



## RECOMMENDATIONS

Anticipated funding for Phase II of the Natural Assets Inventory was not provided in fiscal year 2008/2009. The Natural Assets Stakeholder Committee proposes that the project's originally planned second phase be sustained through a two-year combined effort of in-house staff analysis and continued committee meetings, participation in the Davidson Comprehensive Plan, and funding in fiscal year 2009/2010 to implement specific recommendations of this report. A tentative schedule for Phase II of the Natural Assets Inventory is as follows:

Fall - Winter 2008/2009: Planning staff continues Decision Support System Analysis (estimated cost: \$3000 GIS extension software). Committee reviews draft maps and constructs weights for the models.

Spring - Summer 2009: Committee members participate in Comprehensive Plan and continued groundtruthing of sites in the ETJ.

Fall 2009 – Spring 2010: Funding allocated to hire consultants to implement recommended plans and updates (such as to update the Parks and Rec Master Plan, estimated cost \$50,000).

To guide further discussions, The Natural Assets Stakeholder Committee developed the following list of recommendations. Many of these recommendations are designed to implement the goals of the 2001 Open Space Plan and more recent goals of small area plans. "Open space" is generally defined in this report as any area (property or portion of a property) that is not built upon and includes natural resource(s) such as trees, water or recreation amenities. These overall recommendations are not in any prioritized order.

### Preservation of Open Space

1. **Develop an Open Space Plan:** The Town will create a vision for open space preservation showing general locations and types of important open spaces and natural resources as they would be protected, connected, restored, accessed and managed. This vision plan will account for existing open space goals and ordinance provisions, adopted small area plans, and local and regional transportation and land use plans (i.e. parks and greenways master plans, mobility plans). The vision plan is fundamental to the Comprehensive Plan and any future updates to the Parks and Recreation Master Plan. Balancing active and passive open space is key to achieving sustainable natural systems and recreation goals.
2. **Draft Decision Support Systems (DSS):** Decision-support systems (DSS) are models or formulas applied to GIS inventory data to help planners, developers, elected officials, and others prioritize areas for preservation or conservation. The user (i.e. Town, conservation group, property owner) applies specific values and weights to information contained in the GIS inventory according to the needs of the user group. For example, local government may create a DSS to determine which areas are best for future parks facilities. This DSS model would create a formula that prioritizes areas by proximity to neighborhoods and ease of access. Other DSS models might prioritize areas for permanent open space conservation, farming activity, and greenway planning.
3. **Ground-truth all properties over 10 acres in size within 5 years:** Groundtruthing locates high quality natural areas, as well as degraded or endangered habitats such as eroded stream banks or former dump sites. The Town will teach the importance and methods by which residents and stakeholders may groundtruth their own properties or other properties (with written consent from the owner).
4. **Town property sets the example for sustainable open space management:** Town-owned properties will be maintained to illustrate the balance between public use and natural resource protection. Examples of sustainable site management practices include new tree planting in or near important habitats, use of native plant materials, mature tree care, and limited impervious surfaces.



### Management of Tree Canopy

4. **Require Open Space Preservation and Tree Planting Plans:** Require an Open Space Preservation Plan as part of every master plan. The Open Space Plan will outline required landscaping, street tree plantings, tree preservation details, and self-monitoring programs. Preservation and planting plans are conceptual during the master plan process and refined during preliminary plat submittal.
5. **Create a Tree Canopy Master Plan:** The Tree Canopy Master Plan may include a strategic management plan for tree protection, preservation and replanting; incentives for increased tree preservation in future development; disincentives for invasive species introduction; funding sources for planting; and citizen education campaigns. This plan illustrates specific goals for tree canopy coverage and/or recommended species type by planning area or neighborhood and coordinates tree planting plans among adjacent developments. The Tree Canopy Master Plan outlines emergency response strategies in the event of a natural disaster causing significant canopy loss and identifies public properties where new trees should be planted. The plan will describe ways the Town can perform best tree care practices.
6. **Revise Local Ordinances:** Local stakeholders and elected officials should lobby state representatives to amend the legislation to allow for specific tree preservation in residential development. Tree preservation and open space requirements should firstly reflect the analysis of the Natural Assets Inventory. Local ordinance amendments should also clarify the conditions requiring a tree permit for tree removal or pruning and criteria determining which permits will be granted. Local ordinances should regulate or discourage large scale clearance of mature hardwood forests on properties yet to be developed. Town planting requirements should provide an incentive to property owners and developers to plant diverse and tolerant tree species. All ordinances should be coordinated to ensure that tree and open space preservation requirements are not compromised, such as in potential conflicts with erosion control and stormwater management requirements.
7. **Be designated as a Tree City USA:** This designation would make Davidson eligible for state and federal replanting grants and public education resources.
8. **Implement recommendations of Davidson Street Tree Inventory within 10 years:** The Street Tree Inventory specified trees that were likely dead, diseased or over-mature, needing further study and likely removal. Other recommendations included substantial pruning and root collar excavation. The most important step in implementing these recommendations is to hire a certified arborist or urban forester on a part-time basis until the Town is able to provide a full-time position. Significant landscape plantings in developments should be inspected by trained staff during installation and throughout the first two years of private maintenance. Other recommendations of the inventory requiring significant equipment and training (such as removal and high canopy pruning) would require budgeted contract services with tree service companies. See the detailed cost estimates provided in the Davidson Street Tree Inventory.

### Public Education

9. **Public Education:** Perhaps the best way to assure enhancement and long-range sustainability of the natural environment is through public education and incentive programs. The Town should encourage conservation easements, removal of exotic invasive species, healthy pruning techniques, and use of sustainable horticultural practices. The Town should create educational materials and sponsor events including the following:
  - Invasive species information workshop
  - Pruning guidelines and training to local tree care companies
  - Utility planting guidelines and outreach contacts
  - Composting and community garden workshops
  - Professional listings (i.e. arborists, wetland specialists)
  - Town of Davidson website FAQs
  - Town of Davidson website links to county, regional and state environmental agencies



10. Establish the Davidson Natural Environment Advisory Committee: An advisory board to make recommendations for tree-related policies, judgments and public education programs is imperative to becoming a Tree City USA. The Natural Environment Advisory Committee would also provide guidance to staff on other natural resource management decisions (such as open space planning, ordinance revisions, and some master plan review).

11. Provide On-line tools for public Education and Database Maintenance: The Town should be actively engaged with regional environmental initiatives, public education, and database maintenance. To reach out to local residents and the broader community, the Town should publish the Natural Assets Stakeholder Committee Report to the Town's website and create an interactive website allowing users to map a property with layers from the natural resource inventory. This interactive website should also include a tool for users to submit their own findings or groundtruth reports to the Town. Residents and property owner should be provided basic ground-truthing training and forms to complete. These groundtruth reports may prove very useful during the development process or in searching for rare habitats.

#### For Further Study (Not Recommendations)

- ▶ Farming Incentive Programs: Davidson should consider creating a local farm program that would help active farm property owners qualify for reduced property tax rates, connect growers with farmers markets and retail grocery stores, promote their produce and farm to the general public, and find farmers to lease dormant agricultural land for active farming. Financial support for the Davidson Farmers Market is one possible way to further active local farm operations. The Town should also promote the state's present-use value agricultural and forest management programs as well as the local Lease of Development Rights program.
- ▶ Local funding for open space acquisition: Considering the rising costs of land and pace of development, the Town should set aside at least \$250,000 from each fiscal budget to go toward open space land acquisition. The Town will primarily work with other agencies (such as Mecklenburg County), seek grant opportunities, and negotiate donated easements to secure desired open space. However, when these options are exhausted and if a property has a high value for conservation and public use and the property owner seeks fair compensation for their land, the Town should have funds available to purchase the property or easements.
- ▶ Open space requirements in the Rural Planning Area: Resources providing air and water quality protection should be preserved first (such as tree canopy, wetlands and upland buffers, and stream corridors). Mitigation options should be developed when a development requests to reduce its required open space. Mitigation ordinances should discuss impacts of disturbing sensitive natural open space, explain potential conflicts with other ordinances, discuss the process for amending an approved plan, and describe preferred mitigation tools. Pre-development activities should be considered in revised ordinances since significant tree canopy or habitat loss can occur apart from subdivision activity and is not currently regulated by local or county ordinance.
- ▶ Impacts of sewer expansion into the rural area: Sewer expansion may allow for more dense clustering of lots in rural subdivisions, providing for more contiguous and more extensive undeveloped open space.
- ▶ Scenic Viewshed Protection: Viewsheds need to be redefined to also include small-scale enclosed spaces as well as large parcels along public streets and greenways.
- ▶ Reclaimed Significant Natural Habitat: The Town should consider taking the next step in habitat reclamation and create a fund for stream restoration, tree plantings, and wetland formation. These types of projects will not only improve water and air quality downstream but are also frequently the target of state and federal grant funding. In conjunction with habitat restoration projects, the Town should petition the state Department of Natural Resources to update the Mecklenburg County Natural Heritage Inventory per the results of the Davidson Greenprint.



- ▶ **Undisturbed upland buffer surrounding delineated wetlands:** Most literature suggests preserving 50 to 200 feet of undisturbed buffer around a wetland. The purpose of this ordinance is to protect the life-cycle habitats of plants and animals that depend on the wetland. Impervious limits may need to be considered within the buffer as well as an appeals process and mitigation options. The ordinance for this buffer should read as closely to the SWIM buffer ordinance and permit minimal disturbance for greenways and limited infrastructure access. Where side slopes within the prescribed buffer are exceedingly steep, additional buffer may be necessary.
- ▶ **Conservation easements on publicly owned open space:** Publicly accessible open space is prime land for active and passive recreational uses, such as greenways, ball fields and nature preserves. However, much of it will need to be placed in permanent conservation easement sustaining little alteration and limited public access. These preserved properties are ideal laboratories for conservationists and students to understand how the natural environment functions.
- ▶ **Small grant fund to assist low income property owners with removal or pruning of trees:** Since the Town is not legally required to care for trees entirely outside of the public right of way, the Town depends on private property owners to partner with us on best cultural tree management practices. Tree removal or pruning on large trees can be very expensive, especially for low income property owners and residents.
- ▶ **Tree Bank or similar voluntary mitigation option for property owners who remove trees:** Where a property owner has to remove a tree to make way for a development, home improvement or in the case of a dead or diseased tree, concerned property owners should have the option to pay an equivalent amount into a local account set aside to purchase and plant trees on public-owned properties. This is especially useful for property owners where there is insufficient land for replanting a tree of similar size at maturity. Developers may be given the option to contribute to the Tree Bank if they cannot preserve necessary trees or replant on site.
- ▶ **Regular coordination with homeowners and property owners associations to permit “green” activities:** The Town should discuss best management techniques for private, common open space and energy efficient cultural practices with HOA/POA groups. Homeowner’s covenants and deed restrictions sometimes make it difficult for individuals to be energy efficient by prohibiting clotheslines and requiring grass turf and irrigation.