

#### **Demand a better future!**

Moving to a Nature Town will improve your health, wealth, community, and planet.



# Nature Towns: The Best Places to Live!

Nature Towns are complete, walkable communities surrounded by large, regenerative organic farms. Towns feature 1280 households and about 3000 residents, in single-family homes, multiplexes and live-work-retail buildings with shops and services. The farms comprise 75% of the total site area and provide food, energy, water, and climate security for residents, as well as other environmental benefits such as pollination, carbon sequestration, stormwater infiltration, and mitigation of drought, flood, and the heat island effect.

Town and farm are holistically integrated to form a local circular economy that minimizes waste and maximizes ecosystem services and nature: For example, farm products feed residents, while food wastes return nutrients to the farm to become compost that feeds the soil. Residents gain a regenerative lifestyle with improved health outcomes, community cohesion, and highly sustainable living overall.

# **Comparing Nature Towns to Sprawl**



Nature Towns recently completed a Triple Bottom Line Cost Benefit Analysis (TBL-CBA) to explore environmental, social and financial impacts of a new pattern of development. We analyzed two different land use patterns, the typical sprawl development pattern, and a Nature Towns model, to compare the impacts of each. We worked with McMac Cx, which provides sustainable best practices evaluation, professional project oversight, and continuous performance outcome verification, and their partner Autocase, the international leader in automated, cloud-based software that assesses impacts of sustainable building and site designs informing green infrastructure investments and policy guidelines.

The TBL-CBA is an evidence-based economic method that combines CBA and lifecycle cost analysis (LCCA) across the triple bottom line to weigh costs and benefits to project stakeholders. Evidence is drawn from 'gold standard' sources such as federal government reporting agencies. It expands the traditional financial analysis (capital and operations & maintenance costs) to account for social and environmental performance as well. It quantifies in monetary terms as many of the costs and benefits of the project as possible and converts them all into a net present day dollar value. The triple bottom line net present value (TBL-NPV) of the scenarios is used to compare relative benefits and costs that accrue over their lifetime.

The analysis compared a sprawl scenario of 1280 households on 320 acres to a projected 320-acre Nature Town with 1280 households on 80 acres, and a farm on the remaining 240.

### **Nature Towns are Clearly Superior**

The benefits of a Nature Town to the community total almost a billion dollars. For homeowners, this translates to over \$650,000 over the 40-year life of a home, or almost \$17,000 per household per year. This means that people living in sprawl are exposed to an average of \$17,000 more per year in taxes, fees, costs, and risk equivalents than residents of Nature Towns. Perhaps the most interesting finding is that *planning and designing for maximum environmental and ecosystem health produces equal financial benefits and four times more social benefits*.

# **Driving Less**

A significant portion of the benefits accrue through reduction of vehicle miles traveled (VMT) by residents, due to the fact that the town is designed for pedestrians: any resident can reach both necessary and recreational amenities, including nature, with a short walk. This result arises from the incremental assumption that members of each household in a walkable Nature Town (with 100+ stores and hundreds of on-site jobs) are expected to drive an average of only 12,000 miles/year, a reduction of 25,400 from the assumed 37,500 mi/yr in sprawl zip codes in the Austin MSA. Lower VMT means reduced accident risk, private vehicle operations, commuter time, road maintenance, and noise and pollutant emissions.

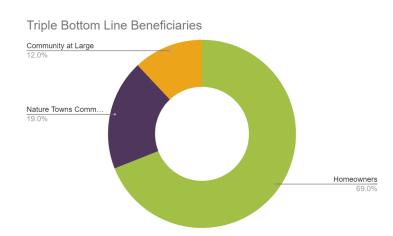
#### **Better Health and More Fun**

In the financial impact category over 40 years, Nature Towns save more than \$30 million in capital expenditures and \$70 million on electricity costs, among other things. Most of the benefits from reduced VMT as listed above accrue to the social category and total almost \$500 million. Social benefits include improved indoor environmental quality resulting in increased productivity and reduced absenteeism, to the tune of \$120 million. Other social benefits include increased recreational value and public health through exercise, and a reduced urban heat island effect.

Environmental benefits add up to \$130 million. These include reduced noise and air pollution and lower carbon emissions from reduced VMT; reduced carbon and air pollution from lower overall energy use; reduced carbon emissions and air pollution due to increased vegetation; and increased biodiversity and pollination.

Combined financial, social and environmental benefits total over \$850,000,000. Some of these benefits accrue to homeowners, some to the NT community as a whole, and some, such as the reduction in risk of accidents, also benefit the community at large outside of the Nature Town.

## THE BOTTOM LINE: Nature Towns provide the highest quality of life at the lowest cost.



Almost 70% of the total benefits accrue directly to homeowners, with 57% of the total in the form of social benefits for homeowners.

Most importantly to some, over \$1,500/year are in financial benefits direct to the homeowners, thus exceeding the \$1,200 per year paid by each homeowner in district fees for the green infrastructure. Going green pays off!