

2014-2018

Community Forestry

Management Plan

**City of Newark**Essex County, New Jersey



- v. 973.276.0599
- f. 973.276.9616
- w. www.paulcowieandassociates.com

# 2014 – 2018 COMMUNITY FORESTRY MANAGEMENT PLAN

# City of Newark Essex County New Jersey

# Mayor

Ras J. Baraka

# **Municipal Council**

Mildred C. Crump, *President, Member-at-Large*Augusto Amador, *East Ward*Carlos M. Gonzalez, *Member-at-Large*John Sharpe James, *South Ward*Gayle Chaneyfield Jenkins, *Central Ward*Joseph A. McCallum, Jr., *West Ward*Eddie Osborne, *Member-at-Large*Luis A. Quintana, *Member-at-Large*Anibal Ramos, Jr., *North Ward* 

# **Director of Neighborhood & Recreational Services**

Patrick Council

# **Acting Director of Engineering**

Mehdi Mohammadish

# **Supervisor of Tree Operations**

Richard Kirkland

# Supervisor of Tree Planting

Jack M. Nata





# **Table of Contents**



MUNIC	CIPAL INFORMATION	<u>1</u>
	Municipal Information Form	1
INTROI	DUCTION	2
	Scope	2
	Mission Statement	
	Overall Program Goals	
	Tree Hazards & Liability	
COMM	IUNITY OVERVIEW	4
	2007 – 2013 Shade Tree Program Review	4
	2007 – 2012 Community Forestry Management Plan Benefits	
	The Role of Trees in Newark's Renaissance	
	Key Shade Tree Program Issues	
	Current Public Tree Assessment	
	Relation to the City Master Plan	10
	Relation to the City's Stormwater Management Plan	
MAPS		12
	Street Map	12
PROGR	RAM ADMINISTRATION	12
	Shade Tree Program Structure	13
	Shade Tree Program Responsibilities	
	Current Ordinances	
	Current Policies, Procedures & Specifications	
	Tree Service Request Procedures	
	2014 – 2018 Objectives	
BUDGE	ET & RESOURCES	19
	Overview	19
	2007 – 2013 Grants Received	
	Employee Salary & Wages	
	Operations	
	City Equipment	
	Tree Planting	20
	Tree Waste Recycling	20
	Volunteer Services	20
	Totals	20
<u>TRAINI</u>	ING & PROFESSIONAL DEVELOPMENT	21
	Training & Professional Development Goals	
	Existing Programs, Policies & Procedures	
	Current Training Needs	
	2014 – 2018 Objectives	22
PUBLIC	EDUCATION, AWARENESS & OUTREACH	25
	Public Education, Awareness & Outreach Goals	25
	Existing Programs, Policies & Procedures	25
	2014 – 2018 Objectives	26

TREE IN	REE INVENTORY & ASSESSMENT		
	Tree Inventory & Assessment Goals	27	
	Existing Programs, Policies & Procedures		
	2014 – 2018 Objectives	27	
TREE H	REE HAZARD MANAGEMENT		
	Tree Hazard Management Goals	20	
	Existing Programs, Policies & Procedures		
	2014 – 2018 Objectives		
TREE PI	LANTING	30	
	Tree Planting Goals		
	Existing Programs, Policies & Procedures		
	2014 – 2018 Objectives		
TREE M	IAINTENANCE	33	
	Tree Maintenance Goals		
	Existing Programs, Policies & Procedures		
	2014 – 2018 Objectives		
TREE W	ASTE RECYCLING	36	
	Tree Waste Recycling Goals	36	
	Existing Programs, Policies & Procedures		
	2014 – 2018 Objectives		
TREE C	ARE DISASTER PLAN	38	
	Tree Care Disaster Plan Goals	38	
	Existing Programs, Policies & Procedures	38	
	2014 – 2018 Objectives	39	
<u>PLAN P</u>	REPARATION & EVALUATION	40	
	Plan Preparation & Evaluation Goals	40	
	Existing Programs, Policies & Procedures		
	2014 – 2018 Objectives	40	
SUMM	ARY OF 2014 – 2018 OBJECTIVES	42	
	Timeline	42	
ORDIN	IANCES	47	
	Title II – Administration, Chapter 8 Department of Engineering	48	
	Title II – Administration, Chapter 12 Department of Neighborhood and Recreational Services		
	Title XXVII – Parks, Trees and Plants, Chapter 1 Trees and Shrubbery		



MUNICIPALITY	City of Newark  Essex  920 Broad Street, Room 216  Newark, NJ 07102		
COUNTY			
ADDRESS			
CONTACT	Mr. Patrick Council, Director		
PHONE	(973) 733-5373		
FAX & EMAIL	(973) 733-5961 councilp@ci.newark.nj.us		
ORGANIZATION	Department of Neighborhood & Recreational Services		
ORGANIZATION	Department of Heighborhood & Neer eathorn Der Hees		
MAYOR'S	Original Copy Signed		
SIGNATURE			
	Certify that this Community Forestry Management Plan was developed specifically and exclusively for the City of Newark.		
DATE SUBMITTED	October, 2014		
TIME PERIOD	January, 2014 – December, 2018		
CSIP PRACTICES	CSIP #1 Training	<b>5. 2</b> 2	
IDENTIFIED	CSIP #2 Community Forestry Ordinance Establishmentp. 17	7, 1	
IN PLAN	CSIP #3 Public Education & Awareness	o. 2	
	CSIP #4 Arbor Dayp. 25	5, 2	
	CSIP #5 Tree Inventoryp. 9	€, 2	
	CSIP #6 Hazard Tree Assessmentp	o. 29	
	CSIP #7 Storm Damage Assessmentp	ა. 3	
	CSIP #8 Tree Maintenance & Removalsp	<b>).</b> 3	
	CSIP #9 Insect and Disease Management	5, 38	
	CSIP #10 Wildfire Protectionp	o. 39	
	CSIP #11 Tree Plantingp	o. 30	
	CSIP #12 Tree Recyclingp	ა. 30	
	CSIP #13 Sidewalk Maintenance Programp	o. 3!	
	CSIP #14 Stormwater Managementp	<b>). 1</b> 2	
	CSIP #15 Othervarious sect	ion	

# Certification

The above named municipality has made formal application to the New Jersey Forest Service. I am pleased to advise you that after our review, the NJ Forest Service has concluded that this plan meets the standards set forth by the State and the NJ Community Forestry Council and is approved for the period covered.

Signed:		Original Copy Signed & Dated
	State Forester	Approved Date



#### SCOPE

The following sections outline programs and procedures for managing public tree resources within the City of Newark during the period January 2014 – December 2018.

The City has developed this second five-year community forestry management plan in accordance with statewide efforts to conserve, enhance and promote sustainable shade tree and urban forest resources.

It is widely recognized that a healthy shade tree population has dramatic physical, social and economic benefits, and Newark appreciates the value and benefits trees offer in improving the quality of urban life. It also acknowledges the responsibility and recognizes the costs of proper tree maintenance and the need to continually replace trees that are inevitably lost to perpetuate the resource.

Efforts will continue to build upon the progress made in implementing the Newark's 2007 – 2012 Community Forestry Management, the goals and objectives of which were carried through 2013. During the current management period, the City will continue to enhance programs for managing its public street trees to help ensure a beneficial and sustainable resource.

In addition, it is expected that elements of this Plan will continue to help stimulate the public's appreciation for trees and help encourage the planting, protection and proper care of trees on private property for the benefit of the entire Newark community.

# MISSION STATEMENT

To improve the quality of life in the City of Newark by maximizing the environmental, social and economic benefits of trees to the community, while minimizing the associated costs and liabilities.

# OVERALL PROGRAM GOALS

The New Jersey Community Forestry Council has identified fifteen Community Stewardship Incentive Program (CSIP) practices that together comprise a complete and comprehensive community forestry program.

Within each of the Plan elements that follow, existing City programs, policies and procedures are described, intermediate and element-specific goals are established, and CSIP-based objectives for the 2014 – 2018 management period are set. Systematic fulfillment of these CSIP-specific goals and objectives will continue to move Newark's Shade Tree Program toward its overall program goals, which remain as follows:

- 1. Develop and perpetuate a beneficial public shade tree resource.
- 2. Maximize the physical, social and economic benefits of trees to the community.
- 3. Maximize long-term stability and sustainability in the shade tree resource.
- 4. Minimize the risk of trees to public safety.
- 5. Minimize conflicts between trees and infrastructure.
- 6. Optimize the balance between tree health, maintenance costs and budgetary constraints.
- 7. Improve and maintain public interest, appreciation and support for public shade tree programs

- and encourage volunteer participation.
- **8.** Preserve and protect existing open space areas in a manner that maintains the character of the City, protects sensitive lands, maintains water quality, protects habitat, and provides scenic and recreation opportunities.
- 9. Meet all eligibility requirements of the NJ Shade Tree & Community Forestry Assistance Act.

# TREE HAZARDS & LIABILITY

Public trees are regarded as a valuable asset that contributes immeasurably to improving the quality of urban life. In Newark, New Jersey's largest city and one of the oldest in the Country, their value is particularly high.

The City also recognizes, however, that the benefits of trees carry costs and potential liabilities. As with all municipal assets – perhaps even more so – trees require maintenance, and as they mature, eventually require replacement. Despite active tree management, it is inevitable that potentially hazardous conditions will emerge. The City acknowledges that not all such hazardous conditions can or will be predicted.

Nevertheless, experience in Newark and elsewhere has shown that comprehensive and proactive community forestry programs that strive to prevent, anticipate, and correct such problems will cost-effectively maximize the benefits of trees while minimizing the threat to public safety and exposure to liability. All elements of this plan are designed to optimize the balance between tree benefits and risks.

Comprehensive and proactive management will reduce the probability of hazards, but unpredictable events will still occur. The City's resources are limited and it may not be able to meet every need of the tree population immediately.

The intent of this plan is to direct available resources toward the greatest needs and systematically develop and maintain a healthy community forest with a commensurate reduction in threats to public safety.

Public safety must be a primary consideration in the development and implementation of all community forestry plans and programs. This plan provides a means of identifying and systematically addressing existing tree hazards. Further, it provides a means of reducing the potential for future hazards and liability through responsible planting and preventative maintenance.

# **Community Overview**



2007 - 2013SHADE TREE **PROGRAM** REVIEW

The following is a summary of the Shade Tree Program's activities and accomplishments as they relate to objectives proposed in its 2007 - 2012 Community Forestry Management Plan, the goals and objectives of which were carried through 2013.

# 1. Program Administration

- Newark's Shade Tree Program continued to implement all of its previously existing administrative programs, policies and procedures. (Program Administration, Objective #1)
- b) The City continued to work to improve and maintain communications between the Tree Operations Unit and the Department of Engineering with regard to tree planting, removal and maintenance, and to ensure that both worked in unison toward the goals of the Community Forestry Management Plan. (Program Administration, Objective #1)
- Newark did not establish a shade tree commission pursuant to N.J.S.A. 40:64-1 as planned. It did, however, continually investigate and review the process and potential implications. At this time, there appears to be sufficient support for establishing a shade tree commission and the objective has been carried for implementation during the 2014 - 2018 management period. (Program Administration, Objective #2)

#### 2. Training & Professional Development

- a) The City continued and significantly expanded its existing training programs and made training opportunities available to all individuals serving Newark's Shade Tree Program. (Training & Professional Development, Objective #1)
- b) Newark met or exceeded its requirements for CORE training and continuing education under the New Jersey Shade Tree and Community Forestry Assistance Act each year except 2012. (Training & Professional Development, Objective #2)
- One employee of the Tree Operations Unit completed Hazardous Tree Identification through the Rutgers Office of Continuing Professional Education. (Training & Professional Development, Objective #3)
- One employee of the Tree Operations Unit received Line Clearance Arborist certification and two re-certifications through ACRT during the 2007 – 2012 management period. (Training & Professional Development, Objective #4)
- In addition to the above training, which satisfied specific objectives in the 2007 2012 Community Forestry Management Plan, employees of the Tree Operations Unit attended a number of additional classes, courses and workshops covering a variety of subjects including:
  - Principles of tree pruning
  - ii) Integrated pest management
  - iii) Tree inventory
  - iv) Tree worker safety
  - v) Tree anatomy and physiology
  - vi) Public grounds management
  - vii) Small engine repair
  - viii) First aid and CPR

f) In addition, hundreds of City residents representing numerous community based organizations were provided training in tree planting and post-planting care through the New Jersey Tree Foundation, the Greater Newark Conservancy, and the Trust for Public Land.

#### 3. Public Education, Awareness & Outreach

- a) Official Arbor Day celebrations were held annually over the past five years in Newark. These programs have typically involved celebratory programs at City elementary schools, as well as Newark Symphony Hall. Press releases were submitted to local newspapers in advance of and/or following each celebration. (Public Education, Awareness & Outreach, Objective #1)
- b) In April 2010, the City was honored to host the New Jersey State Arbor Day program. More than 800 volunteers from Newark, Covanta, New Jersey Youth Corps, and volunteers and professionals from across the State celebrated and planted over 200 new trees in the Fairmount North neighborhood. (Public Education, Awareness & Outreach, Objective #1)
- c) Over the past five years, the City and its partners, such as the New Jersey Tree Foundation, routinely issued press releases to local and regional newspapers and via the City website regarding Arbor Day events, community based tree planting projects, tree sapling give-aways, calls for volunteers, and other matters pertaining to the Shade Tree Program. (Public Education, Awareness & Outreach, Objective #2)
- d) In cooperation with the New Jersey Tree Foundation, the City of Newark promoted and successfully ran its Newark Renaissance Trees Program. Through this program, community groups have planted over 1,700 trees since 2006 and hundreds of resident volunteers have been trained and enlisted to help protect and maintain them. (Public Education, Awareness & Outreach, Objective #3)
- e) The City continued to apply for Tree City USA designation has received the honor a total of 11 times in recent years. (Public Education, Awareness & Outreach, Objective #4)

# 4. Tree Inventory & Assessment

Due to increasing constraints in both budget and manpower, coupled with the long list of trees requiring priority maintenance, the City was unable to implement its plan to conduct a complete inventory and assessment of it public trees. The City recognizes the importance of this objective and the long-term benefits that having such an inventory will provide. As such, the objective has been carried to the current management period and plans are currently in development for beginning work in the coming year. (Tree Inventory, Objective #1)

### 5. Tree Hazard Management

a) The City continued to implement its previously existing programs, policies and procedures for identifying and addressing trees requiring priority maintenance to minimize potential tree hazards on an ongoing basis. (Tree Hazard Management, Objective #1)

# 6. Tree Planting

- a) Newark continued to implement its previously existing tree planting programs, policies and procedures and continued to improve species composition and sustainability in the public tree population by planting a variety of species and cultivars and carefully selecting species to suit existing site conditions. (Tree Planting, Objective #1)
- b) The City continued to successfully implement the Newark Renaissance Trees Program in cooperation with the New Jersey Tree Foundation, which resulted in the planting of over 1,700 public trees since 2006 and their care and protection by partnering community groups. (Tree Planting, Objective #2)
- c) The City did not establish street tree stocking, age diversity, and species composition goals and guidelines because these objectives were directly tied to completion of the Shade Tree

- Inventory & Assessment objective. These objectives will be completed upon completion of the rescheduled Shade Tree Inventory & Assessment outlined in this current Community Forestry Management Plan. (Tree Planting, Objectives #3 & #4)
- The City of Newark planted an average of 200 300 new public trees each year from 2010 through 2012. These plantings were primarily in conjunction with road improvement projects by the Department of Engineering, and assistance from the New Jersey Tree Foundation and the Nature Conservancy.

#### 7. Tree Maintenance

- a) The City continued to implement its previously existing tree maintenance programs, policies and procedures. (Tree Maintenance, Objective #1)
- Despite not being able to complete the planned Shade Tree Inventory Assessment, the City diligently worked to identify and prune or remove aged trees in poor and deteriorating structural condition. As a result of these efforts, the number of trees requiring removal each year has been reduced significantly – from an average of 1,200 per year ten years ago, to an average of 300 over the past five years. (Tree Maintenance, Objective #2)
- The City completed an analysis of the costs and benefits of adding a second full-time tree crew to the Tree Operations Unit. Pending funding for the additional personnel and equipment needed, the City intends to add the second crew early in the 2014 - 2018 management period. (Tree Maintenance, Objective #3)

#### 8. Tree Waste Recycling

a) The City continued to implement all of its previously existing tree waste recycling programs, policies and procedures. Although there was not a specific objective in the 2007 – 2012 Community Forestry Management Plan, the City did find and utilize several best-use and low-cost opportunities for the large amount of vegetative waste generated by the Shade Tree Program. (Tree Waste Recycling, Objective #1)

### 9. Tree Care Disaster Plan

The City of Newark remained ready to implement its previously existing tree care disaster plan programs, policies and procedures and worked to minimize future issues over the long term by implementing other elements of this Plan, such as improving species diversity and applying sound tree maintenance principles. (Tree Care Disaster Plan, Objective #1)

#### 10. Plan Preparation & Evaluation

- Newark continually reviewed its Community Forestry Management Plan, monitored progress toward its goals and objectives and made appropriate adjustments in the Shade Tree Program's activities to address current needs. To help ensure full and proper implementation, the City established a Community Forestry Management Plan Advisory Committee comprised of the Department of Neighborhood and Recreational Services, Division of Parks and Grounds, Department of Engineering, Division of Traffic and Signals, New Jersey Tree Foundation, and Newark District Leader. This Committee met quarterly to review progress in meeting the goals and objectives of the Plan and develop plans and schedules for upcoming tasks. (Plan Preparation & Evaluation, Objective #1)
- b) The City submitted all necessary Annual Accomplishment Reports to the NJ Forest Service in accordance with the Requirements of the New Jersey Shade Tree & Community Forestry Assistance Act to maintain approved status under the Act. (Plan Preparation & Evaluation, Objective #1)
- The City of Newark has prepared this second five-year Community Forestry Management Plan for the 2014 – 2018 management period with the assistance of a NJ Green Communities Challenge Grant and based on a thorough review of its goals, objectives and current needs. (Plan Preparation & Evaluation, Objective #2 and #3)

2007 – 2012 COMMUNITY FORESTRY MANAGEMENT PLAN BENEFITS Since 2007, the City of Newark has used this Community Forestry Management Plan to document its policies and procedures and to guide its efforts in managing and continually improve its Shade Tree Program. Development and implementation of this plan has helped the City realize several benefits.

- This Community Forestry Management Plan establishes standard operating procedures that remain constant as employees and volunteers change over time and ensures continuous progress toward fixed, long-term goals.
- 2. Training and professional development completed in accordance with the New Jersey Shade Tree & Community Forestry Assistance Act requirements has significantly improved the level of knowledge among those charged with the day-to-day management of Newark's trees. This, in turn, has improved the overall management of Newark's tree resources.
- 3. Despite a large number of aging trees rapidly declining in health and structural condition, the City has remained relatively safe as a result of the Shade Tree Program constantly evaluating the public tree population, identifying potentially hazardous conditions, and directing efforts toward the pruning and removal of problem trees in logical order and in an efficient manner.
- **4.** Having a Community Forestry Management Plan and approved status under the NJ Shade Tree & Community Forestry assistance Act, the City has benefited from grant programs and partnerships that it would not otherwise have been eligible for.
- **5.** With clearly stated goals, and methods and flexible schedules for attaining them, this Community Forestry Management Plan serves as an effective working manual for all participating departments and individuals.

# THE ROLE OF TREES IN NEWARK'S RENAISSANCE

The physical, social and economic benefits of trees and their ability to help improve the quality of urban life are well documented.

Trees alter the environment in which we live by moderating the effects of sun, wind, and rain, improving air quality, and conserving water. Shade trees play a major role in reducing urban heat island effects in highly developed areas such as Newark and substantially reduce summer energy costs.

City trees also fulfill several architectural and engineering functions. They provide privacy, emphasize desirable views, or screen out objectionable views. They reduce glare and reflection. They direct pedestrian traffic. They provide background to and soften, complement, or enhance architecture.

These physical benefits, along with the stature, strength, endurance, and simple beauty of trees, have a positive impact on the human psyche. Trees impart feelings of serenity, peace, and tranquility. They give us a sense of "home."

Recent studies have shown that properly placed and maintained trees and other vegetation may also help reduce crime. *Crime Prevention Through Environmental Design* (CPTED) is a multidisciplinary approach to deterring criminal behavior. Evidence suggests that trees and other vegetation have a mitigating effect on mental fatigue and other stresses that often precede outbursts of anger and violence.

Given the issues facing Newark today and the progress made in its revitalization, the need to enhance and comprehensively manage the City's urban forest remain critically important.

# KEY SHADE TREE PROGRAM ISSUES

The City of Newark has many of the components required for the comprehensive management of its trees already in place. The resources dedicated to it, however, remain insufficient to meet current and future needs.

Currently, nearly all tree maintenance resources are consumed by the need to prune or remove old and deteriorating trees as promptly as possible. This complaint-based approach is a classic "catch-

22" – it is necessary to preserve safety, but leaves little or no time and resources for proactive maintenance, which would ultimately reduce the number of potential hazards and the need for crisismanagement if it could be implemented with consistency.

Experience elsewhere has shown that shade tree programs that do manage to turn the tide and make the transition from complaint-based tree maintenance to a more proactive, preventive approach, become more efficient and see a substantial decrease in complaints and service requests.

Over the past five years, the City made significant progress in catching up with the large number of aging and deteriorating trees requiring removal. An average removal rate of 1,200 trees per year five to ten years ago is currently about 300 per year. Nevertheless, there remains a substantial number of over-mature trees in deteriorating condition and, in order to attain and maintain significant tree cover in Newark, new tree plantings must exceed current tree removal rates.

In 2004 and 2005, Newark was able to accomplish additional tree plantings through its involvement in the New Jersey Forest Service's Cool Cities Initiative, a funding partnership with the NJ Board of Public Utilities (BPU) and participating cities. This involvement provided for the planting of 2,495 trees in selected areas of Newark at a value of \$2,500,000.00. After the Cool Cities Initiative expired, Newark benefited from the New Jersey Tree Foundation's Second Cities Initiative. Subsequently, the New Jersey Shade Tree Foundation's Newark Renaissance Trees Program and contributions from the Nature Conservancy and others has provided localized, community-based planting efforts.

Despite these contributions, new tree planting remains significantly below the rate of losses when averaged beyond ten years. Efforts are needed to identify and allocate additional funding to help adequately restore Newark's tree canopy.

Beyond planting, the City must continually strive to take a more proactive stance in maintaining its shade trees by developing or improving programs that ensure its tree resources are protected and perpetuated over the long term.

The City's 2007 – 2012 Community Forestry Management Plan identified several key issues that must be addressed as it moves forward towards its overall goals. These issues remain valid for the current management period.

The CSIP-specific intermediate goals and objectives contained in the following elements of this Plan are designed to help Newark continue to address and resolve these issues, in addition to providing for basic management needs, in a logical fashion.

- 1. Shade Tree Program Administration Structure: A single, central body should be charged by ordinance to assume responsibility, administer and coordinate all aspects of Newark's Shade Tree Program. While this can be accomplished effectively by those currently operating the Shade Tree Program, language in the New Jersey Shade Tree & Community Forestry Assistance Act (P.L. 1996, Chapter 135) provides the clearest level of liability protection to municipal tree programs administered by a Shade Tree Commission established pursuant to N.J.S.A. 40:64-1.
- 2. Rejuvenating & Perpetuating the Shade Tree Resource: Overall, Newark's tree resources are poorly stocked and tree canopy coverage is limited. There are many roadways and public properties where many public trees have been removed over the years and not replaced. Expanded reforestation and tree replacement programs must be implemented consistently over the long term to ensure that the tree populations are increased and perpetuated and a more stable, uneven-aged structure is maintained.
- Tree Inventory & Assessment: The City lacks sufficient information about its existing public tree resources to manage them in the most effective and cost-efficient manner possible. A current and accurate inventory and assessment is basic to any effective management program. With it, the City will be better able to clarify its objectives, develop long-term plans, establish effective policies and procedures, prioritize needs, and implement cost-efficient day-to-day management programs.

- 4. Species Diversity: Most problems that severely affect urban trees are specific to certain species or genera. The dramatic loss of American elms across the Country when Dutch elm disease was introduced is the classic example. More recently, the widespread decline of maples throughout northern New Jersey, a result of unanticipated environmental stresses and disease as they mature, has severely impacted municipalities that planted little more than maples in past decades. It is critical that the City plant new trees in a manner that maximizes the diversity of species and susceptibilities to help insulate the City from cycles of increased demand when unanticipated, species-specific problems emerge.
- 5. Conflicts Between Trees and Sidewalks, Utilities and Other Fixtures: Given the design of its streetscapes, conflicts between trees and sidewalks and overhead wires are a major issue facing Newark's Shade Tree Program. Conceding that this is a problem that cannot be fully solved, the City must implement policies and procedures that will allow it to minimize the conflicts and cope with the inevitable as best it can. Careful species selection, tree placement and developmental pruning when the trees are young will help reduce the need for severe pruning in the future. In addition, efforts should be made to continually foster a cooperative relationship with Public Service Electric & Gas Company and other utility companies whose facilities may conflict with City trees.
- 6. Proactive vs. Reactive Tree Management: Currently, public tree maintenance is almost exclusively limited to complaint-based, reactionary pruning or removal of dead or hazardous trees. Obviously, this is not by design, but the undesirable result of having to address potential hazards immediately and insufficient time and resources to institute preventative maintenance programs. Over the long-term, more proactive, systematic maintenance for all trees, in combination with improved species and age diversity, will drastically reduce the amount of service request work and improve the overall condition of the tree population.

Given its limited manpower and resources and the large expanse they must cover, the City cannot institute all of the programs necessary to fully address these issues and other needs immediately. However, it has analyzed and prioritized its needs and will address them in logical order.

During the current five-year management period, objectives will continue to focus on improving existing street tree programs and procedures and establishing necessary new ones. Additional programs will be introduced or expanded during subsequent management periods.

# CURRENT PUBLIC TREE ASSESSMENT

The City of Newark currently lacks a comprehensive inventory and assessment of it public tree resources.

Based on the impressions of the Department of Neighborhood and Recreational Services, planting and maintenance records, and general surveys completed in conjunction with the preparation of this Plan, it is believed that:

- 1. Overall, Newark's public tree resources are poorly stocked and tree canopy coverage is limited. There are many roadways and public properties where trees have been removed over the years and not replaced. Heat island effects are severe in areas that are completely devoid of trees.
- 2. Based on partial counts completed by the Tree Operations Unit, the current number of street trees in Newark is believed to be between 35,000 and 50,000. While the number of unoccupied planting sites is unknown, it is obvious that many areas of the City are poorly stocked or completely void of trees.
- **3.** The public street and City park tree populations are comprised primarily of:
  - a) London planetree (Platanus x acerifolia)
  - b) Pin oak (Quercus palustris)
  - c) Honeylocust (Gleditsia triacanthos)
  - d) Callery pear (Pyrus calleryana)

- e) Norway maple (Acer platanoides)
- f) Red maple (Acer rubrum)
- **4.** Additional species diversity has been introduced through new plantings in recent years. Significant new species in the younger segment of the public tree population include:
  - a) Zelkova (Zelkova serrata)
  - b) Ginkgo (Ginkgo biloba)
  - c) Goldenraintree (Koelreuteria paniculata)
  - d) American hornbeam (Carpinus caroliniana)
  - e) Amur maackia (Maackia amurensis)
  - f) Scholar-tree (Sophora japonica)
  - g) Hedge maple (Acer campestre)
- 5. A large portion of the public tree population is mature, primarily London planetrees, pin oaks and honeylocusts in the 24" 36" diameter range.
- 6. There are significant differences in the condition and long-term performance of different species in Newark:
  - a) London planetrees are generally in fair to good condition and demand relatively less maintenance than other species, despite advancing age.
  - b) Pin oaks are generally in fair health. However, internal wood decay is a widespread problem that frequently necessitates the removal of mature pin oaks.
  - c) Honeylocusts are generally in good condition.
  - d) Callery pear grows with good health and vigor in Newark, but its service life is severely limited by structural failures that are inherent of the species.
  - e) Maples, despite growing well while young, eventually exhibit a sudden and rapid decline in their health and structural condition after 30 to 40 years. In addition, internal wood decay in the trunk and major scaffold limbs is a widespread problem that frequently necessitates the removal of mature maples.
- **7.** Street side planting sites in many areas of the City are severely limited by growing space, expansive impervious ground cover, poor soils, and above ground utilities and restrictions that create conditions that are inhospitable for tree growth.
- **8.** The need to maintain clearance around overhead utilities has necessitated the excessive pruning of existing trees. In many cases, this has resulted in a decline in the trees' health, structural deformation, and structural failures.
- **9.** Sidewalk damage caused by the growth of relatively large species in prohibitively small planting areas is a widespread problem throughout the City.

# RELATION TO THE CITY MASTER PLAN

The City of Newark's Master Plan (2012) is an inspiring document that establishes a vision, as articulated by its citizens, to set a national standard for urban transformation that considers and is based on the three pillars of sustainability – economy, equity, and environment.

All three of these pillars are directly tied to, if not dependent upon, a healthy, safe and productive urban forest.

The Parks & Natural Resources element of the Master Plan contains a variety of goals for improving and maintaining neighborhood and regional parks, expanding greenways, providing neighborhood-based park stewardship, urban agriculture, and protecting and enhancing natural resources.

Specific implementation strategies include growing and maintaining Newark's tree canopy, which is deemed insufficient for supporting the City's vision, by:

- Launching a Trees for Newark fund for tree planting, maintenance, community engagement, and job training and placement in the tree care industry.
- Enhancing the City's capacity to manage trees via a formal citizen advisory group that can guide the City on best practices for tree care and engage residents and community institutions, enforcing requirements for site plan applicants to pay into a tree planting and maintenance fund, and creating streetscape design standards and development design requirements.
- Targeting tree planting efforts in priority locations where they will provide an optimum mix of economic, social and environmental benefits.

As such, realization of the City's vision will be directly supported by, and in some cases fully dependent upon, comprehensive implementation of this Community Forestry Management Plan.

# **RELATION TO** THE CITY'S STORMWATER MANAGEMENT PLAN

The City of Newark's Stormwater Management Plan and related ordinances establish goals and provide specific requirements and recommendations to minimize point and non-point contamination of local water bodies in accordance with State regulations.

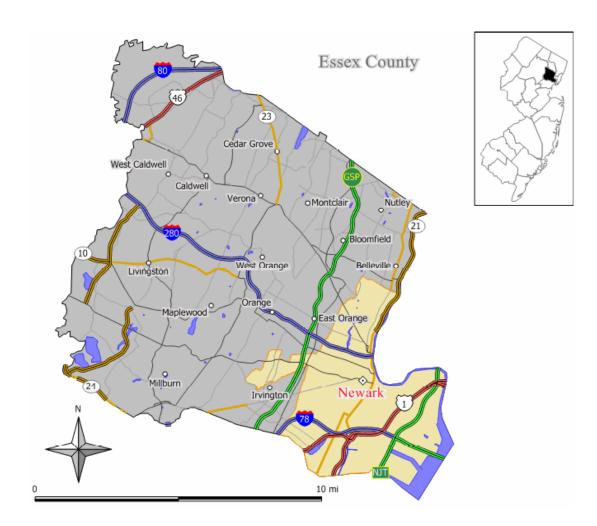
All aspects of this Community Forestry Management Plan are consistent with and directly support the City's Stormwater Management Plan.

Trees and other vegetative cover are known to help reduce soil erosion and siltation, sequester pollutants, and improve soil permeability, thereby reducing the runoff of pollutant laden stormwater into natural water bodies. Increased levels of tree canopy and vegetative cover are directly correlated to improved water quality and reduced risk of flooding.

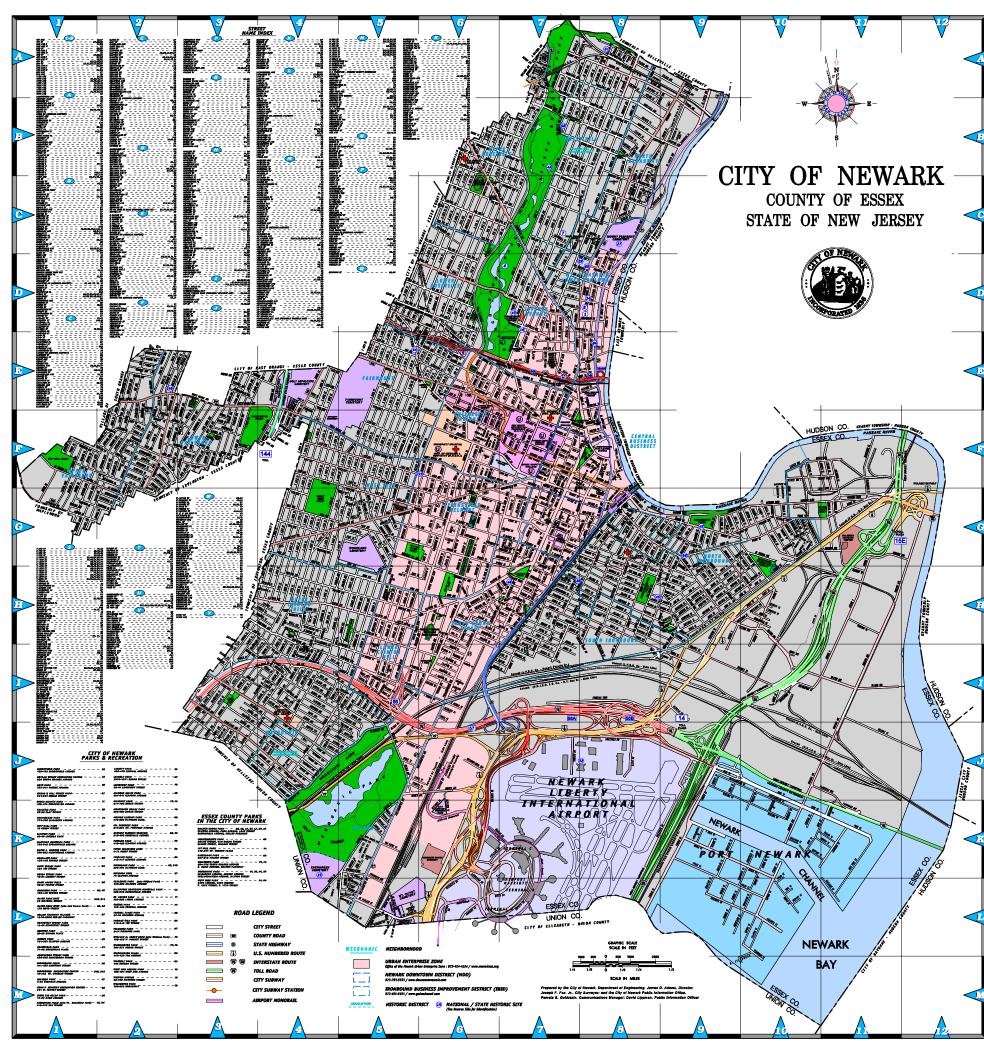
In its tree planting efforts over the past ten years, the City has removed significant amounts of unnecessary concrete and asphalt paving to plant curbside trees. In addition to being necessary for the trees to grow, removal of this impermeable cover has created new places for stormwater to penetrate the ground, rather than runoff and add to the City's over-burdened stormwater system.

The concentration of leaves in stormwater is known to contribute to reduced system function and an increase in potentially harmful nutrients in water bodies. To combat this, leaves from public and private properties are collected by the City within timeframes mandated by applicable regulations and recycled in a manner that minimizes their entry into stormwater drainage systems, streams and rivers.

The City of Newark encourages private property owners to preserve, plant and maintain trees, shrubs and other vegetation on their property to further reduce impervious groundcover, ensure efficient, natural drainage, reduce the risk and severity of flooding, and minimize the runoff of silt, nutrients, and pollutant laden stormwater into local water networks. The planting of low-maintenance landscapes that minimize pesticide usage is strongly recommended.







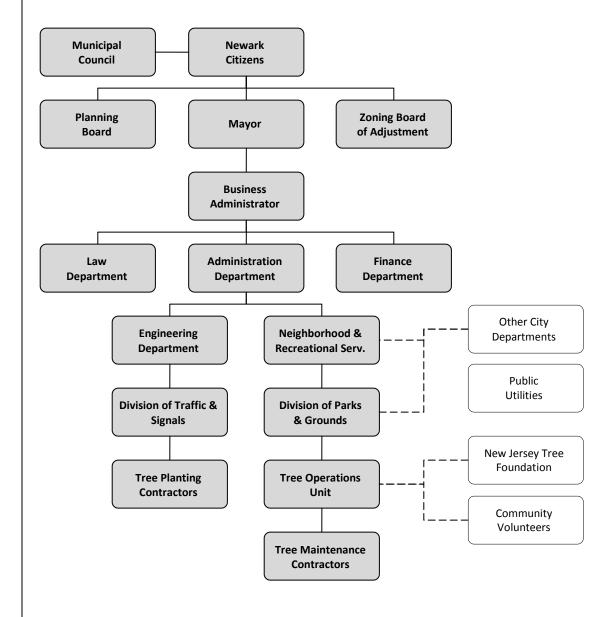


SHADE TREE **PROGRAM STRUCTURE** 

The Department of Neighborhood & Recreational Services, Tree Operations Unit is primarily responsible for the day-to-day maintenance of public trees in the City of Newark.

The Department of Engineering is primarily responsible for the planting of new public trees in the City.

The Departments of Neighborhood & Recreational Services and Engineering cooperate with the Mayor and Council, other City departments and boards, and certain external groups to comprise Newark's Shade Tree Program, as follows:



# SHADE TREE PROGRAM RESPONSIBILITIES

#### 1. Office of the Mayor & Agencies

- a) The mission of the Office of the Mayor & Agencies is to provide leadership in the operation of the various departments of the City.
- b) The mission of the Mayor's Office is to provide the vision and leadership necessary to attain the desired goals and objectives of the City.
- c) The Mayor is responsible for appointing members to the various City boards and commissions.

#### 2. Municipal Council

- a) The Municipal Council exercises the legislative power of the Newark City government.
- **b)** Specifically, the Municipal Council is responsible for:
  - i) Enacting, via ordinance, resolution or motion, the local laws that govern the City and its people.
  - ii) Approving the City's budget.
  - **iii)** Establishing financial controls and authorizing the continued independent audit of all financial transactions by the City.
  - iv) Setting the salaries of elected officials and top appointed administrators.
  - v) Rendering advice and consent on the Mayor's appointments and policy programs.
  - vi) Investigating, when necessary, any branch of the City government.

# 3. Department of Administration

- a) The mission of the Department of Administration is to direct, facilitate and assist municipal departments and agencies in the delivery of services in the most cost effective and efficient manner to serve residents, businesses and visitors.
- b) The Department of Administration is comprised of the following:
  - *Business Administrator:* The mission of the Office of the Business Administrator is to provide leadership and to manage the overall operations of the City for the execution of the goals and objectives set by the Mayor.
  - ii) Office of Management & Budget: The mission of the Office of Management and Budget is to provide state of the art management, financial planning and information technology resources consistent with the Administration's policies to support the City of Newark.
  - iii) Central Purchase: The mission of the Division of Central Purchase is to contribute to management and operating effectiveness of all Departments by procuring the goods and services needed in the right quality and quantity, on a timely basis at the lowest cost to the City.
  - iv) Personnel: The mission of the Division of Personnel is to enable the Administration to most effectively and efficiently utilize its human resources in providing services to the citizens of Newark while upholding the respective rights and entitlements of management and labor.
  - v) Office Services: Office Services is responsible for providing support services including mail, phone, graphics, and printing to Newark Departments or Agencies and to enable their effectiveness and efficient operations by purchasing supplies.

# 4. Law Department

The mission of the Law Department is to provide exemplary legal services and achieve urban transformation by addressing the legal challenges facing the City of Newark in a professional, ethical and cost effective manner, in an environment conducive to developing

and fostering innovative legal solutions.

### 5. Finance Department

a) The mission of the Finance Department is to protect the assets of the City of Newark for its citizens by accounting for and controlling all revenues and expenditures insuring that all municipal funds are collected, processed, maintained, invested and/or distributed in accordance with all applicable laws, rules and regulations, and maintaining prudent custody of the City of Newark's assets.

### 6. Department of Neighborhood & Recreational Services

- a) The mission of the Department of Neighborhood and Recreational Services is to provide those services which promote a clean, safe and attractive environment and to ensure that diversified recreational and cultural activities are developed and implemented for the enjoyment of the citizenry.
- **b)** The Department of Neighborhood and Recreational Services is comprised of the following with regard to Newark's Shade Tree Program:
  - i) Director's Office: The mission of the Director's Office is to provide leadership and management to ensure the effective and efficient operation of the agency to fulfill its mission.
  - ii) Parks & Grounds: The mission of the Division of Parks & Grounds is to provide maintenance and services to all City parks and playgrounds and the landscape surrounding City buildings to ensure a clean environment. The Tree Operations Unit is part of the Division of Parks & Grounds.
  - iii) Tree Operations: The Tree Operations Unit is responsible for maintaining public trees under the City's jurisdiction including City street trees, trees on City-owned properties, and trees in City parks.

#### 7. Department of Engineering

- a) The mission of the Department of Engineering is to provide comprehensive planning, programming, design, construction, operation, maintenance and repair of the City's infrastructure and fleet in order to preserve and expand the City's infrastructure.
- b) The Department of Engineering is comprised of the following with regard to Newark's Shade Tree Program:
  - i) Director's Office: The mission of the Director's Office is to manage the resources of the Department, provide guidance to the various Divisions, and to provide engineering and technical services to the City agencies.
  - ii) Traffic & Signals: The mission of the Division of Traffic and Signals is to provide comprehensive planning, development, construction management, replacement and operation of the City's transportation infrastructure to ensure the safety and rideability of City streets. The City's tree planting program is managed through the Division of Traffic and Signals.
  - iii) Motors: The mission of the Division of Motors is to provide comprehensive fleet maintenance and management services for the City's operating agencies so they may fulfill their respective missions.

#### 8. Planning Board & Zoning Board of Adjustment

a) The Planning Board and Zoning Board of Adjustment are responsible for implementing various elements of the *City Code* and *City Master Plan* that relate to site development and the protection of natural resources.

### 9. Tree Maintenance & Planting Contractors

a) Private tree maintenance contractors are retained on a full-time basis to prune and remove City trees under the direction of the Department of Neighborhood & Recreational Services,

Tree Operations Unit.

- b) Private tree planting contractors are retained on an as-needed basis to plant new City trees under the direction of the Department of Engineering.
- c) Contractors are, within the terms of their agreement, responsible for:
  - i) Completing all work to the specifications of the City in an efficient and safe manner.
  - ii) Following all current and accepted arboricultural standards and practices and abiding by all current and applicable safety standards relating to tree planting and maintenance operations.
  - iii) Reporting any tree-related hazards or other problems immediately to the City.

## 10. Other City Departments, Boards & Commissions

a) Other City departments and boards assist the Shade Tree Program to the extent that they administer and implement City ordinances, policies and procedures that directly or indirectly relate to the protection and management of public and private trees.

#### 11. Property Owners

- a) Private property owners assist the Shade Tree Program to the extent that they:
  - Notify the City of problems and service requests for public trees (see procedures below).
  - ii) Are asked to irrigate and protect new trees planted adjacent to their properties.
  - iii) Are encouraged to plant and properly care for trees on private property.
  - iv) Are required to comply with applicable City ordinances.

#### 12. Public Utilities

- a) Public utilities are responsible for minimizing conflicts between trees and their facilities.
- b) Specifically, public utilities and their contractors are responsible for:
  - i) Abiding by all applicable City ordinances.
  - ii) Keeping the City informed of their work plans and schedules.
  - **iii)** Exercising reasonable diligence in the installation and maintenance of their facilities so as to avoid damage to public and private trees.
  - iv) Not removing any tree without prior approval of the City or its owner.
  - v) Following all current and accepted arboricultural standards and practices.
  - vi) Assisting City personnel and contractors in completing tree removal and maintenance work around their facilities, where necessary.

# 13. New Jersey Tree Foundation

a) The New Jersey Tree Foundation (NJTF), a 501(c)(3) non-profit organization, is reforesting New Jersey's most urban cities, where the need is greatest. Through tree planting, volunteerism and partnerships, they assist numerous communities in improving their environment and quality of life. The New Jersey Tree Foundation continues to work in partnership with Newark's Tree Operations Unit to develop community interest in volunteer tree planting and maintenance programs as part of its Newark Renaissance Trees Program.

# 14. Community Volunteers

a) Various volunteer groups and individuals, such as the IYO Youth Corps and Greater Newark Conservancy, occasionally complete, or assist in completing, tree planting, tree maintenance, and environmental enhancement projects in cooperation with the Tree Operations Unit and the New Jersey Tree Foundation.

# **CURRENT ORDINANCES**

The following portions of the Revised General Ordinances of the City of Newark govern, authorize or relate to Newark's Shade Tree Program:

- 1. Title II, Administration, Chapter 8, Department of Engineering, which establishes and empowers the Department of Engineering and its various Divisions (see Appendix).
- Title II, Administration, Chapter 12, Department of Neighborhood and Recreational Services, which establishes and empowers the Department of Neighborhood & Recreational Services and its various Divisions (see Appendix).
- Title XXVII, Parks, Trees and Plants, Chapter 1, Trees and Shrubbery, which regulates the removal, protection and planting of trees on public lands within the City (see Appendix).
- Title XXXVIII, Land Subdivision, Chapter 10, Site Plan Review, which contains requirements regarding the installation and maintenance of landscaping, including street tree plantings, on all residential, commercial and industrial sites within the City (see Appendix).
- Title XXIX, Streets and Sidewalks, Chapter 3, Sidewalks, Curbs and Gutters, which requires adjacent property owners to maintain and repair sidewalks, curb and gutters in the City right-ofway adjacent to their property.
- Title XXIX, Streets and Sidewalks, Chapter 21, Signs, Notices and Advertisements, and Chapter 22, Posting of Political Signs and/or Promotional Signs, which prohibit affixing such signs and notices to public trees.

The City currently lacks ordinances relating to the removal of trees from private property beyond the requirements specified in applicable planning and zoning codes.

# CURRENT POLICIES, **PROCEDURES** & SPECIFICATIONS

Newark's Shade Tree Program and its contractors currently operate in accordance with the following written policies, procedures and specifications in addition to other unwritten established policies and procedures.

#### 1. Policies & Procedures

a) Policies & Procedures for Tree Removal / Emergency Contract, January 2006.

### **Specifications**

- a) Tree Removal Services (968-88)
- b) Tree Pruning Services (988-88)
- Street Tree Specifications (Department of Engineering)

# TREE **SERVICE REQUEST PROCEDURES**

Requests for the pruning, removal, or other treatment of public trees are initiated both internally and externally by adjoining property owners, City personnel, and other sources and are processed in the following manner:

- 1. Service requests and complaints relating to public trees are received by or forwarded to the Tree Operations Unit, typically via letter, telephone call, or in person.
- Service requests and complaints received are recorded on an Incoming Tree Complaint Form with all applicable information regarding the complainant, the service requested, and the tree or trees in question.
- Each Incoming Tree Complaint Form is assigned a unique Tree Complaint Number (TC#) for logging and tracking purposes.
- Each service request or complaint is inspected by the Tree Operations Supervisor or his designee prior to initiating any work to determine:
  - a) Whether the request or complaint is justified.
  - b) The scope of the work necessary to resolve the request or complaint.

- c) Whether the work will be completed by a City contractor or in-house personnel.
- d) The priority level at which the work should be completed.
- Complainants are informed of the City's inspection findings and intended action via various form
- 6. Work needs are assigned a Work Order number and added to a work list from which City contractors and in-house personnel work on a continuous basis.
- 7. Work is completed in order of priority to the extent that time and resources permit.
- Records of work completed are maintained by the Tree Operations Unit via reconciliation of the 8. appropriate Work Orders, work lists and Tree Complaint Forms.

# **Ongoing Administrative Programs**

#### a) 2014 – 2018

- i) Continue implementing the administrative programs, policies and procedures already in effect, with changes dictated by completion of the following objectives.
- Continually work to improve and maintain communications between the Tree Operations Unit and the Department of Engineering regarding trees planted and removed and to ensure that both work in unison toward the goals of this Community Forestry Management Plan.

# Creation of a Shade Tree Commission

- a) January June 2015
  - Review State Statute N.J.S.A. 40:64-1 for the requirements of establishing a Shade Tree Commission to be formally charged to assume responsibility for overseeing all aspects of Newark's Shade Tree Program in cooperation with the Tree Operations Unit, the Department of Engineering, and the Mayor and Council.
  - Develop a new ordinance that will formally establish, define and provide authority to the new Shade Tree Commission, in accordance with State Statute N.J.S.A. 40:64-1.
  - iii) Obtain the review and input of all related departments and boards, the City attorney, and all interested resident volunteer groups.
- **b)** July December 2015
  - Work with the New Jersey Tree Foundation to help in finding residents of Newark who have been active in volunteer tree planting and maintenance programs and may be interested in serving on Newark's Shade Tree Commission.
  - Seek out key employees from the Tree Operations Unit and the Department of Engineering who would be interested in acting as municipal liaisons to the Shade Tree Commission.
- January March 2016
  - i) Submit the ordinance for approval by the Mayor and Council.
- April June 2016
  - i) Formally establish and staff the new Shade Tree Commission with resident volunteers who have been active in community tree planting and maintenance programs.
  - Establish municipal liaisons to the Shade Tree Commission from the Tree Operations Unit and the Department of Engineering.

# 2014 - 2018**OBJECTIVES**

# **Budget & Resources**



#### OVERVIEW

The following is a summary of the annual resources available to Newark's Shade Tree Program, on average, in recent years.

Certain objectives contained within this Plan will require resources beyond those currently available, particularly given current economic conditions. The City's ability to satisfy certain objectives may be dependent upon its ability to secure additional funding through internal or external sources.

# 2007 - 2013 GRANTS RECEIVED

During the 2007 - 2013 period, the City of Newark received the following grants to assist its Shade Tree Program:

- 1. A Green Communities Grant in the amount of \$3000.00 which was used to hire a consulting arborist to assist in preparing this 2014 2018 Community Forestry Management Plan.
- 2. In addition, the City received significant assistance from the New Jersey Tree Foundation, the Nature Conservancy, and others in the form of tree donations and the in-kind planting and post-planting maintenance services of a variety of professional and community volunteers.

# EMPLOYEE SALARY & WAGES

Department of Neighborhood and Recreational Services personnel Tree Operations Unit Personnel Department of Engineering personnel Administrative staff

Subtotal (total salary and benefits prorated by percent of time dedicated to the Shade Tree Program)

\$230,000.00

### **OPERATIONS**

Contracted tree pruning, removal and stump grinding Training & Professional Development Materials and Supplies Membership and subscriptions Other miscellaneous expenses

Subtotal \$250,000.00

# CITY EQUIPMENT

- (1) Bucket truck
- (1) Chipper
- (2) Pickup trucks

Various chainsaws

Related small tools and equipment

Subtotal (estimated annual value based on value amortized over 5 – 15 year service life, plus annual maintenance, repairs, etc. and

# TREE PLANTING

Contracted tree supply and planting via City budget (currently \$0) Value of trees donated and planted by partnering organizations and volunteers

Subtotal \$180,000.00\*

\* Figure shown is primarily the value of trees donated and planted by partnering organizations plus, to a lesser extent, expenditures from City budget as a per-year average over the past five years. City budget for tree planting is currently \$0.00.

# TREE WASTE RECYCLING

Trucking costs and fees
Disposal fees for leaves, wood and woodchips

Subtotal \$220,000.00

# VOLUNTEER SERVICES

Resident volunteers

Students, civic groups and others

Other community volunteer groups and individuals

Subtotal (2,490 hrs per year average @ \$21.79)

\$54,257.00

# **TOTALS**

City Resources \$737,500.00

Value of Trees Planted by Partnering Organizations \$180,000.00

Value of Volunteer Services \$54,257.00

# **Training & Professional Development**

# TRAINING & PROFESSIONAL DEVELOPMENT GOALS

The City of Newark recognizes that a comprehensive and continuous training program is necessary to ensure that individuals at all levels of the Shade Tree Program are effective, efficient and safe in their management of the City's shade tree assets.

The goals of the Shade Tree Program's training and professional development efforts are to:

- **1.** Ensure that tree inspections and hazard evaluations follow accepted standard procedures and that the results are objective, technically correct and consistent.
- 2. Provide individuals within the Shade Tree Program with sufficient knowledge to make effective management decisions.
- **3.** Ensure continuity in the overall level of knowledge and expertise within the Shade Tree Program as individuals leave the Program and new ones join.
- **4.** Ensure that all tree maintenance and planting projects and tasks are planned and completed properly, in accordance with the latest scientific knowledge and current industry standards.
- 5. Satisfy the requirements of the New Jersey Shade Tree & Community Forestry Assistance Act, Training Skills & Accreditation Program without interruption.

# EXISTING PROGRAMS, POLICIES & PROCEDURES

#### 1. Training Provisions & Funding

- a) Training and professional development opportunities in arboriculture and urban forestry have and will continue to be made available to employees and volunteers serving Newark's Shade Tree Program.
- **b)** These opportunities include CORE Training and Continuing Education as required under the New Jersey Shade Tree & Community Forestry Assistance Act.
- c) The cost of training is funded by the operating budget of the attendee's respective department.

# 2. NJ Community Forestry's Training Skills & Accreditation Program

- a) At the time this Plan was prepared, the following had satisfied the CORE Training requirements of the New Jersey Shade Tree & Community Forestry Assistance Act Training Skills & Accreditation Program:
  - i) (5) City employees
  - ii) (1) elected official
  - iii) (0) program volunteer

#### 3. Current Expertise, Licenses and Certifications

a) One employee of the Tree Operations Unit is an International Society of Arboriculture (ISA) Certified Arborist.

#### 4. Recent Training Completed

a) Employees of the Tree Operations Unit regularly attend professional meetings and seminars, such as the NJ Shade Tree Federation Annual Meeting, for training covering a variety of arboriculture and urban forestry subjects.

- Key City employees have completed a wide variety of training programs over the past five years through the Rutgers University Office of Continuing Professional Education, the International Society of Arboriculture, and others. Subject matter included:
  - Line Clearance Arborist Certification
  - Hazardous tree identification
  - iii) Integrated pest management
  - iv) Tree inventory
  - v) Tree pruning and rigging
  - vi) Tree worker safety
  - vii) Tree anatomy and physiology
  - viii) Plant identification
  - ix) Soil and plant relationships
  - x) Public grounds management
  - xi) Small engine repair
  - xii) First aid and CPR
- In addition, hundreds of City residents representing numerous community based organizations were provided training in tree planting and post-planting care through the New Jersey Tree Foundation, the Greater Newark Conservancy, and the Trust for Public Land.

# **CURRENT** TRAINING **NEEDS**

The City has evaluated its existing programs and personnel and identified the following areas in which training is currently needed or desired.

- New Jersey Community Forestry CORE Training for new Shade Tree Commission members and additional City employees and elected officials.
- Ongoing training in tree hazard identification and evaluation for Tree Operations Unit personnel.
- Qualified Line Clearance Tree Trimmer training for additional Tree Operations Unit personnel.
- Planting site analysis and tree species selection for appropriate Department of Engineering and Tree Operations Unit personnel.
- Ongoing tree worker safety training for appropriate Tree Operations Unit personnel.
- Maintenance pruning of mature trees for Tree Operations Unit personnel.
- 7. Young tree pruning techniques for encouraging the development of a structurally sound branch structure in young trees for Tree Operations Unit personnel.
- Asian longhorned beetle and emerald ash borer awareness and identification for all Shade Tree Program personnel, other City field personnel, City contractors, and interested residents.

#### 1. Ongoing Training Programs

# 2014 - 2018**OBJECTIVES**

- a) 2014 2018
  - Continue implementing the existing programs, policies & procedures listed above consistently and in a manner that maximizes the number of different employees and volunteers who increase their level of expertise.
  - ii) Attend training programs, in addition to the following objectives, that address the Current Training Needs listed above as appropriate programs become available.

#### 2. NJ Community Forestry's Training Skills & Accreditation Program

- a) January March, Annually
  - i) Review training needs versus upcoming training opportunities.
  - ii) Ensure that the City will accumulate the necessary continuing education credits as required under the New Jersey Shade Tree & Community Forestry Assistance Act by the end of each year.
  - **iii)** Schedule NJ Community Forestry CORE Training for additional individuals, as necessary to maintain compliance with New Jersey Shade Tree & Community Forestry Assistance Act requirements.
- **b)** October December 2016
  - Provide New Jersey Community Forestry CORE Training for two new Shade Tree Commission members.

#### 3. Electrical Hazard Awareness Training

- a) January December 2014
  - i) Train at least one additional Tree Operations Unit employee who is not already certified to recognize and avoid electrical hazards relating to tree care operations in accordance with current industry standards via an appropriately sanctioned training program.
- b) 2014 2018
  - Provide Line Clearance Arborist re-certification for individuals already certified as necessary to maintain their certifications.

# 4. Tree Climbing & Rigging Training

- a) January December 2015
  - i) Provide training in tree climbing and rigging that meets current industry practices and safety standards through an appropriately sanctioned program, such as the Committee for the Advancement of Arboriculture, for at least two junior members of the Tree Operations Unit.

#### 5. Young Tree Structural Pruning Training

- a) January December 2016
  - Train Tree Operations Unit employees and active community volunteers in specialized shade tree pruning techniques via a hands-on workshop led by a qualified individual that emphasizes developmental pruning for young trees in accordance with ANSI A300 standards to promote the development of a structurally sound trunk and crown form, minimize conflicts with roads and utilities, and minimize the need for severe pruning as the trees mature.

#### 6. Tree Hazard Evaluation Training

- a) January December 2017
  - i) Train at least two employees of the Tree Operations Unit to further advance their skills in identifying and evaluating the severity of potential tree hazards using the latest information and techniques through an advanced level seminar. This should include training in how to conduct a full Hazard Tree Inspection for determining the extent of internal decay.

### 7. Planting Site Analysis & Species Selection Training

- a) January December 2018
  - i) Train at least one key employee of the Department of Engineering, one key employee of the Tree Operations Unit, and one member of the Shade Tree Commission in preplanting site analysis, species selection and tree placement. Critical issues to be

# covered include:

- Selecting species whose site requirements and growth characteristics suit the existing site conditions.
- Recognizing potential root zone and aboveground restrictions and conflicts.
- Identifying suitable sites for larger shade tree species versus smaller ornamentals.
- Evaluating soil structure and drainage.
- Selecting an appropriate mix of species that will maximize long-term health and stability in the tree population while minimizing maintenance demands.
- Minimizing the use of aggressively invasive exotic species.



# **Public Education, Awareness & Outreach**

# **PUBLIC** EDUCATION, **AWARENESS** & OUTREACH **GOALS**

The City of Newark recognizes the innumerable positive benefits that an established and sustainable urban forest offers in improving the quality of city life. The City also recognizes that public support and assistance are critical to expanding and ensuring the long-term success of its Shade Tree Program.

The goals of the Shade Tree Program's ongoing public education, awareness and outreach programs are to:

- Improve and maintain public interest and support for Newark's Shade Tree Program.
- Encourage citizens to volunteer and assist in promoting and completing various programs and projects, protecting public trees, and beautifying the City of Newark.
- Promote the planting, protection and proper care of trees on private property for the benefit of the entire community.
- Educate citizens in the importance of environmental stewardship.

# **EXISTING** PROGRAMS, **POLICIES** & PROCEDURES

# Arbor Day

- a) Formal Arbor Day celebrations have been held annually in Newark over the past five years.
- b) Annual Arbor Day programs have been organized by the Department of Neighborhood and Recreational Services in cooperation with the City administration and the New Jersey Tree Foundation.
- Recent programs have included:
  - Ceremonies and tree plantings at City elementary schools.
  - An event at Newark Symphony Hall with the award-winning Newark Boys Chorus ii) School.
  - iii) Press releases to announce and summarize Arbor Day events.
- In 2010, Newark was honored to host the New Jersey State Arbor Day program. More than 800 volunteers from Newark, Covanta, New Jersey Youth Corps, and volunteers and professionals from across the State celebrated and planted over 200 new trees in the Fairmount North neighborhood.

# Tree City USA

a) The City of Newark has received the Tree City USA award through the National Arbor Day Foundation a total of 11 times in recent years.

# Awareness & Outreach Programs

Previously, the City of Newark participated in the New Jersey Forest Service's Cool Cities Program and the New Jersey Tree Foundation's Second Cities Initiative. Currently, the City is actively involved in the Newark Renaissance Trees Program with the New Jersey Tree Foundation and programs with the Greater Newark Conservancy, the Trust for Public Land, and others. Through these programs, the City engages and partners with local community groups to plant and maintain public trees in their neighborhoods to help beautify the City, develop civic pride, and promote action in maintaining and protecting communities.

#### 4. Media

a) Over the past five years, the City and its partners, such as the New Jersey Tree Foundation, have routinely issued press releases to local and regional newspapers and via the City website regarding Arbor Day events, community based tree planting projects, tree sapling give-a-ways, calls for volunteers, and other matters pertaining to the Shade Tree Program.

# 2014 - 2018 OBJECTIVES

#### 1. Ongoing Public Education, Awareness & Outreach Programs

- a) 2014 2018
  - i) Continue all existing public education, awareness and outreach programs on a regular basis.

### 2. Annual Arbor Day Programs

- a) January April, Annually
  - i) Continue to organize and conduct annual Arbor Day celebrations.
  - ii) Continue to seek assistance from local civic and neighborhood organizations, the Board of Education, local businesses, and others to help spread the workload and maximize exposure and attendance at the programs.
  - **iii)** Vary the location, activities, and target audience each year to help increase interest and support for the City's Shade Tree Program.

## 3. Tree City USA

- a) October December, Annually
  - i) Continue to submit the annual application for designation as a Tree City USA through the National Arbor Day Foundation.
  - ii) Prepare and submit the application for Tree City USA Growth Awards when eligibility requirements have been met.
  - iii) Continue to advertise the designation throughout the City and in other public relations materials (road signs, plaques, truck decals, stationary logo, etc.).

# **Tree Inventory & Assessment**



# TREE INVENTORY & ASSESSMENT GOALS

The City of Newark recognizes that effective management of any resource, particularly one as vast and valuable as a city's trees, is dependent upon a full and accurate knowledge of its composition, condition, dynamics, and short and long-term needs.

It is the City's intent to conduct an inventory and assessment of its existing public tree resources to gain the information necessary to expand and sustain this valuable asset in the most effective and cost-efficient manner possible.

Specifically, the goals of completing and maintaining an inventory and assessment of the City's public trees are to:

- Provide accurate baseline information regarding the City's shade tree assets upon which technically sound forest management decisions can be based.
- Provide the data necessary for establishing proactive tree planting, maintenance, and hazard identification and abatement programs that are both effective and cost-efficient.
- Improve the efficiency of the Shade Tree Program by using the data to identify, prioritize and schedule day-to-day planting, maintenance and hazard abatement activities.
- Provide a basis for monitoring and evaluating changes in the City's tree population and the impact of management efforts over time.

# FXISTING PROGRAMS, POLICIES & PROCEDURES

#### 1. Existing Tree Inventory Systems

a) The City currently lacks a comprehensive inventory and assessment of its existing public tree resources.

#### 2. Current Tree Assessment

a) A general assessment of the City's public tree resources, based on the impressions of the Department of Neighborhood and Recreational Services, planting and maintenance records, and general surveys completed in conjunction with the preparation of this Plan, is provided on page 9.

# 2014 - 2018**OBJECTIVES**

#### 1. Shade Tree Inventory & Assessment

#### a) July – December 2015

- Develop plans to conduct an inventory and assessment of the City's shade tree resources, with initial efforts focused on street trees. It has been decided to compile a complete, updatable computerized inventory of every individual tree and available planting site utilizing Tree Operations Unit personnel over the winter months and/or student interns from local colleges under the leadership of an academic advisor. The inventory will be completed ward-by-ward on a priority basis as determined by the Tree Operations Unit. In planning to begin this inventory, consideration must be given to:
  - Finding and obtaining a computer system for storing and using the inventory data.
  - Deciding who will maintain and update the computerized data and how it will be used.

- Determining what training will be required and what data collection forms and procedures will need to be developed in order for Tree Operations Unit personnel and/or student interns to proceed.
- b) January September 2016
  - i) Investigate computer systems for storing and using the inventory data. Primary consideration in selecting a system will be its ability to:
    - Store and handle records for 80,000+ trees and their maintenance histories.
    - Integrate the tree inventory with a system for recording, prioritizing and scheduling service requests and maintaining records of the work completed.
    - Produce a variety of data summaries at any time in the future so that effective
      management decisions can be based on current and sound information and so that
      progress toward the Overall Program Goals of this Plan can be routinely monitored
      and evaluated.
    - Track, analyze, and report on miscellaneous items such as sidewalk damage, the success of sidewalk damage prevention techniques, the difference in long-term maintenance needs and costs between various species and cultivars, etc.
    - Improve the overall efficiency and effectiveness of the Shade Tree Program.
  - ii) Develop procedures and criteria for collecting inventory data. In addition to the standard parameters (tree location, species, diameter, condition, etc.), the inventory should also include:
    - Identification of existing tree hazards and prioritized pruning and removal needs.
    - An inventory of vacant planting sites.
    - An inventory of damaged sidewalks and curbs.
  - iii) Provide the necessary training to the employees of the Tree Operations Unit and/or student interns who will be conducting the inventory.
  - iv) Rank the City's wards in order of priority based on the best estimate of tree hazard and maintenance needs to determine where to begin.
  - v) Purchase, install and setup the selected computer system and software and train the appropriate people to use it.
- c) October December 2016
  - i) Identify student interns to assist in completing the inventory field work.
- d) January March 2017 and annually thereafter
  - i) Complete all necessary data collection.
    - Begin with the highest priority ward.
    - Attempt to complete one or two wards each season.
  - ii) Complete data entry concurrently.

#### 2. Tree Inventory & Assessment Reporting & Implementation

- a) July September 2017, and annually thereafter
  - i) Produce appropriate charts and reports that summarize and document the current state of the tree population in each ward, and eventually across the entire City. Use these reports as a baseline to which future reports can be compared and upon which the impact of management activities can be evaluated.
  - ii) Begin integrating the inventory findings into ongoing planning decisions and daily management activities.
  - **iii)** Begin integrating all tree planting lists from the Department of Engineering and any other groups as tree plantings are completed in inventoried wards.

# **Tree Hazard Management**



# TREE HAZARD MANAGEMENT GOALS

While the benefits of trees are obvious, the City of Newark recognizes that they may also present risks and the potential for liability.

The sole purpose of the Shade Tree Program's tree hazard management efforts is to:

Reduce the potential risk of trees to life and property.

# **EXISTING** PROGRAMS, **POLICIES** & PROCEDURES

#### 1. Tree Hazard Identification

- a) Hazardous tree conditions are currently identified via:
  - Service requests from adjacent property owners.
  - Ongoing observations by Tree Operations Unit and other City employees during the course of their daily activities.

#### Tree Hazard Abatement Procedures

- a) The Supervisor of Tree Operations or his designee inspects and evaluates trees in question and determines the need for pruning, removal or other treatments to correct the potentially hazardous conditions identified.
- b) Work orders and work lists are created, prioritized, scheduled, and completed by in-house personnel or City contractors in order of priority based on the degree of hazard potential and to the extent that available resources permit.

### Record-Keeping

a) The Tree Operations Unit maintains records of all actions taken and determinations made, from initial inspection through work completion.

### 2014 - 2018 **OBJECTIVES**

### **Ongoing Tree Hazard Management Programs**

- a) 2014 2018
  - Continue all existing tree hazard management programs.
  - Continue to address hazard abatement needs as they are identified in order of priority.

#### Tree Hazard Evaluation Training

(see Training & Professional Development, Objective #6)

#### 3. Existing Priority Maintenance Needs

- a) 2017 2018
  - Address all high priority maintenance needs identified by the Shade Tree Inventory & Assessment as each ward is completed, in order of priority, as time and resources allow.



# TREE **PLANTING** GOALS

As living organisms, the decline and death of trees is inevitable. Ongoing tree planting efforts are necessary, not only to reestablish Newark's depleted urban forest, but also to ensure that it is perpetuated over the long term.

The long-term stability of the tree population may be improved by manipulating and optimizing its species composition and age distribution through careful species selection and consistent planting from year to year. In addition, responsible species selection, placement and planting techniques will help reduce future conflicts between trees and sidewalks and utilities.

The goals of the Shade Tree Program's tree planting efforts are to:

- 1. Increase Newark's public tree population to, and perpetuate it at, maximum practical stocking the maximum number of trees the City can effectively manage within its means.
- Improve aesthetic appeal, seasonal variation, and physical and social benefits to adjacent properties, neighborhoods and the City as a whole.
- Minimize future maintenance needs and costs.
- Optimize species diversity to help insulate the tree population from catastrophic losses to species-specific insects and diseases.
- Optimize age diversity so that the number of trees requiring removal and replacement due to advanced age is consistent from year to year.
- Minimize conflicts between trees and sidewalks, buildings, utilities, and other public and private fixtures.
- Minimize the introduction and spread of invasive exotic species into natural areas.

# **EXISTING** PROGRAMS, **POLICIES** & PROCEDURES

#### 1. Planting Jurisdiction

- a) The City currently plants trees:
  - In City rights-of-way.
  - ii) In City parks.
  - iii) On City-owned properties.
  - iv) Along County roads within the City for spot requests only the County of Essex is responsible for planting in conjunction with renovation projects on county roads.
- b) The City does not plant trees on private property.

#### 2. Planting vs. Removal Ratio

- a) The ratio of public trees planted versus removed over the last five years appears to have resulted in a relatively small net increase of public trees, though the rate of post-planting survival has not yet been evaluated.
  - During this period, the City planted an average of 200 300 public trees each year via existing City budgets and an additional 300 – 400 primarily through the assistance of the New Jersey Tree Foundation, the Nature Conservancy and other partners.
  - During this same period, the City removed approximately 300 public trees each year.

### 3. Planting Location & Tree Placement

- a) Planting locations are identified via:
  - i) Requests for street trees by adjacent property owners.
  - ii) Planting plans for special projects in specific areas.
- b) Trees are placed:
  - i) In a manner that will minimize future conflicts with above and below ground utilities, structures, hardscape fixtures, and traffic.
  - ii) Within the right-of-way limits, in the case of street trees.
  - iii) In a manner that is appropriate for the design and intended use of the area.

#### 4. Species Selection

- a) Species are currently selected:
  - i) By the Department of Engineering and/or their consultants.
  - ii) By the New Jersey Tree Foundation, with approval from the Tree Operations Unit, for community planting programs.
- **b)** Species are selected with consideration to:
  - i) Available growing space and above and below ground restrictions at each site.
  - ii) Inherent insect and disease resistance.
  - iii) Past performance in Newark and neighboring communities.

#### 5. Tree Supply & Installation

- a) The City of Newark currently does not complete tree planting in house. All tree plantings are completed by:
  - i) Private contractors hired by the City.
  - ii) Community volunteers in cooperation with the New Jersey Tree Foundation's Newark Renaissance Trees Program.

#### 6. Post-Planting Care

- a) Post-planting irrigation and maintenance of new street trees planted by the City is provided by the planting contractor for one year following planting, as required by the contract specifications.
- **b)** Post-planting irrigation of other new street trees is typically provided by adjacent property owners.
- c) Post-planting irrigation and maintenance of new trees in City Parks and on City properties is provided by the planting contractor for one year following planting, as required by the contract specifications.

# 7. Funding & Sources

- a) Tree planting by the City of Newark is funded by the operating budget and capital program of the Department of Engineering.
- b) Trees planted in connection with new developments are paid for by the developer as part of the cost of each project.
- c) Trees planted by the New Jersey Tree Foundation and community volunteers are paid for by various donations and grant sources.

# 1. Ongoing Tree Planting Programs

# 2014 - 2018 OBJECTIVES

- a) 2014 2018
  - i) Continue implementing all existing tree planting programs where appropriate and with changes dictated by the following objectives.

#### 2. Annual Tree Planting Program Funding

- a) 2014 2018
  - i) Continue to stress the importance of an annual tree planting budget allocation to the Mayor and Municipal Council. Support annual budget requests with lists of tree planting requests from City residents, lists of vacant planting sites identified by the tree inventory and assessment, diagrams of overall tree stocking and canopy cover levels, the benefits in reducing energy consumption, improvements in air quality, reducing crime, etc.
- b) October December, annually
  - i) Investigate the availability of New Jersey Community Forestry *Community Stewardship Incentive Program* (CSIP) grants, as well as other community development, transportation, and similar grant programs, for funding City tree planting projects.
  - **ii)** When available, apply for CSIP and/or other grant funding to supplement the City's tree planting budget.
- c) January June 2016
  - i) Evaluate the feasibility of establishing an Adopt-A-Tree or other cost-share program through which residents may contribute money toward the planting of trees adjacent to their property, or elsewhere in the City.
- d) July December 2016
  - i) If deemed feasible and desirable, establish the program(s) with consideration to:
    - How contributions will be accepted by the City and how the money will be held and spent.
    - What percentages of the donations will be used for planting and for future maintenance, if any.
    - Advertising the program(s) to ensure sufficient participation to keep the program(s) self-sufficient.
    - Publically recognizing those that contribute.
- e) January June 2017
  - i) Investigate and evaluate the feasibility of establishing a Tree Trust Fund for the deposit of donations received for tree planting programs, remuneration for trees damaged, fines levied for tree ordinance violations, etc. to supplement the City's tree planting budget.
- f) July December 2017
  - i) If deemed feasible, establish and begin depositing appropriate moneys into the fund.

## **Tree Maintenance**



#### TREE MAINTENANCE GOALS

The City of Newark recognizes that proactive, systematic tree maintenance is more cost-effective than haphazard "crisis" management in improving the condition of urban trees, maximizing the benefits they provide, extending their service life, and minimizing potential hazard risks.

Maintenance begins before trees are planted by selecting species and disease-resistant cultivars that are suited to the area in which they will be planted to minimize stress, insect and disease infestations and unnatural pruning needs. Developmental pruning early in the trees' life will minimize future pruning needs and the development of hazardous structural defects. Continued maintenance as they mature will help extend their service life, increase their benefits relative to costs, and reduce their hazard potential.

The goals of the Shade Tree Program's tree maintenance efforts are to:

- 1. Improve and maintain the long-term health and structural condition of Newark's public tree population.
- 2. Maximize the service life of existing trees.
- **3.** Maximize the cost-efficiency of tree maintenance activities.
- **4.** Optimize the balance between the benefits that trees provide to the community and the cost of maintaining them.
- 5. Minimize tree hazards and maintain public safety.
- **6.** Respond promptly and effectively to citizen complaints and service requests.

# EXISTING PROGRAMS, POLICIES & PROCEDURES

#### 1. Tree Maintenance Jurisdiction

- a) The City is responsible for maintaining public trees:
  - i) Along City streets.
  - ii) In City parks.
  - iii) On City owned properties.
  - iv) Along State Routes 21 and 27, through an agreement with the State of New Jersey.
  - v) Along County roads within the City.

#### 2. In-House Personnel

- a) The Department of Neighborhood and Recreational Services, Tree Operations Unit currently has one tree maintenance crew comprised of:
  - i) One Supervisor, who is responsible for managing the Tree Operations Unit.
  - ii) One Tree Climber / Equipment Operator, who is responsible for the operation and maintenance of the bucket truck and chipper, maintenance of all related equipment, various field inspections, and assigning and reviewing work completed by the City's inhouse crew.
  - iii) One Laborer / Equipment Operator who is responsible for assisting in the completion of tree pruning and removal work.
  - iv) Additional Laborers, when necessary for completing certain tree pruning and removal

work.

- b) In addition, Clerical Assistants within the Department are responsible for receiving complaints and service requests, maintaining databases and work lists, and providing secretarial support.
- c) The Tree Operations Unit is currently equipped with:
  - i) (1) Bucket truck
  - ii) (1) Chipper
  - iii) (2) Pick-up trucks
  - iv) Various chainsaws, small tools and safety equipment
- d) The percentage of work completed by in-house personnel has increased significantly over the past five years. Tree Operations Unit personnel currently complete approximately:
  - i) 50% of all tree removal work
  - ii) 95% of all tree pruning work
  - iii) 0% of all stump removal work
  - iv) 50% of all emergency tree work

#### 3. Private Contractors

- a) Private tree maintenance firms are frequently retained via annual contract to complete City tree maintenance tasks.
- b) Private tree maintenance firms hired by Public Service Electric & Gas Company (PSE&G) also prune City trees to maintain clearance to their overhead utilities.
- c) Contractors and other outside agencies currently complete approximately:
  - i) 50% of all tree removal work
  - ii) 5% of all tree pruning work
  - iii) 100% of all stump removal work
  - iv) 50% of all emergency tree work

#### 4. Newark TreeKeepers

a) Newark TreeKeepers is an educational component of the Newark Renaissance Trees Program (NRTP). Through the NRTP, residents apply for trees and partner with the NJ Tree Foundation to reforest City streets. Through Newark TreeKeepers, neighbors learn how to properly care for those trees while connecting with leaders in their communities.

#### 5. Inter-Local & Mutual Assistance Agreements

- a) The City currently has no formal agreements with other municipalities for the sharing of tree maintenance equipment or personnel.
- **b)** Tree Operations Unit crews and City contractors cooperate with PSE&G crews when pruning and removing trees near their electrical lines.

#### 6. Systematic Maintenance Programs

a) The City currently lacks the manpower, resources or programs necessary to systematically prune or otherwise treat all of its public trees on a continuous, rotation basis.

#### 7. Work Identification, Prioritization, Scheduling & Record-Keeping

- a) Currently, tree maintenance needs are identified via:
  - i) Service Requests from adjacent property owners.
  - **ii)** Observations by the Tree Operations Unit and other City employees during the course of their daily routines.
- b) All work needs identified are scheduled and completed in order of priority by Tree

- Operations Unit personnel or one of the City's contractors in accordance with established service request procedures.
- c) The Department of Neighborhood and Recreational Services, Tree Operations Unit maintains records of all tree maintenance.

#### 8. Tree Removal

- a) It is the City's policy not to remove live public trees unless they pose a threat to public
- b) Over the past five years, the City has removed approximately 300 public trees per year due to death or structural compromise.

#### 9. Plant Health Care & Specialty Treatments

a) The City generally does not complete specialty treatments such as insect and disease controls, fertilization, and cabling and bracing on public trees.

#### 10. Sidewalk Maintenance

- a) By ordinance, adjacent property owners are responsible for maintaining sidewalks in the public right-of-way, including repairing or replacing them when damaged.
- b) To the extent that sidewalk damage is caused by trees in the public right-of-way and to the extent necessary and feasible to permit repair, the Department of Neighborhood & Recreational Services, Tree Operations Unit will prune tree roots.
- To the extent possible, the City selects species and places new street trees in a manner that will minimize future conflicts.

#### 11. Funding

a) Tree maintenance is funded through the operating budget of the Department of Neighborhood and Recreational Services, Tree Operations Unit.

#### **Ongoing Tree Maintenance Programs**

#### 2014 - 2018 **OBJECTIVES**

- a) 2014 2018
  - Continue implementing all existing tree maintenance programs, policies and procedures on a regular basis.
  - ii) Strive to complete proactive per-zone rotation pruning as time and resources permit.

#### 2. Expansion of the Tree Operations Unit

- a) January December 2016
  - Based on the recently completed cost-benefit analysis, staff and equip a second tree maintenance crew within the Tree Operations Unit.
  - Assign tree maintenance work to the Unit's two crews in a manner that maximizes cost efficiency and ensures that high priority work necessary to mitigate potentially hazardous conditions is completed within an appropriate timeframe.
  - iii) When feasible, assign one crew to complete systematic, proactive maintenance (crown cleaning, structural pruning and crown raising for young trees, etc.) on a street-by-street basis to help reduce the emergence of high priority needs in the future.



#### TREE WASTE RECYCLING GOALS

Newark's Shade Tree Program generates large volumes of vegetative wastes. The City recognizes the cost savings and environmental benefits associated with properly recycling these materials and using the resulting products.

The goals of the Shade Tree Program's tree waste recycling efforts are to:

- Minimize the cost of tree waste disposal to the City.
- Produce beneficial recycled products for use on public and private lands in Newark.

#### **EXISTING** PROGRAMS, **POLICIES** & PROCEDURES

#### **Recycling Facilities**

a) The City does not currently own or operate a facility for recycling leaves, wood, or wood chips generated by the Shade Tree Program or City residents.

#### Material Processing, Use & Distribution

- a) Leaves
  - Leaves collected by the City's Department of Sanitation from City properties and curbsides are trucked to a commercial recycling facility where they are composted.
  - The City of Newark has an agreement with this facility that up to 50% of the finished product can be returned to the City, as needed, for use on City property.
- Wood Chips
  - The City of Newark has a mutually beneficial arrangement with an energy supply company that collects and disposes of wood chips generated by the City's Shade Tree Program at no cost to the City. The City's wood chips are trucked to a power plant in Pennsylvania where they are converted to energy.
  - Some wood chips have been utilized by the City to:
    - Help reduce weed growth on vacant lots in the City.
    - Help fuel Weequahic High School's Rocket Composter, a renewable-technology device that processes food waste into compost.
  - iii) Wood chips generated by contractors working for the City are disposed of as described above.
- Bulk Wood
  - Bulk wood is delivered to a commercial recycling facility where it is processed into various grades of lumber or decorative mulch.
  - ii) Bulk wood that is generated by contractors working for the City is chipped and disposed of as described above.

#### Recycling Income

Currently, no income is generated from the sale of vegetative wastes or recycled products.

#### 2014 - 2018 **OBJECTIVES**

#### 1. Ongoing Tree Waste Recycling Programs

- a) 2014 2018
  - Continue implementing all existing tree waste recycling programs, policies and procedures.

#### **Recycled Materials Marketing**

- a) January June 2017
  - Identify, investigate and evaluate various markets and methods for deriving income, or at least offsetting disposal costs, for the various tree waste materials generated by the Shade Tree Program. This evaluation must address:
    - The types and quantities of tree waste materials that the City generates.
    - The presence of suitable markets, current purchase prices and related costs.
    - Various specifications required by the markets, such as minimum and maximum log size and defect tolerances, minimum quantities, etc.
    - The extent to which the income can be generated or costs can be reduced after all associated costs in preparing and delivering the materials are considered.
  - A variety of existing and emerging new markets exist for urban wood and tree waste, including:
    - Leaves: Compost, humus and topsoil manufacturers and suppliers and landscape contractors.
    - Wood Chips: Fuel-wood suppliers and industries that use fuel-wood to power their plants, mulch processors and suppliers, landscape contractors, and nurseries and garden centers.
- b) July December 2017
  - To the extent feasible, begin making arrangements for recycling materials through these new markets.

#### **Tree Care Disaster Plan**



## TREE CARE DISASTER PLAN GOALS

The City of Newark recognizes that emergencies and natural disasters are inevitable and that, of all City assets, trees may be the most vulnerable to them.

Tree-related emergencies in Newark are most frequently the result of structural failures during severe weather. The City is well prepared to respond immediately to such emergencies so that electrical service, communications and transportation can be promptly restored. There also exists a significant risk of widespread losses of trees to forces other than structural failure, such as insects, diseases and floods.

Regardless of the cause, the frequency and severity of tree-related emergencies and widespread tree losses will be minimized through well-designed planting, maintenance, and hazard management programs, as detailed elsewhere in this Plan.

Programs presented here and elsewhere in this Plan are designed to:

- Minimize the risk of future tree-related damage and widespread tree losses caused by weather, disease, and other forces.
- Ensure that the City is prepared to respond immediately to tree-related emergencies and disasters in a prompt and effective manner.
- 3. Provide the City with a viable plan to repair or replace widespread tree damage or losses.

#### EXISTING PROGRAMS, POLICIES & PROCEDURES

#### 1. Tree Emergency & Disaster Threats

- a) Severe weather is currently considered to be the most serious threat to Newark's tree population. In recent years, severe storms have caused substantial damage to both public and privately owned trees.
- b) In addition to the threat to the trees themselves, the widespread structural failure of tree failures poses a serious threat to electrical service, communications, and the City's ability to provide critical emergency services.

#### 2. Insect & Disease Threats

- a) The risk of widespread tree damage and losses to biotic threats is also considered high. It is believed, however, that the risk can be reduced over the long term through increased species diversity and cultivar selection. Currently, there is particular concern regarding:
  - i) The ongoing threat of Asian longhorned beetle infestation due to Newark's status as a primary shipping center and its proximity to existing Asian longhorned beetle infestations in the New York and New Jersey metropolitan area.
  - ii) Emerald ash borer, which is making its way to New Jersey from the Great Lakes area.
  - **iii)** Bacterial leaf scorch of oak and its apparent northward spread throughout New Jersey.

#### 3. Existing Emergency & Disaster Plans

a) The City's State-mandated *Emergency Operations Plan* outlines procedures for vital services and cooperative efforts between all City departments and neighboring communities during

- an emergency or disaster.
- b) The City currently lacks a formal plan specific to the repair and replacement of widespread tree damage and losses beyond initial emergency response efforts and such a plan is beyond the City's means at this time. It is believed, however, that technically sound and responsible planting, preventive maintenance and hazard identification and abatement efforts described elsewhere in this Plan will, over the long term, help insulate the City against catastrophic losses to biotic threats.

#### 4. Emergency Response

- a) The Tree Operations Unit, in cooperation with its private tree maintenance contractors and local utility firms, is responsible for clearing trees and debris to open roadways and permit restoration of electrical service and communications.
- **b)** The Tree Operations Unit and its contractors remain on 24-hour call to respond to tree-related emergencies.

#### 5. Wildfire Protection

a) Wildfire is not considered to be a significant threat to the public tree resources in the City of Newark at this time.

## 1. Ongoing Programs

2014 - 2018 OBJECTIVES

- a) 2014 2018
  - i) Continue implementing all existing programs, policies and procedures listed above.
  - **ii)** Continue to implement and expand technically sound and responsible planting, preventive maintenance and hazard identification and abatement programs, as outlined elsewhere in the Plan, to reduce the risk of future tree failures and losses.

## **Plan Preparation & Evaluation**



#### **PLAN PREPARATION** & EVALUATION GOALS

The City of Newark recognizes the benefits that this Community Forestry Management Plan offers to the long-term success of its Shade Tree Program. It is committed to developing and implementing a continuum of five-year plans and remaining in compliance with the requirements of the New Jersey Shade Tree & Community Forestry Assistance Act.

Preparation and implementation of this and subsequent five-year Community Forestry Management Plans will:

- 1. Provide a means of continually evaluating the success of past programs and activities and making adjustments to address changing needs.
- 2. Make certain that Newark's Shade Tree Program continues to follow a well-defined, consistent and efficient course of action toward its overall goals in accordance with its mission.
- 3. Allow the City to remain in compliance with and eligible for the benefits of the New Jersey Shade Tree & Community Forestry Assistance Act.

#### **EXISTING** PROGRAMS, **POLICIES** & PROCEDURES

- Preparation of this second five-year Community Forestry Management Plan was the cooperative effort of the Newark Department of Neighborhood & Recreational Services and their consulting
- 2. Goals and objectives contained in this Community Forestry Management Plan are based on the City's implementation of its 2007 – 2012 Plan and ongoing review of its progress.
- Preparation of this Plan was made possible through a Green Communities Challenge Grant from the New Jersey Forest Service and the in-kind services of City employees.

#### 2014 - 2018 **OBJECTIVES**

#### 1. Annual Program Evaluation

- a) December, Annually
  - Evaluate the success of the year's activities and accomplishments relative to the goals and objectives contained within this Plan.
  - ii) Adjust programs and procedures, as necessary, based upon the evaluation.
  - iii) Prepare and submit the Annual Accomplishment Report to the New Jersey Forest Service in accordance with the requirements of the New Jersey Shade Tree & Community Forestry Assistance Act.

#### Five-Year Evaluation

- a) January March 2018
  - Evaluate the success of all objectives completed to date.
  - Evaluate progress toward the overall goals of the Shade Tree Program.
  - iii) Begin formulating new objectives and adjustments to existing policies, programs and procedures, as necessary, for the 2019 – 2023 management period.

#### 3. 2019 – 2023 Management Plan Development

- a) April September 2018
  - i) Finalize new objectives and adjustments to existing policies, programs and procedures for the 2019 – 2023 management period.
  - ii) Prepare and submit a Community Forestry Management Plan for the 2019 2023 management period.
- **b)** October December 2018
  - i) Obtain Plan approval from the New Jersey Community Forestry Council.



Objectives / Tasks	2014	2015	2016	2017	2018
PROGRAM ADMINISTRATION					
<ol> <li>Ongoing Administrative Programs         Continue all existing administrative programs, as appropriate, and continue to improve and maintain communications between the Tree Operations Unit and the Department of Engineering (p.18, #1.a.i-ii)     </li> </ol>					
<ul> <li>Creation of a Shade Tree Commission</li> <li>□ Review State Statute NJSA 40:64-1 for the requirements of establishing a Shade Tree Commission, in cooperation with the Tree Operations Unit, the Department of Engineering and the Mayor and Council; Develop a new ordinance that will formally establish, define and provide authority to the new Shade Tree Commission; Obtain the review and input of all related departments and boards, the City attorney, and all interested resident volunteer groups (p.18, #2.a.i-iii)</li> <li>□ Work with the New Jersey Tree Foundation to identify residents who have been active in volunteer tree programs and may be interested in serving on the Shade Tree Commission; Seek out key employees from the Tree Operations Unit and the Department of Engineering serve as municipal liaisons to the Shade Tree Commission (p.18, #2.b.i-ii)</li> <li>□ Submit the ordinance for approval by the Mayor and Council (p.18, #2.c.i)</li> <li>□ Formally establish and staff the new Shade Tree Commission; Establish municipal liaisons to the Shade Tree Commission (p.18, #2.d.i-ii)</li> </ul>					
TRAINING & PROFESSIONAL DEVELOPMENT					
<ol> <li>Ongoing Training Programs</li> <li>Continue all existing training programs on a regular basis and maximize the number of individuals that increase their level of practical knowledge (p.22, #1.a.i-ii)</li> </ol>					
<ul> <li>NJ Community Forestry Training Skills &amp; Accreditation Program</li> <li>Review training needs and schedule training, as necessary, to accumulate sufficient CEU's and maintain Approved Status; Schedule individuals for CORE Training, as necessary (p.23, #2.a.i-iii)</li> <li>Provide CORE Training for two new Shade Tree Commission members (p.23, #2.b.i)</li> </ul>					

Ob	jectives / Tasks	20	14	201	5	2	2016	20	017	20	18	
	AINING ROFESSIONAL DEVELOPMENT, cont'd											
3.	<ul> <li>Electrical Hazard Awareness Training</li> <li>Train at least one Tree Operations employee who is not already certified to recognize and avoid electrical hazards in accordance with current industry standards through an appropriately sanctioned program (p.23, #3.a.i)</li> <li>Provide Line Clearance Arborist re-certification training for individuals already certified, as necessary (p.23, #3.b.i)</li> </ul>											
4.	Tree Climbing & Rigging Training  □ Provide training in tree climbing and rigging that meets current industry practices and safety standards for at least two junior members of the Tree Operations Unit (p. 23, #4.a.i)											
5.	Young Tree Structural Pruning Training  Train Tree Operations Unit employees and active community volunteers in pruning young trees to promote development of a structurally sound trunk and crown form, minimize conflicts and minimize the need for severe pruning in the future via a hands-on workshop (p. 23, #5.a.i)											
6.	Tree Hazard Evaluation Training ☐ Train at least two Tree Operations Unit employees to advance their skills in recognizing and evaluating potential tree hazards using the latest information and techniques (p.23, #6.a.i)											
7.	Planting Site Analysis & Species Selection Training  ☐ Train at least one Shade Tree Commission member and key employees of the Tree Operations Unit and Department of Engineering in pre-planting site analysis, species selection and tree placement (p.23, #7.a.i)											
	BLIC EDUCATION, ARENESS & OUTREACH											
1.	Ongoing Public Education, Awareness & Outreach Programs  Continue all existing public education, awareness and outreach programs on a regular basis (p.26, #1.a.i-ii)	-										
2.	Arbor Day Programs  ☐ Continue to plan, organize and conduct annual Arbor Day celebrations (p.26, #2.a.i-iii)	-										
3.	Tree City USA  □ Prepare and submit the annual application for designation as a Tree City USA; Prepare and submit applications for Tree City USA Growth Awards when eligibility requirements are met; Continually advertise the designation by displaying the program's promotional materials (p.26, #3.a.i-iii)											

Objectives / Tasks	2014	2015	2016	2017	2018
TREE INVENTORY & ASSESSMENT					
<ol> <li>Tree Inventory &amp; Assessment</li> <li>☐ Finalize existing plans to inventory and asses the City's shade tree resources (p.27, #1.a.i)</li> <li>☐ Investigate computer systems for storing and using the inventory data; Develop procedures and criteria for collecting inventory data; Provide the necessary training for Tree Operations Unit personnel and interns; Determine the order in which wards will be inventoried based on need; Purchase, install and setup the selected computer system and software (p.28, #1.b.i-v)</li> <li>☐ Identify student interns to assist in completing the inventory field work (p.28, #1.c.i)</li> <li>☐ Complete all necessary data collection in 1-2 wards per season; Complete data entry concurrently (p.28, #1.d.i-ii)</li> <li>7 Tree Inventory &amp; Assessment Reporting &amp; Implementation</li> <li>☐ Produce appropriate charts and reports that summarize and document the current state of the tree population and retain them for future reference; Begin integrating the inventory information into ongoing planning and daily</li> </ol>					
management activities as wards are completed (p.28, #2.a.i-iii)  TREE HAZARD MANAGEMENT  1. Ongoing Tree Hazard Management Programs  Continue all existing tree hazard management programs; Continue to address hazard abatement needs as they are identified in priority order (p.29, #1.a.i-ii)  Address all high priority maintenance needs identified by the Shade Tree Inventory & Assessment as each ward is					
completed, in order of priority, as time and resources allow (p.29, #3.a.i)					
PLANTING					
<ol> <li>Ongoing Tree Planting Programs</li> <li>Continue all existing tree planting programs (p.32, #1.a.i)</li> </ol>					
<ol> <li>Annual Tree Planting Program Funding         <ul> <li>Continue to stress and provide justification for annual</li> </ul> </li> </ol>					
budget requests to permit consistent annual replanting to perpetuate the public tree resource (p.32, #2.a.i)					
Continually seek CSIP and other grants for tree planting and prepare and submit applications (p.32, #2.b.i-ii)					
Evaluate the feasibility of establishing an Adopt-A-Tree or other cost share program (p.32, #2.c.i)					
If feasible, establish, advertise and implement the cost share program on a continuous basis (p.32, #2.d.i)					
Evaluate the feasibility of establishing Tree Trust Fund for managing donations, remuneration for trees damaged, fines levied for tree ordinance violations etc. to supplement the City's tree planting budget (p.32, #2.e.i)					
If feasible establish the Tree Trust Fund and begin depositing appropriate monies into it (p.32, #2.f.i)					

Objectives / Tasks	20	14	2	201	5	20 <sup>-</sup>	16	2	01	7	2	018	8
TREE MAINTENANCE													
<ol> <li>Ongoing Tree Maintenance Programs         Continue all existing tree maintenance programs, policies and procedures on a regular basis; Strive to complete area-wide pruning programs as time and resources permit (p.35, #1.a.i-ii)     </li> </ol>													
2. Expansion of the Tree Operations Unit □ Based on the results of the recently completed cost-benefit analysis, staff and equip a second tree maintenance crew within the Tree Operations Unit; Assign work to the two crews in a manner that maximizes cost efficiency; When feasible, assign one crew to complete systematic, proactive maintenance on a street-by-street basis, versus service request work (p.35, #2.a.i-iii)													
TREE WASTE RECYCLING													
<ol> <li>Ongoing Tree Waste Recycling Programs         <ul> <li>Continue all existing tree waste recycling programs, policies and procedures (p.37, #1.a.i)</li> </ul> </li> </ol>													
<ul> <li>Recycled Materials Marketing</li> <li>Identify and evaluate various markets and methods for deriving income, or off-setting disposal costs, for the tree waste materials generated by the City (p.37, #2.a.i-ii)</li> <li>To the extent feasible, begin making arrangement for recycling tree waste through these new markets (p.37, #2.b.i)</li> </ul>													
TREE CARE DISASTER PLAN													
<ol> <li>Ongoing Programs</li> <li>Continue all existing programs, policies and procedures; Reduce risks via other elements of this Plan (p.39, #1.a.i-ii)</li> </ol>													
PLAN PREPARATION & EVALUATION													
<ol> <li>Annual Program Evaluation         Evaluate the prior year's accomplishments, identify objectives not yet completed, and adjust programs, as necessary; Prepare and submit an Annual Accomplishment Report to NJFS (p.40, #1.a.i-iii)     </li> </ol>													
<ol> <li>Five-Year Evaluation</li> <li>■ Evaluate the Shade Tree Program's accomplishments during the current 5-year management period; Evaluate progress toward the overall goals of the Shade Tree Program; Begin formulating new objectives and program adjustments (p.40, #2.a.i-iii)</li> </ol>													

Objectives / Tasks	2014	2015	2016	2017	2018
PLAN PREPARATION & EVALUATION, cont'd					
<ul> <li>3. 2019 – 2023 Management Plan Development</li> <li>Finalize new objectives and program adjustments and prepare and submit a Community Forestry Management Plan for the 2019 – 2023 management period (p.41, #3.a.i-ii)</li> <li>Obtain State approval of the 2019 – 2023 Community</li> </ul>					
Forestry Management Plan (p.41, #3.b.i)					

## **Ordinances**



#### PRIMARY **ORDINANCES**

- 1. Title II, Administration, Chapter 8, Department of Engineering, which establishes and empowers the Department of Engineering and its various Divisions.
- 2. Title II, Administration, Chapter 12, Department of Neighborhood and Recreational Services, which establishes and empowers the Department of Neighborhood & Recreational Services and its various Divisions.
- 3. Title XXVII, Parks, Trees and Plants, Chapter 1, Trees and Shrubbery, which regulates the removal, protection and planting of trees on public lands within the City.

#### **Revised General Ordinances of the City of Newark**

#### **TITLE II - ADMINISTRATION**

#### **CHAPTER 8 DEPARTMENT OF ENGINEERING**

#### **ARTICLE 1 In General**

#### 2:8-1. ESTABLISHMENT AND ORGANIZATION OF DEPARTMENT OF ENGINEERING.

There shall be a Department of Engineering, the head of which shall be the Director of Engineering. The Director's compensation shall be such sum annually as shall be fixed by ordinance. The Department shall consist of the following

- a. Engineering and Contract Administration;
- b. Traffic and Signals;
- c. Public Buildings;
- d. Motors.

(R.O. 1966 C.S. § 2:9A-1; Ord. 6 S+FJ (S-1), 7-16-86; Ord. 6 S+FH, 12-1-88; Ord. 6 S+FQ, 8-3-94)

#### 2:8-2. DIRECTOR OF ENGINEERING.

#### 2:8-2.1. Qualifications; Compensation.

The Director shall, prior to his/her appointment, be qualified by training or experience in the planning and execution of public works and improvements. The Director's compensation shall be such sum annually as shall be fixed by ordinance of the Council. (R.O. 1966 C.S. § 2:9A-2 [a])

#### 2:8-2.2. Powers and Duties.

The Director, through the Divisions and otherwise, shall direct and supervise the functions and activities required for the maintenance of public buildings, surplus property, recreation facilities, motors and vehicles, planting of shade trees in the streets and all other public places of the City, and support services such as security, engineering services, the functions and activities related to traffic regulation, design, planning and control, maintenance and repairs of traffic signals and traffic signs and markings and installation and maintenance of parking meters, the issuance of permits authorized to be issued by the City pursuant to State law and local ordinance, except for such permits the application and fee for which are required by State Statute to be received by a particular official or office other than this Department where conditions governing such issuance have been met, and direct and supervise the Construction Official within the office of the Director of the Department of Engineering in accordance with the provision of Title VII State Uniform Construction Code Chapter 1, Section 7:1-2 of the Revised General Ordinances of the City of Newark. (2000).

In addition, the Newark Department of Engineering shall investigate every street which is adjacent to a school and shall have installed rumble strips on every street which is adjacent to a school, in such locations as serve to maximize the safety of the children attending each school. For purposes of this section, "school" means any institution for instruction below the grade of colleges or universities, whether maintained by private means for individual benefit or by government as public schools. (R.O. 1966 C.S. § 2:9A-2 [b]; Ord. 6 S+FK, 1-22-92; Ord. 6 S+FQ, 8-3-94; Ord. 6 S+FB, 3-1-95; Ord. 6 S+FX, 9-20-00 § 1)

For designation as Flood Control Compliance Officer, see Section 12:3-2.

#### **ARTICLE 2 Division of Engineering and Contract Administration**

#### 2:8-3. DIVISION OF ENGINEERING AND CONTRACT ADMINISTRATION; HEAD.

There shall be a Division of Engineering and Contract Administration the head of which shall be the Manager of Engineering, who may also be the Director of Engineering if he/she meets the qualification set forth herein. (R.O. 1966 C.S. § 2:9A-3; Ord. 6 S+FJ (S-1), 7-16-86)

#### 2:8-4. MANAGER OF ENGINEERING AND CONTRACT ADMINISTRATION.

#### 2:8-4.1. Qualifications; Compensation.

The Manager of Engineering and Contract Administration shall, prior to his/her appointment, hold a professional degree in civil, sanitary, structural or mechanical engineering from a recognized school or college of engineering and shall possess a professional engineer's license and be qualified by further training and experience in a responsible supervisory position in the management of engineering work. His/her compensation shall be such sum annually as shall be fixed by ordinance of the Council. (R.O. 1966 C.S. § 2:9A-4)

#### 2:8-4.2. Powers and Duties.

The Division of Engineering shall:

- a. Furnish to all departments of the City Government professional engineering and related technical services; represent the City in matters involving professional engineering in its relations with City agencies and other government jurisdictions, except as otherwise directed by the Business Administrator.
- b. Analyze the design, condition and performance of the City's public works systems including water, sanitary and storm sewerage, streets and highways, traffic control and street lighting, sewage and solid waste disposal, public buildings and structures, formulate plans, standards, schedules and costs estimates.
- c. Determine whether engineering services shall be done by outside contract or by City personnel, and determine whether construction work be done by City personnel or by outside contractors; authorize, direct and supervise the preparation of plans and specifications and the letting and performance of all professional engineering and construction contracts for all City improvements.
- d. Authorize, direct and supervise the making of land surveys and soil tests; the setting of official grade and line for streets, sewers and other structures; maintain the official City map; establish criteria for the use and repair of public rights of way; provide for the keeping of project costs records and approval of contract change orders; maintain all survey and engineering records and as-built construction drawings.

(R.O. 1966 C.S. 2:9A-4[b]; Ord. 6 S+FJ(S-1), 7-16-86)

#### 2:8-5. OFFICE OF EMERGENCY MANAGEMENT. (SEE FIRE DEPARTMENT SECTION 2:21-4)

2:8-6. DIVISION OF SANITATION.  $^{[1]}$ 

2:8-7. - 2:8-8. RESERVED.

#### **ARTICLE 3 Division of Traffic and Signals**

#### 2:8-9. DIVISION CREATED; HEAD.

#### 2:8-9.1. Traffic Engineer to be Head of Division.

There shall be within the Department of Engineering a Division of Traffic and Signals, the head of which shall be the Traffic Engineer. (R.O. 1966 C.S. § 2:9A-11; Ord. 6 S+FA, 8-3-94)

#### 2:8-9.2. Duties.

The Division of Traffic and Signals shall:

- a. Construct, install, repair and maintain all facilities of traffic control signals and other electrically operated signals, excluding the police radio and signal systems;
  - 1. Whenever the Traffic Engineer, upon execution of the appropriate traffic survey, determines that a traffic control signal is no longer suitable for a particular intersection, he shall, prior to the removal of the traffic signal, provide a thirty (30) day advanced written notice of intent to the residents and businesses within a two hundred (200) foot radius of the traffic signal, as well as prepare an ordinance for the removal of the traffic control signal for Municipal Council consideration.
- b. Install and maintain parking meters;
- c. Erect, repair and maintain street traffic signs and pavement markings, plan new street light installation and check for street light outages;
- d. Administer the provisions of the Revised General Ordinances relating to autobuses in accordance with Sections 34:2-1 et seq., except Sections 34:2-6 through 34:2-8 thereof.
- e. Release reports in return for fees which are hereby established by the Division of Traffic and Signals. The fee for copies of any reports or portions of any reports authorized for release, shall be four (\$4.00) dollars up to three (3) pages and one (\$1.00) dollar for each additional page thereafter.
- Perform, formulate and direct work relating to traffic regulation, design, planning and control.
- g. Study traffic problems and make recommendations to expedite traffic flow and control.
- h. Direct the collection, recording, analysis and interpretation of data relating to traffic accidents, the investigation of their causes and the development of preventative measures.
- Supervise the planning and execution of traffic surveys and the analysis and interpretation of the data.
- Determine the need for and use of traffic regulations, the design and redesign of intersections and road sections, the traffic consideration in the planning of road improvements and new routes, and the warrants for and design and location of traffic control devices.
- k. Analyze local traffic ordinances.
- Consult and assist State and local government officers in traffic control, accident prevention and highway matters.

(R.O. 1966 C.S. §2:9A-12; Ord. 6 S+FQ, 8-3-94; Ord. 6 S+FB, 5-20-98)

2:8-10. DIVISION OF STREETS AND SIDEWALKS.  $^{\left[ 2\right] }$ 

2:8-11. RESERVED.

2:8-12. DIVISION OF WATER/SEWER UTILITY. [3]

2:8-13. DIVISION OF DEMOLITION. [4]

#### 2:8-14. DIVISION OF PUBLIC BUILDINGS CREATED.

#### 2:8-14.1. Manager, Division of Public Buildings; Duties.

There shall be within the Department of Engineering, a Division of Public Buildings under the supervision of a Manager, Division of Public Buildings who shall:

- a. Provide for the construction, alteration, repair and maintenance of City buildings.
- b. Provide custodial and janitorial services for all public buildings exclusive of City institutions and fire houses.
- c. Provide for such holiday celebrations as duly authorized and directed by the Mayor.
- d. Operate and manage City properties, including the City Hall group of buildings, other office quarters, and such property necessary for the City to perform its governmental functions.
- e. Care for and maintain the recreation centers, recreation facilities and swimming pools facilities.

(Ord. 6 S+FQ, 8-3-94 § 5)

### ARTICLE 5 Division of Motors [7

#### 2:8-15. DIVISION OF MOTORS CREATED.

#### 2:8-15.1. Manager, Division of Motors.

There shall be within the Department of Engineering, a Division of Motors, the head of which shall be the Manager, Division of Motors who shall:

- a. Supervise the work done in all City garages or by contract for the storage, repairs, servicing and maintenance of Cityowned motor vehicles;
- b. Operate a garage or garages for the storage, servicing, repair and maintenance of all City-owned motor vehicles;
- c. Control the use of motor vehicles owned by the City by maintaining individual vehicle records of mileage, costs of operation and maintenance and replacement schedules; and all such costs shall so far as practicable be charged to the using department under appropriate rules and regulations to be prescribed by the Business Administrator.

(Ord. 6 S+FQ, 8-3-94 § 6)

Editor's Note: Division of Sanitation (R.O. 1966 C.S. §2:9A-9) repealed by Ord. 6 S+FQ, 8-3-94. Reestablished under Department of Neighborhood and Recreational Services by Ord. 6 S+FR, 8-3-94. See Section 2:12-1.4.

Editor's Note: Division of Streets and Sidewalks R.O. 1966 C.S. §2:9A-13 abolished by Ord. 6 S+FF, 3-7-84. Functional responsibilities kept within Department of Engineering until the creation of the Department of Neighborhood and Recreational Services. See Chapter 2:12.

Editor's Note: Division of Water/Sewer Utility R.O. 1966 C.S. §2:9A-5 abolished by Ord. 6 S+FQ, 8-3-94. Reestablished under Department of Water and Sewer Utilities. See Section 2-17.1.

Editor's Note: Division of Demolition R.O. 1966 C.S. §2:9A-7, transferred to Department of Development by Ord. 6 S+FL(S-1), 7-16-86 and moved back to Engineering Department by Ord. 6 S+FH, 12-1-88; abolished by Ord. 6 S+FQ, 8-3-94. Reestablished under Department of Neighborhood and Recreational Services. See Section 2-12.1.1.

Editor's Note: This division was previously established within the Department of General Services, R.O. 1966 C.S. §2:9B-3; which was abolished by Ord. 6 S+FO. 8-3-94.

Editor's Note: The Division of Parks and Grounds previously within the Department of General Services, R.O. 1966 C.S. §2:9B-4, transferred to Department of Neighborhood and Recreational Services, see Section 2:12:1-5.

Editor's Note: This division was previously established within the Department of General Services, R.O. 1966 C.S. §2:9B-5, which was abolished by Ord. 6 S+FO, 8-3-94.

#### **Revised General Ordinances of the City of Newark**

#### TITLE II - ADMINISTRATION

## CHAPTER 12 DEPARTMENT OF NEIGHBORHOOD AND RECREATIONAL SERVICES [1]

#### 2:12-1. DEPARTMENT OF NEIGHBORHOOD AND RECREATIONAL SERVICES ESTABLISHED.

#### 2:12-1.1. Head of Department; Divisions; Volunteers.

- a. There shall be a Department of Neighborhood and Recreational Services, the head of which shall be the Director of Neighborhood and Recreational Services. The Director's salary shall be such sum annually as shall be fixed by ordinance.
- b. The Department shall consist of the following Divisions:
  - 1. Inspection and Enforcement;
  - 2. Neighborhood Preservation;
  - 3. Sanitation;
  - 4. Parks and Grounds;
  - 5. Recreation and Cultural Affairs;
  - 6. Demolition.
- c. Qualifications for Director. The Director shall, prior to appointment, be qualified by education, training and/or experience in the development, implementation and administration of rehabilitation and neighborhood preservation programs to revitalize, rehabilitate, preserve or restore residential, commercial and non-commercial buildings, structures, facilities and properties. The Director's compensation shall be such sum annually as shall be fixed by ordinance of the Municipal Council.
- d. *Duties of Director*. The Director, through the Divisions and otherwise, shall direct and supervise the functions and activities required for, and supportive of, the physical maintenance of neighborhoods and the City in general, which shall include:
  - 1. Conduct inspections and enforce the provisions of ordinances governing land use exclusive of the Uniform Construction Code, Fire Safety Code and sanitary inspections; and
  - 2. Assist in the development, implementation and administration of community-empowerment programs towards fostering safe, clean, aesthetically-pleasing, and the peaceful enjoyment of, properties, both public and private;
  - 3. Work with other Municipal departments on providing public improvements and services, housing counseling and outreach and liaison services with neighborhood resident organizations;
  - 4. Secure private lending cooperation and commitments from private industry, education systems, trade unions, agencies and associations towards developing the capability of neighborhood residents to conduct self-sufficient cleaning and beautification projects;
  - 5. Street cleaning, refuse collection and disposal, snow removal on all City streets;
  - 6. Administration of the City's recycling operations;
  - 7. Demolition of structures which are hazardous to the health or safety of citizens and the general public; and
  - 8. Care of all City parks and public grounds including trees, lawns and landscaping appurtenant to public buildings;
  - 9. Administration of the recreational and cultural functions and activities of the City Government, including but not limited to oversight of the Newark Symphony Hall.
- e. The Director shall be authorized to recruit the services of qualified volunteers for the Volunteer Assistance Program, including seniors, students, professionals, families and community groups to assist the various divisions in the office and in

the field. Office assistance may include, but is not limited to filing, computer input, copying, envelope stuffing and phone relief. Field help may include, but is not limited to, sign patrol and removal, mowing inspections and reinspections and abandoned house monitoring. Volunteers shall be not assigned to tasks or duties that are regulated by State statute or union contract.

- 1. Any interested person who wishes to volunteer must complete an application supplied by the Office of Personnel.
- 2. Candidates for the Volunteer Assistance Program will receive on-the-job training from the members of the Division they are assigned to work with.
- 3. Volunteer members will comply with the work agreement as provided to them by the Division.
- 4. All volunteers shall abide by the City's Rules and Regulations as they pertain to conduct of regular employees.
- 5. Volunteers can be terminated at any time without the right of a grievance procedure.
- 6. Volunteers will be provided an identification card which will identify them as volunteers. This identification card will be worn at all times while volunteering services.
- 7. Volunteers may require close supervision in case of confidentiality and therefore, it is the Division Manager's responsibility to ensure Division procedures are followed at all times.

(Ord. 6 S+FF (S), 9-16-98 §§ 1-3; Ord. 6 PSF-A(S), 11-29-11)

#### 2:12-1.2. Division of Inspections and Enforcement.

- a. There shall be within the Department of Neighborhood and Recreational Services, a Division of Inspections and Enforcement, the head of which shall be the Manager, Division of Inspections and Enforcement.
- b. The Division of Inspections and Enforcement, under the supervision of the Director of Neighborhood and Recreational Services, shall conduct inspections and enforce the provisions of the zoning ordinance and all other ordinances governing land use exclusive of the Uniform Construction Code, the Fire Safety Code and the State Sanitary Code.

(Ord. 6 S+FF (S), 9-16-98 §§ 4, 5)

#### 2:12-1.3. Division of Neighborhood Preservation.

- a. There shall be within the Department of Neighborhood and Recreational Services, a Division of Neighborhood Preservation, the head of which shall be the Manager, Division of Neighborhood Preservation.
- b. The Division of Neighborhood Preservation, under the supervision of the Director of Neighborhood and Recreational Services, shall administer the rehabilitation and preservation programs of the City to revitalize, rehabilitate, preserve, or restore residential, commercial and non-commercial buildings and other neighborhood structures, facilities and properties; assist in the development, implementation and administration of community empowerment programs towards fostering safe, clean, aesthetically pleasing, and the peaceful enjoyment of properties, both public and private; work with other Municipal departments on providing public improvements and services, housing counseling and liaison services with neighborhood resident organizations; secure private lending cooperation and commitments from business, industry, education, trade unions and various agencies and organizations toward developing the capability of neighborhood residents to conduct self-sufficient cleaning and beautification projects.

(Ord. 6 S+FF (S), 9-16-98 §§ 6, 7)

#### 2:12-1.4. Division of Sanitation.

- a. There shall be within the Department of Neighborhood and Recreational Services, a Division of Sanitation, the head of which shall be the Manager, Division of Sanitation.
- b. The Division of Sanitation, under the direction of the Director of Neighborhood and Recreational Services, shall be responsible for street cleaning, refuse collection and disposal, snow removal on all City streets; the City's Municipal recycling operation; the removal of debris and refuse and otherwise maintain in a clean and neat manner, all vacant land owned by the City; and, perform the duties outlined above upon privately owned property where such action is legally authorized as a result of some failure by the private owner.

#### 2:12-1.5. Division of Parks and Grounds.

- a. There shall be within the Department of Neighborhood and Recreational Services, a Division of Parks and Grounds, the head of which shall be the Manager, Division of Parks and Grounds.
- b. The Division of Parks and Grounds, under the direction of the Director of Neighborhood and Recreational Services, shall be responsible for the care of all City parks and public grounds, including the trees, lawns, and landscaping appurtenant to public buildings, and the care for the pruning, trimming, removal and planting of shade trees in the streets and all other public places in the City.
- c. All of those responsibilities and duties previously assigned to the Division of Inspection and Enforcement and the Divisions of Sanitation and Parks and Grounds within the Department of Neighborhood Services, are now assigned to the Divisions of Inspection and Enforcement, Sanitation and Parks and Grounds respectively in the Department of Neighborhood and Recreational Services.

(Ord. 6 S+FF (S), 9-16-98 §§ 10-12)

#### 2:12-1.6. Division of Recreation And Cultural Affairs.

- a. There shall be within the Department of Neighborhood and Recreational Services a Division of Recreation and Cultural Affairs, the head of which shall be the Manager, Division of Recreation and Cultural Affairs. This Division shall serve as the local arts agency for the City of Newark.
- b. The Division of Recreation and Cultural Affairs, under the supervision of the Director of Neighborhood and Recreational Services, shall be responsible for the following duties: plan, initiate, organize, direct and execute City programs for recreation and cultural activities; administer and implement a comprehensive Recreational and Cultural Affairs program for the children and citizens of the City of Newark; and publicize and disseminate information on the recreational activities and services and cultural events available within the City of Newark. (Ord. 6 S+FF (S), 9-16-98 §§ 13, 14)

#### 2:12-1.7. Division of Demolition.

- a. There shall be within the Department of Neighborhood and Recreational Services a Division of Demolition, the head of which shall be the Manager, Division of Demolition.
- b. The Division of Demolition, under the supervision of the Director of Neighborhood and Recreational Services, shall: demolish structures which are hazardous to the health or safety of the citizens, where such has been duly authorized; remove debris and refuse, and otherwise maintain in a clean and neat manner, all vacant land owned by the City; secure against unlawful entrance vacant structures owned by the City of Newark which are not in need of demolition; and perform the duties outlined above upon privately owned property, where such action is legally authorized as a result of some failure by the private owner.

(Ord. 6 S+FF (S), 9-16-98 §§15, 16)

<sup>[1]</sup> **Editor's Note:** Ord. 6 S+FF (S), 9-16-98 established the Department of Neighborhood and Recreational Service which consists of the former Department of Neighborhood Services, which was repealed by Ord. 6 S+FA (S), 9-16-98, and the Division of Recreation and Cultural Affairs heretofore established in the Department of Health and Human Services.

## **Revised General Ordinances of the City of Newark**

#### TITLE XXVII - PARKS, TREES AND PLANTS

NOTE: For State Statute as to injuring or damaging property, see N.J.S. 2C:18-5.

CROSS REFERENCE: For duties of the Division of Parks and Grounds, see subsection 2:12-1.5 of these Revised General Ordinances.

For regulations for Parks and Recreational Areas, see Section 20:20-1 of these Revised General Ordinances.

#### **Chapter Titles:**

Chapter 1. Trees and Shrubbery

Chapter 2. Conduct in Parks and Parkways

#### **CHAPTER 1 TREES AND SHRUBBERY**

#### 27:1-1. DEFINITIONS.

As used in this chapter.

**Division of Parks and Grounds** shall mean and refer to the Division of Parks and Grounds, in the Department of Neighborhood and Recreational Services.

City parks shall mean and include City parkways.

**Manager, Division of Parks and Grounds** shall mean and refer to the Manager of Parks and Grounds, in the Department of Neighborhood and Recreational Services.

**Plant** shall mean and include, but not by way of limitation, hedge, brush, shrubs or shrubbery, and flowers, or any part thereof, planted or growing in any public street or City park.

**Tree** shall mean and include any portion of a tree.

(R.O.1966 § 18:1-1)

## 27:1-2. INJURIES PROHIBITED. [2]

No person shall cut, break, climb or injure any tree or plant growing or planted in any public street or City park, or cause, authorize or procure any person to cut, break, climb or injure any such tree or plant without written permission of the Director of the Department of Neighborhood and Recreational Services. (R.O.1966 § 18:1-2)

#### 27:1-3. PERMIT TO TRIM TREES REQUIRED.

No person shall trim, cut or prune any tree in or on a public street without written permission of the Director of Neighborhood and Recreational Services. If the Director shall determine that the proposed trimming, cutting or pruning is necessary, and the proposed method and workmanship thereof is approved, the Director of Neighborhood and Recreational Services shall issue a written permit for such work to be performed and all work done under such permit shall be performed in strict accordance with any terms contained in the permit. (R.O.1966 § 18:1-3)

#### 27:1-4. PERMIT TO PLANT REQUIRED.

No person shall plant or set out, or cause or authorize or procure any person to plant or set out any shade tree in or on any part of any public street or City park without first obtaining from the Director, Department of Neighborhood and Recreational Services a written permit so to do. All planting and other work done pursuant to such permit shall be performed in strict accordance with the terms contained in the permit. (R.O.1966 § 18:1-4)

#### 27:1-5. PERMIT TO REMOVE OR DESTROY TREES OR PLANTS REQUIRED.

- a. No person shall remove, kill or destroy or cause, authorize or procure any person to remove, kill or destroy any tree planted or growing in any public street or any tree or plant planted or growing in any City park except as otherwise provided in paragraph b. of this section.
- b. Any person desiring to remove any tree in a public street may apply to the Department of Neighborhood and Recreational Services. If the Director of the Department of Neighborhood and Recreational Services shall determine that the proposed removal is necessary, the Director shall issue a written permit for such work to be performed and all work done under such permit shall be performed in strict accordance with any terms contained in the permit.

  (R.O.1966 § 18:1-5)

#### 27:1-6. OBSTRUCTING ACCESS OF AIR AND WATER TO ROOTS OF TREE WITHOUT PERMIT.

- a. No person shall, except with written permit of the Department of Neighborhood and Recreational Services, place or maintain upon the ground in or along any public street or City park, any stone, concrete, cement or other substance in such manner as may obstruct or impede the free access of air and water to the roots of any tree in such street or park.
- b. Unless otherwise provided for in the written permit, an open area at least six (6) square feet of open ground shall always be maintained around any shade tree with a trunk diameter of up to three (3) inches at the base; and for every two (2) inches of increase in such diameter, there shall be an increase of at least one (1) square foot of open ground maintained about the base of such tree.

  (R.O.1966 § 18:1-6)

#### 27:1-7. INJURIOUS SUBSTANCES ABOUT BASE OF TREES OR PLANTS.

- a. No person shall cause or allow any gas or other substance deleterious to tree life to come in contact with the soil surrounding the roots of any tree in any public street or any tree or plant in any City park in such manner as shall injure, kill or destroy such tree or plant.
- b. No person shall cause, authorize or procure any brine water, oil, liquid dye or other substance deleterious to tree life to lie, leak, pour, flow or drip on or into the soil about the base of a tree in any public street or City park or onto a sidewalk, road or pavement therein at a point whence such substance may, by lying on or by flowing, dripping or seeping into such soil, or in any other manner whatever, injure such tree; or cause or procure such lying, leaking, flowing, dripping, seeping or injuring. (R.O.1966 § 18:1-7)

#### 27:1-8. TAMPERING WITH PROTECTIVE DEVICES.

No person shall injure, misuse or remove, or cause, authorize or procure any person to injure, misuse or remove any device set or installed for the protection of any tree or plant in any public street or City park. (R.O.1966 § 18:1-8)

#### 27:1-9. WIRES CARRYING ELECTRICAL CURRENT.

No person shall cause, authorize or procure a wire or other conductor, charged with electricity, to come into contact with any tree in a public street or any tree or plant in a City park in such manner as may injure, abrade, destroy or kill such tree or plant. (R.O.1966 § 18:1-9)

#### 27:1-10. ILLEGAL ATTACHMENTS.

- a. No person shall attach or keep attached any rope, wire, poster, sign or any other device to any tree in any public street or to any tree or plant in any City park or to any guard or stake intended for the protection of such tree or plant, except as provided in paragraph b. of this section.
- b. Upon application made to the Department of Neighborhood and Recreational Services, the Department may grant permission for attachments to be made upon the condition that said attachments will be made and maintained in accordance with the requirements of the Department for the protection of the tree or plant against damage from any such attachment permitted.

(R.O.1966 § 18:1-10)

## **27:1-11. INJURY BY ANIMALS.** [3]

No person shall:

- a. Tie any animal to any tree in any public street or to any tree or plant in any City park; or
- b. Allow or cause any animal in his/her charge to injure any such tree or plant. (R.O.1966 § 18:1-11)

#### 27:1-12. PROTECTION DURING BUILDING CONSTRUCTION OR REMOVAL.

During the erection, repair, alteration or removal of any building, the owner or contractor performing the work shall place guards around all trees in or on the street in the vicinity of such work so as to effectively prevent damage or injury to such trees. (R.O.1966 § 18:1-12)

CROSS REFERENCE: For required protective structures during building construction or demolition, see Section 29:5-28 of the Revised General Ordinances.

#### 27:1-13. INTERFERENCE WITH CITY EMPLOYEES.

No person shall interfere or cause, authorize or procure any interference with authorized City employees while the employees are engaged in and about:

- a. The planting, cultivating, mulching, pruning, spraying of any tree or plant in any public street or City park;
- b. The removal of any attachment to any such tree or plant;
- The removal of stone, cement or other material as may be necessary for the protection and care of any such tree in accordance with the requirements of Section 27:1-6. (R.O.1966 § 18:1-13)

#### 27:1-14. CONSTRUCTION.

Nothing contained in the provisions of this chapter shall be deemed to apply to any City employee or agent of the City while engaged in or carrying out his/her authorized municipal functions and duties. (R.O.1966 § 18:1-14)

#### 27:1-15. PENALTY.

Any person who violates any provisions of this chapter shall, upon conviction thereof, be punished by a fine not exceeding five hundred (\$500.00) dollars or by imprisonment for a term not exceeding ninety (90) days, or both. A separate offense shall be deemed committed on each day during or on which a violation occurs or continues. (R.O.1966 § 18:1-15)

Editor's Note: Original reference was to the "Bureau of Parks and Grounds" which existed under the Department of Public Works. Under new reorganizational ordinances a Division of Parks and Grounds was established within the Department of Neighborhood and Recreational Services.

<sup>&</sup>lt;sup>[2]</sup> **Editor's Note:** For State Statutes prohibiting damage or destruction to public property, see N.J.S. 2C:18-5.

<sup>&</sup>lt;sup>[3]</sup> **Editor's Note:** For Statute prohibiting hitching of horses, see N.J.S. 39:4-20.