4 are the municipality limits and the urban growth boundaries. The municipality has limited authority and responsibility for planning, building, operating, maintaining and regulating the stormwater drainage system within its limits. Añasco hydrographical system consists of the Río Grande de Añasco with headwaters in the Cordillera Central mountain range and flowing west toward the La Mona Passage. The Río Grande de Añasco watershed falls within the municipalities of Adjuntas, Añasco, Lares, Las Marías, Maricao, Mayagüez, San Sebastián, and Yauco. The major tributaries within the Añasco municipality are: Río Humata, Río Casey, Río Cañas, Río Dagüey, Noriega Creek, Río Piedras (tributary of Río Humata), Grande and Chiquita Creeks (tributaries of Río Cañas). The following water streams lead directly to the sea but they are still considered within the Río Grande de Añasco watershed: Caguabo Creek, Iacos Creek, Lava Creek, Justo Creek, Caño La Puente, and Río Hondo (tributary of Caño La Puente).
Land use in the watershed consists of a mix of urban and rural populated sections, agriculture, pastures, and forested areas. Because of minor industrial point sources, confined animal feeding operations, agricultural practices, and onsite wastewater systems, the Río Grande de Añasco system no longer meets the applicable water quality standards for Puerto Rico (PRWQSR Section 3.2.4[B][2]).

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- Is map attached? ☒ Yes ☐ No



1. Estimated Percent of Outfall Map Complete? (*Part 4.2.3 of 2006 general permit*): 75%
- a. If 100% of 2006 requirements are not met, enter an estimated date of completion: 06/30/2018
(MM/DD/YYYY)
- b. Web address where MS4 map is published: Paper copy has been included in attachment A.
If outfall map is unavailable on the internet an electronic or paper copy of the outfall map must be included with NOI submission.

Part F. Bylaw/Ordinance Development (if covered under the 2006 general permit)

1. Illicit Discharge Detection and Elimination (IDDE) authority adopted? ☒ Yes ☐ No

a. Effective Date or Estimated Date of Adoption: 10/08/2013
(MM/DD/YYYY)

2. Construction/Erosion and Sediment Control authority adopted? ☒ Yes ☐ No

a. Effective Date or Estimated Date of Adoption: 10/15/2014
(MM/DD/YYYY)

3. Post-Construction Stormwater Management adopted? ☒ Yes ☐ No

a. Effective Date or Estimated Date of Adoption: 10/15/2014
(MM/DD/YYYY)

Part G. Receiving Waters

List the names of all surface waterbody segments to which your MS4 discharges. For each waterbody segment, please report the number of outfalls discharging into it and, if applicable, any impairments. You may attach additional information.

| Waterbody Segment that receives flow from the MS4 | Number of Outfalls into receiving waterbody segment | Have any monitoring been performed to outfalls? (Yes/No) | List of Pollutant(s) causing impairment (if applicable) | List of TMDL Pollutant (s) (if any) |
|---|---|--|--|-------------------------------------|
| PRWR83A Las Marias Sector | 17 | Yes | Arsenic Cyanide Dissolved Oxygen Fecal Coliforms Turbidity | Fecal Coliform |
| PRWR83A La Playa Sector | 10 | Yes | Arsenic Cyanide Dissolved Oxygen Fecal Coliforms Turbidity | Fecal Coliform |

Part H. Summary of Stormwater Management Program (SWMP) under the 2006 Small MS4 General Permit

For every measurable goal and associated Best Management Practice (BMP) listed in the adopted program, provide the following information (You may include additional pages):

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|---|-------------------------|--|--|--|
| Develop and Implement an Environmental Education Program (EEP) | Yes—Partially | Yes | General community members Business owners Municipal employees Students Households EEP Plan development is phased. | Ongoing The presentations for Head Start students, elementary school students, restaurants, bakeries, convenience stores, physicians, pharmacies, Central Government sports & recreation, National Parks–Recreational Public Beach Employees have been developed. This BMP will target additional audiences in the next cycle. |
| Complete the revision and update of the existing educational material | Yes | Yes | General community members Business owners Municipal employees, Students Households | Ongoing Educational material should be updated on an annual basis. |
| Distribute Educational Material during Municipal Recycling Plan implementation | Yes | Yes | General community members Business owners Municipal employees, Students Households | Ongoing This BMP should be conducted every year. |
| Publish newspaper articles | Yes | Yes | General community members Business owners Municipal employees, Students Households | Ongoing Due to the fiscal/economic situation 2 articles per year will be published. |
| Initiate educational events for pollutants of concern (POCs) sources and activities | Yes | Yes | General community members Business owners Municipal employees, Students Households | Ongoing N/A |
| Develop Environmental Science Clubs for public and private schools | Yes-Partially | Yes | Elementary and secondary school students | Ongoing N/A |
| Conduct storm water pollution prevention activities for students | Yes | Yes | Elementary and secondary school students | Ongoing N/A |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|--|-------------------------|--|---|---|
| Conduct municipal employees trainings on storm water pollution prevention BMPs | Yes | Yes | Municipal employees | Ongoing N/A |
| Develop an environmental section on the municipal website | No | Yes | General community members Business owners Municipal employees Students Households The municipality webpage was not available consistently. | Ongoing The municipality will evaluate an alternative method of completing this BMP. |
| Develop Municipal Facilities Activities Standard Operating Procedures (SOPs) | Yes | Yes | Municipal employees | Ongoing The SOPs should be updated on an annual basis. |
| Post stormwater pollution prevention posters in municipal facilities | Yes | Yes | Municipal employees | Ongoing Some of the posters were removed and need to be replaced. |
| Develop Stormwater Ordinances Fact Sheets | Yes | Yes | General community members Municipal employees | Done N/A |
| Distribute Stormwater Ordinance Fact Sheets | No | Yes | General community members Municipal employees This BMP implementation is postponed until December 2016. | Ongoing This BMP will be implemented after the electoral restrictions period is over. |
| Develop and implement storm drain stenciling program | Yes— Partially | Yes | General community members, with emphasis in urban areas residents | Ongoing The municipality will resume this BMP implementation once the electoral restriction period is over. |
| Conduct NPDES storm water community council meetings | No | No | Community Council General community members This BMP will be substituted for next permit cycle. | The Municipal MS4 Coordinator contacted community council members, who have not met since inception. The effort required to activate and maintain this council is significant. The municipality identified other BMPs that could have similar or better results for the next cycle. |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|---|-------------------------|--|--|---|
| Conduct NPDES storm water community council public meeting | No | No | Community council General community members This BMP will be substituted for next permit cycle. | The mayor will include the MS4 SWMP implementation status in the Municipality's Annual Achievement Report and public meeting in the next cycle. |
| Inform and solicit public input for the Municipality's Annual Achievement Report | Yes | Yes | General community members | Ongoing N/A |
| Coordinate stream and beach cleanups | Yes— Partially | Yes | General community members Even though this BMP has been effective, during this last year it was not possible to be implemented due to the available municipal budget. | Ongoing Next year, the municipality will have the goal of conducting 1 activity per year instead of 2 due to budget restrictions. |
| Develop a section on the municipal website to receive illicit discharge complaints and SWMP input | No | No | General community members Municipal employees | The municipality webpage is not available consistently. The municipality will evaluate an alternative method of completing this BMP. |
| Develop and implement a Reforestation Program | Yes— Partially | Yes | General community members | Ongoing The municipality is currently implementing a Wetland Mitigation Project to comply with the requirements of the United States Army Corps of Engineers' Permit No. SAJ-1998-5435 (IP-JER). About 1,000 trees were planted and monthly maintenance has been provided since 2013. |
| Develop and implement a MS4 main outfalls monitoring program | Yes— Partially | Yes | Municipal employees | Ongoing The program will be updated to incorporate 2016 MS4 General Permit requirements. |
| Develop an IDDE Plan | Yes | Yes | General community members Municipal employees The IDDE Plan development was divided in phases to be completed within a period of two years due to limitations in the municipal budget. | Ongoing The first draft of the IDDE Plan was developed July 2014, and it has been continuously updated. SOPs, Outfall Reconnaissance Inventory (ORIs), Dry Weather Inspections Procedures and Water Quality Monitoring results have been incorporated into the IDDE Plan. The IDDE Plan is a working document. |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|--|-------------------------|--|---|---|
| Develop an Illicit Discharge Investigation SOP | Yes | Yes | General community members Municipal employees | Ongoing SOPs should be updated on an as needed basis. |
| Develop an Illicit Discharge Reporting and Elimination Procedure SOPs | Yes | Yes | General community members Municipal employees | Ongoing SOPs should be updated on an as needed basis. |
| Develop the storm water sewer system maps | Yes— Partially | Yes | General community members Municipal employees MS4 Infrastructure Maps for EPA Urban Areas within the Pueblo Ward and Parcelas María were developed January 2014. MS4 Infrastructure Maps for Urbanized Area La Playa were developed March 2015. | Ongoing The completed areas were selected based on the municipality's available budget and MS4's priorities for the implementation period. The MS4s maps will be updated to incorporate 2016 MS4 General Permit requirements. |
| Investigate Illicit Discharges Reported | Yes | Yes | General community members Municipal employees | Ongoing N/A |
| Conduct Dry Weather Inspections | Yes— Partially | Yes | General community members and municipal employees Due to staff availability to conduct the inspections, the municipality has been completing this task in a lower rate of inspections per year than planned. | Ongoing The BMP will be modified to comply with the 2016 MS4 General Permit requirements. |
| Develop Construction Stormwater Pollution Prevention Ordinance | Yes | Yes | General community members | Ongoing The ordinance should be updated on an as-needed basis and revised every permit term. |
| Develop Construction Stormwater Pollution Prevention Educational Material and compile Agencies' Educational Material to be distributed to Operators 1. Develop SW Fact Sheet brochure and poster 2. Develop notification sheet for the ordinance | Yes— Partially | Yes | General community members Municipal employees Construction workers | Ongoing The ordinance fact sheet was developed and need to be updated on an as-needed basis and every time the ordinance is modified. The notification sheet, brochure and the poster will be developed under the next permit year. |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|---|-------------------------|--|---|---|
| Develop Construction Project Inspection and Violations Notification SOP | Yes | Yes | Municipal employees Construction workers | Ongoing The SOP should be updated every year. |
| Develop Erosion and Sediment Control Plan Review SOP | Yes | Yes | Municipal employees Construction workers | Ongoing The SOP should be updated every year. |
| Develop new specifications and requirements to be included in BID and contract documents | No | Yes | Municipal public works employees Contractors Developers A meeting with the Municipality legal advisor will be coordinated to discuss if the proposed language is appropriate | Ongoing The BMP, but completion date has been modified. |
| Develop the ordinance for the control of erosion and sedimentation, and other stormwater pollutants in construction sites for public and private projects | Yes | Yes | Municipal public works employees Contractors Developers | Done N/A |
| Develop an Enforcement Response Plan (ERP) in accordance with the ordinance | No | Yes | Municipal public works employees Contractors Developers Not completed due to budgetary restrictions. | N/A The ERP will be developed during the next permit term. |
| Distribute educational material on stormwater events to operators | No | Yes | Municipal public works employees Contractors Developers Not completed due to budgetary restrictions. | N/A This BMP will be implemented during the next permit term. |
| Conduct Plan Review Staff Trainings | No | Yes | Municipal public works employees Contractors Developers Not completed due to budgetary restrictions. | Ongoing This BMP will be modified. A training event for multiple municipalities will be coordinated. |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|---|-------------------------|--|---|--|
| Conduct Field Inspection Staff Trainings | No | Yes | Municipal public works employees Contractors Developers Not completed due to budgetary restrictions. | Ongoing This BMP will be modified. A training for multiple municipalities will be coordinated. |
| Conduct Construction Operators Training/Workshops | No | Yes | Municipal public works employees Contractors Developers Not completed due to budgetary restrictions | Ongoing This BMP will be modified. A training for multiple municipalities will be coordinated. |
| Develop construction educational information on the municipal website | No | Yes | General community members Municipal employees Contractors Developers The municipality webpage was not available consistently. | Ongoing The municipality will evaluate an alternative method of completing this BMP. |
| Develop construction stormwater pollution reporting events interactive section on the municipal website | No | Yes | General community members Municipal employees Contractors Developers | Ongoing The municipality will evaluate an alternative method of completing this BMP. |
| Start the Public Project Inspections including Control of Erosion and Prevention of Sedimentation (CES) plan review | Yes | Yes | General community members Municipal employees Contractors Developers | Done N/A |
| Start the Private Project Inspections including CES plan inspection | Yes | Yes | General community members Municipal employees Contractors Developers | Done N/A |
| Develop a Zoning Plan for Stormwater Quality | No | Yes | General community members Municipal employees Contractors Developers Business owners The Zoning Plan was scheduled for development by November 2016. Due to budgetary constraints, the date has been postponed to August 2017. | Ongoing The PR Planning Board Land Use Draft Plan was developed December 2014. Public hearings were conducted February 2015. The plan will be based on the final version of the PR Land Use Plan. |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|---|-------------------------|--|---|---|
| Develop Post-Construction Stormwater Pollution Prevention Ordinance | Yes | Yes | General community members Municipal employees Contractors Developers | Ongoing The ordinance will be updated on an as needed basis and should be revised every permit term. |
| Develop Post-Construction Stormwater Educational Materials and compile Agencies' Educational Material to distribute to operators 1. Develop Fact Sheet/ Brochure and poster 2. Develop Notification Sheet about the Ordinance | Yes—Partially | Yes | General community members Municipal employees Contractors Developers This measure was not completed due to project implementation budgetary limitations. Ordinances No. 08 and No. 14 Fact Sheets were developed by the Municipal MS4 Coordinator. | Ongoing A D-Board with the information will be posted in the Public Works, Recycling and Federal Program office. |
| Develop BMPs Operations and Maintenance (O&M) Plan (O&MP) Review SOP | Yes | Yes | General community members Municipal employees Contractors Developers | Ongoing The SOP should be revised every year and updated on an as needed basis. |
| Develop Post-Construction Measures O&M Inspection SOP | Yes | Yes | General community members Municipal employees Contractors Developers | Ongoing The SOP should be revised every year and updated on an as needed basis. |
| Develop new requirements to be included in BID and contract documents for construction projects specifying the requirement of a Post-Construction O&MP | No | Yes | Municipal public works employees Contractors Developers A meeting with the Municipality legal advisor will be coordinated to discuss if the proposed language is appropriate | Ongoing The BMP, but completion date has been modified |
| Develop Post-Construction ERP in accordance with Ordinance | No | Yes | Municipal public works employees Contractors Developers Not completed due to budgetary restrictions. | N/A The ERP will be developed during the next permit term. |
| Publish articles about the ordinance 1. One article prior to ordinance final approval 2. One article after ordinance final approval | Yes—Partially | Yes | General community members Municipal employees Contractors Developers | Ongoing The BMP will be modified for the MS4 to publish one article per year next permit cycle. |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|---|-------------------------|--|---|---|
| Conduct O&MP Review Staff and Operators Trainings | N/A | Yes | Municipal Employees Contractors Developers The implementation for this milestone starts in 2016, and the due date is 2018. | Ongoing N/A |
| Conduct O&MP Inspection Staff and Operators Trainings | N/A | Yes | Municipal employees Contractors Developers The implementation for this milestone starts in 2016, and the due date is 2018. | Ongoing N/A |
| Publish Post-Construction Information on Website | No | Yes | General community members The municipality webpage was not available consistently. | Ongoing The municipality will evaluate an alternative method of completing this BMP. |
| Conduct Post-Construction BMP Plan Review | N/A | Yes | Municipal employees Contractors Developers The implementation for this milestone starts in 2016, and the due date is 2018. | Ongoing N/A |
| Conduct "as built" inspections performed prior occupancy | N/A | Yes | Municipal employees Contractors Developers The implementation for this milestone starts in 2016, and the due date is 2018 | Ongoing N/A |
| Develop an inventory of municipal facilities | Yes | Yes | General community members Municipal employees | Ongoing The list should be updated in an annual basis. |
| Incorporate the municipal facilities in the MS4 GIS storm water sewer system maps | Yes | Yes | General community members Municipal employees | Ongoing The MS4 GIS maps should be updated on an annual basis. |
| Identify industrial facilities owned by the municipality | Yes | Yes | General community members Municipal employees | Ongoing This list wall be updated on an annual basis. |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|--|-------------------------|--|---|--|
| Verify NPDES compliance of Industrial Facilities | No | Yes | Municipal employees Industrial sector staff This task was not completed due to lack of budget and resources. | Ongoing The BMP will be modified to assign a new completion date. |
| Conduct Initial Facilities Inspection | Yes | Yes | Municipal employees | Done N/A |
| Conduct High Pollution Potential Facilities Inspection | Yes | Yes | Municipal employees | Ongoing N/A The facilities should be inspected on an annual basis. |
| Develop Public Works Staff Training Material | Yes | Yes | Municipal employees | Ongoing The presentation material should be updated on an annual basis. |
| Develop Public Works Activities SOPs | Yes | Yes | Municipal employees from the Public Works Department | Done N/A |
| Conduct Public Works Staff Training | Yes | Yes | Municipal employees with emphasis in Public Works, Emergency Management, Stormwater, and Recycling Departments | Ongoing The training should be conducted on an annual basis. |
| Develop Recycling Staff Training Material | Yes | Yes | General Community Members Business Owners School Age Kids and Teachers Municipal Staff | Done N/A |
| Develop Recycling Activities SOPs | No | Yes | Municipal employees from the Recycling Department This task has not been completed due to limitations in program budget. | Ongoing This BMP is postponed until February 2017. |
| Conduct Recycling Staff Training | Yes | Yes | Municipal employees | Ongoing The presentation material should be updated on an annual basis. |
| Develop Sanitation Staff Training Material | Yes | Yes | General community members Municipal employees Business owners Students | Done N/A |

| BMP Description or BMP ID (e.g.MCM-1) | Goal Achieved? (Yes/No) | Continued in next permit cycle? (Yes/No) | Who was the targeted audience? Explain reason for not achieving goal. | Modification(s) to goals or BMP for next permit cycle |
|--|-------------------------|--|--|--|
| Develop Sanitation Activities SOPs | No | Yes | Municipal employees of the Sanitation Department This task was not completed due to budget limitations. | Ongoing This BMP is postponed until February 2017. |
| Conduct Sanitation Staff Training | Yes | Yes | Municipal employees of the Sanitation Department | Ongoing Annual training will be conducted. |
| Develop Municipal Facilities Specific Educational Material | Yes | Yes | Municipal employees | Done N/A |
| SW Educational Material in Municipal Facilities | Yes | Yes | Municipal employees | Ongoing Inspect every year and determine if the educational material needs to be replaced. |
| Develop Storm Water System Cleaning Program | Yes | Yes | Municipal employees of the Public Works Department | Ongoing The developed SOPs should be reviewed and updated every permit cycle. |
| Develop Storm Water BMPs implementation reports | Yes | Yes | General community members This BMP is being addressed through the Annual Report Development | Ongoing N/A |
| Develop Street Cleaning Program | Yes | Yes | Municipal employees of the Public Works Department | Ongoing The developed SOPs should be reviewed and updated every permit cycle. |
| Develop Street Cleaning Program Reports | Yes | Yes | Municipal employees Urban Area Residents | Ongoing N/A |
| Develop a Municipal Recycling Plan | Yes— Partially | Yes | General community members The Plan will be updated and submitted on October 2016. | Ongoing The Plan should be updated every 18 months. |
| Begin Implementation of the Municipal Recycling Plan | Yes | Yes | General community members | Ongoing The Plan should be updated every 18 months. |
| Develop a spill response plan for Municipal Facilities | Yes | Yes | Municipal employees of the Public Works Department | Ongoing A preliminary plan was developed. The plan will need to be updated when until improvements are implemented in the facility. |
| Develop Facilities Pollution Prevention Plans (FPPPs) | Yes | Yes | Municipal employees | Ongoing The existing FPPPs will be updated as needed and new FPPPs will be developed for other Municipal Facilities. |

Part I. 2016 Stormwater Management Program (SWMP) Summary

Public Education and Outreach (See Part 2.4.2 for detailed information of required BMPs):

| BMP Description or BMP ID (e.g. MCM-1) | Education Topic (Identify the issue your BMP is educating the public about.) | Outreach Method (Describe the method used to convey this topic, e.g. mailing, events, school) | Measurable Goal (What is the end result of this program? What indicator will determine the goal was met? (e.g., number mailing sent, people at event, class participation)) |
|---|--|---|--|
| Finalize the MS4 EEP Plan | <p>The EEP Plan will be based on the main POCs:</p> <ul style="list-style-type: none"> • Fecal coliform • Oil & grease • Arsenic • Turbidity • Cyanide • Trash Free Waters Initiative will be integrated | The existing educational material will be updated and included in the EEP. The municipal employees in the Recycling Department and the Stormwater Coordinators will be responsible for using the schedule and material provided to conduct general community, business owners, and municipal staff presentations and educational activities | <ul style="list-style-type: none"> • Updated EEP Plan • Updated Educational Material • Newspaper article published 2 times per year • A monthly report, including the number of educational activities conducted, the number of people reached, the POC Potential Sources reached, the educational material used, and the attendance list and pictures of the event. • Number of Public and Private Schools with Environmental Science Educational Walls • Number of municipal employee trainings conducted on storm water pollution prevention BMPs • Number of Stormwater Pollution Prevention Ordinances Fact Sheets Posted in Municipal Facilities • Number of Post-construction Stormwater pollution prevention posters in Municipal Facilities |
| Sign MOU with other MS4s, Agencies or NGOs | Signing MOUs with other entities to collaborate with the implementation of the MS4 EEP | Signed MOUs with the purpose of addressing the MS4 main POCs | Number of signed MOUs |
| Develop Municipal Facilities Activities SOPs | The SOPs will be developed based on MS4's Main POCs and how to minimize their generation while performing municipal activities | SOPs | Development of 3 high pollution potential activities SOPs per year |

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

Public Involvement and Participation (See Part 2.4.3 for detailed information of required BMPs):

| BMP Description or BMP ID (e.g. MCM-1) | Program Description (Describe the program and how it will inspire public participation, e.g. special events, volunteer sampling and monitoring efforts, household hazardous waste recycling) | Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., participation, amount of sampling performed, waste collected) |
|--|--|--|
| Develop and implement a storm drain stenciling and marking program | Storm drains are located throughout the MS4 in neighborhoods, wards, urban centers, and municipal roads. When it rains, a significant amount of the stormwater goes directly to a river, creek or the beach through the storm drains without receiving any treatment, and NOT to a treatment plant. The storm drains stenciling program will help to develop awareness that “whatever is dumped into the drain ends in our waterways” and that is illegal to dump anything that is not storm water through the storm drain | <ul style="list-style-type: none"> • Number of storm drains identified • Number of community groups formed to implement the storm drain marking program |
| Inform and solicit public input through the Municipality’s Annual Achievement Report | The general public will be informed on the SWMP implementation status and will be invited to provide comments and encouraged to participate in BMPs implementation through the Municipality Mayor’s Annual Message Presentation meetings | Report MS4 SWMP, Annual Report, and Main Activities Status in the Mayor Annual Achievement Report (October) or the Municipal Budget Status Report (May) |
| Coordination of stream and beach cleanups | Every year the Scuba Dogs coordinate a Beach Cleanup Activity. The data gathered from that activity is used by the Ocean Conservancy to develop the characterization of the trash most commonly found in our beaches and rivers. In addition every year before the beginning of the hurricane season, the municipality, Department of Transportation and Public Works (DTOP), and Department of Natural and Environmental Resources (DNER) clean the mouth of the rivers and the areas of the MS4s outfalls | <ul style="list-style-type: none"> • Number of sites impacted through the streams cleanup activities • Pounds or Volume of trash removed from waterbodies during the cleaning activities • Number of people participating in the activities |
| Develop and implement a reforestation program | A reforestation program will be developed and implemented with the collaboration of DNER and Environmental Community Groups. The program selects specific areas, coordinates with DNER to donate trees to the community, and organizes environmental groups to plant them. Educational information on stormwater pollution prevention will be distributed | <ul style="list-style-type: none"> • Number of reforestation activities conducted • Number of trees planted • Number of people participating in planting trees |

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)**Illicit Discharge Detection and Elimination** (See Part 2.4.4 for detailed information of required BMPs):

| BMP Description or BMP ID (e.g. MCM-1) | Program Description (Describe the program and how it will identify and remove illicit connections from the MS4, e.g. new regulations, investigation practices, removal of illicit connections) | Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of investigation performed, identified and removed illicit connections) |
|--|---|--|
| Update the IDDE Plan and continue with its implementation | The Municipality should update and continue with the implementation of their IDDE Plan. This is a program to detect and eliminate illicit discharges; develops, keep the storm sewer system maps updated, effectively prohibit, through ordinance non-storm water discharges into the MS4, and implement appropriate enforcement procedures and actions; inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and address the categories of non-storm water discharges or flows if the permittee identifies them as significant contributors of pollutants to the small MS4. | <ul style="list-style-type: none"> • Number of MS4 main outfalls identified and monitored • Illicit Discharge Investigation SOP updated • Illicit Discharge Reporting and Elimination Procedure SOPs Updated • Sections completed and updated of the storm water sewer system maps • Completion of 100 % of MS4 storm water sewer system map • Development of an interactive tool or other mechanism to report Illicit Discharges • Completion of dry weather inspections within priority areas of the MS4 • Number of illicit connections identified • Percentage (%) of detected or reported illicit discharges eliminated • Number of municipal staff trained on hazards associated with illegal discharges and improper waste disposal and increasing this number by 20% each year • Number of business owners trained on hazards associated with illegal discharges and improper waste disposal and increasing this number by 20% each year • Number of contractor and developers trained on hazards associated with illegal discharges and improper waste disposal and increasing this number by 20% each year. • Number of Dry Weather Inspections Conducted |

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)Construction Site Stormwater Runoff Control (See Part 2.4.5 for detailed information of required BMPs):

| BMP Description or BMP ID (e.g. MCM-1) | Program Description (Describe the program and how it will help control stormwater runoff at construction sites, e.g. new regulations, construction practices, inspection protocols) | Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of inspections performed and sites actively regulated) |
|--|--|---|
| Implement the Construction Stormwater Pollution Prevention Ordinance | <p>The municipality developed an ordinance to control stormwater pollution from construction sites. It requires erosion and sediment controls on projects which disturbs more than 900 m² or move a volume of soil greater than or equal to 40 m³ or when construction activities are part of a bigger project or are carried out near a water body. In addition, the ordinance requires that other wastes from construction projects are controlled. This ordinance should be updated on an as needed basis and revised every permit term.</p> <p>The municipality requires that operators of construction projects submit a copy of the CES plan, which is required by the Office of Permits Management (OGPe) Construction General Permit and a copy of the NPDES Construction NOI and stormwater pollution prevention plan (SWPPP). The municipality can review it for adequacy to comply with the new ordinance. The Municipality will review and approve the CES plan and the SWPPP as applicable. If it is not adequate, a revised CES plan or SWPPP or both will be required. The municipality will inspect projects based on their potential for storm water impacts. An inventory of construction sites will be developed by the municipality and the sites will be prioritized based on risk to water resources, compliance history of the operator, and other factors. The frequency of inspections will be based on this priority ranking, however, at a minimum, each qualifying project will be inspected once after the initial grading has begun to ensure BMPs are in place, once within 48 hours of a rain event to assess adequate BMP maintenance and repair, and once when the project is completed to ensure that all areas are stabilized and BMPs have been removed. High priority projects might be inspected more frequently.</p> | <ul style="list-style-type: none"> • Updated Ordinance • Updated Construction Project Inspection and Violations Notification SOP • Updated Erosion and Sediment Control Plan Review SOP • Number of Municipal Staff trained on Plan Review • Number of Municipal Staff trained on Field Inspections • Number of Construction Operators Training/Workshops conducted and people trained S • Number of Public Projects Inspections including CES plan review conducted • Number of Private Projects Inspections including CES plan inspection |

| BMP Description or BMP ID (e.g. MCM-1) | Program Description (Describe the program and how it will help control stormwater runoff at construction sites, e.g. new regulations, construction practices, inspection protocols) | Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of inspections performed and sites actively regulated) |
|---|---|--|
| Develop Construction SW Pollution Prevention Educational Material, and compiling of Agencies' Educational Material to be distributed to Operators | The municipality will inform the general public of ways to report violations of regulations of erosion and sediment control and of other wastes/pollutants related to construction projects through storm water related events as well. The municipality will post educational information in the Municipal Facilities and in the City Hall Lobby, about illicit discharges based on the principal POCs | <ul style="list-style-type: none"> • Development of Construction Storm Water Pollution Prevention Educational Material • Number of educational events where educational material is distributed • Number of people receiving educational material on stormwater pollution prevention practices during construction activities |
| Develop new specifications and requirements to be included in BID and contract documents | The municipality will revise and incorporate to the current BID procedures (the process through which a fair opportunity is provided to suppliers to provide a technical and economical proposal to perform a specified work or services), documents, and contract templates, the specifications and requirements for municipal construction projects in order to comply with the SWMP. Projects funded with municipal or public funds will also have to comply with all Municipality stormwater regulations. | <ul style="list-style-type: none"> • Development of new specifications and requirements to be included in BID and contract documents for construction projects • Number of signed contracts in which construction ordinance languages is included |
| Develop ERP in accordance with the ordinance | The Municipality will develop an ERP specific to the enforcement of storm water requirements on construction projects. The ERP will include a description of the available enforcement actions as well as the timeframes for escalation. | <ul style="list-style-type: none"> • Development of the Enforcement Response Plan (ERP) specific to enforcement of storm water requirements on construction projects including available enforcement actions and timeframe for escalations |
| Development of a Zoning Plan for Stormwater Quality | The Municipality will develop a Zoning Plan for land use planning. Zoning can help mitigate stormwater runoff problems by facilitating better site designs. By applying the right zoning technique, development can be targeted at specific areas, limiting development in and providing protection for the most important land conservation areas. The Municipality will determine the adequate Zoning or Land Use Planning technique based on the primary goal of water quality. The PR Planning Board Land Use Draft Plan was developed in Dec 2014 and public hearings were on February 2015. The Zoning Plan will be based on the final version. | <ul style="list-style-type: none"> • Development of a Zoning Plan based on the primary goal of water quality |

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

Post-Construction Stormwater Management in New Development and Redevelopment (See Part 2.4.6 for detailed information of required BMPs):

| BMP Description or BMP ID (e.g. MCM-1) | Program Description (Describe the program and how it will control stormwater runoff from properties after they are developed, e.g. new regulations, practices, or resources for contractors to use Low Impact Development (LID)) | Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of implemented practices, development of capacity building resources) |
|--|--|--|
| Update and Implement the Post-Construction Stormwater Pollution Prevention Ordinance | <p>The municipality developed:</p> <p>A Post-Construction ordinance that includes appropriate project thresholds, post-construction structural and non-structural performance standards, and BMP maintenance requirements.</p> <p>Post-Construction BMPs O&MP Revision SOP to describe the plan review procedures for the required Post-construction BMP Plan. This SOP will include references to preferred BMPs and checklists for the plan reviewers to follow.</p> <p>Storm Water Control Post-Construction Measurements O&MP Inspection SOP to describe inspection and project compliance tracking procedures and include an inspection form for inspectors (i.e. either municipal inspectors or agents of the owners) to use that will encourage thorough and consistent inspections. Plan review and inspection staff will be trained in the ordinance requirements and appropriate SOPs through annual trainings to ensure staff is kept current on BMPs and procedures.</p> | <ul style="list-style-type: none"> • Development of the Storm Water BMPs O&MP review SOP • Development of the Post-Construction Measures O&MP Inspection SOP • 100% of Post Construction Implementation Staff trained on O&M plans review procedures • 100% of Post Construction Implementation Staff trained on post-construction inspections • 100% of post-construction O&M plans reviewed for adequacy • 100% of "as built" post-construction BMP inspections conducted • 100% of development projects with "as built" inspections performed prior to occupancy |
| Develop Post-Construction Stormwater educational material and compile existing educational material to be distributed to operators | <p>Target educational activities addressing the POCs and potential pollution sources to be coordinated and implemented every year. The municipality will conduct at least one educational activity per quarter addressing different target group. The 4th quarter the educational activity will focus on the Construction Industry.</p> | <ul style="list-style-type: none"> • Number of articles about the ordinance • Development of Post-Construction educational Material • Post-Construction educational information posted on municipal facilities |
| Modify BID documents and contract's language to include Post Construction Ordinance Requirements | <p>Develop new requirements to be included in BID and contract documents for construction projects specifying the requirement of a Post-Construction O&MP</p> | <ul style="list-style-type: none"> • Development of requirements to be included in BID and contract documents for construction projects specifying the requirement of a Post-construction O&MP |

| BMP Description or BMP ID (e.g. MCM-1) | Program Description (Describe the program and how it will control stormwater runoff from properties after they are developed, e.g. new regulations, practices, or resources for contractors to use Low Impact Development (LID)) | Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., adoption of bylaws/ordinances, amount of implemented practices, development of capacity building resources) |
|--|--|---|
| Develop Post-Construction ERP in accordance with ordinance | The municipality will develop an ERP specific to the enforcement of post-construction stormwater requirements on private property that includes a description of the available enforcement actions and timeframes for enforcement escalation that apply to each. | <ul style="list-style-type: none">Storm Water Post-Construction ERP Development |

Part I. 2016 Stormwater Management Program (SWMP) Summary (continued)

Good Housekeeping and Pollution Prevention in Municipal Operations (See Part 2.4.7 for detailed information of required BMPs):

| BMP Description or BMP ID (e.g. MCM-1) | Program Description (Describe the program and how it will mitigate stormwater runoff at municipal properties or through municipal activities, e.g. installation of structural stormwater controls on the municipal properties, new practices to reduce pollutant exposure to rain events, runoff management, trainings) | Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., structural BMPs installed, SOPs developed and implemented) |
|--|--|---|
| Update the Inventory of Municipal Facilities including Industrial Facilities owned by the Municipality | At least once per permit term, the municipality will review the list and prioritization of facilities and update to ensure that all facilities are properly prioritized. The MS4 Geographic Information System (GIS) stormwater sewer system maps will be updated with the information from the inventory of municipal facilities locations. | <ul style="list-style-type: none"> • Development of a municipal facilities prioritized inventory • Incorporation of the municipal facilities in the MS4 GIS storm water sewer system maps |
| Conduct High Pollution Potential Facilities Annual Inspection | <p>The municipality conducted the Municipal Facilities Initial Inspection to prioritize and select high priority facilities based on the storm water pollution potential. A Facilities Pollution Prevention Plan was developed for those facilities.</p> <p>The municipal staff in charge of the facilities inspections will conduct annual inspections of all high priority facilities to ensure that the BMPs outlined by facility are implemented appropriately.</p> | <ul style="list-style-type: none"> • Verification of NPDES compliance of Industrial Facilities Owned by the Municipality • Completion of 100% of Initial Facilities Inspections • Inspections conducted at 100 % of high priority municipal facilities 2 times per year |
| Update Public Works, Sanitation, and Recycling Staff Training Material and conduct the Employees Annual Training | <p>Educational activities addressing the POCs and potential pollution sources will be coordinated and implemented annually, including the participation of community groups.</p> <p>The municipality will update and distribute educational materials to municipal staff regarding facilities management, environmental compliance regulation requirements, and activity-specific SOPs to reduce the discharge of pollutants from the municipal facilities.</p> <p>A spill prevention and response training will be provided to all field staff and the Public Works field staff will be trained, as necessary, to ensure the proper implementation of these BMPs.</p> | <ul style="list-style-type: none"> • Development of Public Works Staff Training Material • 100% of Public Works staff trained • Development of Recycling Department Staff Training Material • 100% of Recycling Department staff trained • Development of Sanitation Department staff training material • 100% of Sanitation Department staff trained |

| BMP Description or BMP ID (e.g. MCM-1) | Program Description (Describe the program and how it will mitigate stormwater runoff at municipal properties or through municipal activities, e.g. installation of structural stormwater controls on the municipal properties, new practices to reduce pollutant exposure to rain events, runoff management, trainings) | Measurable Goal (What is the end result of this program? What indicator will determine the goal has been met? (e.g., structural BMPs installed, SOPs developed and implemented) |
|---|--|---|
| Develop Public Works, Sanitation Facility and Recycling Departments Activities SOPs | <p>Municipal activities with major pollution potential will be selected, and the municipality will develop an SOP focused on stormwater pollution prevention for each activity. The municipality currently is receiving used oil to recycle and is developing a Municipal Recycling Program. On October 2012 the Municipality submitted to the Solid Waste Authority the Municipal Recycling Plan for used oil, used vegetable oil, vegetative material, and other recyclables as plastic, metals, and cardboard. This plan must be implemented and revised every 18 months.</p> | <ul style="list-style-type: none"> • Development of Public Works Activities SOPs to prevent storm water pollution. • Development of Recycling Department Activities SOPs to prevent storm water pollution. • Development of Sanitation Department Activities SOPs to prevent storm water pollution • Development and implementation of a MS4 O&M Program • Quarterly reporting of inlets, catch basins, and storm drain pipes cleaning • Pounds or kilograms of sediment and debris removed and properly disposed • Monthly Report of Street Cleaning Tasks, including the amount of trash disposed and a street cleaning monthly schedule • Development and submittal to the Solid Waste Authority (SWA) an update of the Municipal Recycling Program every 18 months • Implementation of the Municipal Recycling Program in a timely manner • Gallons or liters of vegetable oil recycled |

Part J. Application Certification and Signature


I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage 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.

Signature of Mayor/Elected Official: _____

Print Name of Mayor/Elected Official: _____

Title: _____

Date: _____


Adriana Yareliz Jazany
Adriana Yareliz Jazany
7-10-16

Attachment A (MS4 Maps)

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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Index Map



Municipality of Añasco
0 4080 160 240 320 Meters



Legend:

- Grid
- Pueblo Ward
- Las Marias - Urban Area
- Añasco - Urban Area
- Rivers & Streams
 - Intermittent
 - Perennial

MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -A1



Municipality of Añasco

0 5 10 20 30 40 Meters



Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- MH-Stormwater
- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- Spot Elevation
- Trench Drain
- Trench-closed
- MS4 Flow
- Water Flow
- Grid

- Pueblo Ward
- Las Marías - Urban Area
- Añasco - Urban Area

"Los Árboles" footprint

- "Los Árboles" - approximate location
- Retention pond - approximate location
- Street layout - approximate location

Rivers & Streams

- Intermittent
- Perennial



TETRA TECH

Quebrada Larga

A1

A2

Las Marías

Marías

B1

B2

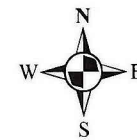
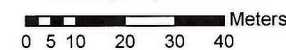
This MS4 infrastructure map do not represent an as-built. | SW-Manholes 797 & 798 (Map A3) placed at approximate location. | Outfalls 776, 777, & 778 (Map D3), 779 (Map E3), 781 (Map H4), 783, 784 & 785 (Map G3) placed at approximate location.

MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -A2



Municipality of Añasco



Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- MH-Stormwater
- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- Spot Elevation
- Trench Drain
- Trench-closed
- MS4 Flow
- Water Flow
- Grid
- Pueblo Ward
- Las Marías - Urban Area
- Añasco - Urban Area
- "Los Árboles" footprint
- "Los Árboles" - approximate location
- Retention pond - approximate location
- Street layout - approximate location
- Rivers & Streams
- Intermittent
- Perennial



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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -A3



Municipality of Añasco

0 5 10 20 30 40 Meters

Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- MH-Stormwater
- MH-Wastewater
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- Trench-closed
- MS4 Flow
- Water Flow
- Grid

- Pueblo Ward
- Las Marías - Urban Area
- Añasco - Urban Area

"Los Árboles" footprint

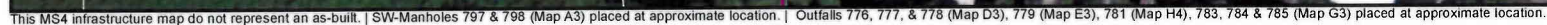
- "Los Árboles" - approximate location
- Retention pond - approximate location
- Street layout - approximate location

Rivers & Streams

- Intermittent
- Perennial



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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -B2



Municipality of Añasco

0 5 10 20 30 40 Meters



Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- MH-Stormwater
- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- Spot Elevation
- Trench Drain
- Trench-closed
- MS4 Flow
- Water Flow
- Grid

- Pueblo Ward
- Las Marias - Urban Area
- Añasco - Urban Area

"Los Árboles" footprint

- "Los Árboles" - approximate location
- Retention pond - approximate location
- Street layout - approximate location

Rivers & Streams

- Intermittent
- Perennial



TETRA TECH



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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -B3



Municipality of Añasco

0 5 10 20 30 40 Meters

Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
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"Los Árboles" footprint

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- Street layout - approximate location

Rivers & Streams

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- Perennial



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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -C2



Municipality of Añasco

0 5 10 20 30 40 Meters



Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
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- Añasco - Urban Area

"Los Árboles" footprint

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- Retention pond - approximate location
- Street layout - approximate location

Rivers & Streams

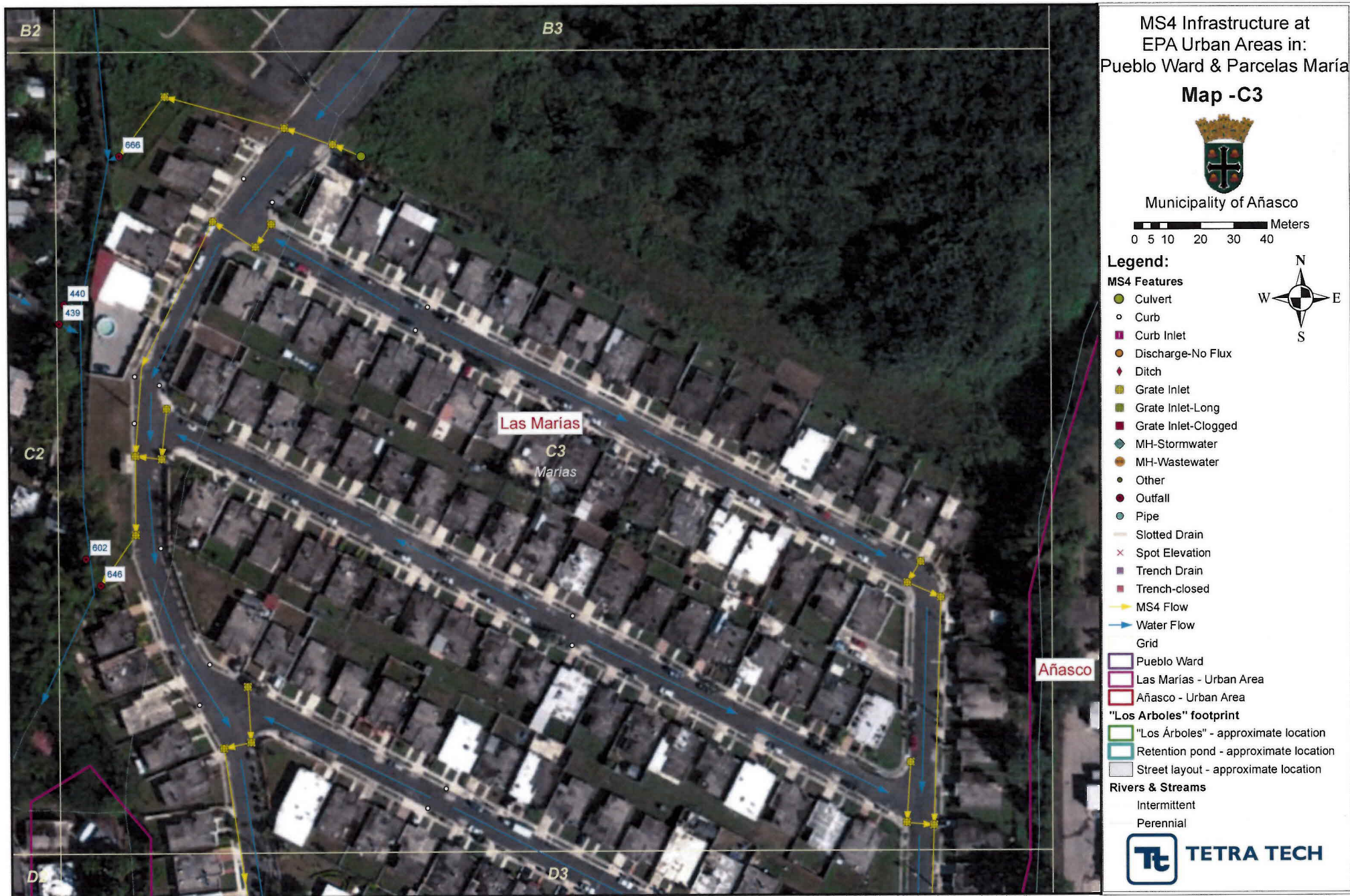
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TETRA TECH



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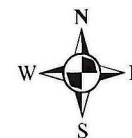
MS4 Infrastructure at EPA Urban Areas in: Pueblo Ward & Parcelas María

Map -D3



Municipality of Añasco

0 5 10 20 30 40 Meters



Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- ◆ Ditch
- Grate Inlet
- Grate Inlet-Long
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- Water Flow
- Grid

- Pueblo Ward
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- Añasco - Urban Area

"Los Árboles" footprint

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- Street layout - approximate location

Rivers & Streams

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- Perennial



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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -E2



Municipality of Añasco

0 5 10 20 30 40 Meters



Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
- Grate Inlet-Long
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Rivers & Streams

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- Perennial



TETRA TECH



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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -E3



Municipality of Añasco

0 5 10 20 30 40 Meters

Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- ◆ Ditch
- Grate Inlet
- Grate Inlet-Long
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Rivers & Streams

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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -F3



Municipality of Añasco

0 5 10 20 30 40 Meters

Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- ◆ Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
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- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- × Spot Elevation
- Trench Drain
- Trench-closed

MS4 Flow

Water Flow

Grid

Pueblo Ward

Las Marías - Urban Area

Añasco - Urban Area

"Los Árboles" footprint

"Los Árboles" - approximate location

Retention pond - approximate location

Street layout - approximate location

Rivers & Streams

Intermittent

Perennial



This MS4 infrastructure map do not represent an as-built. | SW-Manholes 797 & 798 (Map A3) placed at approximate location. | Outfalls 776, 777, & 778 (Map D3), 779 (Map E3), 781 (Map H4), 783, 784 & 785 (Map G3) placed at approximate location.



TETRA TECH

MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -F4



Municipality of Añasco

0 5 10 20 30 40 Meters

Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- ◆ Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- MH-Stormwater
- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- × Spot Elevation
- Trench Drain
- Trench-closed
- MS4 Flow
- Water Flow
- Grid

- Pueblo Ward
- Las Marias - Urban Area
- Añasco - Urban Area

"Los Árboles" footprint

- "Los Árboles" - approximate location
- Retention pond - approximate location
- Street layout - approximate location

Rivers & Streams

- Intermittent
- Perennial



TETRA TECH



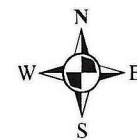
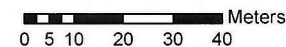
This MS4 infrastructure map do not represent an as-built. | SW-Manholes 797 & 798 (Map A3) placed at approximate location. | Outfalls 776, 777, & 778 (Map D3), 779 (Map E3), 781 (Map H4), 783, 784 & 785 (Map G3) placed at approximate location.

MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -G3



Municipality of Añasco



Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- MH-Stormwater
- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- Spot Elevation
- Trench Drain
- Trench-closed
- MS4 Flow
- Water Flow
- Grid

- Pueblo Ward
- Las Marias - Urban Area
- Añasco - Urban Area

"Los Árboles" footprint

- "Los Árboles" - approximate location
- Retention pond - approximate location
- Street layout - approximate location

Rivers & Streams

- Intermittent
- Perennial



TETRA TECH



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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -G4



Municipality of Añasco

0 5 10 20 30 40 Meters

Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- MH-Stormwater
- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- Spot Elevation
- Trench Drain
- Trench-closed

MS4 Flow

Water Flow

Grid

Pueblo Ward

Las Marías - Urban Area

Añasco - Urban Area

"Los Árboles" footprint

"Los Árboles" - approximate location

Retention pond - approximate location

Street layout - approximate location

Rivers & Streams

Intermittent

Perennial



TETRA TECH



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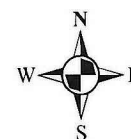
MS4 Infrastructure at EPA Urban Areas in: Pueblo Ward & Parcelas María

Map -H3



Municipality of Añasco

0 5 10 20 30 40 Meters



Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- ◆ Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- ◆ MH-Stormwater
- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- × Spot Elevation
- Trench Drain
- Trench-closed
- MS4 Flow
- Water Flow

- Grid
- Pueblo Ward
- Las Marías - Urban Area
- Añasco - Urban Area
- "Los Árboles" footprint
- "Los Árboles" - approximate location
- Retention pond - approximate location
- Street layout - approximate location

Rivers & Streams

- Intermittent
- Perennial



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MS4 Infrastructure at
EPA Urban Areas in:
Pueblo Ward & Parcelas María

Map -H4



Municipality of Añasco

0 5 10 20 30 40 Meters

Legend:

MS4 Features

- Culvert
- Curb
- Curb Inlet
- Discharge-No Flux
- Ditch
- Grate Inlet
- Grate Inlet-Long
- Grate Inlet-Clogged
- MH-Stormwater
- MH-Wastewater
- Other
- Outfall
- Pipe
- Slotted Drain
- Spot Elevation
- Trench Drain
- Trench-closed

MS4 Flow

Water Flow

Grid

Pueblo Ward

Las Marías - Urban Area

Añasco - Urban Area

"Los Árboles" footprint

"Los Árboles" - approximate location

Retention pond - approximate location

Street layout - approximate location

Rivers & Streams

Intermittent

Perennial



TETRA TECH



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MS4 Infrastructure at Urban Area of "LA PLAYA"



Municipality of Añasco

Map -
February 2015

0 4590 180 270 360 Meters

Legend:

- ORI_Outfalls_Playa
- MS4 Components:**
 - Culvert
 - Culvert-Box
 - Curb
 - Curb Inlet
 - Ditch
 - Grate Inlet
 - Grate Inlet-Long
 - Grate-Totally clogged
 - Outfall
 - Pipe
 - Pipe-totally clogged
 - Point
 - Photos
 - MS4 flow
 - Flow-estimated
 - Ditch/channel
 - Municipal_Facilities
 - Notes/comments
 - GRID
- Wetlands**
 - E1UBL
 - E2EM1M
 - E2EM1N
 - E2EM1P
 - L1UBHx
 - M1AB3L
 - M1UB2L
 - M2US2P
 - PEM1/FO3C
 - PEM1C
 - PEM1F
 - PFO3C
 - PSS3C
 - PSS3F
 - PUBH
 - PUBHx
 - R2AB4H
- Rivers & Streams**
 - Interim
 - Permanent
- Urban Area-La Playa**
 - Estimated Development

Absolute Scale 1:10,798



Orthophoto: UPR-Graduate School of Planning, PR Planning Board, VITO Belgium, FugroEarth Data Inc. | This MS4 infrastructure map do not represent an as-built.

MS4 Infrastructure at
EPA Urban Areas:
Las Marias
- OUTFALLS -

September 2014



Municipality of Añasco

0 20 40 80 120 160 Meters



Legend:

Outfalls Las Marias



Flux in dry weather

No

1:4,000

Yes

Las Marias

Rivers & Streams

Intermittent

Perennial



MS4 Infrastructure at Urban Area of "LA PLAYA"



Municipality of Añasco

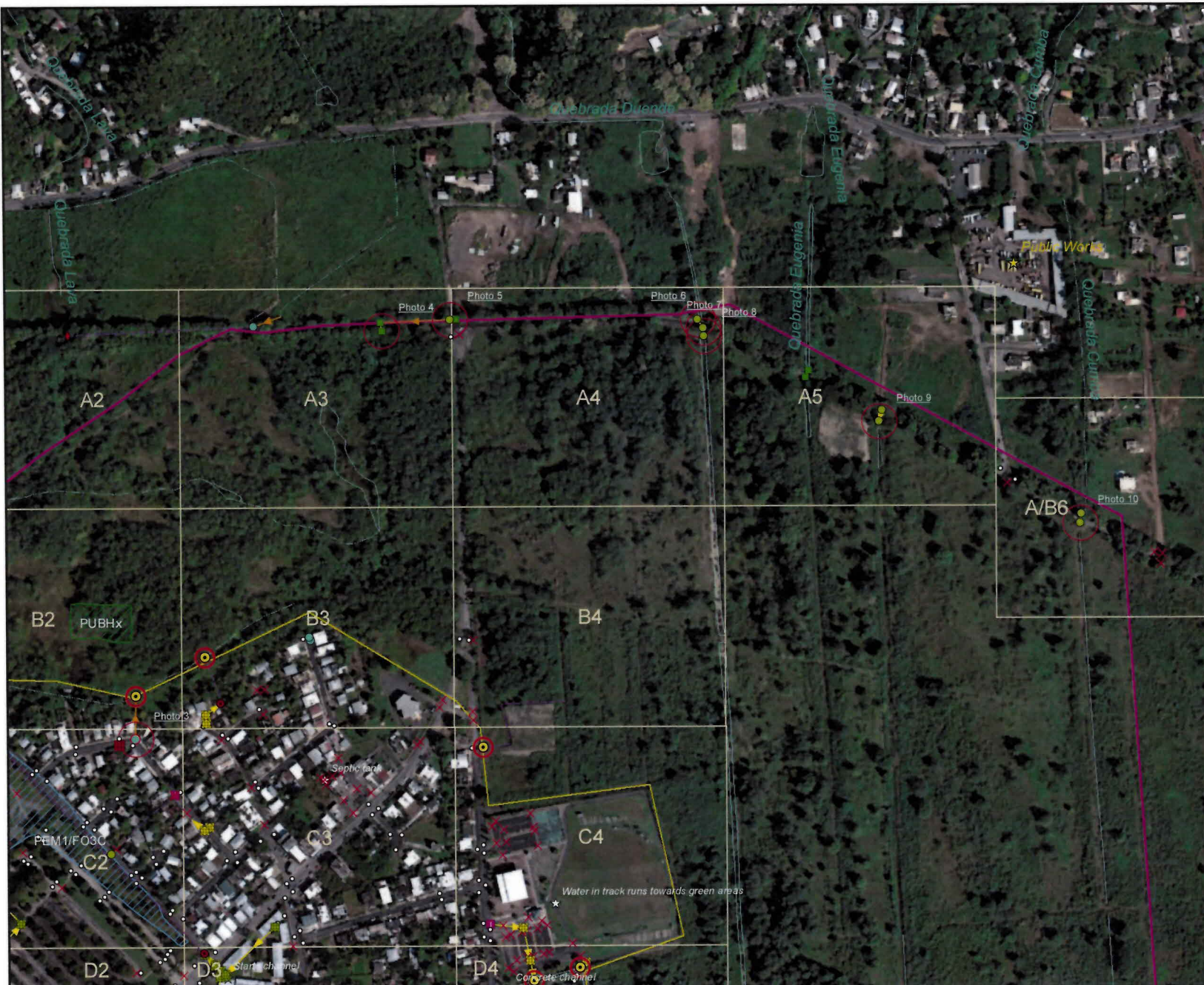
Map -
February 2015

0 1530 60 90 120 Meters

Legend:

- | | |
|--|---|
| <p> ORI_Outfalls_Playa</p> <p>MS4 Components:</p> <ul style="list-style-type: none"> Culvert Culvert-Box Curb Curb Inlet Ditch Grate Inlet Grate Inlet-Long Grate-Totally clogged Outfall Pipe Pipe-totally clogged Point Photos MS4 flow Flow-estimated Ditch/channel Municipal_Facilities Notes/comments GRID | <p>Wetlands</p> <p>Attribute:</p> <ul style="list-style-type: none"> E1UBL E2EM1M E2EM1N E2EM1P L1UBHx M1AB3L M1UB2L M2US2P PEM1/FO3C PEM1C PEM1F PFO3C PSS3C PSS3F PUBH PUBHx R2AB4H Urban Area-La P Estimated Devel <p>Rivers & Streams</p> <ul style="list-style-type: none"> Interim Perennial |
|--|---|

Absolute Scale 1:4,000



Orthophoto: UPR-Graduate School of Planning, PR Planning Board, VITO Belgium, FugroEarth Data Inc. | This MS4 infrastructure map do not represent an as-built.

MS4 Infrastructure at Urban Area of "LA PLAYA"



Municipality of Añasco

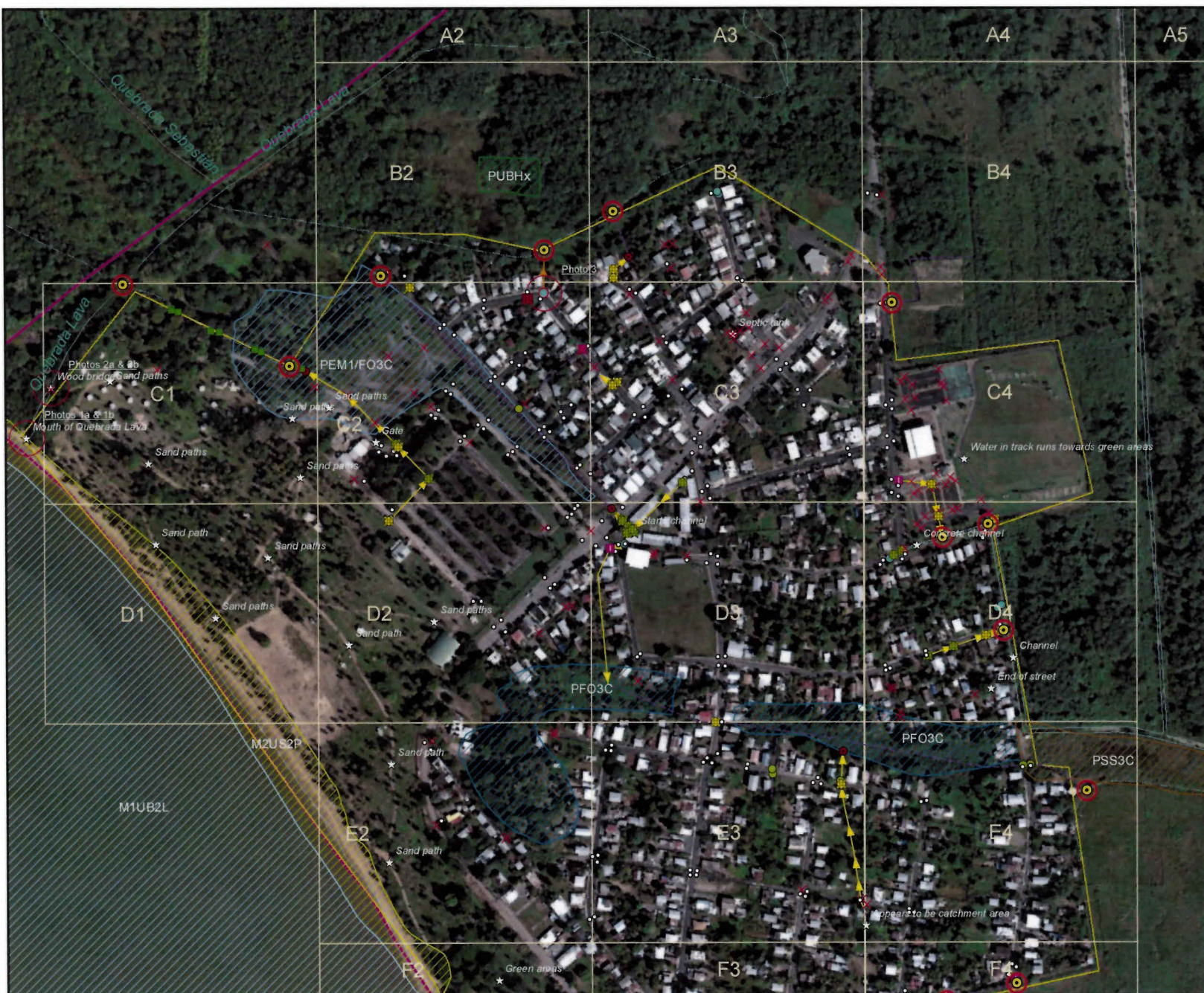
Map -
February 2015

0 1530 60 90 120 Meters

Legend:

- MS4 Components:**
- Culvert
 - Culvert-Box
 - Curb
 - ◆ Curb Inlet
 - ◆ Ditch
 - Grate Inlet
 - Grate Inlet-Long
 - Grate-Totally clogged
 - Outfall
 - Pipe
 - Pipe-totally clogged
 - × Point
 - Photos
 - MS4 flow
 - Flow-estimated
 - Ditch/channel
 - ★ Municipal_Facilities
 - ☆ Notes/comments
 - GRID
- Wetlands**
- Attribute:**
- E1UBL
 - E2EM1M
 - E2EM1N
 - E2EM1P
 - L1UBHx
 - M1AB3L
 - M1UB2L
 - M2US2P
 - PEM1/FO3C
 - PEM1C
 - PEM1F
 - PFO3C
 - PSS3C
 - PSS3F
 - PUBH
 - PUBHx
 - R2AB4H
 - Urban Area-La Playa
 - Estimated Development
- Rivers & Streams**
- Intermittent
 - Perennial

Absolute Scale 1:4,000



Orthophoto: UPR-Graduate School of Planning, PR Planning Board, VITO Belgium, FugroEarth Data Inc. | This MS4 infrastructure map do not represent an as-built.

MS4 Infrastructure at Urban Area of "LA PLAYA"



Municipality of Añasco

Map -
February 2015

0 1530 60 90 120 Meters

Legend:

- | | |
|--|--|
| <p> ORI_Outfalls_Playa</p> <p>MS4 Components:</p> <ul style="list-style-type: none"> Culvert Culvert-Box Curb Curb Inlet Ditch Grate Inlet Grate Inlet-Long Grate-Totally clogged Outfall Pipe Pipe-totally clogged Point Photos MS4 flow Flow-estimated Ditch/channel Municipal_Facilities Notes/comments GRID | <p>Wetlands</p> <p>Attribute:</p> <ul style="list-style-type: none"> E1UBL E2EM1M E2EM1N E2EM1P L1UBHx M1AB3L M1UB2L M2US2P PEM1/FO3C PEM1C PEM1F PFO3C PSS3C PSS3F PUBH PUBHx R2AB4H Urban Area-La Playa Estimated Development <p>Rivers & Streams</p> <ul style="list-style-type: none"> Intermittent Wetland |
|--|--|

Absolute Scale 1:4,000

