School District of Cambridge

School Forest Education Plan

Fall 2011

1.) RATIONALE

VALUE STATEMENT

The School Forest at Severson Learning Center is an outdoor classroom of the School District of Cambridge. The School Forest includes all of the natural areas of the Severson Learning Center: the woodlots, the pond, the wetland scrape and its intended prairie buffers, the community vegetable garden, orchard and fifty four acres of arable land, as well as all of the available facilities, present and future. The forest and prairie area at Cambridge Elementary School are also in the process of becoming part of the School Forest program. The elementary property is included at various points within this document, however the full integration of management strategies, etc. of the elementary woods and prairie are part of the 1st year goals of the education plan.

Outdoor, hands-on, experiential, inquiry based, across the curriculum learning and environmental education becomes increasingly necessary as the disconnect between children and nature increases.

Even though our village is small, surrounded by farmland and with an abundance of nearby parks and nature preserves, most children spend much of their time indoors, "plugged in" to TVs or computers. Their outdoor time is often spent supervised, on mowed athletic fields. Their knowledge about nature and how the natural world "works" comes second-hand, though TV nature specials or books rather than first hand experiences.

Research affirms that time spent exploring, observing, questioning and discovering in a natural setting is essential to healthy, wholesome human development and emotional well being. Research also affirms that students actively engaged in regular outdoor experiences and activities, including stewardship activities, perform more successfully academically, and exhibit fewer behavior and attendance problems.

Even the most highly developed societies still depend on the land, its soil, water, air and its natural community of plants and animals. The land sustains us, and our citizens must be both knowledgeable and caring about conserving and protecting the health of the land.

Thus we recognize that the development of knowledgeable, committed citizens begins with the education of our children. Outdoor learning experiences and environmental education should be an essential component of our preK-12 curriculum. Our school forests at Severson Learning Center and the Elementary School will play an important role as a major site for this kind of learning in the education of our students.

TARGET MESSAGES

Broad themes to be covered.

- All life, including humans, is interdependent and has inherent value.
- The biosphere, in which we live here on Earth, is a complex, interdependent, dynamic, constantly changing life-supporting system.

- Energy and materials flow through the biosphere and its ecosystems in large recycling cycles.
- Consumption/use of the earth's resources is a fundamental requirement for the survival of all living things.
- Understanding ourselves as community citizen members of our ecosystem helps us understand and fulfill our responsibilities to the land.
- Sustainable practices allow human activity to co-exist beneficially with the natural world.

NEEDS ASSESSMENT RESULTS

District staff were surveyed at the start of the 2010-11 school year. 56 surveys were collected between all 3 buildings. Of the surveys collected 96 percent of teachers responded that they knew the district has a School Forest. 28 percent of the teachers are currently using the school forest. The greatest current forest users are Elementary teachers, while the Middle School teachers use the forest the least. An additional 44 percent of the teachers surveyed have an interest in using the forest in the future.

Teachers identified the following barriers that prevent full utilization of SLC:
Limited/insufficient restrooms
Transportation/logistics
Class scheduling (short class periods at the MS and HS level, etc)
"Don't want to lose class time."

Teachers identified the following subjects and activities that could be explored at the School Forest to enhance their classroom instruction:
Plants
Trees
Animals
Wildlife
Geology
Soils
Habitats
Ecosystems
Farms
Data Collection and Analysis
Map-making
Nature Walks
Nature Writing
Nature Art
Gardening
Team building
Community Service Activities
Volunteer Opportunities
Life Skills
Fitness – snowshoe/xcountry skiing, etc.
Orienteering

Teachers Identified these Facility/Materials Improvements that would enhance their use of the School Forest at Severson Learning Center:
Improving existing trails and developing new ones.
Creating trail maps
Build a pier to access the pond.
Adequate restrooms
Ropes Course
Amphitheater
Education Center
Improve parking/driveway
Teacher Kits on specific topics
Field Guides
Orienteering and Physical Education equipment

Professional Development Needs: Survey results indicate that teachers need the most help with outdoor education methods, seconded closely by training/material in Environmental Education content and background information. Teachers also identified the need for assistance connecting outdoor education content and activities with their individual subject areas.

2.) Site Description and Opportunities.

SEVERSON LEARNING CENTER - SITE DESCRIPTION AND LOCATION
Severson Learning Center is an 82 acre farm in Dane County, Wisconsin, about 3 miles from each of Cambridge's 3 school buildings. It is located at 37 Oakland Road. The legal description of the Severson Learning Center is NE 1/8, Section 24, Town 6, Range 12E, Township of Christiana, Dane County, Wisconsin. It is reached by driving south on County Highway B and turning left on Oakland Road. Severson Learning Center is the second place on the right hand side of the road. A prominent sign at the road announces its presence.

Severson Learning Center features a typical, handsome farmstead of southeastern Wisconsin, with a white farmhouse and red barn surrounded by about 54 acres of arable fields currently farmed by the local FFA Alumni. About 20 acres of land is in 4 woodlots. A "sugarbush" of 75 Sugar Maples has been planted in woodlot A. A large pond with year round water lies between two of the woodlots. A wetland scrape is nestled within the "L" of the southern-most woodlot. Two community gardens providing vegetables for the local food pantry are located close to the house and barn. A small apple orchard is also located close by. Facilities include: Temporary shelter for classroom use, 1 small rustic classroom building, 1 small tool shed, and a large barn, currently housing FFA student animal husbandry projects. Restroom facilities are limited to one port a potty.

The geology of the site is interesting. The farm sits at the eastern edge of the broad floodplain of Koshkonong Creek. This creek was once a large, outwashing river at the

end of the glacial period, about 10,000 years ago, creating many sand-pits in its flood plain, such as the one immediately west of Severson Learning Center.
Much of the farm sits on a high bluff of dolomite limestone that created the eastern edge of that former glacial river. Dolomite limestone is a sedimentary rock formed during the Paleozoic Era, when what we now call Wisconsin lay beneath an inland sea. It contains the fossilized remains of ancient life-forms. These fossils can be used to determine rather precisely the age of the rock.

This dolomite bedrock is exposed at three places at Severson Learning Center: Oakland Road itself cuts through the bluff just east of the driveway, offering an excellent place to study sedimentary rock. Also, two of the woodlots (A and C: see site map) contain old quarries. Some of the quarried rock was likely used to build the foundations of the farmhouse, barn, and small shed. Dolomite is the hardest of the limestone family of rocks, and considered an excellent building material, both for its hardness and the regularity of its layers. A comparison of the farm foundations and the exposed rock face is very instructive. The surrounding area includes several active dolomite quarries, including the neighboring property to the west.

The soils of this farm are glacial till, most easily observed in the arable fields and community gardens. They are somewhat sandy, and well-loaded with the pebbles, cobbles and boulders common to glacial-till soils. Many of these rocks have traveled long distances, from northern Canada, and do not naturally occur in Wisconsin except through the bulldozing work of the glaciers. Also found in this till are pieces of Quartzite and Granite. These metamorphic rocks, from the geologically turbulent Precambrian Period form the ancient bedrock beneath the younger limestone bedrock. These fragments are at the surface only because of the immense power of the glaciers.

The four woodlots are the typical deciduous woodlands of southeastern Wisconsin. The predominant trees are oaks (Burr, White, Red and Black), Shagbark Hickory and Black Cherry. The forest floor plants include a nice variety of native woodland wildflowers. Invasive species include an unfortunate abundance of Garlic Mustard and Common Buckthorn.

Woodlot A has some already established trails for hiking and nature studies. At its north end is a stand of old Red Pines and a younger stand of coniferous trees.

A mowed trail is maintained along the edges of each woodlot and arable field, both for farm-work and for the benefit of students and community members.

The educational opportunities at Severson Learning Center are as varied and interesting as the site itself: geology, soil science, forestry, natural resources, wildlife management, botany and biology as well as language arts, visual arts, music, math, history and social studies. Future projects include student oral history interviews with older residents, student GIS –made trail maps, student-produced educational signage along trails, student-built benches along the trail, a student/volunteer-built open shelter, maple syrup production, orchard and berry production, etc.

ELEMENTARY WOODS - SITE DESCRIPTION AND LOCATION

Cambridge Elementary School occupies almost 30 acres at the west edge of the Village of Cambridge, in southeastern Wisconsin. It is located at 802 West Water Street, Cambridge, Wisconsin 53523. Its legal description is SW1/4, NW1/4, Section 12, Town 6N, Range 12E, Village of Cambridge, Dane County, Wisconsin.

The Cambridge Elementary School Forest includes nine acres of woodland, three acres of wetland/wet prairie, a prairie garden, and a long-planned rain garden to absorb storm water runoff from the school parking lot. The woods, wetland/prairie and prairie garden have been in constant use since 1998, when our students moved into their brand new school building, As a result of this intense use, the vegetation, wildlife and phenology of our outdoor classrooms are well-documented.

The woods is typical of southeastern Wisconsin, mostly oak, hickory and black cherry. More unusual is the large grove of Hop hornbeam and an ephemeral pond. The pond lies in a low area of the center of the woods. It is full of water from early spring until early fall. When full it is about 30 inches deep. It overflows at its north side into a small creek which flows into Koshkonong Creek. The trees in and around the pond are Silver Maples and Black Willow.

The native understory shrubs include Gray Dogwood, Pagoda Dogwood, Hazelnut, Serviceberry and Highbush Cranberry.

Forest floor plants include about 40 species of native wildflowers, as well as ferns, mosses, lichens and over 50 species of fungus. About 30 species of birds, including hawks and owls live year-round in the woods. They are joined each spring by at least 30 species of migratory songbirds who nest in the woods during the summer.
Deer, Raccoon, Opossum, Skunk, Woodchuck, Grey Squirrel, Chipmunk, Deer Mice and Little Brown Bats have all been seen. Fox and coyote tracks have been seen. Six frog species have been identified by sight and /or sound (Chorus, Green Tree Frog, Spring Peeper, Leopard Frog, Green Frog and Bullfrog). We have never observed salamanders or turtles and have seen only the occasional Garter Snake.

Two invasive species are present in the woods: Garlic Mustard and Buckthorn. Students remove Garlic Mustard each spring. Adults are removing Buckthorn each winter. The woods is accessed by an extensive trail system planned and built slowly by our Elementary students since 1998.

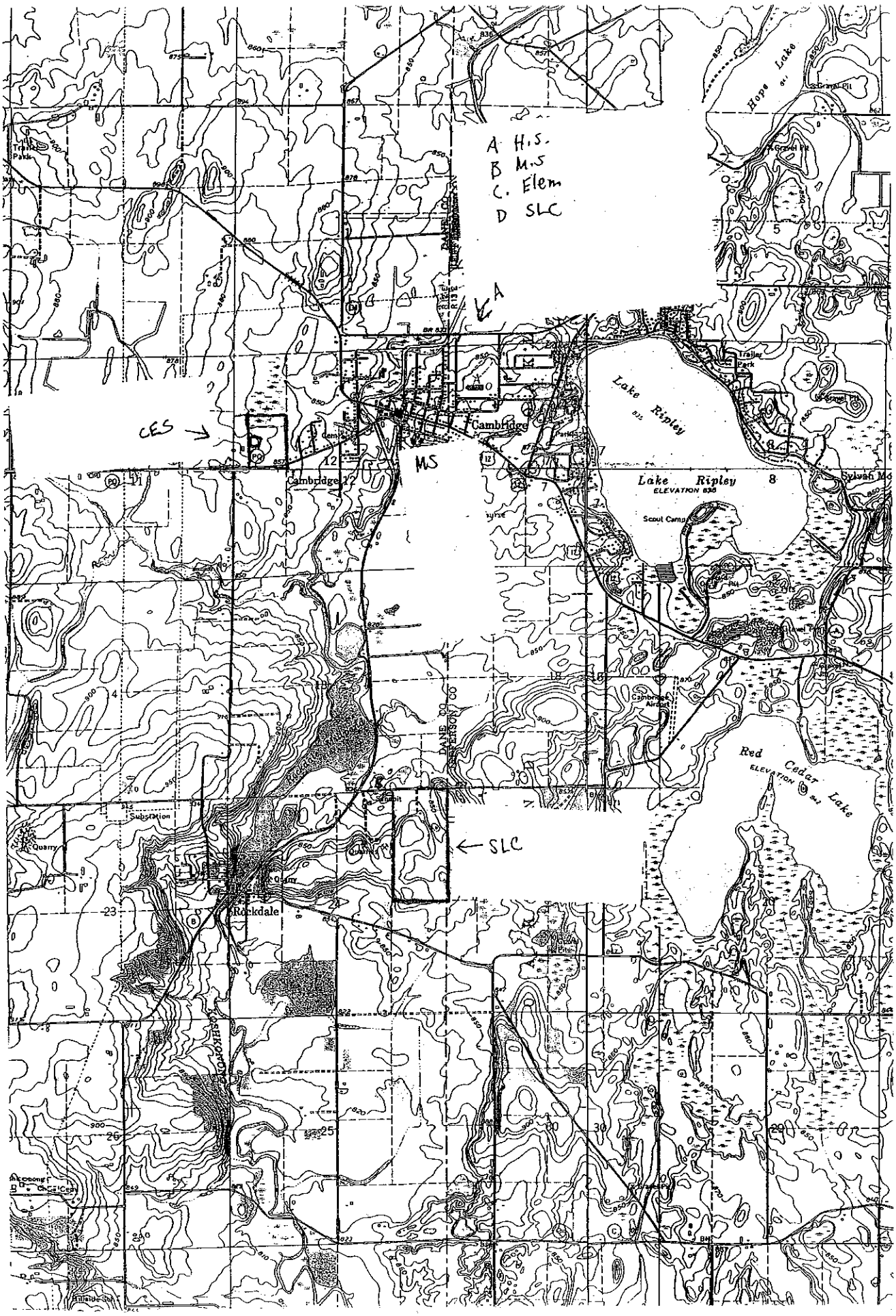
The wetland was identified as wetland by the U.S. Fish and Wildlife Service in 1996 when the school purchased the property. It has been under the jurisdiction of the Wisconsin DNR ever since. The protection it received during the building construction allowed its seed bank to flourish. Many wetland species grew rapidly in this "always – too-wet-to-plow" corner of former farmland. This made it easy to see the wetland's historical connection to the wetland across the street. Old maps indicate what is now called Water Street (formerly Prairie Queen Road) was "not passable" in wet seasons.

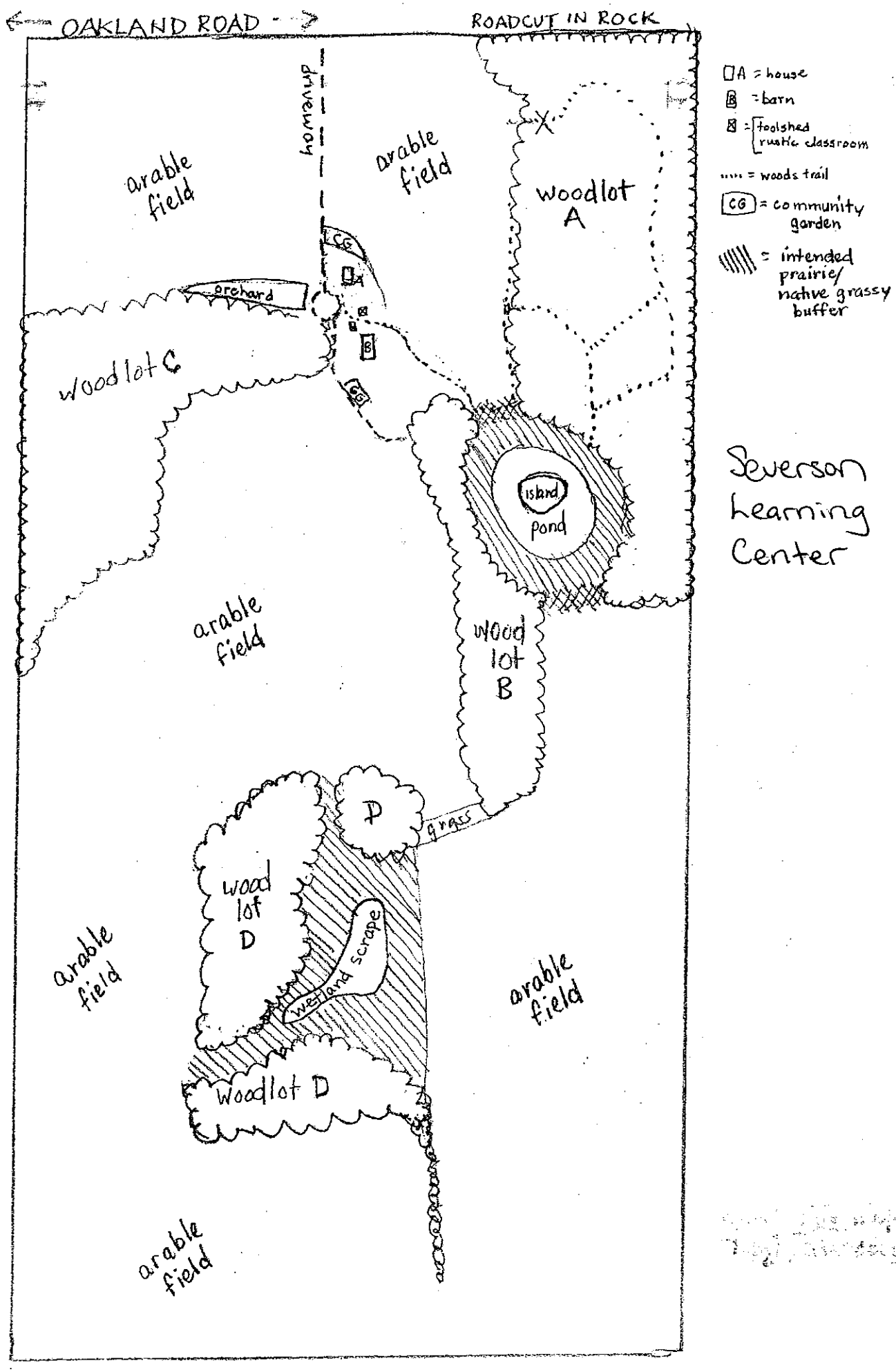
This wetland/prairie complex was once part of the huge prairies that extended from Koshkonong Creek all the way to Madison. The wetland/prairie is accessed by one long loop of mowed trail. Seeds are collected and spread each fall by our students.
The small prairie garden serves as a "living field guide" to the large prairie. It is surrounded by a ring of 12 2-seater benches, enough for a classroom. It is used as a place for writing, drawing, and lessons as well as a quiet place during recess.

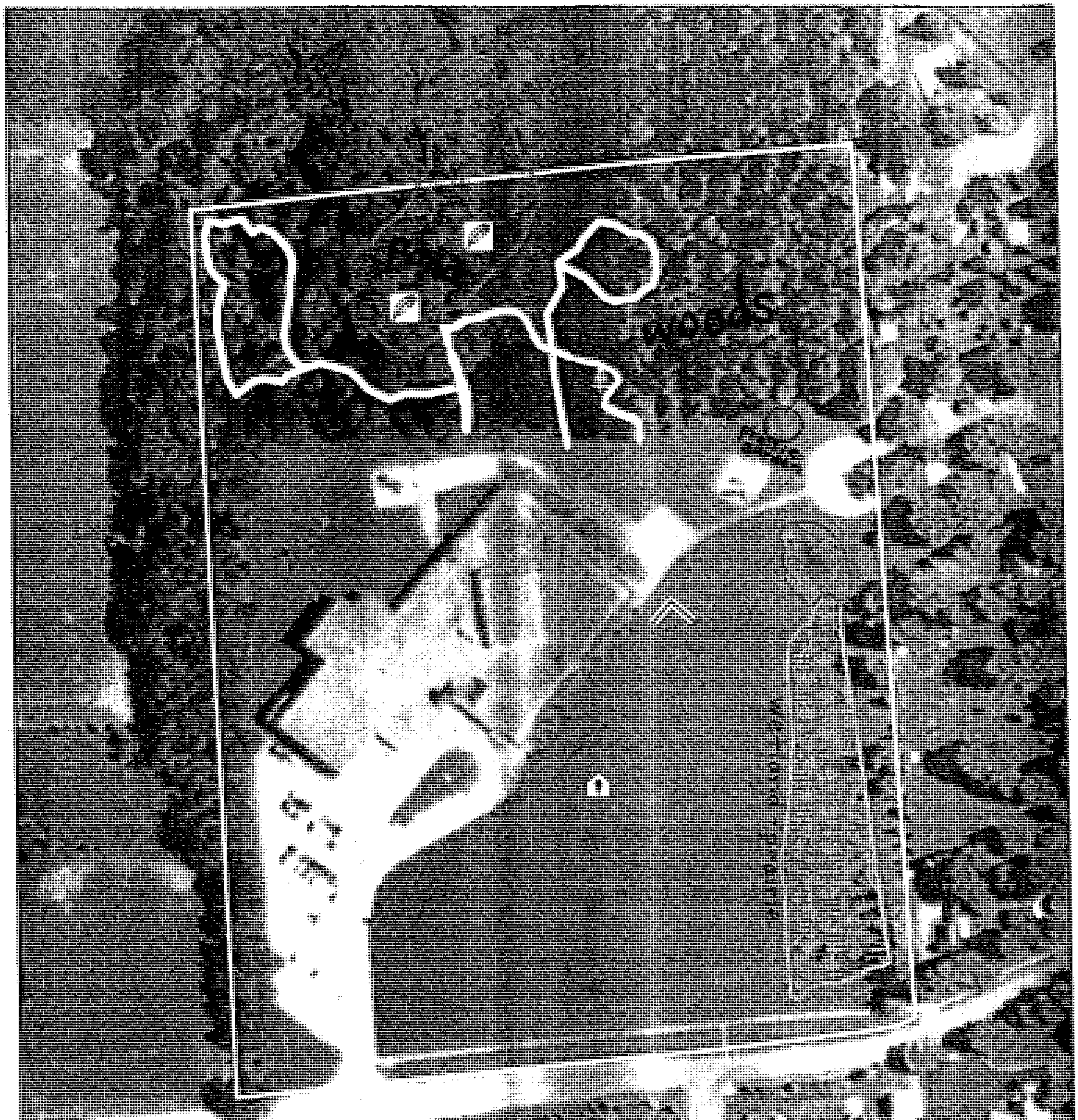
The entire Elementary site is in the watershed of Koshkonong Creek.

Please See Attached Maps

Severson Learning Center




OAKLAND ROAD
ROADCUT IN ROCK
driveway
arable field
arable field
woodlot A
orchard
CG
A
B
woodlot C
island
pond
arable field
wood lot B
P
grass
wood lot D
wetland scrape
arable field
arable field
Woodlot D
arable field
A = house
B = barn
= toolshed
rustic classroom
..... = woods trail
CG = community garden
= intended prairie/ native grassy buffer
Severson Learning Center



Cambridge Elementary School

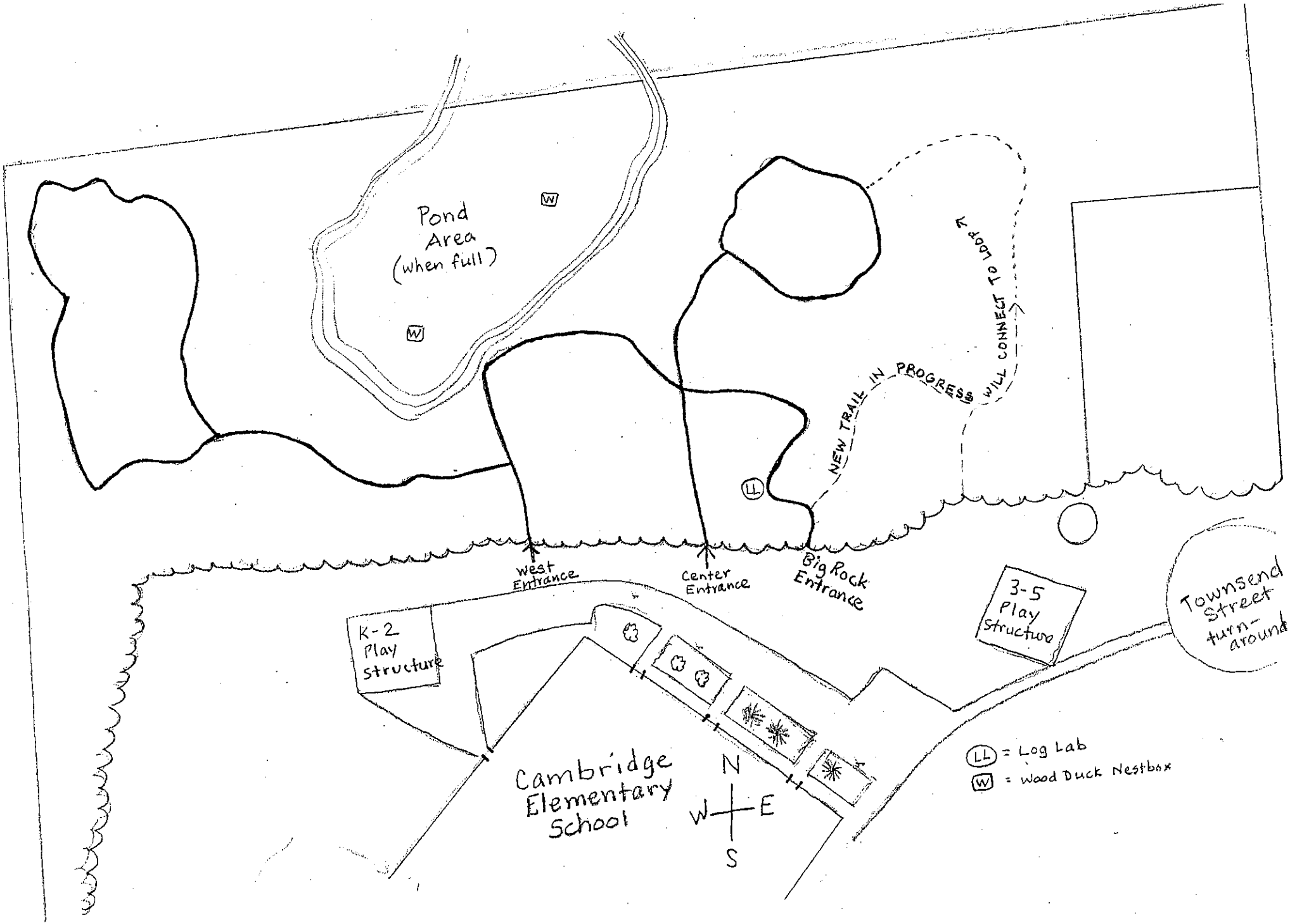
Project Information

Mapping Project

Spring 2010

EC3

Madison, WI


Pond Area (when full)
W
W
NEW TRAIL IN PROGRESS WILL CONNECT TO LOOP
LL
West Entrance
Center Entrance
Big Rock Entrance
K-2 Play Structure
3-5 Play Structure
Townsend Street turn-around
Cambridge Elementary School
N
W
E
S
LL = Log Lab
W = Wood Duck Nestbox

SITE HISTORY

It would not be an exaggeration to say that humans have made their living on or near the land at Severson Learning Center since the end of the glacial period, approximately 10,000 years ago.

The earliest inhabitants, called Paleo-Indians by archaeologists, lived here from about 8000 B.C.-4000 B.C, in a landscape much different than our own. The climate was cold and wet, the land still roughly sculpted by the glacier. The rivers were ice-cold, still out-washing from the retreating glacier. The forests were the boreal forests of today's far north: spruce and fir. Mammals were huge: giant beavers, mammoths, and mastodons, like the two discovered in 1967 while repairing ditches on Elmer Schimelpfenig's farm located nearby on Cottage Grove Road.

These early people travelled widely and seasonally as they hunted and gathered their food, but local campsites used continuously from that period until recent times are well-documented by state archaeologists.

In addition, the local abundance of chert, the very hard metamorphic rock prized for arrow-heads, spear-points and knives, made our area an important gathering place for tool-making.

By about 4000 B.C. the landscape had changed dramatically and probably looked much like it did in 1830. The climate had warmed. Deciduous forests and open prairies had replaced the boreal forests. Food was much more abundant and varied; wild edible plants and game animals were similar to todays.

The people of this time, the Archaic group, about 4000 B.C to 800 B.C, were still providing for themselves by hunting and gathering, but early farming had begun, by cultivating wild edible plants in accessible places. These people were also long distance traders for goods from as far away as the Atlantic, Southern Indiana, Wyoming, and Isle Royale in Lake Superior. According to local historian (and former Cambridge H.S. History Teacher) Harold Dahlen, the high dolomite ridge along the east property line of Severson Learning Center was once part of a well-known trading road.

The Mound-Builders lived in our area from about 800 B.C. until 1200 A.D. The Mound-Builders were farmers with permanent villages and extensive fields of corn, beans, squash and melons. They were accomplished potter-makers, which is interesting because of the many potters who now work in the Cambridge area today.

The Mound-Builders practiced communal monument building as a way of affirming their harmony with nature and honoring their participation in maintaining the order of the cosmos. Their effigy mounds over-looked most of the lakes in our area, over 1000 of them in Dane County. A preserved turtle mound can be seen nearby at Dorothy Carnes County Park, on Radloff Road, just north of Hwy 12 between Cambridge and Fort Atkinson. Quite a few mounds around Lake Ripley were surveyed and mapped in 1850 by Increase Lapham.

The last two groups of Native Americans to live on our area were the Oneota, followed by the Ho Chunk, "the people of the sacred language," as they called themselves. (Others have called them Winnebago; it is a derogatory word they dislike.) It is unclear but probable that the Oneota were descendents of the Mound Builders, and the Ho-Chunk heirs of both. Both Oneota and the Ho Chunk were primarily farming people.

The Ho Chunk lived across all of Wisconsin south of Green Bay, until they were pushed off their land as settlement encroached. Forced removals in harsh conditions diminished their numbers and scattered them widely in hostile territories west of the Mississippi, but failed to diminish their love of their homeland. Many returned secretly and bought 40 acre parcels as homesteaders. Many live in our area today. They are a tribe without a reservation, though soon they will have custody of about 3000 acres of land at the former Badger Ammunition Plant near Merrimac.

Coming down to us by word of mouth is this memory from about 1880 of the great aunt of resident Susie Bray, whose home was near what is now West-Side Park in Cambridge. She remembers standing as a girl on the bluff overlooking Koshkonong Creek, watching Ho-Chunk families paddling upstream, their birch bark canoes filled with wild rice harvested in Lake Koshkonong.

"European" settlement really began with the explorations of mostly French fur traders along Wisconsin's many rivers. News of the bountiful land, good for farming, travelled quickly, and by 1840 settlers were arriving regularly. Many in our area came from Norway. The prairie soils of Christiana Township brought them; these soils are still famous as the best agricultural land in the world. The deep tilth of these soils is the gift of prairies, the only soil-building plant community. Koshkonong and Liberty Prairies once filled the area between Koshkonong Creek all the way west to the Madison lakes.

Dane County's population grew quickly, from 340 residents (of European descent) in 1840 to 16,000 in 1850 and 53,000 in 1870. The arrival of the railroad in Dane County in 1854 helped speed this growth as well as convey the products of the land. Wheat was the main crop from 1840 until1860, when the arrival of the chinch bug ended wheat's reign as king crop. Farmers quickly perceived the need for agricultural (and income) diversity. Dairying, with its steady, reliable income, became the leading type of farm. Cash crops were tobacco, hops and sheep. As local farmers organized cooperative cheese factories, the by-products of cheese-making were fed to hogs, giving rise to another profitable cash crop. While McCormick's improved, self raking mechanical wheat-reaper (1854) might have reduced the need for many field-hands, the dairy industry, with its diversity of cash crops, kept people employed on the land,

Villages sprung up to meet the needs of farmers. On Koshkonong Creek three villages were established at mill-sites; Cambridge and Rockdale in 1847 and Kroghville in 1848. Powered by the Koshkonong, these mills sawed lumber and carded wool as well as ground grain.

The last resident owner at 37 Oakland Road was Oscar Severson. Oscar Severson was born in Cambridge in 1896, the son of business man Louis Severson. He graduated from Cambridge High School in 1916. (The Historic 1908 School Building began as our

K-12 building.) He is remembered as a good student and athlete. He volunteered for World War I, serving overseas. When he returned, he worked at several Cambridge businesses before joining the Cambridge State Bank, where he worked for the rest of his life. In 1948 he married his longtime sweetheart Mabel Guernsey, a nurse. The couple had no children.
Mr. Severson enjoyed carpentering and clock-mending. His basement worship was famously tidy and well-stocked with tools. Mr. Severson gave his farm to the School District when he died in 1989. His will reads: "I give and bequeath my farm... to... Cambridge Community Schools, and direct that said farm be used in the main... to aid in the education of farming... and it is my desire that said farm, house and buildings be used to aid and assist in the education of all students in the Cambridge Community School System."

Since 1989 the school district has set out to make Mr. Severson's hope a reality. Woodlot A was designated as our primary environmental education site. Teacher Pete Degan's summer school classes (1996-97) researched, designed and built trails in the woods, completed a plant inventory, and created informational signs along the trails. A joint venture with the U.S. Fish and Wildlife Service completed a pond restoration and wetland scrape. A small orchard was planted by High School Ag students. The arable land was farmed by the FFA Alumni, who also repaired the barn and made substantial improvements to the farm house.

Progress came to an abrupt halt when an illegal logging destroyed much of woodlot A. It became clear that more comprehensive oversight was needed for Mr. Severson's vision to succeed. Fortunately there were still people who believed in the promise of the Severson place. School Board member Tracy Smithback-Travis organized meetings which not only re-ignited enthusiasm but also led to the formation of a School Board Standing Committee set up specifically to implement the Severson vision. The depth, breadth and commitment of this committee has allowed the work to move forward, managing and improving what is now called Severson Learning Center.

It has been a busy four years. The 4th graders have worked on restoration of Woodlot A, planting trees, including 75 Sugar Maples for a future maple syrup production project with FFA students. High School Horticulture students have restored the orchard, helped create community gardens to provide fresh produce for our local food pantry. They added a berry patch in 2010. The Cambridge FFA Alumni refurbished the barn, and FFA Students are housing their animal husbandry projects in the barn. The FFA Alumni installed compost bins to turn animal project waste into community garden soil improvement. Use of the Severson Learning Center has been successfully integrated into the curriculum for all our Elementary students and for some of our High School classes. (Agriculture, Horticulture, Natural Resources and Field Biology.)

Much of the history of the Elementary School Forest site is the same as that of the Severson School Forest, especially its glacial history and its relationship to Koshkonong Creek. The two sites differ geologically. The Dolomite bedrock, so close to the surface or actually exposed at Severson, lies deep underground at the Elementary site. The Elementary site evolved as prairie and wetland with drainage to the east and the

low-lying Koshkonong Creek. The area's good agricultural soils built by the prairies is what brought settlers to both sites.

The Elementary School Forest site was part of a farm until purchased by the School District of Cambridge in 1996. We have found quite a few relics of early farming when building trails in the woods, and have a collection of artifacts. We consider the woodland "dumps" as "archaeological digs." Much remains to be learned about this site's history since settlement.

Thus it is with the confidence of experience that we now create the Cambridge School Forest Education Plan, to expand, deepen and sustain the educational experiences available to our students.

SITE MANAGEMENT: Goals and Objectives

Key Goals:

1. Students are involved with all aspects of management as much as possible. Stewardship/management is seen as an educational opportunity for our students.
2. Forest management of Woodlot A includes trail system, improvement, woodland restoration/replanting, and removal of invasives.
3. Forest management of woodlots B, C, and D is primarily to retain forest health and remove invasives.
4. Pond area grassy buffer: reed canary grass removal, replanting with native prairie mix.
5. Wetland scrape grassy buffer and grassy swales" remove invasives including trees growing in swales, and replant to prairie.
6. Community gardens- continual soil improvement with compost pile use.
7. Orchard- increase production with sustainable practices; perhaps increasing orchard size and including berry patch area.
8. Facilities improvement (permanent, 4-season classroom with restrooms, etc.)

Objectives:

1. Students will learn stewardship/management skills through participation in activities.
2. Students will gain appreciation of value of sustainable management practices.
3. Students will gain an understanding of the effort involved in natural resources management.
4. Students will experience the potential of careers in natural resources.
5. Students will gain an appreciation of their local landscape, its history, and its role in the community of the future.

3.) EDUCATIONAL CONNECTIONS

KEY CONCEPTS

1. Life on Earth is found within the biosphere, a complex, dynamic, interdependent system of biotic communities, interwoven materials cycles and energy flows.
2. The sun is the ultimate source of energy in our biosphere. Photosynthesis is the basis of all food-webs and energy and material cycles in our biosphere.
3. The biosphere is organized into ecosystems that have different characteristics depending on their location on the planet.
4. Life in these ecosystems comes in many forms; this diversity is called biodiversity. The richer the biodiversity and the more complicated its food-webs, the more resilient, healthy and self-sustaining an ecosystem is.
5. Our local ecosystem in the Great Lakes bioregion is influenced by the plentiful water of our area.
6. The history of our present landscape, including the woodlands, wetlands and soil-building prairies can be "read" and understood within the context of its geological history.
7. Soil formation and an understanding of its properties is essential to sustainable land management and restoration.
8. Materials flow through our ecosystem as "natural resources", which are finite, not unlimited. People, like all life, must consume resources to live.
9. Sustainable practices in the home and on the land allow people to live in harmony with the natural world.
10. Humans and technology can positively or negatively impact the natural world. It is our responsibility as humans to learn skills and make choices that care for our land and resources.

In addition to these concepts, these educational goals are noted: Our students, during their outdoor experiences, will:

A. enhance their sense of place
B. experience wonder, joy and delight in nature
C. have creative and aesthetic experiences
D. improve observational skills
E. have opportunities for community service
F. have opportunities for original research
G. have opportunities to contribute to and participate in citizen science activities
H. have opportunities for meaningful problem-solving
I. have opportunities to collaborate with and learn from peers
J. have opportunities to learn from the land itself
K. have opportunities to take care of the land

The charts that follow are an overview of current and potential activities that connect our School Forest to our K-12 Curriculum. Most of the elementary activities are very well developed and are already taking place. High School activities are in the beginning phases of being implemented. In the next year specific Middle School activities will be developed and incorporated into the plan.

Forestry Education Plan
Education Connections

Grade Level	Subject	Concepts	Objectives	Activity	Location	State Standards
4K	Language Arts, Math, Science	ABDEIJ	Feel safe and happy outdoors. Make observations about the woods. Vocabulary acquisition	Fall walk in the woods. Finding leaves, counting, sorting leaves by shape. Sharing about their experience.	Elem. Woods	
4K	Language Arts, Science, Community Service	ABDEIJ	Make observations about wintertime in the woods.	Make peanut butter pine cone feeders and hang along trail. Share about their experience.	Elem. Woods	
4K	Language Arts, Science	ABDEIJ	Make observations about spring time in the woods	Walk to observe flowers, bird songs and frog songs	Elem. Woods	
4K	Language Arts, Science		Learn how plants grow.	Plant seeds and plants in community garden. Parts-of-a-plant craft activity.	SLC	
K	Language Arts, Math, Science	ABCDIJ	Identify and describe colors, shapes, sizes and textures. Acquire new vocabulary. Increase observation skills	Prairie "treasure-hunt" style walk to look for colors, shapes, sizes and textures	Elem Prairie	Literacy: SL.1, SL.2, SL.4, SL.6, L.4, L.6, Math: K.CC, K.G,
K	Language Arts, Math, Science	ABCDIJ	Observing, comparing, and grouping different shapes. Enjoy looking for and finding leaves.	"Treasure -hunt" style walk. Later sort leaves by shape	SLC/Elem Woods	Literacy: SL.1, SL.2, SL.4, SL.6, L.4, L.6, Math: K.CC, K.G,
K	Language Arts, Math, Science, Community Service	ABCDEIJ	Increase observation skills. Learn new words. increase enjoyment of the outdoors.	Identify tracks in the snow. Graph data. Make and hang peanut butter pinecone bird feeders along the trail	SLC/Elem Woods	Literacy: W.7, L.4, Math: K.CC, K.MD
K	Language Arts, Science, Community Service	ABCDEIJ24	Increase observation skills. Learn new words. Increase enjoyment of the outdoors.	Transplanting flowers. Observing and identifying flowers, pollinating insects, bird songs, etc	SLC/Elem Woods	Literacy: L.4

Forestry Education Plan
Education Connections

K	Language Arts, Science, Community Service, visual arts	ABDEHI7	Identify the various parts of a plant and their basic functions. Interact with farm animals	Plant a seed/plant in the community garden. Meet various farm animals	SLC	Literacy: L.4
1st Grade	Language Arts, Science, visual arts	ABCDIJ23	Observe and put words to observations. Vocabulary acquisition	Observe prairie insects, use descriptive words to describe insect actions and appearance- then create a book	SLC/Elem Prairie	Literacy: W.3, SL.1, SL.3, SL.4,L.4
1st Grade	Language Arts, Science, math, community service	ABCDEG HIJK1234	Understand fall woodland life. Understand decomposition. Collect and classify leaves by shape. Increase vocabulary. Sight word comprehension	Woods observations including leaves and log dwellers and planting acorns. Then make easy reader leaf book.	SLC/Elem Woods	Literacy: W.3, SL.1, SL.3, SL.4,L.4Math: 1.OA, 1.NBT, 1.G
1st Grade	Language Arts, Science, community service	ABCDEG HIJK1234	Understand winter woodland. Observe/identify tracks. Observe winter birds. Help winter birds. Vocabulary acquisition Sight word comprehension	Observe birds and leave food for them. Followup with 2 easy - readers books about birds and walking in the snow. Graph bird observations	SLC/Elem Woods	Literacy: RI.1, RI.2, SL.2, L.4
1st Grade	Language Arts, Science, community service	ABCDEG HIJK1234	Reflect on spring forest observations. Transplant flowers. Recognize and remove Garlic Mustard. Vocab acquisition. Sight word comprehension	Spring woods walk. Transplant flowers off of trail, remove invasive species. Easy reader -- Baby Oak Tree	SLC/Elem Woods	Literacy: RI.1, RI.2, SL.2, L.4
1st Grade	Language Arts, Science, Community Service, Visual Arts	12 BCEIJ	Name major parts of a plant. Identify pollinators and why they are important. Make observations about nature.	Plant parts craft project.Plant seeds in community garden. Meet farm animals.	SLC	Literacy: L.4, W.3, W.5, W.8

Forestry Education Plan
Education Connections

2nd Grade	Language Arts, Math, Science	ABCDEG HIJ1234	Conduct research, collect data, tabulate data, create graphs to present data. New vocabulary and sight word comprehension	Conduct a 3 minute observation of a prairie plant recording insect pollinators on data sheet, Then tabulate and graph data with peers	Elem. Prairie	Literacy: W.7, W.8, SL.1, L.4 Math: 2.OA, 2.NBT, 2.MD
2nd Grade		ABCD HIJ1234	Collect data. Make observations about leaf adaptations. New vocabulary	Treasure-hunt style walk in prairie looking for leaf adaptations using an informative field-guide	Elem. Prairie	Literacy: W.7, W.8, SL.1, L.4
2nd Grade	Language arts, science, community service	1234 ABCDE HIJK	Help enhance our prairie habitat by spreading seeds use proper seed spreading skills. Perform community service. Vocabulary acquisition	Students will spread prairie seeds collected by 4th grade where abundant to places less abundant in our prairie. learn about how seeds move by wind, gravity, hitch hiking and as edible treats in a prairie	Elem. Prairie	Literacy: SL.1, SL.3 L.4
2nd Grade	Language arts, Science, Community service, visual arts	1234 ABCD HIJK	Make brush pile habitat and understand the importance of community service. Vocabulary acquisition Sight word comprehension	Students will create brush pile habitats in the woods, then write about the experience with an art project afterwards	SLC/Elem Woods	Literacy: W.7, W.8, L.4
2nd Grade	Language Arts, Math, Science	1234 ABCDE FHIJ	Find and identify tracks in the snow using tracks field sheet observe signs of animal food consumption measure tracks per yard count by 2's and 4's compare tracks and strides to deduce size of animal. Vocabulary acquisition.	Winter woods walks to look for tracks and other signs of mammals, some track- math activities in the woods to stimulate inquiry-mode, and learn about survival tactics of woodland creatures in winter	SLC/Elem Woods	Literacy: SL.1, SL.3 L.4 Math: 2.OA, 2.NBT, 2.MD

Forestry Education Plan
Education Connections

2nd Grade	Language Arts, Math, Science	1234 ABCDEFGHIJ	Pose a research question, set up a research project that can answer the question, conduct the research, collect the data, tabulate the data and present the data in the form of a graph. Vocabulary acquisition. Graphing skills	Using their classroom bird feeder, students will choose a question about birds / bird feeding and collect the data and present their findings.	classroom birdfeeders	Literacy: SL.1, SL.4,W.2, W.7, W.8, L.4 Math: 2.OA, 2.NBT, 2.MD
2nd Grade	language arts, science	1234 ABCDEJ	Visual observation skills, listening observation skills, vocabulary acquisition	An observation/ enjoyment walk to look and listen to spring sights and sounds (birds and frogs) frog CD	SLC/Elem Woods	Literacy: SL.1, SL.3, L.4
2nd Grade	language arts, science, community service	1234 ABCDEHIJK	Explain plant structure and functions, understand photosynthesis, understand pollination, understand food-webs. Perform community service. Learn skill of planting plants. Understand the effects of invasive species.	A walk focused on plants structure and functions, and how pollination essential to plant life cycle, and how photosynthesis not only feeds the plant but forms basis of all food webs, then they will transplant plants off our trails and remove garlic mustard	SLC/Elem Woods	Literacy: SL.1, SL.3, L.4
2nd Grade	language arts, science, community service	27ABDEIJ	Learn the functions of basic plant parts. Vocabulary acquisition, sight word comprehension.	Students will have an art activity about plant structure and function and actually plant a plant or seeds in the community garden	SLC	Literacy: SL.1, SL.3, L.4
3rd Grade	language arts, science, math	12345 ABCDEFGHIJ	Vocabulary acquisition. Use direct observations and clues to explore woodland habitat for it's wildlife value. Collect data on survey sheet using tally marks.	Fall walk in woods in distinct areas to observe value of wood's area habitat to wildlife. Observational skills will be enhanced in this activity. (Earth Partnership "Habitat Detectives" Activity)	SLC/Elem Woods	Literacy: SL.1, SL.3, L.4 Math: 3.MD

Forestry Education Plan
Education Connections

3rd Grade	language arts, visual arts, science	1234 ABCDEHIJ	Learn about woodland habitat understand camouflage learn how to make a leaf- rubbing vocabulary acquisition	Students will be creating camouflage paper by making leaf- rubbings and then choose a woodland animal to create using their camouflage paper, research their animal's habitat and install along trail	SLC/Elem Woods	Literacy: R.5, SL..5, L.4,
3rd Grade	language arts, visual arts, science, math	1234 ABCHIK	Tabulate data collected earlier organize data on a phenology wheel to show seasonal food availability in our woods plan a woods habitat enhancement based on findings vocabulary acquisition	Earth Partnership "Habitat Assessors" Activity	indoors	Math: 3.MD
3rd Grade	language arts, science	1234 ABDHIJ	Learn how to use track detection box. I.D. tracks	Track capture using camouflage detection boxes.	SLC/Elem woods	Literacy: SL.1, L.4
3rd Grade	language arts, science, community service	12345 ABEHIJK	Implement a plan. Learn proper planting skills. Vocabulary aquisition	Tree planting and invasive species removal. Earth Partnership"Habitat Enhancers" Activity	SLC/Elem woods	Literacy: SL.1, L.4
3rd Grade	language arts, math	1234567 ABDHIJ	Investigate soil properties. Identify soil types. Perform simple soil tests.	Infiltratation and ribbon tests. Investigation of how ecosystems recycle materials to build soil.	SLC/Elem woods	Math: 3.MD 3.NF
4th Grade	history, science	1234567 ABDIJ	Understand local history, enhance sense of place, understand soil-building community	Soil-building plant communities exploration. Learn about local settlement 1840's and prairie becoming farmed land.	Elementary Prairie	Literacy: SL.1, SL.3, SL.4, L.4
4th Grade	science, community service	1234 ABDEHIJK	Harvest seeds and understand the value of prairie restoration	Seed Harvesting and redistribution	Elementary Prairie	Literacy: SL.1, SL.3, SL.4, L.4
4th Grade	science, language arts	12345 ABDIJ	Explain structure and characteristics of deciduous forest	Forest Exploration Activity	SLC/Elem Woods	Literacy: SL.1, SL.3, SL.4, L.4

Forestry Education Plan
Education Connections

4th Grade	science, history, language arts	67 ABDHIJ	Identify geological imprints on the landscape and their importance to agriculture	Explore sedimentary rock and glacial till and barn foundation.	SLC	Literacy: SL.1, SL.3, SL.4, L.4
4th Grade	science, language arts, math	Forestry 12345 ABFHIJ	Contribute to a long-term tree growth monitoring project	Tree measuring activity Earth Partnership "Long Term Tree Monitoring" Activity	SLC/Elem Woods	Literacy: SL.1, SL.3, SL.4, L.4, W.7, Math: 4.MD
4th Grade	science, language arts, math, computer skills	12349 DIJK	Measure, calculate, collect data, Use computer, write a report	CO2 sequestration, tree data collection activity Earth Partnership "Trees as Carbon Sinks" Activity	SLC/Elem Woods	Literacy: SL.1, SL.3, SL.4, L.4, W.7 Math: 4.MD
4th Grade	Community service	9 10 EIJK	Practice stewardship	Winter trash clean out of prairie and woods to get ready for new spring plants	Elem Prairie and Woods	Literacy: SL.1, SL.3, SL.4, L.4
4th Grade	science, language arts, visual arts, community service	1234567 ABCDEIJK	Practice stewardship. Respond to nature by writing and artwork.	Clean trails, plant community garden, artwork and writing activities, remove invasives, implement an improvement to site, care of Sugar Maple trees.	SLC	Literacy: L.4, W.3, W.5, W.8
5th Grade	Community Service	12345 ABDEIJK	Learn and perform trail upkeep and stewardship skills	Trail clean up in preparation for new school year	SLC/Elem Woods	Literacy: SL.1, SL.3, SL.4, L.4
5th Grade	Community Service	12345 ABDEIJK	Identify Buckthorn as an invasive species	Assist with removing buckthorn from woods	SLC/Elem Woods	Literacy: SL.1, SL.3, SL.4, L.4
5th Grade	science, language arts, visual arts, history, math	12345 ABDEIJK	Compare various local water sources. Collect, calculate and report data.	Water Connections lecture/demonstration. Water Cycle Activity, Watersheds Activity, SLC Pond Activity, Woods Pond Activity, Koshkonong Creek Activity, Wetlands Activity, Lake Ripley lecture, Groundwater Activity, Macro invertebrates survey and food webs activity	Elem Woods, SLC, Koshkonong Creek, Lake Ripley	Literacy: RI: 9, W.1-9, SL.1-5, L.3-6 Math: 5.NF 5.MD 5.G

Forestry Education Plan
Education Connections

5th Grade	science, language arts, visual arts	12345 ABCDFHIJ	Collect data, make observations and distinctions between the changing seasons	Seasonal art projects, poetry writing and photographs that exhibit changes/differences in the seasons	SLC/Elem Woods	Literacy: W.7, L.3, L.4
6-8 Science, Math and Language Arts Connections to be developed as a component of this plan.						
9-12	Science	Microbiology 1247 ABDH	Study Microbiology processes in water	Investigate and test soil and water samples for microbiotic activity	SLC	F.12.1, F.12.7, F.12.10
9-12	Science	Biology, Mycology 134 ABDH	Identify and classify various types of fungi	Fungi specimen collections and observations	SLC	F.12.5 F.12.7 F.12.11
9-12	Science	Biology Botany 134 ABCHJ	Classify and identify forest flora	Photograph forest flora specimens	SLC	F.12.5 F.12.10
9-12	Science	Biology Entomology 134 DHIJ	Understand insect adaptations	Investigate and discover evidence of insect adaptations	SLC	F.12.6
9-12	Science	Biology Zoology 1345 ABCDHI	Observe and record data on various types of animal behaviors and interactions	Examine animal behavior and interactions of forest species	SLC	F.12.7 F.12.12
9-12	Science	Biology Ecology 1234 DEI	Identify different types of invasive species. Conduct research and devise and execute a plan for removal	Invasive Species Removal Plan	SLC	F.12.8
9-12	Science	Chemistry Physical Science 1567 HIJ	Investigate the chemical make-up of soil and pond water.	Water and soil sample testing activity	SLC	D.12.5
9-12	Science	Physics Physical Science 234568 ABDHIJ	Take basic measurements. Read units of measure. Make calculations based on measurements	Tree Measuring Activity using Biltmore sticks, etc. to measure diameter, height, volume, etc.	SLC	D.12.1
9-12	Science	Ecology 1234567 ABCDEGIK	Identify common forest plants and animal signs	Research and create interpretive trail signs	SLC	F.12.7 F.12.10

Forestry Education Plan
Education Connections

9-12	Science	Ecology Phenology 123458 ABCDFGHIJ	Understand periodic life cycle events of various plants and animals.	Conduct various phenology studies, seasonal research, etc.	SLC	F.12.8
9-12	Science	Ecology Biodiversity 123458 ABCDFGHIJ	Understand the factors that affect biodiversity within a given area.	Collect and analyze data on biodiversity in various locations	SLC	F.12.7 F.12.8
9-12	Science	Soils 67 DEFIJ	Explain and identify the different types of soil and how soil characteristics can be determined by testing methods.	Conduct and explain infiltration, ribbon tests, etc. with 3rd grade class.	SLC	E.12.2
9-12	Science	Water Ecology 1234567 DHI	Explain the elements that make up a pond ecosystem	Conduct water tests and food web activities with 5th grade class	SLC	E.12.2
9-12	Math	Algebra 9,10 DHIJ	Solve linear equations. Work with rations and proportions	Conduct crop and tree transects and determine value of crops	SLC	A-CED A-REI
9-12	Math	Algebra 9,10 DHIJ	Graph linear equations. Calculate slope	Use surveying equipment to determine slopes and changes in altitude, etc. along sections of the property.	SLC	A-CED A-REI G-GPE
9-12	Math	Algebra 9,10 DHIJ	Make predictions and calculate correlations	Investigate nature using scatter plots	SLC	A-CED A-REI
9-12	Math	Algebra 1234 DHIJ	Correctly use exponents and scientific notation	Study population growth of various types of wildlife	SLC	N-RN
9-12	Math	Geometry DHJI	Classify shapes and polygons	Identify and classify shapes found in the forest.	SLC	G-CO GGMD
9-12	Math	Geometry 10 DHJI	Use right triangles and the Pythagorean theorem	Calculate distances, map work, etc. of trails. Measure distance across the pond using right triangles and laser pointers	SLC	G-CO G-GMD
9-12	Math	Geometry DHJI	Use vector angles	Lab activity that uses compasses to study vector angles.	SLC	N-VM

Forestry Education Plan
Education Connections

9-12	Math	Geometry 10 DHIJ	Calculate length and area	Determine various measurements using farm fields, tree plots, etc.	SLC	G-CO G-GPE
9-12	Math	Geometry DHIJ	Use geometric shapes, their measures, and their properties to describe objects	Build a replica of a specific tree using a combination of geometric shapes	SLC	G-MG
9-12	Math	Geometry	Advanced math/data calculations	Compare efficiencies of various alternative energy production processes	SLC	Various
9-12	Social Studies	Geography 567 10 BCDHIK	Use GPS devices to locate spots, create maps, etc. Read topographical maps	Create maps, treasure hunts of property. Create topographical maps using GPS systems.	SLC	Literacy: RST.3, RST.4
	Social Studies	Geography History 1569 10 ABCDGHIJK	Understand how changes in landscape can help understand history	Examine remnants of buildings, landscape, etc to learn about the property's ecological history	SLC	Literacy: WHIS.2, SL.1
9-12	Social Studies Natural Resources	Psychology Urban Forestry 1289 10 ABCEFIJK	Communicate the impacts of "Green" on emotions and environment	Develop a Green project that can be implemented at the SLC	SLC	Literacy: WHIS.1 WHIS.2 WHIS.4 SL.5
9-12	Social Studies	Government 9 10 AGHI	How do local and state environmental policies impact us?	Investigate how environmental policy affects property like the SLC.	SLC	Literacy: WHIS.1, WHIS.8
9-12	English	Poetry ABCD	Examine and study poetry in nature	Create a nature poem based on their experience at the learning center.	SLC	Literacy: WHIS.4
9-12	English	Creative Writing ABCD	Understand the essential elements of creative writing	Creative writing in nature exercise	SLC	Literacy: WHIS.4
9-12	English	Short Stories ABCD	Use the essential elements of a short story	Write a short story themed around the environment, history, plant/animal life at the SLC	SLC	Literacy: WHIS.4

Forestry Education Plan
Education Connections

9-12	All Subjects	Forestry Business	Produce, market and sell a product to the public.	Care for and maintain sugar maple trees. Harvest sap and produce maple syrup. Develop marketing/business plan.	SLC	Literacy: W.2, W.4, Sl.1, SL.2, SL.4, SL.5

STAFF DEVELOPMENT

- Yearly New Teacher In-service Tour of Severson Learning Center
- Annual Update at All Staff Back to School In-service
- Increase staff awareness by updates and curriculum connection ideas and instructional aids.
- Presentation of Teacher Kits at staff meetings as they are developed. This will include a group discussion as to how the kits could be applied to different subject areas.
- Each building will hold 1 in-service per year at the SLC.
- Encourage teachers to take Environmental Education classes/workshops in the coming years,
  - 6 total district staff have completed the Earth Partnership Program
  - 1 district staff has taken Groundwater Model Training
  - 1 district staff has completed LEAF Training
  - 1 district staff has completed PLT workshops
  - 4 district staff have completed Project Wild Training
  - 2 district staff have completed Project Wet Training
  - Provide opportunities teachers to attend Project WILD, Project WET, PLT, LEAF and Earth Partnership workshops
- Host 1 regional teacher workshop per year at the SLC for credit. (Earth Partnership, Project Wild, etc.)
- Invite guest speakers from natural resources/agricultural professions to speak to classes.
- Students develop and lead activities that partner high school students with younger students so as to model activities for teachers.

RESOURCES - PEOPLE

District Leadership

Bernie Nikolay	District Superintendent
Kathy Davis	District Business Manager
Tracy Smithback Travis	School Board SLC Committee Chairperson
Joe Pleshek	School Board President
Randy Staubli	District Maintenance Supervisor/SLC Resident
Randy North	Maintenance/FFA Alumni

Educational Leadership

Emily Green	HS Agriscience Teacher & SLC Director
Pam Leverson	HS Biology teacher
	MS Teacher
Georgia Gomez-Ibanez	Elementary Environmental Education
Sharon Daly	Education Consultant for Cambridge School District
Gretchen Marshall	LEAF Program Coordinator, UW-Stevens Point
Janet Hutchens	WI DNR Education Outreach
Cheryl Bauer- Armstrong	Earth Partnership (and staff)
Kathy Blomker	Site Specific Environmental Education

Natural Resources and Agriculture Industry Leadership

Karen Stenjem	Cambridge FFA Alumni President
Paul Dearlove	Lake Ripley Management District Manager/ Lake Limnologist
Jay Settersten	Ecologist / Land Stewardship Management Issues/Biofuels Consultant
Nicholas Koltz	Local DNR Forester, Janesville Office
Marcia Staubli	Horticulture, SLC Resident
Daryl Peterson	Local Arborist
Sean Gere	Local Arborist
Mike Day	Maple Syrup production local specialist
Kent Karburg	Fruit Tree Production
Paul Garrison	DNR Water Specialist
Laura Payne	Geologist/Geo-Engineer – Groundwater Issues
Joe Arrington	Forestry – Tree Farm Operator
Brian Gunnelson	FFA Alumni, primary farmer of SLC fields
Mary Wallace	sheep husbandry, wool dying, and spinning

Others

Kristin Stockwell	Artist

UW Extension office resource consultants

RESOURCES – AVAILABLE MATERIALS

2 groundwater flow models
CES set of field canvas tote bags including
- Field guides
- Magnifying glasses
- Dissolved O2 kits
- Secchi disks

Set of kid binoculars
Set of magnifying glasses
3 bird identiflyers with variety of ID cards
Set of dip nets
Set of insect nets
Set of clipboards
Set of plastic track molds
Plant presses
Variety of gardening equipment including shovels, hoes, rakes, hedge clippers, trimmers, hoses…
2 weed wrenches
Roto-tiller / mulcher
Wood chipper
Tractor (FFA alumni)
Sickle bar mower (needs blades to be sharpened)
Assorted resource books & field guides

Materials in plastic totes by subjects
- Birds
- Bugs
- Forest flora

- Nature journals
- Pond water
- Art supplies
- Nature Sounds
- Animal tracks
- Orienteering (compasses)
- Art Supplies

RESOURCES – NEEDED MATERIALS

Resource binder for teachers about SLC
Trail signage
Equipment for water studies including but not limited to:
    Waders
    D nets
    Waterscopes
    Water testing kits
Weather station and equipment
Telescope
Microscopes
Stereoscopes
Digital cameras
Flip recording cameras
Trail cameras
Surveying equipment
Compasses
GPS hand held units
GPS computer software
Collection of animal pelts / mounts
Snow shoes
Cross-country skis
Tools for trail maintenance
Utility vehicle for hauling tools, brush, etc.
Tools for gardening, planning
Building material and tools for making birdhouses, etc.
Material to add to existing learning totes/kits
Material for additional learning totes. Example subject areas listed below:

- Soils
- Geology
- Weather Investigation
- Astronomy
- Gardening
- Pruning / orchard care
- Invasive species
- Animal Habitat Construction
- Outdoor survival

Fruit processing equipment

RESOURCES – AVAILABLE FACILITIES

Severson	Barn
	Tool shed
	Small outbuilding for classroom use
	Temporary structure for classroom use
	Porta-potty
	Basic trails in woodlot A
Elementary	Wheelchair accessible woodchip forest trails with interpretive map guide
	Prairie trail
	Prairie garden with 12 2-seater benches

RESOURCES – NEEDED FACILITIES

Severson	Classroom/Learning Center with storage space, restrooms, large gathering space, science lab and kitchen capability
	Additional storage for outdoor learning equipment
	Pier for pond
	Interpretive signs and benches for the woods trails and around the pond.
	Open outdoor shelter with picnic tables
	Restroom facilities
	Improved driveway and parking/turnaround
	indoor plumbing for animals in the barn??
	Maple Syrup Shed, woodstove and related equipment
	Wheelchair accessibility for all facilities
Elementary	Improved tool storage
	Improved storage for educational material
	Outdoor open shelter/mini-classroom

ASSESSMENT

Increased number of teachers with outdoor Env. Ed training by 2016
Increased number of teachers utilizing SLC by 2016
Increased number of teachers using elementary woods and prairie by 2016
All students in the School District of Cambridge using the SLC by 2016
Pre/Post student surveys

4.) SUSTAINING THE SCHOOL FOREST PROGRAM

School Forest Committee and Responsibilities

Severson Learning Center Committee:

Bernie Nikolay – School District of Cambridge Superintendent
Tracy Smithback-Travis – School District of Cambridge School Board Member
Kathy Davis – SD of C Business Manager
Mary Kay Raether – District Office Secretary
Randy Staubli – District Maintenance Director
Randy North – District Maintenance/ FFA Alumni
Karen Stenjem – Cambridge FFA Alumni President
Emily Green - SLC Director / Agriscience Teacher
Pam Leverson – HS Science teacher
Georgia Gomez-Ibanez – District Environmental Ed Volunteer, Elementary Rep.
_____ - Middle School Rep.
_____ Student Rep.

Responsibilities: (Categories as outlined by LEAF Template)

Financial	SLC Committee and Kathy Davis
Site Development and Maintenance	Randy Staubli, Randy North, Kathy Davis, SLC Director, SLC Committee.
Opportunities/Threats – Big Picture	SLC Committee
Education Plan Development and Review	SLC Director, Mrs. Gomez-Ibanez, Pam Leverson and SLC Committee School Board approval
Management Plan Review	SLC Director, SLC Committee School Board approval
Committee Personnel Review	SLC Committee
Incentives/Support	SLC Committee, FFA Alumni, Cambridge Foundation, School Board Cambridge PTO

Elementary School Forest Committee

Elementary Principal –Keith Schneider
Enviromental Education Volunteer – Georgia Gomez-Ibanez

4K	Jenna Schneider	3rd Grade	Carol Gunnelson
K	Heide Stein	3rd Grade	Jackie Prescott
1st Grade	Sheryl McCarthy	4th Grade	Katie Lardinois
2nd Grade	Jessica Reinstad	5th Grade	Mary Beth Steven

COMMUNICATION PLAN

1. Monthly/bi-monthly committee meetings (CES: 2/3 times per year)
2. district website link
3. staff emails
4. Cambridge News (local paper) – regular articles
5. District newsletters/e-notes (vary with building)
6. annual community open house in fall
7. district staff annual building level in-services
8. staff meeting reports by school reps
9. school board meeting reports
10. PTO meeting updates
11. FFA Alumni meeting monthly reports

LONG RANGE GOALS AND IMPLEMENTATION PLAN

Below is a tentative calendar of goals and benchmarks for the implementation of the school forest plan. Many items are subject to funding and staffing availability and will be rescheduled if necessary.

SLC Goals/Benchmarks

1 Year	Education Plan completed and submitted by Dec. 2011
Sept. 2012	Staff general awareness increased
	Incorporate Elementary School Woods into Forest Education Plan
	Encourage interested staff to Env. Ed classes/workshops during 2011-12 school year, summer 2012
	Elementary use of SLC well-established
	H.S. use of SLC by Ag Dept. and Biology classes working well
	M.S. representative established on SLC committee
	Middle School Curriculum added to education plan
	Summer school use of SLC well-established with good materials/resources
	People Resource list well-developed and available to staff
	Interpretive signage project started along woodland trail
	Reliable mower to maintain trails
	Pond Pier completed
	Improved maintenance of Sugar Maple seedlings
	on-going garlic mustard removal
	on-going inventories of trees, plants, wildlife
	communication plan in place and working smoothly
	In-house, on site (SLC) in-service for staff for each bldg
2 Years	2nd phase of trail signage in place
Sept. 2013	Teacher resource book ready for teachers
	Reliable utility vehicle available for use
	Teacher training: Env. Ed classes
	Ed. Plan for Middle School begun
	In-house, on site (SLC) in-service for staff for each bldg

5 Years	Permanent instruction facility established
Sept. 2016	Secure outdoor and indoor storage for tools/equipment
	Acquired tools needed for trail, woodland stewardship, gardening, etc.
	Major acquisition of educational resource materials wish-list
	Benches built and installed around pond and throughout trail system
	Orchard expansion completed and berry plot established
	Fruit-processing equipment purchased
	Barn improved to use upstairs space for indoor activities
	Barn lower level improved to increase use for animal projects
	Removal of Buckthorn and dead Elms complete in woodlot A
	5 year education-plan review - Summer 2016
	5 year maintenance plan review - Summer 2016
	On-going teacher training (in-house and out)
	Interviews with local residents for local oral history project well underway.
	"Friends" Group established to help with stewardship work
10 Years	Shelter/Picnic area established
Sept. 2021	Completed purchase of education resources materials wish-list
	Restoration of Oaks (esp. White Oak) and understory trees in woodlot A
	On going woodland stewardship
	Removal of Buckthorn in all woodlots completed
	5 year education-plan review - Summer 2021
	5 year maintenance plan review - Summer 2021
	Bio fuel production model in place
15 Years	Maple Syrup shed and production equipment in place
Sept. 2026	On-going woodland stewardship
	Reed canary grass removed from around pond and wetland scrape and its grassy swales and prairie established, and managed for grassland thereafter.(burns and mowings, seed harvests)
	5 year education-plan review - Summer 2026
	5 year maintenance plan review - Summer 2026

Elementary Goals/Benchmarks

1 Year	Ed. Plan completed and submitted by Dec. 2011
Sept. 2012	Staff general awareness increased
	Encourage professional development
	Woodland Field Guide completed - Fall 2011
	Woodland Annotated Trail Map - Fall 2011
	Prairie Field Guide completed
	Prairie annotated Trail map completed
	Ongoing trail improvement
	Ongoing Buckthorn removal
	Ongoing Garlic Mustard removal and other stewardship work
	Communication plan in place and working smoothly
	In-house site activity for staff

	on-going garlic mustard removal
2 Years	Continue to encourage professional development
Sept. 2013	1 half day in-service in-house for staff
	On-going stewardship work
	On-going Buckthorn removal
	Teacher resource book completed
5 Years	Continue to encourage professional development
Sept. 2016	Annual half day in-service for staff
	On-going stewardship work
	Major Buckthorn removal completed
	Resource materials wish list acquired
	Reliable "Friends" group for stewardship work
10 Years	On-going stewardship by students
Sept. 2021	On-going stewardship by "Friends" group

DISTRICT COMMITMENT

This plan was approved at the November 2011 School District of Cambridge School Board meeting by a unanimous vote.