

Solicitation of Interest – Junction Village, Concord, Mass.

The Concord Housing Development Corporation (CHDC) is soliciting expressions of interest and preliminary proposals from experienced, qualified development groups interested in building affordable housing on a 12.8 acre (4-5 buildable acres) parcel of land located off of Winthrop Street and bordered by the Massachusetts Correctional Institute at Concord to the north and the Assabet River to the east. Written expressions of interest and preliminary proposals will be received by the Regional Housing Services Office, Sudbury Department of Planning and Community Development, 278 Old Sudbury Road, Sudbury, MA 01776, until Friday, July 12, 2013.

The Solicitation of Interest and related documents will be available to be downloaded at www.concordma.gov/pages/ConcordMA_BComm/concordhousing. To register to receive updates regarding the Solicitation of Interest please call or email Dan Gaulin at the Regional Housing Services Office (RHSO), consultant to the CHDC, at (978) 639-3366 or gaulind@sudbury.ma.us and leave your name and preferred contact method.

A pre-proposal meeting will be held on June 5, 2013 11:00 a.m. at the first floor meeting room, 141 Keyes Road, Concord, MA. All prospective developers/builders shall have an opportunity to ask questions of CHDC members. A site visit will occur immediately following the meeting.

Questions arising following the pre-proposal meeting shall be submitted in writing, (email preferred) to Dan Gaulin at gaulind@sudbury.ma.us, no later than 5:00 p.m. on May 31, 2013. Written answers will be prepared by and will be forwarded to all registered recipients of the Solicitation of Interest.

Responses to this Solicitation of Interest may be mailed or emailed to Dan Gaulin, RHSO, 278 Old Sudbury Road, Sudbury, MA 01776 gaulind@sudbury.ma.us. Each envelope or email must be clearly labeled "Junction Village Solicitation of Interest" along with the proposing builder/developer's name and address.

At this time, the CHDC is seeking expressions of interest from affordable housing developers in order to help us understand:

1. what types of Affordable Housing might best suit the parcel, e.g. single family, multifamily, home ownership, rental, Elderly, assisted living etc.
2. what is the optimal number of units,
3. what potential income mixes are feasible
4. what subsidies might be available,

The CHDC may choose one or more of the respondents for further discussions or may issue a Request for Proposals for the parcel later in the year for a development team to design, permit, finance, build, market and either operate in the case of a rental or Assisted Living development or sell in the case of an ownership development. Strong organizational, financial and development history along with a demonstrated ability to work well within communities and neighborhoods is a must. The CHDC will seek to find an optimum blend of highest design and construction quality at the maximum affordability.

Background Information

On January 28, 2013, the Concord Housing Development Corporation (CHDC), a nonprofit organization with the charge to promote affordable housing opportunities throughout the Town of Concord, took title to a 12.8 acre parcel of land located off of Winthrop Street bordered by the Massachusetts Correctional Institute at Concord to the north and the Assabet River to the east. This parcel was conveyed by the Commonwealth of Massachusetts to CHDC with the condition that it be used solely for open space and affordable housing (the deed and legislation authorizing the sale is an appendix to this document).

The parcel has been identified in a number of Town plans as a site for affordable housing including the Housing Production Plan and the West Concord portion of the Village Center Study. The parcel is currently zoned Industrial Park A; therefore, the developer will need to apply for a comprehensive permit from the Concord Zoning Board of Appeals (ZBA) or have the parcel re-zoned. Please note that 10.5% of Concord's housing stock is considered affordable by the Massachusetts Department of Housing and Community Development, therefore, decisions of the Concord ZBA are not subject to review by the state Housing Appeals Committee. However, the successful project will have the support of CHDC, the Planning Board, and Board of Selectmen.

Affordable Rents, Prices and Income Ranges

The terms of the legislation authorizing the sale require that 100% of the housing built on the site must be affordable as determined by the Grantee (the CHDC.) The CHDC has determined that affordable is defined as housing affordable to families at or below 150% of the Boston-Cambridge-Quincy MA-NH HMFA Median Income adjusted for family size. The CHDC has also determined that a minimum of 25% of the affordable units developed at this parcel will be affordable at 80% of median income and must qualify for inclusion on the Commonwealth's

Subsidized Housing Inventory (a chart of rents for 0BR to 3BR units and sales prices for 1BR to 3BR units at income ranges from 80% of median to 150% of median is in the appendix to this document). Developers may propose housing for incomes lower than 80%, (e.g. 60% of median for Low Income Tax Credits.) If you choose to do so, please include the rent and income charts or calculations to your proposal.

Additional Information

Sudbury Assabet Concord River Conservation Plan – The parcel borders the Assabet River and any development proposal will be subject to advisory review and comment by the Sudbury Assabet Concord River Stewardship Council.

Since the site is adjacent to a former railroad line, the provisions of Chapter 40; Article 54A may be applicable.

Plan and Document Appendix

The following documents are provided in the appendix to this document for reference:

Aerial Google Earth Images of Site – pages 5-6 of the pdf
Affordable Rents, Prices, and Income Ranges – pages 7-9
Deed – pages 10-12
Recorded Approval Not Required Site Plan – page 13
Order of Resource Area Delineation – page 14-18
Abbreviated Notice of Resource Area Delineation Plan – page 19
Sketch of Entrance with compensatory storage – page 20
Emergency Access Easement – pages 21-22
Plan of Emergency Access Easement – pages 23
Transportation Easement – page 24-32
Plan of Transportation Easement – page 33
Owners Title Insurance Policy – pages 34-42
Chapter 117 of the Acts of 2010 - pages 43-44
Sudbury Assabet Concord River Conservation Plan - pages 45-132
Chapter 40, Article 54A information – pages 133-139
Concord Housing Production Plan – pages 140-222

The following document is available on the Town of Concord website

Village Center Study www.concordma.gov/pages/ConcordMA_Planning/VillageCenterStudy.pdf

Format of Response

The CHCD wishes to encourage as many responses as possible; therefore, we will not require a specific format. We understand that the concepts that are presented will be preliminary in nature. In addition, you may submit multiple concepts, e.g. a rental and an ownership submission or an age-restricted development and a family development. However, each submission(s) should contain the following elements:

- Name of builder or developer
- Address of builder or developer.
- Name of contact person (including phone and fax numbers and email address).
- Type of Housing
- Rental or Ownership
- Target number of units and Minimum Number for project to be viable
- Unit Distribution by number of bedrooms
- Unit Distribution by income range
- Development and Operating Proformas
- Number of buildings and approximate massing and location
- Amount of Federal and/or State Subsidies that would sought, if any
- Developer Profile, Experience, Project Portfolio

One electronic copy of the proposal or eight (8) paper copies of the proposal shall be submitted to Dan Gaulin, RHSO, 278 Old Sudbury Road, Sudbury, MA 01776 or by email:

gaulind@sudbury.ma.us.

Questions regarding this Solicitation of Interest may be directed to Dan Gaulin at the addresses above.

Route 2 - Concord Rotary

Massachusetts Correctional Institution - Concord

Assabet River

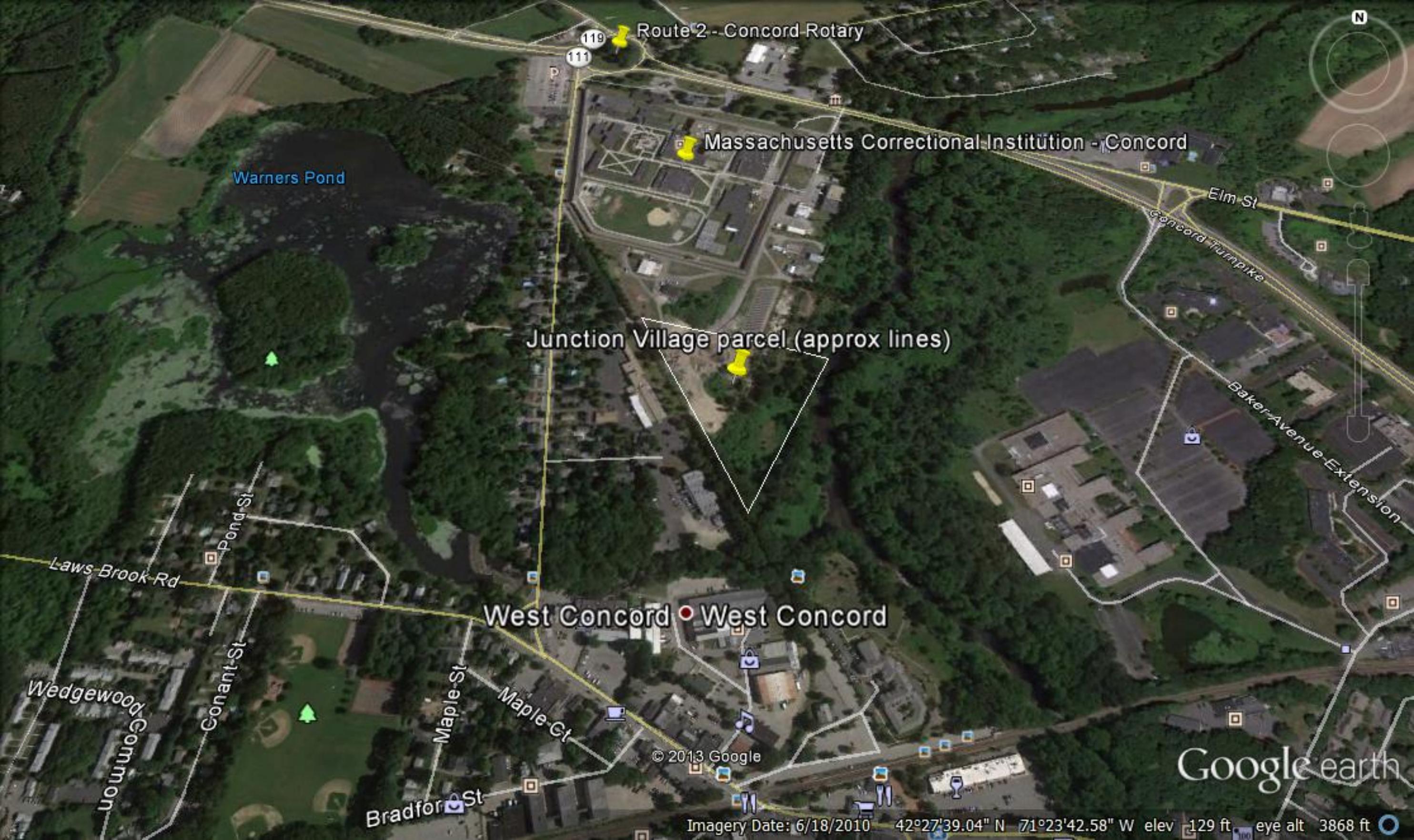
Junction Village parcel (approx lines)

Winthrop St

© 2013 Google

Google earth

Imagery Date: 6/18/2010 42°27'44.12" N 71°23'36.72" W elev 128 ft eye alt 2048 ft



Route 2 - Concord Rotary

Massachusetts Correctional Institution - Concord

Junction Village parcel (approx lines)

West Concord • West Concord

Warners Pond

Google earth

© 2013 Google

Imagery Date: 6/18/2010 42°27'39.04" N 71°23'42.58" W elev 129 ft eye alt 3868 ft

Laws Brook Rd

Wedgewood Common

Pond St
Conant St

Maple St
Maple Ct
Bradford St

Elm St

Concord Turnpike

Baker Avenue Extension

RENTAL

Number of Bedrooms	0BR	1BR	2BR	3BR
Maximum Gross Rent @ 80% of median	\$1,061	\$1,213	\$1,365	\$1,515
@ 90% of median	\$1,297	\$1,482	\$1,668	\$1,853
@ 100% of median	\$1,441	\$1,647	\$1,853	\$2,059
@ 110% of median	\$1,585	\$1,812	\$2,038	\$2,265
@ 120% of median	\$1,729	\$1,976	\$2,223	\$2,471
@ 130% of median	\$1,873	\$2,141	\$2,409	\$2,676
@ 140% of median	\$2,018	\$2,306	\$2,594	\$2,882
@ 150% of median	\$2,162	\$2,471	\$2,779	\$3,088

OWNERSHIP

Maximum Sales Allowable Prices

	80%	100%	120%	150%
1 BR	\$ 154,000	\$ 225,000	\$ 283,000	\$ 360,000
2 BR	\$ 175,000	\$ 257,000	\$ 314,000	\$ 400,000
3 BR	\$ 190,000	\$ 281,000	\$ 345,000	\$ 440,000

Concord Housing Authority 11/1/2012

Utility allowance - 0BR

Utility allowance - 1BR

Utility allowance - 2BR

Utility allowance - 3BR

Gas H+HW+stove; unit electricity; garden apt

\$81

\$105

\$143

\$177

2013 4 person - 100% median Boston metro

\$94,400

Household Size		1	2	3	4
Number of Bedrooms		0	1	2	3
Annual Gross Income	80%	\$47,150	\$53,900	\$60,650	\$67,350
30% on Housing		\$14,145	\$16,170	\$18,195	\$20,205
Monthly on housing		\$1,179	\$1,348	\$1,516	\$1,684
10% cushion		-\$118	-\$135	-\$152	-\$168
Gross rent after cushion		\$1,061	\$1,213	\$1,365	\$1,515
Estimated utilities		-\$81	-\$105	-\$143	-\$177
Net Allowable rent		\$980	\$1,108	\$1,222	\$1,338

Annual Gross Income	90%	\$59,472	\$67,968	\$76,464	\$84,960
30% on Housing		\$17,842	\$20,390	\$22,939	\$25,488
Monthly on housing		\$1,487	\$1,699	\$1,912	\$2,124
10% cushion		-\$149	-\$170	-\$191	-\$212
Gross rent after cushion		\$1,338	\$1,529	\$1,720	\$1,912
Estimated utilities		-\$81	-\$105	-\$143	-\$177
Net Allowable rent		\$1,257	\$1,424	\$1,577	\$1,735
Annual Gross Income	100%	\$66,080	\$75,520	\$84,960	\$94,400
30% on Housing		\$19,824	\$22,656	\$25,488	\$28,320
Monthly on housing		\$1,652	\$1,888	\$2,124	\$2,360
10% cushion		-\$165	-\$189	-\$212	-\$236
Gross rent after cushion		\$1,487	\$1,699	\$1,912	\$2,124
Estimated utilities		-\$81	-\$105	-\$143	-\$177
Net Allowable rent		\$1,406	\$1,594	\$1,769	\$1,947
Annual Gross Income	110%	\$72,688	\$83,072	\$93,456	\$103,840
30% on Housing		\$21,806	\$24,922	\$28,037	\$31,152
Monthly on housing		\$1,817	\$2,077	\$2,336	\$2,596
10% cushion		-\$182	-\$208	-\$234	-\$260
Gross rent after cushion		\$1,635	\$1,869	\$2,103	\$2,336
Estimated utilities		-\$81	-\$105	-\$143	-\$177
Net Allowable rent		\$1,554	\$1,764	\$1,960	\$2,159
Annual Gross Income	120%	\$79,296	\$90,624	\$101,952	\$113,280
30% on Housing		\$23,789	\$27,187	\$30,586	\$33,984
Monthly on housing		\$1,982	\$2,266	\$2,549	\$2,832
10% cushion		-\$198	-\$227	-\$255	-\$283
Gross rent after cushion		\$1,784	\$2,039	\$2,294	\$2,549
Estimated utilities		-\$81	-\$105	-\$143	-\$177
Net Allowable rent		\$1,703	\$1,934	\$2,151	\$2,372
Annual Gross Income	130%	\$85,904	\$98,176	\$110,448	\$122,720
30% on Housing		\$25,771	\$29,453	\$33,134	\$36,816
Monthly on housing		\$2,148	\$2,454	\$2,761	\$3,068
10% cushion		-\$215	-\$245	-\$276	-\$307
Gross rent after cushion		\$1,933	\$2,209	\$2,485	\$2,761
Estimated utilities		-\$81	-\$105	-\$143	-\$177
Net Allowable rent		\$1,852	\$2,104	\$2,342	\$2,584

Annual Gross Income	140%	\$92,512	\$105,728	\$118,944	\$132,160
30% on Housing		\$27,754	\$31,718	\$35,683	\$39,648
Monthly on housing		\$2,313	\$2,643	\$2,974	\$3,304
10% cushion		-\$231	-\$264	-\$297	-\$330
Gross rent after cushion		\$2,082	\$2,379	\$2,676	\$2,974
Estimated utilities		-\$81	-\$105	-\$143	-\$177
Net Allowable rent		\$2,001	\$2,274	\$2,533	\$2,797
Annual Gross Income	150%	\$99,120	\$113,280	\$127,440	\$141,600
30% on Housing		\$29,736	\$33,984	\$38,232	\$42,480
Monthly on housing		\$2,478	\$2,832	\$3,186	\$3,540
10% cushion		-\$248	-\$283	-\$319	-\$354
Gross rent after cushion		\$2,230	\$2,549	\$2,867	\$3,186
Estimated utilities		-\$81	-\$105	-\$143	-\$177
Net Allowable rent		\$2,149	\$2,444	\$2,724	\$3,009

83



2013 00025556

Bk: 61102 Pg: 485 Doc: DEED

Page: 1 of 3 01/31/2013 01:11 PM

RELEASE DEED

THE COMMONWEALTH OF MASSACHUSETTS, acting by and through the Commissioner of its **DIVISION OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE**, on behalf of the Department of Correction ("DOC") having an address at One Ashburton Place, Boston, Massachusetts 02108 (the "Grantor"), acting under the authority of Chapter 117 of the Acts of 2010 (the "Act"), for nominal consideration, the receipt and sufficiency of which the Grantor hereby acknowledges, does hereby grant and release to the **CHDC - JV LLC**, a Massachusetts limited liability company, with a mailing address of P.O. Box 195, Concord, Massachusetts 01742 (the "Grantee"), without covenants, a certain parcel of land (the "Premises"), known as Parcel A, located at the end of Winthrop Street, Concord, Massachusetts, containing 12.8± acres, more or less, and being shown as Parcel A on that certain plan entitled "Plan of Land in Concord, MA, prepared for the Commonwealth of Massachusetts Division of Capital Asset Management and Maintenance on behalf of the Department of Correction", dated November 9, 2012 and prepared by Places Associates, Inc., 510 King Street, Suite 9, Littleton, Massachusetts, to be recorded herewith as (the "Plan").

It is the intent of the Grantor named herein to convey the Premises; howsoever the same may be bounded and described, in their "as is" condition. It is the intent of the Parties hereto that all conditions herein shall run with the land and be deemed to be made for valuable consideration.

The Premises are conveyed subject to the following restrictions:

1. No improvements or landscaping shall be located such that a shadow will fall on the Grantor's Solar Panels located on the adjacent land of Grantor, as such panels are shown on the Plan. The Grantee, or its successors in title, shall be responsible for tree trimming from time to time as necessary to comply with the foregoing. Grantor may exercise self-help if such trimming does not occur after 15 days notice and request from the Grantor to the then current owner of the Premises.
2. The Premises shall initially be used for public open space purposes but it is contemplated that it will be developed for affordable housing purposes. If so developed, 100 percent of the housing created on the Premises shall be deemed affordable housing as determined by the income ranges established by the Grantee.
3. The Act requires that any development of the Premises shall include appropriate set-backs from the Assabet River. The issuance by the Secretary of Energy and

DLDN
PO Box 2223
Acton MA 01720

Property Address: Off Winthrop Street, Concord, MA

PK 71 9 2013

Environmental Affairs of a certificate stating that the project review has been completed pursuant to the Massachusetts Environmental Policy Act (MEPA) shall constitute evidence of compliance with said requirement.

4. The Act requires that any development of the Premises shall ensure compatibility for the proposed Bruce Freeman Rail Trail to cross the Premises. Issuance of an approval and permit for the development of the Premises for affordable housing purposes in accordance with this deed from the Town of Concord Planning Board or the Town of Concord Zoning Board of Appeals shall constitute evidence of compliance with said requirement.

The Premises are further subject to all other matters of record to the extent the same are in force and effect and subject to applicable laws, rights and encumbrances. If the Premises ceases to be used for the purposes set forth in Section 1 of Chapter 117 of the Acts of 2010, title to the Premises shall, at the election of the Commonwealth, revert to the Commonwealth.

By its execution and delivery of this Deed, the Grantor confirms that:

1. The boundaries of the Premises as shown on the Plan provide the clear field of view for and an appropriate setback from the DOC facility of the Grantor located north of the Premises, as required by the Act.
2. The recording herewith of the Deed of Easement from the Massachusetts Department of Transportation to the Grantee shall constitute compliance with the requirement of the Act that the Grantee acquire access to cross the former railroad right of way abutting the Premises.
3. The recording herewith of the Emergency Access Easement from the Grantor to the Grantee shall constitute compliance with the requirements of the Act that the Grantee provide a second means of access for emergency purposes.

For the Commonwealth's title see taking recorded with the Middlesex (South) Registry of Deeds in Book 26EX, Page 479 and confirmation deed at Book 1292, Page 227.

IN WITNESS WHEREOF, the Commonwealth of Massachusetts has executed this Release Deed as a sealed instrument as of the 28th day JANUARY, 2013.

COMMONWEALTH OF MASSACHUSETTS acting by and through the Commissioner of its Division of Capital Asset Management and Maintenance

By: Carole J. Cornelison
Carole J. Cornelison, Commissioner

The undersigned certifies under penalties of perjury that I have fully complied with Chapter 117 of the Acts of 2010 in connection with the property described herein.

By: Carole J. Cornelison
Carole J. Cornelison, Commissioner, Division of Capital Asset Management and Maintenance

THE COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss.

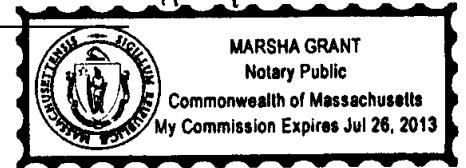
On this 28th day of January, 2013, before me, the undersigned notary public, personally appeared Carole J. Cornelison, proved to me through satisfactory evidence of identification, which were personally known to me, to be the person whose name is signed on the preceding document, and acknowledged to me that she signed it voluntarily, in her capacity as Commissioner of the Division of Capital Asset Management and Maintenance, for its stated purpose.

Marsha Grant

Notary Public

My Commission Expires

7/26/13



Middlesex Registry of Deeds,
Southern District
Cambridge, Massachusetts
Plan No. 71 of 2013
Rec'd 1.31 2013
at 12 H 24 M P

Attest
Alfred M. Berry
Register

FOR REGISTRY USE ONLY

ZONING INFORMATION

INDUSTRIAL PARK
MINIMUM AREA: 4 ACRES
MINIMUM LOT FRONTAGE: 50' OR 200'
MINIMUM FRONT YARD: 20' OR 100'
CORNER CLEARANCE: 10'
MAXIMUM HEIGHT: 40'
MAXIMUM LOT COVERAGE: 50%

LEGEND

MAP, BLOCK - ASSESSORS INFORMATION
 ○ STONE OR CONCRETE BOUND
 ○ IRON PIPE
 ○ DRILL HOLE
 ○ PROPERTY LINE
 ○ ABUTTER PROPERTY LINE (±)
 ○ EASEMENT LINE
 ○ STONE WALL
 ○ CONTOUR
 ○ INDEX CONTOUR
 ○ RIVERBANK
 ○ WETLAND LINE
 ○ WETLAND FLAG
 ○ SIGN

GENERAL NOTES

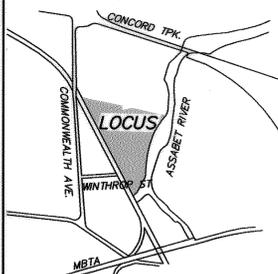
- 1.) THIS PLAN SHOWS A PROPOSED CONVEYANCE AND THE LOT CREATED. PARCEL "A", IS NOT A BUILDING LOT.
- 2.) PARCEL "A" IS TO BE CONVEYED TO THE CONCORD HOUSING DEVELOPMENT CORPORATION.
- 3.) FIELD SURVEY WAS COMPLETED BY TOTAL STATION/EDM.
- 4.) THE HORIZONTAL (NAD 83) AND VERTICAL (NAVD 88) DATUMS WERE DERIVED FROM GPS OBSERVATIONS AND ARE BASED ON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.
- 5.) ALL UNDERGROUND UTILITY INFORMATION SHOWN HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIGSAFE AT 1-800-322-4844 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
- 6.) ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) MAPS, THE MAJOR IMPROVEMENTS ON THIS SITE ARE DESIGNATED "ZONE X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. COMMUNITY PANEL 359 OF 656, MAP NUMBER 25017C0359E, EFFECTIVE DATE: JUNE 4, 2010.

LOCUS REFERENCE

ASSESSOR'S MAP REFERENCE:
MAP 8D, BLOCK 2013
OWNER:
COMMONWEALTH OF MASSACHUSETTS,
EXECUTIVE ORDER 22EX, PAGE 479
BOOK 1292, PAGE 227

LOCATION MAP

NOT TO SCALE



THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CORRECTION
REMAINING LAND

51+ ACRES
2,716± REMAINING FRONTAGE
EXECUTIVE ORDER 22EX, PAGE 479

MAP 8D, BLOCK 2163
KEVIN E. & CATHERINE O. NEUSTROM
BOOK 54542, PAGE 271

MAP 8D, BLOCK 2164
DIANE B. STRONACH
BOOK 28843, PAGE 440

MAP 8D, BLOCK 2168
WHALE ROCK LLC
BOOK 46705, PAGE 295

MAP 9D, BLOCK 2175
MATTHEW W. JOHNSON & MARGOT B. KIMBALL
BOOK 28612, PAGE 209

MAP 9D, BLOCK 2176
PETER J. & ELLEN M. KYLE
BOOK 14254, PAGE 288

MAP 9D, BLOCK 2177
CERIE REALTY TRUST
BOOK 23560, PAGE 260

MAP 9D, BLOCK 2183-4
MARGARET MARY PEGGY PIZ
BOOK 24420, PAGE 5

MAP 9D, BLOCK 2183-CD
ASSABET RIVER REALTY LLC
BOOK 32540, PAGE 209

NOTE:

"PARCEL A", AS SHOWN ON THIS PLAN LIES WHOLLY WITHIN THE LAND ACQUIRED BY THE COMMONWEALTH OF MASSACHUSETTS ON JANUARY 9, 1874 AND RECORDED IN THE MIDDLESEX SOUTH REGISTRY OF DEEDS IN BOOK 1292, PAGE 227. SAID LAND WAS DECLARED SURPLUS TO THE NEEDS OF THE DEPARTMENT OF CORRECTION PER ITS DECLARATION DATED AUGUST 10, 2010 AS REFERENCED IN CHAPTER 117 OF THE ACTS OF 2010.

OVERLAY DISTRICT AREAS:

WETLAND CONSERVANCY DISTRICT - 157,750 SQ. FT.±
FLOODPLAIN CONSERVANCY DISTRICT - 190,750 SQ. FT.±

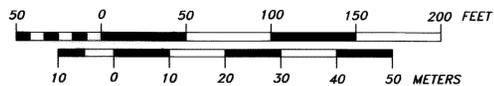
CERTIFICATIONS:

I CERTIFY THAT THE PREPARATION OF THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

FURTHERMORE, I HEREBY FURTHER CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

Alfred M. Berry
ALFRED M. BERRY, P.L.S. 436857

DATE: 12/7/2012



CONCORD PLANNING BOARD

APPROVAL UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED.

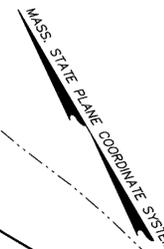
Marcia Ost Rasmussen

December 19, 2012
DATE

PLANNING BOARD ENDORSEMENT DOES NOT CONSTITUTE CONFORMANCE WITH APPLICABLE ZONING LAWS OF THE TOWN OF CONCORD.

MAP 9E, BLOCK 37941

NORMANDY CONCORD ACQUISITION, LLC,
BOOK 48668, PAGE 397



12:24 PM

1:31 P

PL: 71

SHEET NO. 1 OF 1	PLAN OF LAND IN CONCORD, MA PREPARED FOR THE COMMONWEALTH OF MASSACHUSETTS DIVISION OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE ON BEHALF OF THE DEPARTMENT OF CORRECTION		SURVEYOR: AMB	ENGINEER: N/A	REVISIONS	APPROVAL NOT REQUIRED	Places Associates, Inc. Planning, Landscape Architecture, Civil Engineering, Surveying 510 KING STREET, SUITE 9 LITTLETON, MA 01460 978.486.0334 Fax 978.486.0447 EMAIL places@verizon.net
	DRAFTING: AMB	DESIGN: N/A					
	FIELD WORK: JEG, BC	HORIZ SCALE: 1"=50'					
	PROJECT NO. 11-6002	VERT SCALE: N/A					
	DRAWING NAME: 6002CHDC	DATE: NOVEMBER 9, 2012					



TOWN OF CONCORD
NATURAL RESOURCES COMMISSION
141 KEYES ROAD, CONCORD, MASSACHUSETTS 01742
TEL. (978) 318-3285 FAX (978) 318-3291

April 19, 2013

CERTIFIED MAIL

Concord Housing Development Corporation
c/o David Hale
Omni Properties LLC
200 Baker Avenue, Suite 303
Concord, MA 01742

Dear Mr. Hale:

Enclosed please find one original and one copy of the Order of Resource Area Delineation approved at the April 17, 2013 meeting of the Natural Resources Commission.

Please note that because this is an Order for Resource Area Delineation Only, there is no requirement to record this document at the Registry of Deeds.

Please note there is a ten (10) business-day appeal period that allows the opportunity to appeal the project to the Department of Environmental Protection (DEP).

If you have any questions, please do not hesitate to contact our office.

Sincerely,

Cynthia L. Gray

Cynthia L. Gray
Administrative Assistant



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 4B - Order of Resource Area Delineation
 Massachusetts Wetlands Protection Act M.G.L. c. 131 S40

Provided by MassDEP:
 MassDEP File #:137-1203
 eDEP Transaction #:555764
 City/Town:CONCORD

A. General Information

1. Conservation Commission CONCORD

2. This Issuance is for (Check one):

- a. Order of Resource Area Delineation
- b. Amended Order of Resource Area Delineation

3. Applicant Details

a. First Name		b. Last Name	
c. Organization	CONCORD HOUSING DEVELOPMENT CORPORATION		
d. Mailing Address	C/O DAVID HALE, CHDC - JV LLC, P.O. BOX 195		
e. City/Town	CONCORD	f. State	MA
		g. ZIP	01742

4. Property Owner (if different from applicant):

a. First Name		b. Last Name	
c. Organization	CONCORD HOUSING DEVELOPMENT CORPORATION		
d. Mailing Address	C/O DAVID HALE, CHDC - JV LLC, P.O. BOX 195		
e. City/Town	CONCORD	f. State	MA
		g. ZIP	01742

5. Project Location

a. Street Address	965 ELM STREET		
b. City/Town	CONCORD	c. Zip	01742
d. Assessors Map/Plat#	D 08	e. Parcel/Lot#	2013
f. Latitude	42.46638N	g. Longitude	71.39352W

6. Dates

a. Date ANRAD Filed	2/20/2013	b. Date Public Hearing Closed	4/17/2013	c. Date Of Issuance	4/19/2013
---------------------	-----------	-------------------------------	-----------	---------------------	-----------

7. Final Approved Plans and Other Documents

Plan Title	Plan Prepared By	Plan Signed By	Plan Final Date	Plan Scale
JUNCTION VILLAGE ABBREVIATED NOTICE OF RESOURCE AREA DELINEATION, PLAN OF LAND WINTHROP STREET, CONCORD, MASSACHUSETTS	PLACES ASSOCIATES, INC.	SUSAN E. CARTER, PE	April 3, 2013	1" = 50'

B. Order of Delineation

1. The Conservation Commission has determined the following (check whichever is applicable)

a. **Accurate:** The boundaries described on the referenced plan(s) above and in the Abbreviated Notice of Resource Area Delineation are accurately drawn for the following resource area(s):

- 1. Bordering Vegetated Wetlands
- 2. Other resource area(s), specifically
 - a. SEE FINDINGS ATTACHED HERETO.

b. **Modified:** The boundaries described on the plan(s) referenced above, as modified by the Conservation Commission from the plans contained in the Abbreviated Notice of Resource Area Delineation, are accurately drawn from the following resource area(s):

- 1. Bordering Vegetated Wetlands



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 4B - Order of Resource Area Delineation
Massachusetts Wetlands Protection Act M.G.L. c. 131 S40

Provided by MassDEP:
MassDEP File #:137-1203
eDEP Transaction #:555764
City/Town:CONCORD

2. Other resource area(s), specifically
a.

c. **Inaccurate**:: The boundaries described on the referenced plan(s) and in the Abbreviated Notice of Resource Area Delineation were found to be inaccurate and cannot be confirmed for the following resource area(s):

1. Bordering Vegetated Wetlands
2. Other resource area(s), specifically
a.
3. The boundaries were determined to be inaccurate because:

C. Findings

This Order of Resource Area Delineation determines that the boundaries of those resource areas noted above, have been delineated and approved by the Commission and are binding as to all decisions rendered pursuant to the Massachusetts Wetlands Protection Act (M.G.L. c.131, S 40) and its regulations (310 CMR 10.00). This Order does not, however, determine the boundaries of any resource area or Buffer Zone to any resource area not specifically noted above, regardless of whether such boundaries are contained on the plans attached to this Order or to the Abbreviated Notice of Resource Area Delineation. This Order must be signed by a majority of the Conservation Commission. The Order must be sent by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate DEP Regional Office (see <http://www.mass.gov/dep/about/region/findyour.htm>).

D. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate DEP Regional Office to issue a Superseding Order of Resource Area Delineation. When requested to issue a Superseding Order of Resource Area Delineation, the Department's review is limited to the objections to the resource area delineation(s) stated in the appeal request. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant. Any appellants seeking to appeal the Department's Superseding Order of Resource Area Delineation will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order or Determination, or providing written information to the Department prior to issuance of a Superseding Order or Determination. The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act, (M.G.L. c. 131, S 40) and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal bylaw or ordinance, and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 4B - Order of Resource Area Delineation
 Massachusetts Wetlands Protection Act M.G.L. c. 131 S40

Provided by MassDEP:
 MassDEP File #:137-1203
 eDEP Transaction #:555764
 City/Town:CONCORD

E. Signatures

Don S. Banfield
 Don S. Banfield

Elissa J. Brown
 Elissa J. Brown

Stephen B. Verrill
 Stephen B. Verrill

1. Date of Original Order _____
 2. No. of Signatures required 4
Jeffrey W. Adams
 Jeffrey W. Adams

This Order is valid for three years from the date of issuance.

If this Order constitutes an Amended Order of Resource Area Delineation, this Order does not extend the issuance date of the original Final Order, and the Amended Order will expire on the date of the Original Final Order unless extended in writing by the Department.

This Order is issued to the applicant and the property owner (if different) as follows:

3. By hand delivery on _____ a. Date April 19, 2013
4. By certified mail, return receipt requested on _____ a. Date _____

FINDINGS
965 Elm Street DEP File #137-1203
Applicant: Concord Housing Development Corporation
ORAD Issued April 19, 2013

Findings:

1. The Natural Resources Commission (the Commission) has verified the following resource area boundaries as shown on the Abbreviated Notice of Resource Area Delineation Plan of Land for Winthrop Street, Concord, MA prepared by Places Associates, Inc, and last revised April 3, 2013:
 - Bordering Vegetated Wetland flag numbers:
 - A-13 through A-18;
 - A-20 through A-30
 - Bank flag numbers:
 - A-5 through A-13
 - Mean Annual High Water flag numbers:
 - A-5 through A-18
 - R-18A and R-19
 - Bordering Land Subject to Flooding at elevation 123.8 feet
2. The Federal Emergency Mapping Agency (FEMA) issued Preliminary Mapping on January 10, 2013 showing the 100-year floodplain at elevation 123.8 feet. The Wetlands Protection Act Regulations (310 CMR 10.57(2)(a)(3) define Bordering Land Subject to Flooding as:

“The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm. Said boundary shall be that determined by reference to the most recently available flood profile data prepared for the community within which the work is proposed under the National Flood Insurance Program (NFIP, currently administered by the Federal Emergency Management Agency, successor to the U.S. Department of Housing and Urban Development). Said boundary, so determined, shall be presumed accurate.”

The Commission finds that the January 10, 2013 mapping represents the most recently available flood profile data.

3. The Commission finds that if the FEMA mapping is appealed, and a new 100-year floodplain elevation is accepted by FEMA, then that elevation shall be approved under this ORAD.

Note that there may be other resource areas present on the site which the Commission was not asked to verify. In addition, the Commission was unable to verify resource area boundary flags other than the ones approved in this ORAD. For this reason, the Commission reserves the right to review any future proposal for work on site to determine if there is a resource area or portion thereof not verified in this ORAD that may trigger the Commission's jurisdiction.

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CORRECTION
REMAINING LAND

51+ ACRES
2,716± REMAINING FRONTAGE
EXECUTIVE ORDER 22EX, PAGE 479

MAP 8D, BLOCK 2163
KEVIN E. & CATHERINE O.
NEUJSTROM
BOOK 54542, PAGE 271

MAP 8D, BLOCK 2164
DIANE B. STRONACH
BOOK 28843, PAGE 440

ZONING INFORMATION

INDUSTRIAL PARK
MINIMUM AREA: 4 ACRES
MINIMUM LOT FRONTAGE: 50' OR 200'
MINIMUM FRONT YARD: 20' OR 100'
CORNER CLEARANCE: 10'
MAXIMUM HEIGHT: 40'
MAXIMUM LOT COVERAGE: 50%

LEGEND

MAP, BLOCK - ASSESSORS INFORMATION
 - STONE OR CONCRETE BOUND
 - IRON PIPE
 - DRILL HOLE
 - PROPERTY LINE
 - ABUTTER PROPERTY LINE (±)
 - EASEMENT LINE
 - STONE WALL
 - CONTOUR
 - INDEX CONTOUR
 - BVW WETLAND LINE
 - WETLAND FLAG
 - 100' BUFFER ZONE
 - TOP OF BANK
 - RIVER/MEAN ANNUAL HIGH FLOW
 - 200' RIVERFRONT AREA

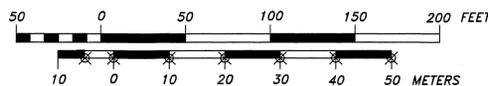
GENERAL NOTES

- THIS PLAN SHOWS A PROPOSED CONVEYANCE AND THE LOT CREATED, PARCEL "A", IS NOT A BUILDING LOT.
- PARCEL "A" IS TO BE CONVEYED TO THE CONCORD HOUSING DEVELOPMENT CORPORATION.
- FIELD SURVEY WAS COMPLETED BY TOTAL STATION/EDM.
- THE HORIZONTAL (NAD 83) AND VERTICAL (NAVD 88) DATUMS WERE DERIVED FROM GPS OBSERVATIONS AND ARE BASED ON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.
- ALL UNDERGROUND UTILITY INFORMATION SHOWN HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIGSAFE AT 1-800-322-4844 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
- ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) MAPS, THE MAJOR IMPROVEMENTS ON THIS SITE ARE DESIGNATED "ZONE X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. COMMUNITY PANEL 359 OF 656, MAP NUMBER 25017C0359E, EFFECTIVE DATE: JUNE 4, 2010. ZONE "AE" FLOOD ELEVATION IS 121'

NOTE:
"PARCEL A", AS SHOWN ON THIS PLAN LIES WHOLLY WITHIN THE LAND ACQUIRED BY THE COMMONWEALTH OF MASSACHUSETTS ON JANUARY 9, 1874 AND RECORDED IN THE MIDDLESEX SOUTH REGISTRY OF DEEDS IN BOOK 1292, PAGE 227. SAID LAND WAS DECLARED SURPLUS TO THE NEEDS OF THE DEPARTMENT OF CORRECTION PER ITS DECLARATION DATED AUGUST 10, 2010 AS REFERENCED IN CHAPTER 117 OF THE ACTS OF 2010.

LOCUS REFERENCE

ASSESSOR'S MAP REFERENCE:
MAP 8D, BLOCK 2013
OWNER:
COMMONWEALTH OF MASSACHUSETTS.
EXECUTIVE ORDER 22EX, PAGE 479
BOOK 1292, PAGE 227



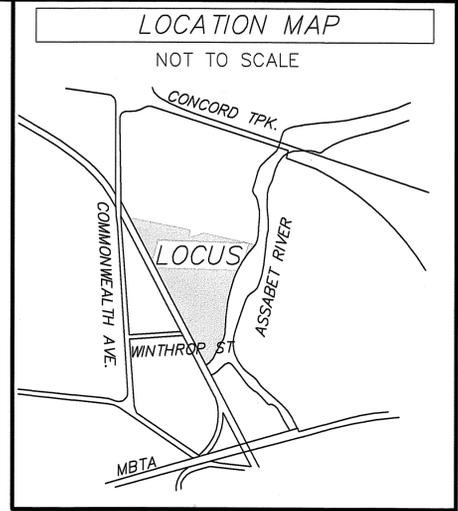
COMMONWEALTH OF MASSACHUSETTS

PARCEL A
12.8+ ACRES
EXECUTIVE ORDER 22EX, PAGE 479

MAP 8D, BLOCK 2168
WHALE ROCK LLC
BOOK 46705, PAGE 295

MAP 9D, BLOCK 2177
GRACE REALTY TRUST, TR.
BOOK 42300, PAGE 200
PETER J. & ELLEN M.
BOOK 14254, PAGE 288 S.
WINTHROP STREET
556.85' TO CONCRETE BOUND
1' COMMONWEALTH AVENUE

MAP 9D, BLOCK 2183-CD
ASSABET RIVER REALTY LLC
BOOK 32540, PAGE 209



MAP 9E, BLOCK 37941
NORMANDY CONCORD
ACQUISITION, LLC.
BOOK 48668, PAGE 397

NOTES:

- FLAGS A-4 THROUGH A-13 ARE BANK AND RIVER.
- FLAGS A-14 TO A-18 ARE BVW AND RIVER.
- FLAGS A-18 TO A-30 ARE BVW ONLY.
- FLAGS A-18, R-18A TO NEW R-19 ARE RIVER/MEAN ANNUAL HIGH FLOW ONLY.
- FLAGS A-15 TO A-17 AND FLAG A-19 ARE NO LONGER A RESOURCE AREA BUT ARE KEPT ON THIS PLAN FOR REFERENCE PURPOSES ONLY.



"JUNCTION VILLAGE"
ABBREVIATED NOTICE OF
RESOURCE AREA DELINEATION

PLAN OF LAND
LOCATION: WINTHROP STREET
TOWN: CONCORD, MASSACHUSETTS
PREPARED FOR:

CONCORD HOUSING
DEVELOPMENT CORP.

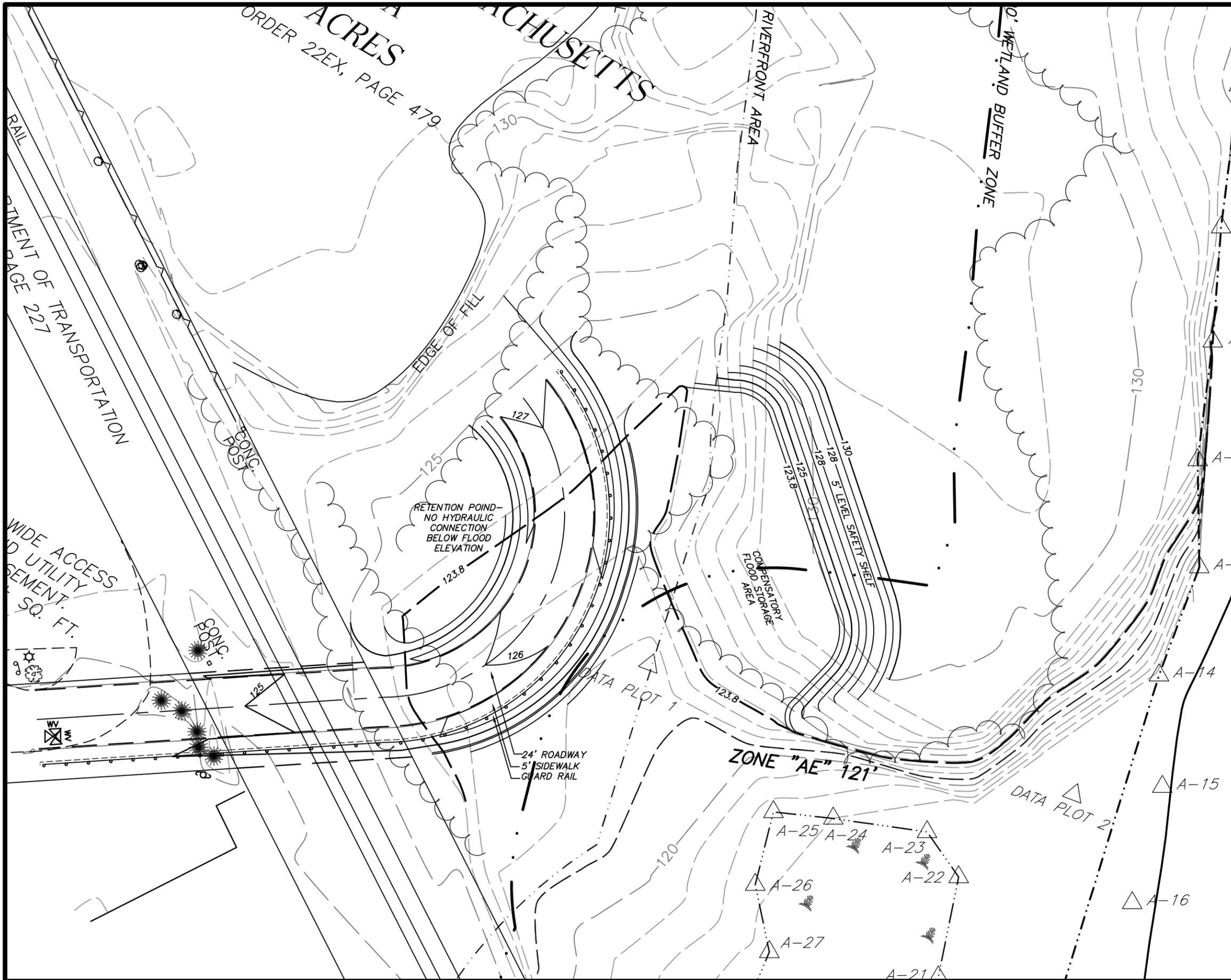
SCALE: 1"=50' DATE: FEB 20, 2013

Places Associates, Inc.

Planning, Landscape Architecture,
Civil Engineering, Surveying
510 KING STREET, SUITE 9
LITTLETON, MA 01460
978.486.0334 Ph.
978.486.0447 Fax
places@placesassociates.com

PROJECT No.: 11-6002 PLAN No.: 6002-ANRAD

REVISIONS:
2-28-13 BASED ON SITE WALK W/NRC



LEGEND	
MAP, BLOCK	-ASSESSORS INFORMATION
□	-STONE OR CONCRETE BOUND
○	-IRON PIPE
●	-DRILL HOLE
—	-PROPERTY LINE
— ± —	-ABUTTER PROPERTY LINE (±)
— — —	-EASEMENT LINE
— — — —	-STONE WALL
— — — —	-CONTOUR
— 100 —	-INDEX CONTOUR
— · — · —	-BVW WETLAND LINE
△ A-12	-WETLAND FLAG
— — — —	-100' BUFFER ZONE
— — — —	-TOP OF BANK
— — — —	-RIVER
— · — · —	-200' RIVERFRONT AREA

SUMMARY OF FLOOD STORAGE:

- AREA FILLED:
 ELEV. 122= 55 S.F.
 ELEV. 123= 2795 S.F.
 ELEV. 123.8= 6698 S.F.
- COMPENSATORY AREA:
 ELEV. 122= 83 S.F.
 ELEV. 123= 3244 S.F.
 ELEV. 123.8= 6790 S.F.

"JUNCTION VILLAGE"
 SKETCH OF ENTRANCE

PLAN OF LAND
 LOCATION: WINTHROP STREET
 TOWN: CONCORD, MASSACHUSETTS
 PREPARED FOR:
CONCORD HOUSING DEVELOPMENT CORP.

SCALE: 1"=40' DATE: MAR. 14, 2013

Places Associates, Inc.
 Planning, Landscape Architecture,
 Civil Engineering, Surveying



510 KING STREET, SUITE 9
 LITTLETON, MA 01460
 978.486.0334 Ph.
 978.486.0447 Fax
 places@placesassociates.com

ka



2013 00025557
Bk: 61102 Pg: 488 Doc: EASE
Page: 1 of 2 01/31/2013 01:11 PM

GRANT OF EMERGENCY ACCESS EASEMENT

THE COMMONWEALTH OF MASSACHUSETTS, acting by and through the Commissioner of its DIVISION OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE, on behalf of the Department of Correction having an address at One Ashburton Place, Boston, Massachusetts 02108 (the "Grantor"), acting under the authority of Chapter 117 of the Acts of 2010, for nominal consideration, the receipt and sufficiency of which the Grantor hereby acknowledges, does hereby grant to the CHDC – JV LLC, a Massachusetts limited liability company, with a mailing address of P.O. Box 195, Concord, Massachusetts 01742 (the "Grantee"), without covenants.

The perpetual right and easement to pass and repass by foot and vehicle, of every type and kind, over and upon that certain area of land shown as "Easement Area" ("Easement Area") on an easement plan entitled "Easement Plan in Concord, MA, prepared for the Commonwealth of Massachusetts, Division of Capital Asset Management and Maintenance, on behalf of the Department of Correction", dated November 9, 2012 and prepared by Place Associates, Inc., 510 King Street, Suite 9, Littleton, Massachusetts (the "Easement Plan"), to be recorded herewith, for the purposes of a gated emergency access to any land abutting said Easement Area and the right to use the Easement Area for emergency access only, but which shall include the right of the Grantee to improve, maintain and repair said Easement Area as necessary to permit the use of the Easement Area as contemplated herein.

*2
PL 727 2013*

Without limiting the foregoing, the easements described herein include the right to enter upon said Easement Area for the purpose of effectuating this grant.

All installation, connections, maintenance, use, repair, replacement and removal hereby authorized shall be done in such a manner as not to interfere unreasonably with the surface or aerial uses of said Easement Area. Whenever any surface is disturbed by authority of this instrument, it shall be restored with reasonable promptness to substantially its condition prior to such disturbance.

For the Commonwealth's title see taking recorded with the Middlesex (South) Registry of Deeds in Book 26EX, Page 479 and confirmation deed recorded in Book 1292, Page 227.

*DLPN
Po Box 7223
Acton Ma 01720*

IN WITNESS WHEREOF, the Commonwealth of Massachusetts has executed this Release Deed as a sealed instrument as of the 28th day January, 2013.

COMMONWEALTH OF MASSACHUSETTS
acting by and through the Commissioner of its
Division of Capital Asset Management and
Maintenance

By: Carole J. Cornelison
Carole J. Cornelison, Commissioner

The undersigned certifies under penalties of perjury that I have fully complied with Chapter 117 of the Acts of 2010 in connection with the property described herein.

By: Carole J. Cornelison
Carole J. Cornelison, Commissioner,
Division of Capital Asset Management and
Maintenance

THE COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss.

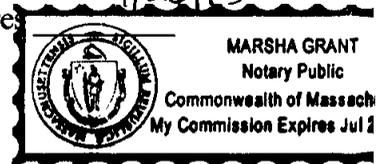
On this 28th day of January, 2013 before me, the undersigned notary public, personally appeared Carole J. Cornelison, proved to me through satisfactory evidence of identification, which were personally known to me, to be the person whose name is signed on the preceding document, and acknowledged to me that she signed it voluntarily, in her capacity as Commissioner of the Division of Capital Asset Management and Maintenance, for its stated purpose.

Marsha Grant

Notary Public

My Commission Expires

7/26/13



Middlesex Registry of Deeds,
Southern District
Cambridge, Massachusetts
Plan No. 72 of 2013
Rec'd 1.31 2013
at 12 H 26 M P

Attest
Alfred M. Berry
Register

FOR REGISTRY USE ONLY

ZONING INFORMATION

INDUSTRIAL PARK
MINIMUM AREA: 4 ACRES
MINIMUM LOT FRONTAGE: 50' OR 200'
MINIMUM FRONT YARD: 20' OR 100'
CORNER CLEARANCE: 10'
MAXIMUM HEIGHT: 40'
MAXIMUM LOT COVERAGE: 50%

LEGEND

MAP, BLOCK - ASSESSORS INFORMATION
 □ - STONE OR CONCRETE BOUND
 ○ - IRON PIPE
 ● - DRILL HOLE
 — - PROPERTY LINE
 - - - - BUTTER PROPERTY LINE (±)
 - - - - EASEMENT LINE
 ~~~~~ - RIVERBANK

**GENERAL NOTES**

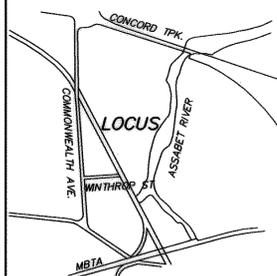
- 1.) THIS PLAN SHOWS AN EMERGENCY ACCESS EASEMENT.
- 2.) FIELD SURVEY WAS COMPLETED BY TOTAL STATION/EDM.

**LOCUS REFERENCE**

ASSESSOR'S MAP REFERENCE:  
MAP 8D, BLOCK 2013  
OWNER:  
COMMONWEALTH OF MASSACHUSETTS,  
EXECUTIVE ORDER 22EX, PAGE 479

**LOCATION MAP**

NOT TO SCALE



**CERTIFICATIONS:**

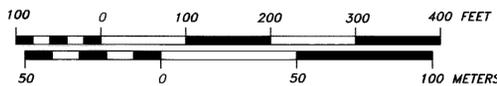
I CERTIFY THAT THE PREPARATION OF THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

FURTHERMORE, I HEREBY CERTIFY THAT THIS PLAN SHOWS THE PROPERTY LINES THAT ARE THE LINES OF EXISTING OWNERSHIPS, AND THE LINES OF STREETS OR WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

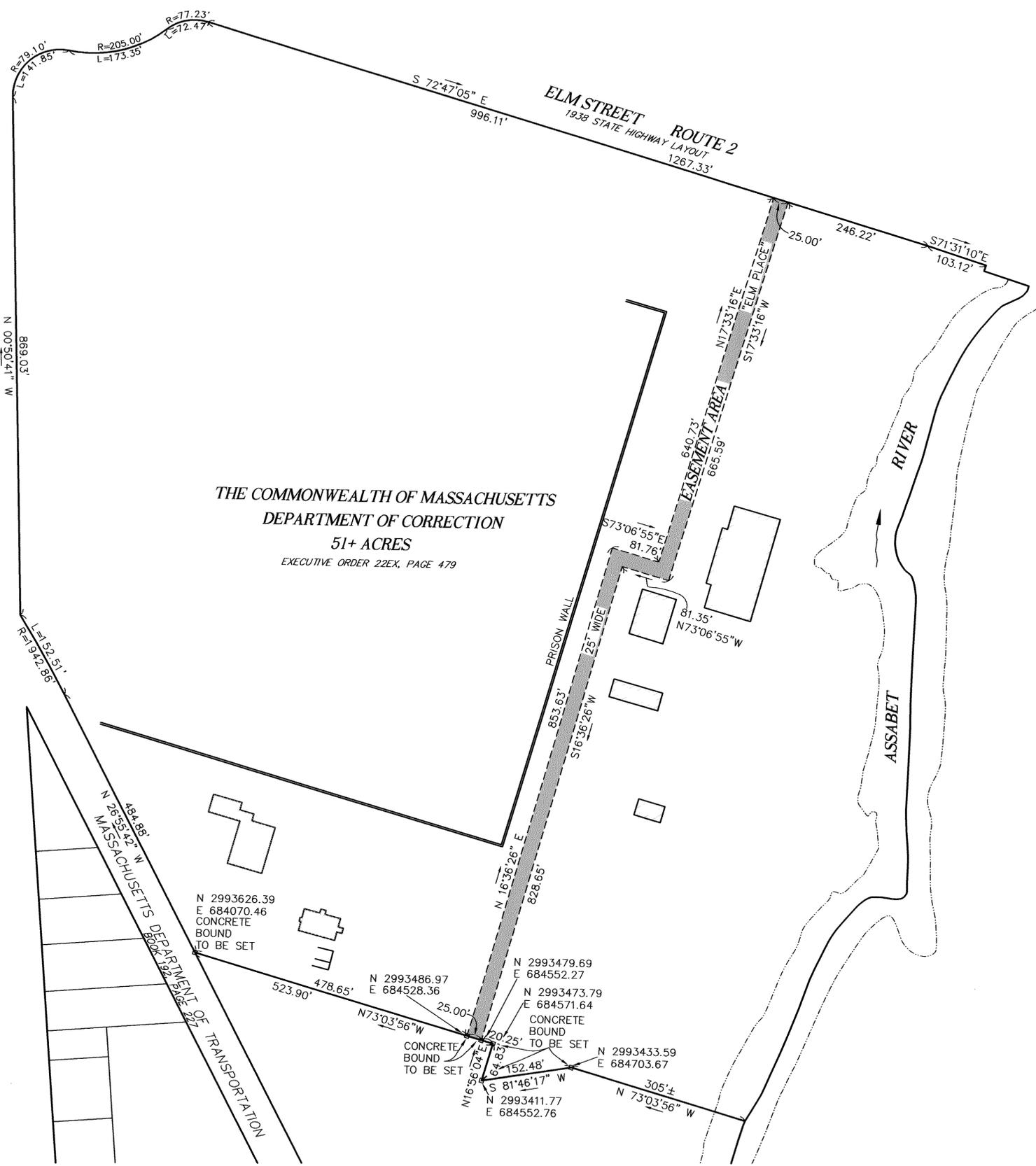
FURTHERMORE, I HEREBY FURTHER CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.

*Alfred M. Berry*  
ALFRED M. BERRY, P.L.S. #36857

DATE: 12/7/2012



MASS. STATE PLANE COORDINATE SYSTEM  
COMMONWEALTH AVENUE  
1878 COUNTY HIGHWAY LAYOUT



THE COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF CORRECTION  
51+ ACRES  
EXECUTIVE ORDER 22EX, PAGE 479

|                           |                                                                                                                                                                                           |  |                        |                        |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|------------------------|
| SHEET NO.<br>1<br>OF<br>1 | EASEMENT PLAN IN CONCORD, MA<br>PREPARED FOR<br>THE COMMONWEALTH OF MASSACHUSETTS<br>DIVISION OF CAPITAL ASSET MANAGEMENT<br>AND MAINTENANCE ON BEHALF OF<br>THE DEPARTMENT OF CORRECTION |  | SURVEYOR: AMB          | ENGINEER: N/A          |
|                           |                                                                                                                                                                                           |  | DRAFTING: AMB          | DESIGN: N/A            |
|                           |                                                                                                                                                                                           |  | FIELD WORK: JEG, BC    | HORIZ SCALE: 1"=50'    |
|                           |                                                                                                                                                                                           |  | PROJECT NO: 11-6002    | VERT SCALE: N/A        |
|                           |                                                                                                                                                                                           |  | DRAWING NAME: 6002CHDC | DATE: NOVEMBER 9, 2012 |

**REVISIONS**

|  |  |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |

APPROVAL  
NOT  
REQUIRED

Places Associates, Inc.  
Planning, Landscape Architecture,  
Civil Engineering, Surveying  
510 KING STREET, SUITE 9  
LITTLETON, MA 01460  
978.486.0334 Fax  
978.486.0447  
EMAIL: places@verizon.net

12:26 PM

1.31.13

PL: 72

Handwritten initials 'KJ'



2013 00025558

Bk: 61102 Pg: 490 Doc: EASE  
Page: 1 of 9 01/31/2013 01:11 PM

DEED OF EASEMENT

The **MASSACHUSETTS DEPARTMENT OF TRANSPORTATION**, a body politic and corporate and public instrumentality of the Commonwealth of Massachusetts, duly established and existing pursuant to Chapter 6C of the General Laws of Massachusetts, as amended, and having a usual place of business at Ten Park Plaza, Boston, Massachusetts, 02116 (hereinafter "**Grantor**"), as owner of certain property known as the Lowell Secondary, a portion of which property passes through the Town of CONCORD (the "**Property**"), and acting pursuant to Chapter 6A, Section 19, as most recently amended by Chapter 26 of the Acts of 2009, and Chapter 161C of the General Laws, as amended, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and subject to the covenants and agreements herein, hereby grants to CHDC - JV LLC, a Massachusetts limited liability company (the "**Grantee**"), a perpetual easement for utility and roadway purposes, including all purposes for which public ways are used in the Town of CONCORD (the "**Roadway Easement**"), over and upon and under a portion of the land of Grantor in CONCORD, Middlesex County, Massachusetts (hereinafter described as the "**Easement Area**") as shown on a plan entitled "Easement Plan, Winthrop Street, Concord, Massachusetts; prepared for: Concord Housing Development Corporation; scale: 1"=20'; dated: July 3, 2012" prepared by Places Associates, Inc., which plan is recorded herewith (the "**Easement Plan**"), and further bounded and described as follows:

3  
PL 73 9 2013

DLAN  
PO Box 2223  
Acton MA 01720

Beginning at the northeasterly corner of Winthrop Street, thence

- N 86°19'24" E a distance of seventy one and eighty three hundredths feet (71.83') to a concrete bound, thence
- S 26°55'42" E a distance of forty three and fifty four hundredths feet (43.54') to a concrete bound, thence
- S 86°19'24" W a distance of seventy one and eighty three hundredths feet (71.83') to a point at the southeasterly corner of Winthrop Street, thence
- N 26°55'42" W a distance of forty three and fifty four hundredths feet (43.54') to the point of beginning.

Containing 2,873.38 +/- square feet, more or less.

Grantor and Grantee, on behalf of themselves and their respective successors and assigns, hereby covenant and agree with each other that this Deed of Easement is made and accepted on the following terms and conditions:

1. The Roadway Easement includes the right to cross the Property and to construct, maintain and use within the Easement Area a public or private road and related improvements. Said Roadway Easement shall also include the right to install, maintain, operate above-ground and below-ground utilities, including, without limitation, electric, gas, sewer, cable television and water. Without limiting the foregoing, the easements described herein include the right to enter upon said Easement Area for the purpose of effectuating this grant. Grantor shall retain subsurface rights in the Easement Area, to the extent such rights are not inconsistent with the rights of the Grantee. Notwithstanding the foregoing, any utilities installed by Grantee within the Easement Area shall be located at least five (5) feet below the top of the rail or at least twenty (20) feet above the top of the rail.

2. This grant of easement is subject to Grantee's continuing obligation to keep the Easement Area, the roadway and related facilities in good and safe repair, and to make such improvements in and to the Roadway Easement and related facilities to

the extent the same may impact the integrity or safe and proper use of the Roadway Easement or Grantor's Property.

3. Grantee acknowledges that a portion of said Property, including the Easement Area, will be used as the Bruce Freeman Bike Path (the "**Bike Path**") by or at the direction of the Town of Concord or its designee (the "**Town**"). Notwithstanding any provision of this agreement to the contrary, (a) Grantee shall coordinate its use of the Easement Area with the Town's design, construction and use of the Bike Path, (b) the Roadway Easement shall be subject to the Town's use of the Easement Area, and (c) Grantee's use of the Roadway Easement shall not unreasonably interfere with the lawful use of the Bike Path.

4. Grantor hereby reserves the right to use the Property, including the Easement Area, for a future railroad use or another transportation purpose (either, a "**Grantor Transportation Use**"). Notwithstanding any provision of this agreement to the contrary, the Roadway Easement shall be subject to such Grantor Transportation Use and shall not unreasonably interfere with the use of the Property for such Grantor Transportation Use.

5. Grantee acknowledges that Grantor may in the future enter into licenses, leases, or other agreements with others for the use of the Easement Area which shall be in common with the Grantee (including, without limitation, agreements for the installation of utilities), and agrees that Grantee shall not unreasonably interfere with the granting of such rights to Grantor's lessees, licensees and others authorized to use the Property, their successors and assigns, or any other party authorized by Grantor, provided such rights are to be exercised in common with the Grantee.

6. In addition to any other rights reserved to Grantor herein, there are reserved to Grantor and its successors and assigns and all others claiming by, through or under Grantor or its successors and assigns all their respective rights in and to the use of the Easement Area for all lawful purposes not inconsistent with the use thereof by Grantee for the purposes hereinbefore granted.

7. Notwithstanding anything contained in this agreement to the contrary, Grantee shall have no rights or easements in or with respect to the Easement Area except to the extent expressly provided in this agreement.

8. Grantee acknowledges that neither Grantor nor anyone acting on its behalf has made any representations or warranties (whether express or implied, in fact or by law) with respect to the condition of, or title to, the Easement Area; the suitability of the Easement Area for any purpose or use to which the Easement Area or any part thereof may be put; or any matter whatsoever concerning this agreement. Grantor shall have no obligations with respect to the condition of the Easement Area. Grantee accepts the Easement Area in an "as is, where is, with all faults" condition, without recourse to Grantor as to the nature, condition or usability thereof. Grantee accepts the rights and easements granted hereunder subject to all other existing easements or agreements of record or otherwise affecting the Easement Area or any portion thereof, and to the state of facts which a personal inspection or accurate survey would disclose and to any pipes, wires, poles, cables, culverts, drainage courses or systems and their appurtenances now existing and remaining in, on, under, over, across and through the Easement Area or any portion thereof, together with any appurtenant rights to maintain, repair, replace, use and remove same.

9. The rights and obligations set forth herein shall burden the Property, and shall run with and be for the benefit of the property of Grantee described in that certain deed dated 1-28-13 and recorded with the Middlesex South District Registry of Deeds in Book 61102, Page 485 ("Grantee's Property"). The rights and obligations set forth herein shall inure to the benefit and be binding upon Grantee's successors in title to Grantee's Property.

10. In the event the Easement Area ceases to be used for roadway and/or easement purposes, the MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, or its successors in title, may enter upon said Easement Area and repossess itself of its former estate therein.

11. Grantee agrees that any prior right of Grantee to cross the Property shall be extinguished and replaced by the rights specifically provided in this Deed of Easement.

12. Neither this Roadway Easement nor any subordinate rights shall be assigned or transferred by Grantee to any party other than Grantee's successors in title to Grantee's Property without the prior written approval of Grantor. Any attempt to assign or transfer such rights in violation of the foregoing restriction shall be void.

13. Grantee covenants and agrees to indemnify, defend and hold Grantor, its board members, officers, employees, agents, representatives, contractors, subcontractors, tenants, subtenants, licensees, invitees, successors, assigns, bond trustees and mortgagees (collectively, the "**Indemnified Parties**") harmless from and against all claims, suits, actions, causes of action, fines, obligations, costs, expenses, liabilities and damages of every kind, nature and description, including, without limitation, the Indemnified Parties' legal fees and expenses, arising out of or relating to the exercise by Grantee of the rights and easements granted hereunder or the performance of Grantee's obligations pursuant to this agreement. Grantee, upon notice from an Indemnified Party, shall resist or defend any claim, action or proceeding with counsel reasonably acceptable to such Indemnified Party. Grantor shall have full control over how any claims against the Indemnified Parties in relation to this agreement are defended, including settlement thereof. The provisions hereof shall survive the termination of this agreement. Grantee assumes all risks and liabilities associated with or relating to the Easement Area or any damage thereto from any cause whatsoever. Grantor assumes no obligation or liability whatsoever to Grantee, its employees, agents or contractors in connection with any person's use of the rights and easements granted hereunder. In no event shall any director, officer, agent, employee or board member of Grantor (or of any bond trustee or mortgagee of Grantor) ever be personally or individually liable to Grantee under or on account of this agreement. Without limiting the generality of the foregoing, in no event shall Grantor ever be liable for any indirect, special or consequential damages incurred by Grantee, its employees, agents, or

contractors, or any person claiming by, under, or through them, in connection with any person's use of the rights and easements granted hereunder.

14. If, as a result of Grantee's activities hereunder, "oil" or "hazardous materials", as those terms are defined in Massachusetts General Laws, Chapter 21E ("Chapter 21E") and the regulations promulgated pursuant thereto, the Massachusetts Contingency Plan, 310 CMR 40.0000 et seq. (the "MCP") (collectively, "Hazardous Materials") are discovered on the Easement Area, the Grantee agrees to cooperate with Grantor in the determination of the party liable for the remediation of the property under applicable Federal and/or state law. Such cooperation may include the temporary adjustment or modification of the rights granted to Grantee hereunder via temporary detours during any clean-up periods. Grantor shall not be responsible for any damages incurred by the Grantee as a result of such temporary adjustment.

Notwithstanding and in addition to the obligation of Grantee stated above and the obligation to indemnify the Grantor and others pursuant hereto, Grantee, upon written demand of the Grantor, shall conduct, at its sole cost and expense (or, at the Grantor's election, reimburse Grantor for the cost and expense incurred by the Grantor in connection with Grantor's conduct of), all response actions required by Chapter 21E and the MCP with respect to the Hazardous Materials (including the hiring of a licensed site professional) that are present, discovered or revealed on the Easement Area (or on other property of Grantor adjacent to the Easement Area) as a result of (1) Grantee's activities hereunder, or (2) the migration of such Hazardous Materials from land now or previously owned, leased, occupied or operated by Grantee or for which Grantee is a potentially responsible party under Chapter 21E.

Any such response action, if performed by Grantee, shall be performed in accordance with Chapter 21E, the MCP, any other applicable statutes and regulations, and in accordance with plans and specifications approved by Grantor, shall be completed in a timely manner to the reasonable satisfaction of Grantor, and shall allow Grantor to use the property, and/or adjacent or contiguous property, for its present use and for any future transportation use. Grantee shall also be responsible for the reasonable costs incurred by

Grantor in hiring consultants to review, supervise and inspect any plans, specifications, proposed method of work, installation, operation and results.

15. For Grantor's title, reference is made to deed recorded in Book 14609, Page 302 of the Middlesex South District Registry of Deeds. This instrument is executed, delivered and accepted upon the understanding and agreement that should a claim adverse to Grantor's title herein be asserted and/or proved, no recourse shall be had against the Grantor. The Easement Area is located at approximately Railroad Valuation Station 620+83.7 +/-, as shown on a certain valuation map entitled, "Right of Way and Track Map, Old Colony R.R. Co., Operated By The New York New Haven and Hartford R.R. Co., From Framingham Center to Lowell, Scale 1" = 100 Ft., June 30, 1915", and numbered Valuation Series 7.39/40, Sheet 12, and as also shown on the Easement Plan.

16. Any notices which may or are required to be given hereunder shall be in writing and shall be deemed to have been properly given or sent if hand delivered or mailed by registered or certified mail, return receipt requested, or by recognized overnight courier with postage prepaid.

If to Grantor: Massachusetts Department of Transportation  
Ten Park Plaza, Room 4160  
Boston, Massachusetts 02116-3969  
Attn: Secretary of Transportation

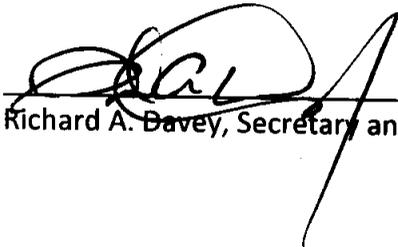
copy to: Massachusetts Department of Transportation  
Ten Park Plaza, Room 4150  
Boston, Massachusetts 02116-3969  
Attn: MassDOT General Counsel  
Attn: Manager of Railroad Properties

If to Grantee: CHDC – JV LLC  
P.O. Box 195, Concord, Massachusetts 01742

[Signatures to follow on next page]

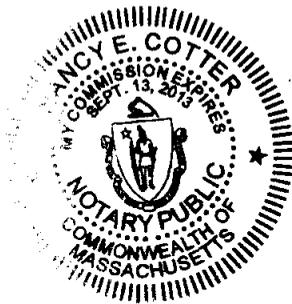
IN WITNESS WHEREOF, the Grantor, acting through a duly authorized officer,  
and the Grantee executed and delivered this Deed of Easement as a sealed instrument  
this 28<sup>th</sup> day of January 2013.

**MASSACHUSETTS DEPARTMENT OF TRANSPORTATION**

  
Richard A. Davey, Secretary and Chief Executive Officer

**COMMONWEALTH OF MASSACHUSETTS, SUFFOLK COUNTY OF, SS.:**

On this 28<sup>th</sup> day of January, 2013, personally appeared before me the  
above-named Richard A. Davey, Secretary and Chief Executive Officer of the  
Massachusetts Department of Transportation, proved to me through satisfactory  
evidence of identification, which was [~~a current driver's license~~] [~~a current U.S. passport~~]  
[my personal knowledge], to be the person whose name is signed on the preceding  
instrument and acknowledged that he signed it voluntarily for its stated purpose as  
Secretary and Chief Executive Officer of the Massachusetts Department of  
Transportation and as the free act and deed of said entity.



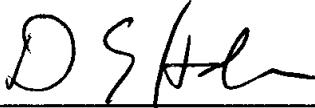


Name:

Notary Public

My Commission Expires: 9-13-2013

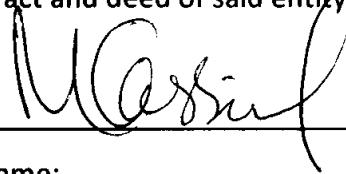
CHDC – JV LLC



David E. Hale, Manager

COMMONWEALTH OF MASSACHUSETTS, Middlesex COUNTY OF, SS.:

On this 30 day of January, 2013, personally appeared before me the above-named David E. Hale, Manager of CHDC – JV LLC, proved to me through satisfactory evidence of identification, which was [a current driver's license] [a current U.S. passport] [my personal knowledge], to be the person whose name is signed on the preceding instrument and acknowledged that he signed it voluntarily for its stated purpose as Manager of CHDC – JV LLC and as the free act and deed of said entity



Name:

Notary Public

My Commission Expires:

Middlesex Registry of Deeds  
 Southern District  
 Cambridge, Massachusetts  
 Plan No. 73 of 2013  
 Rec'd 1.30 2013  
 at 12 H 28 M P M

Attest

*[Signature]*  
 Register

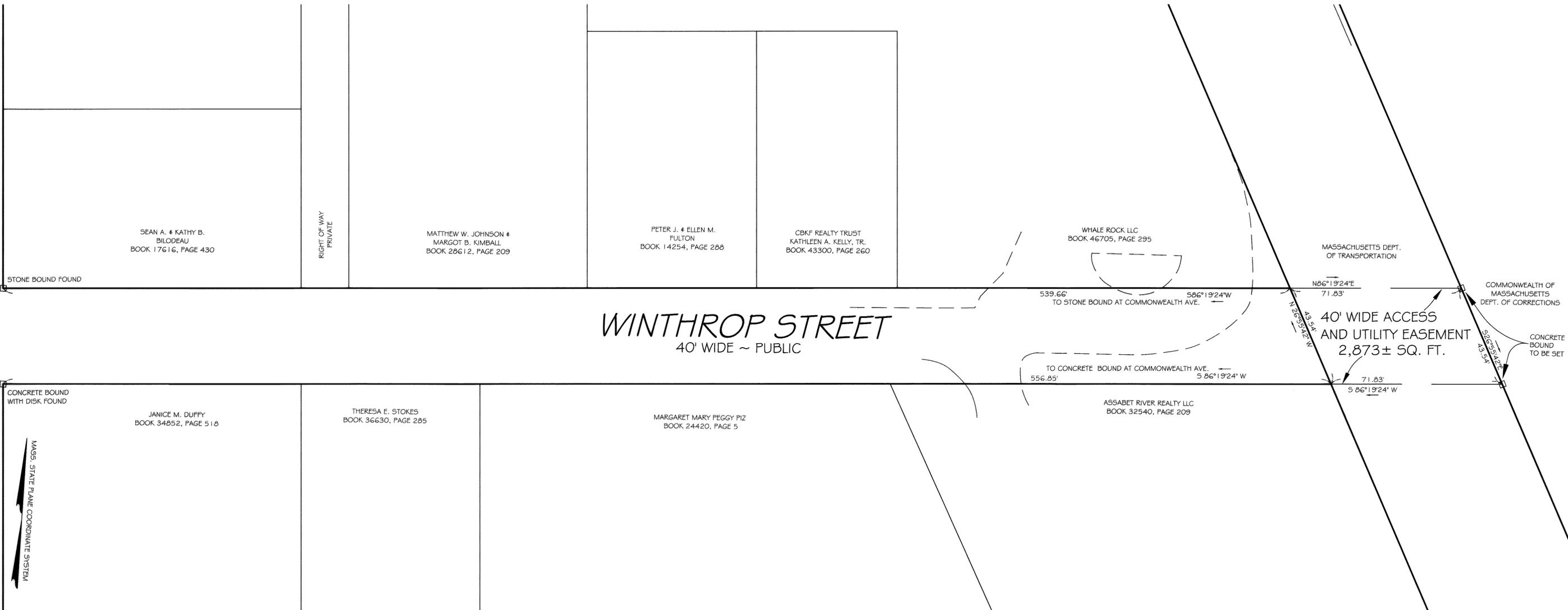
FOR REGISTRY USE ONLY

COMMONWEALTH AVE.

12:28 PM

1.30.13

PL: 73



LEGEND:  
 □ BOUND FOUND  
 ● IRON PIPE OR PIN FOUND

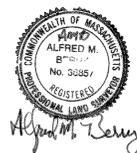
MASS. STATE PLANE COORDINATE SYSTEM

CERTIFICATIONS

I CERTIFY THAT THIS PLAN SHOWS THE PROPERTY LINES THAT ARE THE LINES OF EXISTING OWNERSHIPS, AND THE LINES OF STREETS OR WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

FURTHERMORE, I CERTIFY THAT THE PREPARATION OF THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

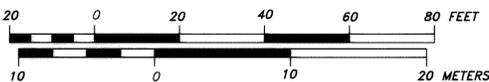
FURTHERMORE, I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.



*Alfred M. Berry*

*Alfred M. Berry*  
 PROFESSIONAL LAND SURVEYOR # 36857

DATE: 1.01.2012



EASEMENT PLAN

LOCATION: WINTHROP STREET  
 TOWN: CONCORD, MASSACHUSETTS  
 PREPARED FOR:  
**CONCORD HOUSING DEVELOPMENT CORPORATION**  
 SCALE: 1"=20' DATE: JULY 3, 2012

*Places Associates, Inc.*  
 Planning, Landscape Architecture,  
 Civil Engineering, Surveying  
 510 KING STREET, SUITE 9  
 LITTLETON, MA 01460  
 978.486.0334 978.486.0447 Fax  
 EMAIL places@verizon.net

PROJECT No.: 11-6002 PLAN No. 6002CHDC-EASEMENT



# Fidelity National Title Insurance Company

POLICY NO.: MA2420-10-2013-11-2013.27306-88489348

## OWNER'S POLICY OF TITLE INSURANCE

Issued by

*Fidelity National Title Insurance Company*

*Any notice of claim and any other notice or statement in writing required to be given the Company under this Policy must be given to the Company at the address shown in Section 18 of the Conditions.*

### COVERED RISKS

*SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B, AND THE CONDITIONS, FIDELITY NATIONAL TITLE INSURANCE COMPANY, a California corporation (the "Company") insures, as of Date of Policy and, to the extent stated in Covered Risks 9 and 10, after Date of Policy, against loss or damage, not exceeding the Amount of Insurance, sustained or incurred by the Insured by reason of:*

1. *Title being vested other than as stated in Schedule A.*
2. *Any defect in or lien or encumbrance on the Title. This Covered Risk includes but is not limited to insurance against loss from*
  - (a) *A defect in the Title caused by*
    - (i) *forgery, fraud, undue influence, duress, incompetency, incapacity, or impersonation;*
    - (ii) *failure of any person or Entity to have authorized a transfer or conveyance;*
    - (iii) *a document affecting Title not properly created, executed, witnessed, sealed, acknowledged, notarized, or delivered;*
    - (iv) *failure to perform those acts necessary to create a document by electronic means authorized by law;*
    - (v) *a document executed under a falsified, expired, or otherwise invalid power of attorney;*
    - (vi) *a document not properly filed, recorded, or indexed in the Public Records including failure to perform those acts by electronic means authorized by law; or*
    - (vii) *a defective judicial or administrative proceeding.*
  - (b) *The lien of real estate taxes or assessments imposed on the Title by a governmental authority due or payable, but unpaid.*
  - (c) *Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.*
3. *Unmarketable Title.*
4. *No right of access to and from the Land.*
5. *The violation or enforcement of any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to*
  - (a) *the occupancy, use, or enjoyment of the Land;*
  - (b) *the character, dimensions, or location of any improvement erected on the Land;*
  - (c) *the subdivision of land; or*
  - (d) *environmental protection*

*if a notice, describing any part of the Land, is recorded in the Public Records setting forth the violation or intention to enforce, but only to the extent of the violation or enforcement referred to in that notice.*
6. *An enforcement action based on the exercise of a governmental police power not covered by Covered Risk 5 if a notice of the enforcement action, describing any part of the Land, is recorded in the Public Records, but only to the extent of the enforcement referred to in that notice.*
7. *The exercise of the rights of eminent domain if a notice of the exercise, describing any part of the Land, is recorded in the Public Records.*
8. *Any taking by a governmental body that has occurred and is binding on the rights of a purchaser for value without Knowledge.*
9. *Title being vested other than as stated Schedule A or being defective*
  - (a) *as a result of the avoidance in whole or in part, or from a court order providing an alternative remedy, of a transfer of all or any part of the title to or any interest in the Land occurring prior to the transaction vesting Title as shown in Schedule A because that prior transfer constituted a fraudulent or preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws; or*
  - (b) *because the instrument of transfer vesting Title as shown in Schedule A constitutes a preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws by reason of the failure of its recording in the Public Records*
    - (i) *to be timely, or*
    - (ii) *to impart notice of its existence to a purchaser for value or to a judgment or lien creditor.*



## 1. DEFINITION OF TERMS

The following terms when used in this policy mean:

(a) "Amount of Insurance": The amount stated in Schedule A, as may be increased or decreased by endorsement to this policy, increased by Section 8(b), or decreased by Sections 10 and 11 of these Conditions.

(b) "Date of Policy": The date designated as "Date of Policy" in Schedule A.

(c) "Entity": A corporation, partnership, trust, limited liability company, or other similar legal entity.

(d) "Insured": The Insured named in Schedule A.

(i) The term "Insured" also includes

(A) successors to the Title of the Insured by operation of law as distinguished from purchase, including heirs, devisees, survivors, personal representatives, or next of kin;

(B) successors to an Insured by dissolution, merger, consolidation, distribution, or reorganization;

(C) successors to an Insured by its conversion to another kind of Entity;

(D) a grantee of an Insured under a deed delivered without payment of actual valuable consideration conveying the Title

(1) if the stock, shares, memberships, or other equity interests of the grantee are wholly-owned by the named Insured,

(2) if the grantee wholly owns the named Insured,

(3) if the grantee is wholly-owned by an affiliated Entity of the named Insured, provided the affiliated Entity and the named Insured are both wholly-owned by the same person or Entity, or

(4) if the grantee is a trustee or beneficiary of a trust created by a written instrument established by the Insured named in Schedule A for estate planning purposes.

(ii) With regard to (A), (B), (C), and (D) reserving, however, all rights and defenses as to any successor that the Company would have had against any predecessor Insured.

(e) "Insured Claimant": An Insured claiming loss or damage.

(f) "Knowledge" or "Known": Actual knowledge, not constructive knowledge or notice that may be imputed to an Insured by reason of the Public Records or any other records that impart constructive notice of matters affecting the Title.

(g) "Land": The land described in Schedule A, and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is insured by this policy.

(h) "Mortgage": Mortgage, deed of trust, trust deed, or other security instrument, including one evidenced by electronic means authorized by law.

(i) "Public Records": Records established under state statutes at Date of Policy for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge. With respect to Covered Risk 5(d), "Public Records" shall also include environmental protection liens filed in the records of the clerk of the United States District Court for the district where the Land is located.

(j) "Title": The estate or interest described in Schedule A.

(k) "Unmarketable Title": Title affected by an alleged or apparent matter that would permit a prospective purchaser or lessee of the Title or lender on the Title to be released from the obligation to purchase, lease, or lend if there is a contractual condition requiring the delivery of marketable title.

## 2. CONTINUATION OF INSURANCE

27306 (6/06)

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The coverage of this policy shall continue in force as of Date of Policy in favor of an Insured, but only so long as the Insured retains an estate or interest in the Land, or holds an obligation secured by a purchase money Mortgage given by a purchaser from the Insured, or only so long as the Insured shall have liability by reason of warranties in any transfer or conveyance of the Title. This policy shall not continue in force in favor of any purchaser from the Insured of either (i) an estate or interest in the Land, or (ii) an obligation secured by a purchase money Mortgage given to the Insured.

## 3. NOTICE OF CLAIM TO BE GIVEN BY INSURED CLAIMANT

The Insured shall notify the Company promptly in writing (i) in case of any litigation as set forth in Section 5(a) of these Conditions, (ii) in case Knowledge shall come to an Insured hereunder of any claim of title or interest that is adverse to the Title, as insured, and that might cause loss or damage for which the Company may be liable by virtue of this policy, or (iii) if the Title, as insured, is rejected as Unmarketable Title. If the Company is prejudiced by the failure of the Insured Claimant to provide prompt notice, the Company's liability to the Insured Claimant under the policy shall be reduced to the extent of the prejudice.

## 4. PROOF OF LOSS

In the event the Company is unable to determine the amount of loss or damage, the Company may, at its option, require as a condition of payment that the Insured Claimant furnish a signed proof of loss. The proof of loss must describe the defect, lien, encumbrance, or other matter insured against by this policy that constitutes the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage.

## 5. DEFENSE AND PROSECUTION OF ACTIONS

(a) Upon written request by the Insured, and subject to the options contained in Section 7 of these Conditions, the Company, at its own cost and without unreasonable delay, shall provide for the defense of an Insured in litigation in which any third party asserts a claim covered by this policy adverse to the Insured. This obligation is limited to only those stated causes of action alleging matters insured against by this policy. The Company shall have the right to select counsel of its choice (subject to the right of the Insured to object for reasonable cause) to represent the Insured as to those stated causes of action. It shall not be liable for and will not pay the fees of any other counsel. The Company will not pay any fees, costs, or expenses incurred by the Insured in the defense of those causes of action that allege matters not insured against by this policy.

(b) The Company shall have the right, in addition to the options contained in Section 7 of these Conditions, at its own cost, to institute and prosecute any action or proceeding or to do any other act that in its opinion may be necessary or desirable to establish the Title, as insured, or to prevent or reduce loss or damage to the Insured. The Company may take any appropriate action under the terms of this policy, whether or not it shall be liable to the Insured. The exercise of these rights shall not be an admission of liability or waiver of any provision of this policy. If the Company exercises its rights under this subsection, it must do so diligently.

(c) Whenever the Company brings an action or asserts a defense as required or permitted by this policy, the Company may pursue the litigation to a final determination by a court of competent jurisdiction, and it expressly reserves the right, in its sole discretion, to appeal any adverse judgment or order.

## 6. DUTY OF INSURED CLAIMANT TO COOPERATE

(a) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding and any appeals, the Insured shall secure to the Company the right to so

ALTA Owner's Policy (6/17/06)



10. Any defect in or lien or encumbrance on the Title or other matter included in Covered Risks 1 through 9 that has been created or attached or has been filed or recorded in the Public Records subsequent to Date of Policy and prior to the recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The Company will also pay the costs, attorneys' fees, and expenses incurred in defense of any matter insured against by this Policy, but only to the extent provided in the Conditions.

IN WITNESS WHEREOF, FIDELITY NATIONAL TITLE INSURANCE COMPANY has caused this policy to be signed and sealed by its duly authorized officers.

Fidelity National Title Insurance Company



By:

*Robert M. Pina*

ATTEST

President

*[Signature]*

Secretary

Countersigned:

*[Signature]*

Authorized Signatory

Maryann C. Cassidy

MA2420 2013-11  
D'Agostine, Levine, Parra & Netburn, P.C.  
268 Main St  
Acton, MA 01720-3713  
Tel: (978) 263-7777  
Fax: (978) 264-4868

### EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
  - (i) the occupancy, use, or enjoyment of the Land;
  - (ii) the character, dimensions or location of any improvement erected on the Land;
  - (iii) the subdivision of land; or
  - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters:
  - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
  - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
  - (c) resulting in no loss or damage to the Insured Claimant;
  - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
  - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
  - (a) a fraudulent conveyance or fraudulent transfer; or
  - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

### CONDITIONS





**Fidelity National Title**  
INSURANCE COMPANY  
**OWNER'S POLICY**

**SCHEDULE A**

Policy No. 27306-88489348  
File No. 2013-11  
Address Reference: off Winthrop Street, Concord, Massachusetts  
Amount of Insurance: \$300,000.00  
Premium: \$1,050.00  
Date of Policy: January 31, 2013

1. Name of Insured:

CHDC-JV LLC

2. The estate or interest in the Land that is insured by this policy is: fee simple

3. Title is vested in:

CHDC-JV LLC by virtue of a Release Deed from the Commonwealth of Massachusetts dated January 28, 2013, recorded with the Middlesex South District Registry of Deeds on January 31, 2013 in Book 61102, Page 485.

4. The Land referred to in this policy is described as follows:

The Land referred to in this policy is located off Winthrop Street, in the Town of Concord, County of Middlesex, Commonwealth of Massachusetts.

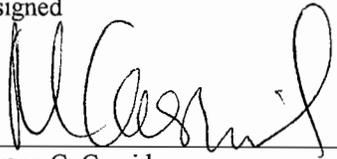
See "Exhibit A" attached hereto and made a part hereof.

Note: Recorded Documents referred to herein are recorded with the Middlesex South District Registry of Deeds

**Direct Claim Inquiries to Fidelity National Title Insurance Company  
Attn: Claims Dept P.O. Box 45023 Jacksonville, FL 32232-5023**

Countersigned

BY

  
Maryann C. Cassidy

---

**THIS POLICY VALID ONLY IF SCHEDULE B IS ATTACHED**



# Fidelity National Title

INSURANCE COMPANY

**OWNER'S POLICY**

---

Owner's Policy No.: 27306-88489348

## **EXHIBIT "A" - LEGAL DESCRIPTION**

Parcel A, located at the end of Winthrop Street, Concord, Middlesex County, Massachusetts, containing 12.8± acres, more or less, and being shown as Parcel A on that certain plan entitled "Plan of Land in Concord, MA, prepared for the Commonwealth of Massachusetts Division of Capital Asset Management and Maintenance on behalf of the Department of Correction", dated November 9, 2012 and prepared by Places Associates, Inc., 510 King Street, Suite 9, Littleton, Massachusetts, recorded in the Middlesex South District Registry of Deeds as Plan Number 71 of 2013.

Together with the benefit of the following:

- (1) An access and utility easement described in Deed of Easement dated January 28, 2013 recorded in the Middlesex South District Registry of Deeds at Book 61102, Page 490.
- (2) An emergency access easement described in the Grant of Emergency Access Easement dated January 28, 2013, recorded in the Middlesex South District Registry of Deeds at Book 61102, Page 488.



# Fidelity National Title

INSURANCE COMPANY  
OWNER'S POLICY

Owner's Policy No.: 27306-88489348

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of:

1. Notwithstanding coverage provisions to the contrary contained herein any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
2. Liens for taxes and assessments which become due and payable subsequent to the Date of Policy. The property is exempt from payment of real estate taxes.
3. IF THE LAND IS A CONDOMINIUM UNIT:
  - a. Covenants, conditions, restrictions, reservations, easements, liens for assessments, options, powers of attorney, and limitations on title, created by the laws of the State of the Land or set forth in the Master Deed or Declaration of Condominium, in the related By-laws, or in the Declaration of Trust, as duly recorded in the appropriate Public Records and as the same may have been lawfully amended, and in any instrument creating the estate or interest insured by this policy.
  - b. Loss or damage arising as a result of liens for common charges and attorney's fees in the enforcement of any lien for said charge.

**X FOR ADDITIONAL EXCEPTIONS, SEE SCHEDULE B CONTINUATION SHEET ATTACHED HERETO**

NOTE: The Amount of Insurance will automatically increase by 10% of the amount shown on Schedule A on each of the first five anniversaries of the Date of Policy shown on Schedule A with respect to policies insuring the title to Land on which there is situated a one-to-four family residential dwelling or a residential condominium unit as of the Date of Policy.

NOTE: This policy omits any covenants, conditions or restrictions referred to above or on attached continuation sheet, if any, based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal law, except to the extent that said covenants, conditions or restrictions are permitted by applicable state or federal law.



# Fidelity National Title

INSURANCE COMPANY  
OWNER'S POLICY

## SCHEDULE B EXCEPTIONS FROM COVERAGE

Policy No. 27306-88489348

Continuation Sheet

4. Notice of Variance dated December 1, 1975 and recorded with the Middlesex South District Registry of Deeds at Book 12903, Page 161.
5. Order of Conditions from the Town of Concord (DEP File Number 137-442) dated November 20, 1996 and recorded with the Middlesex South District Registry of Deeds at Book 27054, Page 400.
6. Order of Conditions from the Massachusetts Department of Environmental Protection (DEP File Number 137-442) dated December 16, 1998 and recorded with the Middlesex South District Registry of Deeds at Book 39095, Page 461.
7. Matters shown on the plan of land entitled "Plan of Land in Concord, MA, prepared for the Commonwealth of Massachusetts Division of Capital Asset Management and Maintenance on behalf of the Department of Correction", dated November 9, 2012 and prepared by Places Associates, Inc., 510 King Street, Suite 9, Littleton, Massachusetts, recorded in the Middlesex South District Registry of Deeds as Plan Number 71 of 2013.
8. Matters shown on the plan of land entitled "Easement Plan, Winthrop Street, Concord, Massachusetts; prepared for: Concord Housing Development Corporation; scale: 1"=20'; dated: July 3, 2012" Scale 1" = 20' and prepared by Places Associates, Inc., 510 King Street, Suite 9, Littleton, Massachusetts, recorded in the Middlesex South District Registry of Deeds as Plan Number 73 of 2013.
9. Matters shown on the plan of land entitled "Easement Plan in Concord, MA prepared for the Commonwealth of Massachusetts Division of Capital Asset Management and Maintenance on behalf of the Department of Correction" dated November 9, 2012 and prepared by Places Associates, Inc., 510 King Street, Suite 9, Littleton, Massachusetts, recorded in the Middlesex South District Registry of Deeds as Plan Number 72 of 2013.
10. Terms and provisions set forth in Release Deed dated January 28, 2013 from the Commonwealth of Massachusetts to CHDC – JV LLC recorded in the Middlesex South District Registry of Deeds at Book 61102, Page 485, including, but not limited to the potential reversionary interest of the Commonwealth of Massachusetts and the restrictions set forth in Section 1 of Chapter 117 of the Massachusetts General Laws Acts of 2010.

re/title insurance/Owners Policy –Concord Housing (Junction Village) final

prosecute or provide defense in the action or proceeding, including the right to use, at its option, the name of the Insured for this purpose. Whenever requested by the Company, the Insured, at the Company's expense, shall give the Company all reasonable aid (i) in securing evidence, obtaining witnesses, prosecuting or defending the action or proceeding, or effecting settlement, and (ii) in any other lawful act that in the opinion of the Company may be necessary or desirable to establish the Title or any other matter as insured. If the Company is prejudiced by the failure of the Insured to furnish the required cooperation, the Company's obligations to the Insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such cooperation.

(b) The Company may reasonably require the Insured Claimant to submit to examination under oath by any authorized representative of the Company and to produce for examination, inspection, and copying, at such reasonable times and places as may be designated by the authorized representative of the Company, all records, in whatever medium maintained, including books, ledgers, checks, memoranda, correspondence, reports, e-mails, disks, tapes, and videos whether bearing a date before or after Date of Policy, that reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Insured Claimant shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect, and copy all of these records in the custody or control of a third party that reasonably pertain to the loss or damage. All information designated as confidential by the Insured Claimant provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Insured Claimant to submit for examination under oath, produce any reasonably requested information, or grant permission to secure reasonably necessary information from third parties as required in this subsection, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this policy as to that claim.

#### **7. OPTIONS TO PAY OR OTHERWISE SETTLE CLAIMS; TERMINATION OF LIABILITY**

In case of a claim under this policy, the Company shall have the following additional options:

(a) To Pay or Tender Payment of the Amount of Insurance.

To pay or tender payment of the Amount of Insurance under this policy together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment or tender of payment and that the Company is obligated to pay.

Upon the exercise by the Company of this option, all liability and obligations of the Company to the Insured under this policy, other than to make the payment required in this subsection, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

(b) To Pay or Otherwise Settle With Parties Other Than the Insured or With the Insured Claimant.

(i) To pay or otherwise settle with other parties for or in the name of an Insured Claimant any claim insured against under this policy. In addition, the Company will pay any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay; or

(ii) To pay or otherwise settle with the Insured Claimant the loss or damage provided for under this policy, together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were

authorized by the Company up to the time of payment and that the Company is obligated to pay.

Upon the exercise by the Company of either of the options provided for in subsections (b)(i) or (ii), the Company's obligations to the Insured under this policy for the claimed loss or damage, other than the payments required to be made, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

#### **8. DETERMINATION AND EXTENT OF LIABILITY**

This policy is a contract of indemnity against actual monetary loss or damage sustained or incurred by the Insured Claimant who has suffered loss or damage by reason of matters insured against by this policy.

(a) The extent of liability of the Company for loss or damage under this policy shall not exceed the lesser of

(i) the Amount of Insurance; or

(ii) the difference between the value of the Title as insured and the value of the Title subject to the risk insured against by this policy.

(b) If the Company pursues its rights under Section 5 of these Conditions and is unsuccessful in establishing the Title, as insured,

(i) the Amount of Insurance shall be increased by 10%, and

(ii) the Insured Claimant shall have the right to have the loss or damage determined either as of the date the claim was made by the Insured Claimant or as of the date it is settled and paid.

(c) In addition to the extent of liability under (a) and (b), the Company will also pay those costs, attorneys' fees, and expenses incurred in accordance with Sections 5 and 7 of these Conditions.

#### **9. LIMITATION OF LIABILITY**

(a) If the Company establishes the Title, or removes the alleged defect, lien or encumbrance, or cures the lack of a right of access to or from the Land, or cures the claim of Unmarketable Title, all as insured, in a reasonably diligent manner by any method, including litigation and the completion of any appeals, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused to the Insured.

(b) In the event of any litigation, including litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals, adverse to the Title, as insured.

(c) The Company shall not be liable for loss or damage to the Insured for liability voluntarily assumed by the Insured in settling any claim or suit without the prior written consent of the Company.

#### **10. REDUCTION OF INSURANCE; REDUCTION OR TERMINATION OF LIABILITY**

All payments under this policy, except payments made for costs, attorneys' fees, and expenses, shall reduce the Amount of Insurance by the amount of the payment.

#### **11. LIABILITY NONCUMULATIVE**

The Amount of Insurance shall be reduced by any amount the Company pays under any policy insuring a Mortgage to which exception is taken in Schedule B or to which the Insured has agreed, assumed, or taken subject, or which is executed by an Insured after Date of Policy and which is a charge or lien on the Title, and the amount so paid shall be deemed a payment to the Insured under this policy.

#### **12. PAYMENT OF LOSS**

When liability and the extent of loss or damage have been definitely fixed in accordance with these Conditions, the payment shall be made within 30 days.

#### **13. RIGHTS OF RECOVERY UPON PAYMENT OR SETTLEMENT**

(a) Whenever the Company shall have settled and paid a claim under this policy, it shall be subrogated and entitled to the rights of the Insured Claimant in the Title and all other rights and remedies in respect to the claim that the Insured Claimant has against any person or property, to the extent of the amount of any loss, costs, attorneys' fees, and expenses paid by the Company. If requested by the Company, the Insured Claimant shall execute documents to evidence the transfer to the Company of these rights and remedies. The Insured Claimant shall permit the Company to sue, compromise, or settle in the name of the Insured Claimant and to use the name of the Insured Claimant in any transaction or litigation involving these rights and remedies.

If a payment on account of a claim does not fully cover the loss of the Insured Claimant, the Company shall defer the exercise of its right to recover until after the Insured Claimant shall have recovered its loss.

(b) The Company's right of subrogation includes the rights of the Insured to indemnities, guaranties, other policies of insurance, or bonds, notwithstanding any terms or conditions contained in those instruments that address subrogation rights.

#### **14. ARBITRATION**

Either the Company or the Insured may demand that the claim or controversy shall be submitted to arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). Except as provided in the Rules, there shall be no joinder or consolidation with claims or controversies of other persons. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Insured arising out of or relating to this policy, any service in connection with its issuance or the breach of a policy provision, or to any other controversy or claim arising out of the transaction giving rise to this policy. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured. All arbitrable matters when the Amount of Insurance is in excess of \$2,000,000 shall be arbitrated only when agreed to by both the Company and the Insured. Arbitration pursuant to this policy and under the Rules shall be binding upon the parties. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court of competent jurisdiction.

#### **15. LIABILITY LIMITED TO THIS POLICY; POLICY ENTIRE CONTRACT**

(a) This policy together with all endorsements, if any, attached to it by the Company is the entire policy and contract between the Insured and the Company. In interpreting any provision of this policy, this policy shall be construed as a whole.

(b) Any claim of loss or damage that arises out of the status of the Title or by any action asserting such claim shall be restricted to this policy.

(c) Any amendment of or endorsement to this policy must be in writing and authenticated by an authorized person, or expressly incorporated by Schedule A of this policy.

(d) Each endorsement to this policy issued at any time is made a part of this policy and is subject to all of its terms and provisions. Except as the endorsement expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsement, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance.

#### **16. SEVERABILITY**

In the event any provision of this policy, in whole or in part, is held invalid or unenforceable under applicable law, the policy shall be deemed not to include that provision or such part held to be invalid, but all other provisions shall remain in full force and effect.

#### **17. CHOICE OF LAW; FORUM**

(a) Choice of Law: The Insured acknowledges the Company has underwritten the risks covered by this policy and determined the premium charged therefor in reliance upon the law affecting interests in real property and applicable to the interpretation, rights, remedies, or enforcement of policies of title insurance of the jurisdiction where the Land is located.

Therefore, the court or an arbitrator shall apply the law of the jurisdiction where the Land is located to determine the validity of claims against the Title that are adverse to the Insured and to interpret and enforce the terms of this policy. In neither case shall the court or arbitrator apply its conflicts of law principles to determine the applicable law.

(b) Choice of Forum: Any litigation or other proceeding brought by the Insured against the Company must be filed only in a state or federal court within the United States of America or its territories having appropriate jurisdiction.

#### **18. NOTICES, WHERE SENT**

Any notice of claim and any other notice or statement in writing required to be given to the Company under this policy must be given to the Company at Fidelity National Title Insurance Company, Attn: Claims Department, P. O. Box 45023, Jacksonville, Florida 32232-5023.



**Acts****2010****CHAPTER 117** AN ACT AUTHORIZING THE COMMISSIONER OF CAPITAL ASSET MANAGEMENT AND MAINTENANCE TO CONVEY CERTAIN LAND TO THE CONCORD HOUSING DEVELOPMENT CORPORATION FOR AFFORDABLE HOUSING AND OPEN SPACE PURPOSES.

*Whereas*, The deferred operation of this act would tend to defeat its purpose, which is to transfer forthwith a certain parcel of land in the town of Concord, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same as follows:*

**SECTION 1.** Notwithstanding sections 40E to 40J, inclusive, of chapter 7 of the General Laws or any general or special law to the contrary, the commissioner of capital asset management and maintenance, in consultation with the commissioner of correction, may convey a portion of a certain parcel of state-owned land in the town of Concord, currently under the care and control of the department of correction, to the Concord Housing Development Corporation. The parcel is located at 965 Elm street and is referenced on a map titled "Affordable Housing and Open Space, Concord, Massachusetts" and dated January 9, 2009. Such land shall be used for housing, of which 100 per cent shall be deemed affordable housing as determined by the ranges established by the Concord Housing Development Corporation and for public open space purposes. The commissioner of capital asset management and maintenance, in consultation with the commissioner of correction, shall determine the exact boundaries of the parcel after completion of a survey. The Concord Housing Development Corporation shall acquire access to cross the former railroad right-of-way abutting the parcel, shall ensure compatibility for the proposed Bruce Freeman Rail Trail to cross the parcel and shall provide a second means of access for emergency purposes. The Concord Housing Development Corporation shall ensure a clear field of view as needed for security considerations of the department of correction facility and shall have an appropriate setback from the southerly wall of the department of correction facility. The Concord Housing Development Corporation shall ensure a development setback from the river and any other dimensional setbacks required by law. This parcel shall be conveyed by deed without warranties or representations by the commonwealth.

**SECTION 2.** The consideration for the parcel shall be the full and fair market value of the parcel for the use authorized by this act, as determined by the commissioner of the division of capital asset management and maintenance based upon an independent professional appraisal and including the conditions set forth in section 1; provided, however, that any costs

related to remediation of the site shall be applied against the final appraised value of the parcel; and provided further, that the commissioner of capital asset management and maintenance may accept the findings of a previous appraisal of the parcel conducted by an appraiser acceptable to that commissioner.

SECTION 3. Notwithstanding any general or special law to the contrary, the inspector general shall review and approve the appraisal required pursuant to section 2. The inspector general shall prepare a report of his review of the methodology utilized for the appraisal and shall file the report with the commissioner of capital asset management and maintenance, the house and senate committees on ways and means and the joint committee on state administration and regulatory oversight. Thirty days before the execution of a deed for the conveyance authorized by this act or any subsequent amendment thereto, the commissioner of capital asset management and maintenance shall submit the proposed deed or amendment and a report thereon to the inspector general for his review and comment. The inspector general shall issue his review and comment within 15 days after receipt of the proposed deed or amendment. The commissioner shall submit the proposed deed or amendment, and the reports and the comments of the inspector general, if any, to the house and senate committees on ways and means and the joint committee on state administration and regulatory oversight at least 15 days before execution of the deed or amendment.

SECTION 4. Notwithstanding any general or special law to the contrary, the Concord Housing Development Corporation shall be responsible for all costs and expenses of the transaction authorized in this act as determined by the commissioner of capital asset management and maintenance including, but not limited to, the costs of any engineering, surveys, appraisals and deed preparation related to the conveyance of the parcel and all costs, liabilities and expenses of any nature and kind for its ownership. The Concord Housing Development Corporation may accept funds from the Walden Woods Project in support of, and in furtherance of, the Concord Housing Development Corporation's responsibilities under this act.

SECTION 5. The deed or other instrument conveying the parcel to the Concord Housing Development Corporation shall provide that if the parcel ceases at any time to be used for the purposes set forth in this act, title to the parcel shall, at the election of the commonwealth, revert to the commonwealth.

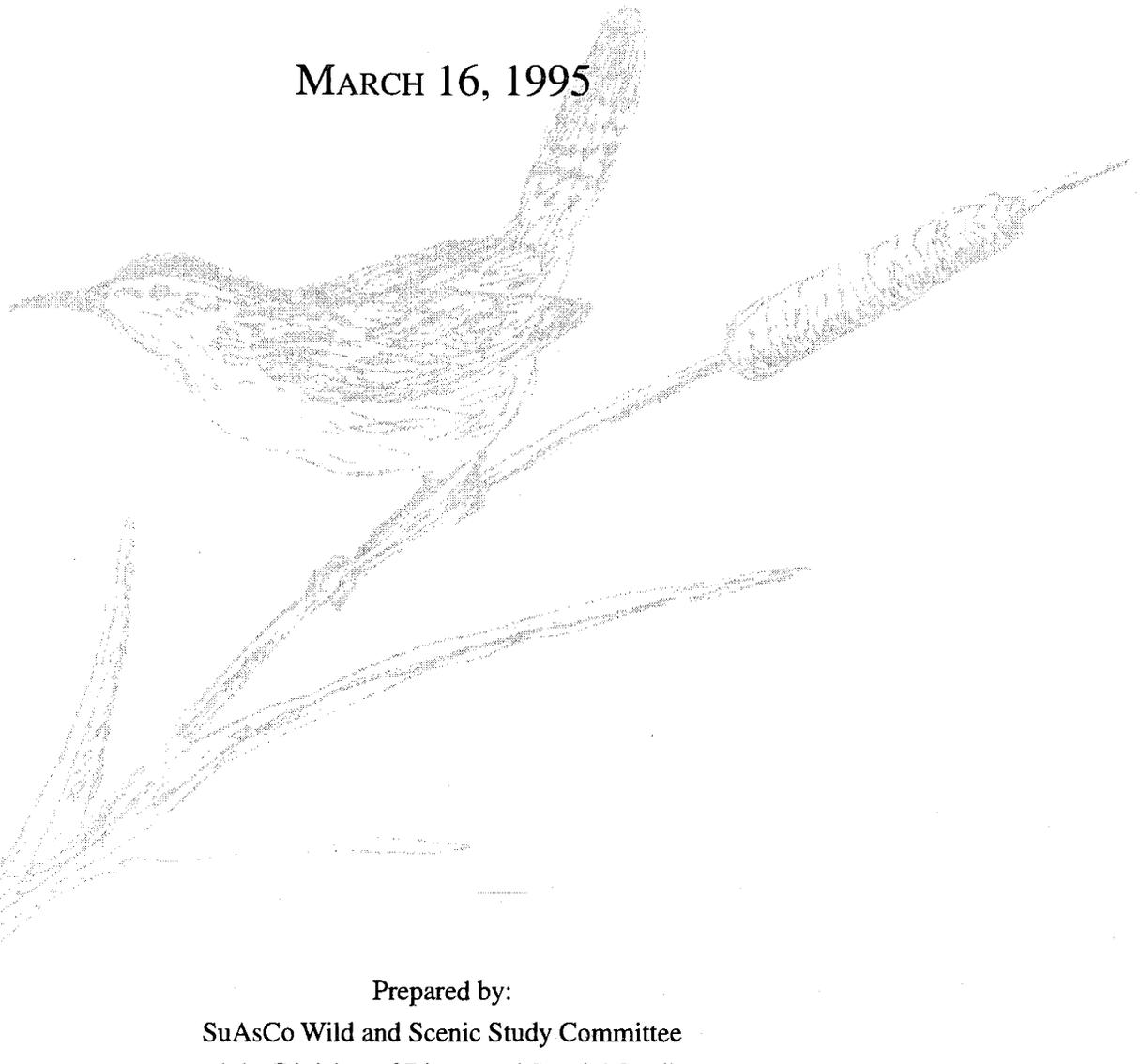
*Approved, May 27, 2010.*

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# SUDBURY, ASSABET AND CONCORD WILD AND SCENIC RIVER STUDY

## RIVER CONSERVATION PLAN

MARCH 16, 1995



Prepared by:  
SuAsCo Wild and Scenic Study Committee  
and the Division of Rivers and Special Studies

National Park Service  
North Atlantic Regional Office  
Boston, MA

cover illustration by H. Alexander Porter

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## **INTRODUCTION**

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The Sudbury, Assabet and Concord River Conservation Plan articulates a vision for the cooperative protection of resources along a 29-mile segment of these rivers in eastern Massachusetts. It also proposes complementary actions that might be taken upstream and downstream of this segment. The Plan was prepared as one component of the Sudbury, Assabet and Concord Wild and Scenic River Study, which was authorized by Congress in 1990 through P.L. 101-628.

The study has been conducted by the Sudbury, Assabet and Concord Wild and Scenic River Study Committee in cooperation with the National Park Service. This advisory group, created by Congress to represent major interests in the study area, includes members from the eight towns within the study area, the Commonwealth of Massachusetts, the Sudbury Valley Trustees, the Organization for the Assabet River, and the U.S. Fish and Wildlife Service. Funding and staff assistance were provided by the North Atlantic Regional Office of the National Park Service.

The Wild and Scenic Rivers Act (P.L. 90-452 as amended) does not require river management plans (as they are called in the Act) to be prepared until after a wild and scenic river study has been completed and the river designated. On some recent studies of rivers flowing through privately-owned lands in New England, however, management plans have been developed during the course of the study, with full participation by the advisory committee. This approach allows the residents of the study area, as well as state and federal policy-makers, to reach consensus on the proposed river conservation framework and protection standards before having to decide whether wild and scenic designation is an appropriate step. In addition, because this River Conservation Plan includes river protection measures that can be implemented regardless of whether the rivers are designated, preparation of the Plan during the study helps to ensure that the Study Committee's efforts will produce actual river protection results.

This Plan is the product of months of concerted effort by the Study Committee and other river study participants. Study Committee subcommittees, a technical advisory group, and interested individuals spent many hours defining river protection issues and developing consensus on management solutions. Inevitably there were differences of opinion. These were resolved through open dialogue, both within the Study Committee and between the Committee and affected interests in the study area. The quality of the Plan reflects this process, and the document has the support of all those who were involved in its preparation.

The Plan has five parts:

### **1. River Protection Philosophy**

This section describes the basic philosophic approach taken during the Wild and Scenic river

study, which guided the Plan's development. It also describes how Wild and Scenic designation would affect the study rivers, and what the implications would be for the various interests involved in river management.

## **2. Administrative Framework**

This section describes the organizational structure that is being proposed to oversee implementation of this Plan.

## **3. Resource Management**

This section is the main body of the Plan. It is divided into three parts: land resources, water resources, and outstanding resources. For each resource type, the proposed resource protection standard is described; necessary actions to meet this standard are laid out; and specific provisions that will take effect if the rivers are designated as Wild and Scenic are identified.

## **4. Watershed Management**

This section describes how resource management decisions for areas outside the Wild and Scenic study corridor but within the Sudbury, Assabet and Concord watershed affect the study area. It also identifies protective measures that would enhance protection of the Wild and Scenic river corridor if the rivers are designated.

## **5. Education and Outreach**

This section identifies a number of activities that could be undertaken to increase public awareness of the rivers' values, and of beneficial resource management techniques.

The River Conservation Plan is directed to local governments, the Commonwealth of Massachusetts, federal agencies, public water and sewer utilities, river corridor residents, river users, and others who care about the future of the Sudbury, Assabet and Concord rivers. All of these interests will have to work together if the rivers are to be protected and the Plan's goals are to be achieved.

The Plan does not contain a prescription for every situation that could confront river managers. Instead, it provides a vision for the future of the rivers and a context for interpreting and acting on future events. The Plan creates a specific mechanism — the Sudbury, Assabet and Concord Rivers Stewardship Council (RSC) — to address future management issues.

## **I. RIVER PROTECTION PHILOSOPHY**

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### **GOALS**

The Sudbury, Assabet and Concord Wild and Scenic River Study Committee has adopted the following goals for the future protection of the rivers:

1. Conserve and enhance the Sudbury, Assabet and Concord rivers' wildlife habitat, scenery, recreational resources, historic and archaeological resources, and literary values for the benefit of present and future generations.
2. Make decisions affecting the rivers and related resources in a coordinated, holistic way, in cooperation with local governments, private property owners, and state and federal agencies.
3. Create an adaptable administrative framework that can accommodate the needs of future decision-makers.
4. Promote education and awareness; identify and study trends that have occurred and others likely to occur.

### **STEWARDSHIP APPROACH**

These goals give direction as to what the River Conservation Plan seeks to accomplish. The means by which these goals should be met — the "how" of this Plan — are described by the following river stewardship approach.

The approach has four basic elements:

1. Resource conservation should be fully integrated with traditional patterns of use, ownership, and jurisdiction.
2. River protection should be accomplished through cooperation among riparian landowners and all public and private organizations with an interest in the river.
3. Long-term resource protection should rely on existing programs and authorities rather than on new layers of bureaucracy.
4. Future management of river resources should be based on a cooperatively-developed plan that establishes resource protection standards and identifies key actions.

This river protection philosophy is built on the assumption that, for the most part, existing river protection mechanisms are adequate to protect river resources. If a resource value has been protected by existing management, and if existing management seems adequate to address issues that can reasonably be expected to appear in the future, then the existing mechanism should be left alone. If the existing mechanism could be improved or made more efficient by better coordination or enforcement, then this should be pursued. New or stricter regulations, or other actions, should be developed only if clearly needed.

In accordance with this philosophy, the Study Committee does not intend this River Conservation Plan to pre-empt existing rights or management responsibilities. Rather, the Plan should create a common vision for the future and provide a setting for the organization of the Stewardship Council and an environment in which those concerned about the rivers can focus their collective energies to make this vision a reality.

## **WILD AND SCENIC RIVER CONSIDERATIONS**

### **Legislative Guidance**

The Wild and Scenic Rivers Act (P.L. 90-542, as amended) provides the legal foundation and overall guidance for the National Wild and Scenic Rivers System. The basic concepts underlying this Act, and the elements relevant to the designation of the Sudbury, Assabet and Concord rivers, are described below.

Section 1(b) summarizes the intent of the Act:

*It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.*

Section 10(a) specifies how designated rivers should be managed:

*Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting aesthetics, scenic, historic, archaeologic, and scientific features. Management plans for any such component may establish varying degrees of intensity for its protection and development, based on the special attributes of the area.*

Section 7(a) describes the specific protections provided to designated rivers:

*The Federal Power Commission [Federal Energy Regulatory Commission] shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act . . . on or directly affecting any river which is designated . . . and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established. . . . No department or agency of the United States shall recommend authorization of any water resources project that would have a direct and adverse effect on the values for which such river was established . . .*

### **Relationship Between the River Conservation Plan and Designation**

Section 3(d) of the Wild and Scenic Rivers Act requires that a comprehensive river management plan be prepared for each river designated into the national system "to provide for the protection of the river values." Furthermore, as described in Section 10(a) of the Act, management prescriptions are to be tailored to meet the specific needs of the river in question. The Study Committee intends this River Conservation Plan to satisfy the requirements of Section 3(d), should the rivers be designated into the system. Thus this Plan will constitute the official framework for the future management of the rivers. As described in the **Administrative Framework** section, the Plan will be subject to periodic review and updating by the Stewardship Council to be established if the rivers are designated.

### **Safeguards**

The Plan includes the following specific provisions to safeguard the interests of landowners and others. These provisions are consistent with the direction provided by Congress in authorizing the Sudbury, Assabet and Concord Wild and Scenic River Study and are not subject to change through subsequent votes of the RSC.

1. There will be no acquisition of lands or interests in land by the federal government, through condemnation or otherwise, in order to implement Wild and Scenic River designation.
2. There will be no federal management of non-federal lands. Private lands along the river will continue to be managed by their respective owners in accordance with existing land use regulations. Non-federal public lands will continue to be managed by the agencies that own those lands. Federal lands, including lands within Great Meadows National Wildlife Refuge and Minute Man National Historical Park, will continue to be managed by their respective agencies in accordance with the management plans developed for this purpose.
3. The river area outside the boundaries of Minute Man National Historical Park will not become a national park and will not be subject to the federal regulations that govern units of the National Park System.

4. No new federal permits will be required solely as a result of designation.

### **National Park Service Role**

As demonstrated in this Plan, designation will be achieved through a non-traditional approach, with the federal government acting as a partner in river management rather than as the primary manager. The National Park Service (NPS) will serve as the key federal representative in the overall implementation of the River Conservation Plan if the rivers are designated. The agency's principal role will be to represent the Secretary of the Interior in reviewing federal projects affecting the rivers and related resources, as required by Section 7(a) of the Act. Also, the NPS may provide ongoing technical assistance, staff support, and/or any funding that may be appropriated by Congress for management of the river. Any such NPS assistance will be coordinated with the stewardship council described in the **Administrative Framework** section of this plan, and, specifically, with the U.S. Fish and Wildlife Service with respect to Great Meadows National Wildlife Refuge. The **Resource Management** section provides additional details on the National Park Service's role under the heading **Wild and Scenic River Provisions**.

### **Geographic Area Proposed for Designation**

The segments of the Sudbury, Assabet and Concord rivers proposed for designation are those described in the study authorization legislation, namely: the Sudbury River from the Danforth Street bridge in Framingham downstream to the confluence with the Assabet at Egg Rock; the Assabet River from a point 1000 feet downstream of the Damondale dam in West Concord to Egg Rock; and the Concord River from its origin at Egg Rock in Concord downstream to the Route 3 bridge in Billerica (see Figure 1).

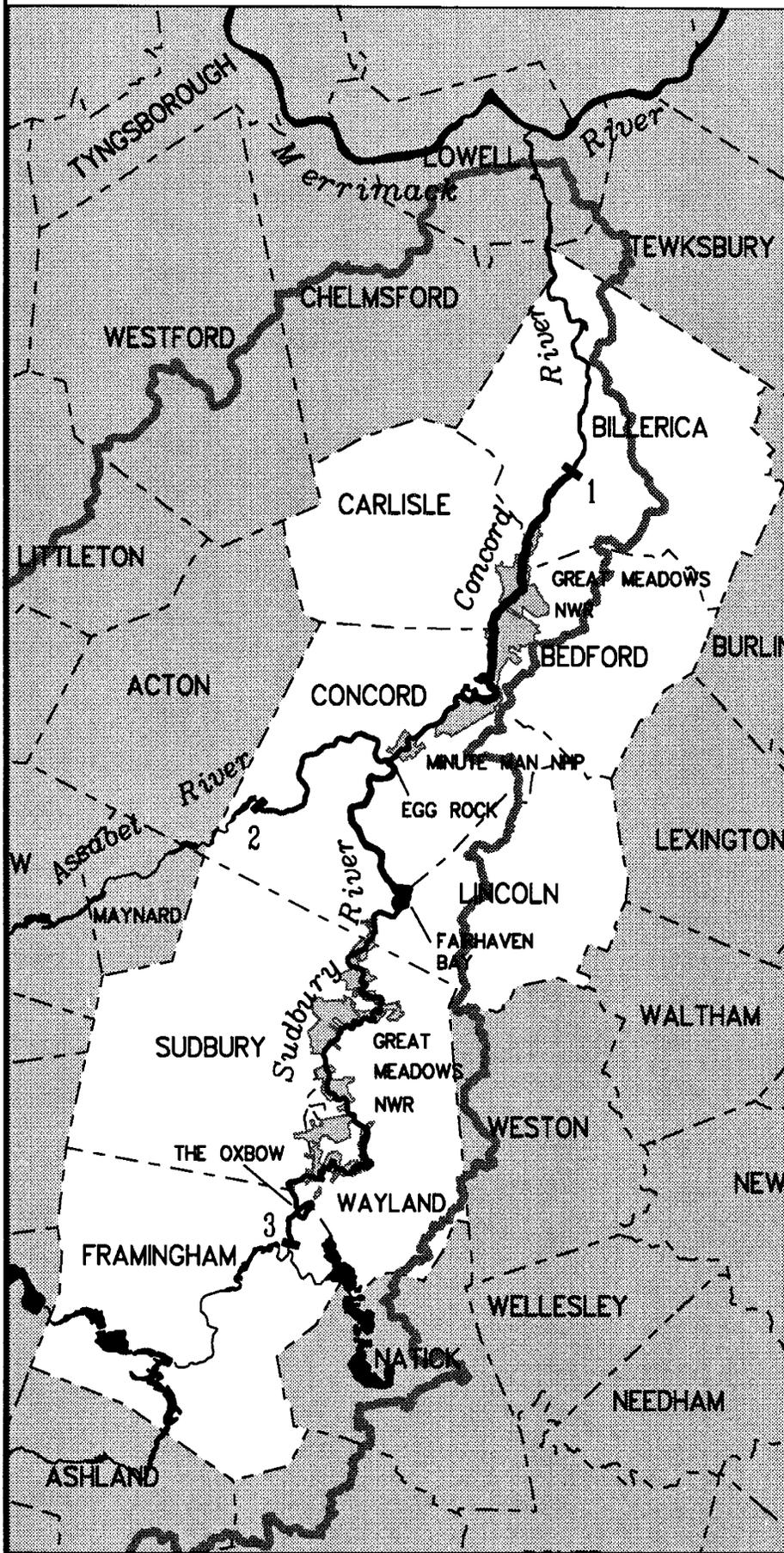
With respect to lateral boundaries, Section 4(d) of the Act specifies that the area included in a **study** should "generally comprise that area measured within one-quarter mile from the ordinary high water mark." However, there are no specific requirements regarding the minimum width of the river corridor following designation. The Study Committee has concluded that, on the Sudbury, Assabet and Concord rivers, where much of the corridor is in private ownership and where some issues — notably water quality — involve the entire watershed, defining a distinct lateral boundary would serve no useful purpose and, indeed, could be counter-productive.

Although a specific lateral boundary therefore is not established, the Plan focuses protection efforts on the river itself and the immediate riparian corridor. In keeping with the approach used in preparing the **Resource Management** section of this Plan, lands within the floodplain, immediately adjacent to the rivers' banks, or which are noteworthy in their scenic character, receive the greatest attention. For uplands outside of this area, the Plan identifies beneficial actions relating to water quality maintenance, public and private land management, and other issues.

Figure 1

# SUASCO WILD & SCENIC RIVERS STUDY AREA

INCLUDING PORTIONS OF THE SUDBURY ASSABET & CONCORD RIVERS

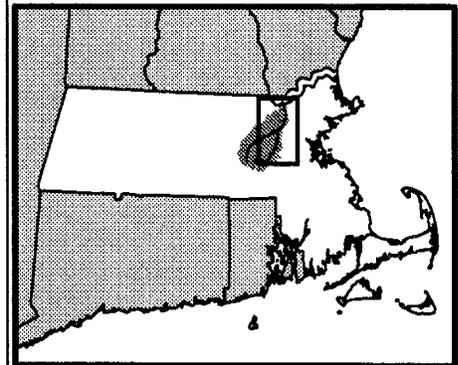


## LEGEND

### POINTS DEFINING THE FOCUS AREA

- 1 Route 3 bridge in Billerica
- 2 1000 ft. below the Damon Mill Dam in West Concord
- 3 Danforth Street bridge in Saxonville

 Sudbury Assabet and Concord River Basin boundary



Department of  
Fisheries, Wildlife &  
Environmental Law Enforcement





## **II. ADMINISTRATIVE FRAMEWORK**

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### **OVERVIEW**

This section describes a framework for the administration of the designated segments that will provide ongoing coordination and communication among the many interests involved in the Sudbury, Assabet and Concord river area.

Underlying this administrative framework is the principle that existing institutions and authorities must provide the foundation for the successful long-term protection of the Sudbury, Assabet and Concord rivers.

Landowners, riverfront communities, the Commonwealth, advocacy and user groups, and federal agencies all have active and indispensable roles in maintaining the values of the river system. These roles are described in the **Resource Management** section of this Plan. What is described in this **Administrative Framework** section is the manner in which the activities of those involved in the stewardship of the river and its corridor will be coordinated.

The administrative structure has two elements:

1. The establishment of a broadly representative committee — the Sudbury, Assabet and Concord River Stewardship Council — to link all those responsible for river management together on a long-term basis. This group will build upon the work and successes of the Sudbury, Assabet and Concord Study Committee in seeking increased cooperation among all river interests.
2. The use of agreements among the various parties in order to implement river conservation. These agreements will reinforce the current consensus to work cooperatively in implementing this Plan and in pursuing the long-term protection of the Sudbury, Assabet and Concord rivers.

### **SUDBURY, ASSABET AND CONCORD RIVER STEWARDSHIP COUNCIL**

#### **Purpose**

The purpose of the Sudbury, Assabet and Concord River Stewardship Council (RSC) is to promote the long-term protection of the rivers by 1) bringing together on a regular basis various parties responsible for river management; (2) facilitating agreements and coordination among them; (3) providing a focus and a forum for all river interests to discuss and make recommendations regarding issues of concern; and (4) coordinating implementation of this River Conservation Plan.

A representative body such as the proposed RSC is necessary because of the complexities of managing the Sudbury, Assabet and Concord river system. Given the number of jurisdictions and interests involved, no one entity can assume sole responsibility or provide the necessary protection for the entire river corridor. Furthermore, management decisions by any one entity are likely to affect a number of other interests. The forum provided by the RSC will ensure communication among all parties and the representation of all viewpoints in making and implementing river stewardship decisions.

The achievements of the Study Committee are indicative of what can be accomplished through a participatory, cooperative effort. These achievements, including the collaborative development of this River Conservation Plan, are directly attributable to the cooperation that has evolved among its members. The RSC will continue that cooperative spirit.

### **Function**

The RSC will have an advisory role; it will not have regulatory or land acquisition authority. The Council will provide advice to existing entities that have management or regulatory authority affecting the rivers, but it will not have the power to dictate the actions or decisions of any of those entities.

The RSC will not have additional authority for the following reasons: 1) a major emphasis throughout the Wild and Scenic study process has been to work within existing authorities to achieve effective protection of the river; 2) there is no need to create an additional layer of regulatory bureaucracy; 3) since federal land acquisition is not proposed to be used as a tool to protect the rivers, there is no need for the Council to be empowered to oversee an acquisition program; and 4) the RSC is intended to complement and support the roles and activities of existing interests, not to compete with them.

### **Responsibilities**

The RSC will assume the following responsibilities:

**Address river-related issues:** The RSC will pursue the cooperative resolution of current issues affecting the Sudbury, Assabet and Concord rivers, as well as issues that may arise in the future. The Council will not have the authority to resolve any issue directly. Instead, it will provide a public forum for the discussion of issues, help raise awareness about issues of particular importance, and stimulate the appropriate authorities to take action.

Recreation management is an example of an issue that the RSC might well wish to address because it is of common concern to all eight towns, the U.S. Fish and Wildlife Service, and the state. This issue is described more fully in the section on **Protection of Outstanding Resources**.

**Monitor activities that might affect the river:** The RSC will evaluate specific proposals that could affect the designated segments, and provide comments as it deems necessary to the appropriate authorities. RSC review of a particular proposal could be initiated at the request of the public, or of local, state, or federal officials, or at the Council's own discretion. Examples of proposals that the RSC could choose to review and comment on include:

- changes to state programs or policies (e.g. statewide water quality standards, river basin plans)
- proposed zoning changes for lands along the rivers or their tributaries
- proposed development projects near the rivers
- applications for state permits (e.g. point source discharges, water withdrawals)

The RSC will also advise the NPS about the potential impacts of federally-funded or licensed projects that are subject to Section 7(a) review under the Wild and Scenic Rivers Act if the river segments are included in the National Wild and Scenic Rivers System. Examples include:

- applications for federal permits (e.g. Army Corps of Engineers Section 404 permits, Federal Energy Regulatory Commission certification for pipeline crossings)
- other federal or federally-funded projects having an impact on water resources (e.g. FAA approval for expanded operations at Hanscom Field)

As specified in the **Resource Management** section of this plan, the state will notify the RSC of certain state permit applications and other potential actions, and give the Council the opportunity to comment.<sup>1</sup> Upon being notified by the relevant federal agencies, the NPS will inform the Council of any proposed projects requiring federal permits or other assistance that would affect the segment. Town boards will be encouraged to communicate and cooperate with the RSC on matters related to the rivers (including notifying the Council of specific proposals), but it will be the Council's final responsibility to keep itself informed of proposals under local jurisdiction that it may wish to review and provide comments on. Individual Council members, particularly the town representatives, will play an important role in keeping the group abreast of local issues.

The monitoring efforts of the RSC will not pre-empt the monitoring and review functions of its member organizations.

**Stimulate public involvement and education:** The RSC will provide opportunities for the public to become aware of, and participate in, efforts to resolve issues that affect the rivers. As funding permits, this may be accomplished through publicized Council meetings, workshops, newsletters, surveys, mailings, or other techniques. The Council will also support the education and outreach activities of its members, and, when appropriate, initiate its own projects to educate the public about the rivers' special values, the challenges they face, and sensible conservation

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<sup>1</sup>The provision for notification of the RSC by certain state agencies may require statutory, executive, or other action at the state level. This issue is addressed at the end of the Overview to the **Resource Management** section of this Plan.

techniques.<sup>2</sup> In performing these activities, the RSC should reach out to a broad cross-section of the public, including recreational users, elected and appointed officials at all levels of government, agency staff, riverfront landowners, and other local residents.

**Promote river enhancement initiatives:** The RSC will support river enhancement projects initiated by its members or other groups, contingent on endorsement by the Council. Whenever necessary and appropriate, the Council will seek to coordinate the involvement of its members in enhancement efforts. The Council may also find opportunities to initiate its own cooperative enhancement efforts.

Examples of river enhancement projects that could merit RSC support and involvement include the frequent river cleanups that are sponsored by area advocacy and user groups. The RSC could augment past cleanup successes by stimulating coordinated action among its members.

**Review and update the Sudbury, Assabet and Concord River Conservation Plan:** Changes to this Plan undoubtedly will become necessary due to new issues, technological advances, or new statutes, regulations, and programs. In addition, actions identified in the **Resource Management** section of this Plan may be completed. Although the RSC will be responsible for reviewing the Plan on a regular basis and updating it as necessary, the primary focus of its energies and resources must be on implementation rather than the process of review.

If actions should occur that are inconsistent with this Plan's provisions for resource protection and management, the RSC will need to evaluate potential responses and incorporate into the Plan those it determines to be most appropriate.

It is recommended that the RSC conduct a thorough review of this River Conservation Plan every five years, although this schedule may be altered as appropriate. Changes to this Plan can only be made if they are approved by all members of the RSC eligible to vote. No changes to the provisions listed under **Safeguards**, above, will be permitted. In addition, the public will be given ample opportunity to participate in future revisions to the Plan.

**Prepare periodic status reports:** The RSC will prepare brief reports every 3-5 years on the status of protection of the segments and implementation of this Plan. These reports will serve two primary purposes:

1. To inform the general public, local officials, the Governor, the Great and General Court, and, if the segments are designated Wild and Scenic rivers, Congress and the Secretary of the Interior, about the condition of the rivers.
2. To publicize any pressing needs or issues requiring attention or assistance from the local, state and/or federal governments.

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<sup>2</sup> Specific projects that the RSC or its member organizations should consider are included in the section of this Plan on **Education and Outreach**.

## **Membership**

**Core membership:** The following entities will constitute the core voting membership of the RSC. With the exception of the Commonwealth, each will have one representative and one alternate.

- Town of Framingham
- Town of Wayland
- Town of Sudbury
- Town of Lincoln
- Town of Concord
- Town of Bedford
- Town of Carlisle
- Town of Billerica
- Commonwealth of Massachusetts (two representatives and two alternates. It is recommended that a staff member from the DFWELE Riverways Program serve as one of the Commonwealth's representatives.)
- Sudbury Valley Trustees
- Organization for the Assabet River
- U.S. Fish and Wildlife Service
- National Park Service

**Appointments:** Representatives and alternates will be appointed as follows:

- Town representatives, by the respective Board of Selectmen
- Commonwealth representatives, by the Governor
- SVT representatives, by its Board of Directors
- OAR representatives, by its Board of Directors
- U.S. Fish and Wildlife Service, by the Regional Director
- National Park Service, by the Regional Director

While not a requirement, each riverfront town is encouraged to appoint a member of its Board of Selectmen as either its regular member or its alternate.

**Criterion:** To be eligible to serve on the RSC, members must endorse and support the goals, objectives, standards and stewardship philosophy of this Plan.

**Additional members:** Membership may be changed to include other interests based on the following provisions:

- 1) Other interested parties not already represented on the RSC (upstream or downstream towns,

river user groups, etc.) may be added to the Council if they request membership and are approved by a 2/3 majority of the existing members eligible to vote. The existing members shall decide on a case-by-case basis whether any new member shall be granted voting or non-voting status.

2) Representatives of any new member institutions will be appointed by the governing body of that institution.

All representatives shall serve for a maximum of two three-year terms. An incoming representative who replaces a member resigning before the end of his or her term shall be eligible to serve two complete three year terms. In this way, Council members' terms will become staggered, ensuring continuity.

While the regular members and alternates will be the official representatives of the respective organizations, staff from any organization having expertise relevant to the Council's activities will be encouraged to participate on an ongoing basis.

## **Procedures**

**Establishment:** The RSC will be established after Congress concludes its deliberations on whether to designate the segments into the National Wild and Scenic Rivers System. It may hold its first meeting as soon as a quorum of members has been appointed.

**Decision-making:** Except for decisions concerning the content of this Plan, there must be a favorable 2/3 vote of those present and eligible to vote whenever a formal vote is requested by any member on any decision, recommendation or action. Permissible changes to the Plan (i.e. those that are not listed under **Safeguards** in Section I) are subject to the unanimous consent of all members eligible to vote. Other decisions, recommendations and actions will be by consensus.

While alternates will be encouraged to attend meetings and participate actively on the Council, each organization will be limited to one vote per representative on any matter requiring a formal decision by the Council.

**Officers:** The Council will have three officers: chair, vice-chair, and secretary/treasurer. The responsibilities of the officers will be established in the Council's bylaws. The chairperson will be elected by the Council from among its appointed town or state members.

**Quorum:** A majority of the members of the Council who are eligible to vote will constitute a quorum.

**Bylaws:** The Council will develop and enact bylaws for all other procedural issues.

## **Funding/Staff**

To implement the responsibilities identified above in a meaningful way, in-kind assistance and funding will likely be required. Funds may be needed to 1) hire staff to coordinate the Council's activities; 2) undertake specific projects; and/or 3) cover costs related to general operations or specific responsibilities (office space and equipment, printing and distributing information, education and outreach, etc.).

If the segments are designated as national Wild and Scenic Rivers, Congressional appropriations will be sought to assist with the establishment and initiation of the RSC. Federal funds to support the Council will be pursued for a start-up period of 3-5 years.<sup>3</sup> Such funds will be part of the annual budget request to Congress by the National Park Service. If adequate funding is forthcoming, the NPS could 1) provide the necessary staff support for the RSC from its own personnel; or 2) transfer money directly to the RSC through a formal cooperative agreement. (Cooperative agreements are discussed later in this section.)

In addition to providing staff support and/or direct financial assistance to the RSC, the NPS may provide technical planning and river conservation assistance to the Council and its members if requested and if sufficient appropriations are available.

For long-term funding needs or for specific projects — such as those identified in the **Resource Management** section of this plan — the RSC may wish to pursue financial assistance and/or in-kind contributions (office space, equipment, etc.) from individuals, foundations, corporations, and government (federal, state, and/or local). In pursuing funding from any of these sources, the RSC will cooperate with its member organizations where appropriate. The RSC will avoid situations where its receipt of funds or in-kind contributions could create perceptions of conflict of interest.

If the segments are included in the National Wild and Scenic Rivers System, the NPS will provide assistance to the RSC in identifying potential sources of additional federal funding for specific river conservation projects. For instance, federal funding may be available through the Land and Water Conservation Fund, the National Park Service's "Challenge Cost-Share Program," or other similar sources.

## **MANAGEMENT AGREEMENTS**

### **Stewardship Council Agreement**

Among the RSC's first tasks will be to develop a written agreement to be adopted by its member institutions. This agreement will establish a cooperative commitment among the members to participate in long-term management of the river and to implement those parts of this Plan under

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<sup>3</sup> The need for continued federal funding will be evaluated after this start-up period.

their jurisdiction or to which they have been assigned specific responsibility. If the segments are designated as national Wild and Scenic Rivers, the development of this agreement will be contingent upon the endorsement by the RSC's voting members of the provisions contained in the legislation designating the segment.

### **Inter-agency Consistency and Coordination**

The success of this Plan will depend, in part, on state and federal agencies being consistent with the broad goals and specific provisions of the Plan when taking any actions that could affect the segment. It is strongly recommended that the DFWELE Riverways Program take the lead in pursuing options to achieve such consistency at the state level. Possible approaches include statutory action by the State Legislature, Executive Order by the Governor, and/or other less formal means.

If the rivers are designated as Wild and Scenic, the NPS will take the lead in ensuring consistency at the federal level through its authority under the Wild and Scenic Rivers Act.

### **Cooperative Agreements Between the RSC and the NPS**

If the segments are included in the Wild and Scenic Rivers System, the NPS may enter into formal cooperative agreements with the RSC or any of its member organizations pursuant to Sec. 10(e) and/or Sec. 11(b)(1) of the Wild and Scenic Rivers Act. Such agreements could include provisions for limited financial or other assistance from the federal government to facilitate the protection and management of the Sudbury, Assabet and Concord rivers. Relevant passages from the Wild and Scenic Rivers Act follow.

*Section 10(e): The Federal agency charged with the administration of any component of the national wild and scenic rivers system may enter into written cooperative agreements with the Governor of a State, the head of any State agency, or the appropriate official of a political subdivision of a State for State or local government participation in the administration of the component.*

*Section 11(b)(1): The Secretary of the Interior .... shall assist, advise, and cooperate with States or their political subdivisions, landowners, private organizations, or individuals to plan, protect, and manage river resources. Such assistance, advice and cooperation may be through written agreements or otherwise .... Any agreement under this subsection may include provisions for limited financial or other assistance.*

### III. RESOURCE MANAGEMENT

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#### OVERVIEW

This section of the Plan describes a detailed program that will provide long-term protection for the Sudbury, Assabet and Concord rivers and their outstanding scenic, recreational, wildlife, historic, and literary values. The discussion is divided into three parts: Land Management, Water Resource Management, and Protection of Outstanding Resources. These are further subdivided into more specific categories, as indicated below.

#### **Land Management:**

- Private Lands
- Public Lands

#### **Water Resource Management:**

- Water Quality
- Water Quantity
- Channel, Floodplain, and Wetland Protection

#### **Protection of Outstanding Resources:**

- Recreation
- Ecology
- Historic, Archaeologic and Literary Resources
- Scenic Resources

A fundamental tenet of the Plan — that the rivers' outstanding resources can only be protected through sound management of the land and water base on which they rely — is reflected in this format. The specific provisions described in **Land Management** and **Water Resource Management** establish the foundation necessary for long-term protection. Other considerations specific to each outstanding resource are described in **Protection of Outstanding Resources**.

For each category, the following are discussed:

**Objectives** establish a vision for future management. These objectives are intended to supplement the broad goals that were presented in the **River Protection Philosophy** section.

**Standards** establish the minimum criteria by which future management actions will be measured.

**Action Program** lays out specific strategies for achieving the objectives and ensuring the long-term protection of the river and its important values. The Action Program has three components:

**Key Actions** identify the most essential actions required for managing river resources according to the defined standards.

**Supporting Activities** identify other programs and actions currently in place that contribute to effective management.

**Additional Opportunities** include recommendations for further actions that, while not required, could enhance resource management and protection.

**Wild and Scenic River Provisions** include special conditions that will take effect if the rivers are designated as national Wild and Scenic Rivers, such as the requirements that the designated segments be maintained in their current free-flowing condition, and that federal Clean Water Act water quality standards be met. This section describes the role of the National Park Service as the federal stewardship partner, specific policies and standards that will be linked to designation, and any additional actions that will be required of other entities to implement the designation.

The reader should note that implementation of certain provisions contained in this River Conservation Plan may require statutory, executive, or other action at the state level. These provisions primarily relate to notification requirements for future implementation of state regulatory responsibilities affecting the segment.

## **RESOURCE MANAGEMENT: LAND RESOURCES**

### **PRIVATE LANDS**

#### **OBJECTIVE:**

To conserve the ecological integrity and scenic character of the Sudbury, Assabet and Concord river corridor through sensitive management of privately-owned shoreland and upland areas, without unduly restricting other uses of those lands.

#### **STANDARDS:**

**Riparian Corridor:** The rivers' riparian lands (banks, floodplain, bordering wetlands, and upland buffers) are the highest priority areas for protection. Based on the extensive analysis of land use patterns and existing land use controls that was conducted during the study, these critical areas were found to be adequately protected from land uses changes that could damage riparian resources. Thus the local zoning (including floodplain zoning) and state and local wetlands protection laws in place as of the effective date of this Plan constitute the minimum standard for riverfront protection on private lands.

**Uplands:** This Plan does not establish specific standards for the management of privately-owned upland areas beyond floodplains and wetlands buffers. Although activities in upland areas can affect river values, existing land ownership patterns, regulations, and topography provide the segments with strong protection from potential adverse effects of land use changes in upland areas. To complement that protection, land managers (i.e. private landowners and the local, state and federal agencies responsible for public lands) should seek to minimize impacts on water quality, streamflows, views to and from the river, and the scenic character of the river corridor.

### **ACTION PROGRAM**

#### ***Key Actions***

**Landowner stewardship:** *Private lands will remain private; landowners will continue as the primary stewards of lands along the segments.*

Longstanding traditions of resource stewardship along the Sudbury, Assabet and Concord rivers are largely responsible for the character and quality of the river corridor. This River Conservation Plan serves to reinforce those patterns and the traditional stewardship role of landowners.

Landowners can fulfill their stewardship responsibilities by taking an active interest in the rivers, by expanding their knowledge of land management practices that protect the rivers' scenic and ecological values, and by incorporating those practices into management of their lands. Voluntary opportunities available to landowners to enhance their short and long-term stewardship abilities include gaining knowledge of Best Management Practices in forest, wildlife habitat and vegetation management. Landowners can avail themselves of conservation restrictions and other land conservation techniques, including preferential property taxation programs (Chapter 61, 61A, and 61B programs). Other voluntary land management techniques directly related to reducing nonpoint source pollution are described under "Land Stewardship" in the **Water Quality** section of this plan.

**Local land use management:** *Riverfront towns will implement and enforce their existing land use regulations, including floodplain zoning, local wetlands bylaws, the state Wetlands Protection Act, Board of Health regulations, and other programs that provide protection to the rivers.*

Floodplain overlay zones in combination with state and local wetlands protection laws provide the backbone of protection for private lands located within the riparian corridor. These forms of protection are supplemented by town regulations relating to underlying zoning densities, subdivisions, building height limitations, and septic system siting requirements. Each riverfront town should emphasize conservation of river values when implementing these regulations. River protection will be enhanced by active consideration of the river in the enforcement of existing regulations and other land use programs in upland areas (beyond the 100-year floodplain and wetland buffer zones). Special emphasis should be given to tributaries to the Sudbury, Assabet and Concord rivers.

There are several other actions the towns could take to provide further protection for the river. These are described under **Additional Opportunities** at the end of this section.

### ***Supporting Activities***

**Local land acquisition:** *The eight study-area towns should continue to pursue the purchase of appropriate river-related lands from willing sellers.*

The Open Space plans prepared by the towns provide the policy framework for local land protection programs. In cooperation with private landowners and land trusts, and when funding permits, the towns should continue to implement these plans, and should place particular emphasis on the protection of areas that are already providing local recreational access to the rivers and related areas.

**State land use regulations:** *In implementing the state Wetlands Protection Act, managing land use on state-owned lands, and regulating activities such as utility lines that could affect riparian*

*lands, the Commonwealth will to the greatest extent possible ensure that its policies and actions are consistent with this River Conservation Plan and with local floodplain and wetlands protection laws.*

The Commonwealth has several programmatic responsibilities relevant to the Plan's land use standards, including:

- point-source discharge permitting under the Massachusetts Clean Waters Act (M.G.L. c. 21 §§ 26-53) and Sec. 402 of the federal Clean Water Act (P.L. 95-217);
- control of nonpoint source pollution pursuant to those same statutes;
- the public water supply wellhead protection program; state Wetlands Protection Act; Title 5, which controls the design and siting of sub-surface wastewater disposal facilities; regulatory control over the siting of hazardous waste, low-level radioactive waste storage, energy, and telecommunications facilities; and the regulation of underground storage tanks;
- road and bridge construction and maintenance;
- management of state-owned lands including the Pantry Brook fish and wildlife lands along the Sudbury River and the MCI-Concord site on the Assabet River.

While these programs clearly have a bearing on land use, they are also directly related to water quality and/or wetland protection. Additional discussion of these programs is included in the **Water Resource Management** section of this Plan.

**State land acquisition:** *The Commonwealth of Massachusetts should pursue the purchase of important river-related lands from willing sellers if parcels come on the market and if funding is available.*

Selective public purchase of critical lands or interests in land on a willing-seller basis is a valuable component of a diversified strategy to protect a river corridor.

The RSC should assist the state — particularly the DFWELE Division of Fisheries and Wildlife, which already owns significant wildlife habitat along Pantry Brook, a tributary to the Sudbury River — in looking for other opportunities for applying its habitat protection programs. Local representatives on the RSC can play a particularly valuable role in monitoring the availability of important parcels for potential acquisition by DFWELE.

**Federal regulations:** *The U.S. Army Corps of Engineers will continue to implement its permitting responsibilities under Section 404 of the Clean Water Act and Sections 9 and 10 of the Rivers and Harbors Act of 1899. All federal agencies will comply with Executive Orders 11988 and 11990, which require that alternatives be considered when federally-funded or permitted projects could have adverse impacts on floodplain and wetland resources.*

Sec. 404 requires a permit from the Corps for any project that would discharge dredged or fill material into the waters of the United States, including wetlands. This is the primary federally-

administered regulatory program that affects land use decisions along the rivers. The program is addressed in greater detail in the section of this Plan on **Water Resources Management - Channel, Floodplain, and Wetland Protection**. The Corps' responsibility for implementing the Rivers and Harbors Act of 1899, which controls the placement of dams and other impediments to navigation, is also discussed in that section.

**Federal land acquisition:** *The U.S. Fish and Wildlife Service should continue its program of willing-buyer, willing-seller land acquisition within the approved boundaries of Great Meadows National Wildlife Refuge.*

The protection afforded to the rivers by Great Meadows National Wildlife Refuge is one of the major factors that makes the study area suitable for Wild and Scenic designation. The refuge's land acquisition program will continue whether or not the rivers are designated; however, if the rivers are designated, the RSC should explore ways to support this program where appropriate.

**Voluntary land conservation:** *Local land trusts should pursue protection of important riverfront and watershed lands by assisting landowners with voluntary land conservation actions.*

Voluntary land conservation programs have proven to be highly effective in protecting important riverfront and watershed lands on rivers across the country. The elements common to successful programs have included: 1) identifying parcels of particular significance for the conservation of the river (for instance, those with undeveloped riverbanks, steep slopes, striking visual features, or habitat for rare species); and 2) actively encouraging landowners to protect those parcels by providing them with information and assistance regarding the full range of voluntary private land protection techniques (e.g. purchase, donations of fee title or conservation restrictions, deed restrictions, covenants, and transfers of development rights).

Along the Sudbury, Assabet, and Concord river corridor, the Sudbury Valley Trustees and several local land trusts have a long history of success in implementing this type of program. Their efforts should be supported, where appropriate, by the RSC. Such support could take the form of collaborative public education and outreach efforts, the development of model language to be used for new riverfront conservation restrictions, etc.

### ***Additional Opportunities***

**Local land-use recommendations:** *The Study Committee's River Conservation Subcommittee identified a number of recommendations for the study area towns that should be implemented in order to strengthen existing land-use requirements.*

The recommendations, which are summarized in Appendix A, were developed through an exhaustive analysis of existing local controls and ownership patterns, and represent the collective

wisdom of the Study Committee. When implemented, these recommendations will build upon the significant protections already in place, further decreasing the rivers' vulnerability to inappropriate land use changes.

The adoption of any new land use regulations or other local mechanisms will continue to be at the discretion of the towns.

**Technical assistance to landowners:** *Establish a program to provide resource management expertise to interested landowners.*

Stewardship of riverfront and watershed lands could be enhanced if landowners had access to professional advice about wildlife habitat enhancement techniques and the effects of fertilizers, pesticides, and vegetative cutting in the floodplain and riparian wetlands. Landowners may be unaware that such expertise exists, or they may be unable to afford the costs involved in obtaining it.

The RSC should evaluate opportunities for making resource management expertise more readily available by publicizing existing technical assistance programs and/or seeking funding to hire resource management professionals who could then provide their services to landowners at reduced cost or free of charge.

**Local enforcement of regulations:** *Improve the zoning, building code, Title 5, wetlands bylaw and conservation restriction enforcement capacity of the riverfront towns.*

The need for increased diligence in the enforcement of local bylaws and regulations, along with enforcement of the provisions of conservation restrictions held by the towns, has been identified as an issue related to the protection of riverfront areas. The towns' limited enforcement capabilities are often a result of tight local budgets. Riverfront towns, with possible assistance from the RSC and others, should pursue funding to enable them, either individually or collectively, to hire additional enforcement staff (e.g. river stewards) to focus specifically on river-related issues or to train existing staff.

**Local planning:** *Each riverfront town should emphasize conservation of the river in updates to its Open Space Plan, Master Plan, Comprehensive Plan, and other land use plans.*

All of the study area towns have prepared Open Space Plans in the past, largely in order to qualify for state reimbursement for acquisition funding. Due to a sharp decrease in the availability of such funds in the late 1980s, many towns' plans are out of date. In updating the plans, the town should focus specifically on the protection of the rivers and their tributaries. By updating their plans, the towns will also become eligible for newly-available state funds.

In preparing their Master Plans or Comprehensive Plans, the towns should be encouraged to consider the need to protect access, riparian habitat and scenery along the segments.

**Open space requirements:** *The riverfront towns should consider revising their local subdivision, PUD, and cluster development and other land use regulations to require that areas set aside as protected open space include riparian buffer areas.*

By specifically targeting lands along the Sudbury, Assabet and Concord rivers and their tributaries for such existing set-asides, this authority could be used to provide further protection for the rivers. In towns such as Billerica, which allow clustering only within designated areas of the town, consideration should be given to expanding such areas to include riparian lands.

**Aquifer protection:** *Towns along the segments should evaluate opportunities to increase the protection of water quality in the segments and their tributaries through implementation of aquifer protection programs.*

Towns are able to designate and protect aquifers that are recognized for their existing or potential use as a public water supply. For any such aquifer, the town involved may adopt land use, hazardous waste, underground storage tank, or other regulations, and assign the appropriate town board or commission (e.g. Planning Board, Board of Health, or Fire Department) the responsibility of enforcing those regulations. It may also buy the lands of concern. The towns of Wayland and Sudbury, for example, have aquifer and water resources protection overlay zoning districts, respectively. The other towns along the segment may wish to consider these forms of protection.

The Massachusetts DEP requires that in order to be approved for public water supply, all new wells must be protected under the state's wellhead protection program. Requirements include the ownership or control of lands within 400 feet of the wellhead, and land use restrictions (such as the prohibition of floor drains discharging to the ground) within the area known as the Zone II, or primary recharge area. While the primary intent of these programs is to protect public groundwater supplies, any concomitant protection of aquifers adjacent to the rivers or their tributaries would help to protect and enhance the water quality of the segments themselves, since groundwater provides the rivers' base flow.

Some surface water supplies in the state are also protected through overlay zoning along their shores and tributaries. While implementation of surface water protection zoning has not yet been suggested for the Sudbury, Assabet, and upper Concord rivers, which feed Billerica's water supply system, all of the measures listed in this Plan that serve to protect riparian resources have the added value of protecting the rivers' value as a source of drinking water.

**Scenic road designation:** *The riverfront towns should evaluate the potential to designate roads which cross or parallel the rivers as "scenic."*

Towns in Massachusetts are empowered to designate local roadways as scenic, which serves to protect stone walls and trees that are within the right of way from removal that could result in the loss of historic and scenic character. Scenic road designation could help avert detrimental changes in the layout of local roads near river crossings or in other areas visible from the rivers.

**Watershed protection initiatives:** *SVT and OAR, and, where appropriate, DFWELE, DEM, and MDC, should give special attention to protecting land along the undesignated sections of the Sudbury and Assabet rivers when setting priorities for their watershed-wide programs.*

The RSC's responsibilities for areas upstream of the study segments include working with town governments to strengthen local river protection mechanisms, and participating in the public review of specific development proposals that could affect the rivers. Technical assistance from the RSC could help upper watershed towns to implement the kinds of conservation restrictions, floodplain zoning bylaws, local wetlands bylaws, etc., that have contributed to the protection of the designated segments.

## **WILD AND SCENIC RIVER PROVISIONS**

With the exception of pre-authorized, independent land acquisition programs at Great Meadows National Wildlife Refuge and Minute Man National Historical Park, national Wild and Scenic designation will not result in federal government acquisition of private lands or interests in land along the segments by condemnation or otherwise. Furthermore, designation will neither empower the federal government to regulate the use of non-federal lands, nor will it result in requirements for additional state or local land use regulations. Designation will not preclude use of federal funds through the Land and Water Conservation Fund or similar programs for state or local land acquisition.

## **PUBLIC LANDS**

### **OBJECTIVE:**

To conserve the ecological integrity and scenic character of the Sudbury, Assabet and Concord river corridor through sensitive management of publicly-owned riparian and upland areas, without unduly restricting other uses of those lands.

### **STANDARDS:**

**Riparian corridor:** Public lands within the riparian corridor will be managed in a way that will maintain or enhance their natural appearance and function.

**Uplands:** Upland areas under public ownership within the segments' watershed will, to the extent reasonably possible, be managed in a way that takes into account and ensures protection of water quality and quantity, scenic views to and from the rivers, wildlife habitat, river-related historic and archaeological resources, and the natural character of the Sudbury, Assabet and Concord river corridor.

## **ACTION PROGRAM**

### ***Key Actions***

**Management practices:** *The towns, U.S. Fish and Wildlife Service, National Park Service, DFWELE-DFW, and Mass. Dept. of Corrections will continue to manage their respective lands along the segments. Each public landowner will review its current policies and practices for consistency with the objective and standards stated above, and revise them if necessary.*

The substantial amount of public land along the segments is essential in maintaining the water quality, wildlife habitat, recreational access, historic and archaeological resources, and scenic character of the Sudbury, Assabet and Concord river corridor. Town-owned lands along the segments also provide limited but important public access to the rivers. This Plan actively supports a continuation of these diverse uses.

New infrastructure development within 100 feet of the rivers' banks should be limited to that necessary for public health, welfare, and safety. This includes infrastructure needed for wildlife habitat enhancement, such as minor water control structures, for emergency response, or to provide public access to the river. The need for any such infrastructure must be reviewed by the land managing agency or town board, and the infrastructure must be designed and constructed so as to minimize both short- and long-term impacts on the ecological functions and scenic qualities of the shorelands area.

Through its local, state, or federal government representatives, the RSC will be given the opportunity to participate in reviews of management plans and practices affecting the rivers, and the land management agencies will give the RSC's comments due consideration.

**Land transfers:** *Public lands held for conservation, recreation, or open space purposes will be kept in public ownership for such purposes.*

Because public conservation, recreation, and open space lands are vital to the protection of many resources within the Sudbury, Assabet and Concord river corridor, the rivers' character could be severely jeopardized if all or part of those lands were to be transferred into private ownership or otherwise opened to development. Neither the towns, the Commonwealth nor the federal government will divert to other uses any land along the riparian corridor held for conservation, recreation, or open space purposes.

Article 97 of the Massachusetts Constitution requires a 2/3 vote of the legislature before state-owned land currently used for conservation or passive recreation may be transferred into any other form of use, including a more intensive public use. For town-owned land, Article 97 requires a corresponding 2/3 town meeting vote as well.

Should a change in ownership or use of any other existing public lands along the rivers or their tributaries be considered, every reasonable effort should be made to retain and manage the land for conservation or recreational use, and/or to provide protective riparian buffers. If such land is to be transferred to private ownership, conservation easements or other legally-binding restrictions on development should be placed at the time of transfer on areas that are most critical for maintaining the rivers' water quality and quantity, ecological integrity, and scenic qualities.

## **WILD AND SCENIC RIVER PROVISIONS**

There will be no additional requirements related to the management of public lands as a result of Wild and Scenic River designation.

## **RESOURCE MANAGEMENT: WATER RESOURCES**

### **WATER QUALITY**

#### **OBJECTIVE:**

To enhance and maintain the segments' water quality so as to protect their outstanding water quality dependent resources (ecology, recreation and scenery).

The segments' water quality will be improved to ensure year-round compliance with state and federal water pollution control laws. This will serve to reduce or eliminate the gradual loss of aquatic habitat quality and diversity through the conversion of open water and wetland areas to wetlands and uplands respectively, and through the displacement of native vegetation by non-native, pollution-tolerant species. It will also protect against the loss of open water areas and consequent reduction in the rivers' value for recreation and scenery.

#### **STANDARDS:**

Measures will be taken to reduce nitrogen and phosphorus loadings to levels that are within the rivers' assimilative capacity in order to reduce the rate of cultural eutrophication. This will serve to protect the segments' outstanding aquatic fish and wildlife habitat, recreation, and scenic values. To the extent possible, the discharge of additional mercury into the Sudbury and Concord river segments will be prevented in order to protect wildlife habitat and recreation (fishing and contact recreation).

#### **Point source discharges:**

- Point source discharges (including both existing and new discharges) shall comply with state and federal water pollution control statutes.
- For other new activities (e.g. storm water drains) that are regulated under Sec. 402 of the federal Clean Water Act (P.L. 95-217) and that would discharge directly into the segments, Best Management Practices appropriate for the reduction of sedimentation and associated nutrient loading will be required.
- To the extent possible, the release through discharge or downstream transport of additional mercury to the Sudbury and Concord river segments will be prevented.

**Nonpoint source pollution:** The riverfront towns and the state will seek to eliminate, avoid, or reduce nonpoint source pollution impacts on the segment. The 100-year floodplain plus uplands within 100 feet of the rivers' and their tributaries' ordinary high water mark will be the highest priority for attention. Within these areas, the principal mechanisms for controlling nonpoint

source pollution will be the preservation of natural vegetation, maximum setbacks of new roads and septic systems, and the implementation of Best Management Practices as outlined in the DEP "Megamanual." Special emphasis will be given to the implementation of those practices that reduce the discharge of sediment and associated phosphorus and nitrogen compounds to the rivers, tributaries, and groundwater.

## **ACTION PROGRAM:**

### ***Key Actions***

**Water pollution control statutes:** *The U. S. Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (DEP) will continue to have primary responsibility for implementing federal and state water pollution control statutes.*

Two laws govern the protection of water quality in Massachusetts — the federal Clean Water Act (P.L. 95-217), and the Massachusetts Clean Water Act (M.G.L. c. 21 §§ 26-53). The DEP administers the state law while the EPA administers the federal law. DEP has four primary responsibilities that affect the Sudbury, Assabet and Concord rivers' water quality:

Establishment of statewide water quality standards: These standards designate water quality goals and designated uses for different classes of water bodies, and establish base level criteria that must be met to maintain the designated uses for each class. As required under 314 CMR 4.00, Massachusetts also designates certain water bodies under its anti-degradation policy as "high quality" or "outstanding resource" waters. The anti-degradation policy protects the existing uses of a waterbody, prevents waters that exceed minimum criteria from deteriorating, limits degradation of "outstanding" waters, and seeks improvement in degraded waters.

Project review and certification under Sec. 401 of the Clean Water Act: Sec. 401 requires that, with certain exceptions, any proposed discharge into the waters of the state must not violate state water quality standards. Certification is required before any necessary federal permits or licenses can be granted. This requirement makes Sec. 401 certification a strong tool for the state in protecting its interests.

Point source discharge permits: Sec. 402 of the Clean Water Act establishes a permit system — the "National Pollution Discharge Elimination System" (NPDES) — for all point source discharges, such as new or expanded discharges from sewage treatment plants and industrial facilities. Stormwater discharges also are regulated under Sec. 402. The DEP has established general permits for stormwater discharges associated with two types of activities: (1) construction projects that involve the disturbance of greater than five acres of land; and (2) industrial facilities, as defined by the Standard Industrial Classification (SIC) Codes. Applicants are covered by these general permits if they register with the DEP, but they must be able to demonstrate that they are in compliance with the general permit requirements. The permits require, among other things,

that the permittee develop a pollution prevention plan and monitor the discharge. The DEP cannot deny a registration; however, the agency can enforce the permit requirements if the permittee is found to be in violation.

Nonpoint source pollution control: The state and federal Clean Water Acts establish limited regulatory authority and encourage planning efforts for the reduction of nonpoint source pollution. The DEP's nonpoint source program is described in detail in the "Megamanual" which was sent to every Conservation Commission in the state in 1993.

The EPA oversees implementation of the federal Clean Water Act in Massachusetts, and maintains approval/veto authority over the state's water quality standards and permitting of specific projects, but not over Sec. 401 water quality certifications. Massachusetts' Surface Water Quality Standards are reviewed at least every three years, with participation from a public advisory committee. Following public hearings and approval by the state Water Resources Commission, the Standards are submitted to EPA for approval.

The Sudbury, Assabet and Concord rivers are currently classified Class B. The goal of this classification is to ensure the rivers' suitability for the protection and propagation of fish, wildlife, and other aquatic life and for recreation in and on the water. The Sudbury River is also designated as a "High Quality Water" from Saxonville Dam downstream to Wash Brook, with a designated use of aquatic life. The Assabet and Concord rivers are designated as warm water fisheries.

To achieve this Plan's standards for water quality protection, the DEP will need to take the following actions:

1. In its next triennial review of the Massachusetts Surface Water Quality Standards (anticipated in 1996), DEP shall consult with the RSC to designate uses for the rivers that are consistent with the rivers' water-dependent outstandingly remarkable resource values, i.e. ecology, recreation, and scenery.
2. In its approval of new point-source discharge permits or repermitting of existing discharges, DEP should actively promote the use of innovative approaches to reduce nutrient loads within the basin. For example, to ensure that new or increased phosphate discharges are within the rivers' assimilative capacity, point-source dischargers should be encouraged to seek ways of reducing non-point source discharges of this pollutant. This could be done through the sewerage of communities where existing septic systems are located near wetlands or floodplains, or through the use of Best Management Practices in stormwater management.
3. In its implementation of the "Watershed Initiative" approach to water quality and quantity permitting (whereby the cumulative impacts of DEP permits throughout the river basin are considered in setting new or renewal permit conditions), DEP should consult with the RSC to promote the protection of the rivers' outstanding water-dependent resources.

**Local land use management:** *The riverfront towns will implement and enforce existing local land use regulations, including local wetlands protection bylaws and septic system siting requirements, and other programs that protect water quality. In implementing existing laws and in considering the need for revisions to such laws, the towns will specifically consider to what extent the laws can be used to reduce the discharge of sediment and phosphorus and nitrogen compounds to groundwater, the rivers, and their tributaries.*

Several local land use programs provide important protection for the Sudbury, Assabet and Concord rivers' water quality. In addition to local wetlands protection bylaws, the most significant regulations are those related to septic systems, floodplains, and subdivisions (including cluster development provisions). Some of these regulations and programs are discussed in greater detail under **Land Management**. As identified in the Water Resources Study conducted for the Study Committee, excessive nutrient discharges (particularly of nitrogen-containing compounds) to the rivers represent a significant threat to the protection and enhancement of the rivers' water quality. "Best Management Practices," which can reduce such excessive discharges, are summarized in the DEP "Megamanual" which has been sent to every town in the Commonwealth. All town boards having a role in local land use should familiarize themselves with the practices found in this manual, and should take every opportunity to implement appropriate land management practices. To the extent possible, the RSC should make a particular effort to ensure that adequate technical assistance is provided to the town agencies for this purpose.

While full implementation and enforcement of these mechanisms is most critical in those towns that directly abut the segments, water quality is also dependent upon sensitive land use management in the towns upstream of the segments and along their tributaries. The RSC should encourage these communities to implement and enforce their own land use regulations and programs in a way that will contribute to the protection and restoration of the segments' water quality.

**Land stewardship:** *Landowners, both private and public, will help maintain the segments' water quality through sensitive management of their lands.*

There are many land management techniques that landowners should consider using in order to protect the water quality of the river, its tributaries, and related aquifers. For example, landowners can maintain or re-establish vegetative buffers along the rivers and their tributaries; reduce or eliminate the use of fertilizers and pesticides on golf courses, lawns, and gardens; and leave low stumps and root structures in place if any vegetation is removed along the banks of the rivers or tributaries. Many of these practices are described in the DEP Megamanual on file with local Conservation Commissions. Owners of riparian lands immediately adjacent to and upstream of the segments can fulfill their stewardship responsibility by expanding their knowledge of these and other techniques, and by incorporating them into the management of their lands. The role of landowners is discussed in more detail under **Land Management — Key Actions**.

**Federal regulation of stream alterations:** *For any project that would affect water quality through the discharge of material into the segments or an adjacent wetland, the Army Corps of Engineers will implement its responsibilities under Sec. 404 of the Clean Water Act in a manner consistent with this Plan's water quality standards.*

This responsibility is described under **Channel, Floodplain, and Wetland Protection – Key Actions.**

### ***Supporting Activities***

**Other state regulatory responsibilities:** *The state should ensure consistency with this Plan in its implementation of other laws and regulations that could have a bearing on water quality in the segment.*

Relevant state programs include:

1. DEP's regulation of hazardous waste transportation and the Hazardous Waste Facility Site Safety Council's regulation of storage facilities.
2. The Department of Capital Planning and Operations' authority over the disposition of state-owned lands.
3. DEM's and DEP's responsibility for River Basin Planning and water withdrawal permitting. These planning and permitting programs have impacts on water quality because they affect the amount of flow, and thus the pollutant dilution factor, in the rivers.

In exercising these authorities, DEP, DEM, DCPO, and the Site Safety Council should ensure the full protection of the segments' wildlife habitat, recreation, historic, archeological, and scenic values from any potential adverse effects that could result from activities in the watershed of the segments. The RSC should be notified of, and given the opportunity to comment on, any action under either program that could affect the rivers.

### ***Additional Opportunities***

**Upgrade designated uses:** *Consider upgrading the designation of the Sudbury River to "high quality water" along the entire study segment.*

Below Wash Brook, the Sudbury's designated use is merely "aquatic life." The RSC should compile information on actual water quality conditions and uses (including uses based on the outstandingly remarkable resources that qualify the segment for Wild and Scenic River designation) in support of a request to upgrade the reach from Wash Brook to Egg Rock to "high quality water."

**Water quality monitoring:** *Initiate a volunteer/citizen-based water quality monitoring program.*

A water quality monitoring program conducted by local volunteers can be a cost-effective method for collecting important data on a continuing basis. This type of program also provides an excellent opportunity to increase community awareness of water quality issues, and to stimulate citizen participation in efforts to address difficult problems such as nonpoint source pollution. The Organization for the Assabet River has an ongoing program along the Assabet; this program could be expanded to include measurements of pollutants not currently being monitored and extended to the Sudbury and Concord rivers. The Water Watch Partnership at UMASS Amherst could also provide information and advice about initiating a monitoring program. Such programs can be integrated into the science curriculum in local schools, helping to ensure year-to-year continuity while providing students with a local opportunity for field research. Community service groups and river user groups also can be a good source of volunteers and resources.

Coordination for this type of program on the segments could be provided by the RSC or one or more of its members, including OAR, SVT, and the Commonwealth's Riverways Program. The latter could be actively involved in training local residents to perform shoreline surveys to help them implement the measures identified under **Key Actions**. The DEP should be actively involved in any such effort in order to provide technical expertise and to ensure compatibility with existing water quality monitoring activities.

**Education and outreach:** *Pursue opportunities to educate landowners, developers, and local land use boards about the cause of nonpoint source pollution, its potential impacts on water quality and instream resources, and methods — such as the Best Management Practices described in the Megamanual — for reducing or eliminating it.*

This could be achieved through a variety of techniques, such as informational brochures, local workshops, and articles in local papers. This would be a good opportunity for a cooperative effort involving many of the groups represented on the RSC.

**Demonstration projects:** *Pursue opportunities to demonstrate the use of Best Management Practices and other measures in controlling nonpoint source pollution.*

Federal funding for pilot projects is available through grants from the EPA under Sections 319, 104b, and 604b of the Clean Water Act. Landowners and developers should take advantage of these funding incentives for projects that would require the use of Best Management Practices. The RSC should work through local planning boards and conservation commissions to notify permit applicants about the existence of these grant programs, and work with them to acquire this assistance.

In addition, towns should investigate the feasibility of using "betterments" (a form of targeted, limited duration property taxation) to fund needed upgrades for failing septic systems, leaking underground storage tanks, etc.

**Biological monitoring:** *Conduct additional studies of the segments' aquatic biota to establish baseline biological conditions, and initiate a long-term biological monitoring program to build on knowledge generated by the Water Resources Study.*

Some baseline information on the rivers' existing biological condition was collected during the course of the Wild and Scenic study under the Water Resources Study. Additional information, including data on macroinvertebrates (e.g. river-bottom insect larvae which serve as pollution indicators), would be useful in order to monitor the rivers' long-term health. Such a long-term monitoring program could provide important indications of change within the system, such as incremental water quality degradation from nonpoint source pollution. While DEP should play the lead role in any such efforts, it may be possible to incorporate long-term biological monitoring into the volunteer-based water quality monitoring program described above.

**Control of road runoff:** *Pursue opportunities for reducing potential pollution impacts resulting from various forms of road runoff.*

The towns and the Commonwealth maintain roads along the segments. Both should review their procedures for road maintenance to identify opportunities for reducing impacts on water quality. Maintenance activities that may be relevant include resurfacing, winter sanding and salting, the use of riverfront areas for snow disposal, and cleaning of storm drains. Also, road crews should be made aware of the significance of the river. This could be achieved by posting signs at bridge crossings or other appropriate locations, as is done for public water supply watersheds elsewhere in the state.

## **WILD AND SCENIC RIVER PROVISIONS**

In accordance with the Wild and Scenic Rivers Act, designated segments must be managed so as to comply with the water quality requirements of the federal Clean Water Act. That statute and accompanying regulations set the standard for approval of federal projects and permits that could have a direct and adverse effect on the rivers' outstanding resources by degrading water quality. The following provisions and procedures will ensure compliance with Wild and Scenic and Clean Water Act requirements:

- *In consultation with the RSC, the NPS will review federal permit and grant applications that require approval under the Clean Water Act. This review will be limited to projects that would discharge directly into the segments or their tributaries (including areas upstream of the segments), and will be based upon an evaluation of the project relative to the River Conservation Plan's objectives and standards. No project that would have a direct and adverse effect on the segments' outstanding wildlife habitat, recreation, or aesthetic values will be allowed. NPS review will be conducted in direct consultation with the DEP and, where appropriate, the EPA.*

In order to fulfill this responsibility, the NPS will be notified of relevant permit and grant applications by DEP and EPA. The NPS will not require notification of individual registrations for stormwater and other general permits. However, the NPS will be notified of, and given the opportunity to review, any proposed changes to the criteria and standards for general permits.

- The DEP will notify the NPS of any proposed revisions to Massachusetts' water quality standards or any proposed projects requiring state certification under Sec. 401 of the Clean Water Act that are applicable to the segments. In either case, the NPS will be given the opportunity to comment.
- The RSC will be notified of, and given the opportunity to comment on, any of the following on or directly affecting the segments: 1) point source discharge permit applications under Sec. 402 of the Clean Water Act; 2) proposed projects requiring state certification under Sec. 401 of the Clean Water Act; and 3) proposed revisions to Massachusetts' water quality standards.
- The Army Corps of Engineers will notify the NPS of any applications for individual permits under Sec. 404 of the Clean Water Act that would affect the segments. The Corps and the NPS will develop a coordination/screening procedure for projects located near but not directly on the segments which would otherwise be authorized through the use of Programmatic General Permits.
- The RSC will periodically review the status of projects associated with the above permits and will summarize this information in its periodic updates to this Plan. By studying the outcome of such projects, the RSC and NPS will improve their effectiveness in the federal permit consultation process.

## **WATER QUANTITY**

### **OBJECTIVE:**

Protect the natural seasonal flows necessary to maintain the segments' existing water quality and to sustain their flow-dependent outstanding resources (wildlife habitat, recreation and scenery) while, to the extent possible without creating a direct and adverse effect on these resources, meeting compatible waste assimilation and water supply needs.

### **STANDARDS:**

**Existing flows:** Flows within the Sudbury, Assabet and Concord rivers are influenced both by variations in precipitation and by human activities. The SuAsCo Water Resources Study<sup>4</sup> and accompanying hydrologic flow model provide the best information currently available about the relationship between the rivers' flows and their outstanding resources, and about the potential impacts of both natural and human-induced flow reductions. Examples of the latter include consumptive withdrawals of water (e.g. water pumped from wells within the basin and transferred through sewers to locations outside of the basin, or irrigation water lost to evaporation) and changes in land use that reduce the amount of natural storage of water in groundwater and wetlands. These human activities result in increased peak flows during the spring thaw and immediately following heavy rains, and reduced flows during dry spells. To the extent that human activities can be modified to protect the rivers' long-term health, this plan establishes the following standards:

**Wildlife habitat:** The areal extent and diversity of river-related wildlife habitat that existed under the baseline conditions reported in the 1994 Water Resources Study will be protected. In order to achieve this standard, the following specific conditions must be met:

**Flow levels:** Water levels sufficient to maintain the existing diverse wetland vegetation that provides breeding, feeding, and cover habitat for both resident native and migratory wildlife will be protected; along with flows necessary to ensure compliance with water quality standards and to protect the health of bottom-dwelling and instream fauna.

**Flushing flows:** To maintain habitat viability and streambed quality, naturally-occurring high seasonal flows adequate to maintain these features will be protected. Because the 1994 Water Resources Study did not address flushing flows, this aspect of the rivers' hydrology will be studied in detail before new withdrawals that would affect flushing flows (particularly "flood skimming" proposals) are pursued.

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<sup>4</sup> This study, which was conducted at the request of the Study Committee, is an important supplement to this River Conservation Plan. For further description, refer to **Key Actions – Use of the Water Resources Study** in the next section.

**Recreational resources:** The opportunities currently available for high quality recreation on the rivers will be maintained. In order to achieve this standard, the following specific conditions must be met:

Frequency of opportunity: The existing seasonal pattern of flows in the rivers (as observed during the Water Resources Study), which provides a variety of recreational experiences, will be protected from human-induced changes that would diminish either the frequency or variety of these experiences. Included are spring high water levels that allow access by canoe to the rivers' wide floodplain; flows that create whitewater conditions on the Assabet River; and water levels sufficient to maintain the rivers' navigability for both motorized and non-motorized boats.

Quality of opportunity: Flow alterations that would significantly impair the rivers' scenic values by reducing natural water levels or by creating offensive water quality conditions will not be permitted. Flow alterations that would damage populations of game fish are likewise not allowed.

**Water quality:** Flows sufficient to enable the segments to comply with Massachusetts' water quality standards will be protected.

**Emergency uses:** In a declared water supply emergency, public health and welfare will be given priority over instream needs. That is, the above water quantity standards would be suspended, if necessary, for the duration of the declared emergency.

## **ACTION PROGRAM:**

### ***Key Actions***

**Flow management:** *The MDC/MWRA will continue to manage the reservoirs upstream of the Sudbury River segment in accordance with existing policies and the state minimum release law. Any changes in flow management that would alter flows or water levels within the segments must conform to the water quantity and quality standards described above.*

Under present conditions, flow management along the Sudbury and Concord rivers is specifically subject to Chapter 194 of the Acts of 1988, "An Act Relative to the Sudbury River," which requires that "reasonable instream flow" be maintained below the MDC/MWRA Sudbury Reservoir system. If any changes to this requirement are proposed, certain issues would need to be addressed to ensure conformance with the water quantity standards. The RSC will take an active role in efforts to resolve these and other flow-related issues.

**Water supply planning:** *Potential needs for additional water supply withdrawals from the Sudbury, Assabet and Concord rivers will be determined through the state's river basin planning process.*

In 1979, Massachusetts established a long-range, statewide river basin planning process when it promulgated the Water Resources Management Planning regulations (313 CMR 2.00). Recognizing that water supply planning is a dynamic process, the regulations require the review and revision of river basin plans on a regular basis.

With respect to the Sudbury, Assabet and Concord rivers, the current basin plan, entitled "Inventory and Analysis of Current and Projected Water Use" dated June 1989, will be updated effective June 1995. Further revisions to this basin plan should reflect both the knowledge gained from the Water Resources Study and the water quality and quantity standards of this River Conservation Plan.

In addition, the Massachusetts Water Resources Authority has prepared several planning documents during the past decade that address the potential need for withdrawals from the Sudbury River, through reactivation of Sudbury Reservoir and/or withdrawals from other sub-basins. These documents have been subject to review and comment by state agencies and the public, including reviews conducted in accordance with the Massachusetts Environmental Policy Act (M.G.L. Chapter 30 §§ 61-62H). Based on these various water supply plans, Sudbury Reservoir (along with Framingham Reservoir #3) remains the only approved source of emergency water supply for the MWRA system, which serves about 2 million people in the Boston Metropolitan area, including residents of the SuAsCo basin communities of Framingham, Bedford, Marlborough, Northborough and Southborough. Withdrawals from the reservoirs upstream of the Sudbury River segment may be made only after declaration of a water supply emergency by the Massachusetts DEP. None of the documents identify a current or definite future need for consumptive withdrawals from the river by the MWRA.

Future revisions to these documents should reflect both the knowledge gained from the Water Resources Study and the water quantity and quality standards of this River Conservation Plan.

**Water conservation:** *Pursue water conservation opportunities to reduce reliance on the Sudbury, Assabet and Concord rivers' surface and groundwater sources for present and future water supply.*

There are two primary areas on which attention should be focused:

1. Supporting water use efficiency planning as the most important element of DEM and MWRA river basin and long-range water supply plans.
2. Promoting water conservation and water use efficiency in study area towns.

Considerable energy and resources have been expended in both of these areas for many years — the MWRA has pursued both supply management and demand management throughout its system, and the Massachusetts Water Resources Commission has emphasized educational programs on water conservation throughout the Sudbury, Assabet and Concord rivers basin.

While these programs have been very successful, additional "grassroots" citizen and targeted industrial/institutional educational efforts could increase awareness of this important issue.

Implementation of recent state and federal water conservation mandates will help to achieve further reductions in demand. At the state level, the Water Management and Interbasin Transfer acts, along with MWRA member community water pricing regulations, have established a clear policy direction concerning the important role of water conservation in water management. In 1992, the Water Resources Commission formally adopted Water Conservation Standards to be used in water supply planning. Massachusetts also led the nation by revising its state plumbing code to require the use of low flow fixtures for all installations since 1989. At the federal level, the National Energy Policy Act (P.L. 102-486; Oct. 24, 1992) established new national plumbing efficiency standards.

**Use of the Water Resources Study:** *The Water Resources Study, along with this River Conservation Plan, will be used as a primary source of information in water management and planning.*

The Water Resources Study provides important information regarding the flows necessary to enhance and maintain water-dependent resources as well as the potential for compatibility between resource protection and additional water supply withdrawals.<sup>5</sup> The MWRA, DEM, DEP, and the Massachusetts Water Resources Commission should incorporate this information into any planning, management, or regulatory activities that involve water quantity issues within the segments.

Users of this information should keep in mind that the Water Resources Study is not an evaluation of specific withdrawal or diversion proposals, nor does it define specific management regimes for the Sudbury, Assabet and Concord rivers. Rather, it incorporates hypothetical levels of withdrawals and diversions, along with multi-year droughts, into an analysis of resulting river elevations. As with any scientific analysis, the study is based on a number of important assumptions, and these assumptions have related limitations that should be considered in any future management decisions.

Given those considerations, the Water Resources Study indicates that some additional use of Sudbury, Assabet and Concord river water for water supply could be compatible with protection of the river's instream resources and, therefore, with Wild and Scenic river designation. Based upon the assumptions utilized in the Water Resources Study, during dry years there appears to be sufficient water to provide for "likely" future in-basin water demand through the year 2010. Under severe drought conditions and higher levels of demand, the study suggested that a significant amount of river-dependent wildlife habitat and diversity could be lost due to reduced flow levels. This result points to the need for aggressive water conservation measures within the rivers' watershed, especially during drier-than-normal years.

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<sup>5</sup> This information is contained in the final report of the Water Resources Study and the "Summary: Sudbury, Assabet and Concord Rivers Water Resources Study" contained in Appendix B.

**State regulation of water diversions:** *Any new withdrawal, increase in existing withdrawal, or diversion of 100,000 gallons per day or more from the rivers will require approval from the DEP under the Massachusetts Water Management Act (Chapter 592, Acts of 1985 and 310 CMR 36.00). The transfer of water out of the Concord River basin, through either water transmission or sewer lines, is regulated under the Interbasin Transfer Act (Ch. 658, Acts 1983 and 313 CMR 4.00).*

The Water Management Act is intended to protect the state's water resources and to ensure that a basin's safe yield is maintained. Decisions under this law reflect the needs for public water supply, water quality, waste assimilation, flood management, water-based recreation, wildlife habitat, agriculture, and fish and wildlife.

The law requires a permit from the DEP for any new or increased withdrawal of surface or ground water greater than 100,000 gallons per day. In addition to evaluating the factors listed above, DEP considers whether the applicant has adequately addressed the following: thorough exploration of alternatives, including conservation; implementation of conservation measures; and initiation of public information programs on conservation techniques.

The Interbasin Transfer Act was established to encourage the maintenance of adequate flows within a given basin by requiring the implementation of conservation measures and use of alternative in-basin sources of supply before interbasin transfers are permitted. This law also requires that reasonable instream flows in the donor basin be maintained.

If new withdrawals that would affect the Sudbury, Assabet and Concord rivers are proposed, applicants will need to prepare and submit a plan that demonstrates the extent to which improvements in water use efficiency could be used to supply the needed water, and how the river's resources would be protected, as described above and in the Water Resources Study.

**State water quality certification:** *The DEP will continue to implement the water quality certification requirements of Sec. 401 of the Clean Water Act for any discharge into the segment requiring a permit from the Army Corps of Engineers and that could affect water quantity in the segment.*

This responsibility is described in the discussion of DEP's implementation of state and federal water pollution control statutes under **Water Quality — Key Actions**.

**Federal regulation of stream alterations:** *The Army Corps of Engineers will implement the permitting requirements of Sec. 404 of the Clean Water Act for any project affecting water quantity that would discharge dredged or fill material into the segment or an adjacent wetland.*

This responsibility is described under **Channel, Floodplain, and Wetland Protection — Key Actions**.

**State regulation of water supply emergencies:** *The DEP will maintain authority to declare a water supply emergency if conditions arise that necessitate such action.*

In 1989 the Massachusetts DEP promulgated a Drought Response Plan for the MWRA system. Under emergency conditions, including severe drought, transmission system failure, or supply contamination conditions, this plan requires use of water from Sudbury Reservoir and Framingham Reservoir # 3 to help supply the MWRA service area. In the case of a drought, the DEP administrative order requires the mixing of Sudbury River water with existing supplies during high spring runoff periods, once water levels at Quabbin drop to 50% of maximum.

DEP will notify the RSC if these drought emergency requirements are ever implemented.

### ***Supporting Activities***

**Other state authorities:** *The state should ensure consistency with this River Conservation Plan in its implementation of other laws, policies and regulations that could have a bearing on water quantity in the segment.*

### ***Additional Opportunities***

**Study of flushing flows:** *Conduct a study to identify the "flushing flows" needed to maintain the rivers' ecological integrity.*

Because of time and budget limitations, consideration of the rivers' flushing flow needs was not included in the Water Resources Study. A detailed empirical study would be desirable. If such a study is pursued, the RSC should participate in developing the scope of work and reviewing the results.

**Implementation of local water use efficiency plans:** *DEP will continue to monitor the implementation of local water conservation plans every five years.* The RSC will work with the towns, DEP, and DEM to ensure that appropriate water conservation measures are identified in the local water conservation plans registered water users must file with the state, and will assist the DEP in monitoring the implementation status of these plans. The RSC will also help local registered users develop and distribute educational materials that promote the use of voluntary conservation measures (e.g. reduced lawn and garden watering) during pre-drought conditions.

**Reservoir management:** *The MDC/MWRA should evaluate its reservoir and dam operations to ensure that periods of drawdown and refilling do not create adverse impacts on downstream water quality, wildlife habitat, or recreation, particularly during low-flow periods.*

## **WILD AND SCENIC RIVER PROVISIONS**

- Community water and sewer departments within the SuAsCo basin should notify the RSC when they are preparing any relevant withdrawal permit application. This will enable the RSC to work with the community during the state permit review process.
- In consultation with the RSC, NPS will review any proposed project involving flow alteration and requiring federal assistance through permits, licenses, funding, or other action and that would be on or directly affecting the segments. This would apply to projects upstream or on tributaries, as well as those on the segments themselves. Such review will be based upon an evaluation of the project relative to the Plan's objectives and standards. No project that would have a direct and adverse effect on the segments' free-flowing character, water quality, or on their outstanding wildlife habitat, recreation, scenery, or historic and literary values, will be allowed.
- The DEP/WRC/DEM will notify the NPS and the RSC of any relevant withdrawal permit applications. Notification will also be provided of other proposals that could affect the segments' free-flowing character or water quantity and that require state certification under Sec. 401 of the Clean Water Act.
- The Army Corps of Engineers will notify the NPS of any applications for individual permits under Sec. 404 of the Clean Water Act that would affect the segments. The Corps and the NPS will develop a coordination/screening procedure for projects which are authorized under programmatic general permits.

## **CHANNEL, FLOODPLAIN, AND WETLAND PROTECTION**

### **OBJECTIVE:**

Maintain or enhance the natural condition of the river system, including its free-flowing character; the integrity of the stream channel, banks and floodplain; and the ecological functions of adjacent wetlands.

### **STANDARDS:**

**Dams:** In order to maintain the segments' free-flowing character, no new dams, nor modifications to existing dams that would impair this character, will be allowed.

**Wetlands:** Alterations to riparian wetlands, including vegetative cutting, that adversely affect wildlife habitat, erosion control, recreation, or aesthetics, will only be permitted to the extent that they are allowed under applicable federal, state and local laws.

**Other alterations:** No other new man-made alterations to the rivers' channel or banks that would degrade their natural appearance and function will be allowed, unless such alterations are clearly in the interest of public health, safety, and welfare and no feasible and prudent alternative exists.

Improvements for recreational access, wildlife habitat enhancement, or wetlands restoration will not be precluded. However, the need for any such improvement should be clearly established, and its design and construction must minimize adverse impacts on the integrity and function of the river's channel, banks, floodplain, and adjacent wetlands.

### **ACTION PROGRAM:**

#### ***Key Actions***

**Federal regulation of stream alterations:** *The Army Corps of Engineers will implement Sec. 404 of the Clean Water Act, which requires federal approval for any project that would discharge dredged or fill material into a river or wetland; and Sections 9 and 10 of the Rivers and Harbors Act of 1899, which regulates the placement of new structures in navigable waters.*

Regulations governing the Army Corps of Engineers' Nationwide Permit Program (Federal Register, November 22, 1991) require individual rather than nationwide or general permits for all proposed projects covered by Section 404 of the Clean Water Act that are "in a component of the National Wild and Scenic Rivers System." In accordance with these regulations and the Wild and

Scenic Rivers Act, the Corps will, in its review of the individual permit applications that will be required along the segments, specifically consider comments from the NPS regarding consistency of the proposed projects with the standards set forth in this Plan. Such NPS comments will be developed through consultation with the RSC, and will thus include input from Conservation Commissions and other local experts.

However, it would not be appropriate for the NPS or the RSC to take an active role in all Section 404 permitting actions in the entire Concord River basin. The Corps and the NPS will work cooperatively to develop a coordination/screening procedure, including a procedure for requiring individual rather than nationwide or general permits, for projects that are outside the segments but that could adversely affect them.<sup>6</sup>

**State water quality certification:** *The DEP will continue to implement the water quality certification requirements of Sec. 401 of the Clean Water Act for any project affecting the segments' channel, banks, or adjacent wetlands that requires a Clean Water Act discharge permit.*

This responsibility is described in the discussion of DEP's implementation of state and federal water pollution control statutes under **Water Quality — Key Actions**.

**State Wetlands Protection Act:** *The riverfront towns and DEP will implement and enforce the provisions of the Massachusetts Wetlands Protection Act.*

This law serves to protect the public interest in many of the natural functions that wetlands, water bodies and floodplains provide, including flood storage, storm damage protection, wildlife habitat, prevention of pollution, and fisheries protection. Such functions are preserved and promoted by limiting the human alteration of wetlands resource areas, including water bodies, banks, bordering vegetated wetlands, the 100-year floodplain, and vernal pools; and of lands immediately adjacent to these resource areas. In implementing this statute, the towns and DEP should make a particular effort to protect the outstanding river-related resources (e.g. wildlife habitat) that qualify the rivers for Wild and Scenic designation, keeping in mind that activities along tributaries may have an impact on resources downstream.

**Local land use regulation:** *The riverfront towns will implement and enforce existing land use regulations that protect the rivers' channel, banks, floodplain, and adjacent wetlands.*

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<sup>6</sup> Nationwide or general permits are only applicable for certain previously identified Sec. 404 projects involving limited amounts of filling or dredging. Larger projects, such as might result in impacts on flows, scenery or water quality within the segments even if the project is located far upstream or downstream of the segments, always require individual permits. Thus it should be possible to develop a geographic cutoff for the individual review of those projects located outside the segments that would otherwise be authorized under a nationwide or general permit, based on the proximity of these smaller projects to the resources of concern.

The natural appearance and function of the rivers' channel, banks, floodplain, and adjacent wetlands receive strong protection through several local land use regulations. The most important include local wetlands protection bylaws and local floodplain zoning. These existing local bylaws have been found to provide adequate protection for the segments and their related land-based resources, making the rivers suitable for Wild and Scenic designation. The local laws and regulations are discussed in greater detail under **Land Management**.

In implementing state and local wetlands protection laws, the riverfront towns will take actions to minimize the impacts of any unavoidable alterations on wildlife habitat, water quality, and, where appropriate, aesthetics and recreation. Such actions could include the use of best management construction practices and designs based on "soft" or green engineering approaches. To prevent further resource degradation, any new bridge abutments or other physical structures should be designed to minimize physical and aesthetic impacts and/or be located as far back from the river's banks as possible. Any necessary bank stabilization should be designed in a way that will maintain the natural character of the shoreline and, wherever possible, should be achieved using natural vegetation.

### ***Supporting Activities***

**Other state regulatory responsibilities:** *The state should ensure consistency with the provisions of this River Conservation Plan in its implementation of other laws, regulations and programs that relate to the protection of the rivers' channel, banks, floodplain, and adjacent wetlands.*

Massachusetts has several other programs and policies that potentially have a bearing on the physical character of the rivers. They include the following:

- Executive Order 149, which requires all state agencies, under the leadership and direction of the Water Resources Commission, to avoid the use of floodplains to the extent possible in constructing structures, roads, and other facilities.
- The state building code (780 CMR 2102), which regulates the design and construction of any structure within the floodplain through the local Building Inspector, or, for state-owned structures, through the State Building Inspector.
- The Massachusetts Environmental Policy Act (MEPA), which requires the pre-construction review of projects (including state-sponsored projects) that exceed certain thresholds with respect to wetland alteration.
- Dams and Reservoir Safety (M.G.L. Ch. 253, §§ 44-50), which authorizes the DEM to regulate the construction, repair, or alteration of dams, reservoirs, and similar structures.

The RSC should be notified of, and given the opportunity to comment on, any actions other than those of an emergency nature under these programs that could affect the rivers. In particular, the Massachusetts Highway Department should consult with the RSC early in the process of designing new or improved bridges and roads that could affect the segments' channel, floodplain, or wetlands. While state highway projects are exempt from regulation under state and local wetlands regulations, the federal funding or Sec. 404 permits that are usually associated with these projects will trigger NPS and RSC review under Section 7 of the Wild and Scenic Rivers Act. In the interest of efficiency, state highway engineers and planners are urged to consult with the RSC to ensure that all measures to avoid direct and adverse impacts on the segments' outstanding resources have been taken before proceeding with the final design of such projects.

### ***Additional Opportunities***

**Floodplain protection:** *Those riverfront towns that have not yet strengthened their local floodplain zoning to require more than minimal National Flood Insurance Program requirements should consider adopting stronger measures.*

Although all of the riverfront towns have floodplain zoning bylaws which comply with minimum flood insurance standards, several towns' bylaws are much stronger, virtually prohibiting new building or paving in the floodplain. The NFIP merely requires communities that wish to make their residents eligible for federally-subsidized flood insurance to require in turn that new construction within the floodplain is designed with all habitable areas above the 100-year flood level, and that associated utilities are "floodproofed." This can cause incremental increases in the extent of the 100-year floodplain, further increasing the likelihood of eventual catastrophic property losses. It also results in the loss of floodplain-related resources such as wildlife habitat and scenic values. Using information compiled during the Wild and Scenic study, the RSC should work with town governments to encourage the enactment of stronger floodplain zoning bylaws,<sup>7</sup> where necessary.

## **WILD AND SCENIC RIVER PROVISIONS**

- In consultation with the RSC, NPS will review any proposed channel, bank, or wetland alteration that requires a federal permit, license, certification, or funding and that would directly affect the designated segments. This review will be based upon an evaluation of the project relative to the River Conservation Plan's objectives and standards. No project that would have a direct and adverse effect on the segments' free-flowing condition or its outstanding wildlife habitat, recreation, scenery, or historic and literary values will be allowed.

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<sup>7</sup> such as those in place in Carlisle, Sudbury and Wayland which virtually eliminate new construction, and, in the case of Carlisle, new paving within the 100-year floodplain.

- In accordance with the Wild and Scenic Rivers Act, no federal permits or licenses will be issued, nor federal funds spent, on new dams or modifications to existing dams that would destroy the free-flowing character of the river segments. The NPS and RSC will review any such proposed dams or modifications to existing dams in consultation with the appropriate federal agency in making this determination.
- No hydroelectric projects within or directly affecting resources within the segments will be allowed.
- The DEP will notify the NPS and the RSC of, and give each the opportunity to comment on, any proposed project requiring state certification under Sec. 401 of the Clean Water Act.
- The Army Corps of Engineers will notify the NPS of all applications for an individual permit under Sec. 404 of the Clean Water Act that would affect the segments. The Corps and NPS will develop a screening procedure that would require individual filings for projects outside the designated segments which would otherwise be authorized under nationwide or general permits, in order to ensure that no project that could have an impact on the segments' outstanding resources or free-flowing character fails to receive individual scrutiny by the NPS and RSC.

## **PROTECTION OF OUTSTANDING RESOURCES**

This section of the Plan addresses the protection of the five outstanding resources (recreation, scenery, ecology, historical and archaeological resources, and literary values) that were found to make the river study segments eligible for Wild and Scenic designation. The primary geographic focus is on protecting these resources within the segments and adjacent lands. However, the Plan's action program also addresses activities outside the segments that could have a direct and adverse impact on outstanding resources within the segments

### **RECREATIONAL RESOURCES**

#### **OBJECTIVE:**

Protect and enhance the Sudbury, Assabet and Concord rivers' outstanding recreational resources, as described in the Resource Assessment and Eligibility Report, the public Issues Identification Forums held during the study, and the Water Resources Study.

#### **STANDARDS:**

**Recreational opportunities:** Existing recreational opportunities will be maintained and enhanced. New forms of recreation, or the significant expansion of existing uses, will be encouraged only to the extent that this will not adversely affect existing recreation.

**Impacts on land and water resources:** All recreational activities and facilities will be managed in a way that will prevent degradation of the rivers' land and water resources, including their outstanding scenic, ecological, historical, and archaeological resources.

**Access:** Public lands will continue to be relied upon to provide access to the river. Any access through private lands will be at the discretion of the landowner.

#### **ACTION PROGRAM:**

##### ***Key Actions***

**Monitoring recreational use and promoting issue resolution:** *The RSC will take the lead in monitoring river recreation, identifying persistent issues associated with recreational use, and promoting the cooperative resolution of those issues. This may include developing a comprehensive recreation management plan.*

During the course of the Wild and Scenic River Study, members of the public identified a number of existing issues that warrant attention, including:

- concerns expressed by owners of riparian lands (e.g. trespass, noise, vandalism, and lack of respect for their privacy)
- conflicts posed by competing or incompatible recreational uses
- noise and high wakes associated with speeding power boats and the illegal operation of jet skis
- parking and traffic problems
- litter problems on both private and public lands
- the health, safety, and welfare of river users
- the potential intensification of these and other issues if recreational use increases in the future.

The Resource Assessment and Eligibility Report, Study Committee meeting minutes, Issues Identification Forums, and Water Resources Study provide detailed information about existing recreational conditions along the segments, and the preferences of area residents and other users for the various forms of recreation provided by the rivers. In working to address these and other recreation issues, the RSC should build on the information collected during the study. Issue resolution may be promoted through the development of a comprehensive recreation management plan for the segment. Such a plan should be developed in cooperation with all interests that have a stake in recreational use of the river corridor.

**Regulation of water-borne recreation:** *The Massachusetts DFWELE and the towns will continue to regulate boating along the segments in accordance with their existing authorities. The U.S. Fish and Wildlife Service will continue to develop and implement water-borne recreation policies that are consistent with the refuge's primary wildlife protection mandate for those portions of the rivers that are subject to its jurisdiction.*

The Wild and Scenic study identified lack of awareness and enforcement of state and local boating regulations, including speed limits, as one of the principal causes of recreational conflicts on the rivers. To help remedy this, the towns and DFWELE should:

1. Coordinate efforts to publicize boating regulations, including existing local speed limits, and safe boating practices at major access points, marinas, etc.
2. Coordinate public outreach efforts in cooperation with user groups such as boating and fishing clubs.
3. Consider establishing a cooperatively-funded enforcement officer position to provide badly-needed boating safety patrol capability along the segments.
4. Consider whether to amend the state boating regulations to reduce speed limits within certain portions of the segments where the statewide 40 mph limit may result in adverse impacts on public safety or river resources.

**Recreational management on public lands:** *The U.S. Fish and Wildlife Service and National Park Service will continue to manage recreation within Great Meadows National Wildlife Refuge and Minute Man National Historical Park respectively. The riverfront towns will continue to manage recreation on their lands along the segment. Land managers should review current policies and practices relating to recreation management for consistency with the objective and standards stated above, and revise them if necessary.*

The extensive access from public lands, and the variety of recreational opportunities along the segments make the Sudbury, Assabet and Concord rivers one of the region's most important recreational resources. Any major revision to existing recreation management policies and practices for public lands along the segments should be made in consultation with the RSC.

**Private organization initiatives:** *River advocacy and recreation user groups will continue to play an important role in recreation management.*

The Sudbury, Assabet and Concord rivers' principal river advocacy and recreation user groups (including SVT; OAR; the Sudbury, Assabet and Concord Watershed Association; the Framingham Advocates for the Sudbury River; Concord Rod and Gun Club; and the Boston Chapter of the Appalachian Mountain Club) have dealt with recreational issues on the river for many years. Their continued cooperation in working with the RSC, riverfront towns, commercial boating facilities, and public agencies will be vital for effective recreation management in the future. These groups should focus attention on three primary activities:

1. Educating users about the rivers and about the potential environmental and social effects of various recreational activities.
2. Participating in efforts to resolve recreational conflicts and to balance competing uses.
3. Assisting in cooperative projects such as the development of appropriate access sites and river cleanups.

### ***Supporting Activities***

**Local land use regulations and practices affecting recreation:** *The riverfront towns will help to protect the rivers' outstanding recreation by enforcing existing land use requirements along the segments, and by maintaining existing recreational access points on town-owned lands.*

Town-enforced land use regulations, including floodplain zoning, state and local wetlands protection laws, and, in some towns, the enforcement of conservation restrictions held by the town, serve to protect the rivers' recreational values by protecting the fish and wildlife habitat and scenery valued by recreational users.

**Support for recreational access provided by commercial canoe liveries and marinas:** *The existing canoe livery and marina located along the segments are recognized as enhancing public access to the rivers through the provision of boat rental and storage facilities.*

In the absence of the existing commercial boating facilities along the rivers, enjoyment of the Sudbury, Assabet and Concord's outstanding recreational opportunities might be restricted to the relatively few private boat owners in the area. In accordance with the standards articulated above, commercial boating facilities are encouraged to continue to provide services to all potential members of the boating public, and through the provision of such services, to enhance public understanding and appreciation for the rivers' diverse resources.

### ***Additional Opportunities***

**Acquisition of additional access points by towns:** *The riverfront towns should seek out opportunities to acquire additional public access points along the segments through easements, municipal ownership, or transfer of use.*

Opportunities may exist for the towns to acquire appropriate recreational access points along the rivers (including lands that provide fishing, picnicking, or hiking access) through the acquisition of easements, intramunicipal transfers of use, and municipal ownership of abandoned roads, tax title lands, etc. Working through appropriate town boards such as Conservation Commissions and Recreation Departments, the towns should identify local access needs through the development of Open Space and Recreation Plans, and work cooperatively with willing private landowners and state agencies to implement the plans.

### **WILD AND SCENIC RIVER PROVISIONS**

No additional requirements related to the management of recreational resources will result from Wild and Scenic River designation. The National Park Service and U.S. Fish and Wildlife Service will not expand the regulation of recreational uses or require permits for commercial recreational activities outside the areas where this authority already exists, i.e. within Minute Man National Historical Park and Great Meadows National Wildlife Refuge.

## **ECOLOGICAL RESOURCES**

### **OBJECTIVE:**

Protect and enhance the Sudbury, Assabet and Concord rivers' outstanding ecological resources.

### **STANDARDS:**

**Fish and wildlife habitat:** The quantity, quality, and diversity of river-dependent fish and wildlife habitat, as documented by the Resource Assessment and Eligibility Report and the Water Resources Study, will be maintained and enhanced.

**Sensitive species:** Populations of sensitive species, including state-listed river-dependent rare and endangered species, will be protected and enhanced.

### **ACTION PROGRAM:**

#### ***Key Actions***

**Wildlife management:** *The U.S. Fish and Wildlife Service, Massachusetts DFWELE-DFW, town boards, and private conservation organizations will retain responsibility for management of fish and wildlife (including vegetation) within the areas that are under their respective jurisdictions.*

The U.S. Fish and Wildlife Service enhances and maintains fish and wildlife habitat within Great Meadows National Wildlife Refuge by maintaining existing dikes and water control structures, and, as necessary, constructing additional water control devices as part of its wetland restoration program. Water levels are manipulated within GMNWR impoundments for purposes such as but not limited to wildlife habitat improvement and nuisance exotic plant control. Other primary programs include managing muskrat populations at high levels to create vegetative eat-out openings in the floodplain marshes. These openings off the main river channel afford wading birds, waterfowl and shorebirds with feeding and loafing areas away from human disturbance created by motorboats, canoes and kayaks. Great Meadows' artificial wood duck nesting box program will continue to be expanded. Waterfowl hunting will remain closed until land acquisition within the refuge progresses to the extent that a refuge-operated, public waterfowl hunting program can be offered.

Any major changes to the U.S. Fish and Wildlife Service's existing management practices that are specific to the Sudbury, Assabet and Concord rivers will be consistent with the standards of this Plan, and will be made in consultation with the RSC.

The DFWELE Division of Fish and Wildlife's major fish and wildlife management activities

include: 1) habitat management and protection, 2) the regulation of fishing and hunting activities, 3) research, 4) environmental review, and 5) the stocking of fish.

Any major changes to the Division of Fish and Wildlife's existing management practices that are specific to the Sudbury, Assabet and Concord rivers should be consistent with the standards of this Plan, and should be made in consultation with the RSC.

### ***Supporting Activities***

**Initiatives for habitat protection and enhancement:** *The RSC should promote projects that support the restoration, protection and/or enhancement of aquatic wildlife habitat.*

Particular emphasis should be given to projects along the rivers and tributaries that would protect habitat diversity, enhance habitat for rare and endangered species, promote anadromous fish restoration, restore habitats having high wildlife value (such as deep marsh wetlands), retard the accelerated conversion of wetlands into dry land, and decrease the prevalence of low-value, invasive vegetation such as purple loosestrife and *Phragmites*.

Good examples of existing and potential projects include the following:

- The placement of Osprey nesting platforms along the Sudbury River by Lincoln's Conservation Commission.
- GMNWR's water chestnut eradication campaign.
- The RSC's potential efforts to work with private landowners to develop voluntary land management practices to protect rare, endangered and threatened species' habitat and other habitat critical to aquatic and riparian wildlife.

### ***Additional Opportunities***

**Inventory of sensitive species:** *Update the existing inventory of sensitive plant and animal species associated with the Sudbury, Assabet and Concord rivers.*

This effort could be pursued cooperatively by the RSC, the DFWELE Natural Heritage and Endangered Species Program, the U.S. Fish and Wildlife Service, educational institutions, local conservation commissions, and other appropriate organizations.

## **WILD AND SCENIC RIVER PROVISIONS**

There will be no additional requirements for the management of fisheries and wildlife habitat, and there will be no National Park Service role in such management, as a result of Wild and Scenic River designation.

## **HISTORIC, ARCHAEOLOGICAL AND LITERARY RESOURCES**

### **OBJECTIVE:**

Protect and enhance the outstanding historic, archaeological and literary resources associated with the Sudbury, Assabet and Concord rivers.

### **STANDARDS:**

**Historic sites:** The integrity of sites associated with the segments and listed on the National Register of Historic Places or Massachusetts's State Register of Historic Places will be maintained.

**Archeological sites:** The integrity of sites that are important in understanding and interpreting the activities of Native American and prehistoric cultures in the Sudbury, Assabet and Concord river corridor will be maintained.

**Literary heritage:** The integrity of sites associated with the rivers' literary heritage will be maintained, and opportunities will be sought to enhance the interpretation of this heritage for the public.

### **ACTION PROGRAM:**

#### ***Key Actions***

**Historic preservation laws:** *The Massachusetts Historical Commission, the National Park Service, and the Advisory Council on Historic Preservation will continue to exercise their respective authorities to protect historic sites under M.G.L. Chapter 9 §§ 26-82 and the National Historic Preservation Act (P.L. 89-665).*

Section 106 of the National Historic Preservation Act requires that a review be conducted before any federal action is taken that might affect a site listed on the National Register. Federal actions that trigger this review include construction, licensing and permitting, government loans, and similar activities. The purpose of the review is to determine if the site would be adversely affected and, if so, to identify ways to avoid or mitigate the adverse effect. The Act does not grant authority to stop a project in order to preserve a site; rather, it mandates that historic resources be "taken into account." States typically take the lead in evaluating the potential impacts of proposed projects on listed sites. The NPS provides technical assistance as needed, and retains the option of conducting its own review, as does the Advisory Council on Historic Preservation.

Several sites in the area have been recognized for their river-related historic significance. Structures on the National Register include the Four-arched Bridge over the Sudbury River and Barrett's Farm in Concord. In addition, the entirety of Minute Man National Historical Park in Concord is listed on the Register. Additional structures along the segments are listed on the State Register of Historic Places or have been included in local historic districts.

Existing authorities will be sufficient to protect these outstanding historic resources. Agencies responsible for oversight of these resources should be informed of the existence of this River Conservation Plan and encouraged to take it into account as they exercise their review and consultation responsibilities.

**Protection and investigation of historic and archaeological sites on public lands:** *Public land managers will review their existing land management plans for compatibility with the protection of important historical and archaeological sites that are linked to the river, and will take additional actions if necessary to ensure the protection of those sites.*

The riverfront towns should consult with local historical societies and historic district commissions to ensure that all river-related historic sites on public lands, including sites not considered eligible for national or state recognition, are protected. The RSC will cooperate with the towns in such projects.

Further investigations of archaeological sites on public lands should be encouraged, but should be coordinated in advance with the land-managing agency to avoid conflicts with other resource management activities. All archeological activities should be overseen by recognized professional archaeologists using accepted field techniques.

**Protection and interpretation of rivers' literary heritage:** *Public land managers and private foundations will continue to protect sites along the rivers that are significant to the area's literary heritage, and will continue to provide appropriate interpretation of such sites for the public's benefit.*

The rivers' outstanding heritage in the history of the transcendentalist movement has been recognized in the preservation of many sites important to this movement, including Walden Pond and the Old Manse, protected and interpreted for the public by the Massachusetts DEM and the Trustees of Reservations respectively. The RSC should seek opportunities to work with these organizations and others such as the Thoreau Lyceum to ensure the continued protection of these sites, and to promote an awareness of this aspect of the rivers' history throughout the study area towns.

### ***Supporting Activities***

**Interpretation of historic resources:** *Local historical societies will continue to be both the primary source of information for the public on the region's historic resources, and the primary advocate for the protection of those resources.*

Local historical societies should evaluate opportunities for further research into the historical and literary relationship between the adjacent communities and the river. This connection would also be an appropriate theme for the RSC and the societies to emphasize in their public education efforts.

### **WILD AND SCENIC RIVER PROVISIONS**

There will be no additional requirements related to the protection and management of historic resources as a result of Wild and Scenic River designation. National Park Service authority will be limited to that already established under the Historic Preservation Act.

## **SCENIC RESOURCES**

### **OBJECTIVE:**

Protect and enhance the outstanding scenic resources associated with the Sudbury, Assabet and Concord rivers.

### **STANDARDS:**

**Landscape protection:** The distinctive and noteworthy landscapes associated with the segments will be protected from inappropriate land use changes.

**Viewshed protection:** Existing scenic views to and from the rivers will be protected from inappropriate land use changes.

**Scenic bridges:** The many distinctive bridges that span the segments will be protected and maintained.

### **ACTION PROGRAM:**

#### ***Key Actions***

**Landscape stewardship:** *Public landowners and land regulating agencies will continue to enforce existing land use policies that serve to protect important river-related landscapes, and the RSC will work with Conservation Commissions, Historic District Commissions, and land trusts to improve public awareness of landscape stewardship responsibilities.*

The continued enforcement of state and town wetlands laws, local zoning, and conservation restriction requirements will help to protect the distinctive and noteworthy landscapes along the segments, as identified in the Massachusetts DEM's 1979 statewide landscape inventory. Such landscapes are at least partially dependent on appropriate vegetative management practices, including the continued mowing of wet meadows, the mowing of hillsides overlooking Fairhaven Bay, and the preservation of a mature forest canopy in many locations along the rivers.

**Bridge maintenance and repair:** *The Massachusetts Highway Department and town DPWs and Road Commissions will give due regard to preserving the distinctive design and appropriate scale of bridges spanning the rivers when planning significant reconstruction and maintenance projects.*

Many of the bridges that span the segments add to the rivers' scenic value, both by providing visual access and because the bridges themselves have architectural interest. Designs include the iron truss bridge at Danforth Street (badly in need of restoration); the humpbacked Pelham Island Road bridge; the Four-arched stone bridge between Wayland and Sudbury; Sherman's bridge, recently rebuilt using timber; Lee's bridge between Lincoln and Concord; the Old North Bridge replica in Concord; and many others. While some of these bridges may require reconstruction in the future, efforts should be made to design replacement or repair structures that maintain the existing bridges' dimensions and architectural style to the extent possible. In reviewing federal permit and funding requests associated with such reconstruction projects, the RSC will work with the appropriate town and state agencies to conserve the bridges' scenic character.

### ***Supporting Activities***

**Scenic inventory:** *The RSC will pursue options to conduct a systematic inventory of river-related scenic resources.*

The protection of the rivers' scenic values would be enhanced if a scenic inventory were available for use by town planners. Such an inventory would also aid the RSC and NPS in making Section 7 determinations on federally-funded or assisted projects. However, no systematic assessment of scenic values has been conducted along the segments since the 1979 statewide inventory, which was not intended to focus on river-related scenery. The RSC should pursue funding for such an inventory, which could take the form of a "demonstration project" conducted cooperatively with local experts and interested private landowners. This would be particularly appropriate if the rivers are designated into the Wild and Scenic Rivers system.

### **WILD AND SCENIC RIVER PROVISIONS**

There will be no additional requirements related to the protection of scenic resources as a result of Wild and Scenic River designation.

## **IV. WATERSHED MANAGEMENT**

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### **OVERVIEW**

Protection of the study segments of the Sudbury, Assabet and Concord rivers cannot be considered in isolation from other portions of the river system. The previous section addressed the segments proposed for designation. This section focuses on portions of the watershed upstream of the study area, including the towns of Hopkinton, Ashland, Natick, Westborough, Southborough, Northborough, Marlborough, Berlin, Hudson, Bolton, Stow, Maynard, Acton, and Boxborough. It identifies actions that could be taken by these communities and others both to protect the upstream portions of the watershed and to support actions being proposed for the study segments. These are recommendations only, and their implementation is not required as part of the Sudbury, Assabet and Concord River Conservation Plan.

This section also suggests ways for towns downstream from the study segments to get involved in protecting the Concord River and its tributaries, from Rte. 3 to the confluence with the Merrimack River in Lowell.

### **MANAGEMENT RECOMMENDATIONS**

#### **Local Government Actions**

Towns upstream from the designated segments, including those along their tributaries, should review the **Land Management** section of this Plan and pursue implementation of actions that they deem relevant and beneficial. Towns along the designated segments should also pursue protection along tributaries to the segments, as described in the **Resource Management** section. In particular, upstream towns should consider adopting or strengthening floodplain zoning, erosion and sedimentation controls, and wetlands protection bylaws.

#### **Private Organization Initiatives**

Local land trusts involved in this area also should focus efforts on the river, possibly in partnership with SVT and OAR.

In addition, SVT, OAR, the DEP, DFWELE-Riverways Adopt-A-Stream Program, and any other interested groups (such as the Hop Brook Protection Association) should consider a cooperative effort to initiate a volunteer water quality monitoring program, including shoreline surveys, for the entire watershed.

## **PARTICIPATION ON THE RIVER STEWARDSHIP COUNCIL**

The Sudbury, Assabet and Concord Rivers Stewardship Council (RSC) should actively seek the participation of all of the towns within the Concord River basin, either through formal membership or informally through information exchange and cooperation on specific projects involving both upstream and downstream sections of the river. As discussed in the **Administrative Framework** section of this Plan, formal membership on the RSC would require a 2/3 vote of the existing members. Voting status would be determined by the Council.

Upstream or downstream towns also may wish to establish a working committee among themselves to address river-related issues that cross town lines, and to alert the RSC of conditions or issues that merit the Council's attention.

### **State and Federal Actions**

State and federal agency decisions affecting flows and water quality in areas of the watershed outside the segments will be made in accordance with the **Water Resources Management** section of this Plan.

## **V. EDUCATION AND OUTREACH**

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### **OVERVIEW**

Long-term protection of the Sudbury, Assabet and Concord rivers will depend upon a shared sense of responsibility and the enlightened stewardship of all who use and manage the river and its adjacent lands. Developing this unified spirit in an area with so many interests, issues, and jurisdictions will require a commitment to education and outreach.

Organizations with existing education and outreach programs will be encouraged to continue and expand their efforts. In addition, the RSC will help to organize cooperative efforts among its membership and with other organizations. The Council's objective will be to support and complement ongoing education and outreach activities, rather than to duplicate them.

### **POTENTIAL ACTIVITIES**

Following are examples of education and outreach activities that should be considered. Many of these are discussed in greater detail elsewhere in this Plan.

- Developing a volunteer water quality monitoring program with students, local service organizations, organizations such as the Framingham Advocates for the Sudbury River and Hop Brook Protection Association, and other residents.
- Providing hands-on opportunities for the public to experience the river (e.g. through nature hikes and canoe trips) and to help improve it (e.g. by working on river clean-ups). Organizations such as GMNWR, SVT, OAR, and the Boston Chapter of the Appalachian Mountain Club have been quite successful in organizing such activities.
- Developing and distributing information about the special features of the Sudbury, Assabet and Concord rivers and how this Plan will provide for their long-term protection and management. This could be done through slide shows and videos, printed materials, and/or formation of a speakers bureau to give presentations to local service organizations, garden clubs, and similar groups.
- Providing information and assistance to landowners on techniques to enhance their stewardship of riverfront land. This could include: 1) identifying sources of information and expertise regarding the management of wildlife habitat and wetland vegetation; 2) organizing workshops and providing follow-up assistance on voluntary land protection techniques, such as conservation restrictions; and 3) providing information on the use of Best Management

Practices to control nonpoint source pollution, and on funding opportunities to implement demonstration projects using Best Management Practices.

- Developing a simple, understandable brochure for riverfront landowners that 1) summarizes the existing local, state, and federal regulations that may affect them and how those regulations are implemented; and 2) provides addresses and phone numbers of the appropriate offices or agencies at each level of government. Ideally, this brochure should be prepared in consultation and cooperation with the local planning boards and conservation commissions on a town-by-town basis to ensure accurate descriptions of each town's regulations.
- Developing information for landowners, developers, local land use boards, and others about the causes of nonpoint source pollution, its potential impacts on water quality and other instream resources, and methods for reducing or eliminating it.
- Establishing an awards program to recognize outstanding conservation achievements by individuals and groups in the Sudbury, Assabet and Concord river corridor.
- Promoting river-related activities in local schools, as well as with local service organizations and other groups.
- Establishing a clearinghouse of information on river protection techniques that have been used successfully in other areas.
- Developing an information and interpretive center at an appropriate location such as the historic Danforth St. bridge in Framingham as a focal point for visitors to the Sudbury, Assabet and Concord river corridor.
- Encourage the cooperation of school groups and adult advocacy groups such as the partnership between the Hop Brook Protection Association and school groups in Sudbury. These groups work together on shoreline surveys (visual surveys to discover sources of nonpoint source pollution, erosion and sedimentation, leaking or illegal pipes, areas of possible access and trails), water quality monitoring testing and advocacy. DEP requests the results of shoreline surveys to aid in its basin-wide permitting processes.

In addition, the DFWELE Riverways Adopt-A-Stream program is available to meet with and help in the formation of river protection groups, and will provide materials and hold workshops on shoreline surveys, land protection, water quality and quantity issues, and citizen action. Organizations such as the Massachusetts Water Watch Partnership, which works with community groups to design and implement water quality monitoring programs, may also be involved.

## APPENDIX A

### Sudbury, Assabet and Concord Wild and Scenic River Study Committee Recommendations For the Eight River Towns

(As approved at the 9/8/94 meeting of the SuAsCo Study Committee.)

#### Introduction

The Wild and Scenic River study process includes findings regarding a river's eligibility and suitability for designation. In order to be considered eligible, study rivers must be free-flowing and must have at least one noteworthy ("outstandingly remarkable") resource value, such as recreation, wildlife habitat, or scenery. In order for a river to be considered suitable for designation, these outstanding resources must be adequately protected. The *Resource Assessment and Eligibility Report* prepared by the National Park Service found that the 29-mile Sudbury, Assabet and Concord River study area has five outstanding resources, making the rivers eligible for designation. The question of whether these resources have adequate, long term protection was considered by the River Conservation Planning Subcommittee together with National Park Service, professional planning and conservation staff within the study area towns, and other interested participants. Study segments within each town were examined to determine whether the rivers and adjacent lands are adequately protected from inappropriate changes in land use that could degrade the outstanding resources. Among the factors considered were the existing land use zoning, physical features (such as floodplains and wetlands), and ownership patterns along the rivers. Based on this review, the Subcommittee and National Park Service found that the rivers and related resources are adequately protected from future changes that might harm them. However, as a result of information gathered during the study process, the Subcommittee developed a series of non-mandatory recommendations that, if implemented, would further strengthen the protection of the rivers' resources. These recommendations were adopted by the full Study Committee at its September 8th, 1994 meeting and discussed with appropriate town boards.

The recommendations are summarized below, and appear under *Additional Opportunities* in the **Resource Management - Private Lands** section of this Plan.

#### Study Committee Findings

The Sudbury, Assabet and Concord Wild and Scenic River Study Committee (referred to as the Study Committee) finds that the segments are suitable for designation; however, the Study Committee has both general recommendations for river protection, and for some segments the Study Committee has strong specific recommendations. In the areas where the

Study Committee has concerns, it hopes to work with the towns to improve protection for the rivers, their corridors and their resources.

## **General Recommendations**

The *Water Resource Study: Sudbury, Assabet and Concord Rivers* (Goldman Environmental Consultants, Inc., Randolph, MA, April 21, 1994), commissioned by the Wild and Scenic River Study Committee, the National Park Service and the Massachusetts Department of Environmental Management found that the SuAsCo system

....is currently undergoing accelerated eutrophication, as evidenced by high phosphorus concentrations, extensive aquatic vegetation, sedimentation in the river system and high nutrient loadings.

The *Water Resource Study* recommended additional controls on both point source (wastewater treatment plants and industrial waste discharges) and nonpoint source (polluted runoff) discharges to the rivers.

To reduce the amount of polluted runoff contaminating the rivers with excess nutrients and sediments, the Study Committee **strongly recommends that towns along the three rivers pass erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff (from sources such as leaking septic systems, parking lots, lawns, and driveways) from entering the river.** Vegetated riparian buffers are a highly effective means of improving the quality of runoff as it enters the rivers.

Wherever possible, the Study Committee supports the continuing acquisition of land within Great Meadows' boundaries on a willing seller/willing buyer basis because refuge ownership offers the greatest protection for lands abutting the rivers, and consequently, for the rivers themselves. In addition, we encourage the towns to apply for Self-Help funds from the State's Division of Conservation Services and other sources to protect the river corridor.

## **Recommendations by Town**

### **Framingham:**

The study segment of the Sudbury River begins in Framingham at the Danforth St. Bridge and continues until the Sudbury border for a total of 3.3 miles of river frontage, including the oxbow, on both banks.

The Study Committee finds that the Framingham segment is suitable for designation and, in order to protect the resources of the river, **strongly recommends that:**

1. Because the Study Committee believes that maximum build-out of Sudbury Landing under existing zoning will severely impair the resources of the Sudbury River in an outstanding section of the river, **the Town actively pursue protection measures for Sudbury Landing.**
2. **The Town and New England Sand and Gravel work together to protect the river corridor through sensitive development and other means, and urges that the owner provide permanent protection of the Oxbow island.**
3. **The Town support Conservation Commission efforts to transfer the care and control of the riverfront portions of municipal land at the Edwards Cemetery and Cameron School to the Conservation Commission.**
4. In view of the Danforth Street Bridge's historic value and aesthetic appeal, **all possible means be pursued to restore the bridge for non-vehicular use.** This site is particularly appropriate for an interpretive site for describing the historic background of the Saxonville area, and if the Sudbury River is designated, the start of the designated section of the river.
5. **The Town negotiate to put a car-top boat launch on the Sudbury Landing site (or other site at the start of the proposed designated section) to allow residents and others the opportunity to canoe this important stretch of the river.**

To reduce the amount of polluted runoff contaminating the rivers with excess nutrients and sediments, the Study Committee **recommends that Framingham pass erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff** (from leaking septic systems, lawns, parking lots and driveways) **from entering the river.**

Wherever possible, the Study Committee encourages the Town to apply for Self-Help funds from the State's Division of Conservation Services and other sources to protect the river corridor.

#### **Wayland:**

Wayland, with 14.7 miles of river frontage, has the second longest river stretch of the eight study area towns. The vast majority of Wayland's river frontage is well protected.

The Study Committee finds that the Wayland segment is suitable for designation, and in order to protect the resources of the river, **recommends that:**

1. **The Town continue its impressive efforts to protect the Paine Estate;**

**2. The Town make every effort to preserve the archeological and scenic values of the Lord Parcel; and**

**3. The Town support efforts to repair the railings on the historic old Town Bridge on Route 27 so that public access may continue.**

To reduce the amount of polluted runoff contaminating the rivers with excess nutrients and sediments, the Study Committee **recommends that Wayland pass erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff** (from leaking septic systems, lawns, parking lots and driveways) **from entering the river.**

Wherever possible, the Study Committee supports the continuing acquisition of land within Great Meadow's boundaries on a willing seller-willing buyer basis because refuge ownership offers the greatest protection. In addition, we encourage the Town to apply for Self-Help funds from the State's Division of Conservation Services to protect the river corridor.

#### **Sudbury:**

There are 5.4 miles of Sudbury River frontage in Sudbury.

The Study Committee finds that the Sudbury segment is suitable for designation, and in order to protect the resources of the river, **urges that:**

**1. Town, state, and federal agencies enforce existing regulations on the Macone land; and**

**2. The Town work to protect the important scenic values of Rice Hill on the former Quinn parcel.**

To reduce the amount of polluted runoff contaminating the rivers with excess nutrients and sediments, the Study Committee **recommends that Sudbury pass erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff** (from leaking septic systems, lawns, parking lots and driveways) **from entering the river.**

Wherever possible, the Study Committee supports the continuing acquisition of land within Great Meadow's boundaries on a willing seller-willing buyer basis because refuge ownership offers the greatest protection. In addition, we encourage the Town to apply for Self-Help funds from the State's Division of Conservation Services to protect the river corridor.

## **Lincoln:**

The Sudbury River flows in Lincoln for 1.7 miles, forming the border between Lincoln and Concord. All but 440 feet of Lincoln's river frontage is protected through conservation ownership or conservation restrictions.

The Study Committee finds the Lincoln segment to be suitable for designation. It appreciates Lincoln's efforts to protect land and to offer recreational access along the river. In order to protect the resources of the river, **recommends that:**

- 1. The Town and the Lincoln Land Conservation Trust continue to monitor the conservation restrictions along the river and Fairhaven Bay to ensure that the owners follow the conditions of the conservation restrictions. In addition, landowners are encouraged to create vegetative buffers to protect the water quality of the river and habitat of the river and its corridor.**

To reduce the amount of polluted runoff contaminating the rivers with excess nutrients and sediments, the Study Committee **recommends that Lincoln consider passing erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff (from leaking septic systems, lawns, parking lots and driveways) from entering the river.**

## **Concord:**

All three study rivers flow through Concord. With 23.7 miles of frontage, Concord's river segments are the longest of the study area's eight towns. The Town of Concord, together with riverfront landowners and Great Meadows National Wildlife Refuge, has done a good job of protecting Concord's rivers.

The Study Committee finds that the Concord segments are suitable for designation, and in order to protect the rivers' resources, **recommends that:**

- 1. Because scenery along Fairhaven Bay is an important resource which needs to be protected (and some existing conservation restrictions do not address aesthetic issues), there be continued monitoring of conservation restrictions and the encouragement of vegetative buffers along Fairhaven Bay.**
- 2. Because of the heights of buildings at the Deaconess facility and at Emerson Hospital and their impacts on the scenic qualities of the river, conservation interests keep active lines of communication with the Deaconess and Emerson Hospital so they are kept aware of the importance of vegetated buffers along the river.**

3. Because of the impacts which can result from municipal maintenance facility uses along the river, **the Town continue its creative efforts to minimize impacts from the Keyes municipal lot on the river and to realize the potential of the site as an important recreational asset for the Sudbury River.**
4. **Future development of MCI-Concord be sensitive to views from the river. The Study Committee will convey its concerns to the appropriate state agency.**
5. **Ball's Hill be given a top priority for permanent protection because of its important scenic, geological and ecological values.**

To reduce the amount of polluted runoff contaminating the rivers with excess nutrients and sediments, the Study Committee **recommends that Concord pass erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff** (from leaking septic systems, lawns, parking lots and driveways) **from entering the rivers.**

Wherever possible, the Study Committee supports the continuing acquisition of land within Great Meadow's boundaries on a willing seller-willing buyer basis because refuge ownership offers the greatest protection. In addition, we encourage the Town to apply for Self-Help funds from the State's Division of Conservation Services to protect the river corridor.

#### **Carlisle:**

Carlisle has two miles of frontage along the left bank of the Concord River; of this only about 1600 feet is in unrestricted private ownership. Because of conservation ownership, strong local bylaws, conservation restrictions, and topography, the Carlisle segment of the Concord River is well protected.

The Study Committee finds the Carlisle segment is suitable for designation.

To reduce the amount of polluted runoff contaminating the river with excess nutrients and sediments, the Study Committee **recommends that Carlisle pass erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff** (from leaking septic systems, lawns, parking lots and driveways) **from entering the rivers.**

Wherever possible, the Study Committee supports the continuing acquisition of land within Great Meadow's boundaries on a willing seller-willing buyer basis because refuge ownership offers the greatest protection. In addition, we encourage the Town to apply for Self-Help funds from the State's Division of Conservation Services to protect the river corridor.

## **Bedford:**

Bedford has just over three miles of frontage on the right bank of the Concord River. Of these 16,000 feet, all but 550 feet are part of the Great Meadows National Wildlife Refuge. Because of conservation ownership, strong local bylaws, and topography, the river segment is well protected.

The Study Committee finds that the Bedford segment is suitable for designation.

To reduce the amount of polluted runoff contaminating the river with excess nutrients and sediments, the Study Committee **recommends that Bedford pass erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff** (from leaking septic systems, lawns, parking lots and driveways) **from entering the river.**

## **Billerica:**

Billerica has approximately 2.4 miles of frontage along the Concord River upstream of the Route 3 Bridge--the portion of the river under study.

The Study Committee finds that the Billerica segment is suitable for designation and strongly recommends that:

1. Because of the important scenic and habitat values of the steep slope on the left bank just upstream of the Route 3 bridge,
  - a) **the Town continue its outstanding efforts to protect the former county-owned parcel which it has recently acquired, and that it seek ways to further protect the river by designating the parcel's river frontage as conservation land for open space and passive recreation purposes.**
  - b) **the Town work to protect the river corridor on the Hazen parcel through acquisition in fee or through a conservation restriction, by allowing cluster development, or by using development setbacks.**
2. Because of the Study Committee's concern about the developed floodplain and resulting damage to water quality in the Concord River, **Billerica implement its proposal to establish a committee to protect the Concord River and its watershed. The Study Committee recommends that the watershed committee place on its agenda the protection and restoration of the floodplain, and consider abandoning the paper roads and retaining these easements for trails for non-motorized recreation.**

**3. The Town enforce existing regulations on property owners in the floodplain.**

**4. The Town find ways to stop or mitigate septage and polluted runoff from entering the Concord River from adjacent properties.**

To reduce the amount of polluted runoff contaminating the river with excess nutrients and sediments, the Study Committee **recommends that Billerica pass erosion and sedimentation control bylaws and stormwater regulations.** The Study Committee **supports education efforts to help landowners understand the importance of stewardship on their lands to prevent polluted runoff** (from leaking septic systems, lawns, parking lots and driveways) **from entering the river.**

Wherever possible, the Study Committee supports the continuing acquisition of land within Great Meadow's boundaries on a willing seller-willing buyer basis because refuge ownership offers the greatest protection. In addition, we encourage the Town to apply for Self-Help funds from the State's Division of Conservation Services to protect the river corridor.

## APPENDIX B

### SUMMARY

#### WATER RESOURCE STUDY SUDBURY, ASSABET AND CONCORD RIVERS

This summary provides an overview of the Final Water Resource Study conducted in 1993 as part of the Sudbury, Assabet and Concord (SuAsCo) Wild and Scenic Rivers Study. It includes descriptions of the various methodologies used, the results obtained, and an analysis of what the results mean. A complete description can be found in the actual Final Water Resource Study report, as prepared by GEC Inc. of Randolph Massachusetts.

#### I. INTRODUCTION

##### Purpose

The purpose of the water resources study was to provide answers to the following questions:

- What is the relationship between the quantity and quality of water in the study rivers and flow-dependent resources such as wildlife habitat, recreation, and scenery?
- What impact would possible future increases in consumptive withdrawals of water from the rivers, along with reduced flows caused by naturally-occurring droughts, have on these flow-dependent resources?
- With respect to water quality problems caused by excessive nutrient loading, what is the relative contribution of these nutrients from point source discharges and non-point source runoff? What measures could be taken to reduce the loadings?

Answers to these questions are important to the long-term management of the river. In the immediate future, they will be used to help the SuAsCo Study Committee to formulate recommendations that will serve to protect and enhance the rivers' flow-dependent resources. Acceptance of such recommendations by study area towns and state agencies would indicate their support for the goals of Wild and Scenic designation, namely, the long-term protection of the rivers' outstanding resources.

When reading this summary or the actual Water Resources Study report, there are several important points to keep in mind:

- **The scope of the study was limited.** With limited time and limited funding, it was necessary to focus the study on the flow-dependent "outstandingly remarkable" resources which qualify the rivers for Wild and Scenic designation, i.e. wildlife habitat, recreation, and scenery. As a result, characteristics such as water quality, sediment chemistry, and flushing flows could not be investigated in detail. Such issues deserve attention and should be the subject of follow-up studies whether or not the rivers are designated.

- **The water resources study report is an information document rather than a decision-making document.** It provides important new information about the relationship between river flows and water-dependent resources. This "baseline" data about the current status of outstanding resources can be used to monitor the long-term health of the river system. Study report information will also be very useful in decisions concerning future water withdrawals and many other river management issues. But the report does not create a protection policy for the rivers -- it is up to the SuAsCo Study Committee, through its Management Plan, to develop policies to be used in such decisions.
- **The results of the water resources study are directly dependent on a number of assumptions and simplifications that had to be made in order to create models of the rivers' hydrology and ecology.** Changing any of these assumptions would alter the results. The major assumptions are presented in the "Purpose and Methods" sections of this summary and are analyzed in the "Discussion" section.
- **The water resources study is not intended to provide predictions of the rivers' instantaneous future flows throughout the study area.** The models used in the study predicted average monthly flows at key reference points, and these predicted flows are subject to fairly large margins of error. Field work for the study was conducted over a very short period during a particularly dry summer, and longer-term gauging records come from locations outside the study area. If new consumptive withdrawals are proposed in the future, more detailed site-specific studies would be needed to predict instantaneous low flow conditions (i.e. worst-case conditions for fish and other aquatic life) downstream of the withdrawal point.

### **Project Administration**

The Water Resources Study was made possible through a cooperative effort among the major participants in the Wild and Scenic River Study, including the SuAsCo Study Committee and its ad hoc Technical Advisory Committee (TAC). The study's direct budget of \$94,000 was funded by Congressional appropriations through the National Park Service (\$84,000) and by the Massachusetts Water Resources Authority (\$10,000). In addition, all of the interests involved in the study made substantial in-kind contributions of volunteer and staff time, and other resources.

The Massachusetts Department of Environmental Management (DEM) administered the project under a cooperative agreement with the NPS. DEM's prime consultant was Goldman Environmental Consultants (GEC), Inc. of Randolph, MA, which in turn contracted with two sub-consultants (Horsley & Witten, Inc. and a team from the University of Massachusetts at Amherst) for the hydrological and ecological portions of the study. A team of advisors, including the Water Resources Subcommittee of the SuAsCo Study Committee and outside experts who comprised the TAC, worked with DEM and the consultants to guide the study process. This team defined the scope of the study; reviewed the request for proposals; selected GEC to conduct the study; approved a work plan; resolved questions about the selection of study transects; defined hypothetical water use and wastewater discharge scenarios; and reviewed the draft study report. Without the support of the TAC, many of whom were volunteers or already over-worked agency and non-profit technical staff, the water resources study could not have been a success.

## General Methodology

Following is an outline of the general methodology and approach used by the consultants:

- **Flows:** A hydrologic accounting (mass flow) model was developed and used to predict average monthly flows, elevations, and depths at several reference points, or nodes, within the study area. The model provided information both on current, or baseline, conditions, and on likely conditions under future drought and withdrawal scenarios. The predicted flows and elevations were then used to determine likely changes in wildlife habitat, recreational suitability, and scenic value under the future scenarios.
- **Wildlife Habitat:** Seven study plots along the rivers were surveyed to gather data on water levels, vegetation, macroinvertebrates, wildlife habitat, and fisheries. These plots were located along transects extending across the rivers' channel and floodplain from upland to upland. Data collected at the study plots were used to quantify the value of aquatic and wetlands fish and wildlife habitat, using "habitat suitability indices," for certain species selected by the study team. This approach measures the quantity of breeding and foraging habitat available to the species, and can be used to predict the impacts of long-term changes in water levels on species abundance and diversity.
- **Nutrient Loading:** Water quality was studied using a nutrient loading approach. The amount of nitrogen and phosphorus added to the rivers each year was calculated from wastewater treatment plant records and from information about loadings associated with various forms of land use within the study area. The effect of development and population growth within the watershed, producing increased treatment plant discharges and increased loadings from surface run-off, was then predicted. The nutrient loading information is relevant because excessive nutrients are the major cause of accelerated eutrophication, which in turn affects the rivers' ecology and recreational value.
- **Recreation:** Recreational suitability rankings ("unacceptable" through "optimal") were defined for various segments of the study rivers based on baseline water depths and interviews with both expert users and the general public. Using the water depths predicted by the flow model, changes in these qualitative suitability rankings were calculated for each future hydrological scenario. The recreational uses studied included canoeing, kayaking, sculling, angling, and motor boating.
- **Scenery:** A visual inventory of the rivers' scenic features was conducted using photography, and river user attitudes about scenery were compiled using written surveys.

## II. HYDROLOGIC MODELING

### Purpose and Methods

#### Model

In order to determine how changes in the amount of water flowing through the rivers might affect the flow-dependent resources of concern, it was necessary to develop a model that would

predict the rivers' response to a combination of drought and high water demand conditions. Specifically, we needed a model that would tell us what the surface elevation (or "stage") of the rivers would be during periods of low precipitation and high water use. Elevations were judged to be more important to the resources of concern than flows or velocities because the type of wetland vegetation that grows along these lake-like rivers is most affected by long term ( $\geq$  five years) changes in water levels. Also, with the exception of boating on the Assabet River, the type of water-borne recreation prevalent in the study area is more dependent on suitable water depths than on flow rates. Thus the model used for this study went beyond flow estimates to predict stage values.

Information used to create the hydrologic model included eleven years' worth of readings at three gauges above and below the study area; stage and discharge readings taken during the study's six-month 1993 field season; and other miscellaneous measurements that had been made by individuals and state and federal agencies. The resulting "mass flow" model takes input in the form of discharge readings in cubic feet per second (i.e. the volume of water passing a point during a given time) and produces output in the form of predicted stage and discharge measurements at eight locations within the study area.

### Scenarios

The model was used to predict changes in the rivers' hydrology based on hypothetical increases in water consumption in the year 2010 combined with five-year droughts of varying severity. Five years of decreased flows are the minimum required to cause changes in vegetation types within the rivers' wetlands. Each of the four scenarios combined increased water consumption -- either at new withdrawal points or from increased withdrawals at existing wells -- **and** either significant or severe droughts. Because of this combination, the modeled results do not distinguish between flow reductions due to human use and those caused by climatic conditions.

| FUTURE HYDROLOGICAL SCENARIOS |                                                          |                                                                                             |
|-------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------|
| SCENARIO                      | 5-YEAR CLIMATIC CONDITIONS                               | 2010 A.D. WATER CONSUMPTION FACTORS                                                         |
| 1                             | Significant Drought (2 drought years and 3 normal years) | Most probable in-basin increase in use.                                                     |
| 2                             | ditto                                                    | Most probable in-basin use plus 40 MGD out-of-basin diversion from Sudbury River.           |
| 2A                            | ditto                                                    | Most probable in-basin use plus 8.2-16.4 MGD out-of-basin diversion from Sudbury Reservoir. |
| 3                             | Severe Drought (3 drought years and 2 normal years)      | High in-basin increase in use.                                                              |

The future water use assumptions used in the four hypothetical scenarios ranged from "most probable" to "high demand," bracketing a range of potential conditions. Scenarios 1 and 3 assumed that increased withdrawals in the year 2010 from those portions of the rivers' watershed that contribute flow to the study area would be made from either existing wells or from likely

future locations, and that withdrawal amounts would be "most probable" or "high demand" respectively. Scenarios 2 and 2A assumed "most probable" 2010 water withdrawals, plus a 40 MGD (million gallons per day) diversion from the main stem of the Sudbury River and a lesser diversion from Sudbury Reservoir respectively. The Sudbury Reservoir diversion amounts of 16.4 MGD in normal years and 8.2 MGD in drought years were based on scenarios actually examined by the MDC in the mid-1980s<sup>1</sup>. This scenario (2A) was added to the final study report because it was felt to be more realistic than the 40 MGD direct diversion (Scenario 2) modeled in the draft report. While the engineering feasibility of a 40 MGD withdrawal was once studied by the MDC, such a diversion has never actually been proposed.

The five-year climatic conditions used ranged from a significant to a severe drought, based on combinations of dry and normal years. For Scenarios 1, 2, and 2A, a significant drought consisting of three normal years and two years within which the flow for every month is less than that actually recorded 75% of the time (i.e. the "75% exceedence value") was used. For Scenario 3, the combination was three drought years and two normal years, producing a severe drought. It is very important to note that the synthetic drought years used for the analysis, which assumed low river flows in all twelve months of the year, are highly unlikely events. They were used because the study team felt that the hydrologic and habitat models would only respond to these fairly sizable, long term reductions in flow.

Since most of the water withdrawn from the watershed returns to the rivers via sewage treatment plants or septic systems, the model assumed that 20% of the volume taken out would be "lost" due to evaporation and transpiration. This is a very conservative assumption, i.e. it underestimates the return flow to the rivers, especially during the colder months.

The hydrologic model was tested for accuracy by running it using actual gauge measurements as input and comparing its predicted stage and discharge values to what was recorded in the field. The model was determined to be quite accurate in predicting stage and discharge under low flow conditions, and under higher flow conditions when such conditions persisted long enough to saturate the rivers' wetlands. However, because of the way the wetlands absorb and store water during the first days and weeks of increased runoff (so-called "rising stage" conditions), the model tends to overestimate stage and discharge during these periods. This idiosyncrasy, which produces what hydrologists call a "hysteresis" in the curve on a flow versus discharge graph, should be kept in mind when the model is used in the future.

## **Results**

Scenario 2 showed the greatest reduction in flows from baseline conditions. As noted above, the 40 MGD average out-of-basin diversion associated with this scenario has never been proposed. For normal years, the flows predicted under Scenarios 1 and 3 varied little from baseline conditions, indicating that growth in water use within the study area has a relatively small impact on river flows. The hypothetical drought conditions used in the model had a much greater

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<sup>1</sup> The MDC-defined Sudbury Reservoir scenario includes the following withdrawal constraints: no withdrawals from June 15 through September 30th of each year, no withdrawals when water elevations at Sherman's Bridge downstream fall below a cut-off threshold, and a 1.5 MGD minimum release from the reservoir to the river at all times.

impact on flows. Scenario 2A, the hypothetical diversion based on the MDC's decade-old proposal, had a bigger impact on flows than Scenarios 1 and 3, but less than Scenario 2.

### **III. WILDLIFE HABITAT MODELING**

#### **Purpose and Methods**

##### Model

In order to be able to predict what would happen to aquatic wildlife if river flows were reduced in the future, the consultants first needed to quantify the amount of existing habitat in the study area, and then to develop models that could predict changes in the amount of habitat caused by the reduced flows. The quantification technique they used is known as a "habitat evaluation procedure," or HEP, and relies on information about the physical and biological conditions found at field plots to generate a measure of how useful the area is to the species in question as breeding or foraging habitat. This measure is called the "habitat suitability index," or HSI.

Seven locations along the rivers were chosen for the study plots by study biologists in consultation with the U.S Fish and Wildlife Service. The plots were chosen to exemplify the full range of wetland types found within the study area, and thus the amount of wetlands of each type within the plots was not representative of the actual abundance of that type overall. At each transect, the study teams measured elevations and recorded the type of vegetation present. They also noted physical and biological habitat characteristics, such as water temperature and percent cover, for use in calculating the HSI values. Wetland vegetation zones were identified based on a standard classification system, and referenced to elevations along the transect.

Mean HSI values for each wetland type were calculated for two species of fish (chain pickerel and largemouth bass) and nine species of wildlife: bullfrog, snapping turtle, muskrat, mink, red-winged blackbird, black duck, wood duck, American bittern, and great blue heron. These particular species were chosen by the study team, in consultation with the TAC, as representative of the range of fish and wildlife present in the study area, and because they were species for which HSI curves had already been developed.

To quantify the total amount of habitat for each species within the entire wild and scenic study area, the mean HSI value for each species and wetland type was multiplied by the total number of acres of that wetland type within the study area. These acreages had been determined based on aerial photos taken for the Massachusetts DEP's Wetlands Conservancy Program. The habitat totals established the baseline value of the study area to the eleven fish and wildlife species under current conditions.

##### Scenario Analysis

Using the hydrologic model, it was possible for the biologists to predict changes in wetland vegetation types along the study transects resulting from the long-term changes in average monthly water elevations generated under three of the four scenarios. (The fourth scenario, 2A, was evaluated qualitatively for the final report as a result of comments on the draft report.)

New habitat totals for each of the eleven species were then calculated and compared to the baseline totals. The result was a prediction of the percent change -- gain or loss -- in each species' total habitat under three future scenarios.

## **Results**

Small to moderate reductions in total wetland area were predicted under all four scenarios. However, some wetlands vegetation types (forested swamps and buttonbush shrub swamps) were predicted to increase, while other types, such as marsh and deep marsh, were disproportionately reduced. Because wetland types of less value to wildlife would tend to replace the more valuable marsh and deep marsh habitat under all the scenarios, the model predicted a decrease in habitat for most of the species. Overall habitat loss was greatest under Scenario 3, but many of the species modeled would suffer larger negative impacts under Scenario 2.

Habitat value increased for only two of the wildlife species modeled (black duck and wood duck) under any of the scenarios, and these increases were slight. In contrast, American bittern habitat decreased by about 60% under both Scenarios 2 and 3. While no state or federally-listed rare and endangered species were modeled, due to the fact that HSI curves have not yet been developed for these species, the consultants felt that habitat for several such species of concern (including the least bittern) would be reduced significantly due to loss of marshlands. In addition, they predicted that any reduction in current water levels would exacerbate problems caused by invasive species such as purple loosestrife, glossy buckthorn, water chestnut, and fanwort. These non-native plants reduce habitat values by crowding out native vegetation having greater forage or cover value, and in the case of water chestnut, also interfere with recreation.

## **IV. WATER QUALITY**

### **Purpose and Methods**

The study's budget and time constraints limited the scope of the water quality analysis to an examination of nutrient loading trends. Nutrients (i.e. compounds of phosphorus and nitrogen, coming from sewage and overland runoff) were chosen because of their role in causing "cultural eutrophication," or the accelerated evolution of the river system into wetlands and upland. Nutrient overloads, combined with sedimentation and elevated summer runoff temperatures caused by land development activities, also cause short-term problems for aquatic organisms by robbing the water of the dissolved oxygen these organisms need for respiration. While several toxic contaminants, including mercury and other heavy metals, also threaten water quality in the rivers, the study team felt that since these pollutants are currently being studied by the U.S. EPA under the well-funded Nyanza Superfund program, our study should focus on nutrients alone.

The study team decided to study the trend in nutrient loadings, i.e. the total amount of nutrients coming into the river system in pounds over time, rather than nutrient concentrations. This decision was made because the concentration of nutrients in the rivers is not merely affected by inputs from runoff and sewage, but also by additional factors which are difficult to quantify. For example, phosphorus binds readily to river sediments and wetland soils, so in order to calculate phosphorus concentrations within the water column, the rate of phosphorus exchange

between the water and soils and sediments would have to be known. This chemical pathway is very complex, with the rate varying depending on temperature and pH among other things.

Other water quality parameters, namely dissolved oxygen and temperature, were also studied qualitatively by the team, in order to assess the rivers' overall compliance with state and federal water quality standards.

### Loading Calculations

Phosphorus and nitrogen compounds are used by aquatic plants in their growth. Too much of these nutrients cause "algal blooms," with rapid plant die-off and consequent crashes in the amount of dissolved oxygen in the water as the dead plants decay. The study team was interested in knowing how much of these nutrients is currently entering the rivers, and how much would be added by new development in the watershed. They based their calculations on loadings associated with the two major sources of phosphorus and nitrogen: "point sources" such as discharges from sewage treatment plants, and "non-point sources" such as overland runoff.

The consultants used data from 1985 to represent baseline nutrient loading conditions, because 1985 was the most recent year for which 19 categories of land use had been mapped using aerial photos. Values for the amount of nitrogen and phosphorus found in runoff from the various land use types were found in the scientific literature. These loading rates were multiplied by the acreage of each land use category within the entire portion of the rivers' watershed that contributes to the study segments. Loadings from point sources, calculated by multiplying the concentrations in the sewage treatment plants' 1985 permit reports by the volume of water discharged, were then added to the non-point source values to produce a total.

### Scenarios

While the same target year (2010) was used for the nutrient loading projections as was used for the hydrologic scenarios, the water quality scenarios were based on changes in land use rather than droughts and increases in water withdrawals. The four scenarios analyzed were **A**, most likely future conditions (based on land use changes predicted by MAPC, the regional planning agency); **B**, likely future with additional point source controls, i.e. state-of-the-art nutrient removal at all area sewage treatment plants; **C**, likely future with additional non-point source controls, i.e. reasonably achievable structural, regulatory or management measures to reduce sedimentation and contamination of runoff; and **D**, likely future with both point and non-point source controls. It is important to note that implementation of the non-point source controls in all upstream communities (not just the eight study-area towns) would require the cooperation of town governments, state agencies, and landowners.

### **Results**

The study team found that the rivers are currently overloaded with nutrients, in particular phosphorus. In most freshwater systems, phosphorus is the limiting nutrient, i.e. increases in nitrogen will have no effect on the rate of eutrophication because aquatic plants need both nutrients in order to grow and the existing ratio between the two nutrients causes the phosphorus to be used up first. In our rivers, however, there is so much phosphorus that nitrogen is the

limiting nutrient. This means that, at least until the phosphorus that is stored in the system (e.g. in sediments) is partially used up, it is more important to control nitrogen in order to limit eutrophication. Thanks to the state's new prohibition on detergents containing phosphate, however, the relative amount of phosphate entering the system is predicted to decrease in the future, which may eventually reverse this situation.

In modeling future loadings, the consultants found that under Scenario A (most likely 2010 loadings with no additional controls), both nitrogen and phosphorus loadings would increase significantly. Either additional point or non-point source controls were adequate to reduce future nitrogen loadings below current levels, and in combination (Scenario D) they reduced this nutrient by 34% over baseline. For phosphorus, however, non-point source controls alone are not adequate to reduce future loadings. Additional point-source controls would be necessary: under Scenario B, these controls alone would reduce loading by about 9%, while a combination of point and non-point source controls yields a 31% decrease. These results are consistent with what is known about the way these two nutrients travel through ground water. Phosphorus binds readily to sediment particles so relatively little of this nutrient discharged through septic system leaching fields or dissolved in runoff reaches the rivers, while nitrogen can travel great distances in groundwater and runoff.

The study team noted that while their approach compared future loadings to baseline loadings in order to determine the impact of future development on water quality, the baseline situation is already causing eutrophication problems.

## **V. RECREATION AND SCENERY**

### **Purpose and Methods**

In order to assess likely impacts on flow-related recreation due to potential changes in the rivers' flows, the consultants attempted to quantify the value of various portions of the study area for several types of recreation, and then, using the hydrologic model, to predict how these values might be affected by changing water levels. The study team relied both on random user surveys and on interviews with recreational experts who regularly use the rivers in order to assess the existing relationship between water quality, levels, and recreation. The product of this work was a set of baseline recreational suitability rankings for eight segments within the study area. Using the changing water levels predicted under the four hydrologic scenarios, the consultants then determined how the rankings would change.

Since water levels varied little during the course of the study in the summer of 1993, the consultants were unable to obtain empirical information about how recreational users viewed the relationship between flow conditions and recreation. Thus their analysis relied heavily on the opinions of a few expert users, along with their own assumptions about factors that make a river segment more or less suitable for a given form of recreation.

The recreational suitability rankings for the eight segments defined by the consultants were necessarily subjective. These rankings range from "unacceptable" to "optimal." "Unacceptable" rankings were generally given when there was either too little or too much flow in the rivers. Factors contributing to an "optimal" ranking for canoeing, the most popular form of recreation

on the study rivers, included unobstructed navigation (no low bridge clearances caused by high water levels); the opportunity to use high water levels to reach parts of the system not normally boatable; and safe flow velocities for novice boaters.

To provide a basis for comparison of segment-by-segment suitability rankings for each form of recreation under baseline and future scenario conditions, the consultants gave each ranking a numerical value. The values were then tabulated by adding the ranking for each recreational type and month, producing a sum for each segment that could be compared to sums under altered flow conditions.

In order to assess the relationship between water levels and scenic values, the consultants included questions about this issue in the written survey administered to river users during the course of the field season. Expert users were also interviewed on the subject.

## **Results**

The consultants determined that, although some survey respondents preferred the appearance of the rivers with fully submerged banks, and the clearer water associated with higher flows, scenic and aesthetic values were not directly affected by changing water levels for a majority of users. The Study Committee notes, however, that there were significant aesthetic problems (clogged channels and foul smells caused by decaying vegetation) when the Sudbury Reservoir was last used to supply the metropolitan area in the 1960s.

Not surprisingly, the study team found that the shallower parts of the rivers (e.g. the upper Sudbury) are less suitable for water-borne recreation than other segments during mid-to-late summer, due to low flows. The drought years defined by the modeled scenarios exacerbated this condition (while making areas with spring bridge clearance problems more suitable), but increased water demand had less of an effect. The diversions associated with Scenarios 2 and 2A likewise had less of an impact than the low flows caused by drought, mainly because of the assumptions under these scenarios that no withdrawals would take place when the river was already below a critical stage level at Sherman's bridge.

Spring high water levels make parts of the Sudbury's floodplain accessible and thus optimal for canoeing and kayaking in the consultant's view. However, they felt that high flows in the Assabet make the river minimally acceptable or unacceptable due to turbulence. The Concord River, which changes less with fluctuating flow conditions, is never optimal according to the study team because even though the river is never too shallow for boating, or too high for bridge clearance, the opportunity to paddle up tributaries or elsewhere within the floodplain during periods of high flow is absent.

It is very important that all who use this report realize how subjective these suitability rankings are. Extreme caution must be used in relying on the "combined average monthly suitability" rankings to compare baseline and future scenario conditions. These combined rankings accord equal weight to August canoeing and November sculling, taking no account of the relative popularity of each recreational type or unequal use of the rivers at different times of year. For example, the model's combined suitability rankings might appear to favor a proposed withdrawal that would improve November sculling conditions at the expense of August canoeing. However,

was chosen as beyond the worst-case situation. Assumptions relevant to the study's investigation of water supply withdrawals included the following: that there would be constant withdrawals for in-basin water supply; that major new diversions would vary based on flows at Sherman's bridge and on seasonal constraints; and that there is no storage within the watershed that could be used to augment low flows.

### **Recommendations for Future Technical Studies**

The assessment of the impacts of increased demand focused on low flows rather than altered hydrology during the spring freshet. The impacts on flushing flows of both current consumptive withdrawals and any diversion proposed in the future have not been examined. In order to determine how high flow events affect sediment dynamics, which in turn affects floodplain ecology, sediment chemistry, and navigability, state and federal agencies along with any coordinating entity which might be established pursuant to Wild and Scenic designation should work together to conduct additional studies of this issue.

In order to improve the relevance of the biological models, it would be helpful if habitat suitability indices could be developed for species of special concern to participants in the Wild and Scenic study, such as state-listed rare and endangered wildlife.

### **Conclusion**

The water resources study is an unusual example of cooperation among many diverse interests to generate new, objective information on subjects which have been the focus of many past debates. The study would not have been successful without the substantial commitment made by all participants to work cooperatively.

The study provides important new information for decision-makers both on the flows needed to protect the study rivers' wildlife habitat, recreation, and scenic values, and on the compatibility between future growth and new withdrawals on the one hand and the protection of these values on the other. This information is essential to the development of a management plan for the river and the resolution of several river protection policy issues.

The reader should keep in mind that the hypothetical water use scenarios evaluated in the water resources study were defined for discussion purposes only, and do not reflect actual proposed withdrawals or conditions. If major new consumptive withdrawals (including either a single large withdrawal such as the reactivation of Sudbury Reservoir or multiple smaller withdrawals) are proposed in the future, the applicant would have to satisfy requirements for applicable state and federal permits. Such requirements would likely include site-specific studies of the proposed withdrawal's impacts on the rivers' resources.

the consultant's survey showed that canoeing is by far the most popular form of water-borne recreation on the study rivers.

In short, the recreational model used is very sensitive to the assumptions made about factors contributing to the relative suitability of the various segments. It assumes that lack of bridge clearance is an impediment to recreation along long reaches of the rivers that can be accessed without boating under bridges; that the more challenging flow conditions found along the 4.4 mile Assabet segment in some seasons are less preferable than the flatwater conditions available year round within the remaining 25 miles of the study area, even though not all users are novices; and that the Concord's less frequent flooding beyond its banks makes it less suitable than the Sudbury for canoeing. While the study provides useful descriptive information about the recreational and scenic values of the river, the tabulated suitability ranking information it contains should be viewed with caution.

## **VI. DISCUSSION**

### **Study Limitations**

A number of significant assumptions have been identified in this summary. As described above, the scope of the study was limited due to funding and timing constraints. It relied heavily on a modeling approach to predict future hydrological, ecological, water quality, and recreational conditions. Future users of these models must fully understand the assumptions upon which they are based. All users of the report's information should resist the urge to treat its numerical results as hard facts rather than indications of general trends.

Even with sufficient funding, only an intensive multi-year field investigation can yield detailed information about characteristics like hydrology and water quality, which vary significantly in time and space. It would be a mistake to rely on the "snap shot" of information about worst-case low flow events or water quality problems observed during this study, or as a result of previous single-day monitoring efforts, to predict the actual likelihood and duration of worst-case events in the future. In addition, the general results produced by the hydrological scenario models do not obviate the need for site specific investigations of the likely impacts of any significant new withdrawal, diversion or discharge in the future.

### **Modeling Approach**

The hydrologic model was not sensitive enough to respond to minor, short term changes in flow conditions, so it was necessary to create scenarios which included major diversions and significant, multi-year droughts. The decision to select these scenarios for analysis should not be misinterpreted. Of the conditions used to construct the scenarios, only the "most probable" increased 2010 water demand is known to be a likely occurrence. Drought years consisting of twelve months in a row of flows that are on average exceeded 75% of the time are highly unlikely, and five year periods which include two or three such years are rarer still. The diversion amount and location under Scenario 2A were chosen because they had once been proposed for consideration, not because there is any certainty that this water will ever be needed, that such a diversion would make economic sense, or that it would be permitted by state regulatory agencies. Scenario 2 does not represent any diversion proposal past or present, but

# THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

## CHAPTER 40 §54A

### MASSACHUSETTS GENERAL LAW, CHAPTER 40 PERMITS FOR CONSTRUCTION ON RAILROAD RIGHTS-OF-WAY

#### SECTION 54A – STATE CONSENT TO ISSUANCE OF PERMITS TO PURCHASER REQUIRED: DAMAGES IN ABSENCE THEREOF

#### STATUTE, PROCESS & APPLICATION

*Note: When applying for consent, please note that the process for Chapter 40, Section 54A requires a public hearing with notice in a local paper. The process usually takes two months. For more information, contact the Rail and Transit Division of the Massachusetts Department of Transportation or by calling (857)368-8964 or email to [dot.feedback@state.ma.us](mailto:dot.feedback@state.ma.us).*

If a city or town or any other person purchases any lands formerly used as a railroad right-of-way or any property appurtenant thereto formerly used by any railroad company in the Commonwealth, no permit to build a structure of any kind on land so purchased shall be issued by any city or town in the Commonwealth without first obtaining, after a public hearing, the consent in writing to the issuance of such permit from the Secretary of the Massachusetts Department of Transportation (MassDOT). If said Secretary does not consent to the issuance of such permit, the owner of the land may recover from the Commonwealth such damages as would be awarded under the provisions of Chapter seventy-nine.

Notwithstanding the provisions of the second sentence of the foregoing paragraph, there shall be no recovery from the Commonwealth in damages under said sentence by an owner of such land purchased after January first, nineteen hundred and seventy-six.

**Massachusetts Department of Transportation  
Massachusetts General Law, Chapter 40, Section 54A**

**Statement of Procedures**

1. All requests for consent under Chapter 40 Section 54A must be submitted to the Massachusetts Department of Transportation (MassDOT) from the building inspector of the city or town in which the proposed construction will take place.
2. Pursuant to M.G.L. Chapter 40, Section 54A, when requesting consent the applicant must advertise a public hearing notice in a local newspaper. The process usually takes two months. If you have any questions or need additional information, please call the Rail and Transit Division of MassDOT at (857) 368-8964.
3. All requests should be addressed to:

Richard A. Davey  
Secretary and Chief Executive Officer  
Massachusetts Department of Transportation  
10 Park Plaza, Suite 4160  
Boston, MA 02116-3969

4. The following information must to be submit with a completed M.G.L. Chapter 40, Section 54A Application:
  - (a) A letter from the building inspector requesting a public hearing (see attached sample letter) and the attached application.
  - (b) A copy of the plan(s) submitted to the building inspector, with a title block outlining and the former railroad land.
  - (c) A signed property deed with a corresponding plot plan(s).
  - (d) A copy of the deed from the railroad and the related plot plan(s).
  - (e) A plan of the parcel on which the construction will take place showing the location of proposed building and the current and/or former railroad property line boundaries.
  - (f) A map (locus) of the city, town, or surrounding area highlighting the location of the property in question.
5. The completed application packet will be reviewed by MassDOT and my include reviews by other public agencies.

6. MassDOT will review the received information and contact the applicant to schedule a date for the public hearing. **The applicant is responsible for advertising the hearing in a local newspaper at least twenty-one (21) days prior to the hearing date. Please note, MassDOT requires a copy of the advertisement tear sheet prior to the scheduled hearing. A sample hearing notice is attached.**
7. After the public hearing, MassDOT will review all comments submitted and send a letter stating the Secretary's decision to the building inspector and the applicant.

# SAMPLE

## 40 § 54A BUILDING INSPECTOR LETTER

**NOTE:** This letter should be re-typed on the city or town letterhead and signed by the building inspector or the appropriate city or town official.

**(DATE)**

Richard A. Davey  
Secretary and Chief Executive Officer  
Massachusetts Department of Transportation  
Ten Park Plaza, Suite 4160  
Boston, Massachusetts 02116-3969

**Attn: Rail and Transit Division**

Dear Secretary Davey:

**(NAME OF APPLICANT)** has requested a permit to build **(DESCRIPTION OF PROPOSED CONSTRUCTION)** in **(CITY/TOWN)**, Massachusetts. The property for which the permit is requested is located at **(ADDRESS OF PROPERTY)**.

In accordance with Massachusetts General Law, Chapter 40, Section 54A, a permit shall not be issued without first obtaining, after a public hearing, the consent in writing to the issuance of such permit from the Secretary and Chief Executive Officer of the Massachusetts Department of Transportation (MassDOT).

I hereby request that a public hearing be held for **(NAME OF APPLICANT)** to determine whether consent will be granted by MassDOT to construct (proposed project) on the former railroad property referenced above.

Sincerely,

**(BUILDING INSPECTOR'S SIGNATURE)**

**(PRINT NAME)**

**(TITLE)**

M.G.L. CHAPTER 40, SECTION 54A, APPLICATION

(PLEASE TYPE OR PRINT)

*Please answer in detail*

**1. CONTACT PERSON:**

\_\_\_\_\_  
\_\_\_\_\_

**2. ADDRESS OF CONTACT PERSON:**

\_\_\_\_\_  
\_\_\_\_\_

Tel. No:

\_\_\_\_\_

\_\_\_\_\_

**3. BUILDING INSPECTOR OR  
CITY/TOWN OFFICIAL:**

\_\_\_\_\_  
\_\_\_\_\_

**4. ADDRESS OF BUILDING INSPECTOR  
OR CITY/TOWN OFFICIAL:**

\_\_\_\_\_  
\_\_\_\_\_

**5. NAME OF PRESENT PROPERTY  
OWNER:**

\_\_\_\_\_  
\_\_\_\_\_

**6. ADDRESS OF PROPERTY OWNER:**

\_\_\_\_\_  
\_\_\_\_\_

**7. NAME OF APPLICANT:**

\_\_\_\_\_  
\_\_\_\_\_

**8. ADDRESS OF APPLICANT:**

\_\_\_\_\_  
\_\_\_\_\_

CO APPLICANT (IF APPLICABLE):

\_\_\_\_\_  
\_\_\_\_\_

**9. PROPERTY LOCATION (CITY/TOWN):**

\_\_\_\_\_  
\_\_\_\_\_

**10. TYPE OF CONSTRUCTION:**

\_\_\_\_\_  
\_\_\_\_\_

TOTAL NUMBER OF STRUCTURES  
TO BE CONSTRUCTED: \_\_\_\_\_

USE: COMMERCIAL, RESIDENTIAL,  
INDUSTRIAL: \_\_\_\_\_

**13. PROPERTY IS:**

- on railroad corridor
- appurtenant to a railroad corridor
- includes land both appurtenant to a  
corridor and on a corridor

If property is adjacent to the railroad  
corridor, please indicate approximate  
distance from (former) railroad property  
boundary line to the proposed structure

\_\_\_\_\_

**14. PROPERTY IS ADJACENT TO:**

(Check N/A, if not applicable)

- an abandoned railroad line
- an active railroad line
- N/A

Name of Right of Way – i.e. Branch Line

\_\_\_\_\_

Distance from boundary line to nearest  
track:

\_\_\_\_\_

15. APPROX. WIDTH OF CORRIDOR:

\_\_\_\_\_

16. TOTAL PARCEL AREA INCLUDING FORMER RAILROAD PROPERTY:

\_\_\_\_\_

15a **REQUIRED** - ATTACH A DESCRIPTION OF PROPERTY TO BE CONSTRUCTED

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPROXIMATE AREA OF FORMER RAILROAD PROPERTY

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

17. CITY/TOWN ASSESSOR'S PARCEL IDENTIFICATION NUMBER:

Lot # \_\_\_\_\_ Map # \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

18. FORMER RAILROAD OWNER:

\_\_\_\_\_

Date of Abandonment:

\_\_\_\_\_

19. APPROXIMATE DATE OF RAILROAD DISPOSITION

\_\_\_\_\_

20. DATE OF PRESENT OWNER ACQUISITION:

\_\_\_\_\_

21. Under *M.G.L., Chapter 40, Section 54A Statute* the Secretary of MassDOT will notify both the City/Town Building Inspector and Applicant in writing. If the applicant would like other person(s) to be copied, please indicate name(s) and address(s') below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_

**Print Name**

**Signature**  
**Applicant, Contact Person or Attorney**

**Sample**  
**40/54A Hearing Notice**

[PROPERTY ADDRESS]

[File number]

**Legal Notice**

**The Commonwealth of Massachusetts  
Massachusetts Department of Transportation**

**Notice of Hearing**

Upon the request of [NAME] the Building Inspector of the [CITY/TOWN], Massachusetts pursuant to Massachusetts General Laws, Chapter 40 Section 54A, the Massachusetts Department of Transportation shall conduct a hearing to determine whether a building permit shall be issued to [NAME] for [DESCRIPTION OF PROPOSED CONSTRUCTION] located at [ADDRESS], Massachusetts and bound by [GENERAL DESCRIPTION OF PARCEL]. The parcel includes part of the properties of the [NAME OF RAILROAD].

The hearing will take place on [DATE] at [TIME] at the Department of Transportation, Ten Park Plaza, Suite [#] Boston, MA 02116. All interested parties should attend. Inquires regarding this hearing may be made to Massachusetts Department of Transportation – Rail and Transit Division at (857) 368-8964.

**THE ADVERTISEMENT TEAR SHEET FROM A LOCAL NEWSPAPER MUST BE SENT TO  
MASSDOT'S RAIL AND TRANSIT DIVISION PRIOR TO THE HEARING DATE.**



TOWN OF CONCORD

# Housing Production Plan

Update 2010

Prepared for:  
Town of Concord, MA

Prepared by:  
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## INTRODUCTION

Housing Production Plans ("HPP") are prepared in accordance with the Massachusetts Department of Housing and Community Development ("DHCD") requirements under 760 CMR 56.03(4). The plan defines the annual increases in the creation of eligible affordable housing units with expanded local input and broad community support. It is comprised of a comprehensive needs assessment, affordable housing goals and implementation strategies. These overall topics are further defined and refined through detailed analysis of demographic and housing data, and development constraints; as well as detailed housing production goals and strategies.

The original Concord Housing Production Plan was prepared in accordance with the regulations and approved by DHCD in August 2005 for a 5-year period. This update is being undertaken to retain the approval status of that original Plan.

The ultimate goal of this update is to have a completed HPP which can be certified by the State. This process begins with the DHCD's approval of the updated HPP. After approval, the Town must produce the required number of units in one year to retain certification. This is 0.5% of year-round units for a one year certification (or 31 units for Concord using 2000 housing units) or 1.0% for a two year certification (62 units for Concord). Once the required number of units is reached, a request for certification is submitted to DHCD. If certification is approved, then the Town may deny Comprehensive Permit applications if such applications are not "consistent with local needs."

Specifically, under the new (Feb 2008) regulations "If a community has achieved certification within 15 days of the opening of the local hearing for the Comprehensive Permit, the ZBA shall provide written notice to the Applicant, with a copy to DHCD, that it considers that a denial of the permit or the imposition of conditions or requirements would be Consistent with Local Needs, the grounds that it believes have been met, and the factual basis for that position, including any necessary supportive documentation.

If the Applicant wishes to challenge the ZBA's assertion, it must do so by providing written notice to DHCD, with a copy to the ZBA, within 15 days of its receipt of the ZBA's notice, including any documentation to support its position. DHCD shall review the materials provided by both parties and issue a decision within 30 days of its receipt of all materials. The ZBA shall have the burden of proving satisfaction of the grounds for asserting that a denial or approval with conditions would be consistent with local needs, provided, however, that any failure of the DHCD to issue a timely decision shall be deemed a determination in favor of the municipality. This procedure shall toll the requirement to terminate the hearing within 180 days."

There are strong local benefits to having an approved HPP. In addition to allowing for greater control over mixed-income and affordable housing development, an approved HPP provides a framework for local housing programs and establishes future development goals. It is also an

opportunity for the community at large to provide input on the creation of affordable housing. These are valuable benefits to the Town of Concord.

This update to Concord's 2005 HPP was prepared by consultants hired by the Concord Department of Planning and Land Management through a public RFP process and was funded from the Concord Community Preservation Act funds.

## EXECUTIVE SUMMARY

Recently awarded Metro West's "Gold Standard" in Boston Magazine's June 2010 "Best Places to Live," Concord continues to be a desirable residential community because of its natural beauty, good schools, rich history and traditions, and proximity to highways and public transportation.

Developable land is scarce (due to extensive flood plain and wetlands, active farming uses, and permanently protected open spaces), which causes the price of land to rise. High land prices contribute to ever-increasing housing costs, which make the Town unaffordable to many who currently reside in the community, as well as those who would like to move into the community.

For over 45 years, the Town's boards and committees have attempted to increase housing diversity in Town through plans, reports, and actions. There have been consistent concerns expressed about preserving economic and social diversity, along with a diversity of the housing stock, while remaining mindful of the Town's rural and historic traditions, including preservation of open space.

Concord, like many of the municipalities in the State, is zoned almost exclusively for single-family residences. However, there are a few local zoning provisions that encourage affordable housing, notably the Planned Residential Development special permit, which has been effective at permitting some mixed-income housing.

Concord has more than doubled its affordable housing in the last decade, and continues to make annual progress towards its housing goals. In the time since 2004, when the Housing Production Plan was prepared, the Town has accomplished many housing initiatives including adding 63 units to the Subsidized Housing Inventory – or 1.1% of the year-round housing in Concord. Other accomplishments include:

- Establishing the Concord Housing Development Corporation in 2008. This non-profit entity is able to purchase and develop property and maintain funds for housing related projects.
- Engaging in dialogue with State concerning disposition of other state owned parcels that are suitable for housing. Governor Patrick signed into law legislation that will transfer certain Department of Correction land in the town of Concord for affordable housing and open space. Chapter 117 of the Acts of 2010 filed by Representative Cory Atkins (D-Concord) and Senator Susan Fargo (D-Lincoln), conveys a 12 acre parcel of state-owned land under the control of the Massachusetts Department of Correction (DOC) to the Concord Housing Development Corporation (CHDC) to facilitate the development of affordable housing in Concord. The CHDC is a nonprofit organization that the legislature established in 2006 by a special act sponsored by Representative Atkins.
- Adding incentives to Residential Cluster Development by-law.
- Addressing problems caused by 'mansionization' by forming several groups that identified solutions and proposed Town Meeting articles for zoning revisions and

Neighborhood Conservation Districts. Though these failed, the Planning Board is appointing a task force this summer to re-examine this issue in light of recent court cases and renewed local concern.

- Continuing to track potential sites becoming available through Chapter 61 Identifying organizations to which the Town can transfer its purchase rights. The Town worked with the Concord Housing Trust to purchase land, and plans to work with the newly formed Concord Housing Development Corporation if the Town is in a position to transfer purchase rights (under Ch. 61, 61A and 61B). The Town continues to monitor such properties through the GIS and outreach to property owners.
- Pursuing development of Town owned land. The Finigan Way development, on previously Town owned property - is under construction where six of the twenty units are affordable.
- Adopting the Community Preservation Act in 2004 and continuing to support the program by voting not to revoke the CPA at the 2010 Town Meeting. The CPA allocated funds for housing purposes in the amount of \$2,607,150 up to and including the 2010 distribution.
- Participating in regional efforts with MAPC-MAGIC to support regional activities related to affordable housing. The Town has also joined the West-Metro HOME Consortium this year. The Town is currently in discussion with other communities to identify groups or individuals who can assist in preserving and promoting the existing affordable housing opportunities in the community.

The overall population is relatively constant, with significantly rising incomes, an increase in median age and a slight decrease in household size.

The data indicates that Concord's housing stock continues to grow at a faster rate than the population and parallels a national trend of decreasing household size.

The median priced single-family home in Concord would only be affordable for upper-income households and a median priced condo would be unaffordable to households at or below the moderate income level. The median value of homes in Concord is more than twice the State median.

The high cost of land in Concord is one of the major constraints in developing additional affordable housing. Permanently protected open space makes up 30% of the Town's land, and 22% of the overall land area is wetland and floodplain (some of which is also permanently protected). Approximately 38% of the Town is developed with a mix of residential and commercial uses.

Projecting housing needs, taking into account regional growth factors, may be more art than science. The impacts of recent economic factors have great influence that no one can predict. However, several factors identified will have an impact on future housing. These trends include an aging population, smaller household sizes, growing demand for environmentally conscious housing, and less buildable land. These would tend to point to the increased development of smaller dwellings closer to public resources.

The Town has articulated six goals and twelve strategies to define the framework and implementation activities for the housing plan. These range from preserving existing small homes and retaining existing low-income households throughout town to increasing diversity of housing options through compact development.

The housing plan will encourage the creation of both affordable units that will count on the SHI and units affordable to middle-income households, including those with a Concord connection, throughout town as well as creating homeownership opportunities.

## Section 1. HOUSING NEEDS ASSESSMENT

The key element of the Housing Needs Assessment section of the Housing Production Plan (HPP) is to understand who currently lives in the community, demonstrated through demographic trends affecting future growth, as well as existing housing stock and future housing needs.

The HPP must establish a strategic plan for municipal action with regards to housing, based upon a comprehensive housing needs assessment that, at a minimum, examines:

- The most recent available census data of the municipality's demographics (Section 1.1) and housing stock (Section 1.2, 1.3 and 1.4). Reviewing census data is the starting point for a community's analysis and information may be found at <http://www.census.gov/>. Regional Planning Agencies, Town Clerk, realtors and the media are also sources of information that may be used in an HPP.
- A projection of future population and housing needs, taking into account regional growth factors, that covers the entire period of the plan. (Section 1.5)
- The capacity of the municipality's infrastructure to accommodate the current population and anticipated future growth, including plans for enlargement or expansion of existing infrastructure systems to ensure that both current and future needs are met. The infrastructure analysis should evaluate the capacity of water and sewer systems, roads, utilities, public transit, schools, and any other public facilities that will impact or be impacted by future housing development. (Section 1.6).

The original Housing Production Plan approved in 2005 provided a detailed analysis of Concord's demographics using the 2000 Census. As the new Census data (2010) is not available, these sections from the original plan (Sections 1.2, 1.3 and 1.4) have been included using their original data and analysis. Updated comments and more recent information are provided along side of the original information.

Section 1.1: Population and Household Analysis from 2005 plan  
(using 2000 Census Data)

A community's housing needs change over time as the size and composition of the population evolves and housing preferences shift. Different social and economic factors may influence whether families choose to rent or buy, construct new homes or renovate old homes. The size and type of homes are also influenced by family size, householder age, and economic status.

The population of Concord has remained stable over the past decade at approximately 17,000. There have been some significant shifts in the composition of the Town's population in that time, with the adult population declining in the 20 to 34 year age bracket by 48% and increasing in the 75 and over bracket by 38%.

**Households by Size and Type**

The total Concord population did not grow in the decade from 1990 to 2000, though the number of households increased by 255, or approximately 5%. As the data from 2000 in Table 1 reflects, the net increase has occurred in the number of owner-occupied households, which rose by 8%, corresponding to an equivalent percentage decrease in renter-occupied households. In 1990, 22% of the Town's households were renters but by 2000, this ratio had fallen to 19%, with an increase of 359 owner occupied units, and a decrease of 104 rental units.

The largest net increase occurred among single-person households. The Town has a smaller average household size and has experienced an increase in the percentage of elderly residents.

In summary, while the overall population virtually stayed the same, the number of households has increased, with more owner-occupied units and fewer people per household.

While most of the data in this section relies on the 2000 Census, the Warren Group provides certain more current demographical information.

The population in Concord has remained relatively constant since 2000 (decrease of 1.02%), while incomes have risen almost 12% to a median of \$109,384 and median age also increasing from 53.1 to 55.5 years.

These trends compare equally to the trends in the abutting Towns as shown in Table 2.

Table 1: Population, Households, Type and Household Size for Concord

|                               | 1990   | 2000   | % Change |
|-------------------------------|--------|--------|----------|
| Total Population              | 17,076 | 16,993 | -0.5%    |
| Population in Group Quarters  | 1,783  | 1,417  | -20.5%   |
| Sub-Total Institutional       | 1,680  | 1,383  | -17.7%   |
| Sub-Total Noninstitutional    | 103    | 34     | -67.0%   |
| Population by Age             |        |        |          |
| Under 5                       | 954    | 979    | 2.6%     |
| 5 to 17                       | 2,513  | 3,284  | 30.7%    |
| 18 to 24                      | 1,471  | 712    | -51.6%   |
| 25 to 34                      | 2,594  | 1,415  | -45.5%   |
| 35 to 44                      | 2,947  | 2,975  | 1.0%     |
| 45 to 54                      | 2,437  | 2,946  | 20.9%    |
| 55 to 59                      | 986    | 1,081  | 9.6%     |
| 60 to 64                      | 908    | 791    | -12.9%   |
| 65 to 74                      | 1,249  | 1,406  | 12.6%    |
| 75 to 84                      | 687    | 963    | 40.2%    |
| 85 years +                    | 330    | 441    | 33.6%    |
| Population in Households      |        |        |          |
| Average Household Size        | 2.69   | 2.62   | -2.6%    |
| Average Owner-Occupied Unit   | 2.83   | 2.77   | -2.1%    |
| Average Renter-Occupied Unit  | 2.17   | 1.99   | -8.3%    |
| Households                    |        |        |          |
| Owner-occupied                | 4,439  | 4,803  | 8.2%     |
| Renter-occupied               | 1,254  | 1,145  | -8.7%    |
| Households by persons in Unit |        |        |          |
| Total Occupied Units          | 5,693  | 5,948  | 4.5%     |
| 1-person household            | 1,129  | 1,306  | 15.7%    |
| 2-person household            | 1,891  | 2,032  | 7.5%     |
| 3-person household            | 1,080  | 999    | -7.5%    |
| 4-person household            | 1,040  | 1,042  | 0.2%     |
| 5-or-more-person household    | 580    | 569    | -1.9%    |

Source: U.S. 2000 Census

### Recent Regional Demographic trends

Recent demographical data collected by the Warren Group in 2007 provides a comparison of the demographic changes since the 2000 Census data for both Concord and neighboring Towns. The table below demonstrates that the trends evidenced in Concord are mostly shared by the surrounding towns. The overall population is relatively constant, with significantly rising incomes, and an increase in median age.

Table 2: Demographic Data for Concord and Neighboring Towns

| Town     | Population |        |       | Household Income |           |       |
|----------|------------|--------|-------|------------------|-----------|-------|
|          | 2000       | 2007   | % chg | 2000             | 2007      | % chg |
| Concord  | 16,993     | 16,821 | -1.0  | \$95,597         | \$108,384 | 11.8  |
| Acton    | 20,331     | 20,487 | 0.8   | \$90,936         | \$108,125 | 15.9  |
| Bedford  | 12,595     | 12,429 | -1.3  | \$89,684         | \$107,155 | 16.3  |
| Carlisle | 4,717      | 4,831  | 2.4   | \$130,592        | \$156,000 | 16.3  |
| Lincoln  | 8,056      | 7,862  | -2.5  | \$82,201         | \$94,811  | 13.3  |
| Maynard  | 10,433     | 10,141 | -2.9  | \$61,000         | \$72,721  | 16.1  |
| Sudbury  | 16,841     | 17,006 | 1.0   | \$119,625        | \$142,731 | 16.2  |
| Wayland  | 13,100     | 12,923 | -1.4  | \$101,304        | \$116,206 | 12.8  |

| Town     | Median Age |      |     | HH Size |      |       |
|----------|------------|------|-----|---------|------|-------|
|          | 2000       | 2007 | chg | 2000    | 2007 | chg   |
| Concord  | 53.1       | 55.5 | 2.4 | 2.62    | 2.58 | -0.04 |
| Acton    | 46.6       | 49.9 | 3.3 | 2.69    | 2.67 | -0.02 |
| Bedford  | 51.5       | 54.3 | 2.8 | 2.60    | 2.56 | -0.04 |
| Carlisle | 50.7       | 53.7 | 3.0 | 2.92    | 2.87 | -0.05 |
| Lincoln  | 47.4       | 51.6 | 4.2 | 2.83    | 2.79 | -0.04 |
| Maynard  | 47.4       | 50.0 | 2.6 | 2.43    | 2.37 | -0.06 |
| Sudbury  | 49.1       | 52.5 | 3.4 | 3.02    | 3.04 | 0.02  |
| Wayland  | 51.9       | 54.7 | 2.8 | 2.80    | 2.79 | -0.01 |

Source: Warren Group

### Racial/Minority Population Information

Based on the information gathered by the U.S. Census (and presented below, it appears that the diversity within the Concord community is increasing slightly, with a 2% decline in those reporting their race as "white." While the number of residents reporting their race as "black" declined, there were increases in the numbers of residents who reported their race as "Asian; some other race; or two or more races".

Although the U.S. Census from 1990 to 2000 appears to show a slight decline in the Concord population, information collected by the Town Clerk shows that this apparent decline was due to a decrease in the prison population. There are two correctional facilities located in Concord,

the MCI-Concord and the Northeast Correctional Center, both located on Route 2 near the Rotary. Construction at MCI-Concord in 2000 required a shift in the numbers of prisoners being held in Concord – the estimates indicate a difference from 1,500 in 1990 to 975 in 2000, or 525 inmates). It is difficult for the Town to determine the demographic information of prisoners housed in Concord, and it is assumed that the Census data accurately includes the prisoner population.

Table 2.1: Racial Composition

| Race                                      | 1990           | 2000           |
|-------------------------------------------|----------------|----------------|
| White                                     | 15,981 (93.6%) | 15,572 (91.6%) |
| Black                                     | 454 (2.5%)     | 380 (2.2%)     |
| Am. Indian, Eskimo, Aleut                 | 27 (0.1%)      | 16 (.09%)      |
| Asian (+ Hawaiians and Pacific Islanders) | 349 (2.0%)     | 492 + 4 (2.9%) |
| Some other race                           | 258 (2.4%)     | 361 (2.1%)     |
| 2 or more races                           | N/A            | 168 (0.9%)     |
| Total population                          | 17,069         | 16,993         |

Source: 2000 Census

The minority population for the Boston-Cambridge-Quincy metropolitan statistical area, which includes Concord, measures 20.7% (per DHCD), clearly above the racial and ethnic demographics presented for Concord.

Having racial, age and economic diversity within the resident population has long been of concern to the community as expressed in master plans and long range plans going back to the 1970's and 1980's, and is part of the 2005 Comprehensive Long Range Plan. With the extent of lands that have been permanently protected (30+% of the total land area) by the Federal government (Minute Man National Historical Park and the Great Meadows Wildlife Refuge), the State government (Walden Pond Reservation and agricultural fields near the Northeast Correctional facility), the Town (various farms, parks and open spaces) and private groups, in combination with the rising cost of construction and housing, maintaining existing affordability and providing for a variety of housing options continues to be of concern to the community.

### Special Needs

The 2000 census reported that 19.3% of the population age 5 and older, or nearly one in five people in the United States, are living with some type of long lasting condition or disability. Census 2000 also showed that disability – whether physical, mental or emotional - rises with age and that disability is linked to poverty.

Approximately 10.9% of the Concord civilian, non-institutionalized population (age 5 years and older) reported a disability (1,599 out of 14,630). The number of people reporting a disability who were age 65 and over was 501 out of 2,468, or 20.2% in the 2000 census (see the chart at the end of this discussion).

From the population demographics, the Town of Concord has experienced a marked increase in the number of residents age 65 and older, increasing from 9% of the population in 1970 to

17.5% of the population in 2000. Concord's need for housing for disabled individuals is anticipated to rise because the over-65 population is rising.

While the numbers indicate a lower rate of disability in the community than that for the region, state and country, they also raise an awareness that housing needs are varied and that no one solution can meet these needs. By acknowledging the need for special needs housing, the community can work to insure that a variety of housing options are available and provide support for efforts by the Town, the Housing Authority, private groups and individuals to provide accessible affordable housing.

| Disability Status       | Concord     | Middlesex County area |
|-------------------------|-------------|-----------------------|
| Pop. 5 to 20 years      | 3,521       |                       |
| with disability         | 214 (6%)    | 7.2 – 8.7 %           |
| Pop. 21 to 64 years     | 8,641       |                       |
| with disability         | 884 (10.2%) | 16.7 – 18.5%          |
| Pop. 65 years and older | 2,468       |                       |
| with disability         | 510 (20.2%) | 36.5 – 38.6%          |

Source: Town of Concord

Section 1.2: Housing Supply in Concord from 2005 plan  
(using 2000 Census Data)

As of 2000, there were 6,153 housing units in Concord. Concord’s owner-occupied housing units increased during the decade, but the total number of rental units decreased. The data indicates that Concord’s housing stock continues to grow at a faster rate than the population and parallels a national trend of decreasing household size. The number of homeowner occupied units is rising at a more rapid pace than rental units, which will influence the affordability of housing as a whole.

Concord’s rental vacancy rate declined from 4% in 1990 to 3.2% in 2000. The homeownership vacancy rate declined from 1.9% to 0.6% in the same period. The vacancy rate includes those units which were vacant and for sale or for rent at the time of the Census, but does not include units that have been rented or sold and awaiting occupancy, seasonal units, or other vacant units that were being held off market or retained for other purposes.

Generally, housing vacancy rates of 5% for rental units and 2% for ownership stock are thought to be sufficient for accommodating reasonable housing choice. Throughout the region, the ownership and rental vacancy rates remain below the desired averages. Factors that would account for this trend include high employment growth and increased housing demand and a lag in housing production as well as the increased housing costs that result from a tight housing market.

Table 3: Housing Supply - 1990 to 2000

|                                                 | 1990  | 2000  | Change | % Change |
|-------------------------------------------------|-------|-------|--------|----------|
| Total Housing Units                             | 5,917 | 6,153 | 236    | 4.0%     |
| Total Occupied                                  | 5,693 | 5,948 | 255    | 4.5%     |
| Owner-Occupied                                  | 4,439 | 4,803 | 364    | 8.2%     |
| Renter-Occupied                                 | 1,254 | 1,145 | -109   | -8.7%    |
| Total Vacant                                    | 224   | 205   | -19    | -8.5%    |
| Vacant for Rent                                 | 52    | 44    | -8     | -15.4%   |
| Vacant for Sale                                 | 86    | 47    | -39    | -45.3%   |
| Rented or sold, awaiting occupancy              | 31    | 38    | 7      | 22.6%    |
| Vacant Seas, Migratory, Occ. Use, or Other      | 55    | 76    | 21     | 38.2%    |
| Total Stock Occupied or Available for Occupancy | 5,831 | 6,039 | 208    | 3.6%     |
| Vacancy Rate Ownership                          | 1.9%  | 0.6%  |        |          |
| Vacancy Rate Rental                             | 4.0%  | 3.2%  |        |          |

Source: U.S. 2000 Census

Table 4: Housing Supply - Regional Comparison

| c             | Occupied Housing 2000 |         |           | % Rental | Vacancy Rate 2000 |        |
|---------------|-----------------------|---------|-----------|----------|-------------------|--------|
|               | Owner                 | Renter  | Total     |          | Owner             | Renter |
| Concord       | 4,798                 | 1,150   | 5,948     | 19.3%    | 0.6               | 3.2    |
| Acton         | 5,702                 | 1,793   | 7,495     | 23.9%    | 0.8               | 2.8    |
| Bedford       | 3,705                 | 916     | 4,621     | 19.8%    | 0.3               | 2.6    |
| Bolton        | 1,330                 | 94      | 1,424     | 6.6%     | 1.0               | 7.8    |
| Boxborough    | 1,310                 | 543     | 1,853     | 29.3%    | 0.5               | 4.6    |
| Carlisle      | 1,518                 | 100     | 1,618     | 6.2%     | 0.6               | 2.9    |
| Hudson        | 4,964                 | 2,026   | 6,990     | 29.0%    | 0.4               | 3.1    |
| Lexington     | 9,175                 | 1,935   | 11,110    | 17.4%    | 0.4               | 1.7    |
| Lincoln       | 1,710                 | 1,080   | 2,790     | 38.7%    | 0.7               | 0.6    |
| Littleton     | 2,461                 | 499     | 2,960     | 16.9%    | 0.4               | 3.1    |
| Maynard       | 2,997                 | 1,295   | 4,292     | 30.2%    | 0.4               | 2.9    |
| Stow          | 1,813                 | 269     | 2,082     | 12.9%    | 0.3               | 0.7    |
| MAGIC Region* | 36,685                | 10,550  | 47,235    | 22.3%    | 0.7               | 2.7    |
| Massachusetts | 1,508,248             | 935,332 | 2,443,580 | 38.3%    | 0.7               | 3.5    |

Metropolitan Area Planning Council, 2001, U.S. Census for 2000

Section 1.3: Housing Costs and Affordability from 2005 plan  
(using 2000 Census Data)

The following analysis reviews the demand for housing in Concord and the housing needs of local residents, while also assessing what is actually an affordable housing option.

Household and Family Income

Housing affordability is determined by comparing median incomes and the availability of housing options within various income ranges. Federal and state affordable housing programs group households by income using the area median family income (AMI) as the benchmark. The AMI referenced in this analysis is for the Boston-Cambridge-Quincy Metropolitan Statistical Area. Housing demand and need has been calculated for four income groups using Census 2000 data: poverty level (30% of AMI, based on the federal poverty threshold for a family of four), low (up to 50% of AMI), moderate (51% to 80% of AMI), and middle (81% to 150% of AMI).<sup>1</sup> Table 5 lists median family and household incomes for the Town, county, and region.

Income limits are updated by HUD on a yearly basis. The 2010 income limits for comparison purposes are:

State, Federal housing program limits:  
Very Low Income (50% AMI) = \$45,900  
Low Income (80% AMI) = \$64,400

CPA housing expenditure limits  
Moderate Income (100% AMI) = \$91,800

'Concord' Affordability definition (PRD zoning)  
Starter Priced (110% AMI) = \$100,980  
Moderate Priced (150% AMI) = \$137,700

Table 5: Median Income

|                         | 1990     | 2000      | \$ Change | % Change |
|-------------------------|----------|-----------|-----------|----------|
| Median Household Income |          |           |           |          |
| Town                    | \$69,917 | \$95,272  | \$25,355  | 36.3%    |
| Owner-Occupied          | --       | \$106,239 | --        | --       |
| Renter-Occupied         | --       | \$51,058  | --        | --       |
| County                  | \$43,847 | \$60,821  | \$16,974  | 38.7%    |
| Boston PMSA             | \$40,491 | \$55,183  | \$14,692  | 36.3%    |
| Median Family Income    |          |           |           |          |
| Town                    | \$80,184 | \$115,839 | \$35,655  | 44.5%    |
| County                  | \$52,112 | \$74,194  | \$22,082  | 42.4%    |
| Boston PMSA             | \$49,266 | \$68,341  | \$19,075  | 38.7%    |

Source: U.S. Census, reports income for previous year (1989, 1999).

<sup>1</sup> Area median family income is established annually by the U.S. Department of Housing and Urban Development for metro areas and counties. For the purposes of comparison with other U.S. Census data, this analysis used the 1999 median family income as reported by the 2000 Census for the Boston PMSA.

Table 6 lists the income levels for low to middle-income households and the percentage of Concord's households in each range based on Census 2000 information.<sup>2</sup>

Table 6: Households by Income Range

| Income Group*                                | Max. Annual Income | % of Renters | % of Owners | % of All Households |
|----------------------------------------------|--------------------|--------------|-------------|---------------------|
| Poverty Level***                             | \$17,603           | 8%           | 3%          | 4%                  |
| Low Income (Under 50% of median income)      | \$34,171           | 36%          | 11%         | 16%                 |
| Moderate Income (Under 80% of median income) | \$54,673           | 52%          | 22%         | 28%                 |
| Middle Income (Under 150% of median income)  | \$102,512          | 80%          | 46%         | 53%                 |

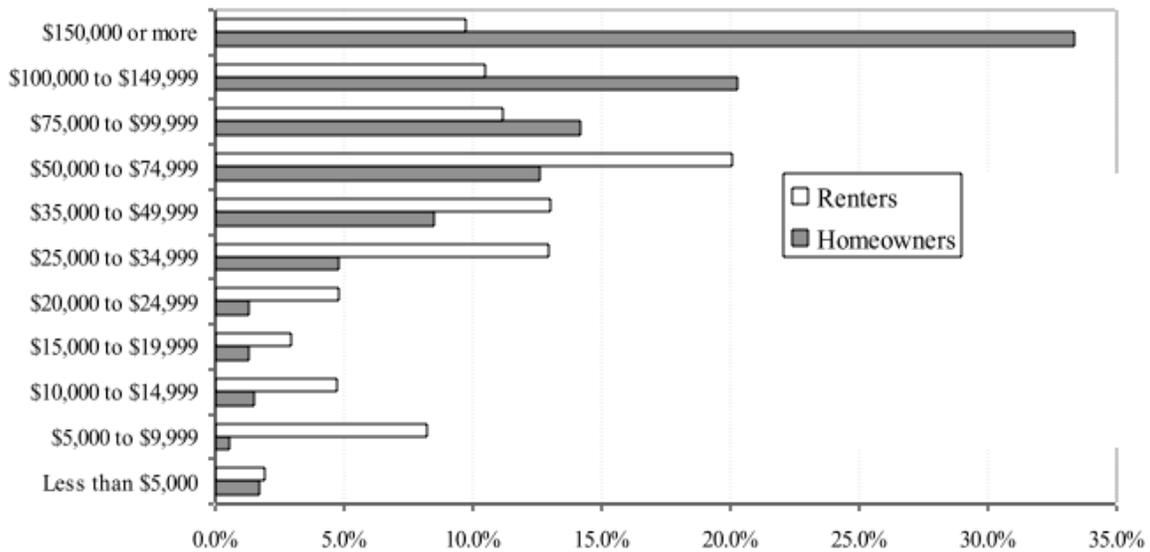
\* Income groups were derived based on the median family income for the Boston PMSA (2000 Census).

\*\*Poverty level based on threshold for family of four as reported by 2000 U.S. Census.

Concord's median homeowner income in 1999 was \$106,239 and the median renter household earned \$51,058. The Town's median incomes as reported in the 2000 Census were 30% higher than the Boston region and over 20% higher than Middlesex County.

As Figure 1 illustrates, about 33% of the homeowner households in Concord earned over \$150,000 and the highest percentage of renters earned between \$50,000 and \$74,999. The Warren Group reports that the 2007 overall median household income is \$108,384, consistently above the Boston region.

Figure 1: Households by Income Range, 1999



<sup>2</sup> The U.S. Department of Housing and Urban Development reports the 2010 AMI for the Boston MSA as \$91,800.

## Housing Costs and Value

The median housing costs listed in Table 7 are based on Census data as well as market data from the Warren Group.<sup>3</sup> The Warren Group home sales price data represent the actual sale prices of homes, whereas the Census data are based on respondents' opinions of the value of their home and are likely to lag behind actual market conditions.<sup>4</sup> Although median gross rent grew at a rate equivalent to the median income, the median sales price of a home has increased by more than twice the rate of family and household incomes.

Table 7: Median Housing Costs

| Housing Costs                             | 1990      | 2000      | Numerical Change | % Change |
|-------------------------------------------|-----------|-----------|------------------|----------|
| Median Value Owner-Occupied Home (Census) | \$310,600 | \$453,400 | \$142,800        | 46.0%    |
| Median Home Sales Price (Warren Group)    | \$272,500 | \$522,500 | \$250,000        | 91.7%    |
| single-family                             | \$286,000 | \$529,250 | \$243,250        | 85.1%    |
| condo                                     | \$191,250 | \$283,750 | \$92,500         | 48.4%    |
| Median Gross Rent (Census)                | \$811     | \$1,106   | \$295            | 36.4%    |

| Housing Costs (Warren Group)       | Concord   |           | Massachusetts |           |
|------------------------------------|-----------|-----------|---------------|-----------|
|                                    | 2000      | 2010      | 2000          | 2010      |
| Median Sales Price – Single Family | \$529,250 | \$615,175 | \$200,000     | \$285,000 |
| Median Sales Price – Condo         | \$283,750 | \$550,750 | \$142,000     | \$253,000 |
| Median Sales Price – All Housing   | \$522,500 | \$562,500 | \$175,000     | \$266,750 |

There are 191 houses or condos currently (June, 2010) listed for sale on NewEnglandMoves.com, only four condominiums are listed for sale below \$300,000 (all above \$279,000); 6 units are listed for sale between \$300,000 and below \$400,000 (3 condos and 3 single family homes); 93 properties are listed between \$400,000 and \$1,000,000 (with a median of \$668,500) and 58 units are listed for more than one million dollars. There are not a sufficient number of affordable homes available for sale in the Town of Concord. Current 2010 data from the Town's Assessor's office confirms this data as shown in Table 8 below.

Table 8: Concord Housing Value by Range and Type

| Housing Assessments (Town) | Single Family |                            | Condominium |                   |
|----------------------------|---------------|----------------------------|-------------|-------------------|
|                            | Amount        | % of total single-families | Amount      | % of total condos |
| \$0 - \$400,000            | 365           | 8%                         | 450         | 66%               |
| \$400,000 - \$800,000      | 2,627         | 57%                        | 205         | 30%               |
| \$800,000 - \$1,500,000    | 1,172         | 25%                        | 28          | 4%                |
| \$1,500,000 +              | 451           | 10%                        | 2           | 0%                |
| Total                      | 4,615         | 100%                       | 685         | 0%                |
| Median Assessment          | \$656,700     |                            | \$326,100   |                   |

<sup>3</sup> Town Statistics from the Warren Group at <http://www.thewarrengroup.com>.

<sup>4</sup> For example, Concord's median sales price in 1990 was lower than the median of values estimated by homeowners, who had not adjusted their expectations to the recession that was then in progress. In contrast, homeowners' estimates of value in 2000, during a period of rapid growth in housing values, were lower than actual values reflected in sales prices.

## Homeownership Affordability

The minimum income needed to afford a home in Concord can be determined based on the home price ranges reported for 2000 in the U.S. Census and assuming that the average household can afford to spend 30% of monthly income on mortgage payments.

Table 9 indicates the approximate affordable price range for low to middle income households using 2000 Census data, the number of homes within these ranges, and the deficit or surplus of units available to meet the estimated owner housing demand. For the purpose of this analysis, renter households with incomes at or above 60% of the area median income are considered prospective homeowners. The Table shows that Concord's home sales prices are prohibitive to many prospective buyers in the region. Only about 11% of the units are valued at \$251,000 or less, the approximate range for households at the moderate area median income.

As the 2000 data suggest, the median priced single-family home in Concord of \$529,250 would only be affordable for upper income households and a median priced condo of \$283,750 would be unaffordable to households at or below the moderate income level. It is likely that in order to purchase a home in Concord, lower income households must expect to spend more than 30% of their income on mortgage payments as shown in Table 9.

The homeowner costs as a percentage of income as shown in Table 8 reveals that most households which have an annual income of less than \$35,000 (the approximate threshold for low income households) will spend more than 35% or more of their income on household costs. There are also a significant number of households with annual incomes between \$35,000 and \$75,000 who spend more than 35% on household costs. In contrast, more households in the upper income groups spend less than 30% of annual income on housing costs.

The 2000 Census serves as the framework for the analysis in this section, and Tables 8 and 9.

When updated information from the 2010 Census is available - including the number of households by income ranges - new analysis can be performed.

Current 2010 data suggests that housing in Concord continues to be unaffordable to households earning the Area Median Income or below.

A 4-person household at 80% AMI could afford to purchase a single family home for no more than \$192,000 (DHCD Calculator).

Median sales price for a single-family \$615,175 (Warren Group), \$656,700 (Town Median Value). Even condos are out of reach with a median sales price of \$550,750 (Warren Group), \$326,100 (Town Median Value)

Table 9: Affordability of Home Prices for Lower Income Households<sup>5</sup>

| Income Group                               | Maximum Affordable Home Price at 30% of Household Income | Cumulative Owner-Occupied Units in Price Range |                      | Cumulative No. of Households in Income Range |           |                  | Deficits (-) or Surplus (+) |
|--------------------------------------------|----------------------------------------------------------|------------------------------------------------|----------------------|----------------------------------------------|-----------|------------------|-----------------------------|
|                                            |                                                          | Number                                         | % of All Owner Units | Owners*                                      | Renters** | Owners & Renters |                             |
| Poverty Level                              | \$82,000                                                 | 22                                             | 0.5%                 | 145                                          | -         | 145              | -123                        |
| Low Income                                 | \$158,000                                                | 63                                             | 1.3%                 | 534                                          | -         | 534              | -471                        |
| First time home buyers (60% median income) | \$190,000                                                | 135                                            | 2.8%                 | 711                                          | 65        | 776              | -641                        |
| Moderate Income                            | \$251,000                                                | 534                                            | 11.0%                | 1,055                                        | 193       | 1,248            | -714                        |
| Middle Income                              | \$475,000                                                | 2703                                           | 56.1%                | 2,227                                        | 507       | 2,734            | -31                         |

+ Calculated for 30 year mortgage at 6% rate with 10% down payment.

\* Total owners households = 4,803.

\*\* Total renter households = 738.

Table 10: Homeowner Costs as Percentage of Income

| Income Range                | No. of Homeowners Paying X% of Income in Housing Costs |         |         |         |             |
|-----------------------------|--------------------------------------------------------|---------|---------|---------|-------------|
|                             | Less than 20%                                          | 20%-24% | 25%-29% | 30%-34% | 35% or more |
| Less than \$10,000          | 0                                                      | 0       | 0       | 0       | 60          |
| \$10,000 to \$19,999        | 0                                                      | 0       | 0       | 6       | 94          |
| \$20,000 to \$34,999        | 25                                                     | 31      | 10      | 37      | 122         |
| \$35,000 to \$49,999        | 130                                                    | 51      | 17      | 29      | 96          |
| \$50,000 to \$74,999        | 193                                                    | 91      | 42      | 61      | 146         |
| \$75,000 to \$99,999        | 303                                                    | 79      | 70      | 50      | 72          |
| \$100,000 to \$149,999      | 447                                                    | 184     | 108     | 42      | 97          |
| \$150,000 or more           | 1,216                                                  | 176     | 48      | 71      | 10          |
| Total                       | 2,314                                                  | 612     | 295     | 296     | 697         |
| Not Computed                | 41                                                     |         |         |         |             |
| Units represented in sample | 4,255                                                  |         |         |         |             |

Source: U.S. Census 2000

<sup>5</sup> Maximum affordable home price calculated using income limits derived from median family income for the Boston PMSA as reported by the U.S. Census 2000. DHCD reports affordable home price in FY 2003 for moderate income households (150% of AMI) at \$375,312 (assumes 5% down, 7.5% APR for 30 years, 30% of income for housing costs and \$300/ month for taxes and insurance). See Attachment D in "Instructions for Completing EO 418 FY 2004 Request For Housing Certification".

## Rental Housing Affordability

The U.S. Census tabulates housing payments for renter occupied housing units by household income range, providing an estimate of the number of households with excessive cost burdens. Affordable rent is generally categorized as 30% of total monthly income. As Table 11 illustrates, about 29% of the renter households in Concord pay 30% or more of their income on rent.

Table 12 provides an affordability analysis for Concord's rental units. The table summarizes the number of renter households in each income range, the gross rent affordable for that income bracket, the number of rental units within these rent ranges, and the deficit or surplus of units available to meet the estimated rental housing demand. Income ranges are based on the area median family income for the Boston PMSA.

The rental analysis here is based on data from the 2000 US Census. The current rental analysis is inconclusive with regard to demand for additional affordable rental housing.

However, as a general policy, the economic stability of the region is linked with adequate provision of housing including multi-family housing and rental units. Research sponsored by the Massachusetts Housing Partnership supports the need for greater production of multi-family housing to promote the economic health of the region.

MA Foundation for Growth provides more information and research: [www.massgrowth.net](http://www.massgrowth.net).

The data suggests that Concord has an adequate supply of rental housing to accommodate the number of households within the current population that are within the low to moderate income ranges. The analysis reflects a deficit of units available for middle-income households.

Table 11: Gross Rent as a Percentage of Income

| % of Income                 | Number of Households | Cumulative % of Households |
|-----------------------------|----------------------|----------------------------|
| 50 percent or more          | 138                  | 14%                        |
| 40 to 49 percent            | 71                   | 21%                        |
| 35 to 39 percent            | 63                   | 27%                        |
| 30 to 34 percent            | 21                   | 29%                        |
| 25 to 29 percent            | 145                  | 44%                        |
| 20 to 24 percent            | 214                  | 65%                        |
| 15 to 19 percent            | 182                  | 83%                        |
| 10 to 14 percent            | 133                  | 97%                        |
| Less than 10 percent        | 35                   | 100%                       |
| Not computed                | 128                  |                            |
| Units represented in sample | 1,130                |                            |

Source: U.S. Census 2000

Table 12: Household Income and Affordable Rental Market<sup>6</sup>

| Income Group                                | Cumulative number of renters | Cumulative percent of Concord renters | Affordable gross rent (30% of income) | Cumulative number of units available | Deficit (-) or Surplus (+) |
|---------------------------------------------|------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|----------------------------|
| Poverty Level                               | 92                           | 8%                                    | \$450                                 | 113                                  | + 21                       |
| Low Income (Under 50% of PMSA median*)      | 407                          | 36%                                   | \$860                                 | 411                                  | + 4                        |
| Moderate Income (Under 80% of PMSA median*) | 600                          | 52%                                   | \$1,370                               | 707                                  | + 107                      |
| Middle Income (Under 150% of PMSA median*)  | 914                          | 80%                                   | \$2,570                               | 856                                  | - 58                       |
| Total units in sample                       |                              |                                       |                                       | 1,130                                |                            |
| Total units with cash rent                  |                              |                                       |                                       | 1,009                                |                            |

\* Boston PMSA median family income = \$68,341 Source: Interpreted from 2000 U.S. Census data

Table 13 lists the range of affordable rents within each income group and the number of units available by gross rent. Approximately 85% of Concord’s rental units are affordable to moderate income households and 40% are affordable to low income households. However, less than 40% of Concord’s renter households are low-income households, and 8% are at poverty level.

Table 13: Income Needed to Support Market Rents

| Income Range                 | Gross Rent      | # of Units | % of Units | Cumulative % of Units | Income Needed at Mid-point of Rent Range |
|------------------------------|-----------------|------------|------------|-----------------------|------------------------------------------|
| Poverty Level                | Less than \$200 | 24         | 2.4%       | 2.4%                  | \$4,000                                  |
|                              | \$200-\$299     | 32         | 3.2%       | 5.6%                  | \$10,000                                 |
|                              | \$300-\$399     | 28         | 2.8%       | 8.3%                  | \$14,000                                 |
|                              | \$400-\$499     | 73         | 7.2%       | 15.6%                 | \$18,000                                 |
| Low Income                   | \$500-\$599     | 19         | 1.9%       | 17.4%                 | \$22,000                                 |
|                              | \$600-\$699     | 85         | 8.4%       | 25.9%                 | \$26,000                                 |
|                              | \$700-\$799     | 110        | 10.9%      | 36.8%                 | \$30,000                                 |
|                              | \$800-\$899     | 40         | 4.0%       | 40.7%                 | \$34,000                                 |
| Moderate Income              | \$900-\$1,249   | 186        | 18.4%      | 59.2%                 | \$38,000                                 |
|                              | \$1,250-\$1,499 | 110        | 10.9%      | 70.1%                 | \$55,000                                 |
|                              | \$1,500-\$1,999 | 149        | 14.8%      | 84.8%                 | \$70,000                                 |
|                              | Over \$2000     | 153        | 15.2%      | 100.0%                | Over \$70,000                            |
| Total units in sample: 1,130 |                 |            |            |                       |                                          |
| With cash rent: 1,009        |                 |            |            |                       |                                          |
| No cash rent: 121            |                 |            |            |                       |                                          |

<sup>6</sup> Affordable gross rent calculated using income limits derived from median family income for the Boston PMSA as reported by the U.S. Census 2000.

Although the Town may have an adequate supply for the current population, the overall supply of affordable rental housing makes up a small percentage of Concord's entire housing stock. Therefore, lack of diversity of housing stock is a significant barrier to low or moderate-income families that wish to relocate to the Town.

Section 1.4: Housing Affordability Gap from 2005 plan  
(using 2000 Census Data)

Table 14 provides an overview of the affordability gaps for owners and renters in low to middle-income ranges. The data indicates that, although there is adequate supply of rental units to serve current renter households in the low to moderate-income ranges, there is a lack of affordable owner-occupied housing. Although the table reflects a deficit of owner and rental units for middle-income households, there is an overall surplus in this category if prospective first-time homebuyers (renters earning 60% or more of AMI) are excluded.

The Census data reflects an outflow of renter households from Concord in the past decade, which may account for the current surplus of renter housing. The recent Census also indicated that the number of owner-occupied units is rising faster than rental units, which could influence the overall affordability of housing in the future.

The current deficit of affordable housing coincides with a decline in the housing vacancy rates in Concord in the past decade, which are often associated with increased housing demand and increased housing costs in a tight market. The average home sales prices in Concord are high compared to the rest of the region and the Town's median incomes are also high in comparison. It is therefore likely that Concord's overall housing costs are prohibitive for first time homebuyers and lower income households as a whole.

Table 14: Summary of Housing Gap Analysis for Concord

| Income Group    | Maximum Affordable Home Purchase Price | Homeownership Unit Deficit (-) or Surplus (+) from Table 7 | Maximum Affordable Rent | Rental Unit Deficit or Surplus from Table 10 | Overall Deficit (-) or Surplus (+) * |
|-----------------|----------------------------------------|------------------------------------------------------------|-------------------------|----------------------------------------------|--------------------------------------|
| Poverty Level   | \$82,000                               | - 123                                                      | \$450                   | + 21                                         | - 102                                |
| Low Income      | \$158,000                              | - 471                                                      | \$860                   | + 4                                          | - 467                                |
| Moderate Income | \$251,000                              | - 714                                                      | \$1,370                 | + 107                                        | - 414                                |
| Middle Income   | \$475,000                              | - 31                                                       | \$2,570                 | - 58                                         | + 418                                |

\*From 2000 Census: Overall deficit and/or surplus figures were adjusted to account for double counting of renter households who earn 60% of AMI or more.

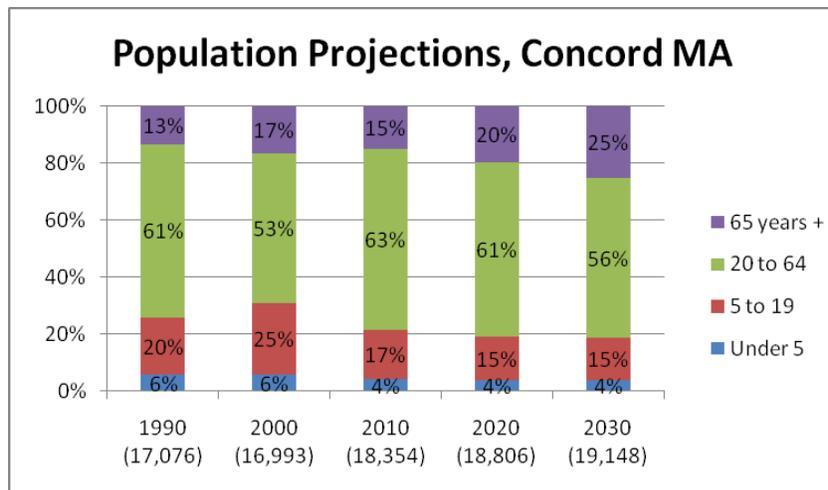
Source: Metropolitan Area Planning Council, May 2010.

## Section 1.5: Demographical and Housing Stock Data

### Population Information

The following projection of future population is provided by the Metropolitan Area Planning Council (MAPC). While projections are not certainties, a trend towards an older population with fewer children is indicated through MAPC's analysis.

According to enrollment projects provided by the Concord Public School Department, it is projected that Concord's public schools will see an increased enrollment of approximately 35 students over the next five years. This projection is partially based on analysis of new residential building trends and proposed projects provided by the Building Commissioner which estimates that approximately 469 new dwelling units (111 detached single family and 358 multi-family units) will be constructed in the 2011 and 2012.



### Housing Information

A comparison of housing types (from the Town's assessor's office) notes that the Town's housing stock remains primarily single-family with an increase of condominium units and a slight increase in apartments over the last five years.

| Housing Type          | 2005   | 2010   |
|-----------------------|--------|--------|
| Single Family         | 80.8%  | 75.4%  |
| Two Family            | 2.5%   | 2.0%   |
| Three Family          | 0.1%   | 0.1%   |
| Multi Family          | 0%     | 1.1%   |
| Condo                 | 8.2%   | 12.1%  |
| Apartment Units       | 4.8%   | 7.1%   |
| Accessory Apartments  | 3.6%   | 2.1%   |
| Farm Workers Quarters | 0%     | 0.1%   |
| Total Units           | 100.0% | 100.0% |

Projecting local housing needs is not a precise science. Many factors must be taken into account including regional growth projections. The impacts of the economic factors have a great influence that no one can predict. However, several known trends will have an impact on future housing: these include an older population, smaller household sizes, a growing demand for environmentally conscious housing, and less buildable land. These would tend to point to a demand for smaller dwellings closer to public resources.

#### Housing Need by Concord Residents

If Concord can demonstrate the associated need and the absence of any disparate impacts in the Affirmative Fair Housing Marketing Plan, up to 70% of units in an affordable housing development can be set-aside as 'local' or community preference units.

Each project will create its Affirmative Fair Housing Marketing Plan (AFHMP) in accordance with the Affirmative Fair Housing Marketing Plan guidelines issued by DHCD, most recently on 06/25/2008. Under no circumstances would the local selection preferences disproportionately delay or otherwise deny admission of non-local residents that are protected under state and federal civil rights laws. Each AFHMP will demonstrate what efforts will be taken to prevent a disparate impact or discriminatory effect to be approved by the Subsidizing Agency.

The following information is intended to demonstrate the associated need for housing by Concord residents, defined in accordance with AFHMP requirements as:

1. Current residents: A household in which one or more members is living in the city or town at the time of application.
2. Municipal Employees: Employees of the municipality, such as teachers, janitors, firefighters, police officers, librarians, or town hall employees.
3. Employees of Local Businesses: Employees of businesses located in the municipality.
4. Households with children attending the locality's schools, such as METCO students.

There continue to be strong demand for affordable housing for residents and employees in Concord. As of the second quarter of 2008, there were 912 business establishments listed in Concord, MA reporting an average monthly employment of 12,684 employees, according to the Massachusetts Division of Employment and Training. The average weekly wage of these employees is \$1,216; yielding an annual salary of \$63,475 which is less than the current HUD 80% income limits for a family of four.

Many Town employees also would benefit from lower priced homes. Concord has 265 Full time, regular employees, (part time or seasonal employees not included) of which 154 make less than \$70,000/year before preparing tax returns. (Source: 2010 payroll information from Concord Finance Department.)

There is a desire on the part of the Town to have employees living closer to Town (or in Town so they know the community better) to provide consistent service levels and better response to emergency situations. The further Town employees are required to travel due to housing prices, the greater the problem in providing a high level of service to residents, particularly during inclement weather conditions or emergency situations. Additional benefits to the

community and employees include reductions in travel time, traffic congestion and a potential improvement in air quality.

Additional insight is provided by the Concord Housing Authority and the data from their waiting lists. For elderly and senior housing: the waiting list for a Concord veteran is 6-12 months; for a Concord resident with no veteran status it is 1-2 years; and for someone with a Concord preference who needs an elderly, disabled, or handicapped unit it is about 1 ½ years. For someone not from Concord, the wait is more than 7 years. About 3 to 5 units turn over each year.

The average wait for a family rental unit differs by the size of the unit, with the larger units having a longer waiting time. The 3 and 4 bedroom units have a wait time for a Concord resident of 1-2 years; for non-resident, the wait is 2-4 years. For 2 bedroom units, the wait time for a Concord resident is 2 - 3 years; for a non-resident, it is more than five years. Only 3 to 5 units turn over each year.

There are 240 people currently on the CHA waiting list, as shown below.

|                        | Concord Resident | Non Concord Resident | Totals |
|------------------------|------------------|----------------------|--------|
| State Elderly/Disabled |                  |                      |        |
| 1 bedroom              | 36               | 46                   | 82     |
| State Family           |                  |                      |        |
| 2 bedrooms             | 15               | 27                   | 42     |
| 3 bedrooms             | 6                | 39                   | 45     |
| 4 bedrooms             | 1                | 6                    | 7      |
| Federal Family         |                  |                      |        |
| 1 bedroom              | 4                | 8                    | 12     |
| 2 bedrooms             | 10               | 16                   | 26     |
| 3 bedrooms             | 5                | 18                   | 23     |
| 4 bedrooms             | 0                | 3                    | 3      |
| TOTALS                 | 77               | 163                  | 240    |

Recent affordable housing homeownership lotteries also confirm the need for affordable housing for Concord residents. In the recent Finigan Way lottery held in September 2009, 6 of the 16 (or 37.5%, 3/8) applicants had a local preference.

## Section 1.6: Development Constraints and Limitations

One of the major constraints in developing additional affordable housing in Concord is the high cost of land in a town where 30% of the land is permanently protected open space and 22% of the land area is wetland and floodplain (some of which is also permanently protected). Approximately 38% of the Town is developed with a mix of residential and commercial uses.

The sections below are excerpted from other planning documents and detail the land area within Concord's boundaries which is not available for development due to current land use, environmental constraints, protected open space, and public ownership.

### Environmental Constraints<sup>7</sup>

Concord's 2004 Open Space and Recreation Plan considers residential development to be the major environmental challenge influencing open space and recreation planning. This Plan notes that the development impact is mainly in the form of new houses rather than new subdivisions. Chronic flooding in flood-prone areas is also noted to be a normal occurrence, and is a serious consideration in locating and designing potential new developments. Specific environmental elements which impact housing development include:

#### Soils

Concord has a rich mosaic of soils on its surface including several dozen named types. Extensive areas of wet soils are present. Hydric soils and soils with seasonally high water tables, including some with a restrictive hard layer, have been used for pastureland or conservation. Most hydric soils in Town are mucks and most soils with seasonal high water tables are loamy sand or fine sandy loam. Seasonal high-water-table soils with a restrictive layer present are overwhelmingly fine sandy loams.

In contrast, well-drained soils are especially appropriate for cultivation and for supporting development such as buildings and roads. From agricultural and septic system perspectives, some local spots have excessively drained soils. From the perspectives of building construction and successful septic systems, soils range from severely unfavorable to favorable. Several areas have only a thin covering of soil over bedrock.

#### Streams, Rivers, and Floodplain

In addition to the three rivers, Concord has many major streams or brooks: Elm, Mill, Jennie Dugan, Nashoba, Spencer, Second Division and Saw Mill, plus smaller brooks. A considerable area of Concord is subject to so-called 100-year flood events. In the early 1990s stretches of the Sudbury, Assabet and Concord rivers were designated by the U.S. Congress, with State and local collaboration, as a Wild and Scenic River. This provides some limits on alterations in,

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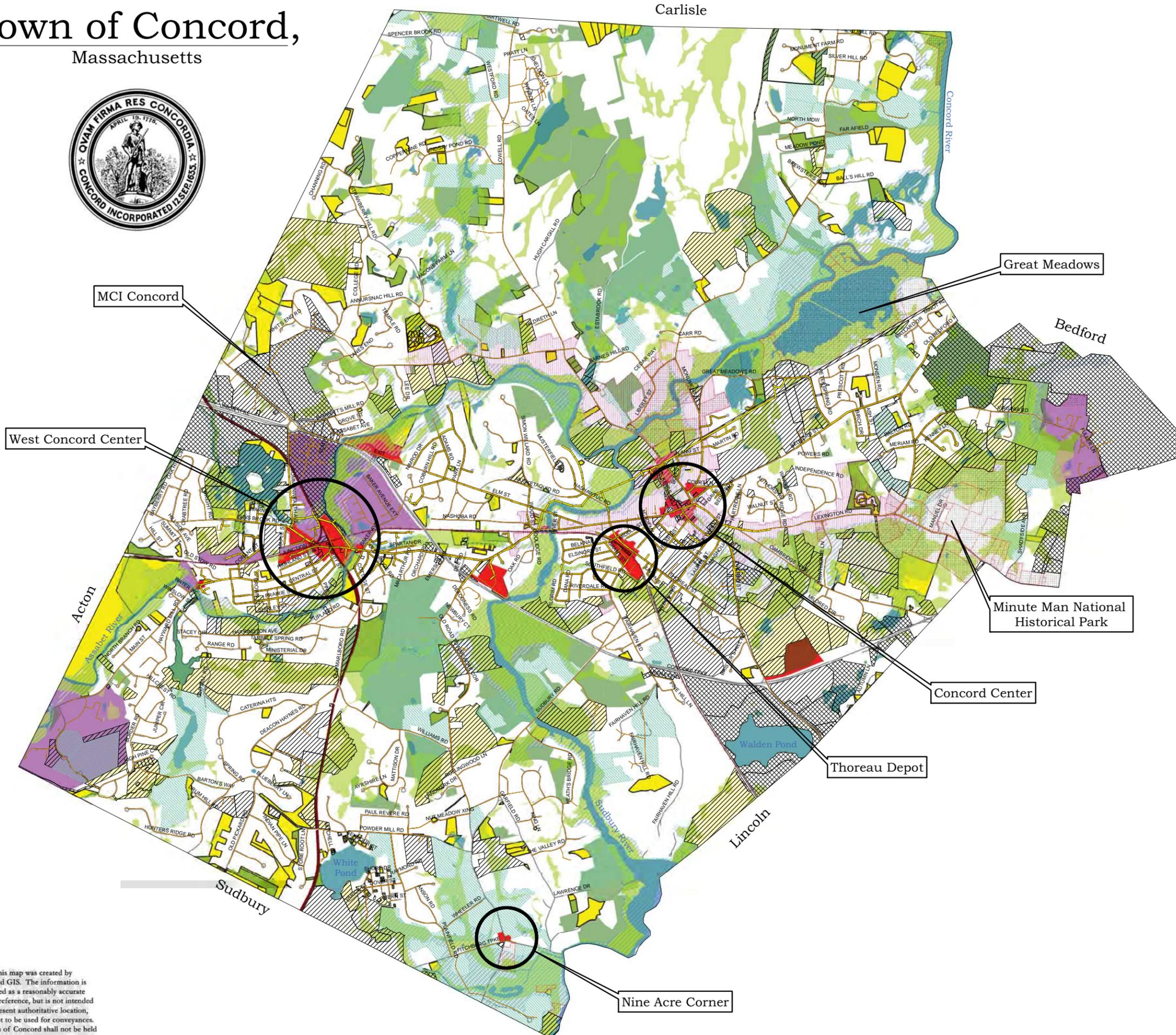
<sup>7</sup> The following section on environmental constraints is excerpted from the Town's 2004 Open Space and Recreation Plan. The information has been summarized for the purposes of this document. More detailed information on each section is available in the 2004 Open Space and Recreation Plan.

# Town of Concord, Massachusetts



# Development Constraints & Opportunities Map

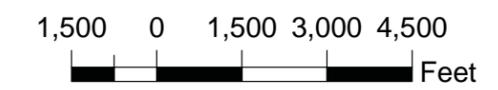
August 2010



### Key to Map Features

- Town Boundary
- Water Main
- Sanitary Sewer
- Town-owned Land
- State-owned Land
- Federally-owned Land
- Rivers & Ponds
- Wetlands Conservancy District
- Floodplain Conservancy District
- Railroad
- Rail Trail
- Town Conservation Land
- Conservation Restrictions
- Historic Districts
- Commercial Zoning Districts
- Industrial Zoning Districts
- Vacant/Unimproved Land - All Zones
- Chapter 61 Lands - FY2005

This map was created by Concord GIS. The information is provided as a reasonably accurate point of reference, but is not intended to represent authoritative location, and is not to be used for conveyances. The Town of Concord shall not be held responsible for the accuracy or misuse of these data.



and development near, these rivers which are “outstanding resource waters.” In the late 1990s the State passed a Rivers Protection Act that protects land against development and certain other activities within 200 feet of perennially flowing streams and rivers.

### Rare Species & Habitat

Concord has the highest density of documented rare-species records (ca. 2 per square mile) of any town between Plymouth and the Sturbridge area. The two main reasons for this situation are the confluence of the three rivers, plus the abundance of early observers studying plants and animals here from the mid-19th to the end of the 20th century. The Town has 52 state-listed species. Thirteen of these are threatened species, and three of the birds on this list are federally protected species. Eighteen of these species have been observed in the past 25 years, and are thus included in Massachusetts Natural Heritage project review. Rapidly spreading development is considered to threaten these habitats and existing wildlife movement corridors.

### Water Constraints<sup>8</sup>

Concord’s water system was established in 1872. The system consists of six groundwater supply wells and one surface water supply (Nagog Pond), pumping stations, two storage reservoirs with 7.5 million gallon capacity, and approximately 121 miles of water main serving approximately 95 percent of Concord residents, as well as a small population in Carlisle and Acton. The remaining 5% of residents are served by individual wells; these residences are located at the borders of the Town.

Concord utilizes four pipe systems to serve its residents. A stormwater pipe system rapidly carries rainwater and snowmelt from streets and parking lots with stormwater drains to a nearby river, brook or wetland; a clean water pipe delivers drinking water to people’s homes; a wastewater pipe that ends abruptly in an on-site septic tank with leach field; or a fourth pipe may transport wastewater through the sewer system to the wastewater treatment facility next to Great Meadows. The Town’s stormwater system runs independently, whereas the clean-water supply runs both septic and sewer/wastewater treatment systems.

Depending on the season, all available production facilities may be called upon to satisfy system demands that fluctuate from 1.5 million gallons per day in the winter to over 5 million gallons per day in the summer.

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<sup>8</sup> The information of water constraints is excerpted from the Town’s 2004 Open Space and Recreation Plan with additional information provided by the Concord Department of Public Works and the Department of Planning and Land Management, June 2010.

## Sewer/Septic

Concord's sewer system was originally established in 1900. The system includes a 1.2 million gallon-per-day centralized wastewater treatment facility, two sewer pumping stations, six sewer lift stations, and approximately 33 miles of sewer collection system. The system currently serves 1,692 customers or approximately 35% of the Town. The sewer lines serve West Concord Village, Thoreau Depot Area, Concord Center and their immediate surrounding residential neighborhoods. In addition, sewer lines are located under portions of Bedford Street, Elm Street, Main Street, and Thoreau Street, Lexington Road, Commonwealth Ave, Laws Brook Road, Old Road to Nine Acre Corner (locally known as "ORNAC") and other local roads.

A 20-year Comprehensive Wastewater Management Plan was accepted at the 2003 Annual Town Meeting and Phase 1 received funding approval at the 2004 Annual Town Meeting/special town election. Construction of these new sewer service areas, primarily identified in the vicinity of Bedford/Old Bedford Road (East Concord) and in the Cousins Park neighborhood (West Concord) was completed in 2007.

Due to capacity constraints identified within the existing wastewater treatment plant (WWTP), an integrated wastewater capacity and planning initiative was undertaken. This initiative culminated in a report entitled "The Status of Municipal Wastewater Treatment in Concord, Massachusetts" (December 2007), which concluded that there was insufficient treatment capacity available within the existing WWTP to accommodate future development or redevelopment within the existing sewer area. Article 41 "Wastewater Planning Capacity Study" was presented and approved at the 2009 Annual Town Meeting which informed the Town of this wastewater capacity constraint and authorized the Town to "investigate wastewater treatment and management alternatives, including continued conservation measures, to accommodate wastewater flows above and beyond those flows necessary to meet existing requirements resulting from development and redevelopment under current zoning in a range between 320,000 and 600,000 gallons per day..." This effort is presently underway.

The Sewer Commissioners have adopted stringent regulations for extending and expanding sewer service to new developments as an interim measure, but will consider exceptions to their regulations when affordable housing is a component of the development.

## Schools

The Superintendent of Concord Public Schools projects an increase of approximately 35 students over the next five years (2010-2015). This projection is based on information provided by the Concord Building Commissioner regarding projected new-dwelling construction.

## Transportation

Concord's transportation network includes numbered routes (2, 117, and 62), major roads (Lowell Road, Elm Street, Cambridge Turnpike, and Lexington Road), and multiple minor roads. Concord's road network does not present severe constraints, as the roads are well maintained and with adequate levels of service at most times of the day, with the exception of

typical peak commuting times. The main exception to this analysis is Route 2, which experiences severe congestion during peak commuting times. The State is undergoing multiple safety and operational improvements along Route 2 at Crosby's Corner and the Route 2 Rotary in addition to eliminating existing curb cuts, and improving signalization, which are expected to improve traffic flow and safety as well as enhance its rural character and improve pedestrian, wildlife, and bicycle crossings. (Source: Concord's 2005 Comprehensive Long Range Plan, Chapter 10.)

In addition, the transportation network includes two stops along the MBTA Commuter Rail, Fitchburg line with train stations in Concord Center and West Concord. According to the 2005 Comprehensive Long Range Plan, ridership on the Fitchburg commuter line has been virtually unchanged between FY2001-FY2005, with a daily boarding count of approximately 9,000. The Comprehensive Long Range Plan identifies lack of parking as the main challenge to commuter rail usage and presents multiple recommendations for parking improvements to enhance utilization of existing parking spaces. In addition, the Plan recommended that the MBTA provide more reverse commute options as well as shuttle services and creation of a regional commuter station with access from I-495 and Route 2.

Concord boasts multiple bike paths and recreational trails serving pedestrians, bicyclists, horse-back riders, cross-country skiers, etc. These paths and trails provide alternatives to automobiles. These paths/trails include the Minuteman Bike Path and the National Park Service Trail.

#### Working Farms

Concord has approximately 1,350 acres of active working farmland, of which approximately 1,053 acres are enrolled in Chapter 61A, thereby temporarily restricting development and providing the Town with a right of first refusal. Approximately 391 acres of the land enrolled in Chapter 61A have permanent conservation restrictions.

Concord's agricultural resources are an important component of the Town's historic rural character as well as a resource base that provides local food to the community and beyond. The Concord Agricultural Committee reports 19 active farms located in Concord. The farms grow a variety of produce including vegetables, fruit, herbs, flowers, Christmas trees, meat products, eggs, wool, and honey.

## Regulatory Barriers

In Massachusetts, local zoning regulations play a critical role in guiding the location and type of development by encouraging wanted development and discouraging unwanted development. Concord adopted its first zoning bylaw in March 1928 which included four districts: industrial, business, general residence, and single residence.

Over the past 82 years, the Town has adopted many amendments to this zoning bylaw. The bylaw now includes 28 districts under seven major classes: residential, commercial, medical-professional, industrial, conservancy, by-pass, and personal wireless communications facilities.

The residential class includes four districts, which require varying lot sizes from 80,000 sq. ft. to 10,000 sq. ft.: residence AA, A, B, and C. Residence AA is located in the northwest and southeast portions of Town and primarily consists of agricultural lands and large-lot single-family subdivisions. The minimum lot area in this district is 80,000 s.f. Out of a total of 1,502 lots in this zoning district, 34% (514 lots) do not meet minimum lot area requirements.<sup>9</sup> The only residential uses allowed by-right in this district are single-family dwellings.

Residence A provides a gradual step in density between AA and B and primarily surrounds the more dense B and C zones in the central spine of the Town. In addition, A is located in three isolated areas in the southern part of Concord. Residence A allows a minimum lot area of 40,000 s.f. Out of a total of 1,441 lots in this zoning district, 34% (492 lots) do not meet minimum lot area requirements.<sup>10</sup> Single-family dwellings are the only type of residential use allowed by-right in this district.

Residence B is located closer to Concord's dense central spine (Route 62, or Main Street). This district allows a minimum lot area of 20,000 s.f. Approximately, 16% (308) of the lots in this district (1,909) do not meet the minimum lot area. Again, single-family dwellings are the only type of residential use allowed by-right in this district.

The final residence district is C. This district allows a minimum lot area of 10,000 s.f. Out of a total of 1,283 lots in this zoning district, 30% (391) do not meet the minimum lot area. Single-family dwellings are once again the only use allowed by-right in this district.

Out of the non-residential districts, the business and medical-professional districts also allow single-family dwellings by-right. In addition, the business and limited business districts (except for #4) allow combined business/residence uses by right. This use allows multi-family housing when combined in the same building with commercial uses. It also requires that at least 20% of the dwelling units are affordable. In the past five years, no residential units have been created through this provision. However, one development that combined industrial/business/residence was completed through the special permit process: 95 Conant

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<sup>9</sup> Source: Department of Planning and Land Management, June 2010.

<sup>10</sup> Ibid.

Street, which created 56 total residential units, 3 of which were affordable to households with 80% of the area median income.

No two-family or multi-family uses are allowed by right in any district. Outside of the combined business/residence and combined industrial/business/residence, no multi-family is allowed by right or by special permit in any district.

One exception is made for the conversion of single-family homes that have a minimum lot size of 10,000 s.f.; these homes can add an additional dwelling unit within the home by special permit. However, the special permit for accessory unit expires upon sale or transfer of equity interest in the property to another owner. The special permit for conversion to a two-family does not appear to expire upon transfer of ownership. In the past five years, nine special permits for such conversions have been approved.<sup>11</sup>

Concord's zoning bylaw also allows Residential Cluster Development by special permit in all of the residential and business districts, through Section 9 of the bylaw. The Residential Cluster Development provisions allows for more compact development of single-family dwellings on larger tracts of land. It also allows for greater density and reduction in open space requirements in return for donating a lot(s) to the Town for affordable housing. However, no units of affordable housing have been created through Residential Cluster Development in Concord in the past five years.

Note: Planned Residential Development, Section 10 of Concord's zoning bylaw, is discussed in Section 1.8 of this report "Existing Local Tools and Resources.")

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<sup>11</sup> Ibid.

# Town of Concord, Massachusetts



# Zoning Map

April 2010

Subject to Approval  
by the  
Attorney General

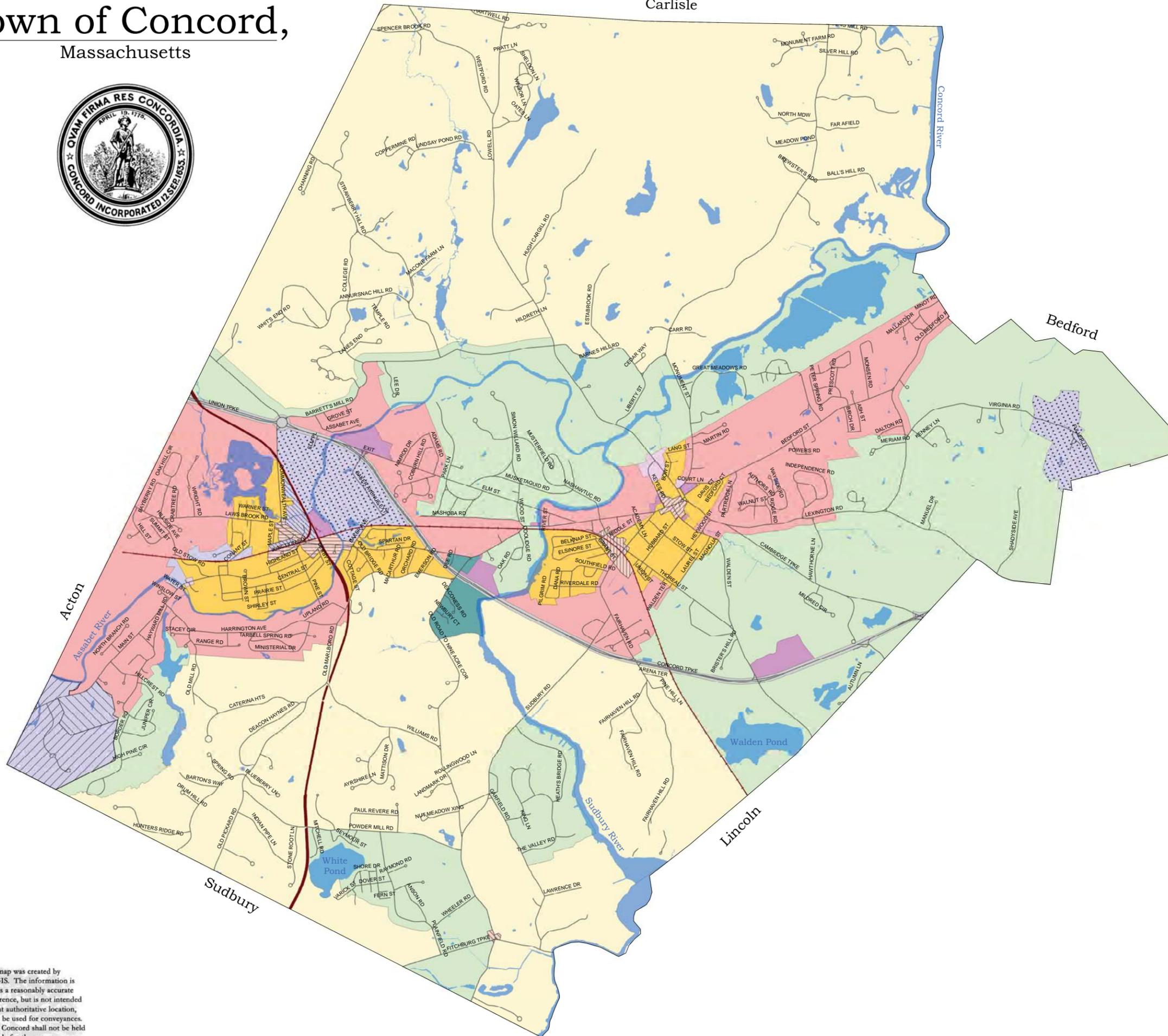
Carlisle

Bedford

Lincoln

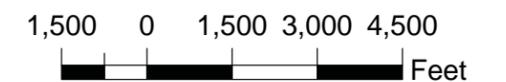
Acton

Sudbury



### Key to Map Features

- Business
- Concord Center Business
- Nine Acre Corner Business
- Thoreau Depot Business
- West Concord Business
- By-Pass
- Industrial
- West Concord Industrial
- Industrial Park
- Limited Business
- Limited Industrial Park 1
- Limited Industrial Park 2
- Medical Professional
- Residence A
- Residence AA
- Residence B
- Residence C
- Rivers & Ponds
- Town Boundary
- Railroad
- Rail Trail



This map was created by Concord GIS. The information is provided as a reasonably accurate point of reference, but is not intended to represent authoritative location, and is not to be used for conveyances. The Town of Concord shall not be held responsible for the accuracy or misuse of these data.

## Section 1.7: Chapter 40B Statutory Minima - Housing Inventory and Land Area Criteria

As regulated in 760 CMR 56.03, a decision by a Board to deny a Comprehensive Permit shall be upheld if the municipality has achieved one or more of the Statutory Minima being the calculation of whether the city or town's SHI Eligible Housing units exceed 10% of its total housing units, or whether SHI Eligible Housing exists in the city or town on sites comprising more than 1.5% of the total land area zoned for residential, commercial, or industrial use.

For purposes of calculating whether the city or town's SHI Eligible Housing units exceed 10% of its total housing units, pursuant to M.G.L. c. 40B, § 20 and 760 CMR 56.00, there shall be a presumption that the latest SHI contains an accurate count of SHI Eligible Housing and total housing units. In the course of a review procedure pursuant to 760 CMR 56.03(8), a party may introduce evidence to rebut this presumption, which the Department shall review on a case-by-case basis, applying the standards of eligibility for the SHI set forth in 760 CMR 56.03(2). The total number of housing units shall be that total number of year-round units enumerated for the city or town in the latest available United States Census.

If the Town uses the HPP as an affirmative defense, it is noted that the Housing Appeals Committee (HAC) would make the final determination of computation of achieving the statutory Minima.

### Subsidized Housing Inventory

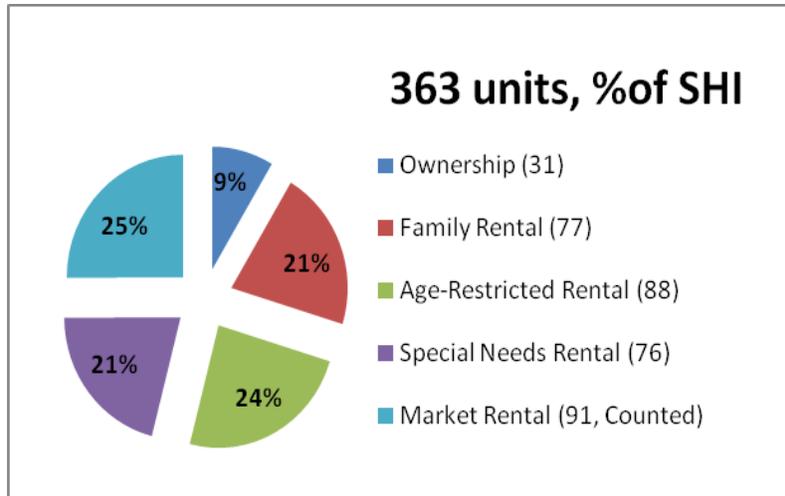
As further regulated in 760 CMR 56, the Massachusetts Department of Housing and Community Development (DHCD) maintains a Chapter 40B Subsidized Housing Inventory ("SHI") representing the list compiled by the Department containing the count of Low or Moderate Income housing units by city or town. Housing units are eligible for this list if they meet a number of detailed criteria as defined in the regulations as summarized below.

The total number of households in the community, as determined by the decennial census last taken in 2000, remains at 6,095 (this number will not change until 2010).

As of April 2010, the SHI list included 363 units which qualified as Chapter 40B units in Concord, representing 6.0% of Concord's 2000 housing base of 6,095 units. Concord needs to add another 247 units to reach the 10% benchmark of low/moderate income housing under Chapter 40B.

#### Five required elements to 'count' units on the SHI

1. Occupancy limited to households earning up to 80% of AMI
2. Housing units created under an approved housing subsidy program
3. Property has a recorded use restriction, restricting occupancy and specifying other details
4. Housing units are subject to an Affirmative Fair Marketing and Resident Selection Plan
5. Maximum housing cost parameters are met



Concord has made significant progress towards its affordable housing goals in the last decade. The current level of affordable housing units has more than doubled in the last 10 years:

| Year | # Affordable Units | SHI% |
|------|--------------------|------|
| 2000 | 177                | 2.9% |
| 2004 | 300                | 4.9% |
| 2010 | 363                | 6.0% |

Additionally Concord has created and continues to create market-discount restricted housing for households earning between 80% and 150% of the Area Median Income. Examples of these developments include the Elm Brook project and the new Lalli Woods project. While these units do not "count", they provide needed housing opportunities for Concord residents.

Of the 363 affordable housing units on the SHI, 90% are rental units, and 10% homeownership. It should be noted that all units in an affordable rental development 'count' towards the SHI even if they are rented on a market rate basis, while in homeownership developments, only the individual affordable units are counted.

As shown on the chart below, 66% of the SHI is restricted rental housing, 10% ownership, while the remaining 25% is market rental that count towards the SHI.

It is estimated by Concord's Department of Planning and Land Management that there have been 209 new housing units created since 2000. These new units will increase the 'denominator' in the SHI calculation after the 2010 Census data is processed.

After the 2010 Census, it is estimated that Concord's affordable housing SHI percentage will decrease to 5.6% and with the shortfall increasing 36 units to 283 units.

This has the effect for Concord, and most towns, of reducing the Subsidized Housing Inventory percentage of affordable units. The number of housing units that is the denominator for the percentage calculations in the Subsidized Housing Inventory will be updated with the

2010 housing base when available, and at that time it is expected that the Town's percentage will fall from its current level.

### Land Area Analysis

As mentioned above, Chapter 40B requirements can also be met if affordable housing exists on more than 1.5% of the total land area zoned in town for residential, commercial, and industrial uses. The portion of any site that has low and moderate income housing units inventoried by DHCD is proportionately included toward the 1.5%.

Concord needs 247 housing units or 29.87 acres to meet the Chapter 40B requirement. Both requirements – units and land area - will be met with the Longview Meadow/Mill Creek Residential project

For the purposes of calculating whether SHI Eligible Housing exists in the city or town on sites comprising more than 1½% of the total land area zoned for residential, commercial, or industrial use, pursuant to M.G.L. c. 40B, § 20, involves first calculating the total land area.

Per regulation, the Total Land Area:

1. Shall include all districts in which any residential, commercial, or industrial use is permitted, regardless of how such district is designated by name in the city or town's zoning by law;
2. Shall include all unzoned land in which any residential, commercial, or industrial use is permitted;
3. Shall exclude land owned by the United States, the Commonwealth or any political subdivision thereof, the Metropolitan District Commission or any state public authority, but it shall include any land owned by a housing authority and containing SHI Eligible Housing;
4. Shall exclude any land area where all residential, commercial, and industrial development has been prohibited by restrictive order of the Department of Environmental Protection pursuant to M.G.L. c. 131, § 40A. No other swamps, marshes, or other wetlands shall be excluded;
5. Shall exclude any water bodies;
6. Shall exclude any flood plain, conservation or open space zone if said zone completely prohibits residential, commercial and industrial use, or any similar zone where residential, commercial or industrial use are completely prohibited.
7. No excluded land area shall be counted more than once under the above criteria.

The land area used for affordable housing investigates only sites of SHI Eligible Housing units inventoried by the Department or established according to 760 CMR 56.03(3)(a) as occupied, available for occupancy, or under permit as of the date of the Applicant's initial submission to the Board, shall be included toward the 1½% minimum. For such sites, that proportion of the site area shall count that is occupied by SHI Eligible Housing units (including impervious and landscaped areas directly associated with such units).

Concord has a total land area of 16,541.26 acres of which 5,189.32 acres is available for residential, commercial, and industrial uses. Concord needs to have at least 1.5% of these

acres (77.84 acres) as affordable housing sites. Currently, 47.97 acres are used for affordable housing. Therefore, another 29.87 acres is needed to meet the 1.5% minimum.

### 40B Overall Land Area Summary

|                                                 |               |
|-------------------------------------------------|---------------|
| Total Land Area, per 760 CMR 56.03(3)(b)        | 5,189.32acres |
| Statutory Minima of 1.5%                        | 77.84 acres   |
| Total Affordable Housing Land Area              | 47.97 acres   |
| Additional Land Area Needed to Meet 1.5% Minima | 29.87 acres   |

### Total Land Area Calculation

| Description                        | Area (in acres) | Explanation                                                                                                                                                                 |
|------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Concord Boundary                   | 16,541.26       |                                                                                                                                                                             |
| Roads                              | (802.45)        | Excluded as publicly owned                                                                                                                                                  |
| Rivers & Ponds                     | (943.79)        | Excluded as water bodies                                                                                                                                                    |
| Bypass District                    | (26.65)         | Excluding area within Roads. Buildings and above ground structures are prohibited.                                                                                          |
| Streams                            | (24.31)         | Excluded as water bodies. There are 211,748.24 linear feet of streams not included in the Rivers & Ponds with an average width of 5 feet.                                   |
| Federal & State Land               | (1,545.64)      | Excluded as publicly owned                                                                                                                                                  |
| Municipal Land                     | (2,235.71)      | Excluded as publicly owned                                                                                                                                                  |
| Conservation Trusts                | (962.02)        | Land that is deed restricted in perpetuity for conservation                                                                                                                 |
| Conservation Restrictions          | (1,701.76)      | Only land restricted in perpetuity                                                                                                                                          |
| Harvard University-Estabrook Woods | (377.95)        | Letter of Commitment from Harvard University President to the Trust for Public Lands                                                                                        |
| Wetlands                           | (1,967.49)      | Excluding Rivers & Ponds, Federal, State & Municipal Land, Conservation and Harvard.                                                                                        |
| Floodplain                         | (717.77)        | Excluded as flood plain. Excluding Rivers, Ponds, Federal, State, Municipal, Conservation, Harvard and Wetlands, then take 50% for area in 10-year floodplain               |
| Starmet Super Fund Site            | (46.40)         | The Starmet property has been declared by the Federal Government as a Super Fund Site and cannot be developed for residential purposes until such time as it is cleaned up. |
| <b>Total Land Area</b>             | <b>5,189.32</b> |                                                                                                                                                                             |

## Affordable Housing Land Area

| PROJECT NAME                         | Address                                                  | Total units | SHI Units | Land Area | % SHI | SHI Land Area |
|--------------------------------------|----------------------------------------------------------|-------------|-----------|-----------|-------|---------------|
| CHA: Walden & Grove St               | 267 to 279 Walden St                                     | 7           | 7         | 24.05     | 100%  | 24.05         |
| CHA: Everett Gardens, expansion      | 34 Everett St                                            | 20          | 20        |           | 100%  |               |
| CHA: Everett Gardens                 | 34 Everett St                                            | 32          | 32        |           | 100%  |               |
| CHA: Peter Bulkeley Ter              | 115 Stow St                                              | 36          | 36        |           | 100%  |               |
| CHA: Thoreau St                      | 282 Thoreau St                                           | 8           | 8         |           | 100%  |               |
| CHA: Thoreau St                      | 294 Thoreau St                                           | 3           | 3         |           | 100%  |               |
| CHA: Bedford St, Strawberry Hill Rd. | 399ABCD & 401ABCD Bedford St, 151-161 Strawberry Hill Rd | 14          | 14        |           | 100%  |               |
| CHA: Conant St                       | 199 to 205 Conant St                                     | 3           | 3         |           | 100%  |               |
| CHA: Bedford St                      | 405 Bedford St                                           | 1           | 1         |           | 100%  |               |
| CHA: Commonwealth Ave                | 277 & 279 Commonwealth Ave                               | 2           | 2         |           | 100%  |               |
| CHA: Bedford Ct                      | 14 & 16 Bedford Ct                                       | 2           | 2         |           | 100%  |               |
| CHA: Cottage St                      | 23 Cottage St                                            | 1           | 1         |           | 100%  |               |
| CHA: Main St                         | 1031 Main St                                             | 1           | 1         |           | 100%  |               |
| CHA: Peter Spring Rd                 | 156 Peter Spring Rd                                      | 1           | 1         |           | 100%  |               |
| CHA: Upland                          | 102 Upland                                               | 1           | 1         |           | 100%  |               |
| CHA: 145 Powder Mill Rd              | 145 Powder Mill Rd                                       | 6           | 6         | 100%      |       |               |
| CHT: Baker Homes                     | Baker Ave & Gifford Ln                                   | 7           | 7         | 1.84      | 100%  | 1.84          |
| CHT: Burke Farm                      | 129 Old Bedford Rd                                       | 3           | 3         | 0.49      | 100%  | 0.49          |
| CHT: Elm Brook                       | 55, 60 & 90 Elm Brook Ln                                 | 12          | 0         | 3.22      | 0%    | 0.00          |
| CHT: Walden St                       | 335 Walden St                                            | 5           | 0         | 1.50      | 0%    | 0.00          |
| DMR Group Homes                      | confidential                                             | 48          | 48        | 0.00      | 100%  | 0.00          |
| Minuteman ARC: 51 Derby St           | 51 Derby St, 1269 Main St, 22 West St                    | 20          | 20        | 1.07      | 100%  | 1.07          |
| Westvale Meadows & Bartkus Farm PRD  | off Main Street; 2 & 4 Bartkus Farm                      | 16          | 3         | 7.27      | 19%   | 1.36          |
| Concord Homes                        | 14 & 15 Dunbar Wy, 9 & 55 Fuller Ln, 24 Peabody Ct       | 19          | 5         | 4.70      | 26%   | 1.24          |
| Warner Woods                         | 247 Laws Brook Rd                                        | 80          | 80        | 9.20      | 100%  | 9.20          |
| Fairhaven Gardens                    | Abbott Ln                                                | 42          | 42        | 6.55      | 100%  | 6.55          |
| Concord Commons                      | 95 Conant St                                             | 56          | 3         | 2.33      | 5%    | 0.12          |
| Finigan Way                          | Strawberry Hill Rd                                       | 20          | 4         | 7.71      | 20%   | 1.54          |
| Riverbend                            | Forest Ridge Rd                                          | 19          | 0         | 3.70      | 0%    | 0.00          |
| Elm Court                            |                                                          | 8           | 0         | 0.80      | 0%    | 0.00          |
| Emerson Annex PRD                    | 58 Stow St                                               | 1           | 1         | 0.00      | 100%  | 0.00          |
| Emerson Annex PRD                    | 58 Stow St                                               | 9           | 9         | 0.50      | 100%  | 0.50          |
| Trammell Crow Residential            | Old Powdermill Rd                                        | 350         | 0         | 30.00     | 0%    | 0.00          |
| CHDC: Walden Woods                   | Winthrop St                                              | 42          | 0         | 12.00     | 0%    | 0.00          |
| CHDC: Lalli Woods                    | 1241 Elm St                                              | 8           | 0         | 1.37      | 0%    | 0.00          |
| 506 Old Bedford Rd                   | 506 Old Bedford Rd                                       | 8           | 0         | 6.60      | 0%    | 0.00          |
| Total Affordable Units               |                                                          |             | 363       |           |       | 47.97         |

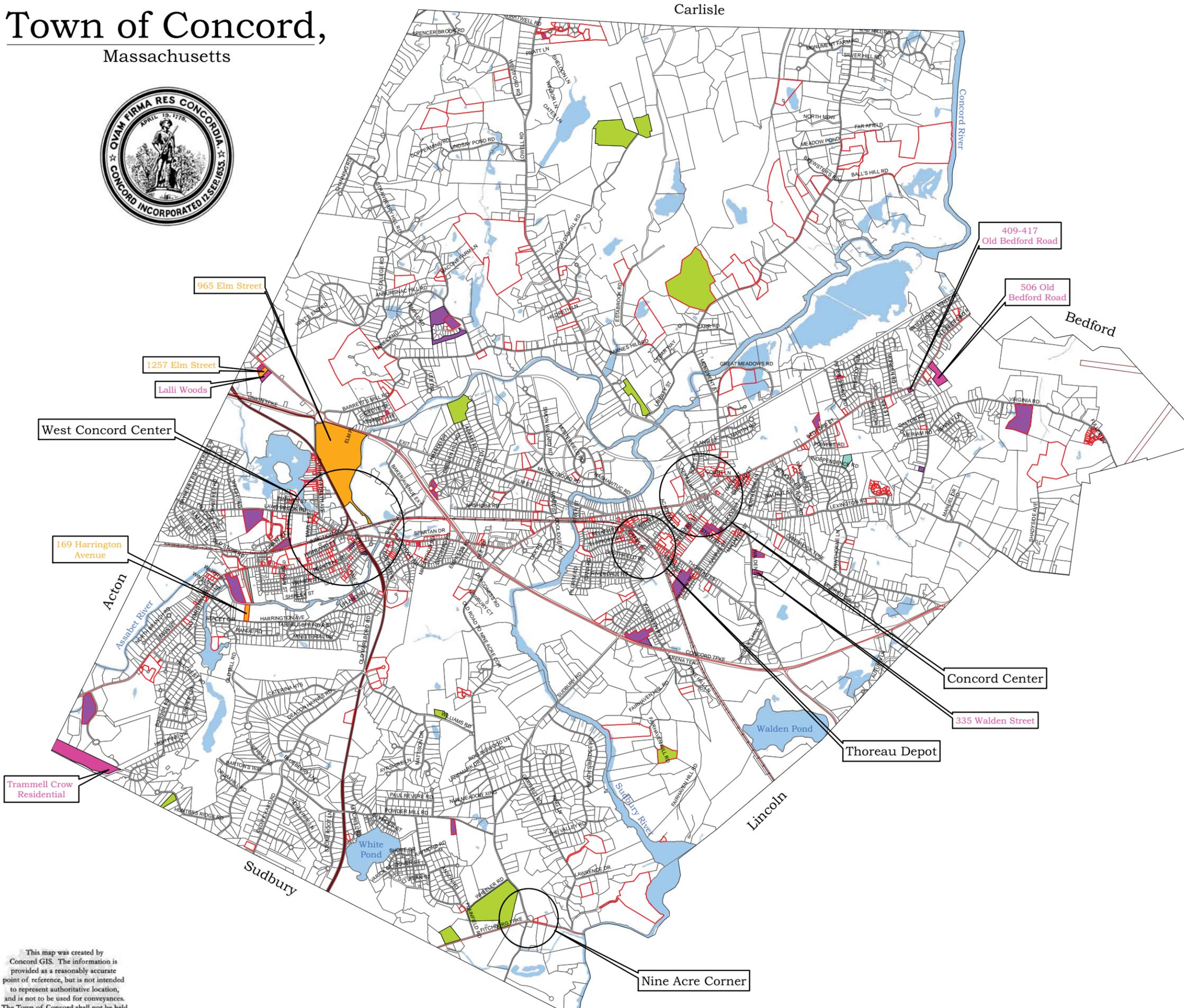
# Town of Concord, Massachusetts

Massachusetts



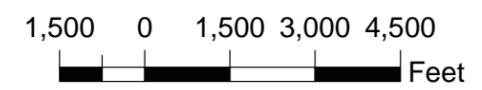
# Existing & Proposed Affordable Housing

August 2010



### Key to Map Features

- Existing Subsidized Housing Inventory Units
- Existing Farm Worker Quarters
- Pending Subsidized Housing Inventory Units
- Potential Affordable Housing Sites
- Pending "Local Affordable" Units
- Existing Multi-Family Land Use Lots
- Railroad
- Rail Trail
- Rivers & Ponds
- Town Boundary



This map was created by Concord GIS. The information is provided as a reasonably accurate point of reference, but is not intended to represent authoritative location, and is not to be used for conveyances. The Town of Concord shall not be held responsible for the accuracy or misuse of these data.

## Housing Inventory

The following table details the housing units on the Subsidized Housing Inventory shown by sponsor and housing type.

| SPONSOR                   | HOUSING PROJECT                                                                                                        | HOUSING TYPE          | NUMBER OF UNITS | UNITS ON SHI |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------|--------------|
| DMR Group Homes           | Various                                                                                                                | Special Need Rental   | 48              | 48           |
| Concord Housing Authority | Thoreau Street                                                                                                         | Special Need Rental   | 8               | 8            |
| Concord Housing Authority | Walden Street<br>Strawberry Hill Road,<br>Bedford Street,<br>Bartkus Farm,<br>Thoreau Street,<br>Other Scattered Sites | Family Rental         | 46              | 46           |
| Concord Housing Authority | Everett Gardens,<br>Peter Bulkeley Terrace                                                                             | Age-restricted Rental | 90*             | 88           |
| MinuteMan ARC             | Main Street,<br>Derby Street,<br>West Street                                                                           | Special Need Rental   | 20              | 20           |
| Private Developer         | Emerson Annex,<br>Concord Homes,<br>Elm Court,<br>Finigan Way,<br>Concord Commons                                      | Ownership             | 23*             | 21           |
| Private Developer         | Warner Woods,<br>Fairhaven Gardens                                                                                     | Family Rental         | 122             | 122          |
| Concord Housing Trust     | Elm Brook Homes,<br>Baker Homes,<br>Burke Farm,<br>Walden Street                                                       | Ownership             | 27*             | 10           |
|                           |                                                                                                                        |                       | 377             | 363          |

\*Note: There are a few units that have not yet been accounted for on the State's SHI, and these account for the differences between the Number of Units and the Units on SHI. Some of these units are recently developed, while others represent moderate-income housing, which is restricted but not counted by the State.

## Section 1.8: Existing Local Tools and Resources

The Town of Concord has a number of local resources that assist with the creation of affordable housing in Concord, including three non-profit organizations and the Concord Housing Authority in addition to the Community Preservation Act, private developers, West Metro HOME Consortium, zoning tools, the Concord Department of Planning and Land Management, and a variety of plans and strategies.

### Concord Housing Trust

The Concord Housing Trust (CHT), a non-profit housing-development corporation run by a volunteer Board of Directors, has been a key player in the development of affordable housing. CHT's commitment was to assist the Town in maintaining an historical, democratic diversity of incomes while also increasing the ethnic diversity in the Town. The CHT focused on development, site acquisition, rehabilitation, and other activities that promote the creation of affordable housing in Concord. They have developed 12 single-family below market rate homes at Elm Brook, 7 affordable units at Baker Avenue, 3 affordable units at Burke Farm on Old Bedford Road, and 5 units at 335 Walden Street (not yet counted). 335 Walden Street was the CHT's last development project. The Trust is now in the process of dissolving its organization and will be turning its duties over to the more recently formed Concord Housing Development Corporation as noted below.

### Concord Housing Foundation (CHF)

The Concord Housing Trust sponsored the formation of another non-profit, the Concord Housing Foundation, as a fundraising vehicle. In 2001 the CHF produced more than \$250,000. These funds were used to write down the construction costs at Elm Brook and make two of the units more affordable. The Concord Housing Foundation has continued as a fundraising, education, and outreach organization

### Concord Housing Development Corporation (CHDC)

The Concord Housing Development Corporation (CHDC) was formed through special legislation in 2007 as a 501(c)(3) organization devoted to creating, fostering, supporting and preserving affordable housing in Concord. Voting members of the Corporation are appointed by the Board of Selectmen. Its task is to take over where the CHT left off by working with Town Boards, Committees, and Departments and collaborate with citizen groups to design affordable housing programs and projects, which, to the extent possible, are consistent with the Town's historic and aesthetic character and preserves its natural resources. The Corporation has received Community Preservation Act funds for both program development and project funding and may also receive external funding and donations of land. It has the authority to commit its resources to develop projects and programs. The CHDC is currently at work on its first housing development project (Lalli Woods).

### Concord Housing Authority (CHA)

The Concord Housing Authority, founded in 1961, provides housing for low and moderate-income families and elderly, disabled or handicapped individuals. The CHA owns and manages units for the elderly, disabled or handicapped, family rental units, and special needs units and administers housing certificates which provides subsidies for people to rent in the private market.

The Concord Housing Authority is currently in the process of doing a Comprehensive Modernization of the Peter Bulkeley Terrace development. This is a 36 unit congregate facility that will be renovated into 24 one bedroom and studio units. Once this is converted, the wait for a Concord resident will decrease initially, as there will be 24 new units made available at once.

While this project represents a reduction in the number of affordable housing units overall, there is greater demand for the individual modernized units, which are anticipated to be fully occupied once available. The second phase of construction will add four more units; however, there is no timeframe for this phase as of yet. Construction is scheduled to begin in the fall of 2010.



*Everett Gardens, Concord, MA*

### Community Preservation Act and Committee (CPA, CPC)

At the 2004 Annual Town Meeting and subsequently at the polls, Concord residents voted to adopt the CPA with a 1.5% surcharge on all real estate property tax bills. Passage of the Community Preservation Act has given the town dedicated affordable housing resources to fund local projects.

Annual collections have ranged from \$651,573 to \$1,106,100 available for potential distribution. Over \$2.5 million has been appropriated over the last five years for housing as shown in the chart below.

|                   | Applicant                               | Project Address                          | Amount Appropriated | # Units                                                   |
|-------------------|-----------------------------------------|------------------------------------------|---------------------|-----------------------------------------------------------|
| 2006              | Concord Housing Development Corporation |                                          | 29,000              | NA                                                        |
| 2006              | Concord Housing Authority               | 405 Old Bedford Road                     | 350,000             | 4 units (part1)                                           |
| 2006              | Concord Housing Trust                   | 129 Old Bedford Road                     | 222,000             | 3 units                                                   |
| 2007              | Concord Housing Authority               | 405 Old Bedford Road                     | 60,000              | 4 units (part2)                                           |
| 2007              | Concord Housing Development Corporation |                                          | 25,000              | NA                                                        |
| 2007              | Town of Concord/ CHDC                   | 58 Stow Street                           | 274,150             | Buy Down 1 unit                                           |
| 2008              | Concord Housing Development Corporation | Emerson Annex                            | 175,000             | NA                                                        |
| 2008              | Concord Housing Trust                   | 335 Walden Street                        | 385,000             | 5 units                                                   |
| 2009              | Concord Housing Authority               | 115 Stow Street - Peter Bulkeley Terrace | 500,000             | Convert 36 congregate units to 29 separate units (part 1) |
| 2009              | Town of Concord                         |                                          | 12,000              |                                                           |
| 2009              | Concord Housing Development Corporation | 1245 Elm Street                          | 75,000              | 3 CPA eligible units                                      |
| 2010              | Concord Housing Authority               | 115 Stow Street - Peter Bulkeley Terrace | 500,000             | Convert 36 congregate units to 28 separate units (part 2) |
| Total - All Years |                                         |                                          | \$2,607,150         |                                                           |

### Housing Production Plan

The Housing Production Plan provides a framework to develop affordable housing, and lays out the implementation strategies.

### Private Developers

Concord has private developers willing to construct affordable housing. For example, one family, who owns a number of rental apartments in Town, works with the Concord Housing Authority (CHA) and accepts their Section 8 certificates for renters. This family also developed a commercial site that had been a lumberyard into a mixed use project (Concord Crossing)

which included housing. One of the units in this development was designated as affordable and the family negotiated with the CHA to provide two units in another location. They have also completed a comprehensive permit in West Concord (Warner Woods) to develop 80 units of rental housing, of which 20 units will be designated for households earning less than 80% of the Boston median income (or 16 units for households earning less than 50%).

Another individual voluntarily developed a Planned Residential Development of 18 condominium units, of which one was given to the CHA and 3 were sold to income qualified households (one at 80% and two at 150% of the Boston median). This same individual also purchased a single-family residence and converted it to housing for mentally handicapped individuals.

More recently, local individuals and foundations have donated land to the CHDC, demonstrating that there continues to be individuals who undertake projects intended to benefit the community.

#### West Metro HOME Consortium

HOME is a federal housing program administered by the U.S. Department of Housing and Community Development. HUD distributes funds to groups of adjacent communities who create a local consortium of communities. The West Metro HOME Consortium is administered by the City of Newton and currently has fourteen members: Newton, Bedford, Belmont, Brookline, Concord, Framingham, Lexington, Lincoln, Natick, Needham, Sudbury, Watertown, Waltham, and Wayland.

The Town of Concord just joined the Consortium in July 2010, and will begin receiving HOME funds in federal fiscal year 2011 (starting 7/1/2011). The town will receive an annual allocation of funds for affordable housing projects of approximately \$25,000 as well as administrative funds for administering the program. The allocation amount varies according to HUD formulas. The Consortium also brings a community into a local housing network. The network provides both informal contacts among housing professionals and opportunities for more formal exchanges of information and technical assistance.

#### Zoning – Planned Residential Development

In general, Concord's zoning creates many barriers to the development of affordable housing. As described in more detail in Section 1.6, the predominance of traditional single-family zoning with limited provisions for more compact development, including two-family and multi-family dwellings, creates barriers to developing affordable housing without the use of Chapter 40B.

However, one tool that Concord adopted in May 1976 is working to promote development of multifamily dwellings and affordable housing: Section 10 Planned Residential Development (PRD). Concord's PRD provisions allow for compact developments with a diversity of dwelling unit types including single-family, two-family, and multi-family buildings of up to eight units on large tracts of land. If affordable housing is provided, the development may receive a bonus of up to two times the basic density. In the past five years, 27 affordable units have been created (including units for households with 80% AMI and units for households with up to 150% AMI).

In addition, the zoning bylaw provides “special provisions” for PRDs developed by the Concord Housing Authority, the Town, and other non-profits. If these entities provide up to 75% affordable units in their development then the large tract requirements and other more stringent requirements of the standard PRD are not applicable. A similar provision is available for the conversion of school and other municipal buildings.

#### Town of Concord Department of Planning and Land Management

The Department of Planning and Land Management is the Town’s gateway for all development proposals. Staff also provides support to the Concord Housing Development Corporation, Concord Housing Trust, Board of Appeals, Historic District Commissions, Community Preservation Committee, and the Planning Board.

#### Plans and Strategies

Concord has invested significant resources, both staff and volunteer, in developing and publishing strategic and important land use plans to help guide development for the future, including the following:

- The 2004 Open Space and Recreation Plan identifies many environmental factors and open space needs.
- The 2005 Housing Production Plan provides a framework for the development of affordable housing, and also lays out potential implementation strategies.
- The 2005 Comprehensive Long Range Plan outlines a long range strategy for development in Concord through the year 2020.
- The 2011 Community Preservation Plan provides guidance on the use of Community Preservation Act funds in Concord and includes a regularly updated summary of the community housing needs, resources, goals, and strategies.
- The 2010 Sustainable Concord Master Plan (currently in draft form) will provide goals and plans to address energy sustainability, efficiency, and related environmental challenges.

## Section 2: AFFORDABLE HOUSING GOALS

### Section 2.1: Defining Housing Goals

In addition to analyzing Concord's housing needs through the needs assessment presented in Section I, the housing planning process engaged the broader community in an evaluation of needs and identification of goals through an on-line questionnaire and a planning workshop. The objective of the on-line questionnaire was to inform the planning process in a general way by providing an alternative means for citizens to participate in the planning dialogue and was not intended to obtain statistically significant data.

Outreach for the on-line questionnaire and the workshop included notices in the Concord Journal, an announcement on the Town website, and email notifications to town employees as well as members of boards and commissions.

#### On-line Questionnaire

Approximately 104 individuals completed the questionnaire, which was on-line for three weeks (May 21, 2010 – June 11, 2010). See Appendix A for a full summary of the questionnaire responses. Almost 74% of the respondents indicated that they reside in Concord, over 48% work in Concord, over 67% own property in town, and almost 10% own a business in town.

While we recognize that online surveys can be impacted by efforts of groups to influence the result, we accept the results obtained as another piece of input into the definition of Concord's Housing Goals. The feedback from the questionnaire did not solely shape the goals, nor was the feedback inconsistent with the goals articulated and prioritized through the workshop and other processes.

When asked to identify and rank what types of households are most likely to struggle with housing costs, farm workers, single parents, and seniors ranked highest. Municipal employees and individuals with disabilities also received high rankings.

When asked what type of housing activities respondents saw a need for, the highest response was a need for "more units affordable for homeowners with modest incomes" and "more housing options for people in changed circumstances to live in the community." Respondents also indicated that there is a need for "help for existing homeowners to afford to stay in their homes" and "more units affordable for renters with modest incomes."

Where and how housing and affordable housing is created was also important to respondents as it related to land use and other community goals including the protection of agricultural land and open space, energy use, and other smart growth goals. Respondents indicated most strongly that tearing down smaller homes to build large homes is still a major problem affecting neighborhood character and reducing moderately-priced housing options.

Respondents also indicated strongly that it is important to have a greater variety of housing types by developing more alternatives to traditional single-family houses, such as apartments and condominiums, cottage-style housing, and duplex housing. Respondents also gave clear

indication that new housing units should be located near village centers, existing neighborhoods, public transportation, and commercial areas to the extent possible. Respondents also favored reuse and adaption of existing larger buildings to create multi-family housing units.

The on-line survey also asked respondents to indicate if they believe the town should continue to support the creation of both moderate-income and low-income housing or only support the creation of housing that counts on the state's subsidized housing inventory (SHI). The response was overwhelmingly in support of continuing to create both moderate and low-income with over 66% of respondents in favor of this policy. Only 12% of respondents indicated support for only low-income housing and the remaining respondents (21%) indicated "it depends", "not sure," or "none of the above."

### Planning Workshop

The Concord Department of Planning and Land Management sponsored a planning workshop on June 9, 2010 with 27 citizen participants. See Appendix B for summary of workshop results.

After the consultants presented a summary of Concord's housing needs and regulatory framework and barriers, the participants discussed and responded to three questions in break-out groups. The first two questions asked for a general identification of housing issues and level of support to continue the Town's policy of creating units for both moderate- and low-income households. The third question asked each break-out group to confirm, challenge, or build onto the four housing goals and associated objectives in the prior housing plan.



Concord Planning Workshop, June 9, 2010

Each of the five break-out groups reported to the full group a summary of their discussion for each question. At the close of the workshop, the consultants asked each participant to indicate their priority objectives through a group decision-making technique referred to as “dot voting.” When asked what housing issues they believed the Town should help address, the workshop participants included housing specific household types: single people, single parents, retirees, municipal workers, and senior citizens.

They also discussed the use of existing buildings for affordable housing and indicated that the Town should preserve existing modest-sized homes, utilize existing buildings for affordable housing, increase the ability to convert large single-family homes to multiple units, buy-down existing homes so that market rate homes can be converted to affordable homes to minimize the need for new construction, and implement a program for preserving homes to limit tear-downs.

Many comments in the breakout groups also indicated support for more compact development including more accessory housing on existing lots, apartments, and two-family and multifamily properties. In addition, comments supported creating more housing units closer to the center of town, adding residential elements in town centers, adhering to smart growth principles (see sidebar for definition), and increase small residential units in business areas.

When responding to the second question about low income vs. moderate/middle income housing, the break-out groups indicated mixed support for the continuation of the policy to support the creation of moderate and low income housing, with some participants favoring a policy of only supporting low-income housing at least until the State mandated 10% goal is reached. Others made a distinction between support for moderate-income housing through policies and regulatory incentives and local subsidies being reserved and targeted to low-income housing.

### **What is “Smart Growth?”**

“Smart Growth” means planning, regulatory, and development practices and techniques founded upon and promoting the following principles:

- (1) using land resources more efficiently through compact building forms, infill development, and moderation in street and parking standards in order to lessen land consumption and preserve natural resources;
- (2) supporting the location of stores, offices, residences, schools, and other public facilities within walking distance of each other in compact neighborhoods that are designed to provide alternate opportunities for easier movement and interaction;
- (3) providing a variety of housing choices so that the young and old, single persons and families, and those of varying economic ability may find places to live;
- (4) supporting walking, cycling, and transit as attractive alternatives to driving; providing alternative routes that disperse, rather than concentrate, traffic congestion; and lowering traffic speeds in neighborhoods;
- (5) connecting infrastructure and development decisions to minimize future costs by creating neighborhoods where more people use existing services and facilities, and by integrating development and land use with transit routes and stations . . .

(Source: A Planners Dictionary ed by M. Davidson and F. Dolnick, Planning Advisory Service Report # 5xx/5xx, 2004.)

When asked to evaluate the prior housing objectives in question 3 and to prioritize using the dot-voting method, the following objectives were confirmed (see Appendix C for a list of the original objectives in the 2004 Housing Production Plan and Appendix B provides specific information regarding additions and clarifications suggested at the June workshop):

- Retain small existing cottage-style homes and control the loss of neighborhood character due to the tearing down of existing small houses and construction of larger and out of character new houses.
- Create new multi-family housing at a scale that is compatible with the neighborhood context for a variety of use needs that are close to the village centers or as part of mixed-use developments that utilize smart growth principles.
- Make use of existing housing to provide housing options for elderly, special needs populations, or young adults.
- Expand opportunities and eliminate obstacles to enable elderly residents and persons with disabilities to live in town.
- Support and strengthen local organizations and institutions that provide affordable housing so Concord has a strong infrastructure for meeting its housing needs and is able to respond to housing opportunities in a timely and effective manner.
- Identify appropriate sites for affordable housing by planning ahead so that action can be taken quickly when land becomes available.
- Take a pro-active approach in proposing or supporting changes to state legislation, like Chapter 40B, that would be advantageous to the Town.
- Locate housing in village centers or existing neighborhoods that provide services. Avoid consuming "green fields" of open space, natural habitat, and undeveloped land.
- Allow more compact development (two-family, multi-family, and compact single-family) through zoning amendments in and near village centers.

## Section 2.2: Affordable Housing Goals

### Goal 1: Preserve existing small homes and retain existing low-income households throughout town.

Both the questionnaire and workshop results stress the importance of controlling the loss of modest homes due to tear downs and construction of larger and often out of character new houses. The retention of existing small/cottage style homes would preserve homes that are often more affordably priced on the market and provide greater housing choice for homebuyers and renters in Concord. This goal of preserving small homes is also supported by other town planning documents including the 2005 Comprehensive Long Range Plan and is indicated in the draft 2010 Sustainable Concord Master Plan and has been an issue that the Town has grappled with for many years.

In addition, the questionnaire results point to a related need to assist existing low-income homeowners so that they can afford to stay in their home. This could include assistance for elderly homeowners as well as other low-income households struggling with housing costs. Approximately 28% of all Concord's households, as of the 2000 US Census, had incomes under 80% of the area median income (AMI); twenty-two percent of all homeowner households in Concord had incomes under 80% AMI (2000 U.S. Census).

### Goal 2: Increase diversity of housing options through compact development

Over 75% of Concord's housing units are single-family houses; 2% of the units are in two-family houses; just over 8% are in multi-family/apartments; and 12% are condominiums. The questionnaire and workshop results indicated large support for creating new, well-designed and properly-scaled multi-family housing close to the village centers as part of mixed-use developments that utilize smart growth principles. This goal is supported by the 2005 Comprehensive Long Range Plan, the 2007 Village Center Study, as well as the draft 2010 Sustainable Concord Master Plan and advances the Commonwealth's Sustainable Development Principles (see sidebar).

This goal is important to the community because it can provide alternative housing options for households, enhance the vitality of village centers, and help to reduce loss of working farm lands, natural habitats, and scenic open space.

The workshop results also indicated support for converting larger existing buildings to develop alternative housing options for multiple household types including the elderly, special needs

#### **Commonwealth's Sustainable Development Principles**

1. Concentrate Development and Mix Uses
2. Advance Equity
3. Make Efficient Decisions
4. Protect Land and Ecosystems
5. Use Natural Resources Wisely
6. Expand Housing Opportunities
7. Provide Transportation Choice
8. Increase Job and Business Opportunities
9. Promote Clean Energy
10. Plan Regionally

(Source: [http://www.mass.gov/Agov3/docs/smart\\_growth/patrick-principles.pdf](http://www.mass.gov/Agov3/docs/smart_growth/patrick-principles.pdf);  
For full text, see Appendix D.)

populations, and young adults. Conversions of existing buildings and previously developed sites also support Community Preservation Act policies. Questionnaire and workshop participants emphasized the importance of creating more housing options for households in changed circumstances that may not need the traditional single-family home, such as empty-nesters or divorced households. More diverse housing options can be created through both conversions of existing buildings and new construction to create duplexes, multi-family houses, or other types of housing such as co-op or congregate living.

Alternative housing options can also help to expand opportunities and eliminate obstacles to enable elderly residents and persons with disabilities to live in town. This could include creating compact cottage-style homes that are handicap accessible or adaptable and group homes.

Where compact development is located was emphasized as greatly as was the need for more compact development. Focusing the creation of compact housing options in or near the village centers can enhance the villages as vibrant, walkable cores of the community.

Some participants of the questionnaire and the workshop stressed the need to create more rental units in Concord. Creating greater allowances for duplexes and multi-family development can work hand-in-hand with creating rental units. Based on the 2000 US Census, approximately 19.3% of Concord's housing stock was renter-occupied. This is low compared to Massachusetts as a whole (38.3%) and slightly low compared to the MAGIC Region at 22.3%. Providing a diverse housing stock with alternatives to traditional single-family homes includes providing more rental housing options.

### Goal 3: Encourage creation of both affordable units that will count on the SHI and units affordable to middle-income households throughout town

Concord has implemented and supported multiple initiatives to create affordable housing that counts on the SHI as well as housing for middle-income households (between 80% and 140% of the Area Median Income (AMI)). These efforts have succeeded in increasing the units listed on the SHI from 177 in 2000 to 363 in 2010 (an increase of more than double). In addition, town policies continue to encourage the development of housing for middle-income households. The Elm Brook development, constructed in 2002, built 12 units of affordable housing. Three are restricted to 80% AMI and the other 9 units are deed restricted at 120% and 140% AMI. The current Lalli Woods project by the CHDC will also create units across a range of income limits with two units restricted to 80% AMI, one unit restricted 110% AMI, and three units restricted 130% AMI. With a median single-family sales price of over \$600,000 even middle-income households, which could potentially afford up to \$475,000 sales price, are priced out of the Concord market.

Community support for continuing the policies to encourage middle-income housing was mixed: Questionnaire participants showed strong support for continuing these policies while workshop participants showed more mixed support. Due to the strong need for both housing that will count on the SHI and middle-income housing in Concord, this plan recommends continuing the policies to create housing to support the needs of households at these multiple income levels.

Goal 4: Create homeownership opportunities throughout town for new homebuyers and eligible households including those with a Concord connection

Although only just over 19% of Concord's housing stock is rental, 90% of the units on Concord's Subsidized Housing Inventory are rental units. With the median sales price of a single family home over \$600,000, homeownership opportunities for low-moderate income households are close to non-existent. Questionnaire respondents indicated a strong need for creating more units that are affordable for homeownership and workshop participants indicated that it is important to expand opportunities for local employees, young families, young adults, and single parents to find a moderately priced home in Concord. Creating more units that are affordable for homeowners can work together with efforts to create scattered-site units throughout town.

Goal 5: Capacity Building with Proactive Planning and Advocacy

Workshop participants reinforced the importance of supporting and strengthening local organizations and institutions that provide affordable housing so Concord has a strong infrastructure for meeting its housing needs and is able to respond to housing opportunities in a timely and effective manner. In addition, proactive planning will continue to be valuable in the years ahead to identify appropriate sites for affordable housing: by planning ahead, action can be taken quickly when appropriate land becomes available for affordable housing. The workshop participants also expressed that it is important for the Town to take a pro-active approach in proposing or supporting changes to State legislation, like Chapter 40B, that would be advantageous to the Town.

Goal 6: Preserve Existing Affordable Housing Units

The Concord Department of Planning and Land Management is the local entity that is responsible for monitoring existing affordable housing to ensure, where possible, that expiring use restrictions are extended or converted to permanent restrictions and to monitor and provide assistance for resale of ownership units. The Town has proactively appropriated funds to preserve affordable housing homeownership units at the Emerson Annex development, 58 Stow Street. Of the 11 units, only 6 remain at risk. When first developed, the units were restricted to a term of 30 years, with a discount-rate resale price methodology which has rendered the units 'unaffordable' upon resale. As units have been resold, additional buy-down funds have been provided by the Town and DHCD to retain the affordability of the units, and restrict them in perpetuity.

This will continue to be an important function so that existing affordable units are not converted to market rate units and, thus, removed from the Subsidized Housing Inventory. The Town is exploring regional coordination on this front with the possible creation of a regional housing trust.

### Section 2.3: Reaching 10%

As stated in the earlier Housing Inventory section 1.7, Concord currently has 363 units counted on the Subsidized Housing Inventory, using the 2000 year round housing base of 6,095. With ~300 new units of housing created since 2000, the new base may be estimated to be 6,400 – with 640 as the 10% target.

The Town expects the Longview Meadow/Mill Creek (formerly Alexan Trammel Crow) project to be included on the Subsidized Housing Inventory in FY11. It has projected that due to time lapse requirements, it may lose a few of those units in FY12 and will regain them in FY13. This project will enable the town to maintain its 10% mandated requirement. The Trammel Crow project will also enable to Concord to satisfy the 40B Land Area requirement.

It is roughly estimated to take seven years to achieve 10% of the housing stock as “affordable” – or one year if the Longview Meadow/Mill Creek Residential project builds their units

Even after reaching the 10% threshold, the Town plans to continue creating affordable housing, though at a smaller scale. There will continue to be needs for low-income rental, special needs, handicapped accessible, affordable homeownership, and moderate/workforce housing. These units will be created incrementally with smaller projects (5 units) moving forward regularly every year and three or four larger projects (15-20 units) making greater gains in the years they are approved.

The plan outlines a number of zoning changes which, when adopted, will enable projects to create units of affordable housing and enhance the local housing production.

#### Annual Progress towards goals

|                                           | FY11   | FY12   | FY13   | FY14   | FY15   | FY16   | FY17   |
|-------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Starting                                  | 363    | 713    | 673    | 743    | 763    | 776    | 786    |
| Private (40B/Local zoning):               |        |        |        |        |        |        |        |
| Mill Creek Residential                    | 350    | (50)   | 50     |        |        |        |        |
| Other Private Projects                    | 5      | 5      |        | 15     | 5      | 5      | 15     |
| Public (CHDC/CHA):                        |        |        |        |        |        |        |        |
| Lalli Woods (CHDC)                        | 2      |        |        |        |        |        |        |
| Walden Woods (CHDC)                       |        |        | 20     |        |        |        |        |
| Peter Bulkeley (7)                        |        |        |        |        |        |        |        |
| Home Preservation Program                 |        |        |        | 2      | 3      | 2      | 3      |
| Other CHA/CHDC Projects                   |        | 5      |        | 3      | 5      | 3      | 5      |
| Plan: Annual SHI Units                    | 350    | (40)   | 70     | 20     | 13     | 10     | 23     |
| Plan: Annual SHI % (w/est 2010 6,400)     | 5.47%  | -0.63% | 1.09%  | 0.31%  | 0.20%  | 0.16%  | 0.36%  |
| Cumulative Total SHI Units                | 713    | 673    | 743    | 763    | 776    | 786    | 809    |
| SHI Percentage (using 2010 housing units) | 11.14% | 10.52% | 11.61% | 11.92% | 12.13% | 12.28% | 12.64% |

## Section 3: IMPLEMENTATION STRATEGIES

This section includes an explanation of the specific strategies by which Concord plans to achieve its housing production goals as well as a time frame/schedule for each. Each strategy includes specific milestones to indicate progress. The strategies include proposed zoning bylaw amendments, identification of specific sites for development of affordable housing, participation in regional collaborations, and development of assistance programs.

### Section 3.1: Zoning Bylaw Amendments

#### Strategy 1: ADDRESS MANSIONIZATION TRENDS THROUGH ZONING AMENDMENTS

Amend the Zoning Bylaw to create floor area ratios in all zoning districts as a way to support the preservation of the existing neighborhood character by controlling the ratio of house size to lot size and minimize trends of mansionization. Study the need to modify other dimensional requirements to preserve existing spatial development patterns of neighborhoods. Revive the community's exploration of the creation of neighborhood conservation districts and site plan review for proposed larger houses (as recommended in the 2005 Comprehensive Long Range Plan).

Strategy 1 helps to achieve Goal 1 in that it helps retain existing smaller homes and Goal 3 by preserving units that may be affordable to middle-income households.

Measurable Milestones: The Residence C Task Force is currently examining these issues and intends to bring zoning amendments to Town Meeting in Spring 2011 for the Residence C zoning district. If successful, the work can be expanded to address similar issues in other zoning districts, particularly the Residence B and A districts.

#### Strategy 2: ALLOW FOR MULTI-FAMILY DEVELOPMENT IN VILLAGE CENTERS

Adopt substantial rezoning, such as chapter 40R, in redevelopment areas as identified by the 2007 Village Center Study to allow mixed use, multi-family redevelopment including multi-family housing in Concord Center at the Keyes Road/Lowell Road intersection; the Thoreau/Depot Area around Crosby's Market easterly of Sudbury Road, and West Concord's business areas away from Main Street/Commonwealth Ave.

Strategy 2 helps to achieve Goal 2 by increasing diversity of housing options and Goal 3 by creating units that would count on the SHI as well as middle-income units.

The rezoning in these areas should incorporate inclusionary housing requirements for the creation of a mix of both affordable housing and market-rate housing in future redevelopment projects. The inclusionary housing requirements should include requirements for both units that will count on the SHI as well as middle-income units.

Measurable Milestones: Implement recommendations of West Concord Task Force in timetable as determined through the task force process that is currently nearing completion. Form similar task forces for Concord Center and Thoreau/Depot Area in Spring 2011 to create specific recommendations for Fall 2012.

### Strategy 3: AMEND ZONING BYLAW TO ALLOW MORE COMPACT RESIDENTIAL DEVELOPMENT IN AND NEAR VILLAGE CENTERS

Amend zoning bylaw to allow construction of new two-family and three-family houses on lots with sewer and water main connections in Residence B and C zoning districts. This strategy is dependent on increasing the capacity of the wastewater treatment system, which is currently at capacity. The Town has hopes to increase capacity dependent on funding.

Strategy 3 helps to achieve Goal 2 by increasing diversity of housing options and Goal 3 by creating units that may be affordable to middle-income households.

In addition, amend zoning bylaw Section 4.2.2.1 to expand the current allowance for conversion of existing buildings to up to two-families to allow conversions of up to three-families, dependent on the waste water treatment capacity improvements.

Measurable Milestones: The Concord Department of Planning and Land Management will work closely with the Planning Board and other town officials, as applicable, to create draft zoning amendments in Fall 2012 to prepare for consideration by Town Meeting in Spring 2013.

### Strategy 4: AMEND ZONING BYLAW TO ADOPT INFILL BYLAW FOR AFFORDABLE HOUSING

Adopt an infill bylaw to encourage development of affordable units on undersized lots in all residence districts throughout Town. The Town of Medway recently adopted such an infill bylaw for affordable housing. Other Massachusetts municipalities have as well and can provide models for structuring an amendment to Concord's zoning bylaw.

Strategy 4 helps to achieve Goal 3 by creating units that would count on the SHI and Goal 4 by creating affordable homeownership opportunities throughout Town.

The bylaw would require that any units created through the infill bylaw would create units that count on the State's Subsidized Housing Inventory (SHI) and be restricted as affordable housing in perpetuity. The provision can set minimum lot sizes; for example, the provisions could apply to lots as small as 75% of the minimum lot size in the zoning district. In addition, the provisions could require a special permit to ensure full compliance with DHCD's requirements under the local action unit program to create units that will count on the SHI. The bylaw could be structured so that other dimensional requirements, such as height and setbacks, would still apply.

Measurable Milestone: The Concord Department of Planning and Land Management will work closely with the Planning Board and other Town officials, as appropriate, to create draft bylaw amendments for consideration by Town Meeting, Spring 2013.

Section 3.2: Identification of Specific Sites

Strategy 5: PROVIDE NECESSARY SUPPORT FOR COMPREHENSIVE AND LOCAL PERMIT APPLICATIONS

Longview Meadow/Mill Creek Residential

Mill Creek (formerly Trammell Crow) has been approved to construct three-hundred fifty (350) rental units of housing at Longview Meadow, a 30-acre site overlooking the Assabet River at the Concord-Acton-Maynard-Sudbury town line. The proposed project includes eleven garden-style, three-story apartment buildings with 28 units each, and eight townhouse, two-story buildings with 4-6 units each, plus a one-story clubhouse. The three-story buildings will have a total of three-hundred and eight (308) units, while the two-story buildings will provide forty-two (42) units.

Strategy 5 helps to achieve Goal 3 by creating units that would count on the SHI to meet Concord's 40B requirements and Goal 4 by creating units for Eligible Households

The project has been designed to provide two parking spaces for each unit of housing for a total of 700 spaces. There are 518 outdoor parking spaces, 66 garage apartment spaces, 58 spaces located in townhouse driveways and 58 spaces within townhouse garages. The development will be served by a private waste-water treatment plant. The total lot coverage by the buildings is approximately 15%, while the total impervious surfaces is approximately 40% of the site.

The proposed project contains one-, two- and three-bedroom units. The table below outlines the number and mix of units as well as identifies the number of market and affordable units (comprising 25% of the total units).

| Residence Type              | Number of Units             |
|-----------------------------|-----------------------------|
| 1 bedroom / market rate     | 99                          |
| 1 bedroom / affordable rate | 33                          |
| 2 bedroom / market rate     | 145                         |
| 2 bedroom / affordable rate | 49                          |
| 3 bedroom / market rate     | 18                          |
| 3 bedroom / affordable rate | 6                           |
| Total                       | 350 ( 88 affordable units ) |

Measurable Milestones: Monitor the Trammel Crow Residential development project through the issuance of building permits, and ensure that all conditions of the comprehensive permit are met and that the units are added to the Subsidized Housing Inventory.

## Lalli Woods

Lalli Woods is an 8-unit mixed-income project located at 1241 Elm Street in Concord developed by the Concord Housing Development Corporation. A gift of \$500,000 from the Steinberg Lalli Charitable Foundation to promote affordable housing and a \$75,000 grant of Concord CPA funds enabled the CHDC to purchase the property and complete the engineering and entitlements required to build the project. The project has received approval under Concord's Planned Residential Development (PRD) zoning as well as an order of conditions from the Natural Resources Commission. The project will create two market value units and six restricted units – two available to households earning under 80% of the Area Median Income (AMI) and eligible for the Subsidized Housing Inventory, one unit available to a household earning under 110% of the AMI, and three units available to households earning under 130% of the AMI. Currently, in the summer of 2010, the marketing of the units has started, the foundations are in progress, and the model home under construction.

Measurable Milestones: Support the Lalli Woods project through the issuance of building permits, and ensure that all conditions of the comprehensive permit are met and that the units are added to the Subsidized Housing Inventory (SHI).

## 1257 Elm Street

The property at 1257 Elm Street is between the Lalli Woods project to its east, and the 8-unit Elm Court 40B homeownership development to its west. A local foundation has had private discussions with the owner and has indicated the potential for a small housing development at the site.

Measurable Milestones: Support the progress of the Elm Street land acquisition and support the project through planning.

## Section 3.3: Identification of Municipal Parcels

### Strategy 6: PROACTIVELY OBTAIN DEPARTMENT OF CORRECTION LAND FOR DEVELOPMENT OF AFFORDABLE HOUSING

The June 2010 press release on this project provides an excellent overview of the property, the vision, and the cooperation of local, regional and state officials that enabled this important legislation.

Strategy 6 helps to achieve  
Goal 2 by creating housing near village centers and  
Goal 3 by creating restricted units and  
Goal 4 by creating units for Eligible Households

"Governor Patrick signed into law legislation that will transfer certain Department of Correction land in the Town of Concord for affordable housing and open space. Chapter 117 of the Acts of 2010 (copy attached) filed by Representative Cory Atkins (D-Concord) and Senator Susan Fargo (D-Lincoln), conveys a 12 acre parcel of state-owned land under the control of the Massachusetts Department of Correction (DOC) to the Concord Housing Development Corporation (CHDC) to facilitate the development of affordable housing in Concord. The CHDC is a nonprofit

organization that the legislature established in 2006 by a special act sponsored by Representative Atkins.

Since this new law requires that 100 percent of the units be affordable, the conveyance of this land will go a long way toward helping the town meet its affordable housing goals. The CHDC will manage the project and determine the design and affordability guidelines. The units will likely be offered at a range of income levels, from 80 percent to 150 percent of the area median income. Using the 2010 limits for a family of four, published by the United States Department of Housing and Urban Development (HUD), eligibility would likely be based on gross incomes ranging from \$64,400 to \$137,700.

Selectman Greg Howes, speaking on behalf of the Concord Board of Selectmen, praised the bill's passage, stating, "With the enactment of this legislation, the Walden Woods Project fulfills its longstanding affordable housing commitment to the Town of Concord. A strong partnership between the Town, the Walden Woods Project, the Concord Housing Development Corporation, state and local officials yielded this successful outcome. Conveying this land to the Concord Housing Development Corporation will benefit the residents of Concord in the form of a smart growth project to help the Town reach its affordable housing goals and open up public access to a currently underutilized portion of the Assabet River."

The proposal for the land transfer was brought to Rep. Atkins' attention by the Walden Woods Project (WWP), which has been working collaboratively for nearly two years with the Representative, Concord town officials, the CHDC and the DOC to make the site available for affordable housing and publicly accessible open space along the Assabet River.

Representative Atkins stated, "This endeavor is a fine example of public-private partnership. The Walden Woods Project has worked hand-in-hand with Concord officials and with me to provide the resources needed to make this proposal a reality. Concord will benefit from having a smart growth, affordable housing project along with the potential for more open space and access to the Assabet River in that location."

"Making housing more available and affordable is a wonderful goal," said Senator Susan Fargo. "The reality of this new law came about through hard work of the Town of Concord, the Walden Woods Project and the Concord Housing Development Corporation. The cooperation and coordination between the state and local leaders is an example of not only building relationships but also building homes," said Senator Fargo.

The site is close to the West Concord commuter rail station and commercial district. In addition to being an ideal location for affordable housing, the property has considerable potential for open space and passive recreation. It abuts the proposed Bruce Freeman Rail Trail and an underutilized and currently inaccessible section of the federally-designated wild and scenic Assabet River. The property also includes a 320 foot setback from MCI Concord.

"The Massachusetts Department of Correction is pleased to have been an integral part of the Walden Woods collaborative effort," said DOC Commissioner Harold W. Clarke.

Measurable Milestones: All parties will work together to complete the conveyance of the property, performing preliminary engineering analysis and the conceptual project design over the next year.

### Strategy 7: SYSTEMATICALLY INCLUDE HOUSING REQUIREMENTS FOR MUNICIPAL LAND ACQUISITIONS

At the 2008 Annual Town Meeting, the Town voted under Article 35 “to establish a process whereby when land acquisitions involve Town funds, affordable housing is considered as one possible use of the land before any final commitments are made. The Town Manager and the Board of Selectmen will be responsible for ensuring that a housing representative is present from the start of discussions with the Town to determine probable land uses.” Subsequently, in August 2008, the Board of Selectmen and the Town Manager jointly adopted an administrative policy to administer this Town Meeting Vote. The policy provides for the appointment of a housing representative that shall be invited to participate in the start of discussions regarding a potential land acquisition using either Town funds or CPA funds.

Strategy 7 helps achieve Goal 5 through pro-active planning and advocacy

Measurable Milestones: The Board of Selectmen and Town Manager will continue to adhere to this policy and support consideration of affordable housing for potential municipal land acquisitions.

### Section 3.4: Participation in Regional Collaborations

#### Strategy 8: PARTICIPATE IN CREATION OF REGIONAL AFFORDABLE HOUSING TRUST

Concord is participating with other neighboring municipalities in establishing a shared regional housing services model. There are six towns included in this effort, with implementation efforts funded through a District Local Technical Assistance grant by Metropolitan Area Planning Council (MAPC). Bedford, Lexington, Lincoln, Weston, Sudbury, and Concord are working with the Metropolitan Area Planning Council (MAPC) to finalize a data analysis, develop a financial model and budget for the effort, and identify a small number of organizational models for this program.

Strategy 8 helps to achieve Goal 5 by increasing local capacity to undertake housing initiatives and Goal 6 by creating a body to monitor and assist with resales to preserve existing affordable units

The participating communities have compiled data and inventories, and the range of administrative staff support and expertise necessary to meet municipal responsibilities including, but not limited to, the following responsibilities:

- preparing housing plans
- administering housing programs
- reviewing housing applications
- creating and executing affirmative marketing plans

- managing the Towns' SHI
- monitoring rental and ownership units

If the effort does not progress to implementation, implement a formal monitoring program for the preservation of all affordable units in Concord.

Measurable Milestones: In partnership with the other participating communities, Concord plans to complete the feasibility analysis and proceed to launch the defined service model in the Fall 2010/Winter 2011. Implement a monitoring program either independently or as part of the regional effort.

### Strategy 9: PARTICIPATE IN THE WESTMETRO HOME CONSORTIUM AS A MEMBER

HOME is a federal housing program administered by the U.S. Department of Housing and Community Development (DHCD). HOME is authorized under Title II of the Cranston-Gonzalez National Affordable Housing Act, as amended. Program regulations are at 24 CFR Part 92.

Strategy 9 helps achieve Goal 5 by increasing local capacity to undertake housing initiatives through regional cooperation

The HOME funds are distributed through the State as well as through Consortiums, which are groups of adjacent communities. The WestMetro HOME Consortium is administered by the City of Newton and currently has fourteen members: Newton, Bedford, Belmont, Brookline, Concord, Framingham, Lexington, Lincoln, Natick, Needham, Sudbury, Watertown, Waltham, and Wayland.

The Town of Concord just joined the Consortium in July 2010, and will begin receiving HOME funds in federal fiscal year 2011 (starts 7/1/2011). The town will receive an annual allocation of funds for affordable housing projects of approximately \$25,000 as well as administrative funds for administering the program. The allocation amount varies according to HUD formulas. The Consortium also brings a community into a local housing network. The network provides both informal contacts among housing professionals and opportunities for more formal exchanges of information and technical assistance.

Measurable Milestones: Concord will participate in all aspects of the HOME program starting in 2011. This administration includes the preparation of annual HOME planning documents, Fair Housing plans (Analysis of Impediments to Fair Housing Choice), and 5-year strategic plans. Concord will be able to commit its allocated housing funds as a member of the Consortium.

### Section 3.5: Development of Assistance Programs

#### Strategy 10: IMPLEMENT SMALL GRANTS PROGRAM to SUPPORT LOW-INCOME HOMEOWNERS THROUGH REHAB FUNDS

Using HOME funds, discussed in Strategy 9, establish a small grants program to assist low-income homeowners with a variety of rehabilitation needs. Such programs funded with HOME funds must adhere to HOME program requirements including making properties lead-free and in compliance with building codes or Home Quality Standards.

Strategy 10 helps to achieve Goal 1 by helping to retain existing low-income homeowners

A small grants program could be structured as a grant, deferred loan, direct payment loan, and/or could have a corresponding property lien. Multiple regional communities have similar programs that could be used as models including Newton and Framingham.

Measurable Milestones: The Concord Department of Planning and Land Management will explore development of a small grants program Spring-Fall 2011 with intended program implementation starting in the Winter of 2011-2012.

#### Strategy 11: FUND HOUSING UNITS FOR ELIGIBLE HOUSEHOLDS

Using funds from the Community Preservation Act and other sources, continue to fund units of housing for first-time homebuyers and other households to purchase a home in Concord.

Strategy 11 helps to achieve Goal 3 by creating restricted units and Goal 4 by creating affordable homeownership opportunities throughout Town

This strategy provides funds to the Concord Housing Development Corporation and perhaps other organizations to subsidize housing units in their homeownership and rental projects.

Town-sponsored affordable housing development strives to maximize the number of restricted units. For homeownership, another important consideration is that in general, the cost of developing a unit of affordable housing is often twice the amount of the sales proceeds, which is regulated.

Community Preservation Act funds may be used on housing units up to 100% of the Area Median Income, and units offered to middle-income households may be subsidized with private funds.

Measurable Milestones: Support annual CPA funding requests for the Concord Housing Development Corporation for the development of Lalli Woods, pre-development funds for the Walden Woods project, and other projects.

## Strategy 12: IMPLEMENT A HOME PRESERVATION PROGRAM

Concord can realize many benefits from a Home Preservation Program. Unlike affordable housing units that are part of specific new developments, a Home Preservation Program typically targets existing housing that is for sale and converts it to affordable housing. The affordable units created through this program would count on the state's Subsidized Housing Inventory (SHI).

Strategy 12 helps to achieve Goal 1 by preserving existing homes Goal 3 by creating restricted units and Goal 4 by creating affordable homeownership opportunities throughout Town

The program's subsidy takes the form of direct payments to the seller at closing in exchange for the perpetual deed restriction. There are program variations that the Town can determine when developing the Program materials. For example, the buyer or the Town can select the property. In all permutations of this program, the buyers are determined eligible through fair and affirmative marketing, and a lottery is held to rank interested and eligible buyers.

Measurable Milestones: Starting in 2013, develop program guidelines, procedures, administrative responsibilities. Target implementation for 2014 with home selections and lottery process. It is expected that this program may produce two to three units of SHI-eligible housing per year.

## APPENDIX A: 2010 ONLINE QUESTIONNAIRE - SUMMARY OF RESULTS

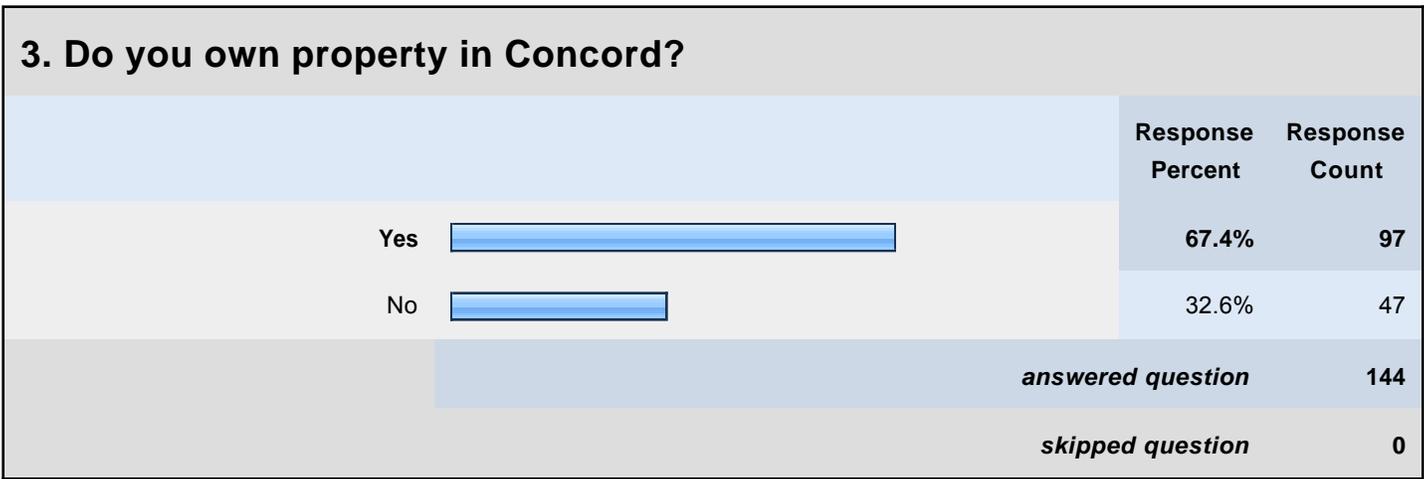
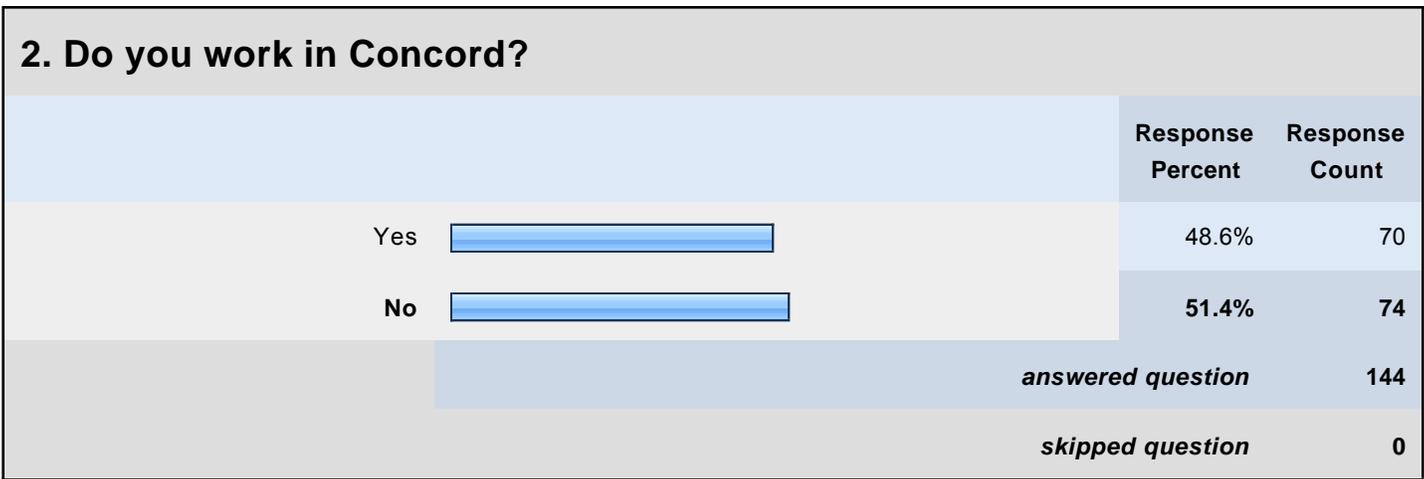
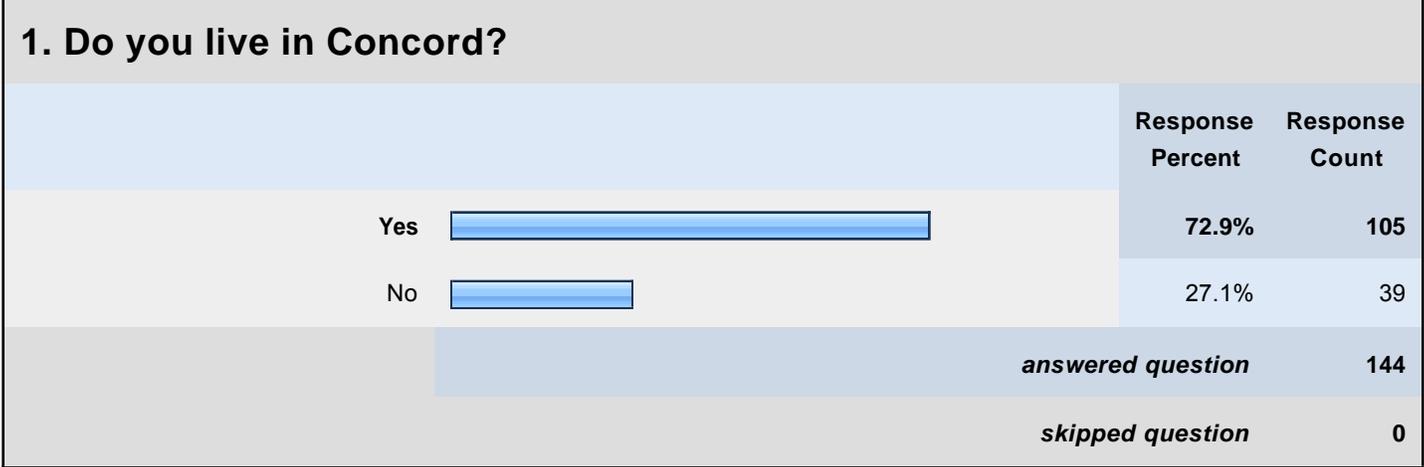
The following pages provide a summary of the responses to the online questionnaire. The questionnaire was available from May 21, 2010 through June 11, 2010. Participation included 144 people who began the questionnaire and 104 who completed it. The following summary is organized by question, in the order they appeared to the questionnaire participants.

While we recognize that online surveys can be impacted by efforts of groups to influence the result, we accept the results obtained as another piece of input into the definition of Concord's Housing Goals. The feedback from the questionnaire did not solely shape the goals, nor was the feedback inconsistent with the goals articulated and prioritized through the workshop and other processes.

More detailed information regarding questionnaire results is available upon request by contacting the Concord Department of Planning and Land Management.

# Housing Production Plan Questionnaire for Concord, MA

Issued online through [www.surveymonkey.com](http://www.surveymonkey.com): May 21, 2010-June 11, 2010



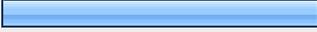
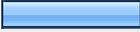
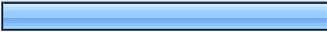
#### 4. Do you own a business in Concord?

|                          |                                                                                    | Response<br>Percent | Response<br>Count |
|--------------------------|------------------------------------------------------------------------------------|---------------------|-------------------|
| Yes                      |   | 9.7%                | 14                |
| No                       |  | 90.3%               | 130               |
| <i>answered question</i> |                                                                                    |                     | 144               |
| <i>skipped question</i>  |                                                                                    |                     | 0                 |

**5. Based on your experience and familiarity with Concord, to what degree do you believe the following types of households are most likely to struggle with housing costs? Please rank: 1=most likely to struggle 5=least likely to struggle**

|                                             | 1 = most likely to struggle | 2                           | 3                           | 4            | 5 = least likely to struggle | N/A         | Rating Average | Response Count |
|---------------------------------------------|-----------------------------|-----------------------------|-----------------------------|--------------|------------------------------|-------------|----------------|----------------|
| employees of local businesses               | 25.2%<br>(31)               | 26.8%<br>(33)               | <b>32.5%</b><br><b>(40)</b> | 8.9%<br>(11) | 2.4% (3)                     | 4.1%<br>(5) | 3.66           | 123            |
| families                                    | 13.8%<br>(17)               | 20.3%<br>(25)               | <b>45.5%</b><br><b>(56)</b> | 8.1%<br>(10) | 7.3% (9)                     | 4.9%<br>(6) | 3.26           | 123            |
| farm workers                                | <b>61.8%</b><br><b>(76)</b> | 22.0%<br>(27)               | 7.3%<br>(9)                 | 1.6%<br>(2)  | 1.6% (2)                     | 5.7%<br>(7) | 4.49           | 123            |
| first-time homebuyers                       | <b>34.7%</b><br><b>(43)</b> | 27.4%<br>(34)               | 29.0%<br>(36)               | 4.8%<br>(6)  | 0.8% (1)                     | 3.2%<br>(4) | 3.93           | 124            |
| individuals with disabilities               | <b>38.4%</b><br><b>(48)</b> | 30.4%<br>(38)               | 23.2%<br>(29)               | 1.6%<br>(2)  | 0.8% (1)                     | 5.6%<br>(7) | 4.10           | 125            |
| municipal employees                         | <b>36.8%</b><br><b>(46)</b> | 25.6%<br>(32)               | 24.0%<br>(30)               | 8.0%<br>(10) | 1.6% (2)                     | 4.0%<br>(5) | 3.92           | 125            |
| senior citizens                             | <b>39.8%</b><br><b>(51)</b> | 30.5%<br>(39)               | 18.8%<br>(24)               | 4.7%<br>(6)  | 3.1% (4)                     | 3.1%<br>(4) | 4.02           | 128            |
| single parents                              | <b>45.6%</b><br><b>(57)</b> | 31.2%<br>(39)               | 16.8%<br>(21)               | 2.4%<br>(3)  | 0.8% (1)                     | 3.2%<br>(4) | 4.22           | 125            |
| young working adults                        | 24.2%<br>(30)               | <b>32.3%</b><br><b>(40)</b> | 26.6%<br>(33)               | 9.7%<br>(12) | 4.0% (5)                     | 3.2%<br>(4) | 3.65           | 124            |
| other or elaborate further (please specify) |                             |                             |                             |              |                              |             |                | 20             |
| <b>answered question</b>                    |                             |                             |                             |              |                              |             |                | <b>129</b>     |
| <b>skipped question</b>                     |                             |                             |                             |              |                              |             |                | <b>15</b>      |

**6. Based on your experience in Concord, which of the following do you see a need for? Check all that apply:**

|                                                                                   |                                                                                     | Response<br>Percent | Response<br>Count |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|-------------------|
| help for existing homeowners to afford to stay in their homes                     |    | 48.1%               | 62                |
| help for existing residents to rehabilitate their homes                           |    | 20.9%               | 27                |
| help for existing renters with the cost of rent                                   |    | 17.1%               | 22                |
| more units affordable for renters with modest incomes                             |    | 49.6%               | 64                |
| <b>more units affordable for homeowners with modest incomes</b>                   |    | <b>61.2%</b>        | <b>79</b>         |
| more housing options for people in changed circumstances to live in the community |   | 55.8%               | 72                |
| Not sure                                                                          |  | 3.9%                | 5                 |
| None                                                                              |  | 8.5%                | 11                |
| other or elaborate further (please specify)                                       |  | 16.3%               | 21                |
| <b><i>answered question</i></b>                                                   |                                                                                     |                     | <b>129</b>        |
| <b><i>skipped question</i></b>                                                    |                                                                                     |                     | <b>15</b>         |

**1. The updated Concord Housing Production Plan will set Town policies to guide the development of affordable housing over the next five years. These policies require careful consideration in how they may impact other community goals, such as protection of agricultural land and open space, historic preservation, environmental protection and energy use, and other smart growth goals. The following statements are meant for you to evaluate housing policy choices in relation to these other goals. Please rate how strongly you agree or disagree with the following statements as they apply in Concord.**

Choose one response for each statement in the drop-down menus below

|                                                                                                                                                                                                                                                                                                  | Strongly Agree    | Agree             | Agree Somewhat | Disagree Somewhat | Disagree  | Strongly Disagree | No Opinion/not sure | Response Count |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|----------------|-------------------|-----------|-------------------|---------------------|----------------|
| A. It is important to have a greater variety of housing types by developing more alternatives to traditional single-family houses such as apartments and condominiums, cottage-style housing, duplexes, and congregate housing.                                                                  | <b>34.7% (43)</b> | 20.2% (25)        | 16.9% (21)     | 8.9% (11)         | 8.1% (10) | 7.3% (9)          | 4.0% (5)            | 124            |
| B. It is important that new housing units are located near village centers and existing neighborhoods as much as possible in order to avoid consuming open space and natural habitat even if it means increasing the amount of dwelling units in the village centers and existing neighborhoods. | 21.8% (27)        | <b>28.2% (35)</b> | 18.5% (23)     | 12.1% (15)        | 9.7% (12) | 5.6% (7)          | 4.0% (5)            | 124            |
| C. It is important that new housing units be located near public transportation and near commercial                                                                                                                                                                                              |                   |                   |                |                   |           |                   |                     |                |

|                                                                                                                                                                                                                                                                                                                                                                          |                   |                   |            |            |                   |            |           |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|------------|------------|-------------------|------------|-----------|-----|
| areas to minimize automobile-reliance even if it means increasing the amount of dwelling units in those areas.                                                                                                                                                                                                                                                           | 24.2% (30)        | <b>33.1% (41)</b> | 21.0% (26) | 4.0% (5)   | 10.5% (13)        | 3.2% (4)   | 4.0% (5)  | 124 |
| D. It is important to preserve the current amount of dwelling units in existing neighborhoods and commercial areas, even if it means that more residential development will be located on existing agricultural and open space.                                                                                                                                          | 6.5% (8)          | 7.3% (9)          | 12.9% (16) | 16.1% (20) | <b>25.0% (31)</b> | 23.4% (29) | 8.9% (11) | 124 |
| E. The Town recently adopted the Stretch Energy Code, which requires greater energy efficiency for new construction and rehabilitation. These requirements may cause additional project costs which can impact the feasibility of creating affordable housing. It is important to provide public resources to offset such additional costs to create affordable housing. | 12.1% (15)        | <b>21.8% (27)</b> | 19.4% (24) | 16.1% (20) | 10.5% (13)        | 12.1% (15) | 8.1% (10) | 124 |
| F. In order to minimize new construction and loss of open space, it is important to reuse and adapt existing larger buildings to create multi-family housing units.                                                                                                                                                                                                      | 21.8% (27)        | <b>33.9% (42)</b> | 28.2% (35) | 2.4% (3)   | 4.8% (6)          | 2.4% (3)   | 6.5% (8)  | 124 |
| G. Tearing down smaller homes to build large homes is known as "mansionization." In the last ten years, this was a major concern because it was impacting neighborhood character and reducing moderately-priced housing options. "Mansionization" is still a                                                                                                             | <b>43.5% (54)</b> | 18.5% (23)        | 16.1% (20) | 7.3% (9)   | 4.0% (5)          | 5.6% (7)   | 4.8% (6)  | 124 |

major problem.

Other comments (please specify)

20

***answered question***

**124**

***skipped question***

**20**

**8. Under state requirements, Concord does not have enough affordable housing for low-income households. The State mandates, through the Chapter 40B legislation, that each municipality produce 10% of its housing stock to be reserved for low-income households. For Concord, a low-income household is one that has an annual income of up to \$64,400 for a family of four. In order to track progress toward the mandate, the state maintains a "subsidized housing inventory" that documents how many units count as affordable housing in each municipality. Concord's current housing policies also encourage the creation of affordable housing for moderate-income households - even though these units do not count on the state's "subsidized housing inventory." The definition of moderate-income households may vary, though it starts at the area median income, which for Concord is \$91,800. Public funding, often local funding, is commonly required to create affordable housing units - both low-income and moderate-income units. Therefore, it is important to evaluate Concord's current policies that encourage and support the creation of moderate-income housing in addition to low-income housing. Do you believe the Town should continue to encourage the creation of units that are affordable to moderate-income households? Please chose one answer below that most closely represents your opinion:**

|                                                                                                                                                                                               | Response Percent | Response Count |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|
| <b>Yes, continue to support creation of both moderate-income and low-income housing</b>                    | 66.4%            | 81             |
| No, only support creation of low-income housing that counts on the state's "subsidized housing inventory"  | 12.3%            | 15             |
| It depends                                                                                                 | 9.8%             | 12             |
| Not sure                                                                                                   | 6.6%             | 8              |
| None of the above                                                                                          | 4.9%             | 6              |
| Explain why                                                                                                |                  | 33             |
| <i>answered question</i>                                                                                                                                                                      |                  | 122            |

*skipped question*

22

### 9. Which best represents your living situation?

|                                                                                                          | Response<br>Percent | Response<br>Count |
|----------------------------------------------------------------------------------------------------------|---------------------|-------------------|
| Own your home          | 82.2%               | 97                |
| Rent your home          | 11.0%               | 13                |
| Other (please specify)  | 6.8%                | 8                 |
| <i>answered question</i>                                                                                 |                     | 118               |
| <i>skipped question</i>                                                                                  |                     | 26                |

## 10. Which category best represents your total gross annual household income?

|                                                                                                            | Response Percent | Response Count |
|------------------------------------------------------------------------------------------------------------|------------------|----------------|
| Less than \$25,000        | 1.7%             | 2              |
| \$25,000-\$49,999         | 9.3%             | 11             |
| <b>\$50,000-\$74,999 </b> | <b>20.3%</b>     | <b>24</b>      |
| \$75,000-\$99,999         | 11.0%            | 13             |
| \$100,000-\$124,999       | 13.6%            | 16             |
| \$125,000-\$149,999       | 12.7%            | 15             |
| \$150,000-\$174,999       | 12.7%            | 15             |
| \$175,000-\$199,999       | 2.5%             | 3              |
| \$200,000-\$224,999       | 5.1%             | 6              |
| \$225,000-\$249,999      | 1.7%             | 2              |
| \$250,000-\$274,999     | 1.7%             | 2              |
| \$275,000-\$299,999                                                                                        | 0.0%             | 0              |
| \$300,000 plus          | 7.6%             | 9              |
| <b><i>answered question</i></b>                                                                            |                  | <b>118</b>     |
| <b><i>skipped question</i></b>                                                                             |                  | <b>26</b>      |

## APPENDIX B: JUNE 2010 PLANNING WORKSHOP – SUMMARY OF RESULTS

The following summary of results from the June 2010 planning workshop are transcribed from the five break-out tables notes of their table's discussions for each of the three questions. The five break-out tables were labeled A-E. The summary includes each of the three questions in addition to the break-out table's notes. At the end of the summary, this appendix also includes a matrix showing the ranking and prioritization of the objectives discussed in Question 3.

### Question 1

What are the housing issues that you believe the Town should help address? Please list all that come to mind in the space provided below and explain why.

#### Table A

- Housing for single people and single parents
- Reuse to preserve modest homes
- Recognize number of residents in lower-middle income
- Emphasize not only building new units but new units without building new
- Increase ability to convert single large homes to multi-units

#### Table B

- More accessory housing on existing lots
- Buying-down existing homes
- Create apartments and more 2 family and multi-family properties
- Diversity in location of affordable units; more closer to center

#### Table C

- Preserve housing diversity and human dignity
- Residential element in town centers
- Smart growth – walking distance to trains
- Resolve conflict between land conservation vs. affordable
- Post 40B planning – when affordable housing is no longer compulsory
- Senior citizens to downsize
- Stay green
- McMansions

#### Table D

- Concord affordable housing wait list is over one year
- Plan for tear downs – Sudbury home preservation program
- Do not give up industrial use for mixed use
- Increase small units in business areas
- Housing for retirees and municipal workers
- Loss of two-family homes to condos

#### Table E

- More affordable housing at all levels
- Concern for mansionization and teardowns of small houses
- Different taxes for commercial and residential
- Reduce/simplify permitting process for development

Question 2

Do you believe the Town should continue to encourage the creation of units that are affordable to both low and moderate-income households? Why?

Table A

Both low and moderate income housing is needed  
Need to prioritize how to focus  
Town employees  
People who work in town  
Single people and retirees  
Farmers  
First-time homebuyers  
Need both for continued income balance

Table B

[Yes] To maintain heterogeneity  
More diversity/choices  
Options during the housing lifecycle  
Diverse locations for increased affordability

Table C

Keeping 40B in place – lower end  
Yes, spectrum of income age and family status  
Small but not state subsidized  
AMI not appropriate to Concord – keep 150% AMI  
Housing composition going forward – need smaller households  
Maintain 40B

Table D

Yes, provide housing for municipal workers  
Provide diversity  
Yes, as long as we maintain our 10% low income  
Encourage low income more than moderate  
Limit encouragement of moderate when funding is involved

Table E

We should create both low and moderate units  
At the present time, don't subsidize moderate  
We should concentrate on state-defined affordable housing (subsidized)

### Question 3

The 2005 Housing Production Plan identified four primary housing goals and a variety of objectives for each goal. Please reference the separate handout, "List of Potential Affordable Housing Goals."

Which, if any, of these goals and objectives would you confirm?

Which, if any, would you challenge?

Which, if any, would you build upon?

Are there other goals/objectives that you would add?

#### Table A

- 1.1 Challenge the development of market rate – encourage retention of small, existing single-family homes; what is the meaning of market rate?
- 1.2 Confirm but no monolithic structures in the centers
- 1.3 Yes, but would like more attention to the needs of mat population and town employees
- 1.4 Confirm farmers
- 2.1 Yes with a look at public transportation as an obstacle
- 2.2 Confirm – question whether we know what specifics people are looking for
- 3.1 Confirm – building on by adding services to disabled – social workers
- Rest of goal 3 – confirm all; need more specific objectives
- 4.1 basically confirm, but some undeveloped land might be useable – don't want to overdevelop centers and cause traffic and stress on infrastructure
- 4.2 Confirm – fear of turning into Acton
- 4.3 clearer definition of what needs to be supported by municipal, etc and how
- Other ideas:
  - Goals basically good, but concerned about the development that might go to centers
  - Re-evaluation of the income guideline caps
  - Adopt or consider floor area ratio – zoning tool
  - Cottage style housing should be promoted (concern about scale)

#### Table B

- 1.1 Challenge – we do not feel facilitating the development of small detached single-family homes solves any housing issues
- 1.2 Confirm and build upon – examples Medfield (Thorndike) and Lexington Center
- 1.3 Confirm – Expand the zoning possibilities/opportunities to facilitate
- 1.4 Clarify – What is the objective of this?
- 2.1 No expansion of
- 2.2 No expansion of
- 3.1 Confirm
- 3.2 Confirm/build upon/add: 61A Land – Develop a program or relationship to have in place so that Town can act promptly in the event of a potential sale (for acquisition)
- 3.3 Confirm/Build upon: with strong aesthetic restrictions/standards "retaining classic New England architecture."
- 3.4 Confirm
- 3.5 Clarify – what fiscal policies
- 3.6 Confirm
- 4.1 Confirm – in appropriate areas
- 4.2 Build upon – not size so much as character
- 4.3 Confirm!

#### Table C

- 1.1 Concern about infill housing
- 3 Plan beyond 40B – rental problem with 40B – new development
- 4 Keep character but facilitate accessory units
- 4.2 Challenge – raise tax base (mixed)
- C and D – support
- E not all agree

Table D

- 1 Preserve small single family homes – not increase
- 1.2 Concern with new large units – traffic, etc.
- 1.3 and 1.4 Agree
- 2.1 Within reason
- 2.2 Through zoning, not funding
- 3 Importance – Character of Concord
- 3.3 By encouraging through zoning
- 3.6 Proactive 40B and 40R for modification
- 4.1 Agree
- 4.2 Question are there any mechanisms to avoid loss of owner-occupied two-families
- 4.3 vague
- Support compact single family homes
- E TDR needs to be managed well – concern master plan
- Need aging in place services

Table E

- 1 Confirm
- 1.1 encourage cottage idea
- 1.2 concerned about scale
- 1.3 attention to external aesthetics
- 1.4 but recognize it's complicated
- 2 Confirm
- 2.1 emphasize ADA accessibility
- 2.2 confirm
- 3.1 confirm
- 3.2 and identify sites for multi-family zoning changes
- 3.3 confirm
- 3.4 confirm but needs to go to state defined affordable
- 3.5 confirm
- 3.6 confirm
- 4 Confirm
- 4.1 confirm and build upon – allow open space and housing
- 4.2 confirm and revise zoning laws to protect neighborhood character
- 4.3 confirm
- A challenge – need more rentals
- B confirm
- C confirm – need zoning revision
- D confirm – need zoning revisions
- E confirm

## Matrix of June 2010 Workshop Results for Question 3 Showing Ranking of Objectives from 2005 Housing Production Plan

The matrix below includes each of the objectives identified through the 2005 Housing Production Plan, how many of the five total break-out tables confirmed, challenged, and/or built upon each objective or indicated that the objective needed clarification. In addition, the matrix includes the results of the individual dot-voting prioritization exercise where each workshop participant received five dots to indicate their top priorities from the list of objectives (including additional possible objectives A-G that were added by the consultants and also workshop participants).

|      | OBJECTIVES                                                                                                                                                                                                                                         | Confirm | Challenge | Build | Needs clarification | Individual Dot Votes |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------|-------|---------------------|----------------------|
| 1.1  | Facilitate the development of the number of small, market-rate, single-family detached units.                                                                                                                                                      | 1       | 3         | 2     |                     | 2                    |
| 1.1a | Retention of small existing homes (cottage)                                                                                                                                                                                                        |         |           |       |                     | 9                    |
| 1.2  | Create new multi-family housing for a variety of use needs that are close to the village centers or as part of mixed-use developments that utilize smart growth principles.                                                                        | 4       | 1         | 3     |                     | 10                   |
| 1.2a | Not monolithic, proper scale (examples: Medfield [thorndike])                                                                                                                                                                                      |         |           |       |                     | 10                   |
| 1.3  | Make use of existing housing to provide housing options for elderly, special needs populations, or young adults.                                                                                                                                   | 5       | 0         | 2     |                     | 5                    |
| 1.3a | Add town employees, external aesthetics                                                                                                                                                                                                            |         |           |       |                     | 0                    |
| 1.4  | Facilitate the ability of farmers to provide farm worker housing.                                                                                                                                                                                  | 4       | 0         | 0     | 1                   | 2                    |
| 2.1  | Expand opportunities and eliminate obstacles to enable elderly residents and persons with disabilities to live in town.                                                                                                                            | 5       | 0         | 3     | 1                   | 1                    |
| 2.1a | With more public transportation, ADA accessibility, within reason                                                                                                                                                                                  |         |           |       |                     | 1                    |
| 2.2  | Expand opportunities and town and school employees, young families, young adults, and single parents to find a moderately priced home in Concord.                                                                                                  | 5       | 0         | 2     |                     | 8                    |
| 2.2a | Caveat: town employees – not with subsidies; local preference in opportunities, through zoning not funding                                                                                                                                         |         |           |       |                     | 0                    |
| 3.1  | Support and strengthen local organizations and institutions that provide affordable housing so Concord has a strong infrastructure for meeting its housing needs and is able to respond to housing opportunities in a timely and effective manner. | 5       | 0         | 1     |                     | 5                    |
| 3.1a | Add services to subgroups as needed                                                                                                                                                                                                                |         |           |       |                     | 0                    |
| 3.2  | Identify appropriate sites for affordable housing by planning ahead so that action can be taken quickly when land becomes available.                                                                                                               | 5       | 0         | 2     |                     | 4                    |
| 3.2a | Add more specific info: 61A land-develop program                                                                                                                                                                                                   |         |           |       |                     | 1                    |
| 3.3  | Incorporate affordable housing throughout the town to encourage mixed-income developments.                                                                                                                                                         | 4       |           | 1     |                     | 2                    |
| 3.3a | More specific info: add strong aesthetic standards through zoning sites for multifamily housing                                                                                                                                                    |         |           |       |                     | 2                    |

|      | OBJECTIVES                                                                                                                                                                                                  | Confirm | Challenge | Build | Needs clarification | Individual Dot Votes |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------|-------|---------------------|----------------------|
| 3.4  | Leverage and expand funds available for affordable housing.                                                                                                                                                 | 4       | 0         |       | x                   | 1                    |
| 3.4a | Leverage with state funds to produce 80% units                                                                                                                                                              |         |           |       |                     | 0                    |
| 3.5  | Reduce the impact of Town fiscal policies on home affordability.                                                                                                                                            | 3       |           |       | 1                   | 5                    |
| 3.6  | Take a pro-active approach in proposing or supporting changes to state legislation, like Chapter 40B, that would be advantageous to the Town.                                                               | 5       |           | 1     |                     | 4                    |
| 3.6a | Add 40R                                                                                                                                                                                                     |         |           |       |                     | 0                    |
| 4.1  | Locate housing in village centers or existing neighborhoods that provide services. Avoid consuming "green fields" of open space, natural habitat, and undeveloped land.                                     | 5       | 1         | 3     |                     | 8                    |
| 4.1a | On undeveloped land, combine open space ?? (can't read the writing here)                                                                                                                                    |         |           |       |                     | 0                    |
| 4.2  | Control the loss of neighborhood character due to the tearing down of existing small houses and construction of larger and out of character new houses.                                                     | 4       | 1         | 3     | 1                   | 14                   |
| 4.2a | Not size so much as character; creating funding source from tear downs? zoning                                                                                                                              |         |           |       |                     | 2                    |
| 4.3  | Plan municipal and state infrastructure to support housing goals.                                                                                                                                           | 1       |           | 2     | 2                   | 0                    |
| A    | Focus on creating more affordable homeownership opportunities                                                                                                                                               | 2       | 1         |       |                     | 7                    |
| B    | Focus on creating more affordable rental opportunities for medium to larger size households needing 2+ bedrooms                                                                                             | 2       |           |       |                     | 3                    |
| C    | Allow more compact development (two-family, multi-family, and compact single-family) through zoning amendments in and near village centers.                                                                 | 4       |           | 1     |                     | 10                   |
| Ca   | Traffic/infrastructure considered; compact neighborhoods                                                                                                                                                    |         |           |       |                     | 3                    |
| D    | Allow more flexibility in conversions of existing single-families in or near village centers to two-families, accessory units, and expand existing zoning provision to include conversion to multi-family.  | 3       |           | 1     |                     | 6                    |
| Da   | Traffic/infrastructure considered                                                                                                                                                                           |         |           |       |                     | 0                    |
| E    | Allow transfer of development rights to protect open space and agricultural land from development and "send" the development to areas in and near village centers where compact development is appropriate. | 3       | 1         | 2     |                     | 1                    |
| Ea   | Manage well with master plan                                                                                                                                                                                |         |           |       |                     | 0                    |
| F    | Reevaluate income caps to increase support for over 150% AMI                                                                                                                                                |         |           |       |                     | 1                    |
| G    | Provide aging in place services                                                                                                                                                                             |         |           |       |                     | 0                    |

Yellow fields indicate objectives that received eight or more individual dot votes.

Turquoise fields indicate objectives that all five break-out groups confirmed.

## APPENDIX C: 2005 HOUSING PRODUCTION PLAN GOALS & OBJECTIVES

Goal H 1 Maintain or increase the variety of housing types to meet the needs of Concord's traditionally diverse population.

Objective H 1.1 Facilitate the development of the number of small, market-rate, single-family detached units in order to provide housing options for residents who want to down-size from their current home or people who want to move into the community.

Objective H 1.2 Create new multi-family housing (apartments, condominiums, townhouses, cooperatives, co-housing) for a variety of use needs that are close to the village centers or as part of mixed-use developments that utilize Smart Growth principles.

Objective H 1.3 Make use of existing housing to provide housing options for elderly, special needs populations, or young adults.

Objective H 1.4 Facilitate the ability of farmers to provide farm worker housing.

Goal H 2 Accommodate the evolving needs of singles, families, the elderly, and town employees to enable them to move into or remain in Town.

Objective: H 2.1 Expand opportunities and eliminate obstacles to enable elderly residents and persons with disabilities to live in Town.

Objective: H 2.2 Expand opportunities for town and school employees, young families, young adults, and single parents to find a moderately priced home in Concord.

Goal H 3 Provide affordable housing throughout the Town that is in keeping with the character of Concord and meets the state requirement of 10% affordable housing under Chapter 40B.

Objective H 3.1 Support and strengthen local organizations and institutions that provide affordable housing so Concord has a strong infrastructure for meeting its housing needs and is able to respond to housing opportunities in a timely and effective manner.

Objective H 3.2 Identify appropriate sites for affordable housing by planning ahead so that action can be taken quickly when land becomes available.

Objective H 3.3 Incorporate affordable housing throughout the town to encourage mixed-income developments and avoid concentrations in any one area.

Objective H 3.4 Leverage and expand funds available for affordable housing

Objective H 3.5 Reduce the impact of Town fiscal policies on home affordability.

Objective H 3.6 Take a pro-active approach in proposing or supporting changes to state legislation, like Chapter 40B, that would be advantageous to the Town.

Goal H 4      Retain the classic New England character of Concord which optimizes Smart Growth principals and fosters strong neighborhood identities.

Objective H 4.1      Locate housing in village centers or already built areas that provide local services. Avoid consuming "green fields" of open space, natural habitat and undeveloped land.

Objective H 4.2      Control the loss of neighborhood character due to the tearing down of existing small houses and construction of larger and out of character new houses.

Objective H 4.3      Plan municipal and state infrastructure to support housing goals.

# APPENDIX D: COMMONWEALTH'S SUSTAINABLE DEVELOPMENT PRINCIPLES

The Commonwealth of Massachusetts shall care for the built and natural environment by promoting sustainable development through integrated energy and environment, housing and economic development, transportation and other policies, programs, investments, and regulations. The Commonwealth will encourage the coordination and cooperation of all agencies, invest public funds wisely in smart growth and equitable development, give priority to investments that will deliver good jobs and good wages, transit access, housing, and open space, in accordance with the following sustainable development principles. Furthermore, the Commonwealth shall seek to advance these principles in partnership with regional and municipal governments, non-profit organizations, business, and other stakeholders.



## 1. Concentrate Development and Mix Uses

Support the revitalization of city and town centers and neighborhoods by promoting development that is compact, conserves land, protects historic resources, and integrates uses. Encourage remediation and reuse of existing sites, structures, and infrastructure rather than new construction in undeveloped areas. Create pedestrian friendly districts and neighborhoods that mix commercial, civic, cultural, educational, and recreational activities with open spaces and homes.

## 2. Advance Equity

Promote equitable sharing of the benefits and burdens of development. Provide technical and strategic support for inclusive community planning and decision making to ensure social, economic, and environmental justice. Ensure that the interests of future generations are not compromised by today's decisions.



## 3. Make Efficient Decisions

Make regulatory and permitting processes for development clear, predictable, coordinated, and timely in accordance with smart growth and environmental stewardship.



## 4. Protect Land and Ecosystems

Protect and restore environmentally sensitive lands, natural resources, agricultural lands, critical habitats, wetlands and water resources, and cultural and historic landscapes. Increase the quantity, quality and accessibility of open spaces and recreational opportunities.



## 5. Use Natural Resources Wisely

Construct and promote developments, buildings, and infrastructure that conserve natural resources by reducing waste and pollution through efficient use of land, energy, water, and materials.



## 6. Expand Housing Opportunities

Support the construction and rehabilitation of homes to meet the needs of people of all abilities, income levels, and household types. Build homes near jobs, transit, and where services are available. Foster the development of housing, particularly multifamily and smaller single-family homes, in a way that is compatible with a community's character and vision and with providing new housing choices for people of all means.



## 7. Provide Transportation Choice

Maintain and expand transportation options that maximize mobility, reduce congestion, conserve fuel and improve air quality. Prioritize rail, bus, boat, rapid and surface transit, shared-vehicle and shared-ride services, bicycling, and walking. Invest strategically in existing and new passenger and freight transportation infrastructure that supports sound economic development consistent with smart growth objectives.



## 8. Increase Job and Business Opportunities

Attract businesses and jobs to locations near housing, infrastructure, and transportation options. Promote economic development in industry clusters. Expand access to education, training, and entrepreneurial opportunities. Support the growth of local businesses, including sustainable natural resource-based businesses, such as agriculture, forestry, clean energy technology, and fisheries.



## 9. Promote Clean Energy

Maximize energy efficiency and renewable energy opportunities. Support energy conservation strategies, local clean power generation, distributed generation technologies, and innovative industries. Reduce greenhouse gas emissions and consumption of fossil fuels.

## 10. Plan Regionally

Support the development and implementation of local and regional, state and interstate plans that have broad public support and are consistent with these principles. Foster development projects, land and water conservation, transportation and housing that have a regional or multi-community benefit. Consider the long-term costs and benefits to the Commonwealth.



## APPENDIX E: MATRIX OF GOALS AND STRATEGIES

|                                                                                       | Goal 1<br>Preserve Existing Smaller Homes | Goal 2<br>Diversify Housing Options through Compact Development | Goal 3<br>Create SHI-eligible units AND middle-income units | Goal 4<br>Create units for First Time Home Buyers and Eligible Households | Goal 5<br>Proactive Planning and Advocacy | Goal 6<br>Preserve Existing Affordable Units |
|---------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|
| Strategy 1 – Zoning: Floor area ratios & amendments to other dimensional requirements | <input checked="" type="checkbox"/>       |                                                                 | <input checked="" type="checkbox"/>                         |                                                                           |                                           |                                              |
| Strategy 2 – Zoning: Multi-family development                                         |                                           | <input checked="" type="checkbox"/>                             | <input checked="" type="checkbox"/>                         |                                                                           |                                           |                                              |
| Strategy 3 – Zoning: Development in Centers                                           |                                           | <input checked="" type="checkbox"/>                             | <input checked="" type="checkbox"/>                         |                                                                           |                                           |                                              |
| Strategy 4 – Zoning: Affordable Infill Development                                    |                                           |                                                                 | <input checked="" type="checkbox"/>                         | <input checked="" type="checkbox"/>                                       |                                           |                                              |
| Strategy 5 – Support Private Affordable Housing Development                           |                                           |                                                                 | <input checked="" type="checkbox"/>                         | <input checked="" type="checkbox"/>                                       |                                           |                                              |
| Strategy 6 – Obtain Dept of Correction Land                                           |                                           | <input checked="" type="checkbox"/>                             | <input checked="" type="checkbox"/>                         | <input checked="" type="checkbox"/>                                       |                                           |                                              |
| Strategy 7 – Include Housing in Land Acquisition                                      |                                           |                                                                 |                                                             |                                                                           | <input checked="" type="checkbox"/>       |                                              |
| Strategy 8 – Create regional housing entity                                           |                                           |                                                                 |                                                             |                                                                           | <input checked="" type="checkbox"/>       | <input checked="" type="checkbox"/>          |
| Strategy 9 – Join HOME Consortium                                                     |                                           |                                                                 |                                                             |                                                                           | <input checked="" type="checkbox"/>       |                                              |
| Strategy 10 – Implement Small Grants/Rehab programs                                   | <input checked="" type="checkbox"/>       |                                                                 |                                                             |                                                                           |                                           |                                              |
| Strategy 11 – Fund units for First Time Home Buyers                                   |                                           |                                                                 | <input checked="" type="checkbox"/>                         | <input checked="" type="checkbox"/>                                       |                                           |                                              |
| Strategy 12 – Implement Home Preservation Program                                     | <input checked="" type="checkbox"/>       |                                                                 | <input checked="" type="checkbox"/>                         | <input checked="" type="checkbox"/>                                       |                                           |                                              |