

# APPLICATION FOR COMMUNITY PRESERVATION FUNDING



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Mayor

Submit to Jennifer Goldson, CPA Program Manager  
Newton Planning and Development Department  
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617-796-1120 ext. 1131

The Newton School Department

Name of Applicant<sup>3</sup> \_\_\_\_\_

Name of Co-Applicant, if applicable The Bowen Elementary School PTO

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Name of Proposal The Bowen Park Initiative

Address of Proposal (or assessor's parcel id) 65019 0046

CPA Category (circle all that apply):  Open space  Historic preservation  Recreation  Community housing

CPA Funding Requested 181,840 Total Cost of Proposed Project 233,820

**PROJECT DESCRIPTION:** Attach answers to the following questions. Applications will be returned as incomplete if all requested information is not provided. Include supporting materials as necessary.

1. **Goals:** What are the goals of the proposed project?
2. **Community Need:** Why is this project needed? Does it address needs identified in existing City plans?
3. **Community Support:** What is the nature and level of support for this project? Include letters of support and any petitions.
4. **Timeline:** What is the schedule for project implementation, including a timeline for all critical milestones?
5. **Credentials:** How will the experience of the applicant contribute to the success of this project?
6. **Success Factors:** How will the success of this project will be measured? Be as specific as possible.
7. **Budget:** What is the total budget for the project and how will CPA funds be spent? All items of expenditure must be clearly identified. Distinguish between hard and soft costs and contingencies. (NOTE: CPA funds may NOT be used for maintenance.)
8. **Other Funding:** What additional funding sources are available, committed, or under consideration? Include commitment letters, if available, and describe any other attempts to secure funding for this project.
9. **Maintenance:** If ongoing maintenance is required for your project, how will it be funded?

**ADDITIONAL INFORMATION:** Provide the following additional information, as applicable.

10. Documentation that you have control over the site, such as Purchase and Sale Agreement, option, or deed.

<sup>3</sup> If the proposal is on City-owned land, either the applicant or the co-applicant must be the City Board, Commission, or Department in control of the land.

11. For projects that include construction or rehabilitation, include the existing and proposed site plan, floor plans, elevations, and any other drawings as necessary to visually describe the proposal.
12. Evidence that the project is in compliance with the zoning ordinance, Architectural Access Board Regulations, or any other laws or regulations. Or, if zoning relief is required, specify what relief is needed and when an application will be made to the City for zoning review.
13. Evidence that the appropriate City Boards and Commissions have approved the project (for example, proposed new uses on Parks & Recreation land requires approval from the Parks and Recreation Commission)
14. Evidence that the proposed site is free of hazardous materials or that there is a plan for remediation in place.
15. Evidence that appropriate professional standards will be followed if construction, restoration or rehabilitation is proposed.
16. Information indicating how this project can be used to achieve additional community benefits.

NOTE: If the requested funds are for a real estate acquisition, an independent appraisal will be required which the applicant will be required to fund initially. No funding decisions will be made without an independent appraisal. Contact Jennifer Goldson, CPA Program Manager, at 617-796-1131 or [jgoldson@ci.newton.ma.us](mailto:jgoldson@ci.newton.ma.us) to arrange for an independent appraisal.

Refer to the City web site ([ci.newton.ma.us/Planning/CPA](http://ci.newton.ma.us/Planning/CPA)) for further information.  
Form CPA-1 (Revised 9/11/03)

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**THE BOWEN PARK INITIATIVE**  
COMMUNITY PRESERVATION ACT APPLICATION  
October 2005

**Introduction**

In the last several years, Newton Centre has experienced explosive growth. The Bowen/Thompsonville neighborhood, in particular, has been hard hit: Newton Terraces, The Residences, several new smaller townhouse complexes on Langley Road, Hebrew College, and an Avalon complex (with another on the way). The full impact of this development has yet to be felt – especially in terms of school population, traffic, and utilities. But many aspects of the neighborhood are already irrevocably changed. Most of the trees between Cypress Street and Langley Road are gone. The ease of negotiating traffic at the Langley/Route 9 light is a thing of the past. A quick jaunt to the mall no longer seems possible most times of day. And water pressure can be dubious.

Clearly, these changes have had a considerable impact on the quality of the Bowen/Thompsonville neighborhood. Moreover, these changes are viewed by many neighborhood residents as both negative and pervasive. For Newton maintain its characteristic leafy appeal, preservation and improvement efforts are essential.

When Newton Terraces razed eighteen acres of trees, the community galvanized. At a large “Tree Ceremony” in the Bowen auditorium, neighbors, families, local politicians and activists joined students to mourn the loss of the local woods, and to “honor trees” in general. Tree songs were sung and people on the stage, Alderman Ken Parker and Mayor David Cohen among them, acknowledged what a significant loss this represented for the neighborhood. In an outside ceremony that continued throughout the afternoon, students and community volunteers wrote poems to trees on scrolls, and buried them in the schoolyard. Hundreds of donated blue spruce seedlings were planted by children in the schoolyard as well as at homes around the neighborhood.

Aggravated drainage problems have been another disastrous, if unintended, consequence of this over-development. Existing flooding problems have worsened considerably: the schoolyard sometimes sports a puddle fifty feet long, a waterfall sometimes rushes down the hillside onto Cypress Street and basements flood. It can take days for the ground to dry out, prohibiting community use of the playground, as well as presenting mosquito risks. The ground stays wet in some areas for weeks after a rainfall, and mud and ice are problems as well.

For this reason, among others, the Bowen Park Initiative was formed. The Bowen Park Initiative is seeking CPA funding in the amount of \$181,840, as well as other community support to improve the property in

both the open space and recreation categories. The Initiative plans to institute conservation measures, which will aid in the maintenance of the Park. Lastly, the educational benefits that will flow from these improvements constitute a third area of improvement.

The Open Space goal of the Initiative is to:

- 1) undertake a community-wide habitat restoration effort and protect and revive the Bowen Woods, which links the Upper Field with the Bowen Park.

The Recreation goals of the Initiative are to:

- 2) enhance the park by creating shaded sitting areas, installing an Amphitheatre on a slope that is currently unusable; planting a lawn; building walkways; and replacing the oldest play apparatus.

While working towards these goals, the Initiative plans to be as conservation-minded as possible. The Initiative has made a commitment to avoid herbicides as much as possible, and rejected an irrigation system. All table and bench installations will be made of recycled plastic. Also, the Initiative has plans to institute conservation practices such as composting and water collection in rain barrels.

In addition, the Initiative will be enhancing the outdoor classroom at Bowen School, as well as creating volunteer opportunities for the Newton community. The Initiative will draw from a talented and varied group of people to generate standards-based curriculum materials, with educational tie-ins in all subject areas, but especially in science and social studies. We have assembled a team of educators and volunteers that includes: Bowen teachers and staff, parents, and the City's Science Curriculum Coordinator. In addition, the Initiative is actively pursuing collaboration with Angino Farm as a pilot educational program for the spring.

The PTO has already raised and dedicated \$10,000 to the Bowen Park Initiative, the Initiative itself has raised \$7,000 in private donations or pledges, and there are commitments for in-kind donations valued at over \$25,000. In 2006 Bowen is slated to receive \$12,500 from a city fund earmarked for playground equipment.

In order to achieve some of these goals, Bowen must first remedy a longstanding flooding problem. Improvements to the drainage system are currently being designed by City engineers. The School Department will put the construction out to bid as soon as the design is complete – before the end of the year. The cost of repairs to the drainage system will be roughly \$24,000 and will be covered by the School Department, unless the bids are too costly, in which case the Department of Public Works may help with this aspect of the project (for a detailed description

of the drainage problem and repair, see Attachment A and accompanying photos, Attachment B, as well as the Engineering Department's quote, Attachment C).

Lastly, to maintain a construction schedule that honors the school calendar and takes advantage of appropriate seasons for planting, this proposal would need to go out to bid as early as possible in the year 2006. Even that will be a tight schedule.

## **1. GOALS**

### **A. OPEN SPACE – BOWEN WOODS RESTORATION**

The near-acre of woods situated between Bowen Elementary School and the Upper Field is one of the only remaining canopies in Newton Centre. With the recent loss of 18 acres of woods on the abutting Newton Terraces property, the protection of this mature canopy is vital. Not only will it help preserve the green character of the neighborhood, it will be appreciated by humans and wildlife alike.

Because the Bowen Woods link two fields, their protection will help preserve a small but beautiful green corridor. Further, within these woods, rock outcroppings unique to this area are found in abundance. Puddingstone ledges stretch from Newton Centre to West Roxbury, with significant rock faces along Hammond Pond.

Home to woodpeckers and screech owls, these woods have been well-explored by Bowen students and neighbors in the past. However, they are currently off limits to all, as many of the paths are impassable and poison ivy grows rampantly.

Sadly, the disrepair of the woods goes beyond poison ivy and overgrown paths. According to a botanical study by a New England Wildflower Society student, "exotics threaten the diversity of species currently living in the woods. As biodiversity decreases, the ecosystem health will, too." The study identified the Norway maple as posing the biggest threat. More than half a dozen other problematic exotics were cited, including oriental bittersweet, garlic mustard, and buckthorn bushes. The poison ivy, though native, poses many dangers for humans and therefore must be better controlled.

The Initiative will follow an Exotics Management Plan developed by the New England Wildflower Society (for more detail, see Attachment D). It will be conducted in three phases, engaging broad community participation at every phase:

Phase One: the first round of removals will begin in the spring of 2006. This will be a collaborative effort between the Parks and Recreation Department, neighborhood volunteers, NewtonSERVES

volunteers, Bowen students and parents. We will avoid herbicides as much as possible, relying instead on vigilance and mechanical strength. Paths will be re-established and some planting will occur during Phase One.

Phase Two: beginning in the fall of 2006, major planting of the understory with native woodland plants will occur. These plants will be put in the ground by teams of volunteers, including elementary school students. Two large caliper oaks will be planted by the City's arborist.

Phase Three: a second aggressive round of removals will take place in the spring of 2007. Educational signage will be installed.

In subsequent years, spot checks will be required to keep the invasive plants under control.

This acre of woods is ideally situated for enriching children's outdoor learning. Many of the exciting educational opportunities offered by the Bowen Woods are addressed in Section D(4) below.

#### B. RECREATION – RENOVATE THE PARK

The second major area of improvement is the renovation of the Bowen Park (see Attachment E, "Master Plan" ). Presently, there is nowhere comfortable to sit and inadequate shade. Parents and other caretakers often congregate on the stoop outside the gym door, or squat on the beams around the play structures. While a wheelchair ramp connects the side exit of the building to the schoolyard, that walkway abruptly ends, making the play structures and areas behind the basketball court inaccessible to some. The improvements listed below will greatly enhance both the recreational and functional aspects of the Bowen Park. The Initiative plans to:

- 1) Create a grassy surface by amending the soil and seeding the playing field.
- 2) Build accessible walkways that connect the Bowen Woods, picnic area, new benches, play structure and swings, and the Amphitheatre.
- 3) Create pleasant, shaded seating by installing benches and tables and planting clusters of deciduous trees. These areas will be ideal for picnics, meetings, school recess and community gatherings. One picnic table will be situated on a concrete pad and designed with an overhang and a permanent stool on opposite ends to accommodate people using wheelchairs, canes, or crutches (see Elevation, Attachment F).



- 4) Build an Amphitheatre at the edge of the woods, featuring a two-foot retaining wall that can seat 15, and sloping earth in front for additional seating of 15 to 25 on the ground. The rear of the wall will be lined with native shrubs and feature a French drain. The Amphitheatre will occupy a section of the Park currently unusable due to erosion, and provide comfortable seating for outdoor classes and community events (see Elevation, Attachment G).
- 5) Maximize use of the basketball court by repositioning the hoops and resurfacing the court to allow local teenagers and adults playing basketball to engage in full-court play.
- 6) Replace outdated and decrepit playground equipment, some of which no longer meets code requirements. A new structure was designed and selected to complement the equipment that will remain. The new apparatus will provide more places to swing than before, as well as increased opportunities for those with handicaps. The ages that use this equipment all year round range from preschoolers to teens, and will likely increase with these enhancements.

Among the new structures are:

- Swings: In response to frequent complaints about the inadequate number of swings, the Initiative will replace the existing five swings with eight new swings, including a new seat with a strap for use by toddlers and handicapped children, and a tire swing that seats three.
- Climbing structure: Since the existing "spider" does not meet code requirements and needs to be moved to make room for the increased number of swings anyway, it will be replaced by a state-of-the-art rope and metal apparatus that is very popular in other playgrounds.

The wood used in the new equipment will not splinter nor will it leech any hazardous materials into the soil. Also, the coated metal bars will not chip or peel, as some previously purchased equipment has.

The Initiative was advised by Stephanie Pelkowsky of the Newton Parks and Recreation Department on the selection, design, and choice of equipment manufacturers, and distributors (see Attachment H, Playground Equipment Elevation). In addition, input was gathered from Bowen students, parents, teachers, neighbors, and the director of BASCP, generating a lengthy wish list, which we were able to honor to a great degree.

Taken together, all these improvements to the Bowen Park will appreciably enhance visitors' enjoyment and use. The Park renovation will not only increase the amount of time that the area can be safely used, it will also expand the kinds of active and passive uses possible. Picnicking, community gardening, bird and butterfly watching, child supervision, gatherings in the Amphitheatre (for outdoor classes, performances or school fundraisers), climbing, swinging, digging, playing full-court basketball, kickball, whiffleball and more. Sight lines will be maintained, while seating and trees will add comfortable gathering places. This already well-used and cherished park will be even more beloved for generations of children, their families and Bowen-Thompsonville neighbors.

### C. INSTITUTE CONSERVATION PRACTICES

The pilot phase of a composting program has commenced this fall and we expect it to be in full swing by the fall of 2006. Workshops for third and fourth grade Bowen students have been scheduled for this year with Barbara Hersen, the City's recycling maven. Bowen's art teacher, Ms. Amber Wenger, is coordinating these efforts. Ms. Wenger brings her passionate commitment to environmental education to Bowen students in a whole host of ways. During their Project Explore afternoons -- afternoons devoted to interdisciplinary exploration -- she has had the children designing "Dream Gardens", building totem poles out of recycled materials, writing poems to trees, planting bulbs, installing outdoor fabric art, and making paper with natural inclusions, to name just a few activities with environmental links. Ms. Wenger has communicated both with the City's environmental office and Bowen's lunch staff, so in addition to being educational, this venture stands to be realistic and hygienic.

The Initiative's water collection efforts share these educational and conservation goals. We will begin with the purchase and installation of three rain barrels in the spring of 2006. These barrels will be linked together, screened to prevent mosquito breeding, and equipped with spigots and an overflow hose. The overflow and contained water will be used to nurture our gardens, and should reduce water runoff into the low, soggy spots of the schoolyard. Like the composting effort, this practice will demonstrate to children on a day-to-day basis how easy and cost-effective it can be to conserve resources.

The goals of these programs are five-fold: 1) reduce waste and water that collects in the schoolyard; 2) provide nutrient-rich compost and water for the Park's gardens; 3) teach children that composting and water-collection, like paper and bottle recycling, can be ordinary, everyday activities; 4) model conservation practices for other Newton institutions; and 5) save money.

## D. EDUCATION

According to one theory of learning, we are “hard-wired’ to affiliate with natural environments, needing such affiliation in the same way we need contact with other people.”<sup>1</sup> Another study performed on adults who live near pockets of nature, concluded that “[t]he immediate outcomes of contacts with nearby nature include enjoyment, relaxation, and lowered stress levels.” It would seem, then, that everyone benefits from having some natural beauty in their neighborhood.

### 1) Outdoor Learners Perform Better Academically and Socially

Bowen Elementary School’s commitment to interdisciplinary learning outdoors makes us part of a ‘schoolyard habitat’ movement that is gaining momentum nationwide. Like other communities, we are recognizing the costs of having children indoors too much, scheduled too much, and over-focused on achievement. A 1999 study on schools with interdisciplinary outdoor programs found that students at these schools:

- perform better on standardized tests,
- earn higher grade point averages across the curriculum,
- improve their attendance record,
- improve their in-school behavior,
- show an increased ability to think creatively, and
- demonstrate improved problem-solving abilities.<sup>2</sup>

Furthermore, the Initiative’s intention to include food crops and trips to Angino Farm, means that a generation with increased risks for obesity will learn important facts about nutrition and health. By growing produce, learning about nutrition and food preparation, the Initiative hopes to provide these young people with the simple pleasures of slowing down, sitting down, and eating fresh foods. This is a community-building endeavor, particularly if we affiliate with Angino Farm and recruit senior volunteers.

### 2) Who is Involved – The Outdoor Classroom Committee

Curriculum materials will be crafted by a talented team comprised of teachers, parent volunteers, the Educational Outreach Coordinator for Newton Community Farm, Inc., Bowen’s principal,

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<sup>1</sup> From National Wildlife Federation’s website, quoting Kellert, S. (1993). Introduction. In S.R.Kellert & E.O. Wilson (Eds.) *The Biophilia Hypothesis*. Washington, D.C: Island Press/Shearwater.  
[www.nwf.org/habitats/schoolyard/program](http://www.nwf.org/habitats/schoolyard/program)

<sup>2</sup> Lieberman, Gerald A. and Linda L. Hoody, eds., *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning*. State Education and Environmental Roundtable San Diego, 1999. Download report: [www.seer.org](http://www.seer.org)

Dr. Patricia Kelly, and Newton's Science Curriculum Coordinator, Kelley Gangi. (Please see "Credentials", Section 5). The parent volunteers have committed to writing a series of mini-grants to obtain funding for the teachers' efforts, to pay for busses for field trips to Angino Farm, and for some supplies. All curriculum materials developed will be created (or adapted from existing curriculum) to help children achieve specific benchmarks. It will be written down, supplemented with photographs, and made available to all interested parties.

Keeping in mind that teachers already have enough preparations and accommodations to make in the classroom, the Initiative's Outdoor Classroom Committee will create activities that complement and strengthen existing curriculum. Projects will be designed to dovetail with specific units, so that teachers can easily incorporate them.

### 3) Raised Beds/Angino Farm Collaboration

Bowen Elementary has stepped forward as a willing, eager and prepared participant for the pilot season of educational outreach at Angino Farm. We have met with the Newton Community Farm, Inc. – the group responsible, as the CPC knows, for writing the Angino Farm's CPA application. They support our efforts, welcome collaboration, and have mentioned Bowen School in their initial presentation to the newly-appointed Farm Commission. The Initiative was also present at that meeting. We are in the process of collecting grant information, curriculum ideas, and possible ways to engage students with the Farm later in the year.

Bowen has been gardening in three outdoor raised beds for several years. The Initiative proposes building three more, which will double our growing space. A total of six raised beds would enable each grade plus Bowen After School Care Program to garden a sizeable section of a bed, with space left over to run experiments. The experimental section of the garden beds will be a place for students to change variables such as soil composition, sun exposure and crowding and then observe differences. These experiments will help them channel their natural curiosity into a more systematic scientific inquiry, meeting a new academic benchmark in the process.

Activities will change as the curriculum is developed, but initially, our goal is to have each class plant a vegetable or herb that matures very early in the spring or late in the fall, so that the students can learn from the entire cycle of growth. Plants will be chosen that complement the curriculum. For instance, kindergarteners, who study bulbs, may grow garlic and onions. First graders may want to continue planting sunflowers, perhaps

making bird feeders from recycled materials to fill with purchased seed during the winter. Second graders, who study fast plants, might grow a salad garden, incorporating a fresh-grown snack and a lesson on nutrition with their science. Third graders study colonial and native Massachusetts settlements, and could grow antique herbs or squash with seeds ordered from The Eastern Seed Conservancy, as we have done in the past. These ideas can be implemented this fall and spring.

#### 4) The Bowen Woods – Restoration and Outdoor Classroom

The Bowen Woods, situated just steps from an elementary school, are ideally situated as an outdoor classroom. Before the poison ivy took over the pathways, children were routinely led on nature walks, where they examined decomposing logs for bug life, looked for insects in leaf mold and for salamanders under rocks. They have sifted through soil to study its composition, listened for woodpeckers, and spotted ferns.

The Bowen Woods will be used extensively again, once the poison ivy is under control and the paths are re-established. In 1994, Bowen kindergarten teacher, Jane Walsh, and Bowen parent and professor of botany, Richard Primack, developed a curriculum for the Bowen Woods. It references particular features of the Woods, including certain trees, and the rock ledges. It capitalizes on elementary students' sense of wonder, and helps foster a sense of shared ownership and responsibility for this natural area.

It is expected that participating in the habitat restoration itself will also instill a sense of stewardship. It may be a once-in-a-lifetime experience for many. The larger community will be involved through NewtonSERVES and possibly other community groups as well (such as S.O.A.R., members of Bowen Thompsonville Neighborhood Association, the Boy Scouts, and Newton Pride). Every grade at Bowen will have a hand in the project. Beginning with pulling out weeds such as garlic mustard to watering newly planted wood violets, this will be a collective project, with learning at every turn. Eradicating prolific invasive plants, for instance, will provide a dramatic lesson on changes in ecosystems wrought by non-native plants.

Many children do not garden, do not live with parents who garden, or near grandparents who garden. The big backyard vegetable plot is a rarity in Newton Centre. After gardening with students at Bowen for several years now, it is my conclusion that children are intensely eager to "get digging". They love mucking about in dirt, finding worms, and watering plants. Especially for younger children, even the most basic of activities are sources of delight and learning.

Planting native perennials and shrubs in the Bowen Woods is just the kind of activity most children crave. It will continue the learning experience about the benefits of native species, while demonstrating how to properly plant shrubs and perennials. The long-term aspects of care will also be instructive. Learning the names of plants, seeing them in different seasons, and learning plant botany and lore, will all add to Bowen students' knowledge of the natural world. In addition, understanding that certain species being planted are rare or endangered ought to increase everyone's sense of pride in the project – while acting as a much-needed tonic to all the negative environmental news that even young children hear today.

Adults caring for the environment through a tangible, group effort also ought to be inspiring and reassuring to our children. What they learn may even be transferred to their “home habitats”, continuing a healthy trend of introducing native trees and bushes when possible, and eradicating troublemaking invasives. Increasingly conservationists are recognizing the importance of “micro-habitats” in preserving biodiversity, especially in heavily populated areas like Newton.

Documentation of the Woods Restoration will occur in several ways, and will be an integral part of its educational value. The older grades will photograph the habitat restoration, from start to finish, posting the progress of the project on the school's website. In year two, fifth grade students will create presentations about the Restoration. The use of digital cameras, the school's website, and computer graphics will provide students with real-life applications for such technology and teach them about accountability and documentation as well. The presentations will be brought to funding groups and other schools, if requested.

#### 5) Weather Stations

We are also requesting funding to install four simple weather stations. Four out of six grades at the elementary level study weather in Newton, so this will be a great addition to the science curriculum. These stations will be basic, vandalproof, and situated in varying places (e.g. shaded and sheltered, sunny but exposed, sunny and sheltered). They will be designed to permit even the youngest students to collect scientific data. We will also establish “Observation Points” in the Bowen Woods and Park, where students will carefully study and record changes in plant growth throughout the year. The results of students' efforts will be housed in the library, available to all. Dr. Richard Primack, who studies the correlations between climate change and cycles of plant growth, will adapt his Boston University graduate program for

Bowen students. Kelley Gangi operated weather stations in another school district and has advised us on suppliers, and will also help us implement this component of our outdoor classroom.

#### 6) Attracting Birds and Butterflies

Bowen already has a Butterfly Garden and a native shrub and perennial bed that attract birds. The sunflowers and mullein that grow around the school also attract birds. In addition, a local Daisy troop made birdhouses last year, which have been hung along a fence. However, our bird feeders were stolen, and we do not have a bird bath. Birdfeeders (made vandalproof this time) and a bird bath (mounted with rebar in a concrete footing) would let us apply for certification under the National Wildlife Federation's "Schoolyard Habitats" program (because the Park would then be providing food, water and shelter).<sup>3</sup> This program provides curriculum, newsletters, on-line resources, and would post results of our efforts in their "National Register of Schoolyard Habitats Sites." The PTO could also then sponsor Bowen's participation in "Classroom FeederWatch", an educational curriculum with print and on-line resources created by the Cornell Laboratory of Ornithology. According to [www.birds.cornell.edu](http://www.birds.cornell.edu), "students learn how science and scientists work, and in the process become scientists themselves." These outdoor resources would also be enjoyed by local Brownie and Cub Scout troops seeking to learn more about birds.

Bowen's existing Butterfly garden is already the site for yearly butterfly releases (see Attachment I). Tending and supplementing the plantings in this bed could become a part of the second graders' regular, yearly activities, serving not only to deepen their knowledge about butterflies, but also about this particular insect's complex interrelationship with the plant world.

#### 7) Bowen's Gardening History

Bowen Elementary has a multi-year history of gardening, which has prepared it for a more formal program and partnership with Angino Farm. By jumping in with both feet, Bowen will help Angino Farm reach out to the greater community more quickly than it might otherwise. This list will give some idea of the momentum that exists at Bowen:

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<sup>3</sup> "The planning, design, implementation, and on-going monitoring and maintenance of a Schoolyard Habitats project provides endless opportunities to meet and exceed high academic standards across the curriculum. Teaching with the Schoolyard Habitats site as an integrating context across the subject areas can both support and deepen the quality of instruction and student engagement." From: <http://www.nwf.org/backyardwildlifehabitat/whycreateasite.cfm>

- Landscape Chair solicited \$300 worth of butterfly-attracting plants from Mahoney's in Wayland. Second graders installed the garden.
- Third graders, who study native Massachusetts culture, planted the "three sisters" (corn, beans, and squash), learning about companion planting, heirloom seed stock, the benefits of biodiversity, plus Native American planting practices.
- First graders planted a "Salad Garden" – which they then harvested, washed, and dressed, and ate outdoors.
- Fourth graders studying propagation learned how to divide, "scar and bury" and take cuttings, populating a hillside with Hosta, Rudbeckia, and Echinacea while they were practicing (see Attachment J).
- Kindergarteners planted basil and made pesto.
- First graders planted sunflowers in the spring, harvested seeds in the fall.
- Winston's Nursery donated plantings worth over \$1,200 -- kindergarteners and first graders have helped maintain it with weeding, watering, mulching.
- Hosting NewtonSERVES – two different fifth grade classes have participated to fulfill part of their community service requirement (see Attachment K).
- Hosted a neighborhood-organized Tree Ceremony at the school after the abutting woods at Newton Terraces were cut down, then planted spruce seedlings
- Many impromptu adventures have taken place with kindergarteners and first graders, in particular, in the Bowen Woods.
- A New England Wildflower Society student (who was also a Newton South student at the time) taught third graders about stages of forest growth, identifying the exact stage of the Bowen Woods.
- Learning about biodiversity while planting heirloom seeds from The Eastern Seed Conservancy and Monticello (many grades).



- Fifth Graders measured the playground to obtain critical dimensions for the Initiative's planning, while underscoring recently learned math concepts (see Attachment L).

All of this activity uniquely positions Bowen Elementary School for a quantum leap in outdoor learning. The Outdoor Classroom Committee will be able to build on the experiences of the educators and volunteers over the last several years, as well as make good use of the many contributions that the community has already made in the school's outdoor classroom. By adding three more raised beds, cleaning up the Bowen Woods, hammering down some curriculum, and adding bird feeders, a bird bath and weather stations, the outdoor learning programs at the Bowen School will really take off. It will pilot programs with the weather stations, and if possible, Angino Farm, such that other schools can more readily adopt similar activities. In the education arena, as well as with its conservation practices, Bowen Elementary hopes to be a model for other New England outdoor learning programs, and in particular, for other schools in the Newton School District

## **2. COMMUNITY NEED**

Bowen Elementary will be serving close to 400 students this fall, in Kindergarten through Grade Five. Bowen After School Care Program ("BASCP") serves around 115 students each year, and uses the playground daily. Brownie Troops meet every other week at the school, using the Park in nicer weather. Since Weeks Field, the Webster Conservation area, and the Newton Centre Playground are the next closest green areas, neighborhood toddlers and teenagers also regularly use Bowen Park for recreation. The older neighborhood children play basketball and tennis off the wall, while younger neighbors enjoy the play structures. With a clear view of the Park from my backyard for twelve years, I can vouch for the constancy of use, and the extent to which neighbors of all ages visit. Dog walkers traverse the Park as much as four times daily and other adults out for walks would enjoy paths in the Bowen Woods. Bowen/Thompsonville residents, who lamented the loss of the woods on the adjacent Newton Terraces property, would welcome the preservation of one of the few remaining canopies in the area.

The dusty, icy, muddy, or flooded state of the Bowen Elementary School playground will continue to aggravate and frustrate this neighborhood until something is done to fix the drainage. Flooding, in particular, wreaks havoc on basements, the school's included, and on any attempts to maintain a grassy surface near the school. It also poses unacceptable risks for mosquito borne disease. While the community is ready and willing to invest in Bowen Park to make it more appealing and functional, it has not been feasible, since the drainage remedy needs to precede other projects.

### A. Passive Recreation

By seeding the play area and handling the drainage properly, the overall appearance and functionality of the playground will improve dramatically. Benches and tables will provide enjoyable spaces for families to picnic, or for students to eat their lunches or snacks. Caregivers will have comfortable places to sit while watching children playing, something currently completely lacking. Diners at special events at the school will no longer be forced to sit on the ground, and the scores of families who have children playing sports on the Upper Field could enjoy a late spring or summer meal at the new picnic tables. Brownies who meet will be able to snack together at tables. Volunteers who convene to help with gardening will also have a comfortable place to pick up instructions and sit and rest.

### B. Active Recreation

Regrading and seeding Bowen Park and moving one small oak tree will allow three youth-scaled sports games to occur on the playing field simultaneously. The new play equipment will be well used by area toddlers, and by Bowen and BASCP students. Both bodies of students, plus community volunteers, will have increased opportunities to garden in the new raised beds. Raised beds are especially suited to older gardeners' limitations and ought to help the Initiative recruit volunteers through S.O.A.R. and local gardening clubs.

Walking in the woods will be a delightful diversion for all.

Theatre groups or musicians not associated with Bowen may want to use the Amphitheatre for small productions.

The concrete walkway will provide ease of walking exercise for adults, either on their own or while supervising their children (sight lines are not interrupted). Each loop will traverse the full length of the concrete walkway, then an equal distance on grass. This loop has been measured at one-ninth of a mile. The distance will be posted for purposes of tracking mileage.

### C. Outdoor Learning Opportunities

Mulched paths, eradicated poison ivy, and educational signage in the restored Bowen Woods will provide an easily accessible outdoor classroom for the Bowen Elementary community. Ideally situated for spontaneous or planned excursions, the Woods will stimulate young minds' natural curiosity and satisfy the need to spend time in nature. Seeing native plants in a natural setting will provide a superb complement to the plants the children cultivate in the raised beds. As young conservationists in the Woods restoration efforts, children will be

exposed to the tactile, social, and scientific benefits of habitat restoration.

Simple conservation practices, such as composting and roof run-off collection, will indoctrinate Bowen youth with the importance of not being wasteful. Both efforts will be seen as an integral part of “respecting their environment”, one of the “Core Values” at Bowen School. In these times of budget crisis, even a small step in the direction of conservation serves the community as a whole.

Through the collaboration with Angino Farm, should it come to pass, students at Bowen will have the extraordinary opportunity to learn about farming from farmers at a farm. Because the Farm is such a short drive from the school, this does not need to be a one-time field trip, but, with funding from mini-grants, a more regular event. Visiting a farm in the fall, winter, and spring would underscore the life cycles the students study in a memorable and effective manner. Their raised bed activities at the school will be coordinated with and enhanced by activities at the Farm. Since many of our students are not exposed to any gardening at home or elsewhere, this experience will make lasting impressions in areas as diverse as history, horticulture, cooperative learning, soil care, conservation, and biodiversity.

### **3. COMMUNITY SUPPORT**

#### **A. Elementary School as Community Center**

In Bowen/Thompsonville, the elementary school on Cypress Street brings families together and creates a sense of community in all kinds of ways. On the second Sunday of September, with only three days notice, the school hosted a car wash and raised over \$1,000 for the Red Cross to give to victims of Hurricane Katrina. Later this year, there will be the International Potluck Dinner, NewtonSERVES, book and clothing drives, Secret Santa gift-giving to Dimock Community Health Center, and an Annual Perennial Swap. These activities bring people together in casual and meaningful ways. While education is the first and foremost goal of Bowen Elementary, the school community that coalesces yearly is a significant and vital secondary benefit.

#### **B. Group and Individual Support**

In all of our formal and informal conversations about the Bowen Park Initiative, reception has been enthusiastic and positive. This Initiative represents a year-long collaborative effort between Bowen and City administrators and personnel, including: Michael Cronin, Chief of Operations for Schools, Fran Towle, Commissioner of Parks and Recreation, Superintendent Jeffrey Young, Lou Taverna, City Engineer, Lowell Haynes, City Planner, and Dr. Patricia Kelly, Bowen Principal.

We presented our Master Plan to the Bowen Thompsonville Neighborhood Association ("BTNA") and were lauded for our vision and creative problem-solving. They were particularly keen on fixing the drainage and restoring the woods, two facets of the project the group was well-acquainted with because of their scrutiny of the Newton Terraces development. Discussions with abutters have elicited similarly uniform support, especially among those on Cypress Street who have endured flooding for years.

Green Decade Coalition supports the Initiative's conservation practices and the commitment to minimal use of herbicides.

Bowen is an official site for NewtonSERVES. The Director of Volunteer Services for Newton, Beverly Droz, supports the Initiative, and its participation in the city-wide, community-building day of volunteer effort.

Mayor David Cohen supports the Initiative, as does the Newton School Committee and the School Administration. Several Newton Aldermen have informally endorsed the Initiative as well.

Bowen parents are excited, of course, as are parents of younger children who do not yet attend the elementary school, but use Bowen Park often.

Lastly, we are communicating with the New England Wildflower Society, since our Initiative aligns well with their mission of conservation of native plants and eradication of invasives.

(Please see Attachments M -- letters of support from most of the above-named groups or individuals).

### C. Financial Support

The community's support for the Initiative is evidenced by the more than \$12,000 in cash<sup>4</sup> and over \$26,000 in-kind donations already secured or committed (see Section 7, the Budget, and Section 8, Other Funding). In addition, there is a pledge of \$4,500 from a family trust being finalized. The school is slated to receive \$12,500 from the Marathon Fund -- a rotating city fund earmarked for playground equipment -- in the spring of 2006.

The results of our local business/institution fundraising efforts are pending, as a dozen letters are going out as this application is being finalized. All fundraising for the Initiative will be coordinated in the spring through the Bowen PTO, so as not to conflict with other fundraising efforts. Once Bowen parents see that these plans are going to become a reality, the Initiative will undoubtedly raise several thousand more dollars with minimal effort.

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<sup>4</sup> The Bowen PTO raised \$10,000 for this project last winter. The Initiative itself has raised the balance.

The Initiative has applied or is in the process of applying for support from Newton Conservators, United Plant Savers, Captain Planet Foundation, Kids Gardening, and others. Next spring, we plan on soliciting additional in-kind donations from area nurseries with a letter writing campaign.

The School Department is committed to working either with private contractors or the Department of Public Works to install the drainage system currently being designed by City engineers. This expense will likely range between \$23,000 and \$27,000.

#### D. Past Giving/Community Investments

The Bowen Elementary School PTO has invested countless volunteer hours and significant funds to improve the schoolyard and create educational opportunities for the children. Three years ago, with a generous gift from Wayland's Nursery, the second graders planted a Butterfly Garden. Every second grade class since has released the butterflies they raise and study in second grade into this garden. The PTO has supplemented the plantings, so that the narrow strip in front of the library bay window is now a lush and colorful assortment of butterfly-attracting plants (see attached photographs). Some other improvements or investments include:

- providing \$800 worth of materials to build a tool shed, which was built by Bowen parents, and painted by NewtonSERVES volunteers.
- purchasing soil amendments, plus hoses and gardening tools.
- planting trees, shrubs and perennials, and buying the seeds for the children to grow in the raised beds.

#### **4. TIMELINE**

Please see Attachment N, Project Timeline. Please note that in order to install drainage, put other construction work out to bid and start and finish this project on the timeline we have proposed, requires that the bid process begin as soon as possible. The hope is to begin improvements right after school ends at the end of June, and finish up by September. If need be, recess for Bowen children can be held at the Upper Field for a month or even two, but at some point it will be too late in the year to seed the surface, or plant trees and shrubs.

#### **5. CREDENTIALS**

The "applicant" in this case refers to the School Department, the Parks and Recreation Department, the Bowen Elementary School and the Bowen PTO. The School Department owns the property while the Parks

and Recreation Department has responsibility for the care and maintenance of the property.

A. General Management

Both the School Department and Parks and Rec. bring their considerable experience with projects on school property to this project.

Patricia Kelly, Ph.D., Bowen Elementary School principal, enters her thirteenth year as principal at Bowen this fall, and brings more than thirty years experience in education to this effort. Notably, she was principal at Bowen Elementary School during the Tier One Construction, and therefore has experience in managing a large construction project while also performing all her duties as principal (please see attached resume).

Dee Mallon, Initiative Chair, can see the playground from her backyard and has served on Bowen's Landscape Committee since 2001. Her two sons have been playing at the Park since 1995. She has been instrumental in beautifying the schoolyard, getting the community involved in gardening at Bowen, and creating outdoor learning projects for the Bowen students. Formerly a lawyer with Ropes & Gray, she now invests most of her time teaching fiber arts, making art quilts, and gardening.

Sue Flicop, mother of three, is Bowen PTO co-President, and the Newton Schools Foundation liaison for Newton PTO Council. She holds an MBA and has experience in sales and academic management. She is helping to establish a "Stand for Children" group in Newton. Sue is also a director of The Bostonian Society, Boston's historical society, and works on the family trust, the White Lily Fund. As a key member of the Initiative, she acts as liaison between the Initiative and the PTO.

Valerie Sandberg has two children at Bowen, and has an MBA in Public and Non-profit Management. She is an independent fundraising consultant and has been active with other school initiatives. She brings her considerable professional writing skills and fundraising experience to the Initiative. In addition, she coordinated the Playground Committee, which works with equipment representatives and others to design and install the playground.

Risa Shames, with two children at Bowen, holds a Masters in Public Health. Currently, she is a Project Manager for Harvard Pilgrim Healthcare, where she manages health care improvement projects. She has contributed her project management expertise to the Initiative, and has worked more specifically on the Playground Committee and fundraising.

## B. Landscape Design

The Master Plan was created by Laura Rutledge. A landscape architect with over 15 years experience, she has been certified by the Council of Landscape Architectural Registration Boards. Her experience includes both large, public park projects and smaller, residential designs. On her resume you will find such impressive projects as the Rose Fitzgerald Kennedy Rose Garden in Boston and the Hudson River Park in New York City. She met with the Initiative and culled input from teachers, the BASCP director, parents, students, and Dr. Kelly during the design process (please see attached resume).

## C. Drainage Design

The drainage system is being engineered by John Daglian, a Newton City Engineer. The detailed design will be completed before the end of the year. Lou Taverna has acted as the Initiative's liaison.

## D. Bowen Woods Restoration

Woods Consultants include Andrew Wales, a Bowen parent with a B.S. Forestry/Timber Management, Richard Primack (mentioned below in the Outdoor Classroom section), and the New England Wildflower Society. Marc Welch, the City's arborist, is also participating in this effort.

## E. Playground "Community Build"

We will have three volunteer "Captains" during the Community Build to assure that the work is done properly and safely. They are: Joe Yerardi, owner of One World Demolition and Excavation; Joe Allegro, a civil engineer, and Ken Potochnik, a chemical engineer with home-based woodworking and construction experience.

## F. The Outdoor Classroom Committee

Patricia Kelly and Dee Mallon will be joined by Amber Wenger, Bowen art teacher, Ellen Ward and Jane Walsh, both kindergarten teachers, Janet Lee, first grade teacher, Carrie Tamm, a first grade aide, and Laura Cork, second grade teacher. Kelley Gangi, Director of Science Curriculum for the City of Newton (please see attached resume) has provided input and will continue to do so.

Lisa Harries Schumann, Outdoor Classroom Committee Chair, has designed Earth Week activities for children at Bowen and has been the chair of the school's Creative Arts and Sciences Committee for many years. Lisa, a writer, translator, and academic editor, is working on researching and putting together grants for the educational part of the Initiative.

Elyse Rosenblum is a Bowen parent, attorney, and Public Policy consultant with a focus on educational policy, including in the areas of engaged learning, quality early learning and after school programs. She sits on the board of BASCP and is the Outreach Coordinator for the Angino Farm project.

Richard Primack, Ph.D., is another Bowen parent, and a professor of biology at Boston University. Following graduation from Bowen School, he received his B.A. in Biology from Harvard University and his Ph.D. from Duke University. He is the author of two textbooks in the field of conservation biology, and specializes in the plant ecology. In 1993-94, he helped develop a "Nature Walk" for the Bowen Woods. These curriculum materials made reference to specific landmarks within the Woods. He will assist the Initiative in re-building the Nature Walk, establishing wildflower plantings, removing invasive, exotic species, and designing weather station activities.

Susan Chused Still holds a B.A. in government and has owned three different restaurants. She is strongly committed to the whole foods movement, to locally owned family farms, and to wants young people to learn about the food chain and increase their awareness of healthy food alternatives.

Mary Beth Johnson, parent of two children at Bowen, has a B.A. in Business. She is a member of the Playground Committee, charged with playground design, and also a member of the Outdoor Classroom Committee. Mary Beth is also the co-chair of Bowen Creative Arts and Science program, which brings cultural and educational programs to the school. She grew up on a farm in New Jersey.

Rosanna Crocitto Kenny, holds a M.Phil. in Comparative Literature, is currently the CFO for Advantage Communications, and has two sons at Bowen.

RuthAnn Sherman, holds a J.D. and is a Senior Enforcement Counsel for the Environmental Protection Agency.

Pamela Reider holds a degree in art therapy, and is a Bowen parent who has been active in the outdoor learning projects and social justice activities at the school for several years.

## **6. SUCCESS FACTORS**

### **A. Open Space -- Bowen Woods Restoration**

The Woods Restoration will be a success if safe access is possible again, meaning the poison ivy is removed from accessible walking areas and the paths are re-established. It will be a success if Bowen teachers can conduct nature walks there once again, if neighbors enjoy the shady refuge from time to time, if dog walkers traverse the acre of trees on their



way to the Upper Field. If the other invasives are also under control, we will have achieved our most basic aims – the canopy of the mature oaks will not be endangered, and native plants below will be able to thrive. If the native plantings that we install take to the setting, and the shaded paths begin to look even a little like Framingham’s “Garden in the Woods”, the Initiative will have succeeded to a wonderful degree.

#### B. Recreation -- Playground Restoration

The playground restoration will be a success if the new equipment is installed and used, the new benches and picnic tables frequently occupied, waste better contained, and more variety of active and passive recreation is possible. The new walkway’s success can be measured by a better flow of traffic out of the building, better maintained grass along the crest of the slope down to the play area, and if disabled people successfully negotiate its length.

Even though no significant shade will be present for another decade, for the shaded seating area to be a success, it simply needs to be inviting and accommodating to parents, neighbors, child caregivers, teachers, and Bowen students. The health of the trees will be another observable measure of success.

The Amphitheatre will have a two-pronged measure of success. One, if it is reducing water flow into the schoolyard during periods of heavy rain, we will know that its water catchment features are working. Two, if the community sits in it during gatherings, large or small, and if Bowen teachers make use of the space for outdoor classes, we will know that the Amphitheatre has indeed created a welcoming place to sit, relax, and learn.

#### C. Conservation Practices

The “green school” practices will be evaluated by how the current routines around school lunches change, and how much water the community can save by watering gardens from the collection barrels rather than the spigot. Any small conservation in these areas has to be considered a success. This aspect of the project will be deemed an even bigger success if other schools in Newton follow suit, thus expanding the savings and conservation.

#### D. Outdoor Learning

As for the outdoor learning, we expect a variety of measures to be available to assess success – all the standard academic measures, for starters. A vibrant collaborative spirit between teachers, staff, volunteers, the science curriculum coordinator for Newton, and the new Angino Farm management group, would be another indication of success. Documented projects, with supporting curriculum and

narratives, will be a third and valuable measure of success. Students engaged in learning through the tactile, physical, natural world, will be the ultimate factor, a success factor that is, of course, beyond measure.

The evidence of success will also include three new raised beds, installed weather stations, bird feeders, and a bird bath. Certification by the National Wildlife Federation's "Schoolyard Habitat" program will signal that Bowen Park offers food, water, and shelter to local animals. Naturally, feeding and nesting birds will be another sign that the Initiative's efforts have paid off.

Lastly, to the extent that we can inspire other local or national schools to institute outdoor learning curriculum, we will have succeeded even more.

## **7. BUDGET**

Please see Attachment O, Bowen Park Initiative, Expenses and Income tabulation.

## **8. OTHER FUNDING**

### **A. Past Donations**

- Mahoney's of Wayland contributed \$300 worth of plants for our Butterfly Garden.
- Home Depot gave us children-sized shovels, gardening gloves, and two full-sized rakes, with a value of \$110.
- We received two large ash trees from Newton Terraces Restitution Fund (value approx. \$1,200, installed).
- Winston's planted an entire bed (roughly 9x9') in the front of the school, valued at approximately \$1,100.
- The PTO paid for materials (\$800) to build a tool shed and parents donated the time to build, prime and paint it (students and NewtonSERVES helped).
- The Memorial Garden that was planted in Steve Glidden's and Melissa Leung's honor was paid for by fifth grade families in the year following the bus accident.
- The Bowen PTO has invested between \$1,500 and \$2,000 a year for each of the last three years to purchase: shrubs, perennials, tools, seeds, fertilizers and hoses.
- Bowen parents have donated countless divisions from their home gardens, which we in turn have been divided at Bowen.
- A New England Wildflower Society student donated a botanical study of the woods, as well as a Management Plan to control the invasive plants.

## B. Recent Giving / Commitments

- The Bowen PTO has raised \$10,000 this past winter, and will resume fundraising from the school population in the spring.
- The Initiative itself has raised more than \$3,000 in cash.
- Steve Tresca, of Tresca Brothers Concrete, has committed to providing concrete at cost for the walkway (at a value of approximately \$1,000).
- Michael Winston has agreed to provide three native pines to plant behind the dumpsters (value of approximately \$500).
- Volunteers will plant the pines.
- Marc Welch has committed 8 trees to the Initiative from the Newton Terraces Restitution Fund and to install them (valued at approximately \$4,800).
- Joe Yerardi, of One World Excavation and Demolition Company, has committed to taking down and removing selected playground equipment free of charge (at a value of approximately \$3,000).

## C. Future / Pending Fundraising

- We have launched a fundraising campaign asking many local businesses or institutions, including National Lumber, Newton Terraces, and Cold Stone Mountain Creamery, for their support. Follow-up with these prospects will continue after the application deadline.
- An application to Newton Conservators for \$1,100 in two successive years to support the purchase of plantings for the woods is pending.
- The Initiative will apply to United Plant Savers for a small grant of \$500, also for woodland native plants, in particular, endangered medicinal species.
- The "Outdoor Classroom" committee submitted an application for just over \$1,700 to Captain Planet Foundation, and plans to apply for other several grants to fund curriculum development and trips to Angino Farm.
- Bowen parents will donate a weekend of time for a "community build" to erect the new play structures, at a value of \$10,000 to \$15,000.

## **9. MAINTENANCE**

Maintenance will continue to be a shared effort and expense, with very little departure from past practice. The Parks and Recreation Department ("Parks and Rec.") will continue to pay for and perform most maintenance, as defined below. Volunteers from the Bowen School community will also continue to provide many effort hours toward upkeep, as they have in the past. Almost all of the work relating to the restoration of Bowen Woods will fall to volunteers or to a hired landscape

contractor. Whatever is designated as within Parks and Rec.'s purview has been previously agreed upon during various conversations between Fran Towle, Stephanie Pelkowsky, Dave Mandatory, Marc Welch, Michael Cronin, Patricia Kelly (Bowen Principal), Cynthia Estheimer (BASCP director), and Dee Mallon (Initiative Chair).

#### A. Grass

The grass is currently mowed by Newton Parks and Recreation. This will not change. The only slight change in regards to the lawn is that Parks and Rec. will now aerate and "slit seed" the grassy surfaces of the playground as needed. They will not pay for this additional service, however.

The first year after grass is established (2007, if all goes as anticipated), aeration and slit seeding will probably be necessary. After that, it will be done on an "as-needed" basis. A call will be placed by a PTO landscape volunteer or by a Bowen staff member in the fall of any given year, requesting those services for the following spring. Because slit seeding inserts the grass seed underneath the ground's surface, no watering will be required, and indeed, no irrigation system is being installed. The cost for seed, insertion, and aeration is estimated to be about \$500, and will be shared by the Bowen PTO and BASCP<sup>5</sup> from the first year forward.

#### B. Trees

Currently, pruning of trees is performed by the City's arborist or a Bowen PTO volunteer. This will remain the same.

The Initiative is slated to receive eight large caliper trees from the Newton Terraces Restitution fund. The selection, planting, and staking of these eight new trees will be handled by Newton's arborist, Marc Welch. Bowen PTO volunteers will take responsibility for watering the new trees. Bowen's PTO will also mulch and fertilize all other Bowen Park plantings, including the new trees, as needed in subsequent years.

The three new pines planned for behind the dumpsters will be planted by volunteers, as will all the plantings behind the low wall of the Amphitheatre. Watering these new plantings will be the responsibility of the Bowen Landscape Committee. Once these trees mature, any pruning required will come under the purview of Parks and Rec.

Any and all shrubs and perennials planted within the Bowen Woods will be installed and maintained by Bowen students and neighborhood volunteers. Native plantings should need little or no care once they are established.

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<sup>5</sup> As this is a maintenance expense, it is not a part of our CPA budget.

### C. Waste Collection

Parks and Rec. will continue picking up garbage in conformance with past practice.<sup>6</sup> However, the Bowen community will be working consciously to reduce the amount of waste. The Initiative hopes to prevent recurring problems with odor, yellow jackets, and overflow by having lunch monitors collect paper garbage when students eat outside and by depositing organic waste in a new compost bin on the playground.

### D. Snow Removal

The current snow removal plan calls for shoveling the sidewalk as well as a path from the point where the sidewalk currently ends to the rear doors of the school. This will not change, except that shoveling concrete will be a little easier than shoveling a dirt surface. The part of the sidewalk that loops around the play structures, over to the swings, will not be shoveled by Parks and Rec., and may simply remain covered with snow.

### E. Playground Inspections

Currently, playground apparatus inspection and follow-up repairs are handled by Parks and Rec. in conjunction with Bowen's principal, Dr. Kelly. The Bowen PTO budgets \$500 per annum to cover the cost of necessary repairs. This will not change. If the Initiative replaces the older pieces of equipment as planned, this aspect of maintenance should be considerably eased for many years, since most maintenance problems relate to the older apparatus. Parks and Rec. will continue to keep the layers of mulch under the play structures deep enough to provide a safe cushion.

### F. Bowen Woods Restoration

The restoration of Bowen Woods is really a rehabilitation project and not a true task of maintenance, and is only included in this section because Parks and Rec. and the Initiative have agreed upon some cooperation in this arena. Removal of exotic species and poison ivy from the woods, plus the re-establishment of paths in the woods will be a team effort involving Parks and Rec., PTO volunteers, NewtonSERVES volunteers, Bowen students, possibly Boy Scouts, S.O.A.R. volunteers<sup>7</sup>, and an as yet to be determined expert landscaping service (such as the Invasives Removal Team from New England Wildflower Society). The intense

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<sup>6</sup> Once the project is complete, we expect that no heavy vehicles will drive onto the newly resurfaced basketball court or lawn for routine maintenance, with the exception of trucks delivering mulch. This does represent a change in current practice, and must be communicated to the drivers of the City's trucks.

<sup>7</sup> S.O.A.R. stands for "Service Opportunities After Retirement", a Newton Community Service Center project that we are in the process of communicating with.

removal phase will span at least two years, and possibly three. After that, the invasive species will require yearly monitoring and spot removal.

Poison ivy probably cannot (and should not) be completely eradicated, and indeed, patches of it contained in areas off the paths could be educational, but the plants located near the paths will be vigorously removed. Parks and Rec. will continue with yearly spraying, but it is the Initiative's plan to have a landscape service pull the vines closest to pathways out by the roots.

The expert removal service will be hired by bid process. The bid will be crafted to exclude companies that rely on harsh chemicals. Per discussion, Parks and Rec. will saw down the larger of the Norway Maples in the Bowen Woods, while Bowen students and NewtonSERVES volunteers will uproot the smaller seedlings. Prior to volunteers entering the woods, knowledgeable volunteers will tag all sugar maples and surround poison ivy patches with "caution tape". Given the prolific habits of the Norway maple, this volunteer effort will have to be scheduled at least every other spring, and can easily become part of Bowen's student activities, either as part of Project Explore or Earth Week, or become a regular volunteer activity of the Brownie troops that use the Park, or some other volunteer group such as NewtonSERVES.

The larger, more established invasive shrubs (e.g., burning bush, rambling roses) will also be handled by the professional team, as in all likelihood they will require a root wrench. The oriental bittersweet that has invaded the periphery of the woods is another plant that will require professional attention, and possibly, like the poison ivy, some spot application of herbicide.

Volunteers will re-establish the paths.

#### G. The Raised Beds, Weather Stations, Bird Feeders and Bath

The raised beds, weather stations, bird feeders and bird bath will be completely maintained by the Bowen community.

### **ADDITIONAL INFORMATION**

**10. OWNERSHIP / CARE:** The property is owned by the City of Newton's School Department, and maintained by the Parks and Recreation Department. For proof of ownership, please see the attached print out of the Assessor's page for the property. In addition, you will find letters from Michael Cronin, Chief of Operations for the School Department, asserting control, and from Fran Towle, Commissioner of the Parks and Recreation Department, asserting responsibility for management and care of the property. (Please see two attached letters).

**11. SITE PLAN:** For the playground design, please see the attached Master Plan, as well as two elevations. Detailed engineering specifications will be provided after the deadline. For the plan for removing exotics from the woods, please see excerpts of the study by New England Wildflower Society student.

**12. ZONING / COMPLIANCE:** The property is zoned as “public use” and this project will enhance existing use, but not change it. No zoning changes will be required, nor any approvals above and beyond the ordinary permits. Landscape contractors will obtain any necessary permits prior to commencing work, including clearance from “Dig Safe”. (Please see attached copy of Assessor’s page from the City’s website).

**13. APPROVALS:** Per discussions with Fran Towle, and School Committee members, no specific approval is required prior to application. But, please see Superintendent Jeffrey Young’s letter of support, and the letter of support from the Newton School Committee. And also note that the Initiative’s Chair appeared before the Parks and Rec.’s September 19 meeting and reviewed the Master Plan with the Commission. Later that evening, the Parks and Recreation Commission voted “yes” on the Initiative, but deemed the drainage expense inappropriate for CPA monies (which is why it no longer is).

**14. HAZARDOUS MATERIALS:** Based on historical research at The Jackson Homestead and general knowledge, this property has been marsh, farm land, or a school since 1886, and it is unlikely that the site has ever been contaminated by hazardous materials. (Please see attached copies of historical maps).

**15. PROFESSIONAL STANDARDS:** All work will be done in accordance with applicable state and federal environmental regulations. As part of this compliance, Dig SAFE will be contacted prior to excavations for installation of storm drains or trees.

**16. ADDITIONAL COMMUNITY BENEFITS:** The educational aspects of the project and the community involvement, in particular, are features of the project that make it valuable above and beyond the physical improvements (for an in-depth discussion of both, see “Education” in Section #1 “Goals”, above, and Section #2, “Community Need”).