



Total Projected Benefits (2019-2029) - Over the next 10 years, based on forecasted tree growth, i-Tree Design projects total benefits worth \$5,890:

- \$4,250 of stormwater runoff savings by intercepting 429,242 gallons of rainfall
- \$158 of air quality improvement savings by absorbing and intercepting pollutants such as ozone, sulfur dioxide, nitrogen dioxide, and particulate matter; reducing energy production needs; and lowering air temperature
- \$879 of savings by reducing 37,786 lbs. of atmospheric carbon dioxide through CO₂ sequestration and decreased energy production needs and emissions
- \$948 of summer energy savings by direct shading and air cooling effect through evapotranspiration
- \$-345 of winter energy savings by slowing down winds and reducing home heat loss

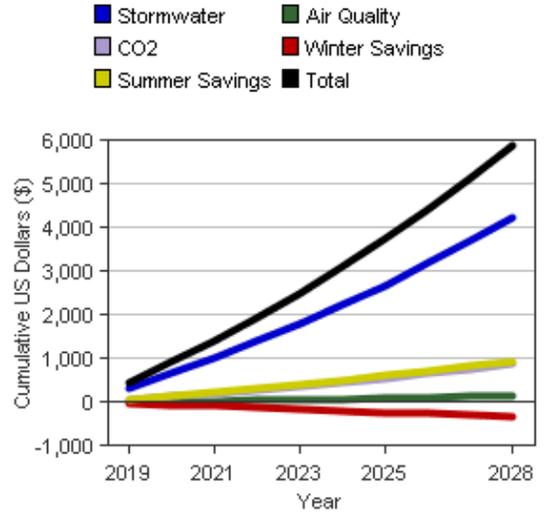


Figure 1. Tree benefit forecast for 10 years

- Stormwater
- Air Quality
- Winter Savings
- CO2
- Summer Savings

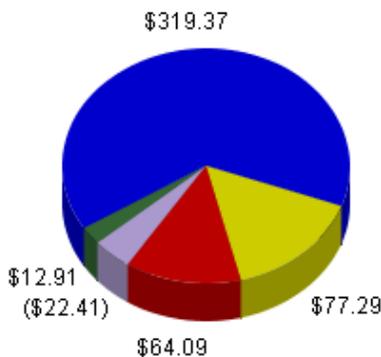


Figure 2. Annual tree benefits for 2019

Current Year - For 2019, i-Tree Design estimates annual tree benefits of \$451.25:

- \$319.37 of stormwater runoff savings by intercepting 32,260 gallons of rainfall
- \$12.91 of air quality improvement savings
- \$64.09 of carbon dioxide reduction savings
- \$77.29 of summer energy savings
- \$-22.41 of winter energy savings

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Future Year - In the year 2029, based on forecasted tree growth, i-Tree Design projects annual benefits of \$795.54:

- \$577.69 of stormwater runoff savings by intercepting 58,352 gallons of rainfall
- \$19.86 of air quality improvement savings
- \$120.34 of carbon dioxide reduction savings
- \$120.87 of summer energy savings
- \$-43.22 of winter energy savings

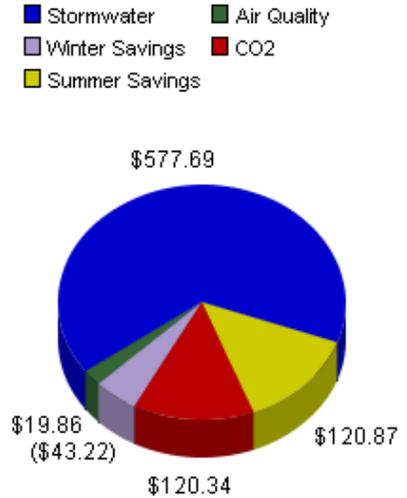


Figure 3. Annual tree benefits for the year 2029

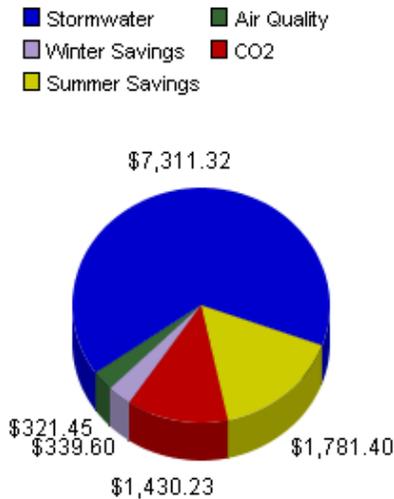


Figure 4. Total benefits to date

Total Benefits to Date - Over the life of the tree(s) so far, i-Tree Design calculates total benefits worth \$11,184:

- \$7,311 of stormwater runoff savings by intercepting 738,507 gallons of rainfall
- \$321 of air quality improvement savings
- \$1,430 of carbon dioxide reduction savings
- \$1,781 of summer energy savings
- \$340 of winter energy savings

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Individual Tree Benefits

Tree	DBH (in)	Condition	Location to Structure	Benefits			
				Current Year (2019)	Future Year (2029)	Projected Total (2019-2029)	Total to Date
1. American holly	34	Good	Northwest (56 ft)	\$49.59	\$49.94	\$498	\$3,087
2. American hornbeam	4	Excellent	Northwest (24 ft)	\$6.88	\$11.87	\$92	\$34
3. American hornbeam	5	Excellent	Northwest (38 ft)	\$8.70	\$13.34	\$109	\$57
4. American hornbeam	5	Excellent	Northwest (70 ft)	\$6.37	\$10.74	\$85	\$36
5. Flowering dogwood	3	Good	Northwest (63 ft)	\$2.35	\$6.81	\$44	\$5
6. Sugar maple	5	Excellent	North (110 ft)	\$4.89	\$13.21	\$86	\$25
7. American hornbeam	3	Excellent	North (131 ft)	\$3.19	\$7.98	\$54	\$9
8. Sugar maple	3	Excellent	North (136 ft)	\$2.14	\$8.15	\$42	\$6
9. Sugar maple	3	Excellent	North (126 ft)	\$2.14	\$8.15	\$42	\$6
10. Swamp white oak	6	Excellent	North (92 ft)	\$7.80	\$34.09	\$181	\$18
11. Swamp white oak	7	Excellent	North (52 ft)	\$14.21	\$46.70	\$278	\$40
12. Willow oak	6	Excellent	North (24 ft)	\$8.86	\$40.71	\$210	\$23
13. Swamp white oak	6	Excellent	Northeast (52 ft)	\$11.80	\$42.54	\$240	\$26
14. Eastern red cedar	27	Excellent	Southeast (43 ft)	\$41.00	\$41.00	\$410	\$1,351
15. Sugar maple	6	Excellent	South (28 ft)	\$-1.26	\$12.96	\$56	\$-28
16. Willow oak	6	Excellent	South (27 ft)	\$3.23	\$28.46	\$103	\$12
17. Sugar maple	4	Excellent	South (27 ft)	\$-3.11	\$6.97	\$-21	\$-9

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18. Scarlet oak	6	Excellent	Southwest (95 ft)	\$7.64	\$32.17	\$178	\$18
19. Scarlet oak	6	Excellent	Southwest (107 ft)	\$7.64	\$32.17	\$178	\$18
20. Scarlet oak	6	Excellent	Southwest (129 ft)	\$7.64	\$32.17	\$178	\$18
21. Pecan	27	Excellent	Southwest (75 ft)	\$100.57	\$125.23	\$1,116	\$2,848
22. Southern Magnolia	29	Excellent	West (50 ft)	\$147.76	\$171.53	\$1,588	\$3,522
23. American hornbeam	4	Excellent	West (27 ft)	\$11.23	\$18.63	\$144	\$62
Total				\$451.25	\$795.54	\$5,890	\$11,184

DBH: "diameter at breast height" is the standard measurement of tree trunk width at 4.5 feet (1.5 meters) above the ground.

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