# Environmental Benefits

Urban trees can be quite valuable, not necessarily for what their wood is worth, but certainly for aesthetic and environmental benefits they provide. The aesthetic value is hard to measure. After



all, "beauty is in the eye of the beholder." What price can you put on the experience of sitting in the South Park Blocks on a warm summer afternoon, gazing down long rows of majestic American elms? The feelings of relaxation and enjoy-

#### South Park Blocks Tree Survey

In Spring 2004 PSU students performed a survey to identify trees in the SPB by their species and location. Trunk diameter and the general condition of each tree was recorded. This data was used to appraise the value of the trees according to the Council of Landscape & Tree Appraisers Guide. Portland State students determined the trees in the South Park Blocks were worth more than \$3.4 million.

ment one experiences in such a beautiful, treed urban greenspace just cannot be duplicated. In addition to this type of contribution, trees also have important environmental value:

- they absorb carbon dioxide, one of the "greenhouse gases" responsible for the gradual warming our planet is experiencing;
- they absorb various other gases and pollutants such as nitrogen dioxide, ozone, and microscopic particulate matter which are harmful to humans and the atmosphere;
- they absorb stormwater runoff, reducing the load on city sewer treatment.

Researchers have found that a large tree, like one of the mature elms in the South Park Blocks, takes in about 260 pounds of carbon dioxide annually, enough to occupy a cube 13 feet long on a side. That same large tree takes in approximately 550 gallons of stormwater each year. In Portland, where the City is investing over a billion dollars to develop a sewer network adequate to eliminate overflows of sewage into the Willamette River and Columbia Slough, the stormwater that a tree absorbs helps keep our rivers and streams cleaner.

We would like to thank the USFS and Oregon Dept. of Forestry Community Assistance program for the grant that enabled us to produce this brochure.

PORTLAND STATE UNIVERSITY







Director Zari Santner • www.PortlandParks.org

# South Park Blocks

**Benefits of Trees** 





## South Park Blocks

~ Professor Joseph Poracsky, PSU Department of Geography
From Wild in the City, A Guide to Portland's Natural Areas edited b

From Wild in the City, A Guide to Portland's Natural Areas edited by Michael Houck and M.J. Cody

n the heart of downtown lies one of Portland's gems of nature, the South Park Blocks. Though it was envisioned in the late 1840s by Portland's founders as a continuous strip of green running the length of the city, subsequent events conspired to remove eight blocks from the center of the strip, separating it into two sections and leaving the North and South Park Blocks as two islands of green to be engulfed by the rapidly-growing city.

The most prominent feature of the area is the trees. Interspersed throughout the stand are maples, oaks, sycamores, lindens, and several other species. But the predominant trees of the South Park Blocks are American elms and it is these large, graceful sentinels that do most to create the special character of the area. This humandesigned arborscape of the South Park Blocks proper creates the special atmosphere that dominates the whole area. Like a roughhewn colonnade, five rows of trees stretch the length of the twelve blocks, creating a high canopy that shelters the grass, walkways, and benches below. From the center,

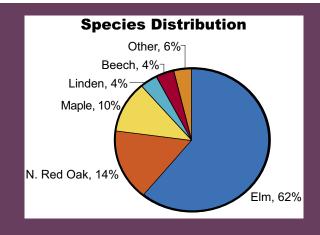


looking either to the north or the south between any two rows of trees, you have a vista down a long, green, arched tunnel narrowing into an indistinct vanishing point blocks away.

While the character of the South Park Blocks is shaped by its trees, that grandeur is magnified by the contrast of the serene and majestic sensibility of the trees with the bustle of traffic and urban activity just a few blocks away. The proximity of the city's noise, the restful songs of birds, and the cool, refreshing taste of the air of the Blocks are distinctive. Just one visit helps you understand what Frederick Law Olmsted and other nineteenth century urban greenspace advocates meant when they referred to urban parks as the "lungs of the city."

### Tree Size and Value

Species	small	med.	large	total	*Appraised
					values
Elm	37	29	144	210	\$2,825,000
N. Red Oak	33	13	2	48	\$122,000
Sugar Maple	8	7	17	32	\$363,000
Linden	5	5	3	13	\$71,000
Euro. Beech	12	1		13	\$14,000
Hawthorn	1	6		7	\$12,100
Honey Locust	6			6	\$6,100
Garry Oak	4			4	\$800
Ash			2	2	\$24,500
Sycamore			1	1	\$27,000
Ailanthus		1		1	\$2,800
Total	106	62	169	337	\$3,468,300



\*The GUIDE FOR PLANT APPRAISAL by the Council of Tree and Landscape Appraisers was used to appraise the trees.



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