FERNALD PROPOSALS UPDATE – 9/10/09

Tony Mangini: Surgical Center

David Kaloupek: Table Tennis and Water Pool join forces to save the Greene Building and other recreational uses

William Durkee: Site for local, regional, state and national Olympics.

Dog park

Ken Burley: First class public golf course, surrounded by a few new homes, bike/jogging path, a few restaurants with outdoor seating. And if it would fit, a new football and baseball field for WHS.

<u>With attachments</u>:

Strategic Energy Systems, Inc.

Councillor Sally Collura

David DelPorto

Western Greenway from the Waltham Land Trust (brochure)

Waltham Fields Community Farms (Power Point presentation)

Field Inspection Wind Review of a Fernald Site

Performed June 2007 by
Strategic Energy Systems Inc.
Box 263, Wayland, MA 01778
Contact: JCF@SESenergy.com

The Fernald School powerhouse is located below a knoll in the southeast portion of the property. There is a steep dropoff of some 20-25 feet on the east, south, and a portion of the west slopes of the knoll. The powerhouse is served by a campus access road, Chapel Road, that runs from Waverly Oaks Road. To the northwest and the northeast of the dropoff are two buildings each some 150-200 or more feet distant from the powerhouse. The area of the dropoff is second growth scrub brush and a cleared area that seems to have been used for such purposes as a truck turnaround, storage, and dumping area extending out 200 to 500 feet from the base of the knoll. This dropoff area is transited by power feeders to and from the powerhouse. The powerhouse is still in use to supply heat to a portion of the campus.

The location near the powerhouse is such that during our visit there was a constant breeze passing by, and it appeared likely that this breeze would commonly be blowing. A meteorological tower would be necessary to obtain precise measurements, but field observations suggest that there may be sufficient wind of sustained strength to support the installation of a wind turbine.

Because the powerhouse uses a large amount of electricity in its operation, it already has heavy duty electrical connections to the grid. The powerhouse at one time supplied much of the campus, and now appears still to be in use to supply an unknown portion of the campus. When it is in operation, the powerhouse will provide a substantial on-site load for the wind generation project. Its existing electric connections and proximity to the internal distribution grid will make interconnection to supply additional load quite easy and economic. It will also make interconnection to the utility electric supply grid both easy and economic. Its relative isolation from the rest of the campus will allow a wind turbine project to be constructed with minimum disruption to the activities on the campus. It will also provide necessary safety clearances such as a fall zone. The cleared area of the dropoff will also provide an adequate area for assembly and erection of the wind turbine itself. The powerhouse dropoff area is adjacent to a secondary road which will provide excellent access for construction equipment and materials including the large blades of the turbine.

Since the topography and existing neighborhood utilization will require minimum acquisition, relocation, and site preparation, preliminary costs will be low in comparison with normal urban sites. The presence of existing heavy duty utility services will also reduce the preliminary costs.

The continuing operation of the Fernald campus and its internal electric distribution grid will provide for considerable on-site consumption of generated electricity. This will make the economic operation of the wind turbine project much less dependent on revenue from the sale of excess generated electricity to the utility grid than for many projects. While these factors may not favor the installation of a very large wind turbine, they are ideal for a medium size turbine project. The precise sizing of the wind turbine will of course be a function of the projected uses of the Fernald campus. If industries requiring intensive use of electrical equipment locate on the campus, then a larger turbine may be appropriate. In addition to providing a source of renewable energy, this installation will provide a valuable case study example of how to install and maintain a wind turbine project in an urban area.

Strategic Energy Systems, Inc.

Selected SES Personnel

John Carlton-Foss, Applied Physicist, Applied Psychologist, and Chief Executive Officer

SB,SM, Massachusetts Institute of Technology
Ed.M, Harvard University
M.B.A. program, Harvard University and Massachusetts Institute of Technology
Ph.D, Saybrook Institute

After co-founding the Alternative Technology Study Group at MIT, John was founder and CEO of Human-Technical Systems Inc. (HTEC) in 1979, which provided expertise in the areas of human factors, energy engineering, architectural engineering, software development, and implementation of computer systems in organizations. He served as a member of ASHRAE Standards Committee 62-89R (Minimum Requirements for Acceptable Ventilation), chairman of ASHRAE Standards Project Committee (Ventilation Effectiveness), and was a member of various ASHRAE technical standing committees.

John was one of the key figures in the early developments that led to LEED. John served as the only psychologist-engineer on ASHRAE Standards Committee 62 (Ventilation for Acceptable Air Quality) arguing the importance of employee productivity, and of relying on scientific measurement and data to determine standards. He wrote "Energy Engineering for Occupied Spaces" (winning the award for Best Journal Article) in which he argued that designing for people and productivity were key goals for engineering. He was a major contributor to the understanding of "sick building syndrome" and presented on this to the American Conference of Government and Industrial Hygienists in 1982. He was chairman of ASHRAE SPC 129P, which was tasked with developing a new standard for assessing the effectiveness of ventilation.

Emphasizing architectural engineering and computer systems, John has performed dozens of human-technical studies and implementations for organizations. His original work pertained to energy technologies, human comfort and productivity; later he also applied the approach to the implementation of computer systems and to general architectural-engineering systems. John has a diverse portfolio of successful projects including a campus of high-rise residential buildings in urban NYC, educational buildings in suburban and urban communities as well as commercial and industrial facilities across various industries. He has also designed, coded and managed numerous hardware and software projects. John is certified in the installation of meteoroogical towers and sensors.

John has authored or co-authored numerous publications including "ASHRAE Standard 62-89: Ventilation and Acceptable Indoor Air Quality" (member of Committee), "Human Physiology and Comfort" in ASHRAE Fundamentals, "Energy Engineering for Occupied Spaces", "Comfort and Discomfort in Office Environmental Problems" and "A Winning Strategy for Software Companies: Value-Based, Flexible Design." John is also in demand as a speaker. He recently served as a panelist for an MIT conference on entrepreneurship. In April he presented Greening the Planet, about technical details of the installation of a 660 kW wind turbine. He is currently working on a panel presentation on quantum mechanics, quantum electrodynamics and patterns of cognition in the human mind.

Andrew H. Sims, Jr., Chief Engineer, PE, DEE, QEP

S.B.E.E. with honors, Coast Guard Academy
S.B.E.E. Massachusetts Institute of Technology

Andrew has held director and senior level positions at DukeSolutions, South Essex Sewerage District, City of New London CT and RG Vanderweil Engineering.

Andrew has conducted dozens of energy audits, designed energy system implementations, performed life safety code reviews creating corrective action recommendations, and has served as designer of record for an extensive portfolio of construction projects. Some of these design accomplishments include the energy systems at the U.S. Winter Olympic facilities (Salt Lake City), a chiller plant at a major Boston hospital, backup power systems, waste to heat/power systems, and a refurbishment of a low head hydro-electric dam.

In Andy's project accomplishments, he has always adhered to applicable goals such as minimizing disruption during construction and achieving tight time and budget goals.

Mr. Sims' professional credentials include:

- Registered Professional Engineer in 24 states and District of Columbia (including New England states & NY)
- Authorized OSHA Instructor for General Industry and for Construction Industry Outreach Programs
- Qualified Environmental Practitioner, Institute for Professional Environmental Practice
- Diplomate Environmental Engineer, American Academy of Environmental Engineers
- Received Water Environment Federation Service Awards in 1992 and 1994 for publication work

Andrew has authored many publications including "Staffing and training for Secondary Start-Up", "Supervisor's Guide to Safety and Health Programs" and "Safety and Health in Wastewater Systems - MOP 1."

Daniel Ciarcia, Director Business Development, PMP

MBA, Plymouth State University

BSEE, University of New Hampshire

Dan brings to SES a wealth of expertise in business development, strategic marketing and business management, as well as extensive experience engineering products in industries ranging from green technology and energy to high-technology. With formal education in Electrical Engineering, Masters in Business Administration and Project Management Professional (P.M.P.) certification, Dan is accomplished at managing projects of various sizes and applications, including oversight of budget and project scheduling. Dan has designed, marketed and managed the development of a diverse set of high-technology products for large corporations and start-up entities, including Cabletron Systems (Enterasys), Freescale/Motorola and Teja Technologies.

In the energy space, Dan has performed comprehensive energy audits for commercial and residential complexes as well as the siting and planning of wind power installations. Dan's extensive business and technical background in a wide breadth of industries and technologies, combined with comprehensive knowledge of the emerging renewable energy sector provides him with considerable insight into various power intensive vertical markets who are interested in integrating green technologies into their regular business activities. Dan has a passion for renewable, sustainable and environmentally beneficial technologies and seeks to rapidly advance the integration of these technologies into communities, businesses and homes with a goal of an ever more sustainable society on the whole.

Strategic Energy Systems, Inc., Box 263, Wayland, MA 01778 781-891-8050 info@SESenergy.com

Scorzella, Nancy

From: JOE VIZARD [joevizard@verizon.net]

Sent: Saturday, August 29, 2009 1:53 PM

To: Mayor; Charlie Brophy; councillorcurtin@aol.com; dana.harrell@state.ma.us; nicholas.tsaparlis@state.ma.us; Vokey, Ronald

Subject: Fw:

--- On **Fri, 8/28/09, scollura@juno.com** <*scollura@juno.com*> wrote:

From: scollura@juno.com <scollura@juno.com>
Subject:
To: joevizard@verizon.net, mariedaly10@aol.com, rzampitella@hotmail.com, jprfr@verizon.net, rvokey@city.waltham.ma.us
Date: Friday, August 28, 2009, 9:51 AM

Good morning,

I wanted to pass along my thought for possible reuse of part of the Fernald property to you for your consideration.

In light of the passing of Eunice Kennedy Shriver and the tremendous contribution she made to help improve the lives of physically and mentally challenged people throughout the world, I believe we need to give serious consideration for a museum and library to honor Mrs. Shriver for the contributions she made throughout her life.

It seems fitting to me that part of the Fernald property be used for this purpose since the Shriver Center is so close in proximity and the Fernald property would be the appropriate setting for this use.

If a museum and library were to be constructed there it would give an opportunity to visitors and students to learn about the life and contributions made by Mrs. Shriver and could include the history and heritage of the Kennedy family as well.

The Eunice Kennedy Shriver museum and library, would be of interest to visitors to the area, as well as students doing research for a school project.

Thank you for taking my idea into consideration and thanks you also for the time you all have contributed to serve on this committee.

Sally Collura
Councillor at large

Scorzella, Nancy

From: Steve Laferriere [steve@watchcdc.org]
Sent: Wednesday, September 02, 2009 12:11 PM
To: David Del Porto
Cc: Zubrowski, Eileen; Eric J. Olson; Mayor
Subject: Re: Sustainable Aging in place proposal for Fernald

Hello David,

Thanks for sending me your proposal for Sustainable Aging in Place. Let me tell you a little bit about the process surrounding Fernald, and how the Fernald Working Group is involved in that, and then I will comment more directly on your proposal.

As I'm sure you are aware, the Fernald is scheduled to close next summer and the Fernald Reuse Committee is charged with coming up with a reuse plan for the site. The Reuse Committee is chaired by Mayor McCarthy and has been excepting proposals, very similar to the one you already have, and possibly will be accepting proposals again after one of the their next meetings, scheduled for September 10 and October 15.

The Fernald Working Group is a coalition of local non-profits and citizens that has been working since 2003 to ensure that the local community has a strong voice in any redevelopment that occurs at the Fernald. Through a variety of public events, meetings and charettes and well countless conversations with residents and professionals has come up with its own Vision for what should happen at the Fernald. We have submitted our Vision to the Reuse Committee and we see ourselves as an ally of the City as it works to ensure appropriate reuse of the site that will meet many community needs while minimizing negative impacts.

So, I think that if the Fernald Reuse Committee has another open round of public comments, you could submit exactly what you just sent me. The Reuse Committee has been talking about "health-related housing" which seems to include aging in place, among other housing options. The Fernald Working Group has a significant focus on sustainable housing, so I think your model could fit in to both plans. Eventually, the Commonwealth will issue a Request for Proposals (RFP) and that is when you would need a more refined plan with an actual developer in place, but I wouldn't expect that until at least 2010.

As far as WATCH picking up your proposal and running with it as a developer, the key issue from our perspective would be affordability. Our mission is to create affordable housing for low and moderate income individuals and families. If you would be interested in having a portion of the units set-aside as affordable housing, then their would be a mission fit and we could talk about a potential partnership, at the Fernald or at another site. If affordable housing isn't part of the proposal, that is fine, and I think we would still support the concept, but we would not be interested in partnering to do the development with you.

I would be happy continue this conversation by email, phone or in person.

Thanks again!
Steve

Steve Laferriere, LEED AP
Director of Housing Development
WATCH CDC
517 Moody Street
Waltham, MA 02453
ph: 781-891-6689 x. 204
fax: 781-891-1703
steve@watchcdc.org

On Aug 28, 2009, at 4:36 PM, David Del Porto wrote:

> Hello Steve:
>
> Eileen Zubriwski suggested I send a proposal to the Fernald Reuse Committee and the Mayor regarding my approach to Sustainable Aging in Place. The problem is that I am not a developer and do not have the expertise to assemble such a proposal in time for the

review committee's process.

I am writing to you because WATCH may find the concept worth including in your plan. I have attached two documents that clarify my approach and my relationship to Harvard University. What I suggest be added is a cluster of solar powered homes for the elderly. I am currently designing such a home and it will be ready for construction next summer. It will serve a model and extended class room for the course described in Dr. Spengler's letter (attached) and if it is a fit with your program, I would build on the Fernald site.

I would be pleased to discuss this further, but I would appreciate a response to determine WATCH's interest.

All the best,

--
David Del Porto
Chair: Sustainable Newton Committee
Co-Chair: Newton Renewable Resources Committee
Founding director: Newton Green Decade Coalition
Vice Chair: Newton Solid Waste Commission
Member: Newton High-performance Building Coalition
Del Porto's Direct Phone:
617 431 4341
Fax:
617 209 1200
Short bio: http://www.ecological-engineering.com/delporto.pdf
Schematic video of the zero-net energy house
http://www.youtube.com/watch?v=DfDoXEURn9k

<Sustainable Aging in Place.pdf><Letter to Del Porto from Spengler-New Course[1].pdf>

Scorzella, Nancy

From: ddelporto@gmail.com on behalf of David Del Porto [delporto@ecological-engineering.com]
Sent: Friday, August 28, 2009 4:37 PM
To: steve@watchcdc.org
Cc: Zubrowski, Eileen; Eric J. Olson; Mayor
Subject: Sustainable Aging in place proposal for Fernald
Attachments: Sustainable Aging in Place.pdf; Letter to Del Porto from Spengler-New Course[1].pdf

Hello Steve:

Eileen Zubriwski suggested I send a proposal to the Fernald Reuse Committee and the Mayor regarding my approach to Sustainable Aging in Place. The problem is that I am not a developer and do not have the expertise to assemble such a proposal in time for the review committee's process.

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Sustainable Aging in Place

By David Del Porto, 448 Ward Street Newton, Massachusetts 02459

A panel discussion before the Joint Center for Housing Studies, Harvard University, Cambridge, Massachusetts, October 2, 2008

Table of Contents

Introduction - Aging Americans

According to AARP "more that 18% of Americans are now retired. But, that number has increased by 6% in just the last five years. It will climb even faster as the Baby Boomers exit the workforce.

These adults, who are nearing retirement, are now one of the fastest growing demographics in the country and this horde of Boomers will keep the retirement boom going for the next few decades.

- 83% of the retired adults in the U.S now own their own home
- Thirty percent of retired adults have cash, stocks and CD's valued at more than $100,000, the highest figure ever reported"

Predictions by the Census Bureau state that the number of Americans age between 45 and 64 and up will soar to 154.8 million by 2025. Much of that represents the aging of the huge baby boom generation. Most of these individuals will be on fixed income and will not be able to endure rapid escalation in electricity, heating and cooling, transportation and elder care costs. We only need to review our own utility bills over that last ten years to know that the prices have doubled or tripled. Based on what we know today, this is not likely to abate in the next 20 years.

Many folks like my wife and I, have value in homes that are no longer sustainable. My house has three areas, basement, first and second floors. But as we age, we become trapped on one floor because we can no longer navigate the stairs to the upper and lower floors. The taxes and utility bills that we could afford when we were young and working are suddenly infeasible when on a fixed income. Many of us will be forced to sell their homes and use these receipts to fund assisted living or nursing homes because there is no cost-effective elder care.

Statistics

According to American Association of Homes for the Aging (AAHA), the statics are as follows:

Need for long-term care

- Among people turning 65 today, 69 percent will need some form of long-term care, whether in the community or in a residential care facility.
- By 2020, 12 million older Americans will need long-term health care

Availability of elder care housing

- There are 16,100 certified nursing homes in the United States.

- There are 39,500 assisted living facilities in the United States.
- There are 1,900 continuing care retirement communities in the United States.
- There are more than 300,000 units of Section 202 affordable senior housing available in the United States.
- For each Section 202 affordable senior housing unit that is available, there are ten eligible seniors on waiting lists for it. The average time an eligible senior is on the waiting list is 13.4 months.

Cost for elder housing

- The average daily cost for a private room in a nursing home is $213.00 or $77,745 annually.
- The average daily cost for a semi-private room in a nursing home is $189.00 or $68,985 annually.
- The average monthly cost of living in an assisted living facility is $2,969 or $35,628 annually.
- The average monthly cost of living in a not-for-profit Continuing Care Retirement Community is $2,672 or $32,064 annually.
- The average monthly rate for assisted living facilities that charge additional fees for Alzheimer's and dementia care is $4,270 or $51,240 annually.
- To move into a community, individuals must also pay an entry fee ranging from $60,000 to $120,000.
- The average hourly rate for a certified home health aide is $32.37.
- The average hourly rate for a uncertified home health aide is $19.00.
- The national average daily rate for adult day centers is $61.00 (2007 MetLife Market Survey of Adult Day Services & Home Care Costs)
- The national average hourly rate for homemakers/companions is $18.00 (2007 MetLife Market Survey of Adult Day Services & Home Care Costs)

Who Pays?

- Nearly 40 percent of long-term care spending is paid for by private funds.
- Medicare, which covers rehabilitation services after an individual is discharged from a hospital, pays for 19 percent of all long-term care spending.
- Medicaid, which covers health care costs for low-income individuals, pays for 49 percent of all long-term care spending.
- Accounting for about 40 percent of total expenditures on nursing facilities, Medicaid's payments cover the care of more than half of all nursing home residents.

Use of elder care housing

- There are more than 1.4 million nursing home residents in the United States.
- An individual's average age when he or she moves into a nursing home is 79.
- Women are almost three times as likely to live in nursing homes as men.
- More than 900,000 individuals live in assisted living residences.

- More than 150,000 individuals receive care and services at an adult day center.
- There are more than 1.1 million seniors in some type of senior housing community in the United States.
- There are approximately 745,000 older adults who live in continuing care retirement communities in the United States.
- The average age of an individual moving into a continuing care retirement community is 78.
- Nearly 1.4 million individuals receive home health services.
- The average lifetime nursing home use per individual is one year, and the average home care use is a little over 200 visits.

Disappearing Assets

As you can see, the equity in existing homes of the elderly can be quickly consumed and the elders forced to go on welfare. What a terrible way to finish a wonderful life.

What is needed is a paradigm shift to a model of Sustainable Aging in Place.

My wife and I live in Newton, Massachusetts, a suburb of Boston. Our way too big home was great when our five children were here, but now they have moved on with their lives and only visit from time-to-time. Starting in the late 1970's we began a sustainable conversion by adding water and energy conservation systems and in 1981, I designed and we built an attached two story greenhouse to provide heat in the winter, grow food, purify the air and provide a higher quality of life at a lower cost of living- a sustainable strategy. However, in 1996, I was severely injured with spinal cord damage that left me a semi-ambulatory paraplegic – it gave me a preview of what it would be like to be in my 90's living in a way-to-big house with an inaccessible second floor and basement. When our children moved away and my wife retired we provided additional home security by renting a couple of rooms to male students from a nearby law school. It was comforting to know that they were in residence and it provided supplemental income as well. We began to contemplate our future in our house and it looked pretty bleak.

The premise

Please keep this in mind: This is a new paradigm for the elderly and the retiring boomer community. The concept is to sell your inefficient home and buy or build one of the new energy and water autonomous homes such as the Del Porto Sustainable Duplex. Many will only use the second unit for visiting family. Others will use it to house elder-care folks and still others will rent as they need the income. A good rental tenant would be a young family who needs the benefits of an energy autonomous house that has a center atrium where the elderly owners could provide babysitting for their young children while they were out. The elderly benefit by have a young family who is looking out for them and providing security and assistance if required.

The mind set

To understand this approach, you have to think like a 70 year old retiree who is contemplating, with fear and trepidation, what it will mean to live to be a 100 or so and what problems will be faced in the future. This is also true for every future generation, if we are to believe the revised life expectancy projections. Personally I can't imagine what it will be like to be on a fixed income and face, buying gas for a car, escalating heating, cooling, water and electricity costs. We are also concerned with personal security. The elderly and infirm are easy targets for muggers and home invaders. These were the motivating factors for my designing the Sustainable Duplex

Aging in place

There is a new group of Newton women and men who are meeting on a regular basis to share issues and ideas about growing old in your existing home. Heretofore the idea was "Growing old in place" or a way to keep your old home and figure out how to stay in it by renting out rooms, installing stair climbers & elevators, renting basements for storage and learning how to find handy and elder care persons who do house calls. Now they are discussing selling their unsustainable homes wherein they reared their family and building or buying new energy autonomous homes like the Sustainable Duplex.

Sustainable aging in place

Now I am offering something very new. The focus is on economic and physical security and the ability to access all parts of the home in a wheelchair, afford your old age and avoid expensive nursing home care. The exterior provides a secure defensible perimeter. The interior solar atrium or central courtyard provides a secure space to harvest solar energy, perhaps including mobile raised beds for flowers or food production or just to sit in the sun with friends. These folks will only need one plug-in or hybrid car and an electric scooter or two. These electric vehicles can be recharged by the photovoltaic system that powers the house. Therefore only one garage and an accessible storage area are needed per unit.

New Urbanism for the elderly

The location should be in village centers so that the elderly can shop, socialize and attend to their medical needs by using an electric scooter - not a car. This is a form of new urbanism for the elderly.

Conventional building lots would be available, but often too expensive and far away from centers of activity. However, I'm also envisioning sites such as old commercial and industrial building lots in urban village centers that can be rezoned to provide more elderly and rental units. In our neighboring cities of Watertown and Waltham, I have seen many ancient, unsafe and often empty commercial buildings and deteriorating parking lots that should be sustainably razed (recycling demolition material) and replaced with a small cluster of Sustainable Duplex units. In Newton, many of the 13 villages have some of these downtown areas often behind the

commercial buildings fronting the streets. But what is important is that they should be located in villages that can be accessed by electric scooters and the basic services that the elderly will require.

Program elements for the Del Porto Sustainable Duplex (DSD)

The following are elements that we want to see in the house:

The over-arching program is to have a home that is inherently secure in the broadest sense of the word for those of us who are elderly or infirm. The fundamental design will protect us from future, unpredictable expenses that will rise by inflation, climate or unforeseen changes. In order to achieve this goal the DSD will have the following elements:

- Building-integrated solar energy production to meet the entire need of the home
- HVAC that ensures health and productivity
- Natural day lighting
- Rain and stormwater harvesting treatment and storage
- Fire proof structure to reduce insurance requirements
- Universal design (unrestricted access for the elderly or handicapped)
- Greenhouse enclosed atria/center courtyard that can, if necessary, grow food
- Ecological sanitation or water reuse
- Minimal maintenance by design. Pipes and wiring chases on interior walls etc
- Security systems (internal and external)
- Electric vehicles that can transport us to local medical, shopping etc services
- Communication systems (wireless internet in every room)
- Not so big
- A second unit for rental income or living area for help or family

Some details

The next are stream of thought elements that come to our mind as we develop the program and are not in any particular order:

- Fire-proof Structural Insulated Panels (SIPS) or Aerated and Autoclaved Concrete (AAC) wall, roof and floor systems with fire-proof windows. Or steel frame with non-flammable insulation, exterior concrete cladding and non-flammable interior wall board
- Solar thermal and photovoltaic power with combined heat and power (CHP) backup
    - All controls and heating units in a fireproof room supplied by outside air
- Roll-down external metal window and door security systems
- Radiant heating and cooling zones with PEX tubing in walls and floors.
- Heated driveways and walkways to eliminate hazardous ice and the need for snow shoveling
- Wall-mounted plumbing and wiring so walls need not be entered for repair or routine service
- Energy and heat recovery ventilators (ERV/HRV)

- Greenhouse with operable vents, window shades that save energy or provide shade
- Gardens with raised beds for wheel chair access
- Fire-resistant interior elements
- Proximity to village services and medical services that can be accessed by electric vehicle (EV)

In Summary

So these are the programmatic issues that designers will be facing in the future and my wife and I are trying to address them for ourselves and for others who face an uncertain future. I hope this is helpful.

David Del Porto's Short Biography

- Founding director: Newton Green Decade Coalition
- Chair: Sustainable Newton Committee
- Co-chair: Newton Renewable Resources Committee
- Vice Chair: Newton Solid Waste Commission
- Member: Newton High-Performance Building Coalition
- Professional activities: **www.ecological-engineering.com/delporto.pdf**

HARVARD SCHOOL OF PUBLIC HEALTH

Department of Environmental Health
Exposure, Epidemiology and Risk Program

August 3, 2009

David Del Porto
448 Ward Street
Newton, MA 02459

Dear David,

Many faculty at Harvard are interested in offering a course/studio on the multi-faceted topic of sustainable aging in place. We are requesting your participation in this course and assistance in identifying a local site/community that can serve as a host and reference case for green and sustainable development.

As cited in the Boston Globe article "Coming of Age" (July 24, 2009, page B1), it is clear that people are living longer which has profound implications for government, infrastructure, environment, housing and health care. There is a projected 164% increase in the population 65 to 84 years of age between 2005 and 2040. There will be even greater growth in age brackets older than 85. The vast majority of the US seniors are relatively more fit and financially better off than their parents a generation ago. They will be politically active and an important consumer group that will shape both markets and politics for some time to come.

Following our panel presentation in October 2008 to the Policy Advisory Board of Harvard's Joint Center for Housing Studies, where you shared your vision and made a strong economic argument for sustainable housing for this expanding population group, faculty have had an increasing interest in collaborating on this issue. We have been invited to submit a course proposal to the Design School and School of Public Health. Further, engineering and medical school faculty are willing to team with us on a multidisciplinary exploration of how thoughtful housing for an aging population might be designed to reduce the variable cost of water, energy and food and at the same time prompt wellness and connection to community. By including aspects of physical and mental health and injury prevention, the economics of healthy housing should interest other faculty. Specifying a location, issues of zoning, siting, and building codes, among others, would attract the interest of law school and urban and transportation policy faculty.

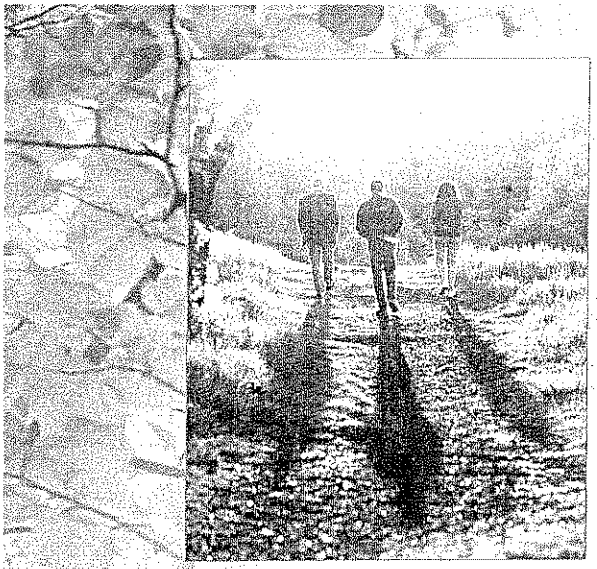
David, we look forward to working on this course with you. I think the subject of sustainable aging in place has the possibility of transforming multi-school education and research at Harvard.

Best regards,

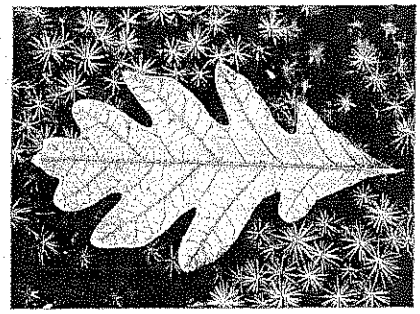
John D. Spengler, Ph.D.
Akira Yamaguchi Professor of Environmental Health and Human Habitation

JDS/jca

Landmark Center 401 Park Dr. Boston, Massachusetts USA 02215 | (1) 617-384-8823 | Fax: (1) 617-384-8728 | envsci@hsph.harvard.edu



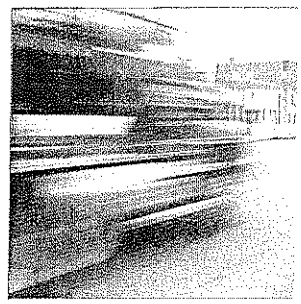
The Western Greenway:



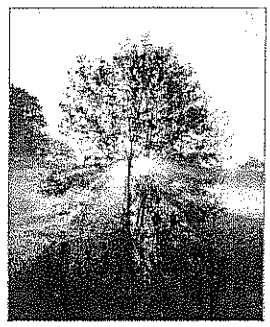
Linking Lands, Linking Communities

Friends of the Western Greenway

Red light, green light. Main Street, Trapelo Road, Route 2, Route 128. Parking lots, strip malls, pedestrian crosswalks. Shimmering heat. Black asphalt. Cars, buses, trucks, and trains. These aspects of urban and suburban life are familiar.



Many find refuge and renewal from the built environment in natural places: a cool breeze across an open meadow at dawn, the refreshing shade of a pine grove on a hot day, or the quiet of a wooded trail after a snowstorm. Across our densely developed region one can still find pockets of serene habitat. In fact, straddling the communities of Lexington, Belmont, and Waltham lies an exceptionally rare corridor of more than 1,000 acres of interconnected, undeveloped land. This corridor of land and water links natural, cultural and recreational amenities. Citizens' advocacy is needed to advance the creation, protection and improvement of the Western Greenway.

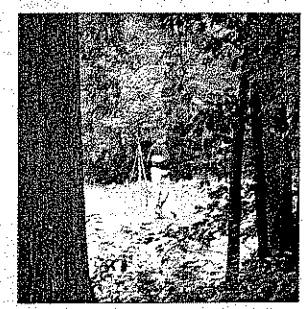


People are familiar with parts of the Greenway, but most do not realize the extent of the acreage and the links. A determined hiker could spend a long summer's day wandering the trails of the Western Greenway—only seven to ten miles west of downtown Boston.

What historical legacies resulted in the current opportunity to create the Western Greenway? In the late 1800s, several medical institutions located in this region, in part because of a belief that a pastoral setting would aid healing. At the same time, the desire to have parks around the growing urban area led the Metropolitan District Commission to establish its first reservation, Beaver Brook, in Belmont and Waltham.

Over succeeding years, owners of large estates donated or sold their lands to municipalities and institutions that were committed to preserving natural areas and cultural heritage. Today, many separate parcels comprise the Western Greenway—some protected, others vulnerable to development.

For centuries, streams and wetlands have threaded between the hills, drumlins, eskers and ridges of this area. Native people lived and hunted here. The interconnected lands of the Western Greenway continue to serve wildlife and people. Many species live here: wild turkey, foxes, wood frogs, pink lady's slippers, painted turtles, trillium, bluebirds, jack-in-the pulpit, hawks and owls, to name a few. Cultural institutions, both historic and educational, dot the greenway. Scouts camp in the woods. Teachers and students learn about and enjoy nature in the wetlands and uplands. Grand historic homes, open to the public, preserve some cultural history of our community. Gardeners harvest vegetables, fruits and flowers from community gardens. Passive recreational opportunities abound. Hikers, cyclists, birders, and skiers all use the trails.



Large contiguous natural areas, such as the Western Greenway, benefit all. For example, growing trees produce oxygen; they also store carbon dioxide from the air, thus slowing global warming. Wetlands act as sponges soaking up rainfall and snow melt, thus moderating flooding. Wetlands also filter impurities from rainfall and runoff before they reach our waterways. Wooded lands moderate our local climate. Municipalities, water authorities, developers, and homeowners spend millions trying to replicate the services that our natural systems provide—cost free.

There are other benefits. Our historic, rural landscapes are appealing and enhance property values. Furthermore, we can experience nature close to home and first-hand. Finally, easy access to passive recreation areas allows our children and us to lead healthy lives.

Encroaching development, habitat fragmentation, and some human uses threaten the Western Greenway. Our communities must protect, preserve and manage this irreplaceable resource for its intrinsic value, compatible human uses, and for future generations.

Here are actions you can take to link, protect, and improve the Western Greenway:

- Familiarize yourself with the Western Greenway, then take your friends and neighbors there.
- Contact Friends of the Western Greenway to schedule a slide presentation for your community group or join the Friends of the Western Greenway.
- Advocate for recognition of the Greenway and promote land use decisions that benefit it.

To learn more, contact:

- Friends of the Western Greenway
  c/o Waltham Land Trust
  240 Beaver Street, Room 105
  Waltham, MA 02454
  781-893-3355
- Mass Audubon
- Citizens for Lexington Conservation
- Belmont Land Trust
- Belmont Citizens Forum

Greenways

are corridors of water and land that link natural, cultural and recreational resources. Greenways may include public and private lands.

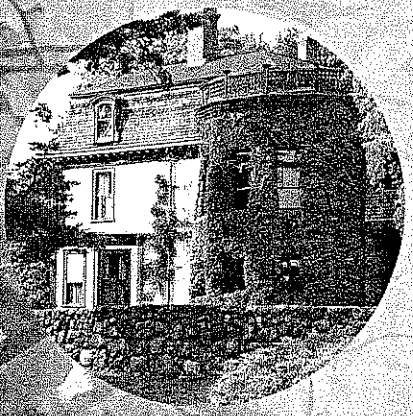
We hope you are inspired to participate in the rare opportunity to establish a green corridor for future generations. Walk the trails, observe the wetlands and climb the hills of the Western Greenway.

Further questions regarding the use of the properties should be directed to the landowners.

Habitat

Beaver Brook North Reservation

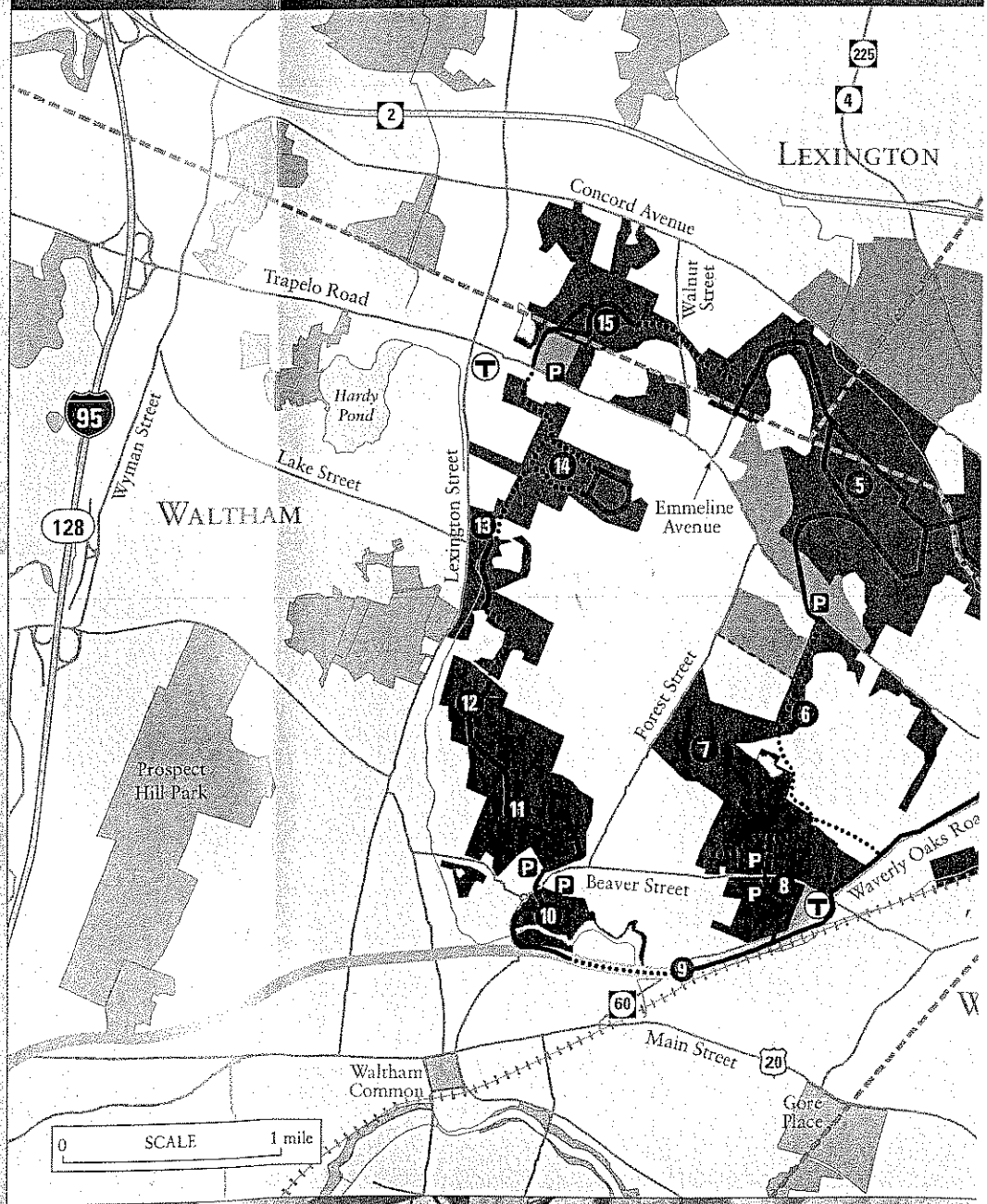
Pine Allee



Paine Estate

Friends of the Western Greenway

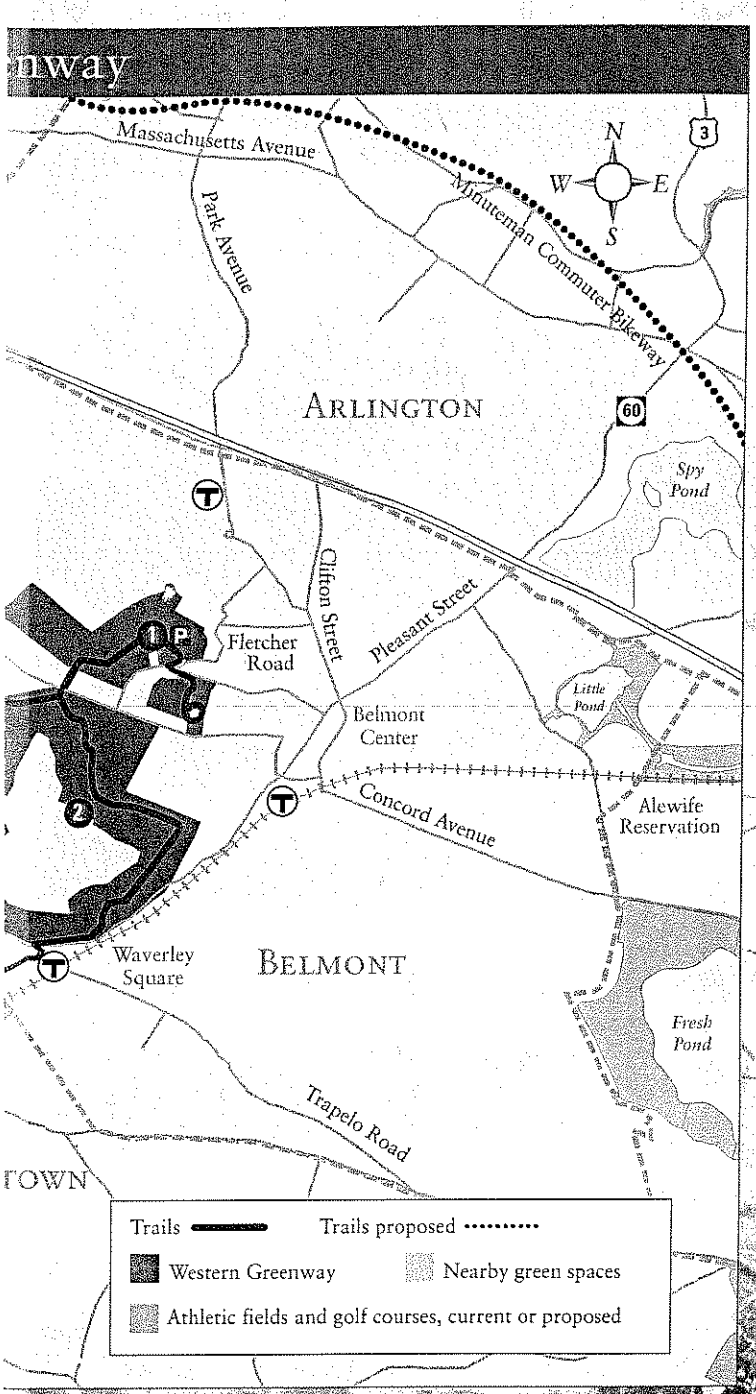
Map of the Western



Key to Symbols

All properties open dawn to dusk. Dogs allowed on leash, except where indicated.

Natural Area		Public transportation	
Cultural Resource		No dogs allowed	
Passive Recreation		Bikes allowed	
Permission required		No bikes allowed	
Buildings closed		Wheelchair access	
Buildings open		Community Gardens	
Parking		Picnics allowed	

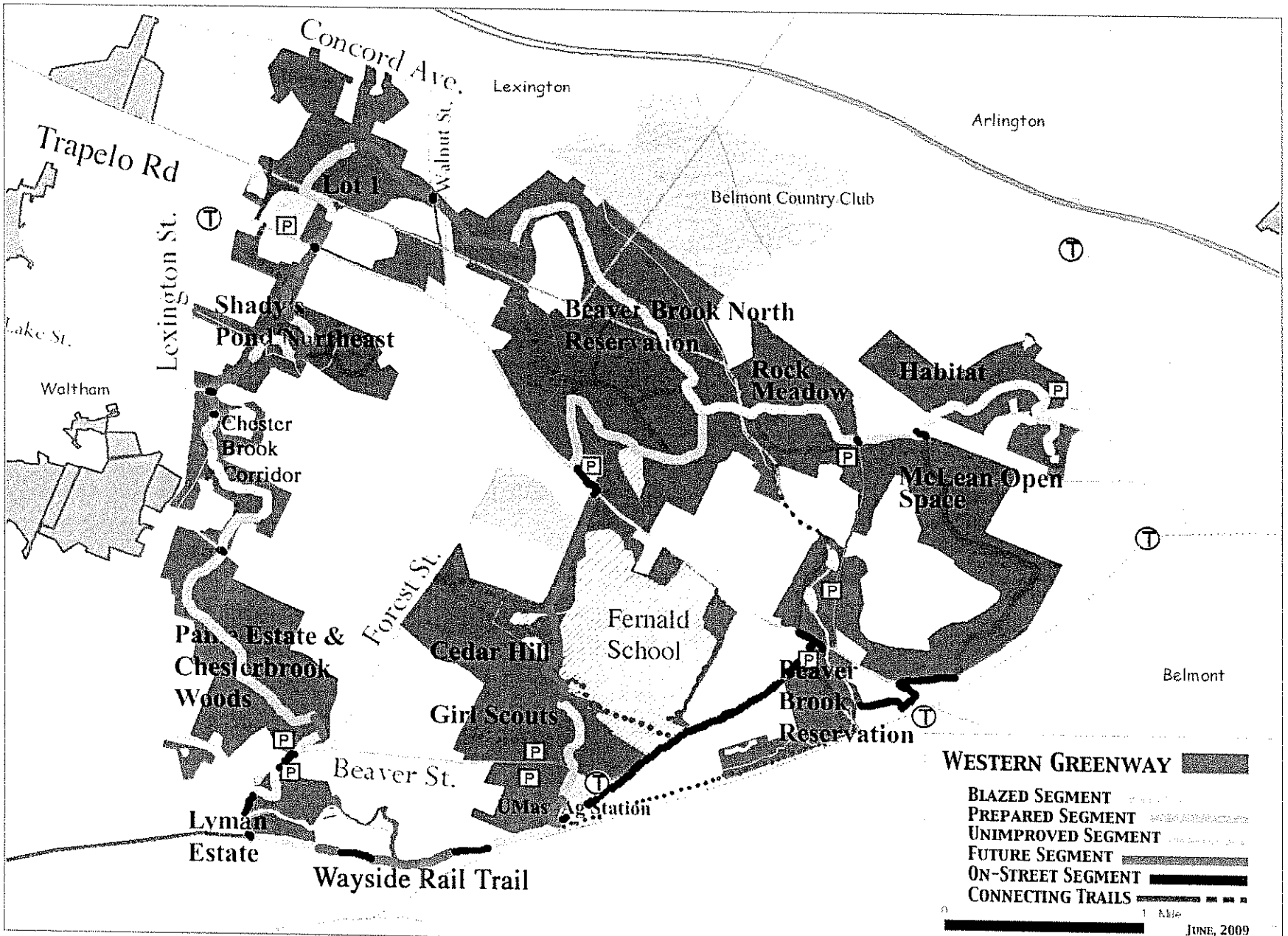


Key to Properties

1. Habitat Wildlife Sanctuary, Mass Audubon
2. McLean Open Space, Town of Belmont and McLean Hospital
3. Beaver Brook Reservation, DCR *(Bikes allowed April 1- December 31)*
4. Rock Meadow, Town of Belmont
5. Beaver Brook North Reservation, DCR
6. The Fernald Center, Mass DMR
7. Cedar Hill Complex
   Cedar Hill Outdoor Center
   Forest Street Park and Waltham Woods, City of Waltham
8. Lawrence Meadow, University of Massachusetts
   Agricultural Field Station, University of Massachusetts
9. Waltham Wayside Rail Trail
10. The Lyman Estate, Historic New England *(Greenhouse open)*
11. Robert Treat Paine Estate, City of Waltham
12. Chester Brook Woods, City of Waltham
13. Chester Brook Corridor, City of Waltham
    Senior and Junior High Schools, Chester Brook Gardens
14. Shady's Pond Conservation Area and the Northeast School, City of Waltham
15. Lot 1 complex, Commonwealth of Massachusetts, City of Waltham and Town of Lexington

CREDITS
We thank: the Department of Environmental Management's Greenways Grant Program for funding this project; Jonathan Sachs for photographs; Andrea Golden for brochure design; Jeff Collins (Mass Audubon) for map making; and Lesya Struz and Marc Rudnick (Waltham Land Trust) for consultation and access to their maps of the Waltham portion of the Greenway. The Waltham Land Trust's Greenway Committee, Marie Daly, Allison Mooney, and Roger Wrubel, as well as Friends of the Western Greenway.

11/2006


Concord Ave.
Lexington
Arlington
Trapelo Rd
Lot 1
Walnut St.
Belmont Country Club
Lexington St.
Lake St.
Shady's Pond Northeast
Beaver Brook North Reservation
Rock Meadow
Habitat
Waltham
Chester Brook Corridor
McLean Open Space
Forest St.
Fernald School
Cedar Hill
Girl Scouts
Beaver Brook Reservation
Belmont
Beaver St.
UMass Ag Station
Lyman Estate
Wayside Rail Trail
WESTERN GREENWAY
BLAZED SEGMENT
PREPARED SEGMENT
UNIMPROVED SEGMENT
FUTURE SEGMENT
ON-STREET SEGMENT
CONNECTING TRAILS
1 Mile
JUNE, 2009

#8
8/5/09

Waltham Fields Community Farm

Who we are

MISSION:

Waltham Fields Community Farm promotes local agriculture through growing and distribution practices that are socially, ecologically, and economically sustainable.

We forge relationships between people, their food supply, and the land from which it grows

Core Programs

Food Production (11 acres, organic vegetables)

- Community Supported Agriculture (CSA)
- Hunger Relief & Food Access Efforts

Education (reach over 1,000 people per year)

- Children's Learning Garden
- Service Learning/Volunteer Program
- Farmer Training

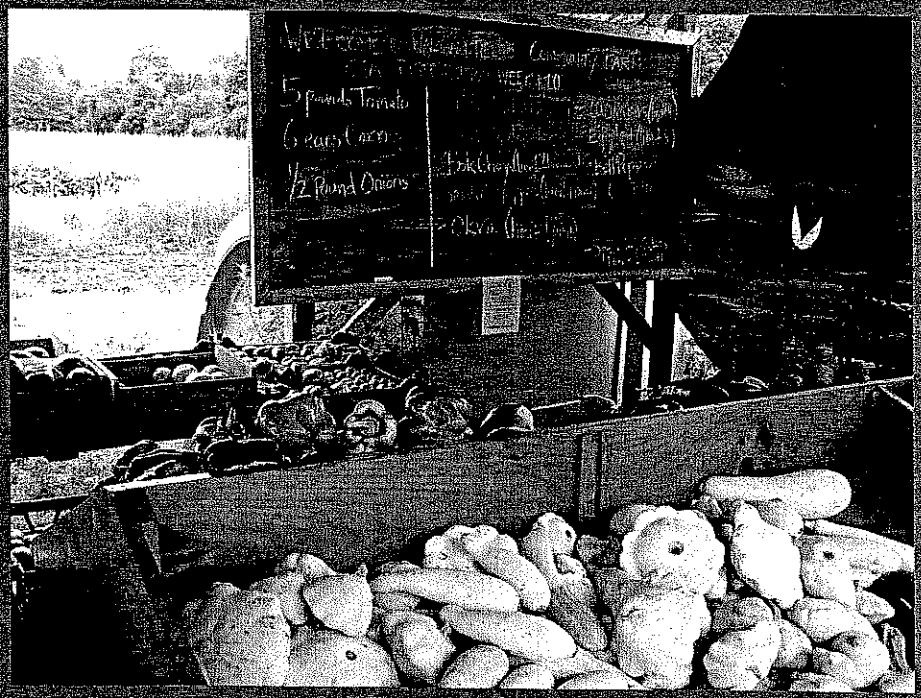
CSA

350 Summer shares

125 Winter shares

Apple shares

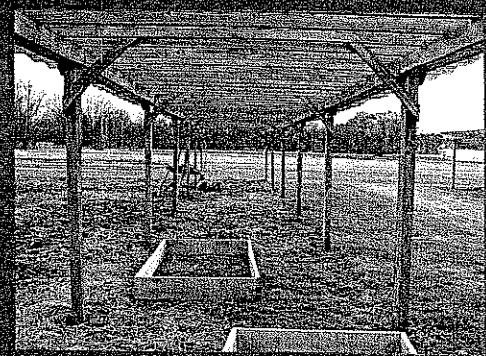
Farm partnerships to offer additional produce and value-added products



Hunger Relief & Food Access

- Donations to food assistance programs (shelters, pantries, meal programs, food banks)
- Martha Creedon Outreach Market
- Farm to School Contributions
- Subsidized CSA shares

Children's Learning Garden



Offering 3 seasons of programs

On-going partnerships with groups in Cambridge and Waltham

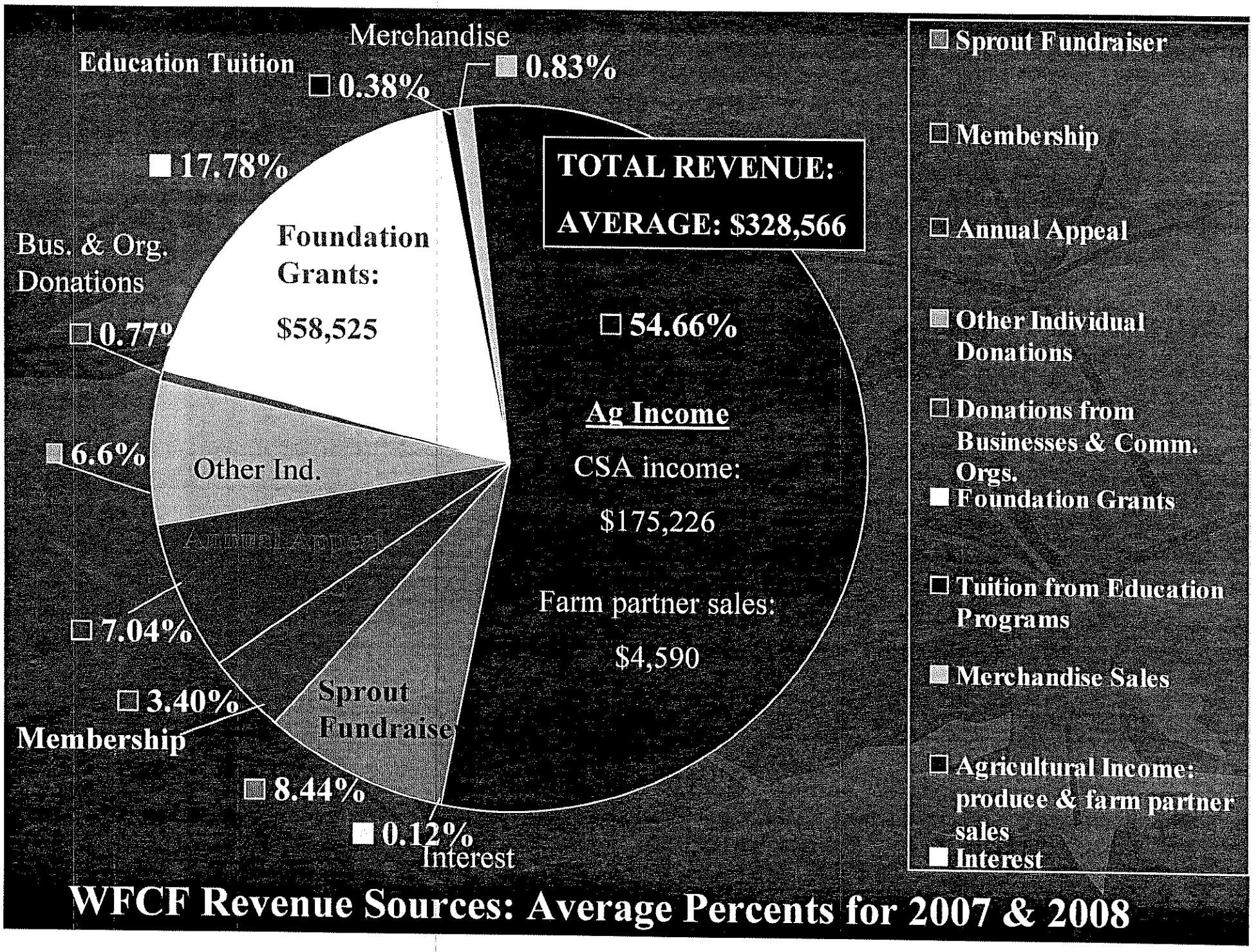
Building infrastructure to strengthen programming

Volunteering at WFCF

- Drop-in program
- Volunteer groups
- Class projects
- Student internships

Farmer Training

- Average age of farmers in the US is 55. Who will grow the farmers of tomorrow?
- Formal training for people serious about agriculture. Skills for for-profit or non-profit.
- 1 or 2-year program options.



WFCF Revenue Sources: Average Percents for 2007 & 2008

Waltham Fields *Community* Farm

Top 3 Organizational Strengths:

- Strong community of support – organizational members, shareholders, board, staff, volunteers, farm partners.

- One of the closest farms to Boston's urban core; well-situated to meet the increasing demand for access to local produce and education around food production.

- Prioritize strategic planning and long-term goal setting.