Attachment A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN - 5 2012

MEMORANDUM

SUBJECT: Integrated Municipal Stormwater and Wastewater Planning Approach Framework

FROM: Nancy Stoner
Acting Assistant Administrator
Office of Water

Cynthia Giles
Assistant Administrator
Office of Enforcement and Compliance Assurance

TO: EPA Regional Administrators
Regional Permit and Enforcement Division Directors

In recent years, EPA has increasingly embraced integrated planning approaches to municipal wastewater and stormwater management. EPA further committed to work with states and communities to implement and utilize these approaches in its October 27, 2011 memorandum *"Achieving Water Quality Through Municipal Stormwater and Wastewater Plans."* Integrated planning will assist municipalities on their critical paths to achieving the human health and water quality objectives of the Clean Water Act by identifying efficiencies in implementing requirements that arise from distinct wastewater and stormwater programs, including how to best prioritize capital investments. Integrated planning can also facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage stormwater as a resource, and support other economic benefits and quality of life attributes that enhance the vitality of communities.

To provide further guidance on developing and implementing effective integrated plans under this approach, we have developed, with extensive public input, the attached Integrated Municipal Stormwater and Wastewater Planning Approach Framework document. We are posting the framework document on our website and, as they become available, will provide practical examples of how municipalities are implementing this approach. We would like to thank Regions 2, 4, 5, 7 and 10 for their assistance in conducting public workshops to gain input on the draft framework. We encourage all Regions to work with their States to identify

appropriate opportunities for implementing the Integrated Planning approach. We will continue to work with the Regions as we explore the pathway forward on implementing this approach.

We encourage you to contact Deborah Nagle, Director, Water Permits Division (nagle.deborah@epa.gov) and Mark Pollins, Director, Water Enforcement Division (pollins.mark@epa.gov) with any questions you might have.

Attachment

cc: Regional Permit and Enforcement Liaisons
Association of Clean Water Administrators
United States Conference of Mayors
National League of Cities
American Rivers
National Association of Clean Water Agencies
National Association of Flood & Stormwater Management Agencies
Natural Resources Defense Council
Water Environment Federation
Environmental Council of States

INTEGRATED MUNICIPAL STORMWATER AND WASTEWATER PLANNING APPROACH FRAMEWORK

May, 2012

The purpose of this framework is to provide further guidance for EPA, States and local governments in developing and implementing effective integrated plans under the Clean Water Act (CWA). The framework identifies the operating principles and essential elements of an integrated plan. The integrated planning approach is voluntary. The responsibility to develop an integrated plan rests with the municipality that chooses to pursue this approach. If a municipality decides to take advantage of this approach, the integrated plan that it develops can provide information to inform the permit and enforcement processes and can support the development of conditions and requirements in permits and enforcement orders. The integrated plan should identify the municipality's relative priorities for projects and include a description of how the proposed priorities reflect the relative importance of adverse impacts on human health and water quality and the municipality's financial capability. The integrated plan will be the starting point for development of appropriate implementation actions, which may include requirements and schedules in enforceable documents.

EPA will continue to provide opportunities for stakeholder input during the implementation of this framework. Outreach activities associated with this effort will include the development of case studies and best practices.

EPA recognizes that approved National Pollutant Discharge Elimination System (NPDES) States are partners in the implementation of the program and have the lead for the day-to-day activities in their States. Many States have existing water quality management planning processes, which may include those established under Section 208 and 303 of the CWA, that may help facilitate the development of an integrated plan and work in conjunction with the implementation of an integrated plan. Integrated plans should be consistent with, and designed to meet the objectives of, existing total maximum daily loads (TMDLs). EPA is committed to working closely with the States in the implementation of this framework. EPA Regions and Headquarters will work with States when appropriate to determine the proper response to an integrated plan.

I. Background

In recent years, EPA has begun to embrace integrated planning approaches to municipal wastewater and stormwater management. EPA further committed to work with States and communities to implement and utilize integrated planning approaches to municipal wastewater and stormwater management in its October 27, 2011 memorandum *"Achieving Water Quality Through Municipal Stormwater and Wastewater Plans."*[1] Integrated planning will assist municipalities on their critical paths to achieving the human health and water quality objectives of the CWA by identifying efficiencies in implementing requirements that arise from distinct wastewater and stormwater programs, including how best to make capital investments.

[1] The October 27, 2011 memorandum is available at http://cfpub.epa.gov/npdes/integratedplans.cfm.

Integrated planning can also facilitate the use of sustainable and comprehensive solutions, including green infrastructure, that protect human health, improve water quality, manage stormwater as a resource, and support other economic benefits and quality of life attributes that enhance the vitality of communities. In February, 2012, EPA released "Planning for Sustainability: A Handbook for Water and Wastewater Utilities."[2] The Handbook describes a number of steps utilities can take to build sustainability considerations into their existing planning processes and make the best infrastructure choices that protect water quality and ensure the long-term sustainability of infrastructure assets. The elements of an integrated plan which are described below are complementary to the elements in the Sustainability Handbook.

The integrated planning approach does not remove obligations to comply with the CWA, nor does it lower existing regulatory or permitting standards, but rather recognizes the flexibilities in the CWA for the appropriate sequencing and scheduling of work.

II. Principles

Following are overarching principles that EPA will use in working with municipalities to implement an integrated approach to meet their wastewater and stormwater program obligations under the CWA. Also presented are guiding principles that EPA recommends municipalities use in the development of their integrated plans.

Overarching Principles

1. This effort will maintain existing regulatory standards that protect public health and water quality.

2. This effort will allow a municipality to balance CWA requirements in a manner that addresses the most pressing public health and environmental protection issues first.

3. The responsibility to develop an integrated plan rests with the municipality that chooses to pursue this approach. Where a municipality has developed an initial plan, EPA and/or the State will determine appropriate actions, which may include developing requirements and schedules in enforceable documents.

4. Innovative technologies, including green infrastructure, are important tools that can generate many benefits, and may be fundamental aspects of municipalities' plans for integrated solutions.

[2] The February 2012 Handbook is available at http://water.epa.gov/infrastructure/sustain/upload/EPA-s-Planning-for-Sustainability-Handbook.pdf.

Principles to Guide the Development of an Integrated Plan

Integrated plans should:

1. Reflect State requirements and planning efforts and incorporate State input on priority setting and other key implementation issues.

2. Provide for meeting water quality standards and other CWA obligations by utilizing existing flexibilities in the CWA and its implementing regulations, policies and guidance.

3. Maximize the effectiveness of funds through analysis of alternatives and the selection and sequencing of actions needed to address human health and water quality related challenges and non-compliance.

4. Evaluate and incorporate, where appropriate, effective sustainable technologies, approaches and practices, particularly including green infrastructure measures, in integrated plans where they provide more sustainable solutions for municipal wet weather control.

5. Evaluate and address community impacts and consider disproportionate burdens resulting from current approaches as well as proposed options.

6. Ensure that existing requirements to comply with technology-based and core requirements are not delayed.

7. Ensure that a financial strategy is in place, including appropriate fee structures.

8. Provide appropriate opportunity for meaningful stakeholder input throughout the development of the plan.

III. Elements of an Integrated Plan

Defining Scope

NPDES requirements for separate sanitary sewer systems, combined sewer systems, municipal separate storm sewer systems and at wastewater treatment plants may be included in an integrated plan. Each of the aforementioned systems may have different owners/operators responsible for the various sewer systems and treatment plants as well as different geographic service areas and different service populations. In addition, integrated plans may address source water protection efforts that protect surface water supplies, and/or nonpoint source control through proposed trading approaches or other mechanisms. When developing an integrated plan, a municipality/community must determine and define the scope of the integration effort, ensure the participation of entities that are needed to implement the integrated plan, and identify the role each entity will have in implementing the plan. EPA will continue to work closely with State and local governments to incorporate green infrastructure approaches to water quality within permits and enforcement actions, consistent with the practice over the past several years.

Plan Elements

An integrated program should be tailored to the size and complexity of the wastewater and stormwater infrastructure addressed in the plan. Although the details of each integrated plan will vary depending on the unique challenges of each community, an integrated plan generally should address the following elements:

Element 1: A description of the water quality, human health and regulatory issues to be addressed in the plan, including:

- An assessment of existing challenges in meeting CWA requirements and projected future CWA requirements (*e.g.*, water quality-based requirements based on a new TMDL);
- Identification and characterization of human health threats;
- Identification and characterization of water quality impairment and threats and, where available, applicable wasteload allocations (WLAs) of an approved TMDL or an equivalent analysis;
- Identification of sensitive areas and environmental justice concerns; and
- Metrics for evaluating and meeting human health and water quality objectives.

Element 2: A description of existing wastewater and stormwater systems under consideration and summary information describing the systems' current performance, including:

- Identification of municipalities and utilities that are participating in the planning effort and a characterization of their wastewater and stormwater systems; and
- Characterization of flows in and from the wastewater and stormwater systems under consideration.

Element 3: A process which opens and maintains channels of communication with relevant community stakeholders in order to give full consideration of the views of others in the planning process and during implementation of the plan.

- Municipalities developing integrated wastewater and stormwater plans should provide appropriate opportunities that allow for meaningful input during the identification, evaluation, and selection of alternatives and other appropriate aspects of plan development;
- Municipalities participating in an integrated wastewater and stormwater plan should, during the implementation of the plan, make pertinent new information available to the public and provide opportunities for meaningful input into the development of proposed modifications to the plan; and
- Where a permit or enforcement order incorporates green infrastructure requirements, the municipalities required to implement the requirements should allow for public involvement to assist in evaluating the effectiveness of the approach and to assist in successful implementation of the approach.

Element 4: A process for identifying, evaluating, and selecting alternatives and proposing implementation schedules which addresses:

- The use of sustainable infrastructure planning approaches, such as asset management, to assist in providing information necessary for prioritizing investments in and renewal of major wastewater and stormwater systems;
- The use of a systematic approach to consider and incorporate, where appropriate, green infrastructure and other innovative measures where they provide more sustainable solutions;
- Identification of criteria, including those related to sustainability, to be used for comparing alternative projects and a description of the process used to compare alternatives and select priorities;
- Identification of alternatives, including cost estimates, potential disproportionate burdens on portions of the community, projected pollutant reductions, benefits to receiving waters and other environmental and public health benefits associated with each alternative;
- An analysis of alternatives that documents the criteria used, the projects selected, and why they were selected;
- A description of the relative priorities of the projects selected including a description of how the proposed priorities reflect the relative importance of adverse impacts on public health and water quality[3] and the permittee's financial capability;
- Proposed implementation schedules; and
- For each entity participating in the plan, a financial strategy and capability assessment that ensures investments are sufficiently funded, operated, maintained and replaced over time. The assessment of the community's financial capability should take into consideration current sewer rates, stormwater fees and other revenue, planned rate or fee increases, and the costs, schedules, anticipated financial impacts to the community of other planned stormwater or wastewater expenditures and other relevant factors impacting the utility's rate base. Municipalities can use as a guide the document "CSO Guidance for Financial Capability Assessment and Schedule Development," EPA 832-B-97-004) or other relevant EPA or State tools.

Element 5: Measuring success - As the projects identified in the plan are being implemented, a process for evaluating the performance of projects identified in a plan, which may include evaluation of monitoring data, information developed by pilot studies and other studies and other relevant information, including:

- Proposed performance criteria and measures of success;
- Monitoring program to address the effectiveness of controls, compliance monitoring and ambient monitoring; and
- Evaluation of the performance of green infrastructure and other innovative measures to inform adaptive design and management to include identification of barriers to full implementation.

[3] An example of an informal tool to help identify priorities is given by "Combined Sewer Overflow Guidance for Screening and Ranking", EPA, August 1995. The guidance is available at http://www.epa.gov/npdes/pubs/owm595.pdf.

Element 6: Improvements to the Plan

- A process for identifying, evaluating and selecting proposed new projects or modifications to ongoing or planned projects and implementation schedules based on changing circumstances; and
- In situations where a municipality is seeking modification to a plan, or to the permit or enforcement order that is requiring implementation of the plan, the municipality should collect the appropriate information to support the modification and should be consistent with Elements 1 – 5 discussed above.

IV. Implementation

Implementing an integrated approach to wastewater and stormwater management may require coordination between State and federal NPDES permit and enforcement authorities. EPA recognizes the importance of and encourages early coordination between NPDES States and EPA on key implementation issues that may arise in individual integrated plans. This will ensure that plans will not need to be revised in order for them to be implemented. State NPDES permit authorities should initiate discussions with EPA on their efforts to address integrated plans that raise issues associated with ongoing federal enforcement actions and when addressing the initial integrated plans developed in the State or when a permit may potentially present a novel approach. EPA and States will determine the appropriate roles of permit and enforcement authorities in addressing the regulatory requirements identified in the plan. As discussed below, elements of an integrated plan can be incorporated, where appropriate, into NPDES permits, enforcement actions, or both. Permit issuance and implementation of existing permit and enforcement requirements and activities shall not be delayed while an integrated plan is being developed.

Permits

All or part of an integrated plan can be incorporated into an NPDES permit as appropriate. Limitations and considerations for incorporating integrated plans into permits include:

- Compliance schedules for meeting water quality-based effluent limitations (WQBELs) in NPDES permits issued for discharges from publicly owned treatment works (POTWs) and/or combined sewer overflows need to be consistent with the requirements in 40 CFR section 122.47. Where appropriate, an NPDES permit authority may include a compliance schedule in a permit for WQBELs based on post July 1, 1977 State water quality standards provided the compliance schedule is "as soon as possible" and the State has clearly indicated in its water quality standards or implementing regulations that it intends to allow them. Compliance schedules in permits should prioritize the most significant human health and environmental needs first.

- Reopener provisions in permits consistent with section 122.62(a) may better facilitate adaptive management approaches.

- Green infrastructure approaches and related innovative practices that provide more sustainable solutions by managing stormwater as a resource should be considered and incorporated, where appropriate, where they provide more sustainable solutions for municipal wet weather control.

- Appropriate water quality trading may be reflected in NPDES permits (*see* EPA's 2003 Water Quality Trading Policy).

Enforcement

EPA and the States may bring enforcement actions against municipalities to address noncompliance with the CWA. Enforcement tools include administrative orders, negotiated consent decrees, or other state formal enforcement actions that require compliance with various requirements under the CWA. All or part of an integrated plan may be able to be incorporated into the remedy of a federal or State enforcement action. Considerations for incorporating integrated plans into enforcement actions include:

- The integrated planning framework should ensure that all necessary parties to a consent decree or administrative order are involved (*e.g.* municipality, utility authority).

- When there is a history of long-standing violations without significant progress, enforcement is used to address past violations and establish a path for coming into compliance.

- Where an extended time frame is necessary to achieve compliance, enforcement orders should provide schedules for CWA requirements that prioritize the most significant human health and environmental needs first.

- How permitting and enforcement actions may be used in conjunction to ensure implementation of the integrated plans.

- Sufficient flexibility should be provided in enforcement orders to allow for adaptive management approaches.

- Green infrastructure approaches and related innovative practices that provide more sustainable solutions by managing stormwater as a resource should be considered and incorporated, where appropriate, where they provide more sustainable solutions for municipal wet weather control.

- Environmentally beneficial projects that are identified in an integrated plan and which the municipality is not otherwise legally required to perform, such as water conservation measures, may be included in a settlement agreement consistent with EPA's Supplemental Environmental Projects Policy[4].

[4] The May 1, 1998, policy is available at http://www.epa.gov/oecaerth/resources/policies/civil/seps/fnlsup-hermn-mem.pdf.

Attachment B

Cuyahoga County
Together We Thrive

2017 Annual Report

Prepared for the: **City of Parma**





By the: **Department of Public Works**

Cuyahoga County
Together We Thrive

Department of Public Works

March 1, 2018

The Honorable Timothy DeGeeter
City of Parma
6611 Ridge Road
Parma, Ohio, 44129

Dear Mayor DeGeeter,

As the Director of Public Works, I am pleased to submit the 2017 Annual Report for the City of Parma. Our work within the communities, including yours, focuses on addressing infrastructure needs and meeting Ohio EPA goals for collection system operation and maintenance. We have continued to improve our efficiency for sanitary and storm sewer maintenance throughout the County by maintaining a second shift to enable us to reduce overtime and to work in areas where normal working hour traffic is problematic. Our goal is to provide a high level of service in a cost-effective manner.

This report contains a detailed overview of the work completed within your municipality in the past year. The overview of the work performed includes the following: collection system jet cleaning and TV inspection, project review status, service program summary details, as well as community operating and capital expenses.

The County is transitioning to emailing the annual reports and will continue to do so going forward. For your convenience, this year we are also providing you with three (3) hard copies of the report but in the future hard copies will only be available by request. The report is also available on our website at http://publicworks.cuyahogacounty.us/en-US/Sewer-Maintenance-Services.aspx

My staff is available to meet with you at your convenience should you wish to discuss this report or any of the services that our department provides.

I am pleased and grateful for the opportunity of serving you through the Cuyahoga County Department of Public Works.

Respectfully submitted,

Michael W. Dever, MPA, Director
Department of Public Works

cc: (with attachments)
Brian Higgins, Service Director
Paul Deichmann, P.E., Engineer

Table of Contents

OVERVIEW

Established in 1919, the office of the Cuyahoga County Sanitary Engineer was created to provide administrative authority in matters of wastewater, storm water, and water supply management. In 2012, the Sanitary Engineering Division (formerly CCSE) became a part of the Cuyahoga County Department of Public Works, and now operates under County Executive Armond Budish.

The Division's focus is on the maintenance and repair of aging sewer lines, needs assessment, engineering feasibility studies, as well as other infrastructure-related issues, all of which have a direct impact on commercial and residential development, job creation, and expanding the tax base in the communities served by the Department of Public Works. Furthermore, the Division is a major source of technical information for mayors, municipal engineers, and service directors and provides them with guidance for making infrastructure decisions within their community. The Division has considerable experience in the maintenance, repair, and rehabilitation of sanitary and storm sewer lines, as well as significant expertise with respect to the operation and maintenance of pump stations.

The Sanitary Engineering Division of Public Works currently operates in 38 communities by agreement. Pursuant to such agreements, it maintains more than 1,200 miles of sanitary sewers and 800 miles of storm sewers, operates 56 sewage-pumping stations, and maintains two wastewater treatment plants. Working in cooperation with the Ohio Environmental Protection Agency (Ohio EPA), the Northeast Ohio Regional Sewer District (NEORSD), the Cuyahoga County Board of Health, and various communities the Division works to maintain water quality through the identification and investigation of illicit discharges as well as the construction of new sanitary sewers.

All funds used for maintenance and repair of the sewers and other sewage facilities are generated through fees and assessments. The Division does not receive a subsidy from the County's general fund to perform such maintenance activities.

The Sanitary Engineering Division of the Department of Public Works has been in the forefront of regionalism efforts. With services provided to more than half of the County's 59 communities, the Division continues to maintain reasonable rates and improve infrastructure throughout the area.

GOALS

The Sanitary Division of the Department of Public Works has three (3) major goals:

1. Operate and maintain the sanitary sewerage systems to assist the communities in meeting the goals and objectives of the EPA Capacity Management Operation and Maintenance (CMOM) guidelines.
2. Provide guidelines for the design and construction through the *"Uniform Standards for Sewerage Improvements"* and the *"Rules and Regulations."*
3. Issue sewer connection permits and provide construction inspection for new sanitary sewers and new connections to existing sanitary sewers.

The goals of the Department of Public Works with respect to the maintenance and repair of sewers are attained through the activities of our three main groups working together: Maintenance Services; Engineering & Construction Services; and, Administrative Services.

MAINTENANCE SERVICES

- Reduce the number of flooded basements by maintaining existing capacity in the collection systems, minimize the inflow/infiltration of storm water to the sanitary system, and evaluate the structural integrity of the sewerage system;
- Increase maintenance efficiency to reduce operating costs and provide more available funds for capital improvement projects and repairs;
- Operate wastewater treatment plants in compliance of National Pollution Discharge Elimination System (NPDES) permit parameters;
- Maintain and inspect the existing collection system to achieve EPA CMOM maintenance goals;
- Operate and maintain pumping stations;
- Illicit Discharge Detection and Elimination Services

ENGINEERING AND CONSTRUCTION SERVICES

- Task Order preparation for repairs and rehabilitation;
- Plan review and approval of all new sewer improvements within the County service area;
- Engineering analysis (required for operation of facilities and the collection system);
- Capital improvement planning;
- Construction management and inspection;
- Provide guidelines for new construction through use of *Uniform Standards for Sewerage Improvements;*
- Provide infrastructure needs assessment for communities;
- Project design;
- Construction inspection of new wastewater collection systems within the county service area; and,
- Record keeping, as-built plans and test tee location.

ADMINISTRATIVE SERVICES

- Issuance of connection permits;
- Issuance of sewer builders' licenses;
- Maintenance of Record Drawings;
- Geographical Information Systems (GIS) for development and implementation;
- Fiscal oversight of annual operating budget and capital improvement budget;
- Grant and loan administration; and,
- Licensing and permitting of more than 200 contractors.

SUMMARY OF COUNTY-WIDE MAINTENANCE SERVICES

- **SEWERS**
  - High-pressure jetting of sewers in the right-of-way, approximately 244 miles of sewers in 2017;
  - Point repairs of sewers, force mains, and structures; 3,881 construction visits
  - Cleaning of service laterals, including emergency maintenance and 24-hour on-call team for resident issues;
  - Televising of lines to provide condition ratings and to identify possible failures or deficiencies, approximately 212 miles of sewers;
  - Inflow and Infiltration, 804 visits;
  - Licensed operators to monitor the condition of the treatment plants and pumping stations, as well as implement upgrades and preventative maintenance.

The Maintenance Services section provides a full-service program to clean, provide NASSCO PACP condition ratings, maintain structural integrity, and perform repairs on sanitary and storm sewers. The objective of the program is the cleaning of all sanitary sewers every three years and performing video inspection every six years which is well within the NEORSD's *"Best Management Practices"* guidelines.

▪ HOUSE LATERAL SERVICES

The Division cleaned 9,694 house connections in 2017. The goal is to alleviate sewer back-ups by clearing blocked mains and cleaning service connections to restore sewer capacity.

The House Lateral Service Department performs flow monitoring for Inflow and Infiltration (I&I) analysis and performs smoke testing, dye testing and lateral sewer inspection to identify I&I sources and locations of illicit discharges. The Department works with the communities, the Ohio EPA and the NEORSD to protect local waterways.

▪ PUMPING STATIONS

The County operates 56 pumping stations throughout the 38 communities pursuant to maintenance agreements. A Supervisory Control and Data Acquisition (SCADA) system monitors the stations. The system provides alarms and operational status through a central computer that is accessed from a remote computer providing 24-hour monitoring. New pump stations are added to the SCADA as they come on-line. Our maintenance staff consists of experienced operators and technicians enabling us to repair most problems in-house, therefore keeping costs down. Their preventive maintenance program and dedication to the job has reduced emergency call-outs and overflows.

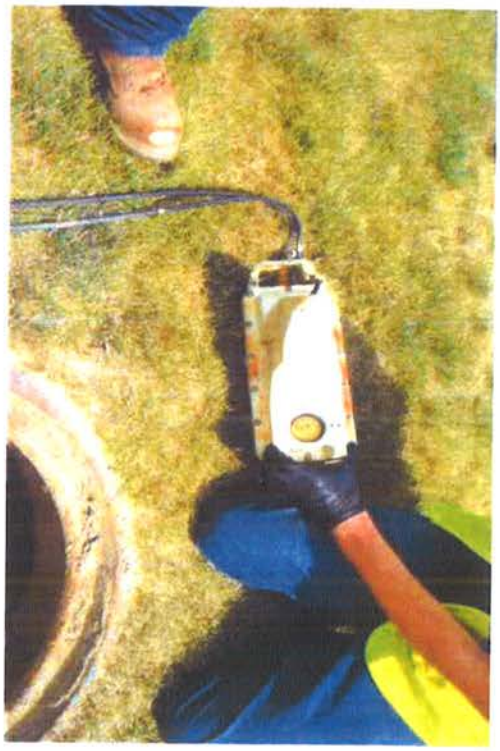
▪ Wastewater Treatment Plants

The County operates two package wastewater treatment plants. The standards for each facility are set by the Ohio EPA through the National Pollution Discharge Elimination System (NPDES) permit. The support staff consists of wastewater operators licensed by the Ohio EPA who monitor the conditions of the plants and make necessary process adjustments to meet the requirements of each NPDES permit.

▪ Capacity, Management, Operation, and Maintenance Program (CMOM)

The CMOM Program is a set of "best management practices" that have been developed by the industry and are applied over the life cycle of the collection system. It is these general practices that are taken into consideration when a system is being reviewed by a federal or state agency. Improvement and recommendations are provided by the agencies based on deficiencies identified in the sanitary sewer system.

We continue to work with the NEORSD through their community discharge program and the Ohio EPA to ensure that our department's best practices meet the CMOM goals.



SUMMARY OF ENGINEERING & CONSTRUCTION SERVICES

Engineering and construction services provides technical services to the communities including, but not limited to capital project planning, grant and loan administration, design engineering, construction management, and inspection of sanitary and storm sewers, pump stations, and wastewater treatment facilities.

A sewer repair and rehabilitation program is managed by in-house personnel supplemented with two third-party contractors. Under the existing sewer maintenance agreements, the communities issue Task Orders to the County for repair and rehabilitation based on video inspection information and requests from the communities. A specific Engineer is assigned to each community to provide an individual contact for collection system related issues.

In 2017, design plans were reviewed for nearly 50 construction projects on behalf of member communities. Engineering also coordinates and analyzes the results of field testing and flow monitoring to detect and eliminate storm water inflow/infiltration from the sanitary sewer system and illicit discharges to the storm sewer system. Record drawings are prepared, then scanned and filed for record keeping. Information on the new sewers and service connections are provided to our IT personnel for incorporation in the County's Geographical Information System (GIS).

Engineering and construction also oversee capital construction projects and develop financial packages in the form of grants and loans obtained from the state of Ohio. These funds are utilized for lining, repairing, replacing, and rehabilitating existing sanitary and storm sewerage systems.

The construction staff provides inspection for all new sanitary sewers and service laterals connecting to existing sewers. The Inspectors ensure that projects are constructed in conformance to design plans, specifications and the *"Uniform Standards."*

SUMMARY OF ADMINISTRATIVE SERVICES

▪ PERMITS

This department operates in 38 communities pursuant to sewer maintenance agreements. Its major functions include issuance of sewer connection permits and the registration of licensed and bonded contractors able to obtain connection permits and install sanitary sewers within the member communities. The Department also maintains the permanent records for sewer construction projects and provide information to all county departments, engineering consulting firms, contractors, and the public.

▪ INFORMATION TECHNOLOGY

Information Technology (IT) provides computer and analytical support to internal end-users and communities serviced by the Department of Public Works. It is responsible for the design, implementation and maintenance of our Geographical Information System (GIS) and other relational database systems, as well as guiding data acquisition tasks throughout the Department. The GIS mapping program catalogues the location of sewer systems and performs analysis on spatial data. This ability supports the planning, design, and maintenance of sewer systems, and ensures user fees are appropriately assessed and collected. Furthermore, the mapping program now features attached permits.

Our Geographical Information System is continually being updated and expanded to include information on repair and rehabilitation activities as well as system maintenance and inspection activities. Information is shared between the County, member communities, and the NEORSD to improve services and foster collaboration.

▪ FINANCE

Finance provides support services to various units within the Department of Public Works. Automated cost accounting programs and systems ensure accurate tracking and monitoring of expenditures, revenues, rate structures and other data that provide financing for capital projects and operational budgets. All systems and programs are operated under generally accepted accounting principles. Public Works oversees an annual storm and sanitary sewer operating budget of more than $18 million. Finance is responsible for accounts receivable, accounts payable, cost accounting, audit, inventory control, capital project financing, purchasing, and sewer assessment revenue management for member communities.

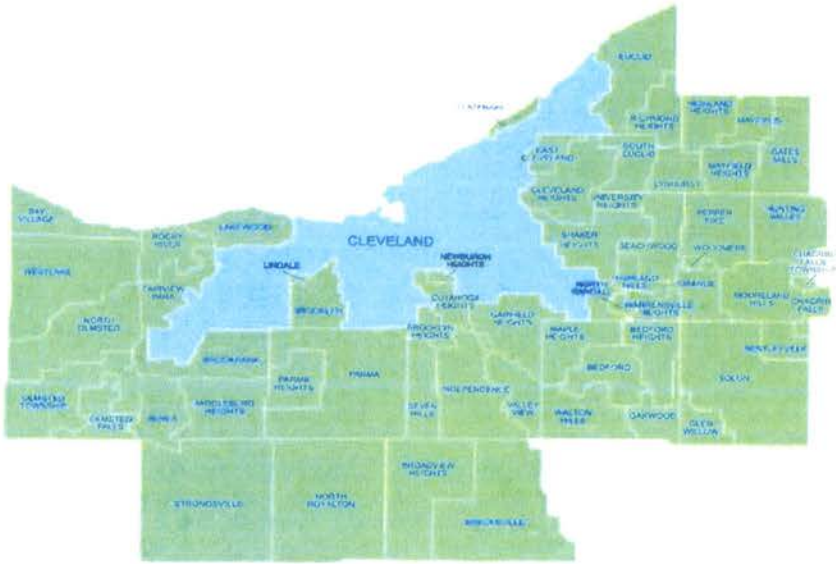
Cuyahoga County
Together We Thrive

APPENDIX DESCRIPTION*

The following appendices contain a variety of reports representing the services provided to communities in 2017. The Public Works Department follows a manhole-to-manhole, sewer segment-based accounting method for jet cleaning and TV (video) inspection maintenance services. The first two reports contain listings of the collection system cleaned and inspected for the year by street. The following report discloses the more significant projects submitted and reviewed by the Permit and Engineering & Construction Departments during the year for your community. Smaller review services such as house connections or ongoing, intermittent review of large multi-phase projects spanning several years of development are not shown on this report. The final appendices provide a breakdown of services including house visits, inflow/infiltration studies, and construction activity, operating expenses, and capital project costs contracted for the community.

A map showing areas where collection system mainlines were jet cleaned and TV inspected, construction crew activity locations, house visits and if house lateral connections needed to be cleaned or inspected is available on our website at http://publicworks.cuyahogacounty.us/en-US/Sewer-Maintenance-Services.aspx. Adobe Corporation's free reader software is required and can be downloaded from *www.adobe.com*.

* **Please note**: These appendix reports are provided only to communities for which the specific service is provided by the Department of Public Works. For example, if regularly scheduled mainline cleaning service is not provided for your community, a map was not produced. Similarly, if project review or capital project management services are not provided to your community, then there is no corresponding report. Certain communities are provided limited maintenance on county improvement mainlines and/or facilities only.

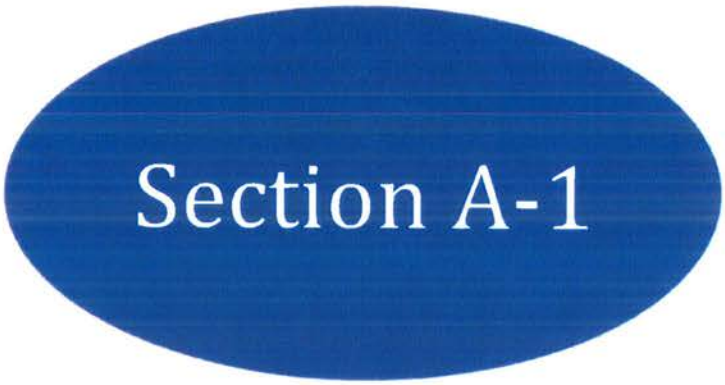


SANITARY FLEET FACTS
THE POWER OF REGIONALISM



Current vehicles & equipment	Quantity
House Trucks	12
Specialized Plate Truck & specialized vehicles for catch basin repair	5
Combination Jet-Vac & Straight Jet Trucks	12
TV Camera Trucks	7
Backhoes, Mini Excavators & Rubber Wheel Loader	10
Class 5 Dump Trucks	3
Construction trucks	7
1 ton trucks for pump station service	5
43,000 to 53,000 GVWR single-axle dump trucks	3
58,000 to 60,000 GVRW tandem axle dump trucks	8
Class 550 with crane for pump station service	2
20-25 ton trailers	10
Small Trailers	12


Community Streets Cleaned*



*No service provided if section is blank

Collection System Jet Cleaning

PARMA

SANITARY

Street Count: 78

STREET	# of segments	Jet Footage
AARON DRIVE	1	131
ACKLEY ROAD	3	844
ALLANWOOD ROAD	1	200
AMES ROAD	3	800
BANNER LANE	1	262
BAUERDALE AVENUE	14	3,232
BERESFORD AVENUE	6	1,237
BISCAYNE BOULEVARD	9	1,862
BRADLEY AVENUE	1	258
BRAINARD DRIVE	10	2,623
BROADVIEW ROAD	1	489
BROOKPARK ROAD	6	1,570
BROWNFIELD DRIVE	1	300
BURDEN DRIVE	7	1,030
CARLTON ROAD	4	1,107
CHARLES AVENUE	5	1,418
CHATEAU DRIVE	4	1,104
COMMONWEALTH DRIVE	7	2,120
CONCORD DRIVE	9	2,418
DARTWORTH DRIVE	1	272
DEBORAH DRIVE	1	370
DENTZLER ROAD	1	35
EAST BAGLEY ROAD	2	470
EAST LINDEN LANE	2	441
ELIZABETH AVENUE	1	146
ENDERBY DRIVE	1	350
EVENTIDE DRIVE	2	776
FENWAY DRIVE	5	1,017
FORESTWOOD DRIVE	1	260
FORTUNE AVENUE	1	268
FRUITLAND DRIVE	5	1,332
GEORGE AVENUE	4	1,244
GILBERT AVENUE	2	533
GREEN VALLEY DRIVE	3	564
GREENLAWN AVENUE	5	860
GREENLEAF AVENUE	5	1,316
GROVEWOOD AVENUE	15	4,177
HAMPSTEAD AVENUE	9	2,627
HARWOOD DRIVE	4	720

Collection System Jet Cleaning

PARMA

SANITARY

STREET	# of segments	Jet Footage
HAUSERMAN ROAD	3	717
HILLTOP DRIVE	7	1,560
HOLBURN ROAD	3	447
KING RICHARD DRIVE	1	291
LIGGET DRIVE	8	2,597
LYNETT DRIVE	1	276
MANASSAS OVAL	1	211
MAPLECREST AVENUE	1	25
MARLBOROUGH AVENUE	1	175
MERKLE AVENUE	1	354
NORTH AVENUE	2	496
NORTH MIAMI DRIVE	1	238
ORCHARD PARK DRIVE	1	196
OVERLOOK ROAD	2	403
PARKLAND DRIVE	3	853
PARKVIEW AVENUE	8	1,609
PARKVIEW EASEMENT	5	1,246
PLEASANT LAKE BOULEVARD	1	209
RIDGE ROAD	1	255
RIDGEFIELD ROAD	1	100
RUSSELL AVENUE	9	3,181
SHILOH CIRCLE	3	425
SPRAGUE ROAD	9	2,710
STATE ROAD	21	5,935
STRATFORD DRIVE	2	524
THORNCLIFFE BOULEVARD	1	176
THORNTON DRIVE	3	755
TUXEDO AVENUE	4	1,169
VICKSBURG DRIVE	3	512
VIRGINIA AVENUE	1	352
WAREHAM ROAD	8	1,930
WELLINGTON AVENUE	13	3,871
WEST 130 STREET	1	379
WEST 24 STREET	1	237
WEST 48 STREET	1	293
WEST MORELAND ROAD	4	564
WEST PLEASANT VALLEY ROAD	1	181
WESTMINSTER DRIVE	34	8,866

Collection System Jet Cleaning
PARMA

STREET	# of segments	Jet Footage
WINDHAM ROAD	14	3,446
SANITARY TOTAL:	**348**	**88,547**

STORM

Street Count: 50

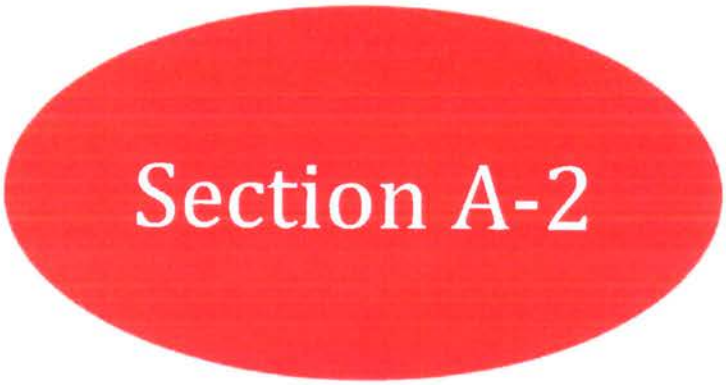
STREET	# of segments	Jet Ft
AARON DRIVE	4	920
BARTON HILL DRIVE	1	300
BAUERDALE AVENUE	13	3,172
BERESFORD AVENUE	5	1,108
BISCAYNE BOULEVARD	8	1,587
BRAINARD DRIVE	8	2,047
BROOKPARK ROAD	2	500
BURDEN DRIVE	5	856
CARLTON DRIVE	2	557
CHATEAU DRIVE	4	949
CHEVROLET BOULEVARD	3	347
COMMONWEALTH DRIVE	8	2,420
CONCORD DRIVE	2	550
CORPORATE DRIVE	3	980
DEBBY DRIVE	2	363
DOVER LANE	1	190
EAST LINDEN LANE	2	211
ENDERBY DRIVE	2	700
EVENTIDE DRIVE	3	1,096
FENWAY DRIVE	4	1,033
FRUITLAND DRIVE	6	1,523
GEORGE AVENUE	4	786
GREEN ACRES DRIVE	1	350
GREEN VALLEY DRIVE	1	326
GREENLAWN AVENUE	2	355
GREENLEAF AVENUE	7	2,027
GROVEWOOD AVENUE	14	3,817
HAMPSTEAD AVENUE	9	2,849
HILLTOP DRIVE	3	902
HOERTZ ROAD	5	1,345
HOLBURN ROAD	2	274
LIGGET DRIVE	4	1,175
NORTH AVENUE	2	578
PINEHURST DRIVE	4	748
REGENCY DRIVE	3	353

Collection System Jet Cleaning
PARMA

STORM

STREET		# of segments	Jet Ft
RIDGE ROAD		3	315
RUSSELL AVENUE		1	380
SHILOH CIRCLE		1	250
SPRAGUE ROAD		4	636
STATE ROAD		7	1571
STRATFORD DRIVE		2	524
THORNTON DRIVE		2	608
TREVOR LANE		1	219
TUXEDO AVENUE		5	1492
WALTER AVENUE		1	40
WAREHAM ROAD		8	1974
WELLINGTON AVENUE		10	3321
WEST RIDGEWOOD DRIVE		2	152
WESTMINSTER DRIVE		4	1227
WINDHAM ROAD		1	155
	STORM TOTAL:	201	50,158
	GRAND TOTAL:	549	138,705

Community Streets Inspected*



*No service provided if section is blank

Collection System TV Inspection

PARMA

SANITARY

Street Count: 60

STREET	# of segments	TV FT
ABRAHAM AVENUE	2	482
ACKLEY ROAD	3	844
AMES ROAD	3	690
ANN ARBOR DRIVE	2	387
BANNER LANE	1	262
BAUERDALE AVENUE	7	1,568
BERESFORD AVENUE	6	1,223
BISCAYNE BOULEVARD	11	1,976
BRAINARD DRIVE	5	1,287
BROOKDALE AVENUE	1	309
BROOKPARK ROAD	3	520
BROWNFIELD DRIVE	1	104
BURDEN DRIVE	10	1,423
CARLTON ROAD	2	564
CHATEAU DRIVE	7	1,763
COMMONWEALTH DRIVE	8	2,419
CORAL GABLES DRIVE	1	266
DEBBY DRIVE	2	289
DEERFIELD DRIVE	2	308
EAST LINDEN LANE	2	406
EVENTIDE DRIVE	2	779
FENWAY DRIVE	5	1,014
FRUITLAND DRIVE	6	1,433
GEORGE AVENUE	4	1,293
GILBERT AVENUE	1	257
GREENVALLEY DRIVE	8	1,199
GREENLAWN AVENUE	4	818
GREENLEAF AVENUE	6	1,497
GROVEWOOD AVENUE	20	5,439
HAMPSTEAD AVENUE	10	2,901
HAUSERMAN ROAD	3	1,158
HILLSDALE AVENUE	1	253
HILLTOP DRIVE	6	1,226
HOLBURN ROAD	2	164
LIGGETT DRIVE	9	2,625
LORIMER ROAD	2	319
MANASSAS OVAL	1	226
PEARL ROAD	2	671
PINEHURST DRIVE	3	614

Collection System TV Inspection

PARMA

STREET	# of segments	TV FT
POWERS BOULEVARD	7	1,088
RIDGE ROAD	3	93
RUSSELL AVENUE	10	2,881
SHARON DRIVE	1	172
SHENANDOAH OVAL	1	214
SHILOH CIRCLE	3	604
SLEEPY HOLLOW DRIVE	1	177
SNOW ROAD	1	190
SPRAGUE ROAD	9	2,710
STATE ROAD	7	1,748
STRATFORD DRIVE	2	709
THORNTON DRIVE	1	290
TUXEDO AVENUE	6	1,213
VICKSBURG DRIVE	4	865
WAREHAM ROAD	8	1,998
WELLINGTON AVENUE	13	3,512
WEST 130 STREET	1	206
WEST SPRAGUE ROAD	1	251
WESTMINSTER DRIVE	30	7,746
WINDHAM ROAD	6	1,475
YORK ROAD	1	158
SANITARY TOTAL:	290	69,276

STORM

Street Count: 61

STREET	# of segments	TV FT
ABRAHAM AVENUE	2	485
AMES ROAD	1	365
ANN ARBOR DRIVE	1	17
BANNER LANE	3	287
BARTON HILL DRIVE	3	765
BAUERDALE AVENUE	6	1,246
BERESFORD AVENUE	7	1,253
BISCAYNE BOULEVARD	8	1,656
BRAINARD ROAD	5	1,283
BRIAN DRIVE	1	146
BROOKDALE AVENUE	3	64
BROOKPARK ROAD	5	1,477
BRUENING DRIVE	2	237
BURDEN DRIVE	3	336

Collection System TV Inspection
PARMA

STREET	# of segments	TV FT
CARLTON ROAD	2	544
CHATEAU DRIVE	2	430
CHEVROLET BOULEVARD	5	635
COMMONWEALTH DRIVE	9	2,462
CORAL GABLES DRIVE	3	414
DAY DRIVE	9	1,589
DEBBY DRIVE	3	375
EVENTIDE DRIVE	3	830
FENWAY DRIVE	4	1,063
FRUITLAND DRIVE	6	1,509
GEORGE AVENUE	3	474
GILBERT AVENUE	1	260
GREENVALLEY DRIVE	11	2,744
GREENLAWN AVENUE	2	352
GREENLEAF AVENUE	5	1,383
GREENVALLEY DRIVE	1	166
GROVEWOOD AVENUE	8	1,692
HAMPSTEAD AVENUE	9	2,595
HILLSDALE AVENUE	1	247
HILLTOP DRIVE	5	1,193
HOERTZ ROAD	5	1,264
HOLBURN ROAD	2	258
INGLESIDE DRIVE	2	80
LASSITER DRIVE	1	157
LAVERNE AVENUE	2	540
LIGGETT DRIVE	9	2,130
LIST LANE	2	399
PARK DRIVE	1	50
PINEHURST DRIVE	4	670
POWERS BOULEVARD	1	25
REGENCY DRIVE	2	221
RIDGE ROAD	2	176
RUSSELL AVENUE	1	290
SHARON DRIVE	5	312
STATE ROAD	4	1,063
STATE ROAD EASEMENT	3	1,354
STRATFORD DRIVE	2	681
THORNTON DRIVE	3	815
TUXEDO AVENUE	5	1,330
WAREHAM ROAD	13	1,912
WELLINGTON AVENUE	11	3,638

Collection System TV Inspection

PARMA

STREET		# of segments	TV FT
WEST 130 STREET		2	602
WEST PLEASANT VALLEY ROAD		1	218
WEST RIDGEWOOD DRIVE		5	412
WESTMINSTER DRIVE		12	3,304
WINDHAM ROAD		7	1,629
YORK ROAD		3	508
	STORM TOTAL:	252	54,612
	GRAND TOTAL:	**542**	**123,888**

Project Review Status*

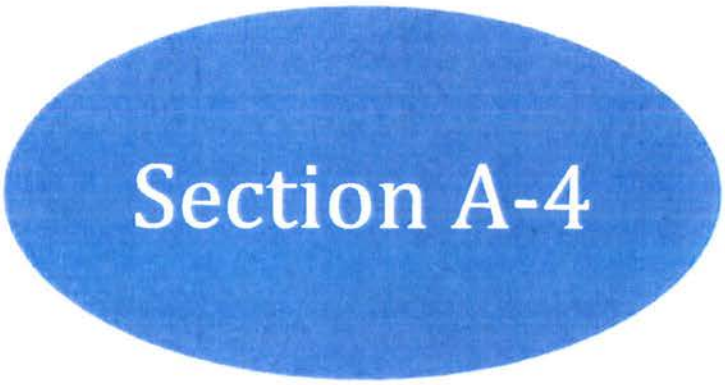
Section A-3

*No service provided if section is blank

Parma Project Review

Project ID	Project Name	Approval Date
17-005 (1)	Jo-Joe's Automotive	25-Jan-2017
17-002 (1)	Chopstick Parmatown	8-Feb-2017
17-025 (1)	CFT- White Box Shell Building	31-Jul-2017

Service Program Summary*



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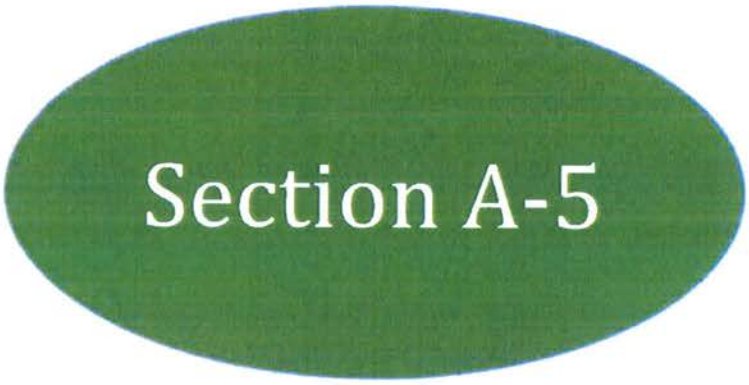
City of Parma

Type	Community Total
Sanitary Sewers	1,244,142 Feet
Manholes	5,381 (Approximately)

2017 Service Program

Program	2017 Activity
1) High Pressure Jet Cleaning Sanitary - 88,547 Feet Storm - 50,158 Feet	138,705 Feet
2) House Service	2,994 Calls
3) Television Inspection Sanitary - 69,276 Feet Storm - 54,612 Feet	123,888 Feet
4) Construction Activities	819 Job(s)
5) Smoke and Dye Testing	29 Test(s)
6) Construction Permits Issued	
(Commercial)	4
(Residential)	84
7) Plan Review	3 Plan(s)
8) Construction Inspection	
a) Main Lines Inspected	1,193 Feet
b) Service Laterals & Sewer Sites Inspected	12,864 Feet
9) Catch Basins Cleaned	491

Community Operating Expenses*



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City of Parma

2017 Operating Expenses

	Activity	Cost
1.	Maintenance of Sanitary Sewerage Systems	$3,063,085
2.	Pump Station Operation and Maintenance	$95,694
3.	Waste Water Treatment Plant Maintenance	$ 0
4.	Engineering and/or Inspection	$299,619
5.	Capital Expenses (See Section A-6 if any)	$602,256

Total Operating Expenses: **$4,060,654**

Community Capital Expenses*

*No service provided if section is blank

City of Parma

2017 Capital Expenses

Broadrock Drill Drop PTI	$ 11,503
Snow Road Lining	$ 32,380
Pleasant Valley Road Repair	$ 16,300
Bradley Avenue Repair	$ 9,008
Lorimer Road Repair	$ 18,426
Sharon Drive Repair	$ 134,276
Commonwealth Drive Repair	$ 17,803
Grovewood Avenue Repair	$ 53,772
Ridge Road Repair	$ 105,963
Sewer Repair Loan	$ 80,462
Fernhill Avenue Loan	$ 98,249
Broadview Drill Drop Loan	$ 24,114
Total Capital Expenses:	**$ 602,256**

CONTACT INFORMATION

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6100 West Canal Road
Valley View, OH 44125

Email: Publicworks@cuyahogacounty.us

Website: Publicworks.cuyahogacounty.us

Michael W. Dever, MPA..... Director of Public Works

David E. Marquard, P.E.,P.S.....Design & Construction Administrator

Michael W. Chambers, CPA.....Finance & Operations Administrator

Bryan J. Hitch.....Sewer Maintenance Superintendent

Hugh Blocksidge P.E.....Chief Engineer Sanitary Design

Department of Public Works Administrative Headquarters
2079 East Ninth Street- 5th Floor
Cleveland, Ohio 44115

Dispatch Office.....(216) 443-8201

Dispatch Email.....PWDispatch@cuyahogacounty.us

Administration.....(216) 348-3867

Inspection & Permits.....(216) 443-8211

Sewer Maintenance.....Gary Green, Senior Supervisor.....(216) 443-8225

Lateral Services.....Suzanne Britt, Supervisor.....(216) 443-3553

Construction (EAST).....Mitch Holt, Supervisor.....(216) 443-8229

Construction (WEST).....John Gribble, Supervisor.....(216) 443-8227

Sewer Jetting.....Guy Swindell, Supervisor.....(216) 443-8226

Televised Inspection.....Todd Swindell, Supervisor.....(216) 443-8224

Pump Station Operations.....William Applegarth, Supervisor.....(216) 443-8295

Sewer Maintenance.....Dave Novak, 2nd Shift Supervisor.....(216) 348-4238

Sewer Maintenance.....Patrick Mauk, 2nd Shift Supervisor.....(216) 348-3849

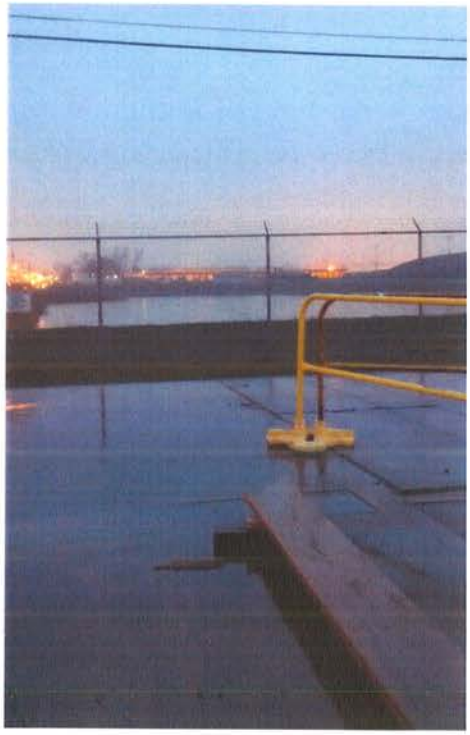
Sewer Maintenance.....Tom Noy, 2nd Shift Supervisor.....(216) 348-3901

Cuyahoga County
Department of Public Works

2079 East Ninth Street | Cleveland, OH 44115 | 216.348.3800

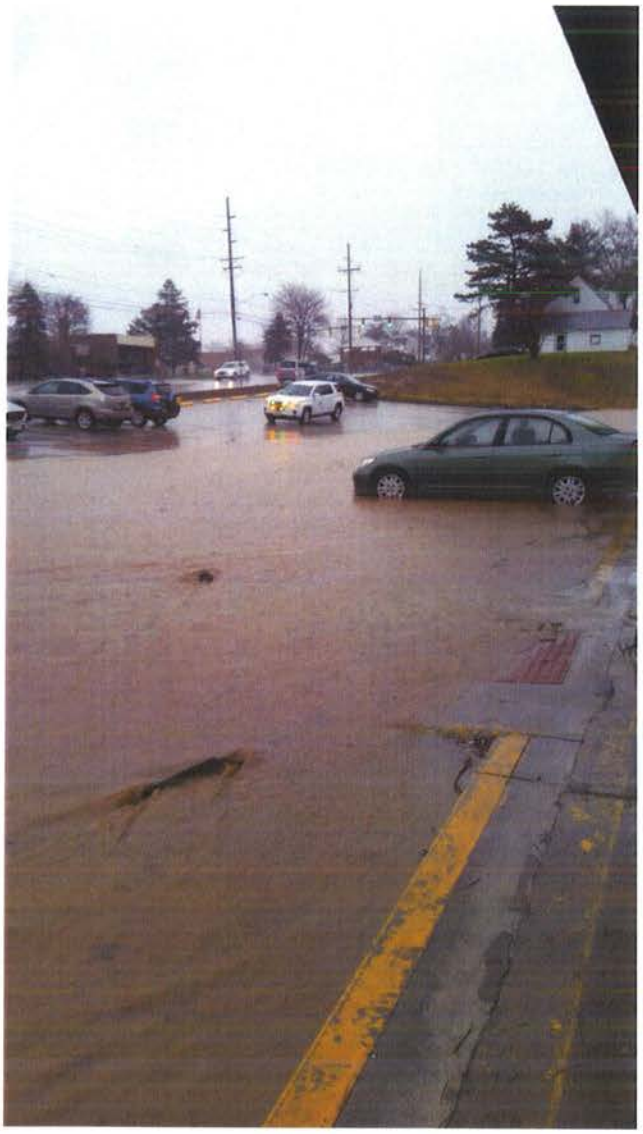
Attachment C

Chevy Boulevard

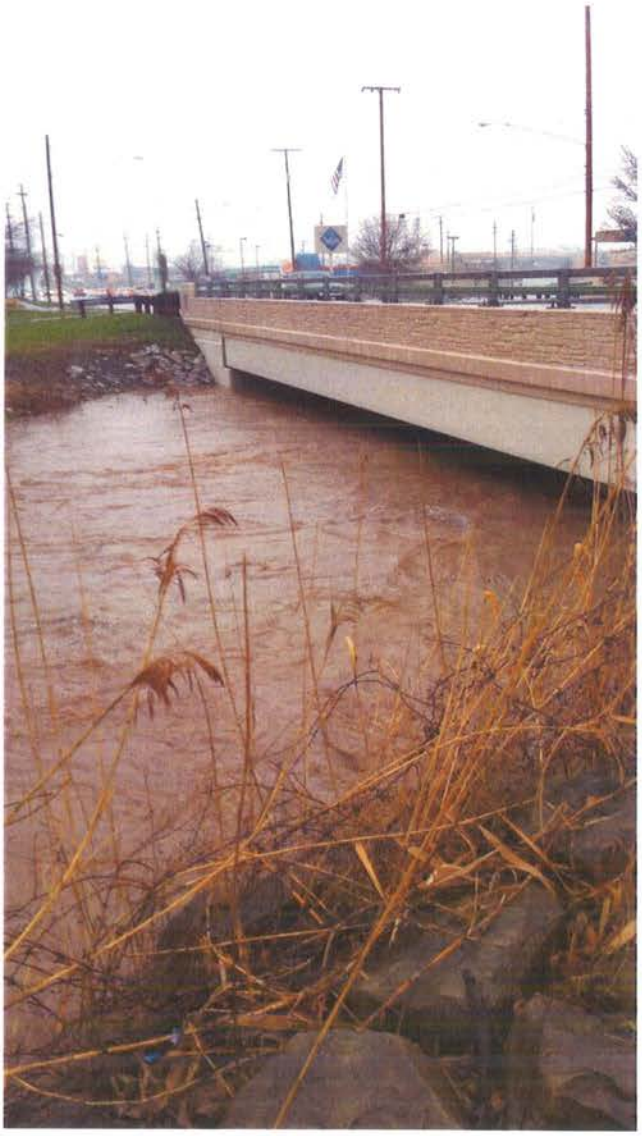


Chevy Boulevard

Ridgewood Lake
Overflowing Dam at Ridgewood



Kentown Plaza, York and Pleasant Valley



Brookpark Road and Big Creek Parkway

Attachment D

FEBRUARY 2018

PAVING THE WAY FOR IMPROVING PARMA'S STREETS (UPDATED)

National organizations recently have praised what we already know about Parma: we're a safe city with diverse, livable neighborhoods, great recreation, and the amenities offered by our restaurants, small businesses, and retail development.

The city has worked hard for that reputation as we've focused our budget priorities on, among other things, supporting our stellar safety forces, increasing our recreational offerings, and strengthening our building department to buttress our already-strong neighborhoods.

Together, this administration and City Council have methodically improved and strengthened those areas of city government.

We've also tried – in the wake of the Great Recession and staggering state cuts – to maintain and improve our roads and streets.

This overview provides background on the city's streets program and outlines the fiscally-responsible way Parma is investing in our roads.. It not only covers where we want to go, but where we've been.

CAPITAL BUDGET BACKGROUND

Parma, like other Ohio cities, has struggled to find additional resources for street improvement. Since 2009, the city has lost about $27.5 million through state funding cuts, straining all of our accounts, including the capital budget.

According to a Policy Matters Ohio report released last year, municipalities reported similar stories stemming from the severe state cutbacks, including leaving "local officials with diminished ability to maintain streets and roads."

In Parma, we've confronted these challenges through fiscally-disciplined policies. We enacted a refuse collection fee to stave off major programmatic cuts and layoffs across city government, including in the ranks of our safety forces. We were even forced to reduce firefighter minimums to reduce overtime, but kept our fire stations open. These moves also have allowed us to continue to fund street improvements, although not to the extent with which any of us are satisfied.

Additionally, Parma – over the course of several years – has confronted major legacy infrastructure issues requiring millions upon millions of capital dollars, too. Just some of those projects have included EPA-mandated sanitary sewer replacement, bridge repairs, and the major detention-basin dredging and clearing of trees and brush at Bonnie Banks. The Northeast Ohio Regional Sewer District (NEORSD) – in partnership with the city – also helped us construct the nearly $2 million Chevy Detention Basin, part of a larger undertaking to mitigate flooding in the area.

And there are more legacy projects we must undertake in the next few years, including repairing and replacing roofs at our city buildings and constructing more sanitary sewers.

Because of these legacy issues, and in larger part as a result of state cuts, the city has been forced to dip into the capital budget to pay for projects and expenses we otherwise would have funded through general revenue dollars and other accounts. While it was, and is, an entirely appropriate use of those resources, this has put additional pressure on the capital budget.

The administration – in 2017 and in our spending proposals this year – has started to shift expenditures out of the capital budget to relieve this strain and allow us to spend additional resources on our streets.

For example, as approved by City Council, the Parma Service Department purchased through our share of NEORSD's Storm Water Fund a broom sweeper ($281,517) and a jet vacuum ($475,460) – two costly pieces of equipment that we once would've used capital dollars to pay for. In addition, NEORSD, through an agreement with the city, will take over management of water detention basins that cover 300 acres – freeing up dollars and man hours for street improvements.

Further, we will continue to focus on attracting state and federal dollars to offset major local costs associated with paving, repairing, and reconstructing our streets. And we have been successful in leveraging low-interest loans and grants to help pay for Parma's infrastructure projects, including storm and sanitary sewer replacement, water main replacement, bridge repairs, drill drops, and headwall restoration and replacement (please see attachment that includes grants and loans for Parma infrastructure and road projects).

BACKGROUND ON PARMA'S STREETS PROGRAM

Parma has more than 500 streets that, combined together, translate into 583 lane miles – equivalent to a one-way trip to North Carolina.

Identifying streets for improvement

Every year, the Parma Service Department collects street condition information supplied through its street supervisors, citizen requests, and City Council recommendations. Using that data, the Parma Service Department develops and implements its streets program for the coming year.

There have been suggestions the administration also hire a firm to conduct a professional assessment of our streets. While the administration would seek, if available, potential grant funding opportunities for such a project, it's a cost the administration would rather directly put into improving our roads. Cleveland commissioned an assessment of its streets, and it cost the city about $600,000. Based on research conducted by the Parma Service Department, an assessment would cost Parma at least $75,000 (not including software) and take about half a year to complete. As a result, we're continuing to use the current process in evaluating our streets.

Road improvements from 2012-2016

Parma spent more than **$2 million** in each of those five years on our streets – and that doesn't include the in-house labor costs associated with the work. The city also has used at least **$150,000** each year in Community Development Block Grant funds for streetscape improvements. And further, Parma collaborates with Cuyahoga County Public Works and the Ohio Department of Transportation on road projects throughout Parma.

For instance, Cuyahoga County, working with the city, packaged together local, county, state, and federal funds to invest millions of dollars into our streets since 2004 as part of more than **$69 million** in multi-

city projects. Among other construction work, this included repairing, resurfacing, rehabbing, and restoring our roadways.

Some of those projects include portions of the following:

- **Sprague Road – $5 million**
- **Broadview Road – $3.2 million**
- **Stumph Road – $6.5 million**
- **Snow Road – $5.7 million**
- **Pleasant Valley Road – $22.9 million**

PARMA'S 2017 STREETS PROGRAM

Last year, Parma invested **more than $6 million** into improving 29 neighborhood streets, including Day Drive, West 54th Street, Pleasant Lake Boulevard, Grovewood Avenue, and Hoertz Road. (Please see attached "PARMA'S 2017 STREETS PROGRAM" for the full list of road improvements). In addition, the Parma Service Department spent another $300,000 – through the city's portion of NEORSD's Storm Water Fund – to reconstruct and replace catch basins throughout the community.

The **$1.7 million** resurfacing of Day Drive was the most expensive road improvement undertaken by the city in 2017. The project initially was slated for a year earlier, but we delayed it because Assistant City Engineer Patel felt he could, and did, secure more than $1 million for the project through a grant and a zero-interest loan – saving valuable capital dollars for the city.

The amount spent by the administration on streets in 2017 was an increase of more than $4 million when compared to the previous year, a move supported – and encouraged – by City Council in its approval of a $3 million note taken out by the city. According to our bond advisor, we had the debt capacity to take on this obligation without risking our financial health.

To accommodate this increase in street and road improvements, the city implemented the following actions:

- Increased funding for part-time workers from $25,000 to $40,000
- Sought legislation ultimately approved by City Council allowing the service department to bid out and retain a street repair contractor – similar to what the county does – to undertake road projects that our current manpower will not allow us to do.

While the city spent more in 2017 on streets – and paved as well as fixed a greater number of them – than in previous years, the Service Department faced obstacles to completing all of its intended road projects.

The largest factor behind those challenges was the intense, late June rain storm. The significant rainfall dumped on Parma over a short period of time helped create flooding problems across the city. In the aftermath, paving crews were re-assigned and spent the better part of a month collecting waterlogged

property and rubbish placed on lawns by residents in the clean up from the storm. Although well-received in the neighborhoods where flooding occurred, those efforts meant that service crews lost valuable time they were unable to make up on six streets scheduled last year for paving and repairs. Those projects will be completed in 2018.

2018-2020 PROPOSED PLANS AND PROJECTS

In 2018, the Service Department proposes spending $3 million on neighborhood streets. In the spring, the city – based on information provided by street supervisors, citizens, and council members – will release its full list of neighborhood projects for the construction season.

Additionally, the city anticipates spending another $790,000 – the amount left over from the $3 million note – to help pay for the six street projects that were delayed last year because of the June rainfall. Those roads including the following:

- Ames Drive
- Windham Drive
- Burden Drive
- Chateau Drive
- Shiloh Drive
- Hampstead Avenue

One of our largest city road projects scheduled this year is the **$650,000** Ridge Road resurfacing project from Pleasant Valley Road to our border with North Royalton. This year, the city also will begin design work on the **$1.5 million** resurfacing of Broadview Road from both West Ridgewood Drive to Snow Road and West Creek to Brookpark Road. That construction work is expected to begin in 2019.

Both of these resurfacing projects are funded through local resources that will pay for the design work and state money that will cover 80 percent of the construction cost – a partnership that will save the city significant capital dollars.

Further, in 2018, the city also will start design work on the $2 million resurfacing and repair of West Ridgewood Drive from Ridge Road to State Road. We will apply for funding from various county and state agencies to pay for the construction costs.

Moreover, whether in 2018 or beyond, the city will continue to look for opportunities to increase our local spending by, among other things, obtaining grants and low-interest loans and examining when other debt obligations fall off.

It's important to note that – although Parma's direct spending on streets from the capital budget is expected to drop from last year – the total investment in our roads will significantly increase because of the major, multi-city county work scheduled to begin this year. The following is a list of projects – **totaling more than $28 million** – on which we are collaborating that will be underway in our community:

- **2018-2019: Pleasant Valley Road (State to Broadview Road) – $5 million**

- **2019-2020: Sprague Road (Webster to York) – $14 million**

- **2020: Ridge Road (Pearl Road to Brookpark Road) – $2.5 million**

- **2020: West 130th (Pleasant Valley Road to Snow Road) – $7 million**

CONCLUSION

In conclusion, we have included in this overview three attachments, one entitled "PARMA'S 2017 STREETS PROGRAM," another called "PAVING THE WAY FOR IMPROVING PARMA'S STREETS: LOOKING AHEAD, and the last titled, GRANTS AND AWARDS OVER PAST EIGHT YEARS." The first attachment lists the streets paved, fixed, or repaired in 2017, the second sets forth currently-planned street projects for Parma, and the third covers grants and awards over the past eight years.

The administration will continue to update these documents as well as this overview as a yearly endeavor as additional street and road projects are added.

PARMA'S 2017 STREETS PROGRAM

Streets ground and paved:

West 54th Street (from Snow Road to Hollywood Drive)

Bruening Drive

Hilltop Drive (from State Road to Lyle Avenue)

Roycroft Drive (from Ridge Road to West Ridgewood Drive)

Doncaster Avenue (from Buckingham Drive and South Canterbury Road)

North Linden Lane

West Linden Lane

Pleasant Lake Boulevard

South Lake Boulevard

Russell Avenue (from State Road to West 51st Street)

Liggett Drive (from State Road to South Park Boulevard)

Grovewood Avenue (from State Road to Broadview Road)

Wellington Avenue (from State Road to West 54th Street)

Hoertz Road (from West Pleasant Valley to 7772 Hoertz Road)

Old Pleasant Valley Road (from West 130th Street to Oakwood Road)

George Avenue (from State Road and West 33rd Street)

Bauerdale Avenue (from Pearl Road and West Moreland Road)

Greenlawn Road (from West Moreland Road and Bauerdale Avenue)

Warcham Drive (from Renwood and North Canterbury Road)

Streets with new curbing installed:

Wareham Drive (from Hampstead Avenue to Renwood Drive)

Holburn Road (from Pelham Drive to Stanbury Road)

Thornton Drive (from Westminster Drive to Chestnut Hills Drive)

Streets with full-depth concrete joint repairs:

Vicksburg Drive

Manassas Oval

Shenandoah Oval

Commonwealth Drive

Bauerdale Avenue

Carlton Road

Eventide Drive

Pleasant Lake Boulevard

Paving contracted out:

Day Drive (from Ames Road to Ridge Road; from Ridge Road to Lynett Drive)

PAVING THE WAY FOR IMPROVING PARMA'S STREETS: LOOKING AHEAD

2018-2020

City projects

- 2018: $650,000 Ridge Road resurfacing project from Pleasant Valley Road to our border with North Royalton.

- 2018-2019: $1.5 million resurfacing of Broadview Road from both West Ridgewood to Snow Road and West Creek to Brookpark Road. That construction work is expected to begin in 2019.

- 2018-2020: $2 million West Ridgewood Drive resurfacing project from Ridge Road to State Road. Construction work expected to begin in 2019-2020.

Major multi-city county projects:

- 2018-2019: Pleasant Valley Road (State to Broadview Road) – $5 million

- 2019-2020: Sprague Road (Webster to York) – $14 million

- 2020: Ridge Road (Pearl Road to Brookpark Road) – $2.5 million

- 2020: West 130th (Pleasant Valley Road to Snow Road) – $7 million

INFRASTURE GRANTS AND LOANS AWARDED TO PARMA OVER PAST EIGHT YEARS

Ridge Road Sanitary Sewer Project Phase 1

- Project Cost: $330,000
- OPWC Grant: $82,500
- ACOE Grant: $247,500

Pleasant Valley Road Sanitary Sewer Improvement (part of widening project)

- Project Cost: $1,100,000
- OPWC Grant: $270,000
- ACOE Grant: $700,000

Headwall Replacements Phase I

- Project Cost: $1,150,000
- ACOE Grant: $862,500

Chevy Boulevard Storm/Sanitary Sewer Improvements

- Project Cost: $2,386,328
- OPWC Grant: $341,522
- ACOE Grant: $1 million
- OPWC Zero-Interest Loan: $341,522

Chevy Detention Basin

- Project Cost: $1,700,000
- OPWC Grant: $745,372
- NEORSD: $954,628

Sprague Road Emergency Culvert Repair

- Project Cost: $400,000
- OPWC Grant: $200,000

Royalview Bridge Replacement

- Project Cost: $703,000
- ODOT Grant: $266,640

Sprague Road Reconstruction

- Project Cost: $2,338,443
- County Paving Grant: $1,086,000

Ridge Road Storm Water Main and Sanitary Sewer Project Phase 2

- Project Cost: $3,517,925
- OPWC Grant: $650,000
- OEPA/WPCLF (Low-Interest Loan): $1,848,815
- NEORSD/MCIP Grant: $340,036
- Parma Water Fund: $1,000,000

Brookdale/Broadview Sanitary Sewer Project
- Project Cost: $1,000,000
- OPWC Grant: $250,000
- NEORSD/MCIP Grant: $160,160

West Ridgewood Sanitary Sewer Project
- Project Cost: $4,047,160
- OPWC Grant: $711,750
- ACOE Grant: $200,000
- WPCLF Low-Interest Loan: $2,302,837

Bradenton Area Sanitary Sewer Project
- Project Cost: $2,209,028
- OPWC Grant: $658,376
- ARRA Grant: $1,170,349
- ACOE Grant: $255,865

Grantwood/West Ridgewood Sanitary Sewer Project
- Project Cost: $804,661
- OPWC Grant: $224,535
- ARRA Grant: $495,289
- U.S. EPA Grant: $171,623

Parkhaven/Broadview Stormwater and Sanitary Sewer Improvement and Paving Project
- Project Cost: $1,165,725
- OPWC Grant: $290,181
- ACOE Grant: $185,000

Manhattan Sanitary, Water Main, and Paving Project
- Project Cost: $1,085,639
- OPWC Grant: $358,512
- ARRA Grant: $555,512
- WPCLF Low-Interest Loan: $71,713

Green Valley Area Sanitary Sewer Project
- Project Cost: $1,085,934
- OPWC Grant: $325,780
- U.S. EPA Grant: $112,540

Dentzler/Glencairn Sanitary Sewer Project

- Project Cost: $798,859
- OPWC Grant: $191,839

Sprague/Hoertz Sanitary Sewer Project

- Project Cost: $1,067,440
- OPWC Grant: $243,058

Day Drive Repair and Resurfacing Project

- Project Cost: $1,715,000
- OPWC Grant: $252,711
- OPWC Zero-Interest Loan: $842,372

Broadrock Court Drill Drop

- Est. Project Cost: $2,000,000
- OPWC Grant: $225,000
- OPWC Zero-Interest Loan: $225,000
- WPCLF Low-Interest Loan: $300,000
- NEORSD (MCIP) Grant: $250,000
- Federal Grant: $1,075,000

Ridge Road Resurfacing Project

- Est. Project Cost: $650,000
- ODOT Grant: $360,000

State Road Hill Emergency Road Repair

- Est. Project Cost: $200,000
- OPWC Grant: $150,000

Broadview Road Resurfacing Project

- Est. Project Cost: $1,500,000
- ODOT Grant: $1,200,000

TOTAL PROJECT COSTS: $32,955,142

TOTAL GRANTS: $16,865,150

TOTAL LOANS: $5,932,259