

Urban Forest Management Plan Overview

Seattle's urban forest is a thriving and sustainable mix of tree species and ages that creates a contiguous and healthy ecosystem that is valued by the City and all of its citizens as an essential environmental, economic, and community asset.



Urban Forest Management Plan (April 2007)

- City's first strategic plan for managing the urban forest
- Establishes goal of 30% canopy cover in 30 years
- Considers issues/opportunities based on different land uses and establishes specific goals
- Lays out the short-, mid- and long-term actions needed to meet the goals

Inspire/Inform

Seattle reLeaf – Community outreach campaign



- ✓ Website
- ✓ Brochures, poster, bus ads, radio promos,
- ✓ Earned media
- ✓ Community events
- ✓ Strategic Partnerships



Preserve

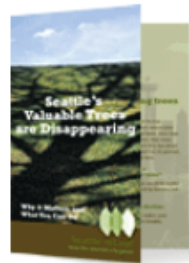
Regulatory Update

- ✓ During development
- ✓ Outside of development
- ✓ Street trees

Department of Planning & Development

Department of Transportation

Community Partner



Plant

City Property

City 2 for 1 Tree Replacement Policy-
Parks, SDOT, Zoo
Seattle Center, FFD

In the Community

- ✓ DON Tree Fund
- ✓ Neighborhood Trees Program
- ✓ Bridging the Gap Tree Planting
- ✓ City Light Tree Replacement Program

Maintain

City Tree Maintenance

- ✓ Parks
- ✓ SDOT
- ✓ Seattle Center
- ✓ FFD
- ✓ Zoo

Power line clearance
City Light

LOST



Seattle.gov/trees (2007) 800-1800

Restore

Green Seattle Partnership
Restoring 2500 acres of forested lands by 2025



Community Partners



City-Owned Trees

- Plant thousands of trees each year
 - Enhancement
 - Construction projects
 - Tree replacement
 - Restoration activities
- Maintain hundreds of thousands of trees
 - 90,000 trees in developed parklands
 - 38,000 of the 133,000 street trees
 - >500,000 trees in natural areas
 - Utility line safety & reliability

City's Role in Private Trees

- Education
 - Outreach, brochures, website, events etc.
- Incentives
 - Neighborhood tree planting programs
 - Business district enhancement programs
- Regulatory Protection
 - During development
 - Outside of development
 - Street trees
 - Environmentally critical areas

Department Roles

- **Parks** – plants & cares for trees in parks, mitigates potential hazards, clean-up after storms, restores natural areas
- **SDOT** – plants & cares for trees on streets, mitigates potential hazards, clean-up after storms, street tree protection regulations
- **DPD** – regulates trees on private property both during and outside of development
- **SCL** – prunes trees for electrical safety and reliability
- **DON** – tree planting/community building program
- **SPU** – consider trees in establishing stormwater requirements, manages trees in riparian areas
- **Seattle Center & Zoo** – manage trees on campus-like settings
- **OSE** – leads interdepartmental team, coordinates policy issues, oversees UFMP implementation, monitors performance

Urban Forest Management Plan

- Adopted April 2007
- Developed by Urban Forest IDT
 - 9 departments (Parks, SDOT, DPD, OSE, SCL, SPU, Seattle Center, DON, FFD)
- Organization – based on an established model for urban forest planning
 - Tree Resource
 - Management Framework
 - Community Framework

Tree Resource	Management Framework	Community Framework
<p>Understand the characteristics and complexity of Seattle's urban forest</p> <p>Maintain trees to promote health and longevity</p> <p>Maximize canopy cover and optimize age and species diversity</p> <p>Maximize the ecological and environmental benefits of the urban forest</p>	<p>Facilitate interdepartmental communication and cooperation to provide decision-makers the information they need to support the UFMP</p> <p>Develop and implement resource management tools</p> <p>Preserve and protect existing trees, and encourage new tree planting throughout the city by improving management of trees on private property</p> <p>Model good stewardship in City practices</p>	<p>Enhance public awareness of the urban forest as a community resource</p> <p>Engage the community in active stewardship of the urban forest</p> <p>Promote citizen-government-business partnerships</p>

Canopy Cover Goals

- Establishes 30% canopy goal citywide
- Why we need goals
 - Provide a clear set of agreed targets
 - Help prioritize planning and budget
- Management Units
 - Unique land uses provide unique opportunities & challenges
 - Based on City's land use classifications

Land Use Category	UFMP Goal Tree Cover
Single- Family	33%
Multi-Family	20%
Commercial/Mixed Use	15%
Downtown Seattle	12%
Industrial	10%
Institutional	20%
Parks: Developed Sites	25%
Parks: Natural Areas	80%
Citywide	30%
Transportation Corridors/Street ROW	24%



Canopy Cover Assessment

Goals

- Prioritize City investments to create greatest tree canopy gain
- Evaluate current canopy cover and recent trends in canopy gain and loss
- Understand impacts of development
- Assess planting potential
- Create baseline to monitor progress toward 30% canopy cover goal

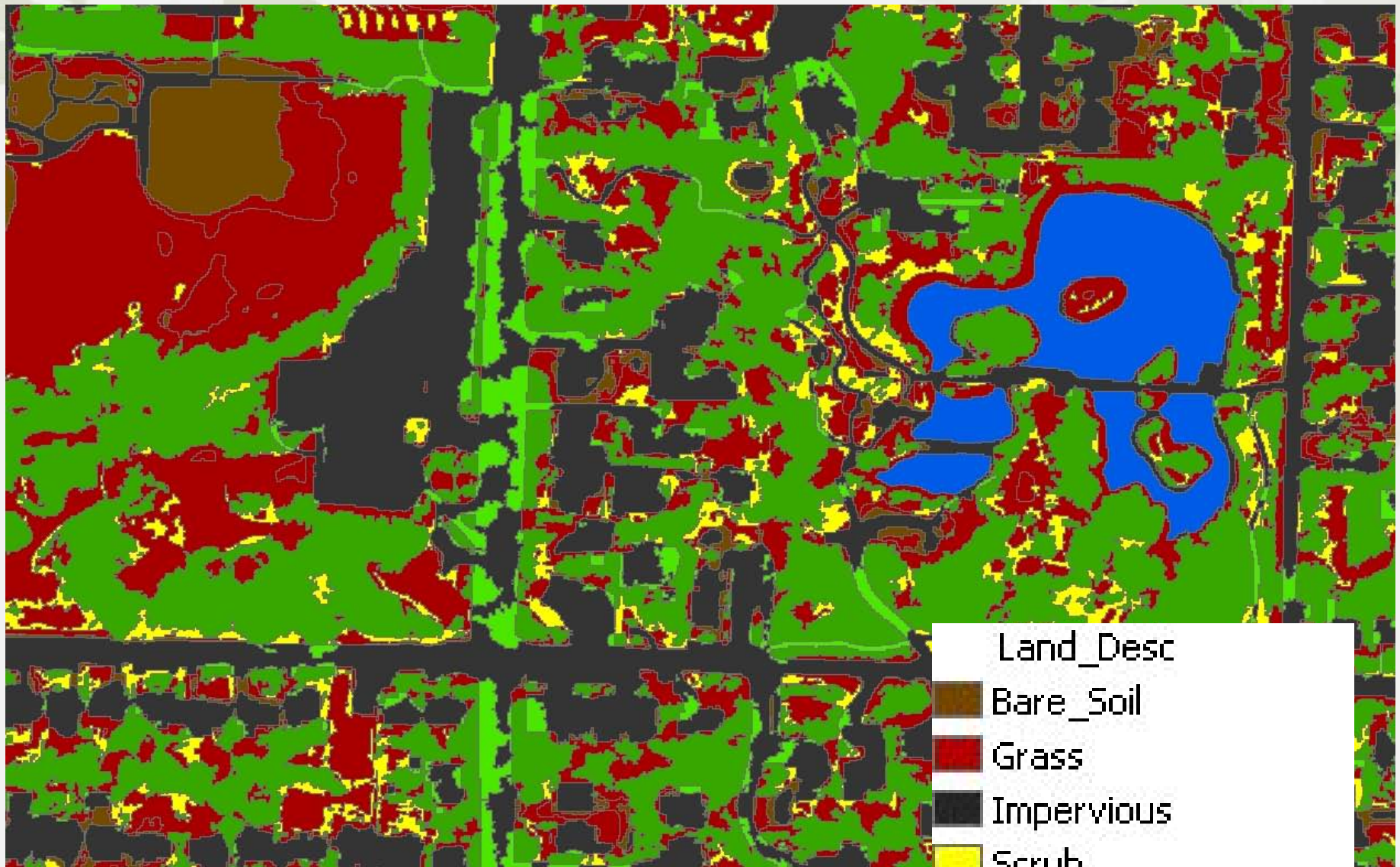
Canopy Cover Assessment

Methods

- High resolution satellite data
- Advanced data extraction & analysis techniques
- Data from 2002/03 and 2007 (summer)

Parameters

- Citywide
- Land Use Categories: single-family, multi-family, manufacturing/industrial, downtown, developed parks, parks natural areas, commercial/mixed use, institutional
 - ROW and Private Property
 - Community Reporting Areas (CRAs)
 - Urban Villages



- Land_Desc
- Bare_Soil
 - Grass
 - Impervious
 - Scrub
 - Trees_Imperv_Under
 - Trees
 - Water

Canopy Cover Assessment

Results:

- Citywide canopy cover in 2007 was about 23%
- Canopy cover citywide increased slightly with gains balancing losses
- ROW tree cover is increasing more quickly than non-ROW property
- Canopy loss occurs during redevelopment
- We need to more than double the acres of canopy increase each year to meet the UFMP 30% goal by 2037

Canopy Cover Assessment

Results

- Developed parks are above the goal
- Expected decline in parks natural areas
 - Green Seattle Partnership is addressing
- Increase in multi-family primarily in ROW
- ROW increased 1%
 - ROW is 27% of the city land area and 61% of canopy cover gain

Land Use Category	2002 Canopy Cover	2007 Canopy Cover	Goal Canopy Cover
Commercial/ Mixed Use	8.4%	9.7%	15%
Developed Park or Boulevard	25.9%	25.5%	25%
Downtown	4.2%	4.7%	12%
Major Institution	18.4%	19.4%	20%
Manufacturing/ Industrial	3.8%	4.3%	10%
Multi-Family	16.6%	17.1%	20%
Parks Natural Area	82.5%	80.4%	80%
Single Family	25.2%	25.7%	33%
Total	22.5%	22.9%	30%

Canopy Cover Assessment

Community Reporting Areas (53 CRAs)

- Canopy in less developed areas tended to decrease
 - 6 CRAs had a 3% or greater decline; all south of downtown
 - Significant areas of remaining forest land in SF zones were redeveloped in these areas
- Canopy in fully developed areas tended to increase
 - 8 CRA's had a 3% or greater increase; all north of downtown

Canopy Cover Assessment

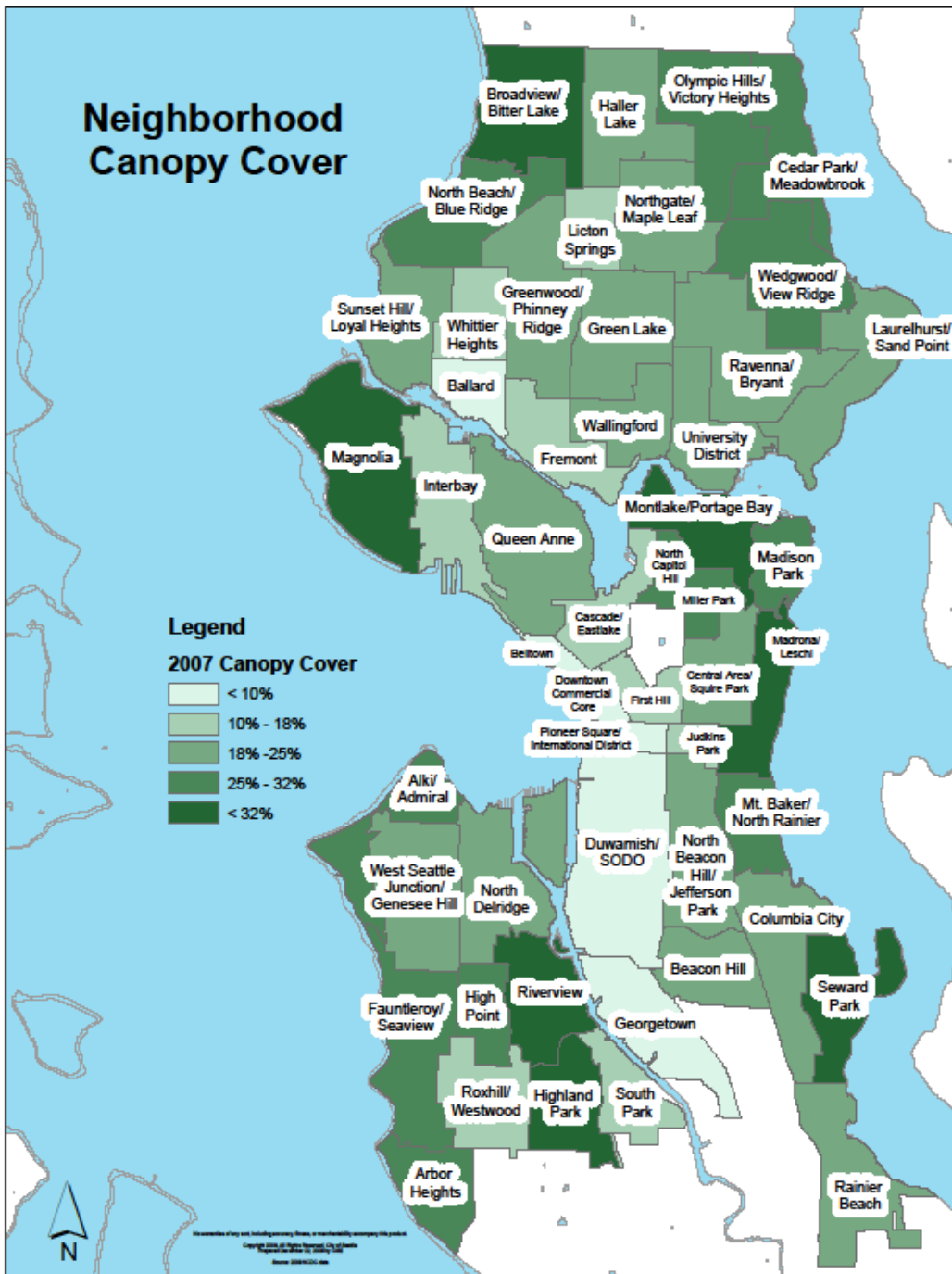
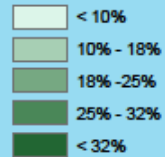
Community Reporting Areas

- 8 CRAs had single family zones with canopy cover <20%
 - Ballard, Beacon Hill, Georgetown, Judkins Park, N. Beacon Hill, Roxhill, W. Seattle Junction, Whittier Heights
- 12 CRAs have overall tree canopy <15%
 - Cluster in center of City: downtown, Belltown, Judkins, First Hill, Pioneer Sq, Capital Hill, Eastlake
 - South: Duwamish, South Park, Georgetown
 - North: Ballard, Interbay

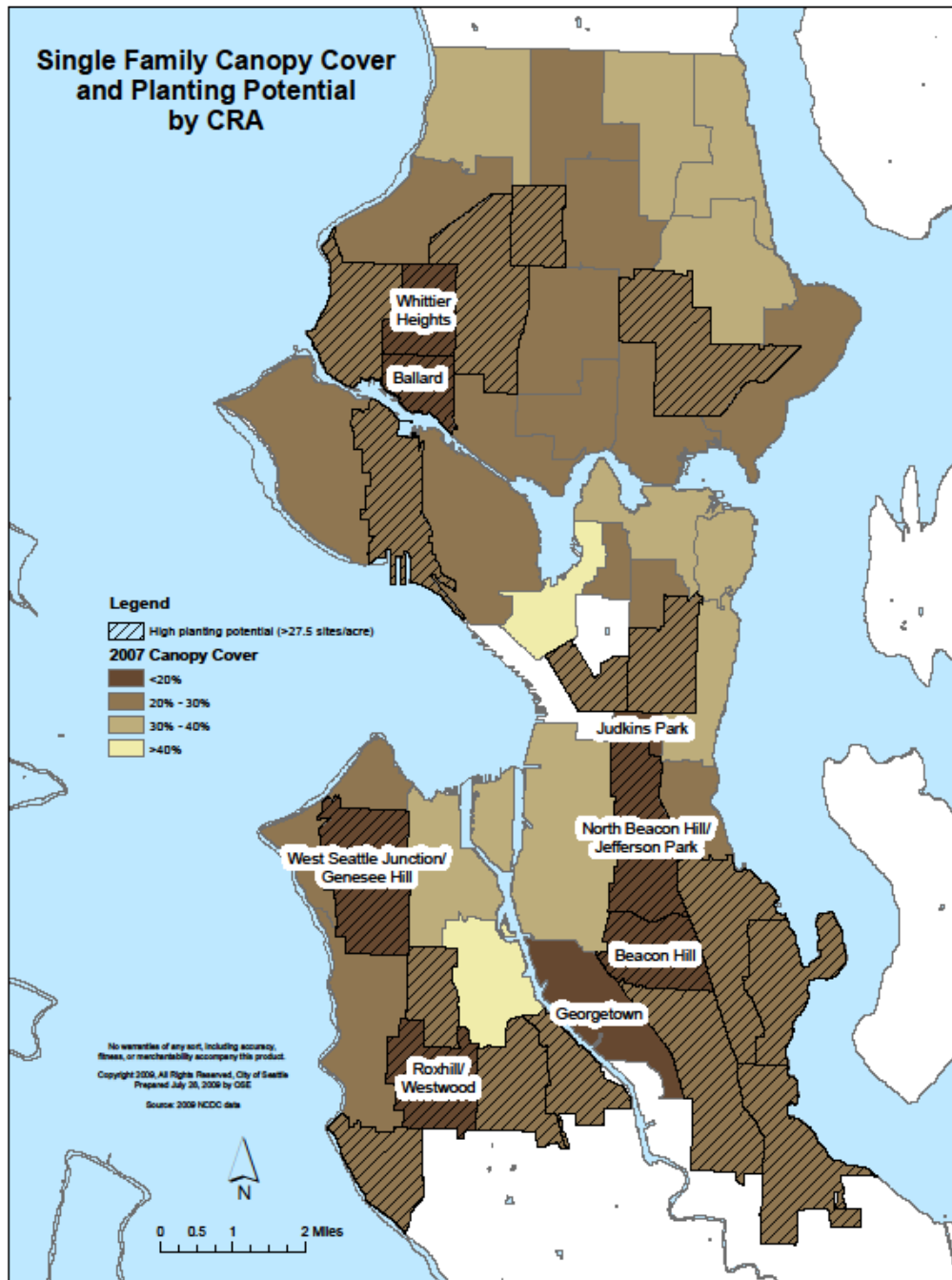
Neighborhood Canopy Cover

Legend

2007 Canopy Cover



Single Family Canopy Cover and Planting Potential by CRA



**Tree Canopy Change
Community Reporting Areas (CRA's)
Seattle, WA
2002-2007**

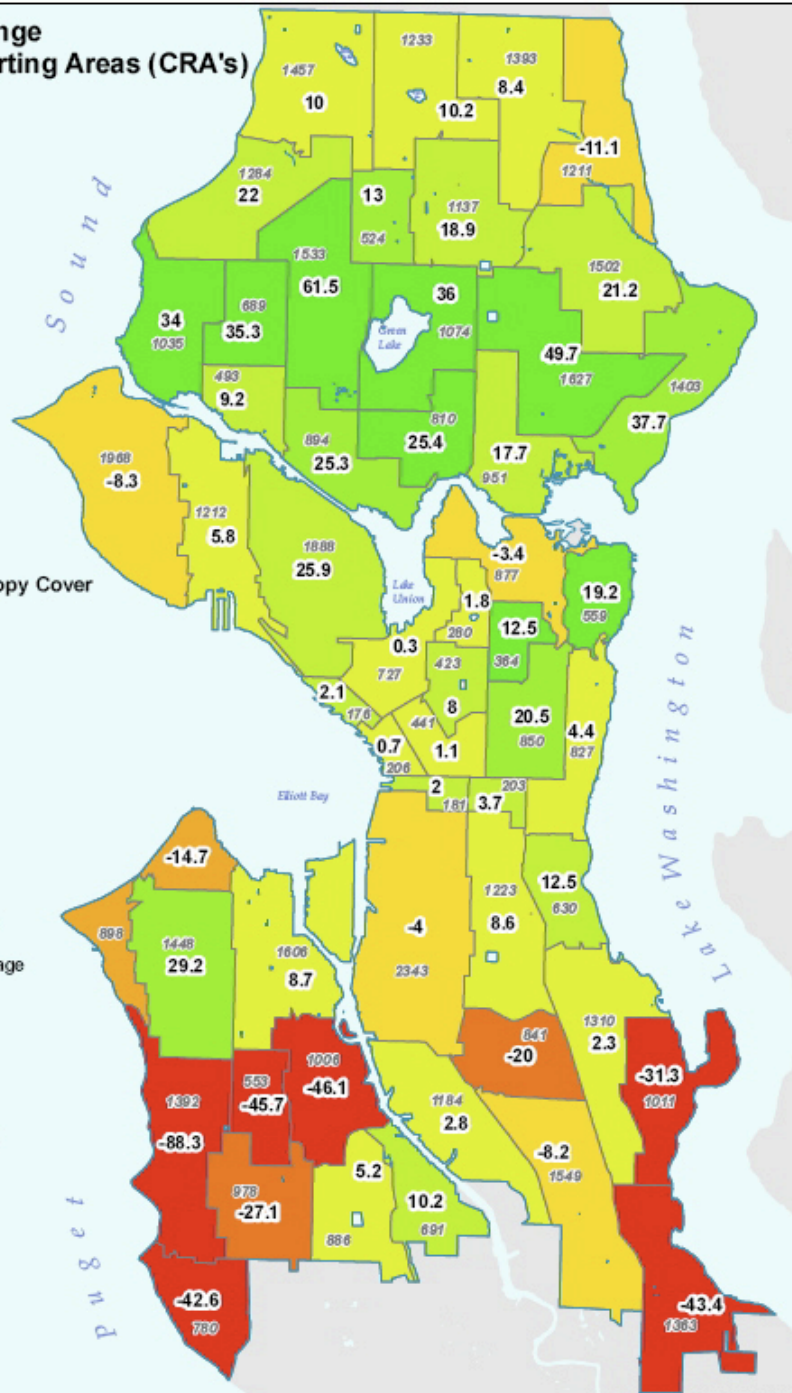
Percent Change in Canopy Cover

PCT_CHANGE

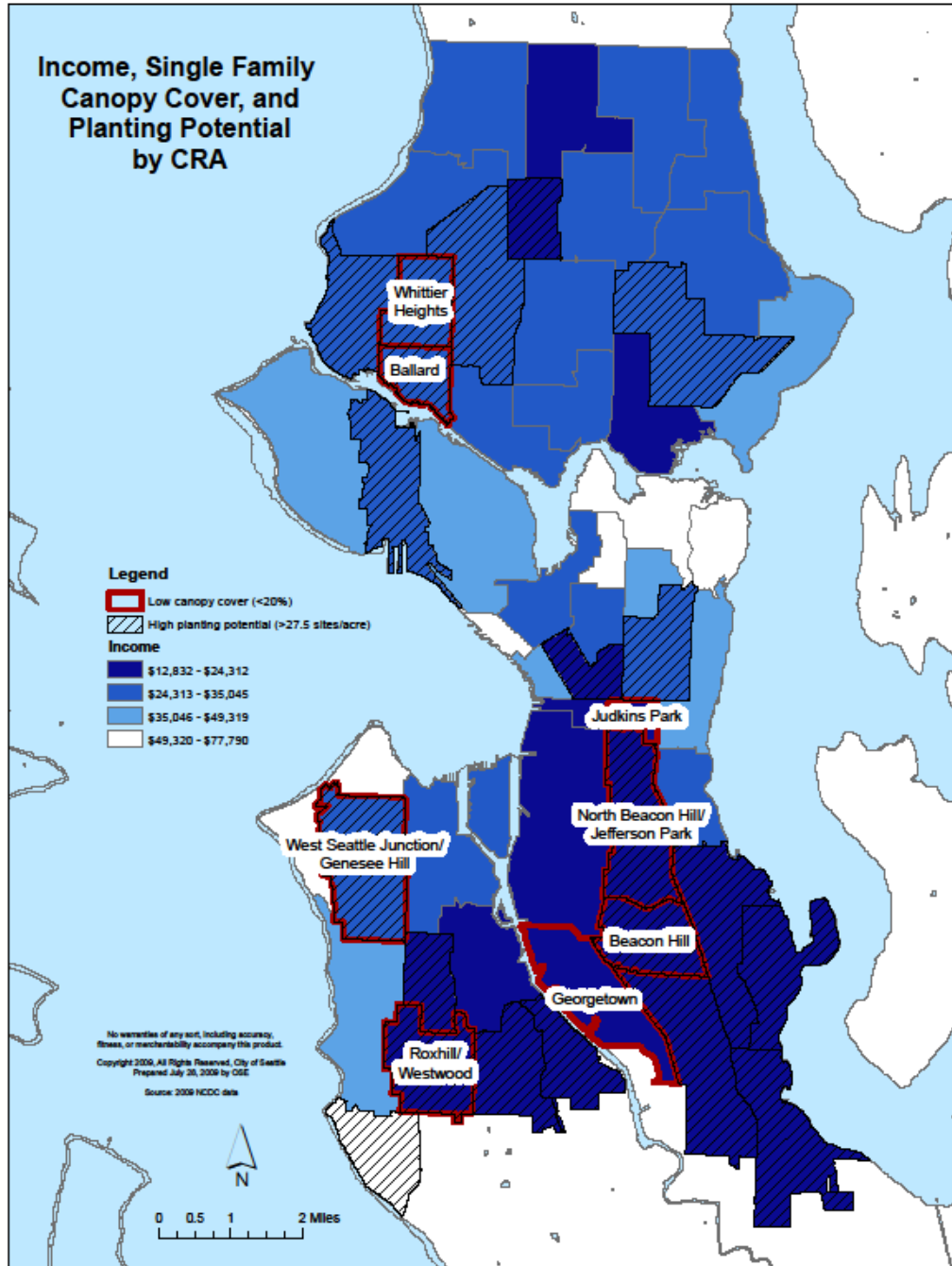
- Loss > 3 %
- Loss 2 - 3%
- Loss 1 - 2 %
- Loss 0 - 1 %
- Gain 0 - 1 %
- Gain 1 - 2 %
- Gain 2 - 3 %
- Gain > 3 %

NOTE:

- Large labels are change in acreage per CRA
- Small labels are total acreage



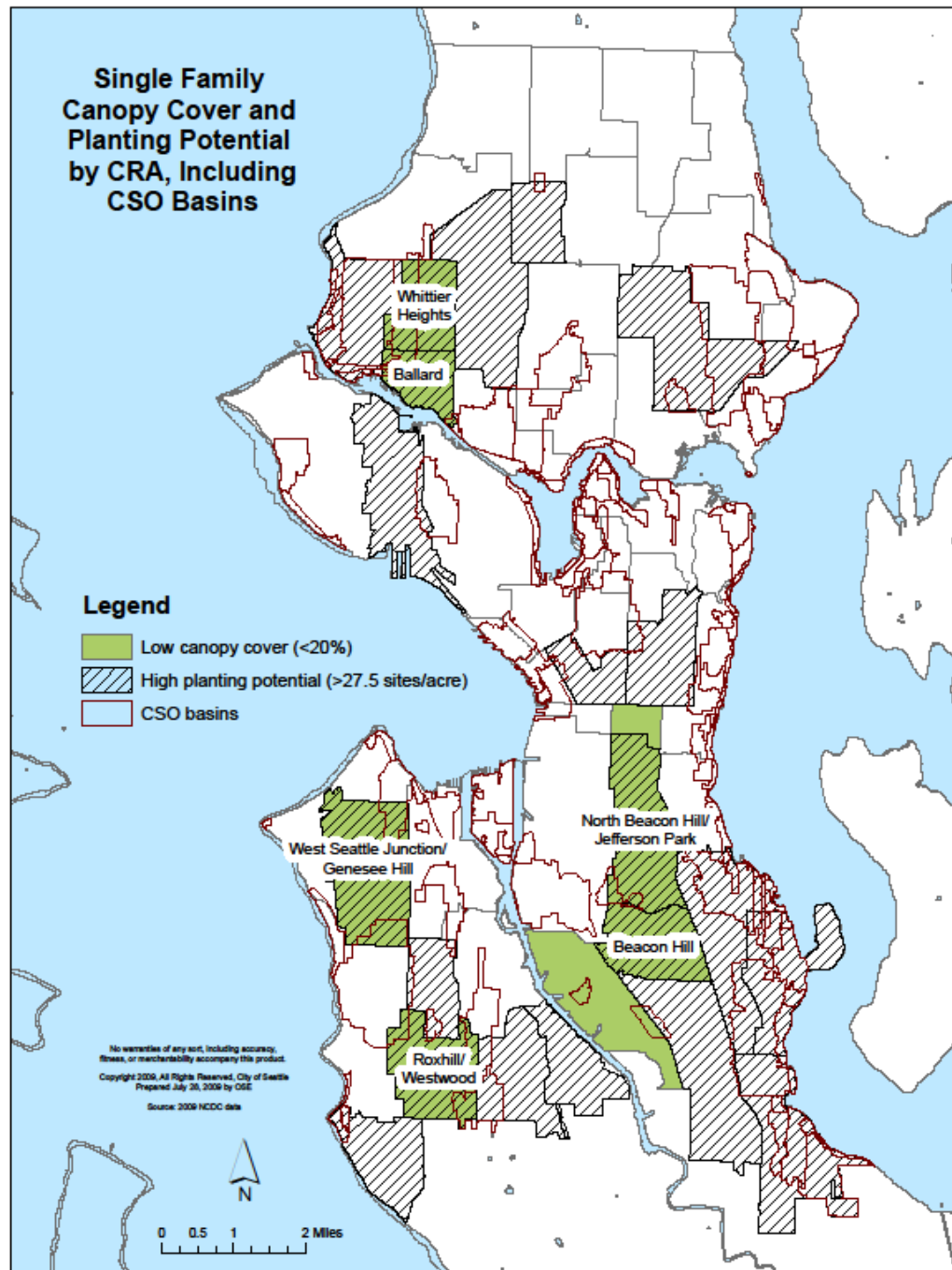
Income, Single Family Canopy Cover, and Planting Potential by CRA



Single Family Canopy Cover and Planting Potential by CRA, Including CSO Basins

Legend

- Low canopy cover (<20%)
- High planting potential (>27.5 sites/acre)
- CSO basins



Canopy Cover Assessment

Application of Data

- Targeting programs to low canopy areas
- Parcel and neighborhood canopy cover available to public online
- Projection of future canopy trends
- Tracking progress towards canopy cover goals

	UFMP Canopy Goal (total trees)	2007 Canopy	Total additional trees needed to meet goal in 28 years	Total additional trees/ year needed	Total tree increase 03-07	Average trees/yr increase 03-07	Trees per year not happening at status quo	Cost of trees requiring additional incentives	Add'l trees/ acre needed (goal trees/acre)
Downtown	12% (13,572)	4.7%	8,224	294	591	148	146	\$102,200 (\$700/tree)	10.1 (16.6)
Institutional	20% (19,552)	19.4%	557	20	1,008	252	-	-	.5 (17.8)
Manufacturing Industrial	10% (85,882)	4.3%	48,777	1,742	4,411	1,103	639	\$319,500 (\$500/tree)	8.0 (13.9)
Multi-Family	20% (156,635)	17.1%	22,971	820	3,855	964	-	-	4.1 (27.7)
Commercial	15% (94,103)	9.7%	33,415	1,193	7,779	1,945	-	-	7.4 (20.8)
Single Family	33% (876,567)	25.7%	192,869	6,888	13,941	3,485	3,403	\$680,600 (\$200/tree)	6.4 (29.3)
Parks Developed	25% (52,283)	25.5%			(974)				(22.2)
Citywide	30% (1,298,594)	22.9%	306,813	10,957	31,585	7,897	4,188 (3,060¹)	\$1,102,300	6.2 (24)
ROW	24% (225,265)	17.6%	81,831	2,922	12,460	3,115	-	-	5.6