



CITY OF DIXON



LANDSCAPING & LIGHTING DISTRICT URBAN FOREST MANAGEMNT PLAN

City Of Dixon Landscaping and Lighting District Urban Forest Management Plan

Dates covered by plan:

01/01/2013-01/01/2033

Prepared for:

The City Of Dixon Landscaping and Lighting District

Prepared by:

Mike Marianno and Josh Hudson

Plan approval date and/or date of final draft:

11/2012

Approved by:

Dixon City Council

Acknowledgments:

- **Nancy Sappington**
- **Dave Roger**
- **Mike Marianno**
- **Josh Hudson**
- **Janet Koster**
- **Pernell Colter**
- **David Horigan**

A Special Thank you to the USDA Forest Service for providing Funding Through the California Department of Forestry and Fire Protection Urban and Community Forestry Program



Executive summary

Dixon is a unique city, second to none when it comes to small town character, outstanding citizens, and the potential for world class urban forest. This document lays the groundwork that pave the way to this achievable goal.

This document provides an overall management plan for the Landscaping and Lighting district urban forest. It outlines the current condition of our urban forest, how it came to be, and the long term goals for its future. It concludes with the policies and management practices that need to be put in place in order to achieve successful implementation and operation of this plan.

Dixon has weather conducive to a vast array of plants and trees, with a rich clay loam soil ideal for healthy tree growth. Dixon's environmental conditions along with adherence to this management plan will allow us to reach our goal of a healthy and striving urban forest.

This management plan gives you a brief look into Dixon's history, show you the past and present condition of the Landscaping and Lighting district urban forest, which is currently in a state of decline, and most importantly it shows you the benefits of properly managed and maintained urban forest. It outlines why we need this plan in place and shows you the goals our ambitious employees have set forth, as well as the actions they will take to further enhance the health and beauty of Dixon's urban forest.

A healthy urban forest provides benefits both economic and environmental, and with a detailed list of goals, objectives, and actions Dixon's Urban Forest Management Plan describes to you how this is achieved.

Table of Contents

Dixon's Vision and Mission <ul style="list-style-type: none">-Vision statement-Mission Statement	Page 1
Introduction <ul style="list-style-type: none">-Historical context-Environmental context-Why we need a plan-Benefits provided by trees	Page 1-3
Scope of the Plan <ul style="list-style-type: none">-Planning horizon-Relationships to other planning documents	Page 4
Status of the Urban Forest <ul style="list-style-type: none">-Historical context	Page 4-5
Tree Resource Assessments <ul style="list-style-type: none">-Landscaping and lighting district	Page 5
Management <ul style="list-style-type: none">-Summary of current tree management practices/programs	Page 6
Community <ul style="list-style-type: none">-Values-Local Concerns	Page 6
Issues and Needs <ul style="list-style-type: none">-Tree Resources-Management-Community	Page 6-7
Goals, Objectives, and Actions	Page 7-15
Monitoring Plan	Page 16
Appendix <ul style="list-style-type: none">-Technical guides and standards-Planning documents, policies, and ordinances-other	Page 17

Dixon's Vision and Mission

Vision statement

Our vision for the future of Dixon's urban forest is to have a large variety of trees consisting of various sizes, ages, and species. The trees should be selected and maintained according to the Best Management Practices (BMP's) established by the International Society of Arboriculture (ISA).

By following our vision plan we achieve a healthy and sustainable urban forest, both properly managed and cared for, thus, benefiting our citizens with improved economic and environmental well being, increased public safety, and enabling our employees to provide more cost effective maintenance.

Mission statement

The mission of the public works department's Landscaping and Lighting District with the creation of this documented is to maintain and expand our current urban forest in a sustainable cost effective manner following current ISA and American National Standards Institute (ANSI) BMPs and enhance Dixon's urban forest by planting additional trees, shrubs and ground covers whenever possible and as needed.

Introduction

Historical context

Indigenous peoples utilized what is now the Dixon area for many years before the first European settlers arrived. By the 1850s, traffic between San Francisco and Sacramento through what is now the Dixon area had increased as a result of the Gold Rush.

Elijah S. Silvey first built a house and corral, and later a general store to serve travelers passing through the area. A blacksmith shop was built in what had come to be known as Silveyville, and in 1856 another store was built in the area. By 1865, there were approximately 150 people living in Silveyville.

In the late 1860s, the town of Silveyville was moved to a new location around the railroad line approximately three miles away, on a ten acre site donated by Thomas A. Dickson. The town became known as Dixon, and began to grow, supported by farms in the vicinity. There are many old and historic black walnut trees in this section of Dixon.

From 1980 to 2010, Dixon's population increased significantly as large parcels of farmland were turned into housing developments. In 1980, the population was approximately 7,000. Today it is more than 18,000. To be able to maintain the landscaping in these new housing tracts, the city created the Landscaping and Lighting District, with each new development contributing an additional zone. Today, with the LLMD consisting of 18 zones, most of these zones are underfunded due to lack of incremental supplements to accommodate increased costs.

The city is struggling to maintain its small town character, which appeals to a majority of its residents. Tree lined streets are highly evocative of small town character, and planting more trees throughout the zones in the Landscaping and Lighting District would go a long toward achieving this result.

Environmental context

The environmental factors that pertain to the City of Dixon's Urban Forest Management Plan, as well as environmental factors that should be taken into consideration during the planning and plant selection portions of this plan include but are not limited to:

- Dixon's average rainfall: Approximately 17" annually
- Temperature range: Low ~28-30 degrees Fahrenheit/ Max high ~104-110 degrees Fahrenheit
- Dixon's Climate zone: Sunset Zone 14, and USDA Hardiness zone of 9b
- Soil conditions (Landscaping and Lighting District) due to development: Hard compacted clay with some areas clay loam

Why we need a plan

We need an Urban Forest Management Plan to better help our citizens as well as our employees understand the importance and proper care of our urban forests. Benefits from a properly managed and maintained urban forest include but are not limited to, cleaner air quality for our town, increased property values, an overall improvement in mental happiness, cooler temperatures from the shade they provide, a reduction in water consumption in landscaped areas, increased public safety due to trees being properly structured/pruned, and an overall added beauty to our community.

Adoption of this Urban Forest Management Plan ensures proper care and growth of our urban forests through durable installation and long term maintenance. The result will be a well maintained and healthy urban forest, as well as successful planning and management for future development. With this plan in place, and its successful operation, the City of Dixon will benefit greatly, and the employees and citizens of Dixon will enjoy these benefits for many years.

Given the cost of removal and replacement of trees in our urban forests, we look to create this management plan to help protect the investment of our existing urban forest and to constantly expand with healthy additions. With proper maintenance and care of existing trees, shrubs and landscaping, we look to keep them healthy and thriving with proper pruning, watering, replacement choices, and maintenance techniques. We will accomplish this by following specific guidelines for nursery quality when planting young trees, having the shaping and pruning of our urban forest preformed/overseen by a certified arborist, and practice best watering and maintenance techniques for the existing urban forest and its additions. Thus keeping our ever expanding urban forest a healthy and thriving attribute for our citizens and employees to enjoy.

Having in place a successful UFMP (Urban Forest Management Plan) will help in preventing and addressing any challenges brought on by storms, invasive pests, or disease. By following the city's UFMP, our trees will be properly selected for their areas, pruned and maintained properly, resulting in less damage from pests, disease, and broken limbs/downed trees due to sever weather.

Having an Urban Forest Management Plan also reduces liability on the city due to the fact we have a clear legal document showing the city is following a specific management plan to properly maintain our urban forest, in the unfortunate event an accident should occur in one of our LLMD (Landscaping and Lighting Maintenance District) or in any area related to our urban forest.

Building a successful Urban forest Management Plan is not only beneficial in keeping the city's urban forest healthy, properly maintained, and aesthetically pleasing, but it also opens up the possibility to future grant money. Having an Urban Forest Management Plan in effect, we are more likely to be recognized as professional and serious in properly using money granted by those outside powers.

Benefits provided by trees

Trees are valuable infrastructure. They provide a countless amount of benefits to our community including, cleaner air quality for our town, increased property values, an overall improvement in mental happiness, cooler temperatures from the shade they provide, a reduction in water consumption in landscaped areas, and an overall added beauty to our community. Studies have also proven that people will buy and pay more for goods and services in properly managed urban forested areas.

According to a study preformed by Dan Burden, a partner and senior urban designer with Glatting Jackson and Walkable Communities Inc, for a planting cost of \$250-\$600 (includes first 3 years of maintenance) a single street tree returns over \$90,000 of direct benefits. Examples of these benefits include but are not limited to:

Health and Safety Benefits:

- Increased motorized and pedestrian safety.
- Trees call for planting strips which further separate motorist from pedestrians, buildings and other urban fabric to increase safety.
- Trees create more pleasant environment bring about increased walking, talking, socializing and pride in our town, improving the city's atmosphere for business to thrive.
- Improved air quality: Trees in street proximity absorb 9 times more pollutants than more distant trees.
- Reduced blood pressure, improved over all emotional and physiological health.

Economic and Infrastructure Benefits:

- Business on tree-scaped streets show 20 percent higher income intake, which is often the essential competitive edge needed for on and off main street store success.
- Less drainage to our infrastructure: Trees absorb the first 30 percent of precipitation through their leaf system, and up to 30 percent more precipitation is absorbed into the ground.
- Slows sun related degradation of pavement and other materials.
- Business on tree-scaped streets show 20 percent higher income intake, which is often the essential competitive edge needed for on and off main street store success.
- Added value to adjacent homes, businesses, and tax base. Realtor base estimate of street tree vs. non street tree comparable streets relate a 15 to 25 thousand dollar increase in home or business value; which in turn creates an increase of property tax revenues for our city.

Environmental benefits:

- Trees create a more pleasant environment and bring about increased walking, talking, socializing and pride in our town, improving the city's atmosphere for business to thrive.

- Trees convert streets, parking lots, and city walls into more aesthetically pleasing environments.
- Screens less desirable views
- Cools the air through transpiration, reducing the urban heat inland effect.
- Provides habitat for wildlife.
- Last but not least, a connection to nature and the human senses.

Scope of the plan

Planning horizon

The plan has a 20-year horizon with 10-year planning increments. We plan to use it on a daily basis to help ensure that proper management and care of the City's Landscaping and Lighting District urban forest is upheld. We also plan to revisit it on an annual basis to help monitor if/how efficient the UFMP goals and objectives are being implemented , and if changes need to be made.

At the end of the first 10-year period, we are confident that the plan we have presented here will have the improved changes necessary to reinstate it for a length of time greater then that of the original 10-year period.

Relationship to other planning document

The relationship of this plan to other planning documents and City regulations, such as the City's Street Tree Ordinance, and the approved Street Tree List, should act as a strong guiding mechanism in tree and plant selections, as well as proper planting procedures, maintenance, and long term care in all forested areas.

Status of the urban forest

Historical context

Our Urban Forest Management Plan focuses on Dixon's Landscaping and Lighting District.

Past design and limited tree selection has left us with a high level of vulnerability to species specific disease and pest problems, and due to the short life span of certain selected species, we find parts of our urban forest coming to the end of their natural life cycle. Our urban forest is slowly being deforested through attrition.

Historically, these sections of our urban forest have been maintained by a variety of workers using a variety of techniques with no formal training.

Without mandatory adherence to ISA best management practices, and a replacement plan in place that mandates a larger diversity, with native plantings when possible, our urban forest will continue to be in a state of decline as opposed to sustainable growth. Thus the importance of implementing this plan.

Our Inventory shows the following:

Species	Total	Percentage
• Crape Myrtle	517	31 Percent
• Redwood	224	13 Percent
• Sycamore	219	13 Percent
• Chanticleer Pear	165	10 Percent
• Fruitless Plum	92	6 Percent
• Other Species	434	26 Percent
• Total	1651	

With a total tree count in our Landscaping and Lighting District of 1,651 we have 1,217 trees of only 5 species. Approximately 75 percent of our urban forest investment consists of a mono culture of these five species.

Our history shows us that like any investment we need to be far more diversified.

Tree resource assessment

Landscaping and Lighting District

Currently the 2012 Landscaping and Lighting District's urban forest consists of only 21 varieties of trees, with an over all total count of just under 1,700 trees.

This Urban Forest Management Plan ensures a healthy and well maintained urban forest through proper tree selection and structural pruning techniques. This creates a diverse and beautiful urban forest with greater canopy cover providing more shade and a desirable destination for both business and citizens. These policies enable our employees to provide more cost effective maintenance.

Looking 50 years ahead, with the selection and maintenance outlined in this plan, the trees we plant and maintain today will be there for future generations to enjoy.

Management

Summary of current tree management practices/programs

Currently (2012) the 18 zones of the Landscaping and Lighting District are managed by one full time working arborist and one 1/4 time maintenance worker. Their duties include but are absolutely not limited to, irrigation, mowing, tree and shrub maintenance, tree and shrub removal, planting, trimming/pruning, as well as disaster removal/repair, tool maintenance/repair, and much, much more. They also manage and direct our CDF fire crews who help maintain our LLMD on an average of thirty days annually.

Community

Values

We highly support community involvement in our UFMP, from community outreach programs to community education. With proper education, training, and supervision volunteers are a valuable asset to the City of Dixon.

Expanding community involvement would be a great success of this UFMP. The more a citizen is involved in their community the more sense of ownership and pride they will feel in their town, helping not only to beautify our community, but bring a positive energy to our town through our citizens.

Local concerns

The main concern with community involvement is the lack of training an average volunteer has, not realizing what it takes to successfully plant, grow, and maintain a healthy tree.

One of our main goals with this management plan is to address that concern with community education to help citizens reach their goal of successfully contributing to the city's beautiful urban forest.

Issues and Needs

Tree resources

Our urban forest is currently limited, consisting of only 21 tree varieties. Having such a limited inventory of tree variety leaves our urban forest susceptible to species specific disease as well as invasive fungi and pest. To create a healthy, diverse, and thriving urban forest the City of Dixon needs to expand its tree inventory, using a diverse variety of trees, native when applicable, also enhancing on our landscape with an expansion of shrub and ground cover selections.

Using the City's Street Tree List we can add a variety of new and diverse trees to further promote a cost effective and thriving urban forest, making Dixon a destination for those who enjoy a beautiful, healthy, and relaxing environment created by a well planned and maintained urban forest.

Management

Currently (2012) the 18 zones of the Landscaping and Lighting District are managed by one full time maintenance worker/certified arborist and one 1/4 time maintenance worker. Their workforce includes CDF fire crews, managed by the LLMD staff, who provide help with shrub pruning, tree canopy raising, thinning, and removal projects. The LLMD is over seen by the Public Works Parks Division, which is over seen by the Public Works Administrator/certified arborist.

The trees in the City of Dixon are infrastructure, and it is imperative they are viewed that way. They need to be planted with the mindset that their management is a multiple year process, not simply "plant the tree, and walk away."

Management of a healthy growing urban forest is an on going ever changing process. In order to do this task properly we must always make sure to stay updated on the newest and most effective management techniques.

As opposed to past practices of having a variety of personnel performing pruning and maintenance on the city's urban forest, it would be beneficial for the city to have all maintenance and pruning performed/overseen by a certified arborist, or by staff that has been properly trained by an arborist. The result will be a safer urban forest due to the fact our trees will have a proper structure being pruned correctly from a young age.

Community

Community involvement should be an important part of our growing and thriving urban forest. Our goal would be to increase community involvement through the city's website, creating a more open channel of communication between citizens in the Landscaping and Lighting District and the City employees responsible for maintaining those areas.

The City of Dixon's Street Tree List should continue to be available to the public through the city's website and should have a press releases through local papers annually to show any changes or additions.

Community involvement is important in individual zones of the Landscaping and Lighting District because the more a citizen is involved in their areas the more sense of ownership is imparted and the value and care of each area increases and becomes personal.

Communication between volunteer groups and maintenance staff of the Landscaping and Lighting District is imperative and should be more easily achieved. Communication is important, volunteer groups are often well intentioned, but without communication with staff often times improper tree selection takes place and no maintenance is performed. It is extremely important that the tree selected is the right tree for the right place, and maintenance of the tree is performed by a knowledgeable person.

Goals, Objectives, and Actions

Goal 1

Increase Species Diversity in the City's tree inventory to have no more than 30 percent of any one tree family, 20 percent of any one genus, and no more than 10 percent of any one species.

Objective 1.1

Enhance the City of Dixon's Street Tree List for landscape uses and encourage planting of natives where appropriate.

Action 1.1.1

The City of Dixon's Street Tree List should be visited annually by the Public Works Administrator, the Parks Supervisor, and the LLMD working arborist for any additions or changes.

Action 1.1.2

Generate a matrix of attributes for each tree on the approved Street Tree List.

Action 1.1.3

Circulate the draft to appropriate city staff for concurrence and approval, then add to the UFMP.

Objective 1.2

Create a master planting plan for UFMP area.

Objective 1.3

Develop an experimental species program, created by Dixon's Public Works Administrator, Parks Supervisor, and LLMD working arborist.

Action 1.3.1

Identify new tree species throughout the year.

Action 1.3.2

Each year in the fall, three new species of trees will be selected, and a minimum of three trees of each species will be planted in appropriate locations.

Action 1.3.3

These trees will be monitored twice a year for five years, and if they are proven to respond well to the environment, they will be added to the recommended tree list.

Objective 1.4

Identify areas where age and species diversity is needed and develop a program to diversify

Action 1.4.1

Inspect all trees in each landscape zone at the rate of one zone per month to determine age and species diversity needs in the Dixon inventory. All should have been inspected at the end of 18 months.

Action 1.4.2

Prioritize the zones according to the greatest need.

Action 1.4.3

Ideally trees will be removed in the summer so that they can be replaced with new plantings in the fall.

Action 1.4.4

Remove and replace trees according to funding and priority.

Goal 2

Establish Tree Replacement Program, i.e. removing trees that are the wrong trees in the wrong place, remove and replace root bound trees, trees that are undesirable for the area, and trees that are reaching the end of their useful life.

Objective 2.1

Identify problem trees, i.e. trees that are in the wrong space, root bound trees, trees at the end of their useful life's, and other problem trees. Develop a long term removal and replacement policy.

Action 2.1.1

Develop a priority rating system for tree removal.

Action 2.1.2

Inspect all trees in each landscape zone at the rate of one zone per month so that all trees in the Dixon inventory have been inspected at the end of 18 months.

Action 2.1.3

Prioritize the zones according to the greatest need.

Objective 2.2

Establish a policy that mandates the replacement of removed trees, where appropriate, within a set period of time.

Action 2.2.1

The Public Works Administrator with the help of the Parks Supervisor and the LLMD working arborist should write a policy in the 2013 fiscal year for Dixon's replacement and removal needs.

Action 2.2.2

Have the policy reviewed by the appropriate city staff for approval.

Action 2.2.3

All trees removed shall be replaced with a designated species selected from the City's Street Tree List unless the space doesn't meet appropriate planting criteria. (This will be clearly outlined in the written policy)

Goal 3

Develop a tree care policy based on ISA and ANSI A300 standards.

Objective 3.1

Develop tree pruning guidelines based on ISA and ANSI standards that are specific to the needs of the City of Dixon. These address the different needs of young tree maintenance, adult tree maintenance and mature tree maintenance.

Action 3.1.1

Tree Care policy shall follow ANSI A300 Part 1 (2008 printing) and ISA Best Management Practice tree pruning guide.

Action 3.1.2

Have the policy reviewed by the appropriate city staff for approval.

Action 3.1.3

Attach the policy to a municipal ordinance.

Objective 3.2

Establish a tree pruning program that is appropriate for the needs of the trees.

Action 3.3.1

Develop a 5-year trimming schedule for the City's 18 landscape zones.

Objective 3.3

Establish tree planting specifications for both tree stock selection and for the actual planting procedure.

Action 3.3.1

Write tree planting specifications for both tree planting and tree selection.

Action 3.3.2

Add the written specifications to the UFMP.

Objective 3.4

Tree protection during construction.

Action 3.4.1

Mandate compliance with ANSI A300 Part 5 (2012 printing) and ISA companion publication during construction in city owned landscaping.

Goal 4

Increase Canopy Cover.

Objective 4.1

Identify and define the current canopy cover of the City and then establish a long term goal.

Action 4.1.1

Using various technologies and available literature determine existing canopy.

Action 4.1.2

Plant to expand canopy cover. (A long term goal for the percentage of canopy cover expansion will be established after 4.1.1 is determined.)

Objective 4.2

Based on the long-term goal the city determines, develop a planting plan that addresses and accomplishes this goal over a measurable time frame.

Action 4.2.1

Identify potential planting sites and potential tree selections for those sites with a greater canopy.

Action 4.2.2

Develop an implementation plan based on priorities established in goal 1.

Goal 5

Develop a shrub and ground cover planting list based on the five watering zones.

Objective 5.1

Develop plant palette that encourages use of natives. These shrubs and ground covers shall meet the city's criteria (to the extent practical) of providing improved air quality, beneficial insects, disease resistance, etc.

Action 5.1.1

Development of this plant palette should be done by The Public Works Administrator, the Parks Supervisor, and the LLMD working arborist.

Action 5.1.2

Generate a matrix of attributes for each selected shrub and ground cover.

Action 5.1.3

Circulate the draft to appropriate city staff for concurrence and approval, then add to the UFMP.

Goal 6

Establish a policy for qualified staff to approve new development landscape plantings in LLMD.

Objective 6.1

Use a "plan check" and "sign off" inspection sheet before any new LLMD is accepted into the City's inventory.

Action 6.1.1

The Public Works Administrator with the help of the Parks Supervisor and the LLMD working arborist should find an existing, or develop a new "plan check" and "sign off" inspection sheet to aid city staff in pre-acceptance inspections of any new LLMD development.

Goal 7

Secure adequate funding to support a healthy urban forest in the Landscape and Lighting District 18 zones. Determine cost of implementing UFMP.

Objective 7.1

Perform needs assessment and identify costs based on goals and objectives.

Action 7.1.1

Assess the overall costs of each Landscaping and Lighting zone, including planting costs, maintenance costs, watering costs, labor costs, etc.

Action 7.1.2

After an overall cost has been identified for each zone, take those numbers to the appropriate parties to find a funding source to adequately care for each zone properly and in conjunction with the UFMP.

Action 7.1.3

Once those funds are secured they should continually be increased at the discretion of the Director and the City Council to keep on track with the expansion of the City as well as inflation.

Objective 7.2

Increase LLMD funding where appropriate and when possible.

Action 7.2.1

Advocate with City staff and Council for increased funding such as grants, general fund, donations, or increased fees, to help in funding the proper care of each zone.

Goal 8

Create a Community Educational Program.

Objective 8.1

Work with or develop non-profit groups and participate in the education of said groups.

Action 8.1.1

Contact citizens, non-profit groups, and neighborhood associations to help them inspect and evaluate trees.

Action 8.1.2

Give replacement tree options.

Action 8.1.3

Aid the public in planting design, i.e. bed size, irrigation, soil volume, soil type, etc.

Objective 8.2

Designate maintenance responsibilities.

Action 8.2.1

If the community plants in a LLMD zone, maintenance responsibilities shall be designated at the time of planting. Either the citizens take responsibility for a healthy life span of said trees, or the responsibilities are given to the city.

Action 8.2.2

Help educate the community, if maintenance duties are assigned, to insure proper care and maintenance of said trees through good watering, pruning, and overall maintenance techniques.

Objective 8.3

Create an interactive online program.

Action 8.3.1

Work with the City's IT (Information Technology) Department to make the UFMP available to citizens through the city's website.

Goal 9

Computerized Tree Inventory.

Objective 9.1

Apply for grant funding to help the City interface tree inventory with computerized GIS (Geographic information system) inventory system that will layer with other departments in the city.

Action 9.1.1

Research and monitor grant availability.

Goal 10

Enhance interdepartmental Communication.

Objective 10.1

Establish Policy and Procedures to enhance interdepartmental communications and aid in the further success of a city wide UFMP.

Action 10.1.1

Identify where the city lacks interdepartmental communication

Action 10.1.2

Once those above areas are identified, work on striving for excellent communication, whether it be through common practice or City policies.

Action 10.1.3

Continue on that path of great interdepartmental communication to help strengthen all employees knowledge of the importance of a UFMP.

Monitoring plan

To better monitor the impact our management plan is having we break down the monitoring plan for each goal we have set.

Goal 1: On an annual basis, in the summer months, we will review our tree inventory and calculate new species for planting in fall. Added Experimental species will be monitored twice a year for five years to see if they are responding well to their environment.

Goal 2: Continuing on with our first goals monitoring plan, we will mark and schedule trees that need to be removed and replaced. Inspect each of the 18 zones at the rate of one zone per month to have all zones inspected on an 18 month rotation.

Goal 3: The pruning, planting, and protection of the City's trees should be constantly monitored by The Public Works Administrator with the help of the Parks Supervisor and the LLMD working arborist.

Goal 4: Using current satellite technology we can monitor the City's canopy cover annually to view its expansion.

Goal 5: On an annual basis, in the summer months, we will review our shrub and ground cover inventory and calculate new species plantings for fall. Added experimental species will be monitored twice a year for five years to see if they are responding well to their environment.

Goal 6: During any new development concerning the LLMD, The Public Works Administrator with the help of the Parks Supervisor and the LLMD working arborist will oversee plant selection and new plantings.

Goal 7: Review the LLMD budget on an annual basis to monitor if there are any surpluses or deficits and adjust where appropriate.

Goal 8: Continually review if community input is helpful and productive. Look for new ways to involve and educate the public, non-profit groups, and the employees of Dixon.

Goal 9: Monitoring system will be designed once the city's tree inventory is on the City's GIS system

Goal 10: Monitoring of interdepartmental communication is a daily task, identify any troubling areas and strive to improve the flow of information in those areas.

As stated earlier in this UFMP, this plan has a 20-year horizon with 10-year planning increments. We plan to use it on a daily basis to ensure proper management, maintenance, and care of the City's Landscaping and Lighting District urban forest. We also plan to revisit it on an annual basis to monitor if/how efficient the UFMP goals and objectives are being implemented , and make any changes or additions if needed.

Appendix

Technical Guides and Standards:

ISA

<http://www.isa-arbor.com/>

ANSI

<http://www.ansi.org/>

ANSI A300

<http://www.tcia.org/business/ansi-a300-standards>

ANSI A300 Part 1 (2008)

<http://www.tcia.org/business/business-resources/ansi-a300/part-1>

ANSI A300 Part 5 (2012)

<http://www.tcia.org/business/business-resources/ansi-a300/part-5>

ISA BMP Tree Pruning Guidelines

<http://www.isa-arbor.com/store/product.aspx?ProductID=58&CID=73>

ISA Companion Publication

<http://www.isa-arbor.com/store/product.aspx?ProductID=154>

Planning Documents, Policies, and Ordinances:

Dixon's Street Tree Ordinances

<http://ca-dixon.civicplus.com/DocumentCenter/Home/View/368>

Dixon's Street Tree List

<http://www.ci.dixon.ca.us/DocumentCenter/Home/View/678>

Other:

Dan Burdens 22 Benefits of street trees

<http://www.ufe.org/files/pubs/22BenefitsofUrbanStreetTrees.pdf>

Dixon's environmental factors

<http://www.sunset.com/garden/climate-zones/sunset-climate-zone-northern-california-00418000067169/>

