

What is Backyard Conservation Design?

Your home should not be an escape from nature, but an intrinsic part of it. When you seamlessly connect your home and your yard, you experience the inspiration and healing powers of nature. You also personally save money and so does your community.

BACKYARD CONSERVATION DESIGN IS AN ENVIRONMENTALLY-SENSITIVE, LOW-IMPACT AND RESTORATIVE APPROACH TO BACKYARD AND OPEN SPACE DESIGN, USING NATIVE PLANTS. IT RESULTS IN GOOD HABITAT FOR BIRDS, BENEFICIAL INSECTS AND WILDLIFE. IT IMPROVES AIR AND WATER QUALITY, STORMWATER AND FLOOD CONTROL AND IT SAVES MONEY ON ENERGY, WATER AND LAWN CARE COSTS. IT ALSO CREATES VERY BEAUTIFUL BACKYARD DESIGNS FOR ALL SEASONS.



Nature's financial benefits are real, significant and impact a wide range of stakeholders. The benefits are difficult to quantify because Mother Nature doesn't write receipts. Native plants that have adapted to the soils and climate of this region, drive natural system services and have been doing so for thousands of years. Humans and all wildlife are supported by native plants. Native plants support 29 times the biological diversity of non-native plants.¹ It is biological diversity that provides cost-free services that provide financial savings to townships and residents.

The best conservation strategy to fight against global warming, water pollution and sustain nature's financial services is to expand existing open space and create connected habitat corridors along streams and hilltops. To protect water and air quality, habitat, pollination, stormwater management, flood mitigation and water supply, every business and homeowner needs to become an environmental steward of their own property.

The 2011 Gallop Poll and the Knight Foundation's research validated that greenery and aesthetics in a community are the key reasons that people love where they live. This research noted that greenery also has a positive effect on economic development.² Investing your time and energy in designing with native plants and good stewardship reaps great rewards. The range of savings for each designed home is between \$1,153 to \$2,960. Community benefits for each home can reach high as \$4,967 per acre. If you live adjacent to protected open spaces like parks, streams and preserves you will be helping to expand the environmental and economic benefits for your community.

¹ Tallamy, Doug. 2007. *Bringing Nature Home*. Timber Press.

² Knight Foundation *Soul of the Community Study*. 2010.

Designing With Nature Promotes Healthy Lifestyles

Whether you live in a rural, suburban or urban area, you are part of a natural system. Reduction in natural habitat and systems translates directly to a decline in public health and quality of life.

Contact with nature on a regular basis, provides stress reduction and Improvement in overall sense of wellbeing and hopefulness.³ It helps alleviate mental fatigue by relaxing and restoring the mind. Within built environments, green spaces are settings for cognitive respite, as they encourage social interaction and de-stressing through exercise or conversation, and provide calming settings. Having quality landscaping and vegetation in and around the places where people work and study is a good investment. Both visual access and being within green space helps to restore the mind's ability to focus and can improve job and school performance, and help alleviate mental stress and illness.

Howard Frumkin and Richard Louv's research on contact with nature suggests that children and adults benefit so much from contact with nature that land conservation can now be viewed as a public health strategy. Nature contact yields surprisingly broad benefits. This contact can occur on a very small scale—plants in the workplace or trees outside the apartment building—or it may occur on a larger scale—a nearby park, a riparian corridor in a city, or a wilderness area.⁴

Nature provides vital health benefits for all people by:

1. *Improving air quality and reducing asthma and pulmonary diseases, particularly in children*
2. *Reducing stress, anxiety and depression*
3. *Enhancing attention*
4. *Increasing the speed of patient recovery*
5. *Inspiring exercise and reducing medical costs*
6. *Promoting neighborhood bonding*
7. *Reducing noise*
8. *Promoting neighborhood bonding and may reduce the incidence of domestic violence*
9. *Helping people with spirituality*
10. *Providing positive Impact for children at play*

³ Marcus, Clare Copper and Marni Barnes. 1999. *Healing Gardens: Therapeutic Benefits and Design Recommendations* (9Trans). New York. John Wiley and Sons.

⁴ Howard Frumkin and Richard Louv. 2007. The powerful link between conserving land and human health. Essay address to the Land Trust Alliance.

Every House Counts

An average home on a one-third acre lot can infiltrate 400,000 gallons of rainwater every year. Good backyard design reduces or eliminates runoff and stormwater, flooding and water pollution created by the landscape. This infiltration contributes 88,000 gallons annually to base flow in streams at 55 degrees Fahrenheit which is the temperature where aquatic organisms do best. A similar amount goes to deep groundwater recharge. Good habitat is made up of native trees, shrubs, wildflowers, ferns and grasses and supports a wide variety of resident and migrating birds and butterflies. Other wildlife thrives as well.

<i>Designing With Natives Household Savings</i>				
Conservation Action	Annual Homeowner Savings (per year)			Source
	Low	Medium	High	
Outdoor Water Conservation	\$65	\$150	\$410	http://forums2.gardenweb.com/discussions/1513362/how-much-are-you-spending-in-water-bill-for-your-lawn-garden +
Design With Climate	\$268	\$594	\$929	Homeadvisor.com/cost/heating-cooling
Lawn Care	\$35	\$158	\$600	Homeadvisor.com/cost/lawn and garden maintenance-a lawn
Plant Purchase	\$100	200	\$500	http://forums.gardenweb.com/discussions/1433953/how-much-do-you-usually-spend
Energy Conservation	\$515	\$515	\$515	https://www.energycodes.gov/sites/default/files/documents/PennsylvaniaResidentialCostEffectiveness.pdf
Water Conservation in Home	\$170	\$170	\$170	https://www3.epa.gov/watersense/about_us/facts.html
Homeowner Total	\$1,153	\$1,787	\$2,960	

Conservation Design Using Native Plants:

1. Creates great habitat;
2. Reduces nutrients and pesticides by 80-100%;
3. Creates beautiful yards that have seasonal color, fragrances, butterflies and birds;
4. Creates beautiful neighborhoods with great curb appeal and sense of place;
5. Inspires healthy lifestyles;
6. Encourages relaxation and stress management;
7. Reduces energy costs for heating and air conditioning by 15-20%;
8. Reduces water costs by 15-20%;
9. Increases property value by 7-20%.

Helping Your Community

<i>Return on Environment Cover Type Financial Values</i> (avoided costs /year/acre)				
	Lawn	30% Habitat Canopy	Woodland (60%+ Canopy Cover and Layered Habitat)	Riparian Forest
Stormwater		\$261	\$871	\$1,803
Nutrient Uptake		\$77	\$152	\$1,128
Groundwater			\$110	\$279
Erosion Prevention	\$4	\$4	\$15	\$15
Carbon		\$11	\$22	\$38
Air Pollutants		\$7	\$7	\$7
Pollination		\$55	\$110	\$184
Biological Control		\$2	\$2	\$2
Terrestrial Habitat		\$400	\$998	\$1,100
Aquatic Habitat				\$275
Regeneration			\$66	\$136
Homeowners Financial Contribution to Community	\$4	\$808	\$2,353	\$4,967

You can save taxpayers' dollars by creating a backyard design that converts lawn to other cover types. The saving per acre can be dramatic.

Need a Hand?

If you are interested in learning more about how to become a better steward of nature and design your own yard with native plants, there are several things you can do.

1. Go to *DWTN.net*, and under *Creating a Legacy* and look for the Home Calculator. Answer the questions and see what benefits you will receive by *Designing With Natives*.
2. Go to *DWTN.net* and read about what you can do in your own yard, under the heading *Conservation Design*.
3. If you are in a hurry, you can order a *Ready-to-Go* native plant garden. See *Shop* on *DWTN.net* for more details.
4. Sign up for a 5-hour weekend class for a fee of \$60. See *Shop* on *DWTN.net* for more details.
5. You might also want to become a Certified Backyard Conservation Designer and help others with their properties. A 10-week class offered in the evenings on the phone, including site visits, is available for \$100. See *Shop* on *DWTN.net* for more details.
6. You can contact a Certified Backyard Conservation Designer for help. See *DWTN.net – Contact Us*.



Designing With Natives