

# **Community Forestry Management Plan**

**2010 - 2015**

**City Of Linwood  
Shade Tree Commission**

**Prepared by:  
George Butrus – Chairperson  
Linwood, NJ**

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## **1. Municipal Information Form**

### **Community Forestry Management Plan**

### **Municipal/County Information Form**

Municipality – Linwood, New Jersey

County - Atlantic

Address – 400 Poplar Av. Linwood, NJ 08221

Contact Name and Title – George Butrus (Chairperson)

Phone # 609-927-2651

Fax # 609-927-5547 and E-mail – gblorivincase@aol.com

Organization Name – Linwood Shade Tree Commission

Mayor

Signature \_\_\_\_\_

Date of Management Plan – January 2010 – December 2015

Resubmitted on December 22, 2010

Time Period Covered in Management Plan is January 2010 – December 2015

### **Community Stewardship Incentive Program (CSIP)**

Practices Identified in Management Plan

- CSIP #1 Training
- CSIP #2 Community Forestry Ordinance Establishment
- CSIP #3 Public Education and Awareness
- CSIP #4 Arbor Day
- CSIP #5 Tree Inventory
- CSIP #6 Hazard Tree Assessment
- CSIP #7 Storm Damage Assessment
- CSIP #8 Tree Maintenance and Removals
- CSIP #9 Insect and Disease Management
- CSIP #10 Wildfire Protection
- CSIP #11 Tree Planting
- CSIP #12 Tree Recycling
- CSIP #13 Sidewalk Maintenance Program
- CSIP #14 Storm Water Management
- CSIP #15 Other

The above named municipality/county 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\_\_\_\_\_  
State Forester Approved date

## **2. Introduction**

This Plan outlines the manner in which the community forest in the City of Linwood will be developed, managed, and protected during the period from 2010 to 2015.

This Plan also outlines various elements that increase the community's understanding of the urban forest and increase the public's appreciation of trees on public and private lands that benefit the entire community.

The goal of the Shade Tree Commission is to develop and implement this Shade Tree Management Plan for the purpose of improving and maintaining the community forest at the highest level possible. The implementation of the Shade Tree Management Plan will provide a framework for the development and oversight of the community forest in Linwood.

In addition, it is expected that various elements of this Plan will further stimulate the public's appreciation for trees and the voluntary protection of trees on private lands for the benefit of the entire community.

**A. Mission Statement: "To promote a healthy environment in Linwood through the cost effective management of the community forest and shade trees."**

**B. Goals and Objectives**

The following outlines the long-term Goals of the City of Linwood Shade Tree Management Program.

**Goal 1. To educate residents about the value of trees and their proper care.**

**Objectives for Goal 1:**

1. Hold training sessions for residents focusing on the value of trees, choice of trees, proper techniques for planting, fertilizing, mulching, watering, pruning, and removal.
2. Publish a quarterly e-newsletter that will encourage residents to read about trees and tree care, inform them of educational workshops, and provide information about other places to go for further education.
3. Establish a link off of the City web site for addressing tree care issues.
4. Work with the Shade Tree Commission, the Linwood Arboretum, and the Linwood Environmental Commission on Arbor Day activities.

**Goal 2. To create awareness of the condition of the trees on public property and near streets and sidewalks of the town, so that problems can be prevented whenever possible, and quickly addressed when they occur.**

**Objectives for Goal 2:**

1. Groups of volunteers will examine all trees in Memorial Park, Hartshorne Park, the Bike Path, the South Jersey Gas Property, the Krumm property and on City and school properties at least twice a year. Any problems found will be promptly reported to the Shade Tree Commission and City government.
2. Put an insert in all tax bills and sewer bills instructing residents how to report problem trees.
3. Special group of volunteers will be assigned to examine trees on all public lands in the aftermath of any severe weather incidents.

**Goal 3. To plant additional shade trees along the bike path and in other public grounds.**

**Objectives for Goal 3:**

1. The Shade Tree Commission will apply for a minimum of two grants per year to fund tree planting.
2. The commission will continue to run a Memorial Tree Planting program.
3. The commission will establish a nursery operation at the Krumm property where small, inexpensive seedlings can be nursed into larger specimen trees.

**Goal 4. To maximize the health of the trees on City property by training City workers in proper tree care.**

**Objectives for Goal 4:**

1. The commission will provide one training a year in tree care to all City public works employees.
2. Employees who are interested in pursuing additional training will be encouraged to do so.
3. Protective mulch devices will be put around all vulnerable trees in our parks and along the bike path by the end of the five-year period.

### **C. Tree Hazard and Liability Objective**

We want to become pro-active in the management and care of our trees. Through inventory and hazard assessment, we will position our Shade Tree Commission to take corrective action prior to structural tree failure and other hazardous tree related conditions. It is acknowledged that not all hazardous conditions will be predicted. But, it's much like trying to predict which tooth might break next. Good maintenance and care will reduce the probability but unexpected events will still occur.

Following this plan will demonstrate that the City of Linwood is devoting reasonable levels of resources in a planned manner to reduce the number of tree related accidents and thereby reduce its exposure to liabilities and increase public safety.

The City of Linwood recognizes that a well-managed shade tree program provides valuable aesthetic, economic and social resource to the community. The City also recognizes these benefits do not come without cost and liabilities. As with any public asset, trees require maintenance and it is inevitable that potentially hazardous conditions will evolve. It is acknowledged that not all hazards can be predicted. However, experience in the City of Linwood has shown that a proactive management program that strives to anticipate and prevent such problems will cost-effectively maximize the economic, social and environmental benefits of trees while minimizing potential threat to public safety and exposure to liability.

The City of Linwood is committed to improving safety and reducing liability through an aggressive and proactive shade tree management program. Public safety shall be a primary consideration in all shade tree planning, decision-making and activities at all levels of the shade tree management program. This plan provides for a systematic means of identifying and abating existing tree hazards on a priority basis. Furthermore, the plan provides a means for reducing the potential for future hazards and liability through responsible planting and preventative maintenance.

## **3. Community Overview**

The City of Linwood is a community located in Atlantic County in southern New Jersey. Linwood encompasses 3.8 square miles and has a population of approximately 7172. There are approximately 2761 housing units in addition to commercial developments. There

are 63.28 acres developed & partially developed land held for recreation and conservation purposes within the City limits. There are 657.70 acres wholly undeveloped lands held for recreation and conservation purposes.

Soils are predominantly sandy-loam with some clay and gravel. Typical vegetation includes an upland complex of pine, oak, juniper (red cedar) and holly forest and a lowland complex of black gum, maples, white cedar, sweet bay magnolias, swamp oaks & serviceberry. Tidal marshes associated with spartina are also present.

Hydro geological conditions include both groundwater discharge and recharge areas that fluctuate seasonally with in the hydraulically connected Upper Kirkwood-Cohansey aquifers. The average annual precipitation is 40.5 inches.

Before 1800, the City was a community with few large trees. Most of the City was an immature pine, oak & holly forest and the rest was farmland. This was a time when trees were not the uppermost on everyone's mind. In the years of the late 1800's the City fathers decided that the addition of trees would enhance its beauty and culture. Pictures of this early time show there was very little infrastructure, paved roads, curbs and walkways. Plane trees and other varieties of trees were planted throughout the City. As the City grew, these fast growing and hardy trees also grew. Some of these trees are still with us and are over 150 years old today, although most were removed to allow for the streets to be widened and roadside limbs were removed to accommodate higher vehicles.

Native trees provide essential habitat for colorful and lively resident and migratory birds and other wildlife. Sandwiched between Patcong Creek and Scull Bay, Linwood lies in a migratory bird corridor. Trees provide food, shelter, nest sites, and places to rest.

### ***Geological HISTORY:***

Linwood's submarine and oceanfront days, prior to the Pleistocene Ice Age, left sedimentary deposits of clays, silts, sands and gravels when the sea finally withdrew five million years ago and the land lifted up. The ice age glaciers stopped 10 to 40 miles north of the City and left glacier melt that had the impact of extending the Atlantic coastline many miles east of its present coast.

The forested Pinelands terrain of pine and oak trees began to develop after the last ice age about 10,000 years ago. Settlers first came to Linwood as early as 1690 (technically it wasn't known as Linwood then). Because of the extensive amount of wood and timber shipped from Linwood, shipyards were established along Patcong Creek, becoming one of Linwood's early and lasting industries.

### ***Recent HISTORY:***

In December 1971 a resolution for the formation of a Linwood Shade Tree Committee was adopted by the City Council. From then until the 1990's the Shade Tree Committee focused on planting, replanting and addressing disease and hazardous trees that were reported. The committee operated on a tiny budget. The 1990's saw the Shade Tree Committee branch out, undertake beautification projects, and work in cooperation with other departments and private entities within the City.

Linwood has enjoyed a long history of residents dedicated to planting and nurturing trees in the community. Prior to the organization of the formal tree commission, several residents took it upon themselves to plant trees for the beautification of the City.

It appears the Shade Tree Committee was an off and on again organization until the early 2000's. At that time the Mayor suggested re-establishing a Shade Tree "Commission",

and offered City personnel to help. At this time a group had formed and became a very active committee that accomplished a great amount of work. The bike path was the focus of much effort as well as developing a plan for the park that was completed over several years. The group raised funds from individuals in the community, held antique fairs in the park, and secured several grants from the state. The improvements they contributed include the planting of trees, shrubs and perennials, and the placement of electric lights, benches and stylish trash receptacles. The park and the bike path have become a well loved oasis in the community. The same group continued planting numerous trees during the past fifteen years. They also coordinated the Arbor Day celebration, which has become an important event for the community. Under their leadership, Charlie Callahan won designation as a Tree City USA, which has been maintained through the present.

Today the Linwood Shade Tree Commission remains active and looks forward to a future of trees and a community who cherishes them.

## **The City of Linwood Shade Tree Management Program Today and Tomorrow**

Linwood, has been a Tree City USA since 1999. Both the Shade Tree Commission and the community take pride in this achievement. The members of the Shade Tree Commission and the municipal employees are involved in maintaining and improving the urban forest of Linwood. Several City beautification projects have been completed in areas along the bike path which include the All Wars Memorial Field, the "Memorial Tree Program" and most recently the Linwood Arboretum at Belhaven. Last year we even had our first "Big Tree" contest which the winners are now designated as "Living Legends / Landmarks" of our City. This was a huge success and helped start our tree inventory. These projects have been a cooperative effort between the county, City, the Shade Tree Commission, local businesses and volunteers from the community. The Shade Tree Commission has sponsored Arbor Day events at the City's elementary schools where we make presentations, plant trees, host poem and essay contests and give punch and cookie talks. The Shade Tree Commission and the City place high value on education and training. The Commission has been sending members to the annual Shade Tree Federation Conference and members have been participating in other training programs. The City has sent employees to seminars on tree hazard identification because tree hazard reduction and maintenance of older trees has become a priority. We also have established a web site with a link from the City of Linwood. Our address is: [linwoodshadetree.org](http://linwoodshadetree.org). Both the Shade Tree Commission and the municipal government are striving to develop the ability and resources to address the developing needs of the urban forest in Linwood.

The focus of the development of the community forest in Linwood over the next five years will be three general areas: **tree maintenance and hazard reduction, community awareness and involvement, and increasing tree population.**

The development of a proactive tree maintenance program will address the need for maintaining the tree canopy and treescape throughout the City. Maintaining the mature and over mature trees will be a priority. The first part of this effort will be to assess the number of hazardous trees in the community and develop a plan for their removal or hazard reduction. After determining the volume of work needed for hazard reduction, a realistic long term maintenance plan can be developed. Included in this plan will be the pruning of all the young trees to insure proper growth.

A tree inventory or a tree population assessment of the community forest will provide necessary information needed to implement a balance tree planting and reforestation

program. The goal is to achieve a balance within the urban forest of a healthy diversity of both species and age. We will encourage the planting of native trees and discourage the use of invasive species. Future planting plans will consider these and other factors in the hope of creating a more diversified population of trees within the City.

## 4. Community Forestry Program Administration

The Shade Tree Commission will oversee management of the municipality's trees.

Here is a list of the members:

**(5yr) George Butrus – Chairperson & Manager of Lang's Garden Market**

210 Central Ave., Linwood, NJ 08221

Home: 609-927-2651

Cell: 609-214-1399

Work: 609-927-6283

E-mail: [Gblorivincase@aol.com](mailto:Gblorivincase@aol.com)

**(5yr) Hank Kolakowski – Vice Chair & Linwood Public Works Director**

5 Edgewood Dr., Somers Point, NJ 08244

Home: 609-926-1284

Work: 609-412-1269

Cell: 609-705-2546

E-Mail: [H\\_kolakowski@comcast.net](mailto:H_kolakowski@comcast.net)

**(4yr) Michelle Post**

1903 Wabash Ave., Linwood, NJ 08221

Home: 609-601-1903

Work: 609-601-1904

Cell: 841-2895; 412-8229

E-mail: [michellebpost@gmail.com](mailto:michellebpost@gmail.com)

**(4yr) Mitch Rovins**

1005 Oak Ave., Linwood, NJ 08221

Home: 609-926-8212

Work: 609-641-9531

Cell: 609-412-1477

E-mail: [MROvins@beaconcycling.com](mailto:MROvins@beaconcycling.com)

**(3yr) Charlie Callahan**

511 Pierce Ave., Linwood, NJ 08221

Home: 609-927-0196

Cell: 609-226-8857

E-mail: [katee616@msn.com](mailto:katee616@msn.com)

**(2yr) Allen Lacy ( Curator of the Linwood Arboretum at Belhaven)**

1511 Shore Rd., Linwood, NJ 08221

Home: 609-927-8569

Cell: 609-403-6066

E-mail: [dalthird@mac.com](mailto:dalthird@mac.com)

**(5 yr.) Marion Jordan**

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**(Alt. #1) Charlie Marakos (*Kasa Landscaping*)**

312 Keitro Dr., Linwood, NJ 08221  
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**Tim Lenzsch C.T.E (*Certified Tree Expert*)**

207 Atlantic Ave., Somers Point, NJ 08244  
Home: 609-927-1492  
Work: 609-926-1333  
Cell: 609-703-4711  
E-mail: [lenzsch@verizon.net](mailto:lenzsch@verizon.net); [the\\_tree\\_man@verizon.net](mailto:the_tree_man@verizon.net) Website: [www.treeman.net](http://www.treeman.net)

We will be expanding our website as a resource for information about trees and tree selections. This website and the Linwood Arboretum at Belhaven (LAB) will be used to notify the residents of seminars, tours and general information. Meetings are held monthly at Linwood City Hall on the second Monday of each month with minutes and special events posted on our website. The arboretum will be our “official” home with our tools, supplies, library and even a mailing address which is 1410 Wabash Avenue, Linwood, NJ 08221

The Shade Tree Commission will work with City council, the City Clerk, and the City’s Public Works Department in managing the resource.

Members of the community will contact the City Clerk with concerns about trees on public property, and she will communicate the information to both Public Works Director Hank Kolakowski and Shade Tree Commission Chairperson George Butrus. Together public works and the commission will determine what action to take. If the staff of Public Works can handle the necessary job, it will do so. If not it will contact a licensed tree care specialist and his crew to handle it. Reports will be made to the City council and Shade Tree Commission monthly.

***Responsibilities of the Shade Tree Commission***

(CM. 2-9.2-Duties and Powers) The Shade Tree Commission shall have all of the powers, and shall perform all the duties provided by N.J.S. 40:64-1 (Ord. No. 10-69. 6:5-2)

The Shade Tree Commission meets on the second Monday of every month (except summer months of July & August). The Shade Tree Commission would be aware of planting, maintenance, and removal of all trees on City streets and City owned property.

The Shade Tree Commission can deem a tree hazardous and notify the homeowner to remove it within 30 days. The Shade Tree Commission has the authority to remove the tree and have a lean placed on the property for the cost of removal.

The commission reviews all requests for trees from community organizations. Decisions are made on the species and the locations and a planting plan is developed. The

commission works cooperatively with the City engineer and the planning board in implementing tree-planting projects on City managed property. Tree planting projects are also developed in a cooperative effort with community organizations and local businesses.

Maintenance on trees on City-managed property is performed on an as needed basis. The pruning or removal of hazardous trees are given top priority. The commission reviews and oversees all pruning and removal contracts.

The Shade Tree Commission maintains a positive relationship with the community by actively participating in community events and hosting activities such as Arbor Day events and speaking engagements.

## **5. Community Map and Aerial Photos (\* see attached 11 x 14 map)**

## **6. Training Plan**

The goal of the Shade Tree Commission is to have all members, including alternates, complete the State Accreditation Program. The commission at present has 4 of 7 members accredited, including the acting director of public works.

In addition every member of the shade Tree Commission is encouraged to educate him or herself in tree hazard are and identification using material provide by the National Arbor Day Association, International Society of Arboriculture and the State of New Jersey Shade Tree Federation. The City of Linwood is committed to maintaining a high standard of quality in both the development and the maintenance of the urban forest in the City. This standard can only be achieved through ongoing training and professional development of all individuals that are part of overseeing the community forest.

These programs will:

- A) – Ensure that both members of the Shade Tree Commission and municipal personal have the training necessary and the information available to properly manage the community forest.
- B) – Create a continually increasing pool of members within the community that are trained or experienced in the field of arboriculture.
- C) – Ensure that tree evaluations are performed to consistent standards and all data collected is in a standardized form.
- D) – Fulfill the requirements of the New Jersey Shade Tree and Community Forestry Assistance Act that reduces or eliminates the liability of the Shade Tree Commission and the City under the Tort Claims Act.
- E) – Ensure the community forest in the City of Linwood continues to be a cherished and valuable asset to the community.

### **Current Training Needs**

- A) Core Training for both members of the Shade Tree Commission and municipal personnel.
- B) Tree Hazard Identification for members of the Shade Tree Commission, municipal personnel and volunteers.
- C) Basic Arboriculture, tree identification, and proper pruning techniques for members of the Shade Tree Commission and municipal personnel.
- D) Community based teaching seminars open to all residents of the City of Linwood

### **Existing Programs, Policies & Procedures**

- A) Sending a minimum of 2 commission members to Core Training sessions each year.
- B) Sending at least 1 municipal employee to training sessions each year.
- C) Ongoing Training for Core Trained members and board members waiting for core Training.

## **7. Public Education / Awareness / Outreach**

The City of Linwood Shade Tree Commission has enjoyed the vigorous support of the community since it's beginning. Still, the City recognizes that actively maintaining this support is critical to it's future, long-term success.

**Goals:**

A multi-faceted public education, awareness and outreach program will:

- A) Maintain enthusiastic interest and support for Linwood's Shade Tree Management Program.
- B) Encourage the proper care of trees on private property, which in turn will benefit the entire community.
- C) Educate all citizens in the importance of the community forest.

**Strategies:****Web Site:**

- A) Continue to develop a resource / educational oriented web site with a link to and from the City of Linwood's site.
- B) Provide links to partner Web sites on topics such as native and invasive plant lists, value of trees, backyard habitat, Project Learning Tree and other educational resources.

**Special Events:**

**Arbor Day:** Arbor Day is proclaimed every year in the City of Linwood. Activities *might* include:

- A) Continue with the Tree City USA program. The City of Linwood has received the tree City USA award every year since its inception in 1976.
- B) Tree Care Contractor Recommendations: All property owners who call asking for the commission to recommend a tree care contractor will be provided with our list of New Jersey Certified Tree Experts (CTE)
- C) Tree Planting programs at schools
- D) Education programs at elementary schools including sponsoring of a poem and essay contest.
- E) Make a tree costume, a mascot for the Shade Tree Commission.
- F) Recognize teachers who are using the PLT curriculum.
- G) Coordinate Backyard Wildlife Habitat demonstration tours

**Memorial Tree Program:** To continue of fall planting program to allow residents to purchase a tree to be planted on public property in memorial to a loved one.

**Tree seedling distribution****Stewardship and Citizen Science:**

- A) Reforestation of properties adjacent to schools. (South Jersey Industries property)
- B) Invasives species inventory and monitoring
- C) Promote Great Backyard Bird Count, Project Feeder Watch, and participation in the Christmas Bird Count
- D) Encourage National Widlife Federation Certified Backyard
- E) Encourage scout units or school clubs to help distribute mulch volcano door hangers

**Publications:**

- A) Information Bulletins: An information pamphlet or handout is currently being developed for distribution and will be posted on our website. (*Possibly a "Welcome to Linwood" letter from the Shade Tree Commission explaining the purpose and*

*benefits of the Shade Tree Program and advising them of the Tree ordinance. ) These will also be available in flyer form at the Linwood Arboretum at Belhaven (LAB) We will include a selection of recommended trees both native and ornamental varieties suitable for residential plantings.*

- B) Press releases 2- 3 times a year *either as a column or notification.*
- C) Develop a door hanger to interpret the mulch volcano issue.

Environmental Education:

- A) Provide slide shows at arboretum.
- B) Classroom visits by the tree costumed Shade Tree Commission mascot.
- C) Encourage a local educator to become a facilitator for Project Learning Tree.
- D) Partner with the local school districts to provide Project Learning Tree Workshops for teachers (PLT activities are correlated to the NJ Core Curriculum Content Standards).
- E) Work with schools and partners to develop National Wildlife Federation Certified Schoolyard Habitat.
- F) Develop simple keys to trees for scouts, school groups, and homeschoilers.
- G) Interpretation
- H) Provide slide shows at arboretum.
- I) Provide interpretive walks at the arboretum.
- J) Encourage arboretum and big tree tour leaders to become National Association for Interpretation Certified Interpretive Guides
- K) Develop a Linwood Big Trees Photo Geocache program.
- L) Develop a Linwood Big Trees compass orienteering map/activity
- M) Create a wayside exhibit plan for interpretive waysides along the bike path.
- N) We will look for opportunities to collaborate with state and local agencies on Wildfire Protection and Firewise Communities Plans. The New Jersey Forest Fire Service is in the process of developing strategic plans for managing wildfire hazard areas within the state. It does not look like Linwood is a high priority at this time.
- O) Educate the residents about the importance of trees with respect to storm water runoff and how it affects Non-Point Source Pollution. To work with the City Public Works department & the Linwood Environmental Commission with issues pertaining to Storm Water Management. Continue monitoring storm drains that has been done by our City Public Works and the Boy Scouts.
- P) Help notify residents about fall & spring city wide leaf removal pickups dates. To also inform the city residents about the Atlantic County yard waste and Christmas tree recycle program. These schedules will be posted on our message board at the Linwood Arboretum.
- Q) To post on our website and message board, information about insects and diseases that might be damaging to our community forest. Flyers can be distributed at special events.

## 8. Statement of the Tree Budget

### Funding Sources

Municipal:

The primary method of funding from the City is through services in kind for the needs of the commission administrative needs, equipment and materials for planting projects, and non contracted or emergency pruning and removal. Some tree planting, maintenance, and removal projects are funded on an individual basis.

Donation and private funding:

Donations are received from private and corporate sources in the community.

Grants:

No grant money is received at the present time. A grant for this management plan has been approved and is pending final approval of Services in Kind.

Volunteer time, landscaping materials, and labor are contributed privately and corporately from residents and businesses in the community.

## Budget for the Year 2010

	<u>Cash</u>	<u>Service in Kind</u>
<b><u>Income</u></b>		
Municipal Contribution	\$400.00	
Annual Fundraiser	\$1400.00	
Private / Commercial Contributions ( <i>donations</i> )		
Bike Rack from Beacon Bike Shop	\$600.00	
Concrete slab for bike rack from Lang's Garden Market	\$300.00	
Volunteer Hours - @\$20.85 / hour		
Shade Tree Commission Members (In-kind hours @ \$20.85 / hour)		
Municipal In-kind Service - \$45.00 / hour		

### **Yearly Expenses** © = about / estimated

Trees – replacements for damaged and drought © \$500.00

Landscape projects (including trees) - expenses would vary depending on the project.

Spraying & Fertilizing – © \$100.00

Training – CEU expenses. \$200.00 (Hank & George)

Professional Service – “In Kind @\$45.00” service for removing large Norway spruce that was blown over during a wind storm at the arboretum. © \$700.00

Landscape Service from Kasa Landscaping (In Kind @ \$45.00) - © \$1,000.00

Arbor Day Activities - \$50.00 for seedlings handed out at the Country Fair

Bucket Truck Rides – “In Kind” - \$500.00

Administrative Expenses – Secretarial time © 15hrs. = \$300.00

Leaf and Brush Collection - \$35,000

Tree pruning and removal - \$4,595

Yard Waste collected by County - \$132,000

Maintenance of Compost Facility - (*not available at this time*)

Watering - \$1,200.00

Tree work performed for removal of hazardous or dead trees in the City of Linwood for the year 2008 was \$4,995.00 and \$4,345.00 in 2009.

\$1000.00 was spent in 2009 to purchase artificial mulch rings to protect against bark damage due string trimming on newly planted trees. Also, helped retain moisture around trees.

We would expect our annual budget to increase significantly as our tree annual assessment work increases. With a "Proactive" budget we would expect this amount to double or in round numbers, to around \$10,000.00 annually for tree pruning, removal and maintenance.

We will look to develop & use a Microsoft Excel spread sheet with our future annual reports.

## **9. Statement of Shade Tree Management Plan Implementation**

### ***Program Goals and Objectives***

1. Maximize public safety relative to public trees through development of a tree inventory that includes location of existing trees, location of open planting areas, tree species, tree size, hazard identification, pruning needs, insect and disease identification, and other necessary information. 2010 and ONGOING.
2. Identify hazard trees and risk management plan. 2010 and ONGOING.
3. Develop an Emergency Management Plan as related to trees and storms, with volunteer committee developed to examine trees after significant storms. First half of 2011.
4. Stimulate public interest and community participation through public education campaigns, including twice-annual workshops and regular distribution of fact sheets at arboretum and elsewhere, and formal relationship with the school system. 2010 and ONGOING
5. Educate public works employees on tree care with once annual workshop. First half of 2011 and ONGOING.
6. Increase the tree population with a proactive tree-planting program through Memorial Tree Program. 2010 and ONGOING.
7. Develop a list of optimum tree species for the community that is based on existing soils, actual wind and water conditions, salt tolerance, planting size, physical constraints, value to wildlife, aesthetic qualities, heartiness, and insect & disease resistance. 2010 COMPLETED.
8. Develop a list of invasive plants to avoid planting. First half of 2011.
9. Review the existing Site Clearing Ordinance and make recommendations for a new supplemental ordinance. Second half of 2011.
10. Establish relationship with utility company foresters to minimize problems such as topping trees when trimming in Linwood. First half of 2011.
11. Explore ways to locating funding sources and apply for at least one grant per year. 2011 to 2014.
12. Develop a cooperative nursery at the Krumm Property. 2012-2013.
13. Living Legends / Landmark Tee Program (Big Tree Contest) 2014.

## **Shade Tree Management Plan Implementation**

Year 1, 2010

Priority One: Hold two information sessions on tree planting, care, and/or pruning for general public -- one in Summer and one in Fall. Hold one such session for City public works employees. COMPLETED.

Priority 2: Put data from examination of all trees on City park (from exam already conducted in Memorial Park, Hartshorn Park, the South Jersey Gas Property, the Krumm property, bike path and Arboretum) into written report and into iTree, with priority plan for addressing problems found over next five years. COMPLETED.

Priority 3: Establish a formal link between the Shade Tree Commission and Arboretum, and Linwood Public Schools, to encourage education about tree choice, care and pruning with students. COMPLETED.

Priority 4: Begin publishing a quarterly e-newsletter that will encourage residents to read about trees and tree care, inform them of educational workshops, and provide information about other places to go for further education. FIRST GOES OUT IN DEC.

Priority 5: Develop a list of optimum tree species for the community that is based on existing soils, actual wind and water conditions, salt tolerance, planting size, physical constraints, value to wildlife, aesthetic qualities, heartiness, and insect & disease resistance. COMPLETED.

Ongoing Priorities from previous years: Continue (all five years) our already existing web site for the Shade Tree Commission, and continue working with the City, Environmental Commission, Arboretum and others in promoting Arbor Day, Earth Day and environmental awareness all year long. COMPLETED.

Continue (all five years) our already existing Memorial Tree Planting Program. COMPLETED.

Year 2, 2011

New Priority 1: Examine all problem trees on City property twice annually. Adjust plan to address problems as needed.

New Priority 2: Appoint special group of volunteers to examine trees after severe weather incident.

New Priority 3: Begin applying for tree maintenance and tree care education grants, one per year.

New Priority 4: Review the existing Site Clearing Ordinance and make recommendations for a new supplemental ordinance.

New Priority 5: Hold one educational session on tree care for City public works employees.

New Priority 6: Establish relationship with utility company foresters to minimize problems such as topping trees when trimming in Linwood.

New Priority 7: Send information in tax bills regarding reporting problem trees.

New Priority 8: Develop a list of invasive plants to avoid planting.

Ongoing Priorities from Previous Year(s) 1: Hold two information sessions on tree planting, care, and/or pruning for general public -- one in Spring and one in Fall. 2: Continue development of detailed inventory of trees on public property in written form and computerized database such as iTree. 3: Continue formal link/meetings between Shade Tree Commission, Arboretum volunteers and school personnel. 4: Continue tree care/arboretum newsletter.

#### Year 3, 2012

New Priority 1: Begin planning for a small nursery operation on City property by researching best practices for running such an operation and funding sources for it.

Continuing Priorities 1: Hold two information sessions on tree planting, care, and/or pruning for general public -- one in Spring and one in Fall. Hold one such session for City public works employees. 2: Examine all problem trees on City property twice annually. Adjust plan to address problems as needed. 3: Apply for at least one tree maintenance/tree care education grant. 4: Continue tree care/arboretum newsletter.

#### Year 4, 2013

New Priority 1: Begin operating a small nursery operation on City property.

Continuing Priorities 1: Hold two information sessions on tree planting, care, and/or pruning for general public -- one in Spring and one in Fall. Hold one such session for City public works employees. 2: Examine all problem trees on City property twice annually. Adjust plan to address problems as needed. 3: Apply for at least one tree maintenance/tree care education grant. 4: Continue tree care/arboretum newsletter.

#### Year 5, 2014

New Priority 1: Develop next five-year plan.

New Priority 2: Hold a Biggest Tree/Living Legends Tree Contest for town to recognize the largest trees of various species, and the overall largest tree in Linwood.

Continuing Priorities 1: Hold two information sessions on tree planting, care, and/or pruning for general public -- one in Spring and one in Fall. Hold one such session for City public works employees. 2: Examine all problem trees on City property twice annually. Adjust plan to address problems as needed. 3: Apply for at least one tree maintenance/tree care education grant. 4: Continue tree care/arboretum newsletter.

## **Tree Inventory / Assessment Plan**

An inventory project was undertaken in the winter months of 2009. These areas included the Bike Path, All Wars Memorial Field and some City properties. In January 2010 members of the Shade tree Commission started to identify / classify original remaining forest in the City of Linwood.

The Shade Tree Commission understands that the development of an inventory is a difficult process and will need to be approached in a committed and professional manner.

As of now, we have purchased a Dell Axim X51 PDA. We will be looking for CEU training to use this device along with the software program “ITree” to keep an expanding inventory record.

### **Goals**

This Tree Inventory Plan has been developed to be an ongoing information and data resource that is gathered and maintained for use in the following objectives:

1. To maintain a list of identified tree hazards and provide a record of removals or corrections for the tree hazard management plan
2. To provide an ongoing record of maintenance needs and services performed for use in the tree maintenance plan.
3. To maintain a record of utility conflicts (electrical, sewer, water & gas) and sidewalk, curb & street damage. This information will then be incorporated into the tree maintenance plan and this information will be made available in a useful form to the proper planning authorities or street and road departments.
4. To provide current inventory of the community forest that provides information on the population necessary to determine tree planting possibilities.
5. To provide the current inventory of the open planting areas within the community that are considered desirable tree planting locations.
6. To maintain an ongoing information and data base that can be used by the Shade Tree Commission and other branches of the municipal government in decision making, budget needs, statistical analysis, and long term planning.

### **Objectives**

Inventory software will be selected that fits the needs of the outlined objectives. Software that is compatible with the software presently being used by the Public Works Department, Planning Department and the Tax Office will be given priority.

*This purchase of a Dell Axim PDA has already been made by George Butrus.*

## Hazard Tree Assessment and Risk Management

### Scope

A Risk Management program is a comprehensive approach of examining trees, rating their likelihood of causing damage and taking action to abate the hazard or to reduce the risks associated with the trees.

Risk Management should also include the process of avoiding potentially hazardous situations from developing by applying proper planning and planting techniques.

Hazard Evaluation is one component of a comprehensive Risk Management Program. The purpose of the hazard evaluation process is to assess the danger and risk associated with a tree. This information will allow managers to identify hazard situations, rank their relative severity, and create a priority for work.

### Goals:

To improve public safety by detecting, evaluating, and correcting or removing hazardous trees.

To improve public safety through proper management of the tree resource by avoiding the creation of a potential hazards caused by improper planning, planting, and maintenance of trees.

To actively demonstrate that the Shade Tree Commission and the City of Linwood have been responsible in the management responsibility of improving the safety of people and property

## Tree Planting Implementation Plan

The well-planned and properly implemented tree-planting program is vital to the development and maintenance of the community forest. Tree planting is an important part of maintaining a balance of the age and diversity of the tree population. Establishing this balance through selective tree planting programs is as important as filling the open planting areas to a maximum capacity.

**“Memorial Tree Planting Program” in All Wars Memorial Park and the Bike Path.**

**“L.A.B. (Linwood Arboretum @ Belhaven)**

## Tree Maintenance and Care Goals:

To train City personnel to use proper pruning techniques of young trees and the importance of being careful using a weed trimmer. Also, in the event of drought. The proper

watering techniques to fit the needs of certain species and their water requirements of newly planted trees.

## **Community Stewardship Incentive Program (CSIP)**

*The following is a summary of how and where each of the thirteen CSIP practices is addressed in this Community Forestry Management Plan.*

### **CSIP #1 Training**

This CSIP practice is addressed in the Training Plan and Professional Development section on page #11.

### **CSIP #2 Community Forestry Ordinance Establishment**

This CSIP practice is address in the Ordinance Establishment section on pages #9 and #17.

### **CSIP #3 Public Education and Awareness**

This CSIP practice is addresses in the Public Education, Awareness & Outreach sections on page #12.

### **CSIP #4 Arbor Day**

This CSIP practice is address in the Public Education, Awareness & Outreach sections on page #12.

### **CSIP #5 Tree Inventory**

This CSIP practice is address in the Tree Inventory Plan sections on page #18.

### **CSIP #6 Hazard Tree Assessment**

This CSIP practice is address in the Tree Hazard Assessment and Risk Management Plan section on page #18.

### **CSIP #7 Storm Damage Assessment**

This CSIP practice is address in the Development of an Emergency Management Plan on page #15

### **CSIP #8 Tree Maintenance & Removal**

This CSIP practice is address in the Tree Maintenance section on page #19.

### **CSIP #9 Insect & Disease Management**

This CSIP practice is address in the Insect & Disease Management section on page #15

### **CSIP #10 Wildfire Protection**

This CSIP practice is addressed in the Environmental Education section on page #13

### **CSIP #11 Tree Planting**

This CSIP practice is address in the Tree Planting Implementation Plan section

on page #19.

**CSIP #12 Tree Recycling**

This CSIP practice is address in the Tree and Leaf Recycling section on page #13 and #14

**CSIP #13 Sidewalk Maintenance Program**

This CSIP practice is address in the goals of the Tree Inventory Plan section on page #17.

**CSIP #14 Storm Water Management** is addressed in the Environmental Education section on page #13.

**CSIP #15 Other**

A City Maintained Nursery is addressed on page #15 and again in the year 4 goals on page #17.