

BELMONT MEMORIAL LIBRARY
MEETING OF THE BOARD OF LIBRARY TRUSTEES

BELMONT, MASSACHUSETTS
AUGUST 19, 2014

Vice-Chair Mark Carthy called the meeting to order at 7:39 p.m. in the Claflin Room of the Library. Present were Trustees Elaine Alligood, Mark Carthy, Kathleen Keohane, Gail Mann, Sarah Phillips, and Director Maureen Conners. Chair Matt Lowrie was absent.

The minutes of the Trustee Meeting of July 15, 2014, were approved on a motion by Trustee Mann, seconded by Trustee Keohane and voted unanimously.

Old Business

Financial Task Force (FTF) – Trustee Alligood reported that she contacted School Committee Member Laurie Graham about the June 13th meeting and will speak with her again later this month. Trustee Keohane was unable to reach Selectman Mark Paolillo. Trustee Mann contacted FTF Capital Group Chair Anne Marie Mahoney who said that the group has not yet reached any final conclusions.

Consolidation of Library facilities maintenance – Director Conners and Trustees Keohane and Mann met to discuss issues. Trustee Keohane contacted Town Administrator David Kale who will be back in touch with the Library in September. Trustee Mann reviewed the two open issues before the Board, Trustee responsibility for a Library custodian and budget flexibility. Trustee Carthy stressed the need to speed up the process. *Action item:* Director Conners and Trustees Keohane and Mann will meet in September, and go to the Town Administrator with our requirements, based on Library responsibilities.

Personnel – Director Conners reported that Cynthia Mitchum was hired as Young Adult Librarian, and started August 18th. The Library is currently interviewing candidates for the position of Coordinator of Children's Services.

New Business

Belmont Storm Water Working Group – Director Conners and Trustee Phillips reported on the August 13th meeting with this conservation group. They presented a concept plan for green infrastructure improvements at Belmont High School and at the Library. Ours would be retrofit at back corners of Library property to reduce pollution from parking lot runoff flowing into Wellington Brook. The Trustees agreed that any improvements could not limit options for any future renovation/rebuild plans. *Action item:* Director Conners will contact Glenn Clancy, Director of Community Development, to confirm this. The Trustees will ask the group to present their plan to the full Board, when available.

Director's Search – With Director Conner's retirement scheduled for October 31st, the Trustees discussed the steps necessary to hire her replacement in a timely manner. Trustees Alligood, Mann and Phillips will represent the Board on a Search Committee, with Trustee Keohane as a backup; Director Conners will help them set

this up. Other committee members will be sought from the Friends, Library staff, and the Belmont community. Town Administrator David Kale or his assistant will represent the Town. Action item: Trustees Alligood, Mann and Phillips will meet with Director Connors to discuss search criteria, ranking and procedure on Thursday, August 21 at 5:00 pm.

Vice-Chair Carthy called for an Executive Session to discuss union negotiations; all subjects that will be discussed cannot be discussed outside of Executive Session. The regular meeting will not reconvene. The roll call vote to move into Executive Session is as follows: Alligood – aye; Carthy – aye; Keohane – aye; Mann – aye; Phillips – aye.

Next meeting will be held on Thursday, September 18, at 7:30 p.m.

Subsequent meetings are scheduled as follows:

Thursday, October 16, 2014, at 7:30 p.m.

Thursday, November 20, 2014, at 7:30 p.m.

Thursday, December 18, 2014, at 7:30 p.m.

Thursday, January 15, 2015, at 7:30 p.m.

Thursday, February 19, 2015, at 7:30 p.m.

Thursday, March 19, 2015, at 7:30 p.m.

Respectfully submitted,
Sarah Phillips, Secretary

Exhibits:

Agenda August 19, 2014

Minutes July 15, 2014

Request for Feedback on Memorial Library Rain Garden Concept Design (email from Anne-Marie Lambert, dated August 18, 2014)

DRAFT Concept Plan for a Green Infrastructure Retrofit, Mystic Headwaters Project 2013-01/604

BPL Activity Report for July 2014

BPL Expenditures for July-August 2014, dated August 18, 2014



Maureen Conners <mconners@minlib.net>

Request for Feedback on Memorial Library Rain Garden Concept Design

1 message

Anne-Marie Lambert <ammlambert@gmail.com>

Mon, Aug 18, 2014 at 12:02 PM

To: lindabwolfe@gmail.com, sarahannphillips@gmail.com, mconners@minlib.net

Cc: Fred Paulsen <fredpaulsen@gmail.com>, Patrick Herron <patrick@mysticriver.org>, John Kolterman <john.kolterman@gmail.com>, David Webster <dwebster9999@gmail.com>, inquiries@belmontgardenclub.info, belfriendlib@gmail.com, "Clancy, Glenn" <gclancy@belmont-ma.gov>, "Castanino, Peter" <pcastanino@belmont-ma.gov>, Radha Iyengar <riyengarma@gmail.com>, Frank Frazier <frankfrazier02478@yahoo.com>

To: Belmont Library Director
Belmont Public Library, Board of Library Trustees,
Belmont Garden Club, Board of Directors

Thank you so much for attending last Wednesday's presentation of the attached draft of a Belmont Memorial Library Rain Garden Concept Design. Patrick Herron, deputy director of Mystic River Watershed Association and overall project manager of the 604B grant project to select sites and develop these designs, is very interested to receive community feedback from any interested stake holders.

As we discussed, next steps for proceeding with a project like this include:

- Identify any design considerations or data missing from these draft designs (see below for examples)
- Identify and pursue grant opportunities or other avenues for funding implementation phases of the project
- Coordinate with town officials (copied on this message)

From your participation last Wednesday, we received several items of preliminary feedback:

- The Trustees is concerned not to pursue any project which would limit options for a future library renovation project, e.g. by removing available space for such a project
- The banks of the Wellington Brook behind the library and nearby properties is very unstable in parts: the big heavy stones are unstable and the bank is eroded
- Anecdotally, the Wellington Brook may have moved about 20 feet in the last 30 years
- The current library building has not flooded in the last 20 years
- There is concern not to disturb certain trees by Wellington Brook: they stabilize the banks of Wellington Brook, and several are memorial trees. There is particular concern about a large dawn redwood tree.
- There was inconclusive discussion about replacing a Norway maple tree with a tree that has more favorable root structure (tap root vs. spreading roots)
- There is a big concern about erosion on the banks of the Wellington Brook, which was moved to its current location in the 1960s to create the space where the current library now stands
- More information is needed about the location of parking lot lights and of the sprinkler system, to ensure they are accommodated in any future design revision
- More information is needed regarding snow plowing and salt use on the parking lot
- There has been regular damage by snow plows to the asphalt hump between the parking lot and the Community Gardens
- The wide driveway and driveway turn at the rear of the library is needed to accommodate large delivery trucks
- More information is needed regarding what lessons the town would learn by implementing a pilot rain garden project such as this one
- More information is requested regarding success metrics for this project, given how difficult pollutants are to measure "before and after"
- More information is requested regarding the type of drought-, flood-, and salt-tolerant plants which

would ideally populate the rain garden

We look forward to continuing a constructive dialog about your feedback and about future phases of this project.

Anne-Marie Lambert and Fred Paulsen
Belmont Stormwater Working Group

cc: Patrick Herron (MyRWA), Belmont town officials, Friends of Belmont Public Library, members of Belmont Stormwater Working Group



Memorial Library Concept Design Report_070314.pdf
1808K

Alewife and Mill Brook: Mystic Headwaters Project 2013-01/604

**Belmont Memorial Library
DRAFT Concept Plan for a Green Infrastructure Retrofit**

Town of Belmont, MA

July 2014



Prepared for:
Mystic River Watershed Association and the Town of Belmont, MA

Prepared by:
Bioengineering Group
18 Commercial Street, Salem MA

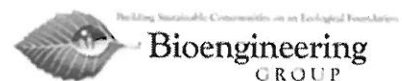


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INTRODUCTION

This report summarizes the conceptual design for green infrastructure improvements at Belmont Memorial Library on Concord Avenue in Belmont, Massachusetts. Selected from an expansive list of potential sites, Memorial Library features many qualities that make for an ideal green infrastructure retrofit site: high pollutant loading, proximity to receiving water, lack of existing stormwater treatment, high visibility, educational potential, space availability, and easy access for construction and maintenance.

The proposed retrofit for this site will mitigate pollution for the first one-half inch (first flush) of runoff using curb removal, vegetated swales, and bioretention. These green infrastructure facilities offer a relatively low-cost solution to reduce the loading of nutrients, metals, hydrocarbons, and other contaminants to Wellington Brook, a tributary to the Little River.

DESIGN CONSIDERATIONS

Memorial Library is surrounded on three sides (west, south and east) by asphalt parking lots and driveways. The building rooftop drains to the storm sewer running along Concord Avenue. Runoff from all other impervious surfaces drains to the adjacent Wellington Brook with no pretreatment. Bituminous curbs surrounding the pavement intercept runoff and direct it into the brook via two concrete channels at the southwest and southeast corners (see Photos 1 and 2) and a storm drain located in the handicap parking space to the east. Intercepting the flow in a gutter line causes it to become concentrated with greater erosive force that degrades the slope as it drains to the stream channel. Furthermore, these flow conditions exacerbate flooding downstream because of their very rapid response in moving runoff to the stream channel during storm events.

Parking at Memorial Library is in high demand and low supply, often leading visitors to park along the south (back of library) driveway. The curb along that driveway was recently installed to keep vehicles off the lawn. The lawn features a granite patio, shrubs, and a few small-diameter trees. The area to the east features a naturalistic garden (Photo 3), maintained by Belmont Garden Club, with benches and walking paths.

Existing soils on the site are unknown but are assumed, based on soils in surrounding areas, to be NRCS hydrologic soil group B or C. Wellington Brook originally flowed through the library site but was re-routed when the library was built in the 1960s. The library site lies within the 100-foot buffer zone and 200-foot riverfront area for Wellington Brook, but is outside the FEMA flood zone.



Photo 1. A bituminous curb intercepts sheet flow off the parking lot



Photo 2. Flow concentrates in a concrete channel at southwest corner and discharges directly to Wellington Brook



Photo 3. Belmont Garden Club maintains a garden to the west of the parking lot

CONCEPT DESIGN

A Sketch Plan (Figure 1) showing the proposed green infrastructure retrofits is presented in Attachment A. The proposed solution, in part, is to remove the curbs, thus allowing sheet flow to run overland, across a vegetative buffer, around the site. It also includes creation of a small bioretention basin.

On the west side, the pavement runoff will drain westward into a gentle swale that has been planted as a naturalistic garden (including and extending the existing garden). As long as salt is not used for snow and ice control during winter months, this runoff should provide beneficial periodic watering for one side of this garden area while simultaneously removing pollutants and delaying peak runoff conditions downstream. Slight re-grading will be required to affect a uniform slope where the curbs are removed. Erosion control fabric on the exposed soil will hold the soil in place until new plantings become established. Garden Club members will need to be involved in the selection of appropriate plant materials in the re-graded area.

A portion of the runoff will drain directly toward the existing overflow at the southwest corner (Photo 2) where the vegetated buffer is very narrow. Here the existing concrete drainage channel will be replaced with a narrow, depressed swale and level spreader. This will require a small section of fill to be added to the adjacent pavement, which currently slopes steeply

toward the drainage channel. The vegetated swale and level spreader will compensate for the limited vegetated buffer space and will minimize erosion in the immediate vicinity of the stream channel.

On the south side (behind the library), the existing curb interrupts sheetflow and creates intermittent puddles that accumulate sediment (Photo 1). Removal of the curb will permit distributed sheetflow across the vegetated buffer strip, approximately 20 feet wide, toward the brook. An appropriate wooden guardrail is proposed that will maintain necessary traffic control and eliminate unwanted parking. Where possible, minor depressions along the grass strip are recommended to intercept a portion of the sheet flow and facilitate infiltration while enhancing pollution removal and further reducing peak flow downstream.

On the east side, a similar situation exists where surface runoff from the paved parking area is intercepted by a bituminous curb that drains into a catch basin and, from there, directly into the brook through a pipe. The proposal is to treat this runoff before it is allowed to enter Wellington Brook without sacrificing any parking opportunities. Space near the exit to the road permits expansion of 2 parking spaces. This action will free up two spaces in the vicinity of the existing catch basin, creating room for a small bioretention basin. The existing handicapped parking space will be relocated uphill into the next two parking spaces resulting in no loss of available parking.

Pretreatment will take place in swales extending north from the proposed bioretention basin adjacent to the parking stalls and south beside the access driveway. These swales will replace the bituminous curb installed along the edge of the pavement. The existing catch basin will be extended vertically as needed with a beehive grate, twelve inches above the basin bottom. This will permit 280 cubic feet of first flush runoff to accumulate in the basin and infiltrate through plant roots and an engineered soil to remove pollutants. This amounts to approximately 130% of the total first flush runoff that enters the bioretention basin. Storms in excess of basin capacity will fill to the level of the grate and drain out through the existing pipe into Wellington Brook. The 12-inches of stormwater retained in the bioretention basin will infiltrate at a rate of 2 to 3 inches per hour through the engineered soil, draining completely within 4 to 6 hours.

EXPECTED POLLUTANT REMOVAL

Estimated removal totals for three common pollutants are presented in Table 1. Pollutant removal efficiencies are based on extensive SWMM modeling of stormwater best management practices by Tetra Tech under contract with the EPA (Tetra Tech, 2010).

Table 1. Total Estimated Removal for Three Common Pollutants

Site	Drainage Area (acre)	Pollutant Load (lb/ac/yr) ^a		Percent Pollutant Removal ^{b,c}	Annual Load Removed (lbs)
West and south lots ^b	0.45	TSS	1117.77	65.5%	329.5
		TP	1.66	11.0%	0.08
		Zn	2.33	88.5%	0.93
East lot ^c	0.12	TSS	1117.77	94.0%	125.0
		TP	1.66	58.5%	0.12
		Zn	2.33	95.5%	0.26

Source: Tetra Tech (2010) page 161 Bioretention BMP Performance Table and page 168 Grass Swale BMP Performance Table.

^a Annual pollutant loading rates for commercial land use

^b Pollutant removal based on depth of runoff treated in grass swale = 0.5 inches

^c Percent removal based on depth of runoff treated in bioretention basin = 0.5 inches

COST ESTIMATE

The estimated construction cost for the bioretention basin and swale retrofit illustrated in the Concept Plan is approximately \$____, not including contingencies. See Table 2 for an itemized breakdown of quantities and unit costs.

MAINTENANCE

Operation and Maintenance costs for this green infrastructure retrofit are estimated to be \$____/year. Note that these costs do not factor in the cost of existing maintenance for this location.

Bioretention Basin and Swale

Monthly maintenance includes:

- Remove all trash and debris.
- Inspect inlets. Remove any debris that might impede flow.
- Inspect outlet structure. Remove any debris that might impede flow. Repair any damage as needed.
- During the growing season, remove weeds and invasive species by hand. Invasive species may include common reed (*Phragmites australis*) and purple loosestrife (*Lythrum salicaria*), among others. Refer to Invasive Plant Atlas of New England (IPANE) database of invasive and potentially invasive plants.

- Underdrains in the bioretention basins are equipped with a clean-out consisting of a vertical, rigid, non-perforated PVC pipe, with a minimum diameter of 6 inches and a watertight cap fit flush with the ground. Cleanouts shall be inspected monthly for obstructions and trash. Remove all trash and debris and dispose of according to state and local regulations.

Annual maintenance includes:

- Inspect for the development of hardpan at the bottom of the basin. Hardpan occurs when the soil becomes cemented, forming an impervious layer. Where this has occurred, scarify the soil to a depth of 6 inches.
- Apply a 2-inch layer of clean hardwood mulch evenly throughout, being careful not to smother or damage the plants (if necessary).
- Prune shrubs to remove any dead or damaged limbs.
- Manually cut grasses to a height no shorter than 3 inches (April). Remove cut grass from basin and dispose of off-site.

REFERENCES

Tetra Tech (2010) Stormwater Best Management Practices (BMP) Performance Analysis, Revised Document, March 2010, prepared for USEPA-Region 1. Boston, MA

USDA, NRCS (1986) Urban Hydrology for Small Watersheds, Technical Release 55

Massachusetts Department of Environmental Protection (2008) Volume 2, Chapter 2: Structural BMP Specifications for the Massachusetts Stormwater Handbook

ATTACHMENT A: SKETCH PLAN

Figure 1. Memorial Library Sketch Plan

DRAFT

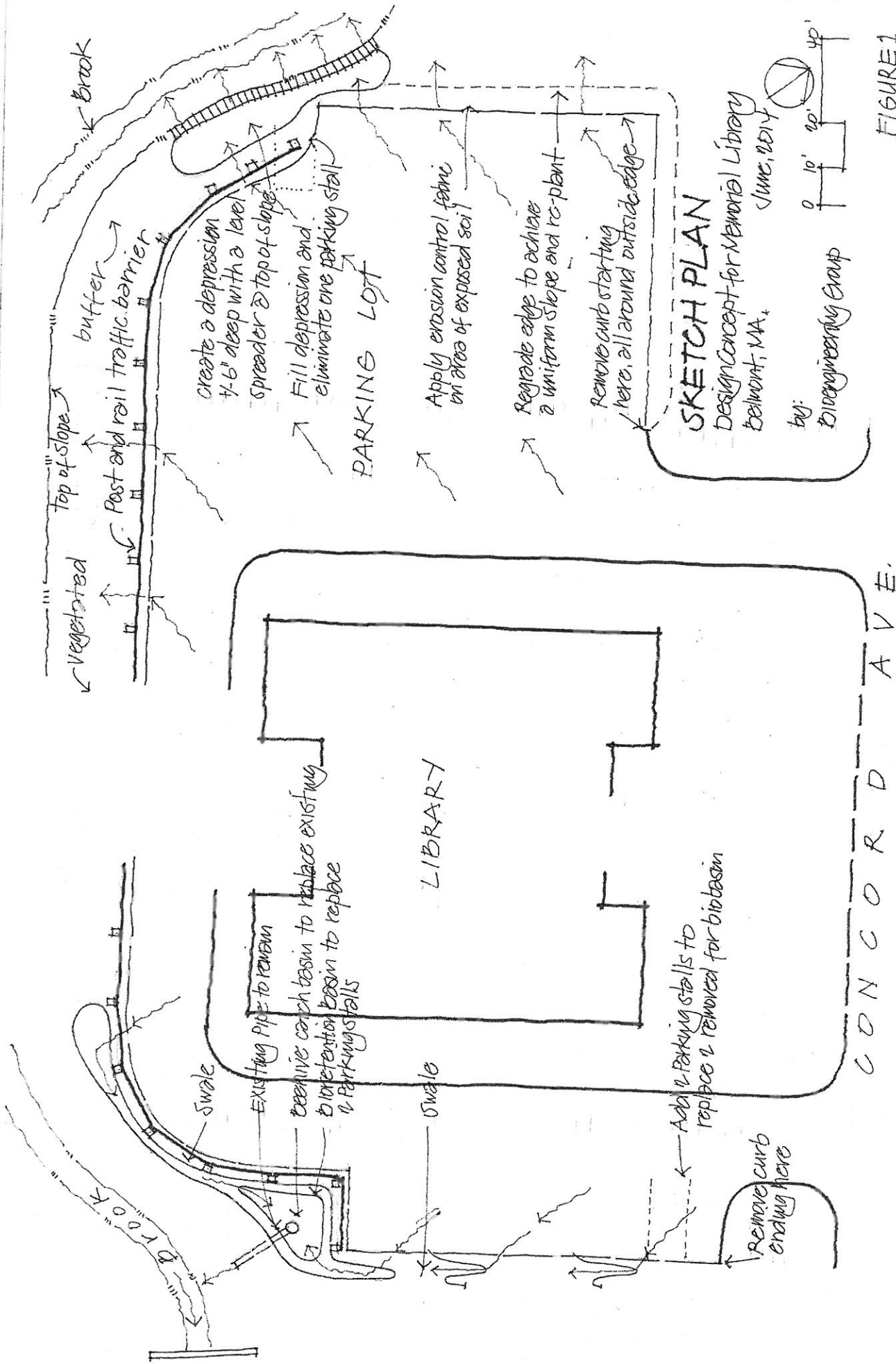


FIGURE 1

BELMONT PUBLIC LIBRARY EXPENDITURES								
		AUGUST	2014				18-Aug-14 11:04 AM	
	ORIG./ADJ. APPROPTS.	TRANSFER	ADJUSTED BUDGET	SPENT AUGUST	SPENT JULY - AUG	BALANCE	PROJECTED 2 MONTHS	% EXP
LIBRARY ADMINISTRATION								
16111								
511000	SALARIES, FULL TIME	204,318.00	204,318.00	11,737.38	27,387.22	176,930.78	34,053.00	13.4%
511100	SALARIES, PART TIME	10,436.00	10,436.00	324.39	611.73	9,824.27	1,739.33	5.9%
513000	OVERTIME	9,950.00	9,950.00	818.59	1,786.00	8,164.00	1,658.33	17.9%
514100	SPECIALTY PAY/STIPEND	260.00	260.00	15.00	35.00	225.00	43.33	13.5%
514800	LONGEVITY	975.00	975.00	0.00	0.00	975.00	43.33	0.0%
517000	HEALTH INSURANCE	22,295.00	22,295.00	0.00	0.00	22,295.00	162.50	0.0%
517200	WORKER'S COMPENSATION	0.00	0.00	0.00	0.00	0.00	3,715.83	#DIV/0!
517800	MEDICARE	3,288.00	3,288.00	0.00	0.00	3,288.00	0.00	0.0%
519900	UNIFORM	820.00	820.00	0.00	0.00	820.00	136.67	0.0%
16112								
521100	EBS CO	8,690.00	8,690.00	0.00	4,345.00	4,345.00	0.00	50.0%
522800	GAS	16,500.00	16,500.00	0.00	139.94	16,360.06	1,448.33	0.8%
522900	ELECTRICITY	40,015.00	40,015.00	3,525.10	3,525.10	36,489.90	2,750.00	8.8%
523100	WATER	5,000.00	5,000.00	0.00	0.00	5,000.00	6,669.17	0.0%
524300	MAINTENANCE BUILDING	134,235.00	134,235.00	8,022.02	8,051.87	126,183.13	833.33	6.0%
524400	MAINTENANCE GROUNDS	0.00	0.00	0.00	0.00	0.00	22,372.50	#DIV/0!
524500	REPAIRS & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	#DIV/0!
530001	MAINTENANCE OFFICE EQUIP	5,515.00	5,515.00	0.00	0.00	5,515.00	0.00	0.0%
530001	MAINTENANCE LIBRARY EQUIP	0.00	0.00	0.00	0.00	0.00	919.17	#DIV/0!
531700	MEDICAL REPORTS & BILLS	299.00	299.00	0.00	0.00	299.00	0.00	0.0%
531700	EMPLOYEE TRAINING	350.00	350.00	0.00	0.00	350.00	49.83	0.0%
531900	ADVERTISING & PUBLIC RELA	500.00	500.00	0.00	0.00	500.00	58.33	0.0%
534500	POSTAGE	2,800.00	2,800.00	6.15	272.15	2,527.85	83.33	9.7%
534700	PRINTING	1,500.00	1,500.00	0.00	0.00	1,500.00	466.67	0.0%
542100	OFFICE SUPPLIES	945.00	945.00	0.00	57.36	887.64	250.00	6.1%
545000	CUSTODIAL SUPPLIES	12,257.00	12,257.00	0.00	2,649.11	9,607.89	157.50	21.6%
548900	GASOLINE	398.00	398.00	0.00	0.00	398.00	2,042.83	0.0%
571000	IN-STATE TRAVEL	375.00	375.00	0.00	25.93	349.07	66.33	6.9%
573000	DUES & MEMBERSHIP	610.00	610.00	0.00	110.00	500.00	62.50	18.0%
TOTAL LIBRARY ADMIN		482,331.00	482,331.00	24,448.63	48,996.41	433,334.59	80,388.50	10.2%

Belmont Public Library
Activity Report For The Month
of July 2014

Days open 2013: 25
Days open 2014: 25

Agency	July <u>2014</u>	Increase Over <u>July 2013</u>	Cumulated <u>2014</u>	Cumulated Increase <u>Over 2013</u>
Adult	24,214	(1,555)	166,163	1,418
Juvenile	<u>22,322</u>	<u>(1,137)</u>	<u>159,649</u>	<u>6,354</u>
Total	46,536	(2,692)	325,812	7,772

Downloadable Audiobooks & eBooks (included in above figures)

Checkouts	1580	9,513
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Average Daily Circulation

	<u>2014</u>	<u>2013</u>
Adult	969	1,031
Juvenile	893	938

Non-Book (included in above figures)

Adult	9,725	(757)	68,880	(1,511)
Juvenile	<u>4,057</u>	<u>(287)</u>	<u>27,702</u>	<u>(1,026)</u>
Total	13,782	(1,044)	96,582	(2,537)

DVD

Adult	6,817	(629)	49,333	(1,080)
Juvenile	<u>2,916</u>	<u>35</u>	<u>20,152</u>	<u>(830)</u>
Total	9,733	(594)	69,485	(1,910)

Internet Use

Internet	1,782	15,247
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Interlibrary Loan:

Borrowed	12	107
Loaned	16	124
Faxed	-	1

Young Adult Circulation

	2,256	(697)	13,901
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ACTIVITY REPORT FOR THE MONTH OF JULY 2014

Reference and Information

	July 2014	Increase Over July 2013	Cumulated 2014	Cumulated Increase Over 2013
Adult	2,530	(564)	21,864	(1,330)
Email	1	(8)	38	(14)
Total	<u>2,531</u>	<u>(572)</u>	<u>21,902</u>	<u>(1,344)</u>

Book Processing

Added:	1,134
Withdrawn:	2,133
Repaired:	42

Meeting Room Use

Room	Times Used	Attendance	Cumulated Times Used	Cumulated Attendance
Assembly	17	964	138	5,502
Flett	8	146	447	3,876
Misc.	<u>23</u>	<u>483</u>	<u>96</u>	<u>2,066</u>
Total	48	1,593	681	11,444

Library Sponsored Programs (included in above figures)

Adult	5	21	40	1,067
Juvenile	25	1,356	189	6,700
Young Adult	<u>9</u>	<u>58</u>	<u>39</u>	<u>552</u>
Total	39	1,435	268	8,319

Circulating Passes:

		Pass Cumulated
Aquarium	- (passes not available in July)	235
Audubon	8	46
Boston By Foot	4	9
Children's	25	129
DeCordova	13	55
Discovery	9	59
Einstein's Workshop	19	43
Essex/Peabody	22	88
Fine Arts	34	232
Fruitlands	3	11
Gardner	11	74
Harvard Art	- (Closed until Fall of 2014)	-
Harvard Natural History	19	66
Institute of Contemp. A	8	48
Kennedy Library	4	33
Mass Parks Pass	7	17
Orchard House	7	20
Plimoth Plantation	7	22
Science	44	237
Zoos	<u>25</u>	<u>97</u>
Total	269	1,521