Response by Friends of Alewife Reservation
to City Cambridge Climate Preparedness DRAFT Report
Ellen Mass- President, Friends of Alewife Reservation
Report (CCPR- DRAFT) 2016-17:

Beginning our city climate Assessments on Rocky Ground:

CCPR Draft of Dec. 2017 provides a limited support and technical guidance for our city's climate future after about 7 years of planning and waiting, but does not express a fully developed "resilience" and "adaptation" framework and spatial policy for the city in 2018 by the new officially appointed Climate Change Committee as part of the larger city Envisioning process, updated from the 2015 discredited (library meeting 2015 with new contractor), but the 2014 one was more divulgent and accurate according to US, UN (IPCC: http://www.ipcc.ch/) and federal predictions such as Army Corps of Engineers. Climate Vulnerability Assessment Study of Kleinfelder, created by many noted scientists' city officials and private companies over a 5 year period, overseen by former Vice-Mayor, Brian Murphy. IT was presented to the pubic at MIT Stata Center for the city's international community which contained expansive climate concern over future heat and flooding , more than the city's 'updated' version used for this Report. The UN climate data and world-wide scientific scrutiny should have remained as part of our assessments for this Report to become future policy for the City. My group secured a **hydrology study** of the Alewife area from a nationally renowned Boston Firm with both CEO's as professors at Tufts University:
http://friendsofalewifereservation.org/2014-05-26-Horsley-and-Witten-Technical-Analysis-of-Upper-Alewife-Basin.pdf

See Figure 2 in above link:
For Quad floodplain threat, flood prone location was permitted by Cambridge Community Development Dept. in Dec. 2017 at 55 Wheeler, for a large residential building.

While the updated DRAFT version must be supported but greatly expanded, our highly educated New England public must keep a broad coastal environmental perspective and we can continue to think for ourselves. City 2010 open space map with coastal and Quad perspective: http://friendsofalewifereservation.org/2017_Archive/2013-10-02_osplan_2010_map42-2.png

The city employees at Community Development Dept. have shown care and concern for its citizens, and authors and officially appointed Committees have worked hard on the Report, but it is primarily conceptual without enough environmental hard data. We appreciate the "DRAFT" so as to have something to work with towards a not-so calamitous future. City economic projections must not determine costs for human and non-human survival. (See further link below of Alewife wildlife and plant inventories) In other words, a 'cost-management' analysis is not part of this response from FAR, but a criticism of the primarily conceptual and development approach within the Alewife climate Report, based heavily on the city's need for revenue and its general housing demand.

Active, successful climate planning must encourage frequent and free enclaves of discussion and encouragement for neighborhood consensus building and maximal peer organizing for implementation. Appointees are not the complete answer when natural disasters loom and powerful city-wide partnerships and commitment is required. See one example of grass roots

efforts: https://grassrootsonline.org/climateforum/.
http://news.mit.edu/2017/mit-conservation-international-collaboration-climate-adaptation-mitigation-0127

CLIMATE REPORT AND WATERSHED RESPONSE

Please note in the following link, the original descriptions, predictions and maps of city contracted climate studies. Note original verses the "updated" 2015 Assessment Report" which ignores scientific *tried and true* expertise: FEMA, Army Corps of Engineers, Boston Harbor maps, and other world climate scholarship which takes into account immediacy of climate threat, rather than more than a decade away.

Original MIT Vulnerability Assessment Report:
(This report was difficult to locate)
https://www.cambridgema.gov/CDD/Projects/Climate/~/media/307B044E0EC5492BB92B2D8FA003ED25.ashx

Revised Report 2015:
Cambridge Vulnerability Assessment Report and Presentation 3/17/15

Mystic River Watershed Association (MYRWA) provides historical/science analysis of City Climate Report:
https://mail.google.com/mail/u/0/#search/jan.devereux%40gmail.com+MYRWA/1609309d9b6d259d?projector=1

Local News Summary of CCPR

Most recent city resilience map link on display at city's Climate Committee meeting which demonstrates high heat/flood vulnerability was unveiled at Russell Youth Center Nov. 30th, revealed the watershed context of flooding for future climate change predictions. The Report does not make the connections of location and hydrologic concerns or concerns in this feedback report.
http://cambridge.wickedlocal.com/news/20171218/cambridge-proposes-climate-resilience-plan-for-alewife

Resiliency and Adaptation
Little River contamination
Learning from Others

Unfortunately, this Report covers only a small portion of "resiliency" and "adaptation" measures needed to secure Alewife area from grave hazards that include protection of a part of Fresh Pond drinking water, finally accepted as a fact after years of denial of potential future hydrological aquafir impacts from the Alewife floodplain and Little River and its polluted waters during a surge or water rise or severe precipitation event. EPA pollution ratings for Cambridge (Little RIver to Alewife Brook-whose waters will receive QUAD buildings' storm water run off.)

As a result of the “report card” from 2015 showing the watershed’s water quality failure, the EPA has received the cooperation of Belmont to remediate its polluting discharges which has secured municipal funds to clean up the major stream (Belmont part of Wellington Brook) that flows into Cambridge’s Little River out of Blair Pond on the east/west border of city and town.

Mystic River EPA MAP Report Card and Cambridge “D” grade

http://static1.1.sqspcdn.com/static/f/204466/26620144/1445515804350/MysticMessenger_Fall2015_WEB1.pdf?token=vicdqzEVhrK47iPTquBHDpXH6IA%3D)

Testing and Monitoring?

Three official city Committees have now worked diligently to spotlight “Alewife” as a city-wide model for duplicating ‘mixed use’ development throughout the city. However, each of the well-intentioned groups avoids utilizing the most modern up-to-date climate protection biodiversity methods and research, used throughout the world, from restoring deserts, to barren mountainous regions. The Report is highly generated from Utile Co. city-wide Community Development design directives. The Committees ignored our own 200 plus million dollar West Cambridge DCR storm water wetland, created in 2013 for purposes of sewer separation, and soil and water purification and passive recreation. It’s monitoring results are not yet public info. Despite the 2013 commitment to monitor the “wetland”. (See link in storm water wetland expansion).

FAR Wildlife Inventories at Alewife (2002-2008)
http://www.friendsofalewifereservation.org/inventories.htm
http://friendsofalewifereservation.org/2008-01-mammal-tracking-update.htm

Learning from Others

In addition, the city’s DRAFT assessment has by-passed the Charles River Watershed Association’s proven successful upstream climate change experiments from Hopkinton to Boston, by regenerating nature’s natural remediation systems, by utilizing former marshland and swamp for flood retention in what is called, “Natural Valley” of around 8000 acres to protect Cambridge and Boston from greater floods.
https://en.wikipedia.org/wiki/Charles_River_Natural_Valley_Storage_Area
https://www.smartcitiesdive.com/ex/sustainablecitiescollective/how-impervious-cover-impacts-stream-ecosystems-and-what-we-can-do-about-it/1257311/

Precedence: **Local Coastal Natural Disasters**

Eight to nine foot surge Sandy in 2013 was only a reminder of the 1938 ocean surge where nearly 600 died with almost 9,000 homes destroyed along the coast.
https://en.wikipedia.org/wiki/1938_New_England_hurricane

Remarkably, little of the city’s Alewife hydrological and infrastructure assessments (now antiquated), draw their conclusions from the Sandy event This event was heavily stuided and presents a wealth of information for Cambridge adaptation plans. Follow up from New York

state on Natural Systems restoration: http://resilient-cities.iclei.org/fileadmin/sites/resilient-cities/files/Resilient_Cities_2013/Presentations/A1_Rosenzweig_RC2013.pdf

Cambridge has the capacity to implement high level climate change "resilience" and "adaptation" programs:
https://www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/GOSRreport102915.pdf

Expanding the City-State Storm Water Wetland to the QUAD (?)

Cambridge's 2013 three acre plus storm water wetland, created in order to filter pollutants, http://www.cambridgeday.com/2013/10/14/new-alewife-wetland-with-boardwalk-amphitheater-due-for-tuesday-unveiling/
passive new resident recreation, and nature regeneration by local Bioengineering of Salem, flies in the face of this limited conceptual climate report, as a perfect replica storm water-wetland of from local Bioengineering FIRM, and international UN Climate Center in Toronto, ICLEI's "Resilient- Cities" Report.

https://resilientcities2018.iclei.org/wp-content/uploads/2017/11/RC2017_Report_Online_26102017_Final-compressed.pdf

In fact, Ma. has the most active influential grassroots environmental/conservation organizations in the country, with Charles River watershed Assoc. being the most nationally renowned as a natural systems model for Cambridge water retention which protects the Cambridge and Boston area from flood waters at Natural Valley: http://friendsofalewifereservation.org/2014-03-29-great_swamp_cso_controls-2.pdf

http://friendsofalewifereservation.org/2005_09_22_stormwaterbasinbrochure.pdf

Municipalities Organize and Learn from Each Other

Massachusetts under Governor Baker, and the *Municipal Vulnerability Preparedness Program (MVPP)* , (which Cambridge belongs to) is based on surveys of towns and cities in Ma., and has declared natural resources solutions an important guide to restoration and revitalization of areas for municipal cost-efficiency and conservation goals against future natural disasters as pro-active world cities have adhered to. Houston's 500 year floods are an example of what not to overlook: https://www.mass.gov/files/rtwn-mvp-_webinars-3.pdf

Massachusetts is in the vanguard in stating our declaration to remain within the climate change network for modern municipal thinking. However, Cambridge must try harder to work within these environmental natural systems agreements which are life and death to humans and non-humans. Recent natural disasters, e.g. Houston and throughout the country have awakened the scientific and astute citizen communities everywhere. MVPP, supported by Gov. Baker, is

showing Ma. towns and cities the way to upgrade (reduce) our urban footprint (Link). We cannot ignore their advice, which seems too often to be the case.

Flood disaster in Houston 2017
https://www.vox.com/science-and-health/2017/8/28/16211392/100-500-year-flood-meaning

City of Boston 2011 Adaptation Report Warns Against Development in Vulnerable Areas
http://www.mass.gov/eea/docs/eea/energy/cca/eea-climate-adaptation-report.pdf

Knowing our Soils At Alewife

Today, Regeration of former natural resources areas is a large focus by scientists and municipal spokespersons most recently in the field of soils. UN Year of the Soils took place in 2016.
http://www.fao.org/news/story/en/item/852978/icode/

Understanding Alewife area soils
by Harvard Geo-physicist,
https://docs.google.com/document/d/18PVqdRvOt6RML3TETfdGtw1GMqVgOvaCGKMxLg22lV8/edit

Updating Soil and Water Quality Sampling using State and Federal Requirements
The most recently submitted Alewife Working Group and Climate Change Response from the Mystic River Watershed Association (MyRWA) provides 'real time' water quality context, (Scroll down)
https://mail.google.com/mail/u/0/#search/jan/1609309d9b6d259d?projector=1
and challenge for the city. After engaging the very small Boston start up Utile Co., for around 6 million dollars, newbie city planners for density and design, the challenge is compounded. The city will likely permit much of the Quad floodplain because of the huge investment made in the CEO of the Firm, but these permits are on unstable Boston blue clay (BBC) soils with deep regional history of dangerous chemical contamination and a source of Alewife Little River sub-watershed's highest bacteria count (e-coli, enterrococcus) in city's western-most Highlands neighborhood bordering Cambridge, where massive cancer tests were conducted by Belmont among Cambridge and Belmont populations in behalf of the severe scare by Cambridge Plating Co. years ago before it was shut down, and the former city dump refuse of 'fill' throughout the area. Before overloading the floodplain which, when flooded, may bring hazardous contaminants to the surface, further testing is required.

Normandy Drive Samples:
https://www.cambridgema.gov/~/media/Files/publicworksdepartment/stormwatermanagement/alewifewetweathersamples/alewifebrookwetsamplingyear14forwebsite.pdf?la=en

Cambridge Plating Co.: Cancer testing nearby:
https://www.atsdr.cdc.gov/hac/pha/cambridgeplatingcompany/cambridgeplatingcofinalpha112607.pdf

Lack of Testing (Water and soils)

Alewife Quadrangle, a former city waste disposal site (former city dump and until the present moment, demolition dumping site of MaBardy Inc., one of Cambridge's most lucrative industries is also accepted in the Report as partially a "100 year floodplain" with its specific liabilities poorly mapped or unrevealed in its soils and hydrological existing conditions next to our major NSTAR (EverSource) power grid. (See floodplain link.)

Map: Cambridge, Arlington 100 year floodplain

http://friendsofalewifereservation.org/2013-11-21_2010-fema-floodplain-map.htm

Delayed City sampling - 2009

https://www.cambridgema.gov/theworks/ourservices/stormwatermanagement/waterqualitysampling

Long Term Control Plan (LTCP)

To date, the city has delayed its complete water quality cleanup (CSO) via US-EPA for 14 years since 2003:

https://www3.epa.gov/region1/npdes/permits/2009/finalma0101974permit.pdf

A climate citizen committee needs to be enacted to determine whether permits are up-to-date and complying with state and federal environmental regulations at Alewife and whether the delays are primarily monetary.

The present CCPR report also containus the most minimum of LEEDS requirements presenting green roofs and attractive landscaping, but these permits cannot be given as 'spot zoning' long antiquated zoning with special permits to circumvent the Alewife flood plainoverlay zoning restrictions., using underground parking/storage facilities, poorly tested with high ground water elevations. Observe 95 Fawcett St. construction diggings and settled water impervious clay, etc. foundation. Nationally recommended solutions for areas such as the Quad and Alewife Reservation areas.

Environmental League of Ma. (ELM) sets a Doable environmental standard.
Annual Report 2016 benchmarks to achieve before PB's grant permits:

https://www.environmentalleague.org/wp-content/uploads/2017/01/EEA-assessment-4.17-Final.pdf

US Government Calls for Natural Resources Protection

Just when and how extensive our municipal climate policy will be in the future is not presented in the CCPR, and does not answer climate questions that most enlightened communities are grappling with in this well-meaning rhetorical report with conceptual climate change aspirations

centered primarily on “resilience” and “adaptation” definitions. However, we are given a “geo-spatial flood risk tool” to enjoy locating each of our own properties, not the cumulative elevation measuring demanded by FEMA so as not to cause flooding downstream: https://www.fema.gov/pdf/floodplain/nfip_sg_unit_5.pdf

What was and is needed is regular public and neighborhood meetings and encouragement of national ecology reports (See link), also signed by US Department of Defense. https://obamawhitehouse.archives.gov/sites/default/files/docs/enhancing_climate_resilience_of_americas_natural_resources.pdf

United Nations on Natural Resources

Although the UN’s climate attention is on the inequality of responsibility for global climate conditions, the developing countries whose majority populations live on floodplains are unable to convince their populations to move away because of prohibiting personal economics, but Cambridge does not have these obstacles. But as we see, there are no US Banks involved in multi-national sustainablity goals, but ‘sustainability’ remains the goal of the UN Environmental Program (UNEP).

The UN report additionally proclaims a need for smarter use of world natural resources:http://www.un.org/apps/news/story.asp?NewsID=56369#.Wkr4KUtG1p8

Misleading Cover/ Hydrological Location of Quad Developments

At the onset, the city Climate Preparedness Report cover idyllic photo, entitled “Alewife” presents a questionable hydrolic location perspective of this Northwest region’s land and water connections between Belmont, Cambridge and Arlington which impacts East Somerville. Although the proposed development plan recently permitted for Wheeler St. is on the watershed’s floodplain; the photo and Climate Report’s new Alewife Quad developments are projected falsely within urban pedestrian Fresh Pond Park, across Concord Ave., connecting the 6 acres of Quadrangle development to Fresh Pond Reservation, closer to Huron Ave., Fresh Pond Parkway and Washington St., south of “Alewife”, rather than connected to its natural hydrological region of the city’s most northern water bodies of the Mystic River watershed and Cambridge’s Little River, formerly Menotomy River, which is destined to receive much storm water discharge from 2000 plus more development units before full assessments are made by the city.
Early maps of West Cambridge and Little River hydrology via Prof. Lowry Pei: http://www.friendsofalewifereservation.org/Past-Present-Future-on-Little-River.htm

Elliot Freeman, civil engineer who advised the state to take up public land, which the MDC, now DCR did and we have them to be grateful for our storm water wetland and other public parkland in Cambridge and around the region.

Says author, “We owe it, and indirectly the whole Alewife Reservation, to a project authorized in 1903, says Freeman, "for improving the sanitary and drainage conditions of Alewife Brook", and the marshes, "under the joint action of Arlington, Belmont, Cambridge and Somerville."

See 2005 original and substantial Concord-Alewife plan (Link below) based on true hydrological connections: “This 60-acre Alewife-Quadrangle-Triangle area lies between the Alewife

Reservation, the commuter-rail tracks and Alewife Brook Parkway. Over the last 25 years, it has seen the development of many large-scale office and R&D buildings, as well as over 300 units of housing" The general Alewife area is now planned for 5,000 units.

Hydrology Lidar Map. Shows West Cambridge hydrology:
:http://friendsofalewifereservation.org/2005_12_muskratmarshdraftmaps.pdf

With the T's Alewife Station, this area benefits from excellent access to transit through the Red Line and regional bus service. Large parts of the Triangle fall within the 100-year floodplain, and recent development here has aggressively managed stormwater on-site to meet state wetlands-protection regulations, but that was before knowing the data in the climate change studies.

Dr. Sarah Slaughter on Hydrology

(Slaughter letter to Planning Board on infrastructure protection and hydrological assessments: https://mail.google.com/mail/u/0/#search/sarah%40builtenvironmentcoalition.org/15fffc5c5aabd556?projector=1

Al Wilson, former kingpin Real Estate property owner in the Quadrangle initiated the 2005 study by the City which was thorough and forthright.
https://www.cambridgema.gov/cdd/projects/~/media/65c3e3381da0410d9666f369439bea8e.ash

PHOTO TAKEN FROM WEST TO EAST:
Fresh Pond (upper left), Belmont ClayPit Pond (most west) , Belmont Little Pond (lower right) : Quadrangle and Triangle and Route 2 Corridor. Shows how Quad is connected to the Triangle and Route 2 Corridor. (DRAFT does not utilize natural hydrologic system for "Alewife".) 'Regionalism' approach includes Belmont as part of Quadrangle planning requirements.

Benefits of regenerating natural systems
State permitted FAR project for wetland regeneration
Via invasive removal are multifold.
http://www.friendsofalewifereservation.org/2004_Archive/2004_12_centralmarshrestoration.htm

Floodwaters, when sometimes reversed on the watershed, flow from East to West with advent of large ocean storms, come 'upstream' (There are 76 miles of entire watershed) from Boston Harbor through towns and cities to Cambridge's Little River, an already impaired water body of 'D' status by EPA. Normal flow from glacial days is west to east (one mile length from Belmont through Cambridge to Arlington and Somerville). Clean Water Act and Ma. storm water guidelines legally disallows discharges into an already impaired body which Little River is.
http://friendsofalewifereservation.org/2005_12_muskratmarshdraftmaps.pdf

See MyRWA response to CCPR city climate report.

The map link of FAR below shows the 100 year floodplain and water bodies, some, not presently protected or tested. City also has a new page on outfall testing which shows a pro-active approach but much unrevealed testing, or non-testing:
http://friendsofalewifereservation.org/2016-05-19-Alewife-Outfalls.245x36.2016.04.29-11x17.pdf

City Data links only to EPA home pages, not 'real time' city activity:
https://www.cambridgema.gov/theworks/ourservices/stormwatermanagement/stormwatermanagementplan

The MaBardy Sand and Gravel Inc.enclave, now sold to developers, partially on the floodplain, is adjacent to the experimental biodiversity meadow of 3 acres, and very close to the enlarged Wellington Brook which drains From Belmont's Claypit Pond into Blair Pond off Brighton St. (Highlands neighborhood), with the linked high bacteria counts, and flows into culvert under RR tracks via Wellington Brk. into Little River (contaminating it further) along the edge of present Quad Industry into East Arlington's Alewife Brook and on to the Mystic River.
See linked FAR map.

https://drive.google.com/file/d/0B7ujAd-r0LL-eTU4V216d2poT1k/view?ths=true

Vulnerable Populations?

The city Report stresses that Alewife has been chosen as a model for the rest of the city because of its "most vulnerable populations," referring to Fresh Pond Apts. on Rindge Ave, which is further away from the Concord Av. Quad development location than can be claimed as an abutting "vulnerable population" to the Quad. The Report has few precise projections for flood or heat adaptation solutions, so as to determinethe number of units which are safe to

build. The Report stresses “incremental improvements” towards climate solutions, rather than a clear and enforceable city time line.

Improve Ecological Integrity - Columbia U- Climate Change Law

But, According to a key finding of the *Sabin Center for Climate Change Law at Columbia* is that “Adaptation” efforts need not be delayed by uncertainty about nature and magnitude of climate change impacts. Sabin explains, “Resource managers can implement actions aimed at reducing other stressors on natural resources particularly related to human use and development, and improving the ecological integrity of landscapes and ecosystems”. As EPA asserts, “we must reduce Greenhouse Gas (GHG) at the same time assessing implementation of resilience strategies.” Says Sabin, **“**Adaptation Action needs to be comprehensive, prioritized, time based, recognizing life cycle of planning, building and infrastructure” This is not apparent in the CCPR Draft.

See Dr. Sarah Slaughter letter against over-development and need for hydrolgoical studies:
:
https://docs.google.com/document/d/1fpETjKpSrIO4xRnawJG8M0yTKEFbByHGtr2Tkljlqr8/edit

Encouragement to ‘begin now’ to assess regenrative and restoration potential of the Cambridge Quadrangle is based on global scientific climate data, i.e. biodiversity of plants and animals is expected to decrease 20-30 percent in the near future based on more changes in the Arctic, projected to be ice free in the next few years. Coastal Massachusetts at 43 % lat. is expected to receive highest sea rise impact and increased flooding when calculating West Antarctica’s impact. Figures vary in regards New England precipitation increase, but Cornell University has projected a 40-60& % increase from 2004 through 2018. 2010 was NEngland’s highest since record taking began with massive 19” of flooding, with a 30% rain/snow increase in winter. In 1938, the Boston area had a 10 foot surge with 600 killed. Sandy was an 8 foot surge devastating New York infrastructure and NY, NJ coastlines By 2050, every 2 to 3 years, a 100 year flood is expected to arrive say climate predictors such as Cornell and other climate change research globally. In regards to precipitation increase, the state of Mass. continues to allow developers to use 2004 figures. The City Report bravely projects the Mystic River’s Amelia Earhardt dam will not be by-passed with a surge until 2045, when there would be merely “a disruption of services”, an unfounded assumption to public scrutiny.

The City states, but does not present substance regarding a clear need for “unprecedented level of coordination and cooperation among residents, businesses, vulnerable populations” in order to support “resilient ecosystem, integrate built environment with green infrastructure, urban forest and natural areas.” Critical to: “ID possible future land cover scenerios- Ariel photography areas could be greened in the future. Enact near term actions to improve ecosystem resilience and adaptive capacity.”

Sabine Center at Columbia Law School’s Climate Center 300 page report are summarized in the following list: establish wildlife corridors, retore forest fragments, evaluate all adaptive capacities of natural resources, with US Forest Service support stating, “ Maintaining highly functional ecosystems across the landscape is the most effective response to potential changes in climate.”More money is need to evaluate drought conditions, water shortages, as well as flooding.” This advice applies strongly to Cambridge. Green Bond taxes” can be used.
https://www.climatebonds.net/policy/policy-areas/tax-incentives

Regenerate and Restore:

Issues unresolved in the Report which will greatly impact its future Policy implementation are upgrading of the Mass. Building Code (projected for 2050) , thus enabling retrofitting of buildings. Report claims the city structures for organizing these strategies already exist with possible timelines for implementation. Although there are few references to the original Cambridge Climate Vulnerability Assessment Study (2014) with renowned scientists and representatives that were presented at MIT by Kleinfelder Inc. projecting massive flood impacts, this CCPR Report states only, "risk for flooding as early as 2030" (13 years from now), and 2070 (53 years from now), and shows familiar same 'ole' existing locations for managing heat and flooding and protecting utility buldings, but methods and process are unexplained with presently existing buildings solely labeled on maps as to purpose. The promised "Resilience hub" is not evident with enough details, nor are there costs and sources for the POLICY projected as the Cambridge Climate Policy. The report recognizes the need for locally based neighbor connection procedures for community protection networking e.g. using the Peace Commission's "Meet your Neighbor" policy which may or may not be active now. The EPA financially and legally supported the 10 year old ABC flood group, supposedly made up of engineers from volunteer utility and environmental administrators from Arlington, Belmont and Cambridge (ABC) , but group barely functions, but could if city and towns would like to encourage a regional approach, and could provide incentives for true agency climate change policy integration. Present chair is in Arlington and ABC flood group used to be very well attended when public was welcomed. FAR used to attend as well and cannot get on the mailing list although many requests.

ICLEI of Toronto

ICLEI was first influential organization to begin Cambridge on a Climate Policy of Adaptation The City Climate Advisory Committee for the last 10 years was not the author of "The Report", But hopefully will continue to be involved along with neighborhood organizations and grass roots environmental groups:
:
https://www.cambridgema.gov/~/media/Files/CDD/Climate/climateplans/climate_adaptation_recs_20100405.pdf

ICLEI's Reslient Cities manifesto notes, "One of the first global targets to come due in 2020 is to "substantially increase the number of cities and human settlements implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, [and] resilience to disasters." Much neighborhood and community outreach is required to make these plans work in an "intergrated" program,
essential for sustainable outcomes. Official appointees may not be the solution or best partnerships as 'stake-holders' in climate change sustainble practices and policies.

The DRAFT Report emphasizes “resilient ecosystems” via “to integrate built environment with green infrastructure”. There is mention of “urban forests” and “natural areas” but not “natural systems”. These definitions seem amorphous and misued to defer to developer’s goals.

Premise of CCPR seems to be that resiliency strategies aimed at “buildings to transform urban neighborhoods” alludes to Alewife Brook and Alewife Reservation, but never demonstrates how building development will actually protect resources, or that conservation strategies will be well applied to the former “Great swamp” which included the Quad at turn of the Century and before.

See : Cambridge’s renowned transcendental writer, William Dean Howells, 1875 description of the area: http://friendsofalewifereservation.org/1995-06-Alchemy-at-Alewife-1.pdf

Exent of buildings major “Resiliency” measure is to construct raised 1st floors, and additional “tree canopy, porous parking lots, green roofs, solar panels, raised utilities, berm for Fresh Pond.” But no protections for “ALEWIFE” floodplain and watershed. The raised edifices are already required by the Ma. Building Code. There is nothing about raising Little River’s water quality, and using most advanced storm water state and federal regulations of most recent permit requests, MS4 or commitment to EPA’s National Pollution Discharge Elimination System (NPDES) requirements which the city has signed onto. These essential matters are very weak in the Draft Report. City has made continual exceptions to the “Alewife floodplain Overlay Zoning”.MAP:
https://www.cambridgema.gov/~/media/Files/CDD/Maps/Zoning/cddmap_zoning_overlay_aod_2016.pdf?la=en
Text:
https://www.cambridgema.gov/~/media/Files/CDD/ZoningDevel/Ordinance/zo_article20_1397.ashx

And a “Special permit” exception to the Floodplain Cambridge zoning was recently granted to a former dump site with highly limited soils tests at 55 Wheeler St. December 19th by Cambridge Planning Board. More exceptions are expected.

Contamination Indications at First major Quad permit
http://public.dep.state.ma.us/fileviewer/Scanned.aspx?id=2821392

Economic and Cost Opportunity

Instead of using natural systems in the design of the Quad for climate change mitigation such as Alewife Reservation’s storm water wetland, a national landmark in storm water construction by former Bioengineering of Salem Inc., traditional architectural designs are projected with more horticultural landscaping, left to the developer. Danehy Park, quite east of Alewife floodplain and Quad and Triangle is appointed the “water storage area”. There is thought to relocating electric infrastructure, elevated evaculation behind Alewife T stop, using the Cambridge Water Department as a “heat center” and other “bio-retention centers” far from Alewife. Data-based technical knowledge is absent. A comparison of costs for natural system climate mitigation (meadows and marshes) and costs for buildings with modest green features using carbon sequestration formulas is highly warranted before determining whether other properties might be purchased for cost saving mitigation for the city. City does not need to do expensive studies, but can utilize the results of the 2013 storm water wetland post maintennce studies which are supposed to be taking place, but which may not be as there is no fluid data.

Alewife Preparedness Plan - 1st neighborhood plan used for other neighborhoods

City's Delay for Ma. watershed standards

While a CCPR map exists in Report of the "Great Swamp" of our historic glacial hydrology, in the "Alewife" area. Recently, The "Alewife" area's sewer and storm water were largely but not completely separated by the city and MWRA. The Alewife sub-watershed had became a receptacle for home and business illicit connections and retained a failing federal water quality grade., The high cost of the Combined Sewer Overflow (CSO was required by federal court (now all Ma. municipalities with law suit have separated sewer from stormwater but Cambridge), but MWRA-Cambridge's 8th variance or final municipal separation remains in effect despite the federal law suit, exempting the city from 85 percent improvement until 2019, when, in the mean time, thousands of floodplain units more may be permitted, contaminating other downstream communities of Arlington, Somerville and Medford, along with Belmont (upstream on Little River) to the Mystic River and ocean, especially with a surge or water rise.

Background of CCPR mapping shows 1770 Great Swamp which was primarily in northwest Cambridge's section of Alewife; and in present, Arlington and Belmont, and gives us almost no ecology description of the area, not the real-time soft blue clay conditions, former dumped soils at the Quadrangle, nor the extensive plans for Alewife made in 1995 (Alchemy at Alewife #1, #2 on website) with environmentalists, DCR, state and city leaders which merge scientific hydrological and ecological conditions with need to ameliorate flooding, and to utilize the natural systems open space of north Cambridge and its region for health, safety, passive educational recreation and protection from natural disasters.

http://friendsofalewifereservation.org/1995-06-Alchemy-at-Alewife-1.pdf

Although "resilience" and "adaptation" were not used in 1995 with
"Alchemy at Alewife" Pts. 1,2, the understandings of biodiversity and ecological health were Integrated with an understanding of human safety and health and how nature works in our Species' behalf as well as other animal species.Doing "the right thing" stated in 2 report sections Is nebulous and frivolous.

http://friendsofalewifereservation.org/1995-06-Alchemy-at-Alewife-2.pdf

Cambridge Ma.: International Use of Natural Systems via Bio4climate group

Here in Cambridge, Climate biodiversity methods and experiments, on-going practices have received wide international acclaim for the Biodiversity4climate group's 8 conferences held at Harvard, Tufts and Bristol College to bring world's foremost thinkers to share natural resource regeneration techniques and successes from Texas to India and Brazil and new cities, developing such as in Schenzhen, China which recently expanded its borders for more wetland/storm water run off techniques and recreational regeneration of vegetative resources..
https://bio4climate.org/2014/02/05/carbon-farming-uncommodified/
https://bio4climate.org/

ICLEI of Toronto, one of the first and most internationally renowned climate groups states that "nature-based solutions are being increasingly deployed" for climate change solutions. Mainstream approaches are modeled from Germany to China, the world is shown multiple economic benefits, improving urban air, restoring degraded wetlands. ICLEI stresses, "not just

green infrastructure, but 'smart' green infrastructure." Stuttgart- Germany's coolist city: Green ventilation corridors, for air to sweep around buildings, (use Alewife Reservation for a cooling system by connecting corridors of Triangle and Quadrangle, beyond a bridge,) 2 million square meters of highly vegetated roofs etc. http://resilient-cities.iclei.org/index.php?id=958

In Schenzhen China - Sponge City:
Wetlands are used for drought and heavy rainfall:
"Polluted and degraded rivers and wetlands are restored to near-natural systems, simultanely increasing water and property values. Abandoned land is converted to community gardens and The major focus of the city is on environmental conservation and filtering of pollutants.

http://www.iwa-network.org/city/shenzhen/

Bioregionalism
Earthos Institute, Somerville, Ma.
Phil Loheed

"Bioregional urbanism is intended to be a just sustainable development model that helps regions become more self sufficient within a global context, and it is intended to become a central part of the 'sustainability' discourse. Despite the power of design to provide lifestyle and settlement solutions, the design disciplines have been mostly absent from the bioregional discourse, along with the social justice disciplines, and yet both of these have much to offer." Coming up large Region-wide Alewife conference: Tufts University Alewife Corridor Symposium, sponsored by Earthos Institute, January 19-20: https://www.eventbrite.com/e/alewife-corridor-resilience-symposium-collaboratively-framing-scenarios-tickets-38514455774?

http://www.earthos-institute.us/PUBLICATIONS_of_earthos-institute/Earthos_Publications_files/110103-CityAsChange.pdf

Ecosystem Services:
Ecosystem services are benefits people obain from ecosystems.

Include provisioning services such as "
Food, water timber, fiber, regenerational services that affect climate floods, disease, waste, water quality, provide soil formation, photosynthesis, manage severe rainfall, rain gardens, bioretention swales, natural and constructed wetlands- remaining pollutants from storm water, purified runoff needed, underground cisterms, mitigate heat waves, etc. etc.
https://www.greenfacts.org/glossary/def/ecosystem-services.htm

FAR Wildlife and plant Inventories at Alewife (2002-2008)
Wildlife as integral to Alewife climate policy:

http://www.friendsofalewifereservation.org/inventories.htm
http://www.friendsofalewifereservation.org/2005_Archive/2005_05_19_fishersighting.htm
http://www.friendsofalewifereservation.org/2013_Archive/2013-08-28_Identified_Plant_list_grows_to_386_on_Alewife_Reservation.htm

FAR response purpose:

SUMMARY

Our response request is to replicate the botanical and wildlife information and resources from the 2013 storm water wetland experiment (began in 2000) to expand these designs and natural systems approach to the quadrangle properties by purchasing at least 3 acres of contaminated parcels along the railroad track (an already undesirable setting for residential units), and to restore the former west Cambridge marshland for flooding retention and for heat attentuation, planting shrub/grass vegetation, constructing water swales and planting trees, providing habitat for willdife, with similar expertise as shown with the storm water wetland. By viewing the Route 2, Triangle and Quadrangle together on the Mystic River watershed, we take into account the actual hydrology of the region and future flooding.We note that by continuing with CD allowance of "spot-zoning" permitting techniques, it will be impossible to comply with climate regionalism and federal laws requiring "cumulative" impacts for future environmental protection.

The city is also by-passing MEPA Review requirements in city's Community Development Dept. and Conservation Commission for receipt of an Environmental Impact Review (EIR) from each developer, e.g. Wheeler St. permit. We fear that the open space needed at Alewife for climate change adaptation (which includes Fresh Pond) is being overly permitted and 'up for grabs' by highest bidder. But the city of Cambridge fortunately contains a population, primarily, of thoughtful people who will continue to ask for tighter environmental protection and enforcement.