

- Orange County considers trees in a variety of community and county operations plans, regulatory codes, and policies
 - -Sustainable Operations & Resilience Action Plan (SORAP)
 - -Comprehensive Plan
 - County Code Protections and Standards
 - -Tree Related Programs
 - Facility and Right of Way (ROW) Maintenance
 - Planting Programs
 - Capital Improvement Program (CIP)
 - Certifications





SORAP

- -Trees and Land
 - Maintain a cross-departmental Tree Team to oversee tree protection programs and policies
 - Maintain a standardized "Right Tree Right Place" list for County projects
 - Inventory trees for County capital projects; site development and new construction
 - Inventory Countywide tree canopy with the desire to identify and fill gaps
 - Plant 10,000 trees through current and enhanced programs

GOAL 16:

PRESERVE AN ADDITIONAL 23,000 ACRES OF ENVIRONMENTALLY SENSITIVE LANDS AND INCREASE COUNTY NATURAL LAND ASSETS BY 2030

GOAL 17:

PROTECT AND ENHANCE
TREE CANOPY AND WILDLIFE
HABITATS ON COUNTY
PROPERTIES



Comprehensive Plan (2030)

- CONSERVATION 1.12 Orange County shall protect, preserve and enhance its vegetative resources, including, but not limited to, tree species, emergent and submerged aquatic vegetation.
- CONSERVATION 1.12.1 Orange County shall augment its protection of vegetated natural resources, including but not limited to the tree protection ordinance. This action would ensure that high quality trees would receive greater protection in the development review process, require preservation of valuable tree species, prohibit indiscriminate clearing, require replacement, and maintenance measures, and establish ratios for replacement if removal is unavoidable.
- CONSERVATION 1.12.2 Orange County shall encourage the planting of native trees and vegetation along the roadways, through inclusion of landscaping and buffering requirements in the Land Development Code, Activity Center development guidelines, Arbor Day promotions, and expansion of the Urban Forestry Program, in order to reduce the level of carbon dioxide in the air, dilute air pollutants, and reduce noise impacts, to enhance the aesthetic quality, design, and quality of life in Orange County.



Comprehensive Plan (2050)

- OBJ LMN 7.6: IMPLEMENT LOW IMPACT DEVELOPMENT (LID); Incorporate green infrastructure and develop site design standards such as requirements for tree surveys approved by qualified arborists, minimize clear cutting and mass grading, and standards which maximize open space tree canopy.
- OBJ LMN 7.7: URBAN CANOPY; Protect the existing tree canopy and increase the County's urban forest to enhance the quality and value of the County's neighborhoods and communities by providing shade, wildlife habitat, erosion mitigation, stormwater reduction, pollution control, noise abatement, energy demand reduction, reduced heat re-radiation, and increased neighborhood character and walkability.
- OBJ C 4.7: VEGETATIVE RESOURCES, TREE CANOPY, AND URBAN FORESTRY; Orange County shall promote the health, resiliency and sustainability of its urban forest, and wildlife habitat, by encouraging the protection, preservation, replacement and enhancement of its vegetative resources, including, but not limited to, native tree species, due to the beneficial economic, environmental, ecological, and social value derived from these resources.



- County Code Protections and Standards
 - -Ch. 15 Tree Protection and Removal Ordinance (2023)
 - Reduced exemptions
 - Exceptions for projects in ROW, Drainage Easements, etc.
 - Stronger protections for valuable Florida species
 - Added requirements for preservation
 - Required designs to consider trees into plans
 - Increased mitigation fees for trees removed
 - Increased penalties for trees removed without authorization
 - -Ch. 15 Wetland and Surface Water Protection Ordinance (2024)
 - -Ch. 24 Landscape, Buffering, and Open Space

—Specimen trees			
• Live Oak	24"		
 Magnolia 	18"		
Turkey Oak	18"		
Longleaf Pine	18"		
Bald Cypress	18"		
Winged Elm	18"		
• Sweetgum	18"		
-Heritage trees			
• Live Oak	40"		
• Magnolia	24"		



County Maintenance Programs

- -Facilities
 - Buildings and grounds
 - Utility easements
- -ROW and other County Easements
 - Maintain trees in road ROW
 - Infrastructure inspections
 - 311 requests are the majority
 - Drainage easements
 - Maintain canals and access
 - Ensure flow ways are not blocked





Tree Planting Programs

- -Median Tree Program (2015-present)
 - Plants trees in medians of Roadway owned and maintained by the County
 - Uses Tree Replacement Trust Fund for purchase, planting, and maintenance
 - To date, 76 miles and a total of 8,692 trees have been planted
 - Contractor plants and maintains for two years
 - Roads and Drainage maintains after contractor







- Tree Planting Programs
 - **–UF/IFAS Tree Give Away Program**
 - 1" trees provided to public in Commissioner District events throughout the year
 - Uses Tree Mitigation Fund
 - 2020-2025 dollars spent \$123,856
 - Annual average \$20,643
 - 6,251 trees provided
 - Annual average 1,042 trees





Tree Planting Programs

- —Pond Planting Pilot Project (Public Works)
 - Identified county owned ponds appropriate for planting
 - Plant trees in clusters
 - Native and Florida Friendly Trees
 - Contractor establishment for two years
 - Goals
 - Increase tree canopy
 - Reduce maintenance in pond area
 - Reduce runoff
 - Possible mitigation locations for CIP





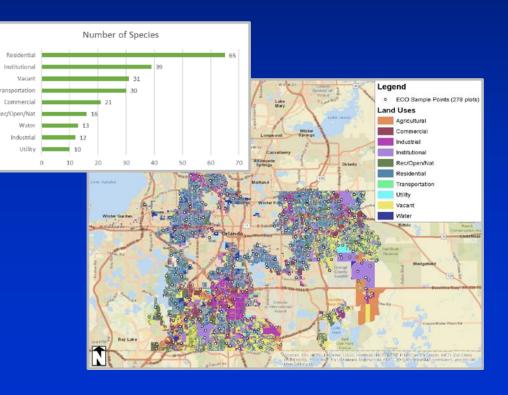
- Certifications, Studies, etc.
 - -Tree City USA is an annual national recognition program designed to raise awareness of the value of community trees, set foundational standards for communities of all sizes, and celebrate community improvement
 - County designation for 18 years
 - -Reports annually on tree canopy
 - -Must meet standards:
 - Tree board or staff
 - Tree ordinance
 - \$/capita
 - Arbor Day observance/proclamation





- Certifications, Studies, etc.
 - -Tree Canopy Assessments
 - 2017 Original Assessment
 - Urban Service Area
 - Included cities
 - 2023 Assessment Update
 - 13,820,000 trees in unincorporated Orange County, down 5.5% since 2017 (ex. Methodology change)
 - Tree canopy cover 34.7%
 - 83 species, with 50% of trees made up of 10 species
 - Trees 6" Diameter at Breast Height (DBH) comprise 65% of population

Policy Element C 4.7.16: Complete tree canopy coverage studies every three (3) to five (5) years to allow for equitable and correct distribution of tree planting efforts countywide.





Local Value of Trees

Attribute	Units	Value	
Number of Trees	13.82 million	\$3.96B	
Carbon Storage	1.95 million tons	\$333M	
Air Pollution Removal	1,260 tons annually	\$7.8M annually	
Carbon Sequestration	119,304 tons annually	\$20.3M annually	
Oxygen Production	318,100 tons annually	Priceless	
Energy Conservation	\$14.3M annually	36%	
Avoided Carbon	21,200 tons annually	\$3.6M annually	
Avoided Stormwater Runoff	1.2 billion gallons annually	\$10.9M annually	
Reduced Health Impacts	1263 incidents	\$6.2M annually	
Annual Tree Benefits		\$63.1M annually	



- Tree Replacement Trust Fund
 - -Chapter 15. Article VIII Tree Protection and Removal Ordinance
 - -Sec. 15-306(a)(7) Tree Replacement Fund
 - All monies collected through tree replacement fees, mitigation fees, and enforcement fines or penalties shall be deposited in the county's tree replacement fund
 - Includes county and non-county projects subject to the Tree Ordinance
 - Tree replacement fees shall be established by the Board of County Commissioners and updated as necessary to cover the cost of replacing the trees, including material and labor



Tree Replacement Trust Fund

- -Sec. 15-306(a)(8) Disbursement of funds.
 - Disbursement from the tree replacement fund shall be made only with the approval of the Board of County Commissioners, and only for the following purposes:
 - Primarily for purchase of trees for planting at publicly owned and operated sites; community enhancement projects; and other projects deemed appropriate by the Board of County Commissioners; or
 - Secondarily for purchase of landscape materials or equipment, or the funding of educational programs that promote, enhance or implement the goals and objectives as established in section 15-276



Tree Replacement Trust Fund Recipients (FY-24)

- IFAS Tree Giveaway Program Actual \$25,093.05
- Public Works Roadway Median Tree Program Actual \$391,317

Year	Revenue	Expenses
2021	\$270,950.89	\$630,264.08
2022	\$558,168.82	\$248,567.95
2023	\$277,960.44	\$254,469.80
2024	\$445,928.90	\$416,410.05
2025	\$943,969.93	\$355,545.88



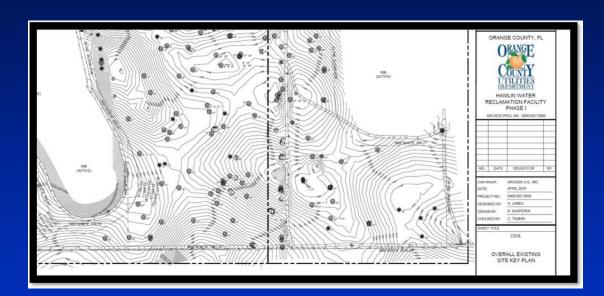


- Develop a baseline (5-year Lookback)
 - —Operations Type
 - —Project Type
 - Number of Trees Removed
 - -Cost for Tree Removal
 - Number of Trees Planted
- Goals
 - Understand overall process and costs
 - Identify areas for improvement

Cooperative Extension Facilities Management Public Works Engineering Road and Drainage **Highway Construction Stormwater Capital Projects Parks and Recreation Environmental Protection Neighborhood Services Solid Waste Utilities**



- Categories reviewed for tree impacts
 - -New Buildings
 - -Existing Buildings
 - –New Roads/Widenings
 - **–Utilities**
 - -GreenPLACE Program
 - -ROW Maintenance
 - County-initiated Roads & Drainage, Parks, Stormwater, Facilities, etc.
 - Public-initiated "311" calls





- New CIP Building Projects
 - Most projects balanced trees removed with onsite replanting
 - Small sites pose challenges for saving trees
 - Funding needed as part of the CIP budget process for tree surveys
 - –Example types:
 - Parks
 - Fire Stations
 - Operations Facilities



4	Trees Remov	red	Qty	
5	Trees Items	Pine	133	
6	Subtotal		133	
7	Trees Planted			
8		0ak	61	
9		Pine	94	
10		Magnolia	3	
11		Hackberry	2	
12		Redcedar	9	
13		Tulip Poplar	6	
14		Yellow Trumpe	3	
15		Winged Elm	8	
16		Cypress	50	
17		Maple	51	
18	Subtotal		287	
19				





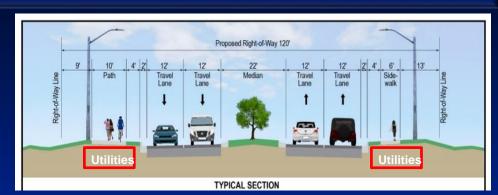
Existing Buildings

- Tree canopy replacements now follow Zoning Tree Ordinance
 - Most common scenario is older Laurel Oaks aging out and becoming unsafe
 - Right Tree, Right Place strategies needed for new trees





- Road and Utilities Projects
 - -Most exempt from Ch. 15 Tree Ordinance
 - Projects in easements or ROW
 - Efforts are made to reduce tree impacts when possible
 - –Non-exempt project guidelines:
 - Site survey with tree type and diameter identified
 - Existing and proposed site plans
 - Landscape and irrigation plans from Landscape Architects (if needed)
 - All plans submitted and reviewed through the Building Department with a Building Permit prior to construction
 - Value Engineering/Site Visit with Contractor to Avoid Removal of Trees





GreenPLACE Program

- -57 trees removed, 62 planted
 - Parking lots, trails, observation areas
- -Typical tree removal activities
 - Invasive species
 - Diseased or unsafe trees
- -Tree replacement benefits
 - Reforestation
 - Habitat improvement





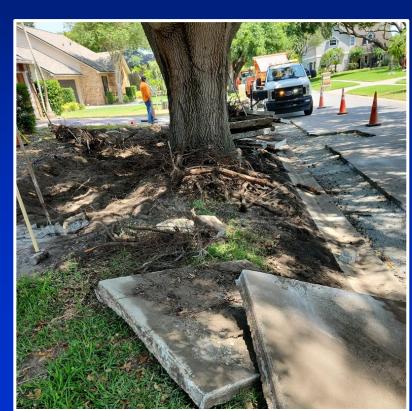
ROW and Easement Maintenance

- -Most common projects
 - Clear zone on roads
 - Sign and light obstructions
 - Drainage infringement
 - Citizen requests
 - Public works responded to 15,580 tree-related 311 calls
 - Not all calls result in maintenance activities
- -335,087 trees maintained
 - Trimmed
 - Pruned





- ROW and Easement Maintenance
 - -New standard operating procedures in development
 - Standardization of maintenance practices created based on industry wide standards
 - Sidewalk upheavals alternative designs/materials
 - Arborist evaluation for pruning and removal requests
 - -Staff training
 - Increased internal and external communications





- County Review and Permitting Process
 - -Zoning and Building Safety staff conduct permitting reviews
 - —Tree survey required
 - Identify Specimen or Heritage trees
 - Planting locations
 - Tree calculations for mitigation
 - -Tree Replacement Trust Fund for non-mitigated trees
 - -Trust Fund does not have separate subunits for internal projects
 - May be difficult to track mitigation



- 5-year Lookback "Takeaways"
 - -Most new projects balance out removals with plantings
 - -Small sites create significant challenges to saving trees (Ex. Fire Stations)
 - New Park sites offer ample opportunities to adjust site plan to save trees
 - -Costs for tree surveys on larger sites may need to be budgeted for future

projects (Ex. Pine Trees)

- New maintenance SOPs will ensure consistent evaluations
- -Trust fund may need mechanism to track County project mitigation





Opportunities



Process Improvements

- -Ensure tree inventories are conducted on <u>all new projects</u> with focus on avoidance and minimization
- Coordinate with Zoning Division arborists on mitigation, landscape planting program locations
- -Finalize maintenance SOP's and provide education to all management and staff
- Develop specific identifiers in LDMS and Tree Replacement Trust Fund for County tree mitigation for tracking and accountability



Tree Planting Programs

- -Transition of Trust Fund focus from solely Public Works Median Tree program to community and street tree programs
 - Staff preparing application for CDBG-DR Planning Grant for Low to Moderate Income (LMI) community tree planting program 5-year plan (GIS canopy layer)
 - Staff in planning stages for a 300-tree planting blitz on County-owned properties in 2025/26
 - Neighborhood Services community grants will be evaluated to include options for planting trees in addition to current program

Green PLACES In Urban SPACES



Tree Planting Programs

- -Expand Public Works Median Tree program to include street trees
 - Where appropriate safety standards, maintenance, and utilities costs allow
 - Ex. Clear zone, utility conflicts, ROW space, ROW costs, etc.
 - Objective to ensure appropriate mitigation for trees removed on exempt projects
 - Address in the landscape plan

Overall goals - address gaps in canopy that lead to urban heat, add natural habitat, improve storm resilience, and increase property values



Canopy Oversight Improvements

- -Develop an Urban Forest Master Plan
 - Strategic document that outlines the desired future state of the urban forest
 - Sets vision, goals, and long-term direction for the urban forest over 10–50 years
 - Identified as a need in 2017 and 2023 Canopy Studies
 - Supports Tree Protection Ordinance and other regulatory programs (air quality)
- -Develop an Urban Forest Management Plan
 - 5-year operational plan that details how the urban forest will be maintained, protected, and grown
 - Plan goals for projects
 - Data driven by Canopy Assessments
 - Influences County processes



Continue Development of Funding Sources

- -Capital Improvement Plan (CIP)
 - Additional funding considerations to offset impacts from County projects
 - estimated \$100,000-\$150,000 per lane mile for roadway tree inventory
- -Federal or State Project Funding
 - CDBG-DR
 - Department of Agriculture or Division of Forestry
 - Other grant opportunities
- Explore Public-Private Partnerships (PPP) and other options for planting projects



Scorecard

Aspect	Needs Improvement	Fair	Good	Excelling
Right Tree, Right Place		X		
Tree Maintenance			X	
Tree Replacement		X		
Tree Tracking	X			
Tree Funding			Х	
Urban Forest Management Plan	X			
Tree Staffing (Quantity)			X	