A Recipe for Urban Forest Management Plans

Today's discussion…

- Importance of UFMPs
- IUFC's endeavors
- UFMP process
- What we learned
- Future endeavors

What's not to get…

- Awe-inspiring beauty
- Healthier neighborhoods
- Watershed protection
- Shade and cooling
- Recreation
- Wildlife habitats
- Enhanced property values
- Air quality improvement
- Community pride and improved quality of life

Trees at work to affect climate change…

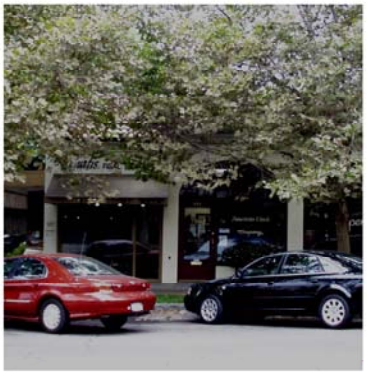
- 1 acre of trees produces 4 tons of O_2
- 100 trees remove approximately 1,000 lbs of pollutants per year
- Shade trees can contribute to up to 25% of energy savings

Trees at work to help the economy…

- Each large tree in a yard adds 1% to a home's value
- Neighborhood trees can increase market values as much as 20%

Trees mean better business…

- Tree-lined commercial districts contribute to more shoppers who spend more money



100 trees over 40 years…

Benefits

Energy	$43,000
Carbon seq.	9,000
Air quality	9,000
Red. runoff	46,000
Aesthetics	118,000
TOTAL	$225,000

Costs

Planting	$21,000
Pruning	37,000
Removal/replacement	8,000
Irrigation	6,000
Sidewalk repair	1,000
Litter	3,000
Admin/Legal	7,000
TOTAL	$83,000

270 % ROI

In 40 years, each tree will return $2.70 in benefits for every dollar invested.

Why an Implement an UFMP?

- Achieve desired canopy cover
- Maintain healthy trees
- Maintain age and species diversity
- Resource conservation
- Cost control for maintenance and mitigation
- Achieve efficiency
- Foster community support

Anyone responsible for managing stands of trees—municipalities, golf courses, homeowners associations, campuses…

The bottomline…

- The benefits are dependent on healthy trees
- Healthy trees require quality care
- Quality care depends on you
- Management plans ensure success

INLAND URBAN FOREST COUNCIL

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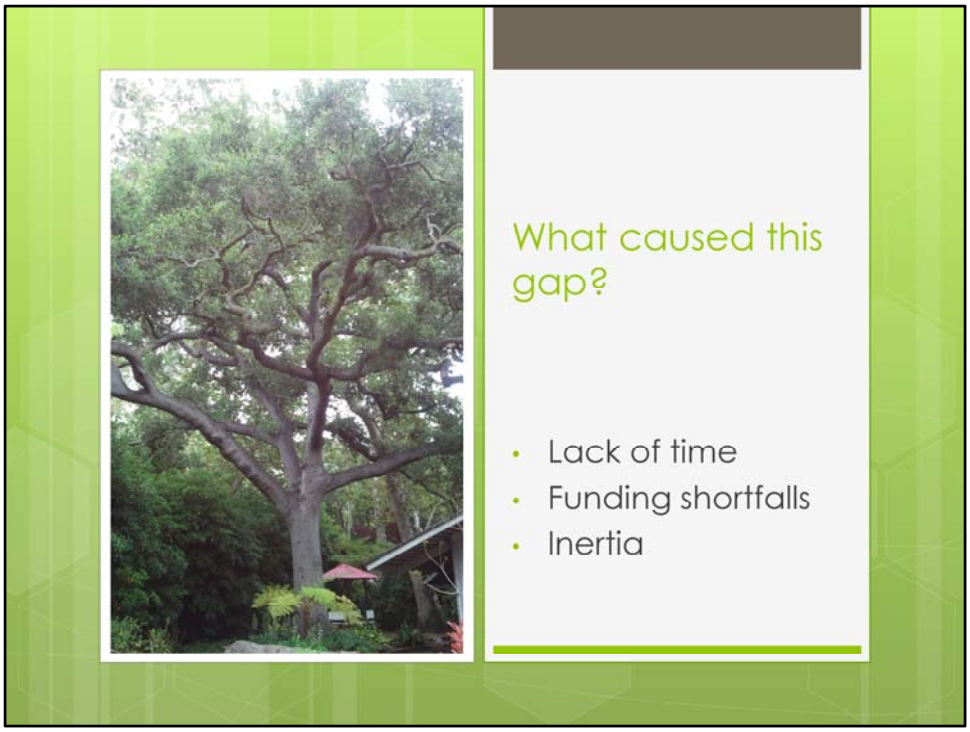
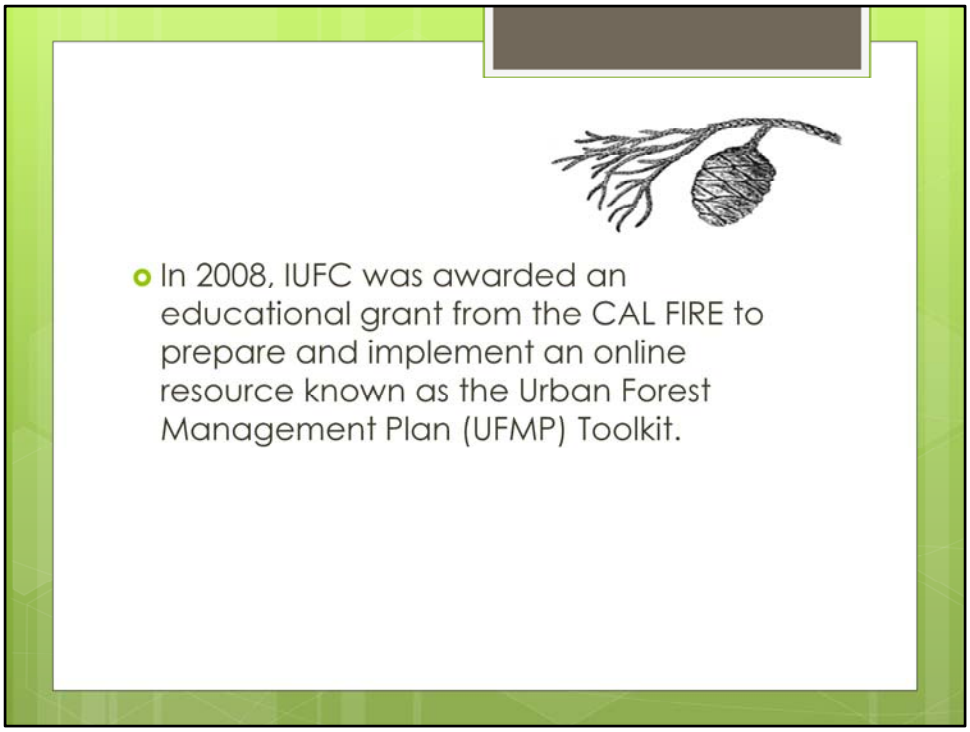
Background

- In 2007, IUFC perceived a huge gap in the management of urban forests.
- Lack of consistent planning for community forests.



They recognized that there was a lack of consistent planning for urban forest development and management. This shortfall was perceived as partly due to lack of time that urban foresters could devote to plan development and partly to the inability of small communities and other organizations with responsibility for urban forests to hire or contract for the services of an Urban Forester.

The opportunity presented itself in the form of a grant program announced by the California Department of Forestry and Fire Protection. In two evening meetings, 5-6 individuals developed a plan of work and a budget to employ writers and web developers to create what became known as the “Toolkit” and forwarded it to the CDF in the form of a grant proposal. Eventually the proposal was funded with the CaUFC serving as the financial and administrative agent for the Inland Council. Members of the Inland Empire council selected the writers and web developers and continued to work with them until the Toolkit become a reality.



Phytosphere Research principals Elizabeth Bernhardt and Ted Swiecki were the primary developers of the Web site content.

What we hoped this project would accomplish thru the development of UFMPs

- Ensure adequate and consistent funding for urban forestry
- Educate the community and stakeholders about the value of urban forests and the need to manage them
- Demonstrate effective use of public funds
- Learn how to organize and use our resources effectively.

Toolkit can be used by anyone managing a large population of trees. The toolkit is designed to guide and assist urban forestry professionals in the creation and implementation of UFMPs for their jurisdictions or organizations.

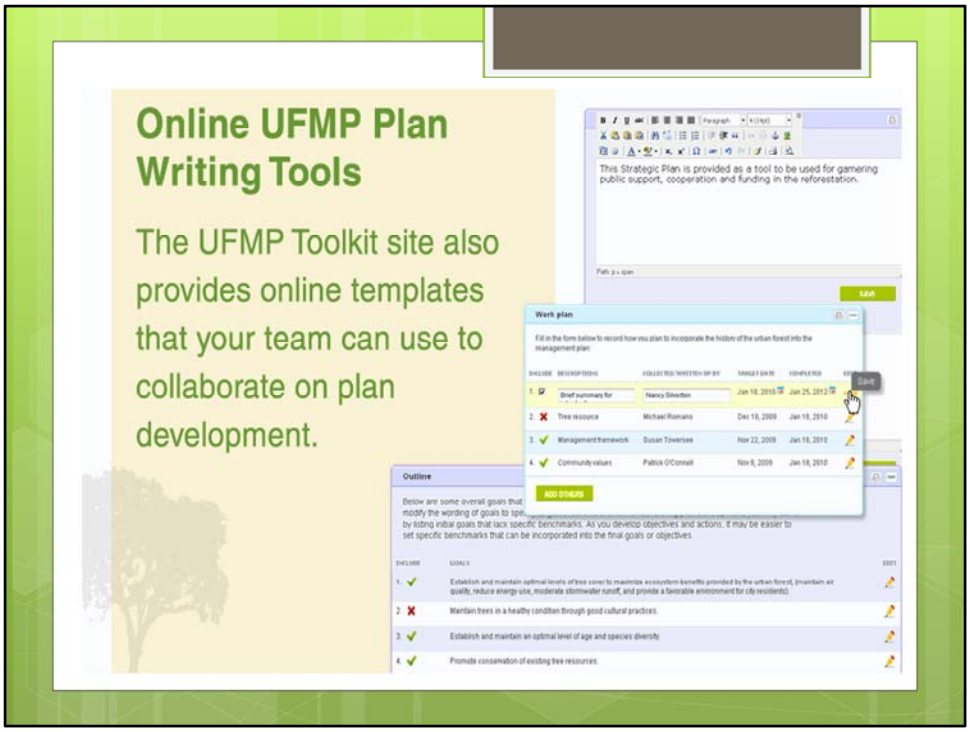
Planning questions: How has the history of the site affected development?

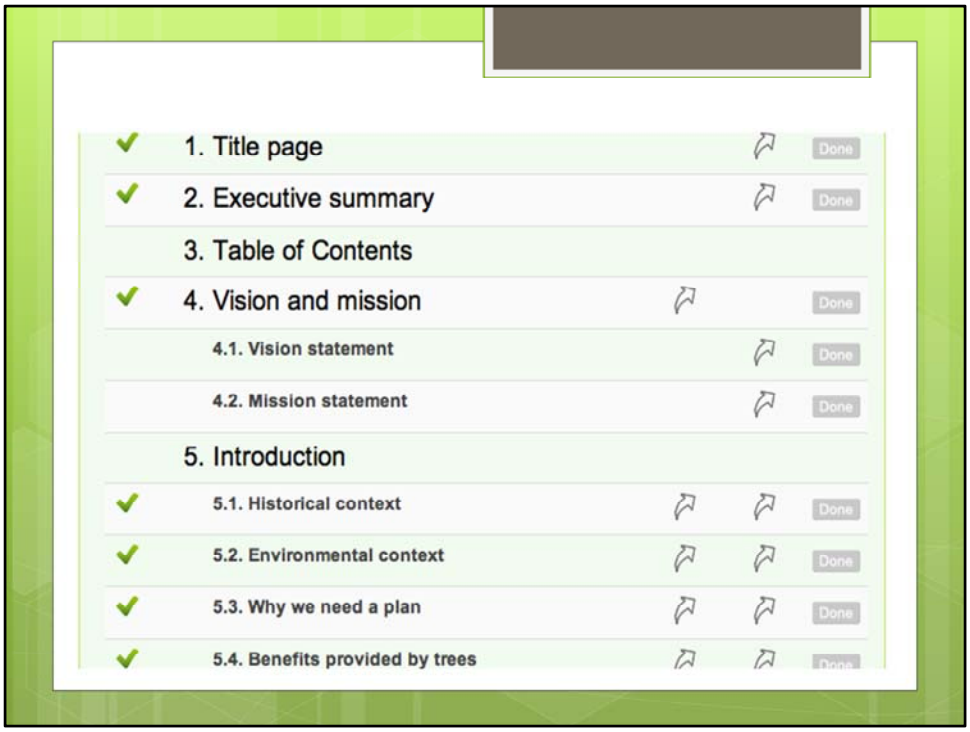
How has the urban forest developed over time?

Is the long term sustainability of street tree canopy at risk due to a lack of age and/or species diversity?

What types of tree and site data should be assessed/analyzed?

What tools and programs have been implemented to date and how effective have they been?


Online UFMP Plan Writing Tools
The UFMP Toolkit site also provides online templates that your team can use to collaborate on plan development.
This Strategic Plan is provided as a tool to be used for gamering public support, cooperation and funding in the reforestation.
SAVE
Work plan
Fill in the form below to record how you plan to incorporate the history of the urban forest into the management plan:
Save
ADD OTHERS
Outline
Below are some overall goals that
modify the wording of goals to spe
by listing initial goals that lack specific benchmarks. As you develop objectives and actions, it may be easier to
set specific benchmarks that can be incorporated into the final goals or objectives.
Maintain trees in a healthy condition through good cultural practices.
Establish and maintain an optimal level of age and species diversity.
Promote conservation of existing tree resources.

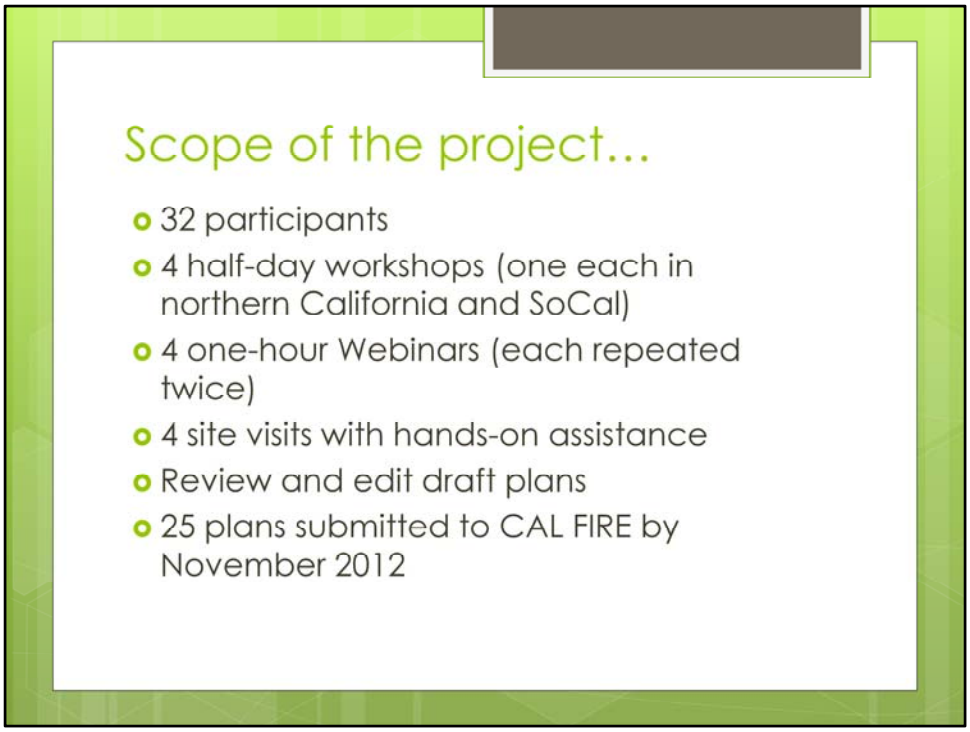


The outline page presents an overall outline for a typical urban forest management plan. For registered users that have input data online, it also provides a way to determine where you have entered content and allows for downloading or printing of your content.

Fast forward…

- Toolkit was completed in 2010
- In 2011, CAL FIRE awarded IUFC another grant for a pilot project to test how best to facilitate use of the toolkit by urban forest managers.

The duration of this grant was only 14 months. It was completed November 30, 2012.



The project's goal was to deliver 25 urban forest management plans. The added value was the anticipation of the development of a curriculum that users outside the program could benefit from. The duration of the project was 14 months.

We had 32 initial participants for this program. They included a mix of municipalities, universities, non-profit organizations, and homeowners' associations, and they were almost evenly distributed between northern and southern California. Seven cities left the program due to lack of staff and time resources. We delivered 25 urban forest management plans.

How we implemented the program…

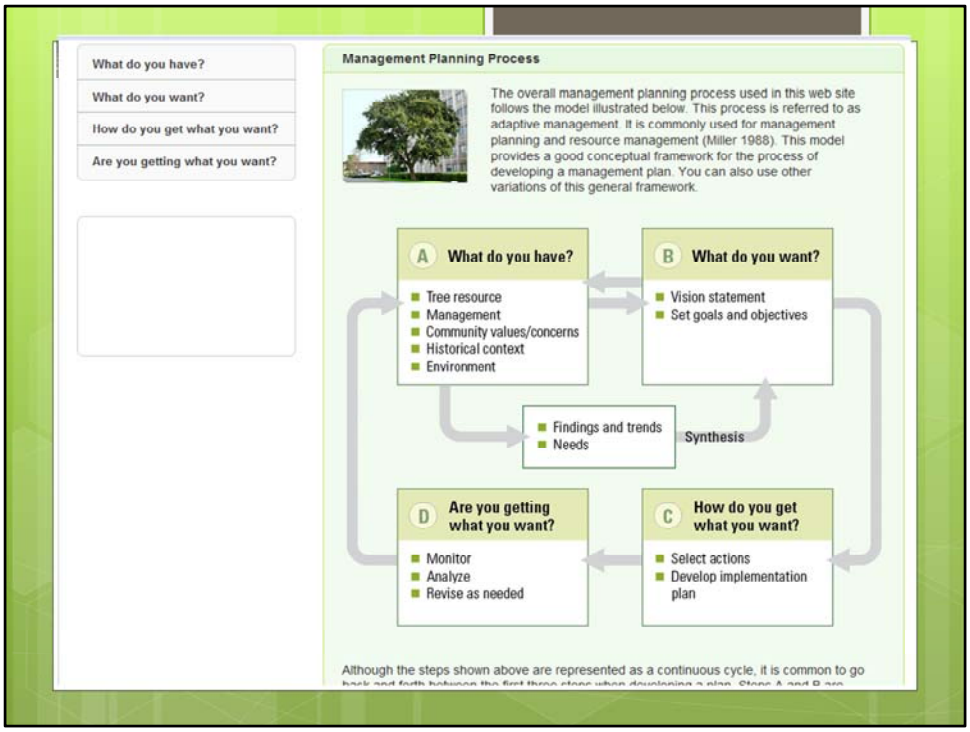
Some steps in the planning process.

Before you begin the process, ask yourself…

- Why is an UFMP important to your organization?

The management planning process…

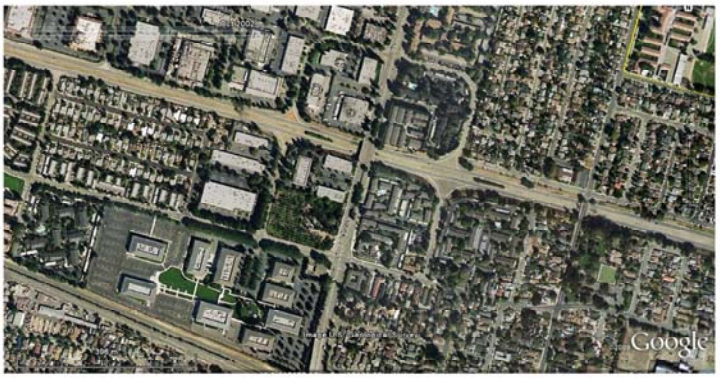
- What do you have?
- What do you want?
- How do you get what you want?
- Implementation plan
- Budget and funding
- Complete documents
- Adoption
- Post-implementation (Are you getting what you want?)



The planning process is a continuous cycle that is revisited several times before proceeding to next steps.

Which departments within your organization could be involved? Which officials? Activists?

What is the scope of the project?



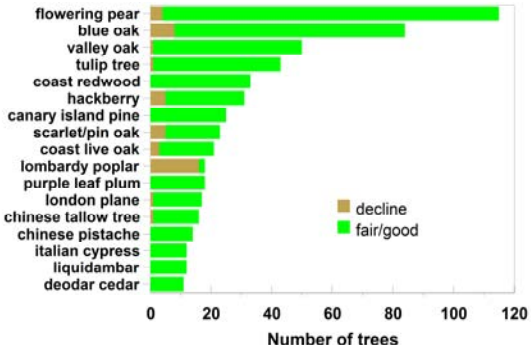
What does your inventory include?

- What areas of the site will the plan address?
- Street trees?
- Park trees?
- Heritage trees?
- Open space?

What is the condition of your tree population?

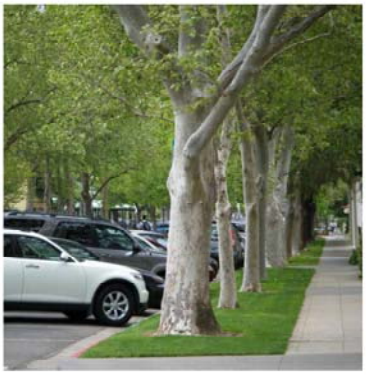
- Can you identify issues regarding age, species, condition?
- What situations need to be corrected or avoided?
- What is your desired canopy cover?

What is your inventory telling you?



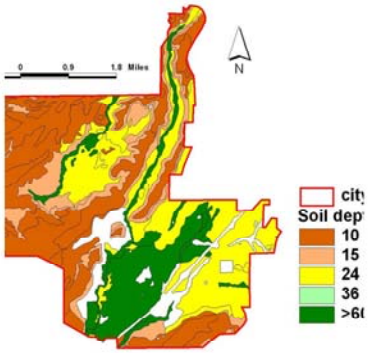
Identify issues and trends, problems to correct or avoid

Identify policies to continue and expand…



Assess historical and environmental factors

- Soils
- Climate
- Rainfall
- Native vegetation
- Fire



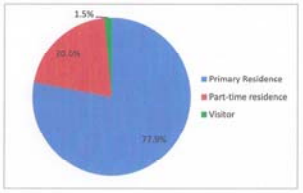
Review existing management practices…

- Planting and maintenance practices
- Existing ordinances, regulations, and enforcement
- Planning policies that affect trees
- Other department activities that impact trees

Assessing community values…

Stakeholders' attitudes – community views of the Urban Forest

The wishes, attitudes and views of the community, have a large impact on our Urban Forest Management Plan. The City chose to conduct a survey to gather the community's input towards the Plan and help develop various goals. The surveys were mailed with the water bills; therefore we reached a mix of residents, non residents, part-time residents and business owners.



Typically with mailed surveys the response rate is low, less than 10%. The response rate of these surveys was very good, approximately 20% of surveys were returned. The survey results identified environmental benefits, social and economic qualities.

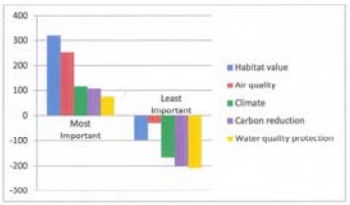


Figure 2: Survey respondents were asked what the most important environmental benefits are provided by public trees. Air quality and Habitat Value were viewed as the most important Environmental benefits provided by public trees.

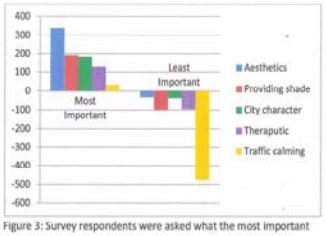
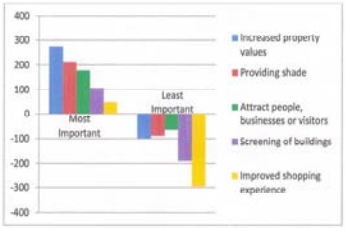


Figure 3: Survey respondents were asked what the most important social benefit provided by the public trees. The aesthetics and beauty of the city was viewed as the top social benefit give off by public trees.



Assessments

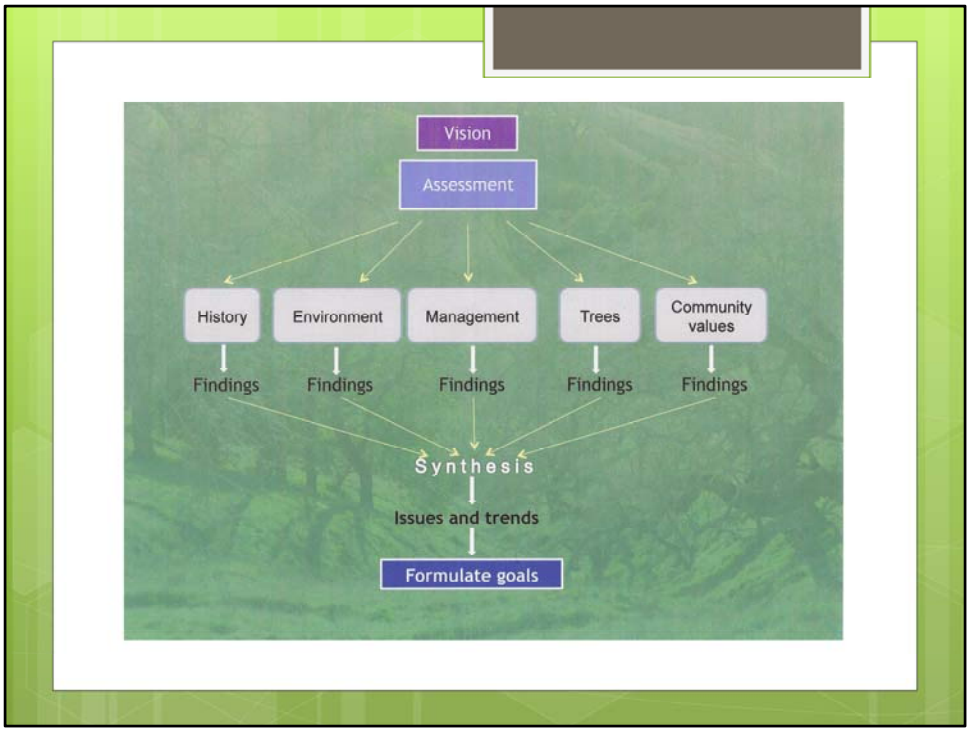
↓

Needs and trends

↓

Goals

Objectives


Vision
Assessment
History
Environment
Management
Trees
Community values
Findings
Findings
Findings
Findings
Findings
Synthesis
Issues and trends
Formulate goals

Some scenarios we encountered…

The downtown business district was planted with ficus trees fifty years ago. Over the years, they have caused extensive hardscape damage. The public works department has tried to address this issue with its meager budget. The business improvement district says that the trees block signage and cause litter. They have been advocating for the trees' removal. A local citizens group has promoted the historic value of the trees, and is trying to mobilize the community to save the trees. How will you address these trees in your plan?

Scenarios (cont.)…

A coastal community has a large percentage of Monterey pines and cypress trees, which figure prominently in the city's history. The tree population is aging and many of the cypress and pines are diseased with pitch canker. Community sentiment favors preserving the existing look of the town. How will you address the issues of age and species diversity in your plan?

Scenarios (cont.)…

A small pocket park in a highly urbanized area contains several dead trees. The trees are being using as wildlife habitats, but could also be viewed as hazards with many potential targets in the area. How would you address this issue in your plan?

Scenarios (cont.)…

The majority of a jurisdiction's urban forest has been planted on steep slopes that were the result of cut-and-fill grading from several housing developments that were built during the last 20 years. Poor soil conditions have contributed to several tree failures and lack of vigorous growth among others. In addition, as some of the trees have grown taller, residents have complained about the trees encroaching on their viewshed. What accommodation would your plan provide for these trees?

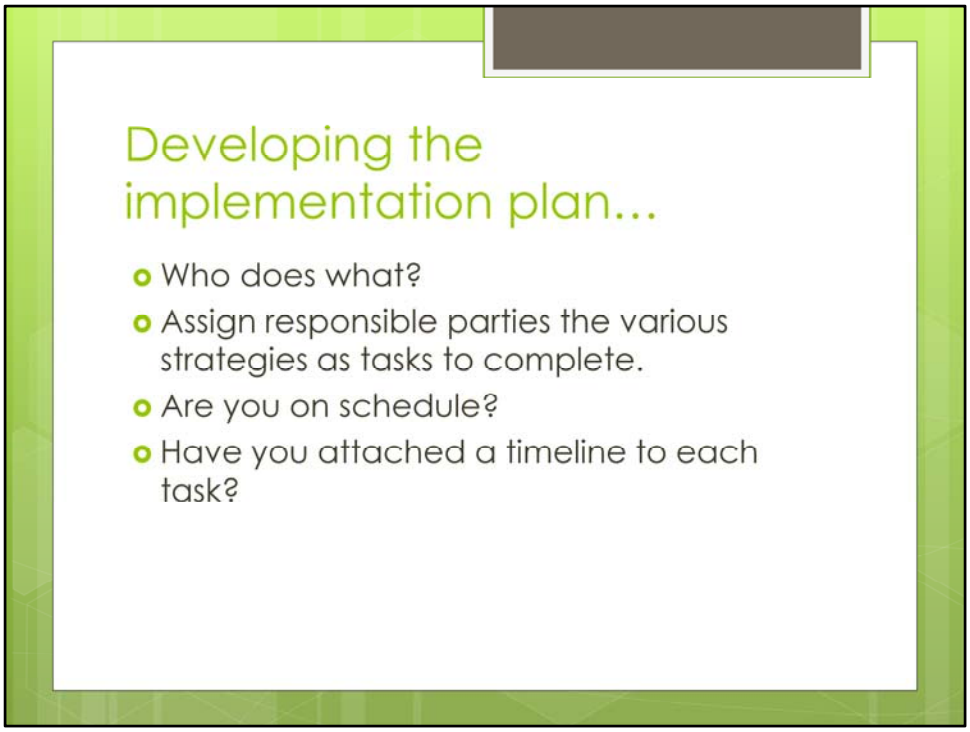
Scenarios (cont.)…

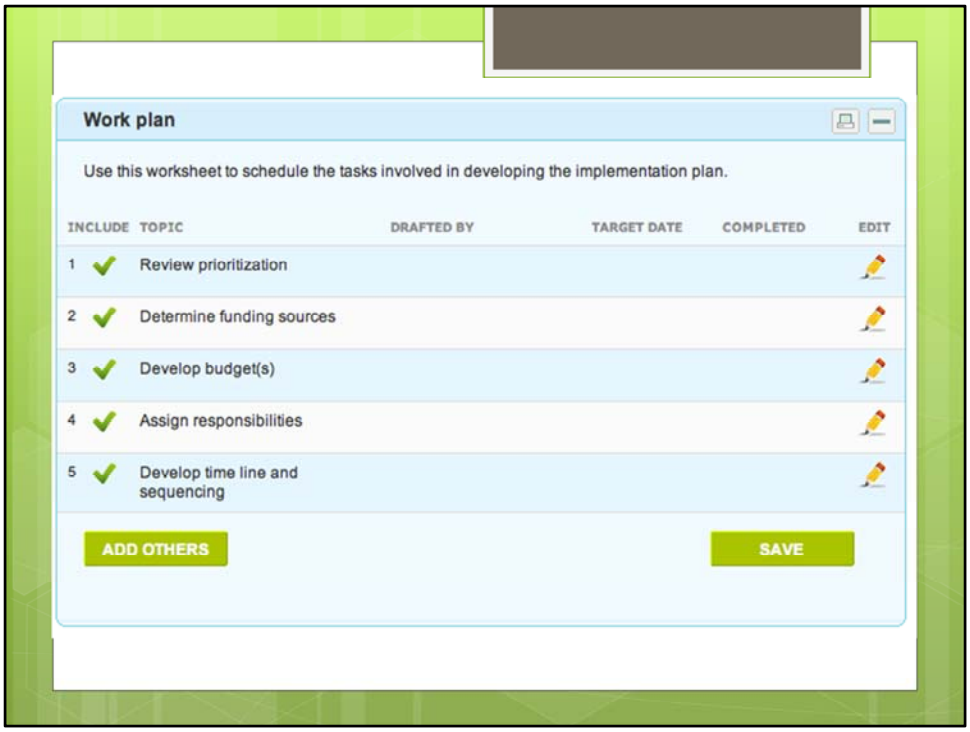
The urban forest in your jurisdiction is old with many trees of historic significance that have been well documented. A heritage tree that is listed as the second oldest tree of its species in California is located within the footprint of a proposed building's expansion. What role will tree preservation play in your plan?

Developing Goals, Objectives, and Actions

- Pruning component
- Planting component
- Removal and replacement component
- Community ordinance related to trees
- Ordinance enforcement
- Tree boards or commissions
- Public education component
- What are you forgetting?

Goal: Increase tree canopy cover
Objective: Increase tree population through planting
Possible actions:
- street tree planting
- tree planting in parks, open spaces, or around public facilities
- improved standards for nursery stock and planting site preparation to increase survival of new plantings
- more closely monitor and enforce replanting of empty spaces in commercial landscapes such as parking lots
- encourage tree planting by residents and local groups on private land
- person is designated to run the program
- prepare and distribute educational materials by print, online
- plan and conduct workshops or field days
- publicize program in local media and using other means
- measure impact of program by record keeping or surveys


Developing the implementation plan…
Who does what?
Assign responsible parties the various strategies as tasks to complete.
Are you on schedule?
Have you attached a timeline to each task?


Work plan
Use this worksheet to schedule the tasks involved in developing the implementation plan.
INCLUDE
TOPIC
DRAFTED BY
TARGET DATE
COMPLETED
EDIT
1
Review prioritization
2
Determine funding sources
3
Develop budget(s)
4
Assign responsibilities
5
Develop time line and sequencing
ADD OTHERS
SAVE

Develop review mechanisms…

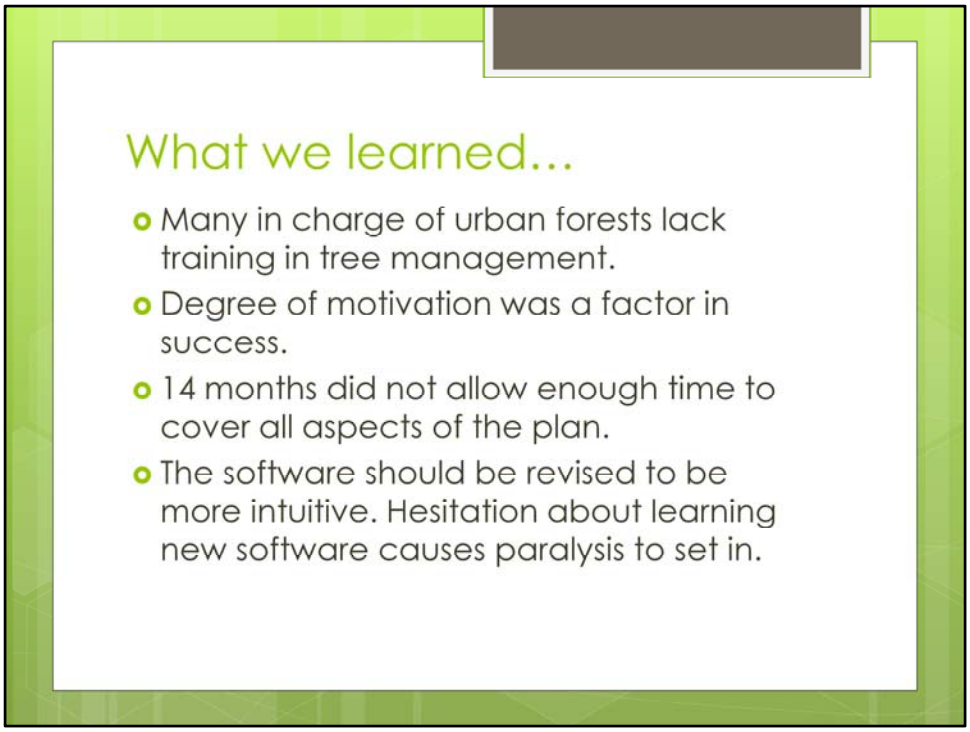
- A monitoring program makes you accountable.
  - What do you need to monitor to determine if the plan is working?
  - Use monitoring data to improve or update, e.g., how many trees were pruned, planted? What is customer service turnaround?

Budget and Funding
Create a realistic budget
Be creative with funding options
Plan adoption helps ensure funding
Tie budget to your strategies
Planting program
Pruning program
Removal program
Young tree maintenance

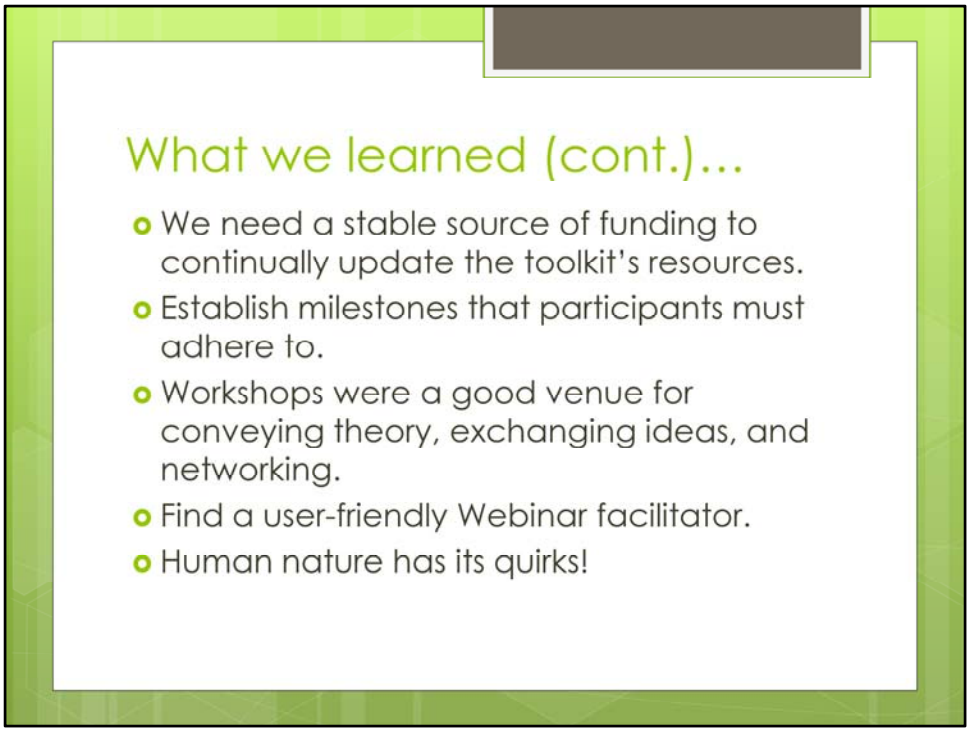
Funding options…
Gas tax
Citywide assessment district
Grants
Community groups such as ReLeaf
Fines from ordinance violations
General fund
Other agencies/departments

Put it all together…

- Compile supporting documents
- Stakeholders review
- Revise
- Adoption



The economic downturn has produced de facto tree managers.


What we learned (cont.)…
We need a stable source of funding to continually update the toolkit's resources.
Establish milestones that participants must adhere to.
Workshops were a good venue for conveying theory, exchanging ideas, and networking.
Find a user-friendly Webinar facilitator.
Human nature has its quirks!

Future programs…

- We believe this methodology is replicable and that it could be expanded nationwide.
- IUFC has applied for additional funding.
- Stay tuned…

I made it!!
Questions, comments…

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www.ufmptoolkit.com