

Town of Woodfin



A Proposal for Landscaping

Our Parks and Greenways

with

Pollinator-friendly, Native, and Edible Plants

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Woodfin Pollinators-Edibles-Natives (PEN) Proposal

Executive Summary

This proposal summarizes the rationale for adopting a landscape policy which stipulates the exclusive use of pollinator-friendly, edible, and native (PEN) plants for all future plantings in the parks and greenways in the Town of Woodfin. Benefits, cost considerations, cost-saving opportunities, and potential safety concerns are all addressed.

Why should Woodfin consider adopting a PEN landscape?

- Modern conventional landscapes typically include plant species that don't provide many benefits other than aesthetic appeal. If tax revenue and other resources are to be allocated to the establishment and maintenance of such landscape plantings, it seems reasonable to include additional benefits to the Woodfin community.
- Pollinator-friendly, edible, and native landscape plants offer numerous benefits to residents, visitors, and the local ecology.
- Benefits to residents and visitors include some exposure to traditional mountain foods and culture, improved access to nature and local wildlife, education, community connection through common spaces, and occasionally some fresh food free for the picking.
- Benefits to the local ecosystem include improvement of local wildlife habitat, support for native pollinator species, as well as sanctuary spaces for bird and butterfly species, many of which are experiencing steep population declines.

What are the potential costs and other concerns?

- The costs for plants and their establishment should be comparable to conventional non-native plantings. Some additional training of Woodfin Maintenance staff would be desirable. However the training could come from experienced volunteers at very little cost and the benefits should be reflected in other areas of maintenance work.
- Maintenance is not dramatically different from other types of plant-care. Issues that do arise can be addressed through education, community engagement, and options for volunteer recruitment.
- Safety concerns are addressed on a case-by-case basis within this report, and are largely determined to be non-issues or ones which can be easily addressed.

What does the implementation and installation process look like?

- The plant selection process is identical to any other type of landscape plan, only with the focus on the types of plants selected specifically directed to native, edible, pollinators.
- Because the planting theme is attention-getting, potential opportunities for support from local nurseries and landscape professionals is far more likely, particularly if sponsorship of select areas is recognized through signage. Materials and labor are also more likely to be offered by willing volunteers with established interests in this field. Local community members are already available and ready to commit their time.
- The appendix of this document includes a partial plant list which is not intended to be exhaustive, but rather to indicate the wide variety of qualifying plants that are available. Once this proposal is approved, this list can be expanded and other resources identified, including sources of supply, local design and installation professionals, additional resources, and more.

Introduction

With the development of the Greenway and Blueway through Woodfin along with the creation and renovation of the Town's parks, we are presented with an opportunity to create an environment that is at once attractive, unique, and educational for all residents and visitors. Additionally, Woodfin is poised to succeed where other municipalities have failed.

It is not only possible but environmentally responsible and aesthetically pleasing to create landscapes which consist entirely of plants that are native, support pollinators, and some of which are edible. Pollinators are supported because all fruits and many vegetables start as flowers, and a well thought out landscape with these plants creates 3 and even 4 seasons of attraction. Offering edible plants is attention getting and with the addition of informative signage can educate and help people directly reconnect with food at its source. Native plants thrive where non-natives die because the natives are acclimated to local conditions.

This proposal will clearly show why such a landscape should be developed; compare the costs of a Pollinator-Edibles-Native (PEN) planting with conventional non-native, inedible, non-pollinating landscapes; and importantly address misplaced concerns that others have expressed about similar initiatives, and describe how these issues can be avoided.

The addition of native pollinator gardens and "Foodscapes" into our parks and greenways has many positive impacts including health and wellness, encouraging interactions between different groups (economic, racial, religious, etc.), education for all ages, ecological restoration, nutritious food, and displaying a symbolic dedication to our unique mountain culture and heritage. Perhaps above all, public spaces should set examples and stimulate imaginations and an attractive PEN landscape can encourage others to emulate the practice on their own property and thereby dramatically multiply the benefits.

When PEN landscapes are implemented, residents and visitors immediately understand that the community cares about ecological diversity and connection between nature, food, neighbors, and the larger community. These "green commons" become sanctuaries of respite from the daily grind of work and a commodified lifestyle. In these green, edible, and 'wild flower' spaces, people can reconnect with all of their senses and enjoy the beauty or, when the time is right, pick fresh fruit. Native pollinators are not only varied and beautiful, but ecologically and economically important. Recently the world has seen an impactful loss of beneficial insects. Native bees and honeybees have declined as much as 40% in recent years, but we are also experiencing a severe loss of butterflies and other important pollinating insects. It is imperative that we take steps to save what species we can by increasing pollinator habitat, and it has been demonstrated that progress can be swift at the local level. Edible landscapes, including food forests, are on the rise in the U.S., and even with relatively low maintenance can produce a significant amount of food. More importantly, they are often the only place where some children get to see fresh food growing.

The positive impacts gained by a community installing native and edible plants into landscapes can be beneficial for all residents. We have the opportunity to create a powerful example in our common spaces to demonstrate that all people can have access to a more healthy lifestyle. The benefits will not only be quickly realized but will appreciate for generations to come.

Overview

What this Proposal is Not.

Many proposals purport to clearly spell out everything that must be done to satisfy the goal of the proposal. They are often accompanied by photos, graphs, and a step-by-step guide. This proposal does not take that approach.

Landscaping is not merely a matter of sticking plants in the ground in a pleasing arrangement. Done well, it is a careful consideration of the terrain, soils, and local weather, in addition to available plants. It considers many other things including access and accessibility, views, colors, proportions, transitions, and balance while maintaining a sense of coherence and simplicity. In short, it is far beyond the scope of this proposal.

What this proposal does attempt is to encourage the Town of Woodfin to stipulate to whoever is designing or implementing the design exactly what type of plant material should be considered, and encourage that the design to be influenced by all the benefits that can derive from a pollinator-friendly, edible, native plant selections; importantly among them educating people.

What Are These Plants?

- **Pollinator-friendly plants:** A pollinator is an animal that moves pollen from one flower to another which helps bring about fertilization and the production of fruit. A pollinator plant is one that provides a particularly beneficial food source for pollinator animals due to one or more factors such as flower size or bloom time.
 - Honey bees are critical to food production. However honey bees are dying in huge numbers with about 1/3 of all hives collapsing each year; a phenomenon known as Colony Collapse Disorder (CCD). This world-wide disorder has been accelerating over the past decade and is affecting all aspects of agriculture; currently driving up prices but potentially impacting the ability to produce.
 - There are many other pollinators besides honey bees; including hundreds of species of native bees, hummingbirds and butterflies, as well as many species of bats, beetles, and even flies.
 - Pollinators need our help! There is increasing evidence that many pollinators are in decline. However, there are some simple things we can do to encourage pollinator diversity and abundance; including planting pollinator landscapes, providing nesting sites, and minimizing pesticide use.
 - Each year the US Fish and Wildlife service promotes National Pollinator Week which was this past June 19 – 25!

- **Native Plants:** Plants that are indigenous to an area or region and appropriately adapted to the local ecosystem. There are many reasons both to plant native plants and discourage the planting of non-native, often invasive, plants.
 - Native plants are adapted to local conditions such as soils, temperatures, and rainfall and so tend to be hardier and require less maintenance than nonnative species.

- Most native plant species provide food, cover, or other habitat for native wildlife. Examples of wildlife food include foliage, flowers, and fruit such as berries. Other habitat might include things like nesting sites.
 - Exotic invasive plants disrupt existing natural plant communities and the wildlife that depend on them.
- **Edible Plants:** These are all plants that we can eat, while contributing to a varied and attractive landscape. Fruits, nuts, berries, herbs, spices, and even some perennial greens can be grown in public spaces with minimal additional effort.
 - Edible landscaping in public spaces such as parks and greenways provides numerous benefits, connecting people with the food they eat and the land it comes from, feeding birds and other wildlife, and educating people about unusual or little-known fruits.
 - Edible plants, especially fruits, attract people to spend more time outside, to interact more with their landscape, and to learn more about the plants and wildlife around them.
 - The presence of edibles in parks encourages adults and children alike to enjoy fresh healthy foods such as fruits and berries, and to learn more about what locally native plants are indeed edible.
 - While there are some exotic invasive plants that are edible, the emphasis here is on native (e.g. blueberries, American persimmon) and non-invasive edible plants (e.g. figs, apples). Exotic invasive species, whether edible or pollinator plants, should be forbidden in any public landscape design (and avoided in private plans too).

The Benefits

- **To our Natural Surroundings** – Landscaping improves the beauty of our built environment. However, inappropriately selected plant material can actually degrade the environment by introducing invasive species that are harmful well beyond the borders of the landscaped area. PEN landscapes, on the other hand, improve natural beauty and local ecology by increasing the richness of plant and animal species by providing habitat for birds and other wildlife, while displaying a variety of attractive foliage and flowers. The intentional introduction of pollen producing plants alone helps support a threatened category of insects without which life would not be possible.
- **To the Town** - This approach to landscaping in public spaces is on the cutting edge of sustainable and resilient land use practices. The Town of Woodfin will benefit from recognition as a forward-thinking, model community that creates idyllic public spaces to live, work, and visit. PEN landscaping improves ecosystem services by cleaning the air and filtering water before it enters local creeks and the French Broad River while providing attractive green spaces with enhanced natural beauty; making "greenways" even greener. Through thoughtful plant selection, these landscapes can be designed with primarily native plants that save money both initially (through native plant hardiness and survivability) and which require minimal maintenance over time.
- **To Residents** – Parks and greenways are an enormous asset and provide benefits for all who visit. Because residents have more opportunities to visit our public spaces they can enjoy them more frequently and through all four seasons. Spending time outdoors is beneficial psychologically, through exercise and, as we are proposing, educationally.

Although everyone benefits connecting with nature, it is particularly important for children. Today, many people are completely divorced from where food actually comes from, or what it looks like when it's not in a package. PEN landscapes in parks and public outdoor spaces enhances the impact of all of these benefits by creating aesthetic beauty, improving opportunities for wildlife viewing, improving biodiversity, and increasing awareness of our natural environment. Woodfin's residents benefit not only from all of these aspects of the Town's outdoor spaces, they might also benefit from seeing the fruit grow and then tasting native and locally grown fruit or other "wild" food.

- **To other visitors and tourists** - PEN landscapes are unique, attractive, and interesting. Non-residents will enjoy all of the benefits that residents have, although in much shorter doses. With proper signage and maps of local parks, visitors to Woodfin can benefit from a memorable one-of-a-kind self-guided walking tour including a showcase of pollinator-friendly plants, edibles, and native landscape specimens.
- **Food Resiliency** - Across the U.S., city leaders are prioritizing urban resilience in response to climate change, natural disasters, and economic shocks. The three basic principles defining resilience are: the ability to adapt to changing conditions, to withstand disruptions, and to return to pre-existing conditions. Food systems have been largely left out of urban resilience planning efforts. Most cities expect to provide residents with food for a relatively short period of time—a few weeks at most—during the immediate aftermath of a natural disaster. But as Hurricane Katrina demonstrated, food system disruptions may last months or years.

We certainly don't expect a few blueberry bushes in the park to help sustain people during an emergency. However, if we can 'plant the idea' that edible plants can be used to create beautiful, hardy, 3-season landscapes, then for those interested in gardening and landscaping, we will have demonstrated a way that people can increase their individual resilience with a concept that might never have crossed their mind.

- **Education** – Although listed last among our Benefits, it could rightly be first. Today, too many people are divorced from the realities of food; where it comes from, what it looks like while it is growing, what it tastes like without all the additives, and much more. People, and particularly children, are also increasingly divorced from the natural world. With proper signage, visitors to our parks and greenway could meet plants on a first name basis, see what they look like and learn to recognize them elsewhere, and have their curiosity peaked by interesting facts that can be provided in short, easy to digest, messages.

Where?

It should come as no surprise that we believe that PEN landscaping should be incorporated throughout the town wherever money is spent on planting. However, the reality is that the total area devoted to plantings is small when compared to the overall area. There are several distinctions between our Parks and the new Greenway and it is worth highlighting them.

- **Greenway**

In spite of its name, the Greenway is a transportation project, more 'way' than 'green', with the focus on allowing people to walk, jog, and bike. The only landscaping will be on

areas that are directly disturbed in the process of constructing the walkways and bike paths. However, while the total amount of ground covered by PEN plants will be relatively small; the impact is potentially enhanced due to the greater proximity as folks are moving along the length of the Greenway

- **Parks**

Our parks appear to offer the potential for the greatest concentration of landscape plants, however even here the amount of actual planting is relatively small because parks are not gardens, they are designed as open spaces that allow the freedom for children to run and play (as well as others to walk and talk). That said, with appropriate signage, people are more likely to 'stop and smell the flowers' in the park than while traveling along the greenway.

The Details

How is it different?

PEN landscape plants are sometimes less common than conventional ornamentals, and therefore may be slightly more difficult to locate. Fortunately, our area supports a number of nurseries that specialize in native plants so this potential problem is easy to circumvent by working closely with these local nurseries and plant wholesalers.

- **Cost:** Initially, through proper design and working with local nurseries, sourcing PEN plants can be done at costs similar to conventional landscape plants. Installation is likewise nearly identical to that of conventional landscapes. Long term, native plants will almost always survive and thrive where non-natives wilt and die. Avoiding replanting to establish the landscape offers tremendous savings in both labor and plant material.
- **Sourcing:** The PEN landscapes that we propose would include plants that are locally available and would be specifically designed with cost in mind. Any landscape design contract is easily amended to include the requirement that all plants fall into one or more of the three categories of pollinator-friendly, edible, and/or native. Once the general policy is adopted, and especially after a list of priority plants is selected, local nurseries may opt to stock more PEN plants in their inventories, making them even more readily available and price-competitive. Potential partnership agreements might even be reached to encourage nurseries to stock desired plants in advance of planting time for new installations.
- **Installation:** For the vast majority of PEN plants there is no difference from conventional landscapes. Any person experienced with and capable of properly installing trees, shrubs, perennials, bulbs, and familiar with basic seed-spreading techniques and fertilizer applications, can just as easily install PEN landscape plants. Furthermore, volunteer labor has often been recruited for similar (albeit smaller-scale) projects in Woodfin and Buncombe County, such as with community orchard installations, community gardens, and through grassroots efforts by the Buncombe County Fruit and Nuts Club, among other nonprofit and civic organizations.

- **Management:** While some management practices are different for PEN landscapes general maintenance is largely the same. Some initial training might be needed to establish and maintain PEN landscapes, but quite possibly at minimal to no additional cost. Because some of the plants will be edible, minimizing or eliminating the use of herbicides and pesticides should be a priority which also saves both time and money. Additionally, this also becomes a teaching point that benefits everyone.
- **Ongoing Expenses:** The construction of the Greenway and enlargement of our Park System is going to place a proportionately greater burden on our maintenance staff. However, management and labor requirements for PEN landscapes are typically very similar to those of conventional parks and greenways. Some fruit and nut trees benefit from additional pruning, as well as seasonal thinning of fruit to maximize yields. Often these are tasks done to improve production and so are not absolutely necessary. Well-established plantings of canopy trees together with understory shrubs and herbaceous perennials require less mowing and weed control, and can often be maintained simply with light weed control and annual applications of mulch. Wildflower patches often need only one annual mowing, if any, and occasional re-seeding during their initial few years of establishment.
- **Training:** Some initial training would likely be desirable to ensure the proper implementation and care for plants not typically included in conventional public landscapes, particularly for pruning of food trees and hands-off maintenance approaches to self-seeding annuals (e.g. wildflowers that shouldn't be mowed during the growing season), and other installation and maintenance considerations specific to the plant species and varieties chosen. However, there are many local resources available in the form of PEN enthusiasts, government agencies, nonprofit organizations, businesses, and professionals who would be likely project partners and stakeholders for this training. These resources include agencies and organizations such as the Agricultural Extension Service and Extension Master Gardeners, members of the local Fruit and Nuts Club, or through a number of local professional landscapers and nurseries who specialize in PEN design approaches. With some effective organization it is likely that such training could be provided at little to no cost to the Town of Woodfin and would enhance the staff's abilities in other areas as well.

Cost Saving Opportunities

There are a number of opportunities for community and business participation that could result in substantial cost savings to the town, particularly with maintenance.

- **Landscape Businesses:** Through recognition with appropriate signage, it is reasonable to expect local landscape businesses to 'adopt a plot' and donate time, materials, and/or professional leadership on volunteer workdays. There are several community members living in or near Woodfin with backgrounds in landscape architecture, edible and ecological landscape practices, and plant selection.
- **Nurseries:** Due to the unique nature of the plants with this approach to landscaping, it is very likely that local nursery businesses would be interested in sponsoring areas of planted material in exchange for recognition through signage. Additionally, there already

exist volunteers and clubs working in other parts of the county that may be recruited for ongoing maintenance. If properly mobilized, this could even reduce overall costs.

- **Volunteers:** For areas of particular interest or value to the community, volunteer maintenance may be an option where it isn't in conventional landscapes. A number of local businesses, churches, neighborhood associations, garden clubs, or other civic groups are likely to take pride in the unique qualities and added values of PEN landscapes. Such organizations are often more likely to recruit volunteers for annual or seasonal clean-ups and work days. Additionally, these organizations might be more likely to consider "adopting" a park or other public space if it has been designed in line with their values and best interests in mind.

What could possibly go wrong; and why it won't

There is always someone eager to find fault with any project, particularly one as forward thinking as this one. Therefore, we've taken pains to anticipate the doomsayers and explain why there doesn't have to be a problem.

- **Maintenance:** In addition to what has been addressed above, some edible landscape plants are susceptible to certain plant pests and diseases that are less commonly encountered on other landscape plants. All plants are unique and are potential hosts to different sets of plant pests. Again, some minimal training, as well as utilization of Agricultural Extension services like disease identification and prescribed treatment options, can minimize this potential problem.
- **Damage by string trimmers:** A significant issue that has occurred repeatedly in plantings of all public landscape installations has been their subsequent destruction by maintenance workers while attempting to manage weeds with string trimmers. Some desirable species are not always recognized as such and are mowed down. Young trees and other woody plants are particularly susceptible to "girdling", where a string trimmer damages the bark all the way around the base of the stem which weakens, kills, or deforms the plant.
This is at heart an education issue, but there are other approaches to avoid this problem.
 - Along with training the maintenance staff, plants should be clearly marked with signage or flagging to make them more visible. Since we are proposing labeling plants as part of the educational component of the landscape, there shouldn't be any additional expense.
 - Protect new plant installations from girdling with guards such as wire mesh, lengths of thick plastic tubing, or other products made for this purpose, placed around the bottom of the stem. This should be done regardless the type of plant, so there is no additional expense here.
 - Source and install plants that are large enough to have established thick bark and a larger caliper trunk. Although this clearly jump-starts the maturity of the landscape, it is both expensive and not necessarily effective alone. Therefore we don't particularly recommend it, but include it in the interest of thoroughness.
- **Lack or loss of interest:** This is only a potential problem if the Town of Woodfin was depending exclusively on volunteer labor for maintenance; which it is not. The parks and greenways will have to be maintained. However, to the extent that Town

management is interested and willing to recruit and to some extent orchestrate the available volunteer community, maintenance costs can be substantially reduced and the quality of maintenance probably increased.

- **Perceptions of safety:** Safety issues are a valid concern in any public space and following are some that might be expected to arise when edible or pollinator-friendly plants are proposed for the landscape.
 - **Stinging insects:** Virtually all flowering plants attract pollinators, and virtually all landscapes are home to some stinging insects. While it is true that many pollinator insects have stingers, they are generally only aggressive when their hive is threatened, or when they themselves are actively being threatened. These creatures are rarely hostile when feeding as they would prefer to collect food rather than risk their lives by stinging a harmless passerby.

Most of these insects are much more beneficial than they are harmful and the benefits provided are many, including not only pollination but the predation and control of other less desirable insects, including plant pests. Planting to support a diversity of pollinator species only helps to increase species richness, and doesn't significantly increase the likelihood of a person being stung.

- **Bears:** It is true that bears are sometimes attracted to edible landscapes such as fruit and nut trees or berry bushes. While this may arouse some fears and concerns, it is unlikely that the establishment of edible landscape plants themselves will actually increase the risk of bear attacks. Black bears are much more likely to run away if confronted or threatened and are only likely to approach people if they have been directly fed by humans, or have acquired a taste for calorie-rich human food. The fact is, bears are more likely to be attracted by garbage because they have "food" deposited into them on a daily basis, while fruit trees only yield during certain times of the year.

Further, landscapes such as parks and greenways are typically designed to be open and have high visibility, making the chances of a surprise encounter highly unlikely. The biggest threat from bears in edible landscapes is to the plants themselves, as bears can sometimes damage small trees and shrubs while trying to reach the fruit.

Finally, bear concerns can be minimized by ensuring there is a minimum of ripe fruit or fallen fruit remaining on the ground at any given time. In many cases, there is more likely to be a shortage of ripe and fallen fruit due to popularity of the fruit and over-harvesting by humans as well as birds, squirrels, and other animals.

- **Pollen Allergies:** Pollen allergies are almost universally caused by plants which disperse their pollen into the blowing wind and don't need to attract insects. Plants that attract pollinators require showy flowers to entice the insects and hummingbirds to disperse the pollen from flower to flower. Therefore, most perennial edibles and by definition virtually all pollinator attractant plants are not triggers for pollen allergies.

- **Trip or Slip Hazards:** Trip or slip hazards are no more of a risk from fruit than they are from sticks, pinecones, our native black walnuts, sweetgum balls, or acorns. It could happen anywhere, for any reason, and seldom does, at least as a consequence of the type of plants planted.
- **Eating Toxic Fruit:** PEN landscapes do not promise or even imply that all plants (and all parts of plants) are edible in a given landscape. Basic common sense keeps reasonably intelligent people from eating a fruit or a leaf that they don't recognize, and most edible fruits and nuts native to this region have few dangerous lookalikes. There is no reason why a person would be more likely to misidentify and eat a toxic plant in a PEN landscape than in a conventional park.
- **Rotten fruit, rats, fruit flies, and smell:** Other concerns about edible landscape plants, particularly fruits, is that they will drop an abundance of unharvested fruit which will then rot on the ground and attract rodents or fruit flies, and that it will smell bad. In practice, this is rarely a significant issue of concern. See the following section for details.
- **Over-harvesting, greed, and birds:** Far more often than rotting fruit and pests, people working in and engaged with edible landscapes complain that most or all of the harvest from a given fruit tree is gone before there is a chance to harvest it. Usually this is due to either over-harvesting by one or more individuals taking more than a fair share, residents harvesting fruit before it is ripe, or both. In the case of very small fruits such as service berries or blueberries, birds rather than humans are generally the primary beneficiaries. In other words, the risk that fruits will be picked too much and too early is often greater than the risk that they will end up lying rotten on the ground and attracting pests. This might be interpreted as a situation where demand often exceeds supply, indicating that edible landscapes are generally far more beneficial than they are problematic.

Non-Native Invasive Plants

Invasive plants are those that have been brought into areas, and this can happen accidentally or on purpose. They are often referred to as "exotic," "alien," "introduced," or "non-native" species. In their natural range, these plants are limited by factors that keep them in balance including pests, herbivores, or diseases. However, when introduced into an area where these limitations are absent, some species can become invasive.

Invasive plants reduce habitat for native wildlife by out-competing the natives; they "take over" native plants' habitats. They often emerge earlier in the spring and push natives out through fast reproduction. This limits habitat available for native wildlife and disrupts the food chain.

One example is the invasive plant, garlic mustard. Native butterflies lay eggs on garlic mustard, and they either die or the caterpillars don't properly grow. Other ecological impacts include: changes in availability of water, light, and nutrients; disruption of native plant-pollinator relationships; serving as host reservoirs for plant pathogens; replacing nutritious native plant foods with lower quality sources; killing trees and shrubs through girdling; changes in the rate of soil erosion; and changes to natural ecological processes, such as plant community succession.

Invasives also cost money. According to the U.S. Fish and Wildlife Service (PDF), the U.S. spends more than \$120 billion on invasive species each year. Farmers spend money on insect pests and invasive plant control such as bindweed.

What to do

Invasive plants can be difficult to control. But by taking some steps as the parks and greenways are developed, and being vigilant on the go forward, we can help limit the spread of these troublesome plants. The following is from the North Carolina Native Plant Society:

To reduce invasive plant invasions, we must approach the problem in a variety of ways:

- stop planting them,
- prevent accidental introductions,
- manage existing infestations,
- minimize disturbance to forests, wetlands, and other natural communities,
- and learn to work with (rather than against) natural systems and cycles.

Summary

Woodfin is being presented with a unique opportunity to enhance the work that is being done with the parks and greenways by creating something that can be justifiably promoted as a 'must see' installation; a destination. Furthermore, Woodfin is in a position to succeed where other cities, Asheville among them, have failed. There are at least three reasons why Woodfin will succeed.

First among them is the unity of the Board of Aldermen to do the very best for the town. Although there are occasional disagreements, by the time a decision is reached consensus has almost always been forged. Unity of leadership is a key component of almost any successful endeavor.

Management and staff of Woodfin are in close communication so there is seldom a case of one department doing something without everyone 'in the know'. Contrast this to Asheville, for example, where their bureaucracy is large and frequently with apparently little or no communication between them. One example is of a similar publicly planted edible park that was mowed down by another department.

The third leg for success is a small but very capable and dedicated Maintenance Department. It is on their shoulders that the bulk of the work will fall and they have consistently shown themselves to be up to the task.

Appendix A: Some Plant Candidates

Common Name	Botanical Name	Type	Native	Supports Pollinators	Edible
Alleghany serviceberry	<i>Amelanchier laevis</i>	Tree	Yes	No	Yes
American Hazelnut American Filbert	<i>Corylus americana</i>	Shrub	Yes	No	Yes
American persimmon	<i>Diospyros virginiana</i>	Tree	Yes	Yes	Yes
Apple	<i>Malu spp.</i>	Tree	No	No	Yes
Basswood American Linden	<i>Tilia americana</i>	Tree	Yes	Yes	Yes
Chestnut	<i>Castanae spp.</i>	Tree	Yes	No	Yes
Eastern Redbud	<i>Cercis canadensis</i>	Tree	Yes	Yes	No
Inkberry Holly	<i>Ilex glabra</i>	Shrub	Yes	Yes	No
Mulberry	<i>Morus spp.</i>	Tree	Yes	No	Yes
New Jersey Tea	<i>Ceanothus americanus</i>	Shrub	Yes	No	Yes
Ninebark	<i>Physocarpus opulifolius</i>	Shrub	Yes	Yes	No
Northern and Southern highbush blueberries	<i>Vaccinium spp.</i>	Shrub	No	No	Yes
Northern and Southern lowbush blueberry Var's: Sunshine Blue, Hillside Little Crisp, among others	<i>Vaccinium spp.</i>	Shrub	Yes	No	Yes
Oakleaf Hydrangea	<i>Hydrangea quercifolia</i>	Shrub	Yes	Yes	No
Pawpaw	<i>Asimina triloba</i>	Tree	Yes	Yes	Yes
Service berry, Sarvis	<i>Amelanchier arborea</i>	Tree	Yes	Yes	Yes
Southern Magnolia	<i>Magnolia grandiflora</i>	Tree	Yes	Yes	No
Virginia Sweetspire	<i>Itea virginica</i>	Shrub	Yes	Yes	No
White Oak	<i>Quercus alba</i>	Tree	Yes	No	Yes
Witchhazel	<i>Hamamelis virginiana</i>	Tree	Yes	Yes	No

Appendix B: References

Note: The Internet is frequently the most current and readily accessible source of information, particularly of scientific information. The references below are links. If you are viewing a digital version of this proposal, you can “Control + Click” to follow the link. If you are reading a printed version, please type the reference into your browser’s search engine.

There are too many books, articles, blogs, webinars, and presentations to attempt to make an exhaustive list. The following is a small sample of the wealth of information available. Please explore.

What Are These Plants?

- Pollinator-friendly plants
 - [US Fish and Wildlife Service, Pollinators: What You Can Do](#)
 - [Xerces Society - Pollinator Plants: Southeast Region](#), Free .pdf download
 - [Pollinator Friendly Alliance: Bees and Pollinators](#) – Extensive webinar series
- Native Plants - [US Forest Service, Native Gardening](#)
- Edible Plants –
 - [Bountiful Backyards, Edible Landscaping](#)
 - [Design and Planning of Edible Landscapes \(As Public Open Space\)](#) a 16 page .pdf covering all aspects of edible landscaping, with additional book reviews
 - TED Talk: [How we can eat our landscapes](#) with 1.25 million views

The Benefits

- To our Natural Surroundings - [American Society of Landscape Architects, Sustainable Residential Design: Applying Ecological Design](#)
- To the Town - [Centers for Disease Control and Prevention, Healthy Places - Healthy Food: Community Gardens](#)
- To Residents - [Ellison Chair in International Floriculture, Health and well-being benefits of plants](#)
- To other visitors and tourists - [TakePart, In These Cities Your Next Snack may be Growing in a Public Park](#)
- Food Resiliency – [Resilience.org, 20 Urban Food Forest Gardens From Around the World](#)
- Education - [American Trails, Educating Trail Users: advice for planning interpretive trail signs and exhibits](#)

How is it different?

- Cost - Costs of plant materials are highly variable. Please refer to your local nurseries or landscape contractors.
- Sourcing - Refer to local nurseries and landscape contractors regarding the sourcing of plant stock. Some species and varieties may need to be sourced by local nurseries slightly further in advance in order to obtain large bulk orders.
NC State Going Native - [Where to Get Native Plants](#)
[North Carolina Botanical Garden](#)
[North Carolina Native Plant Society](#)
- Installation - Installation of PEN landscapes is very similar to other landscape approaches.
 - Make planting hole 2 to 3 times as wide as the root ball.

- Make sure the root ball of shrub or tree is level with ground.
- Make sure plant's root collar is above soil.
- Use original soil when backfilling the planting hole.
- Water thoroughly at time of planting.
- Water frequently for first year.
- Management - [NC Cooperative Extension, Why Not Try Edible Landscaping?](#)
- [Native Landscape Maintenance Schedule](#)

Cost Saving Opportunities

- Landscape Businesses - These would be arrangements made on a case-by-case basis, as with any other sponsorship of a public product or service by a business.
- Nurseries - These would be arrangements made on a case-by-case basis, as with any other sponsorship of a public product or service by a business.
- Volunteers - [Buncombe County Fruit and Nuts Club](#)

What could possibly go wrong; and why it won't

- Damage by string trimmers - [Purdue Extension, Mechanical Damage to Trees: Mowing and Maintenance Equipment](#)
- Perceptions of safety
- Stinging insects - [Pollinator.org, Pollination Fast Facts for Gardeners](#)
- Bears - [North American Bear Center, How Dangerous are Bears?](#)
- Pollen Allergies - [NC Cooperative Extension, Pollinator Gardens](#)

Non-Native Invasive Plants

- NC State Going Native – [Invasive Species](#)
- [Invasive Exotic Species List - NC Native Plant Society](#)
- National Invasive Species Information Center: [North Carolina state-specific resources](#) with an interest in the prevention, control, or eradication of invasive species.

Other places, related ideas

- [How we can eat our landscapes](#) - Pam Warhurst TED Talks Spring 2012
- [Incredible Edible Network](#) - inspiring new groups and providing more people with information about food activism and community resilience.
- [The Edible City](#) - Klara Hansson TED Talks 2015
- [The new neighborhood trend — lawns made of food](#), TED X Innovations Blog