## Introduction

Due to the undeveloped nature of the three active supply reservoirs (Tighe-Carmody, McLean, and Ashley Reservoirs) that comprise the City of Holyoke’s available drinking water supply, the threat to water quality resulting from activities within the watershed is relatively low. In addition, the watershed of the Whiting Street Reservoir, which serves as an emergency supply source, is also undeveloped and has a relatively low risk of threatened water quality. The watershed of the Tighe-Carmody Reservoir, zoned for single family residential and rural/agricultural usage, is located in a remote rural area, and 54% of the watershed area is owned by HWW. The undeveloped McLean watershed area, of which HWW owns 75%, is zoned for single-family residential use. The Ashley Reservoir watershed area, of which HWW owns 71%, is zoned for residential and multiple-use. The Whiting Street Reservoir watershed area, of which HWW owns 45%, is zoned for residential use.

Control over harmful activities within the Holyoke watersheds is best achieved when HWW has actual land ownership, or other direct control regarding allowable land use activities. Thus, HWW’s land acquisition program is geared towards acquiring ownership of, or other rights on, key parcels within the watersheds. Once acquired, these lands can then be managed to establish and maintain optimal cover types (vegetative cover) that provide for the long-term protection of water quality.

### Tighe-Carmody Reservoir Watershed

The Tighe-Carmody watershed area encompasses 9,235 acres. Of this area, HWW owns approximately 4,956 acres or 54%. A portion of the Huntington State Forest (approximately 66 acres) is also included within the watershed. Figure 7-1 shows the land owned by HWW and other protected land within the Tighe-Carmody Reservoir Watershed.

Appendix A contains a map showing the parcel boundaries of all of the properties within the Tighe-Carmody watershed. The properties shown in orange are owned and under the control of HWW. The property shown in green is under the control of Huntington State Forest. This parcel is the only other “protected” parcel in the watershed besides the parcels owned by HWW. The unshaded properties are privately owned.

The larger parcels and/or parcels that could contribute to reservoir water quality within the watershed are labeled with a letter corresponding to the Town it is located in (S for Southampton, W for Westhampton, H for Huntington, and M for Montgomery) and also labeled with a number. For purposes of identifying parcels for the land acquisition program, small parcels in residential areas or parcels for which only a small portion is contained in the watershed are not identified. A total of 121 properties are identified on the map in Appendix A, and HWW currently owns 30 of these properties. Landowners for these smaller properties were not researched and identified for acquisition, as acquisition of these smaller parcels is low priority.

Table 7-1 summarizes the number of identified parcels, the number of HWW-owned parcels, and the acreage owned by HWW in each town that comprises the Tighe-Carmody Reservoir watershed.

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| **Table 7-1****Summary of Identified Parcels in Tighe-Carmody Reservoir Watershed Land Acquisition Program** |
| **Town** | **Number of Parcels Identified\*** | **Number of HWW-Owned Parcels** | **Acres Owned by HWW** |
| Southampton | 39 | 9 | 2,685 |
| Montgomery | 20 | 1 | 266 |
| Easthampton | 43 | 17 | 1,863 |
| Huntington | 19 | 3 | 142\*\* |
| **Total** | **121** | **30** | **4,956** |
| \* “Number of Parcels” Identified includes parcels owned by HWW.\*\* An additional 66 acres of watershed property in Huntington is under the control of Huntington State Forest. |

### McLean Reservoir Watershed

The McLean Reservoir watershed area encompasses 320 acres. Of this area, HWW owns approximately 240 acres or 75%. Roughly 63 acres of forested property are privately owned north and east of Appremont Way in the northern portions of the watershed. Two small parcels of land south of Appremont Way, just west of the McLean Reservoir, are also privately held. There are currently no known activities on these properties that threaten the water quality. Figure 7-2 shows the HWW-owned land within the McLean Reservoir watershed.

Appendix B contains a map showing the parcel boundaries within the McLean and Ashley Reservoir watersheds. The properties shown in orange are owned and under the control of HWW. The properties shown in green are protected parcels that are owned by other entities besides HWW (e.g., Holyoke Conservation Commission, Massachusetts Division of Fisheries and Wildlife). The unshaded properties are privately owned. Within the McLean Reservoir watershed, there are a total of nine parcels, three of which include land in both the Ashley and McLean Reservoir watersheds. Of the nine parcels, four are owned by HWW, including two of the three parcels that extend into both the Ashley and McLean Reservoir watersheds.

### Ashley Reservoir Watershed

The Ashley Reservoir watershed encompasses 1,529 acres, of which HWW owns approximately 1,079 acres or 71%. HWW owns all the land immediately abutting the reservoirs and almost the entire reach of the feeder stream Black Brook. There are portions of three residential neighborhoods abutting HWW lands along the southeastern boundary of the Ashley Reservoir. The remainder of the privately held lands is forested, undeveloped land north of Route 202 and undeveloped land in southern Holyoke and northern West Springfield. Figure 7-3 shows the land owned by HWW within the watershed.

In November 2001, HWW and Holyoke Community College completed a property exchange whereby HWW received 10.09 acres of Ashley Reservoir watershed land in exchange for 13.05 acres of non-watershed land. HWW is also in the process of acquiring two parcels from O’Connell Engineering and Financial, Inc., one of which is a 27-acre parcel that is partially located (approximately 50%) in the Ashley Reservoir watershed.

Appendix B contains a map showing the parcel boundaries within the McLean and Ashley Reservoir watersheds. The properties shown in orange are owned and under the control of HWW. The properties shown in green are protected parcels that are owned by other entities besides HWW. The two protected parcels in the Ashley Reservoir watershed are owned by the Holyoke Conservation Commission (A3) and the Massachusetts Division of Fisheries and Wildlife (A14). The unshaded properties are privately owned. In the Ashley Reservoir watershed, a total of 27 parcels were identified, three of which include land in both the Ashley and McLean Reservoir watersheds. Of these 27 parcels, six are currently owned by HWW, including two of the three parcels that extend into both the Ashley and McLean Reservoir watersheds. Parcel owners in the three residential areas, located along the southeastern border of the watershed, were not identified. Since these parcels are developed lots in residential neighborhoods, they are not considered priority parcels for acquisition.

### Whiting Street Reservoir Watershed

The Whiting Street Reservoir watershed encompasses 905 acres, of which HWW owns 406 acres, or 45%. Figure 7-4 shows the lands owned by HWW within the watershed. Most of the land owned by HWW borders the reservoir, although HWW also owns some parcels of land at the southern tip of the watershed.

Given that the Whiting Street Reservoir is no longer an active supply source, land acquisition in the Whiting Street Reservoir watershed is not conmtemplated at this time.

## Land Acquisition Program Goals

The land acquisition program is aimed at securing additional control over watershed lands, as well as programs that educate and provide technical assistance to owners of non-HWW watershed lands in order to expand watershed protection practices to these lands.

The primary goals of the land acquisition program are summarized as follows:

1. Identify current property ownership within each watershed
2. Acquire lands adjacent to major reservoirs and tributaries, especially those areas threatened by development
3. Acquire lands that will make the management of existing HWW watershed property more efficient through improved access, reduction of boundaries, consolidation of parcels, and prevention of illegal access to HWW watershed property
4. Limit land uses on the watershed to those that do not threaten water quality

## Ranking of Priority Parcels

A scoring mechanism was used to evaluate and rank the privately owned properties within the Tighe-Carmody Reservoir watershed. Three evaluation criteria were used to assess the parcels:

* Proximity to the reservoir
* Proximity to a tributary to the reservoir
* Whether or not the owner occupies the property

Each of these three evaluation criteria were assumed to be of equal importance and were weighted equally.

Proximity to the reservoir was determined by measuring the distance from the reservoir at the parcel boundary closest to the reservoir. A parcel scored 5 points if it was located less than 2,000 feet from the reservoir; 4 points if between 2,000 and 3,000 feet from the reservoir; 3 points if between 3,000 and 5,000 feet; 2 points if between 5,000 and 10,000 feet, and 1 point if greater than 10,000 feet from the reservoir.

Proximity to a reservoir tributary was determined by measuring the distance from the tributary at the parcel boundary closest to the tributary. A parcel scored 5 points if a tributary ran through the property; 3 points if located less than 1,000 feet from a tributary, and 1 point if located greater than 1,000 feet.

The final criterion was based on whether or not the owner resides on the property, as determined by comparing the parcel address to the billing address. It is assumed that the HWW has less interest in purchasing developed residential properties. However, it is possible that lands could be subdivided if it would be beneficial to water quality. A parcel received 4 points if the property owner did not reside on the property (e.g., greater potential to obtain property) and 2 points if the owner did reside on the property.

The scoring mechanism was not applied to the properties in the Ashley and McLean Reservoir watersheds because there were fewer properties. In the McLean Reservoir watershed, there are only five privately owned parcels and all are in close proximity to the McLean Reservoir, and should all be considered high priority. In the Ashley Reservoir watershed, the properties were ranked only by considering distance from the reservoir.

Although the property’s watershed was not used as an evaluation criterion, because the Tighe-Carmody Reservoir is Holyoke’s primary source, land acquisition in this watershed is the highest priority, followed by the McLean Reservoir watershed, and lastly the Ashley Reservoir watershed. The ranking of parcels assigns a level of importance to the parcels, but does not imply the exact order in which parcels should be acquired. Acquisition of parcels will be based on a combination of availability of the land and availability of funds to purchase the land.

### Tighe-Carmody Reservoir

Using the scoring method described above, each of the privately owned parcels in the Tighe-Carmody watershed were evaluated, scored, and ranked. The following parcels, as shown on the map in Appendix A, ranked highest:

1. S-18 – This 14-acre parcel is located in Southampton west of Fomer Road and owned by Stanley and Agnes Sulenski of 115 Main Street, Holyoke. The property is located in close proximity to the reservoir and Tucker Brook runs through the southwestern corner of the property.
2. M-2 – This 105-acre parcel is located in Montgomery. Approximately 65% of this property is located within the watershed. The property is owned by B.N. Land (formerly Hull Forestland LP) of 101 Hampton Road, Pomfret Center, CT. It is located in close proximity to the reservoir, and an unnamed tributary runs through the northwest corner of the property.
3. S-1 – This 183-acre property is located in Southampton and is the northwestern most parcel in the town. The property is owned by Stephen W. Smith of 102 Thomas Road, Guilford, VT. Two tributaries run through the property—Tucker Brook runs along the entire western edge, and Red Brook runs along the southwestern corner.
4. S-2 – This 152-acre property is located in Southampton and borders the northeast corner of the S-1 property. It is owned by Norton J. Garfinkle, c/o Oxford Management Corp. of 133 East 62nd Street, New York City, NY. Breakneck Brook runs through the middle of the property.
5. S-17 – This 45-acre property is located in Southampton east of Fomer Road and is owned by Thomas and Marjorie Flynn. The Manhan River runs along the eastern portion of the property. In the previous WRPP, this property was identified as a sensitive area not only due to its proximity to the reservoir and Manhan River, but also because it is within 400 feet of the 100-year flood plain of the Manhan River. The property is a farm operated by the Flynn’s, who live on the property. However, during a MADEP watershed inspection in October 2002, it was noted that this property was for sale.
6. S-19 - This 11-acre parcel is located in Southampton west of Fomer Road and owned by Stanley and Agnes Sulenski of 115 Main Street, Holyoke. This property shares its western border with the S-18 property, also owned by the Sulenskis.
7. S-20 – This 0.9-acre parcel is located in Southampton on the western side of Fomer Road and is owned by the Town of Southampton.
8. S-24 – This 53.2-acre property is located in Southampton on the southern side of Fomer Road and is owned by Frank and Eileen Tobin, Jr. of 15 Central Park Drive in Holyoke. The eastern border of the property is the bank of the Manhan River.
9. S-26 – This 23.5-acre property is located in Southampton, adjacent to the S-24 property described above, and is owned by Mary Kuzmeski of 9 Kennedy Drive in Hadley. The western border of the property is the bank of the Manhan River.
10. S-38 – This 278-acre property is located in Southampton and is owned by Denise Bredt c/o Molly Title of 18 Herrick Street, Nashua, NH. The eastern boundary of the watershed cuts through the middle of the property, thus only approximately 50% of this property lies within the watershed. Blue Meadow Brook runs along the western edge of the property.
11. M-5 – This 95.7-acre parcel is located in Montgomery off of Bungy Road and is owned by Edwin Bishop of 128 Crane Avenue in Westfield. An unnamed tributary to the reservoir begins on this property.
12. S-28 – This 22-acre parcel is located in Southampton near the southeastern boundary of the watershed. The property is owned by O’Connor Development, PO Box 635, Westfield, MA.
13. S-36 – This 43-acre parcel is located in Southampton near the eastern boundary of the watershed and is owned by B.N. Land of 101 Hampton Road, Pomfret Center, CT (on record in Southampton Assessor’s Office as Hull Forestland LP).
14. H-2 – This 252-acre parcel is located in Huntington off of Sampson Road along the western boundary of the watershed and is owned by Charles MacDonald of 315 East 86th Street, New York City, NY. Tucker Brook runs through the northeastern portion of the property. This property is designated as a Chapter 61 property. Under the Chapter 61 program, property owners receive tax abatement by keeping the land undeveloped and managed under a 10-year forestry management plan for the property. If the property owner decides to sell his land, the Town (in this case, the Town of Huntington) would obtain the right of first refusal for the property. As long as a property is in the Chapter 61 program, it cannot be developed, but this does not preclude development of the property once it is no longer in the program. Inclusion in the program is subject to renewal every 10 years.
15. H-4 – This 106-acre property is located in Huntington off of Tucker Road near the western boundary of the watershed and is owned by WD Cowls Lumber Co., PO Box 9677, North Amherst, MA. Tucker Brook runs through the southwestern portion of the property.
16. W-1 – This 9.3-acre parcel is located in the southwestern corner of Westhampton and is owned by Charles MacDonald of 315 East 86th Street, New York City, NY. Tucker Brook cuts through the southwestern corner of the property.
17. W-4 – This 116.7-acre property is located in Westhampton adjacent to the western border of the property owned by HWW surrounding the former White Reservoir. The property is owned by Norton Garfinkle of 133 East 62nd Street, New York City, NY. The headwaters of Breakneck Brook are located in the southern portion of the property.

A complete listing of all the identified parcels in the Tighe-Carmody watershed is shown in Table 7-1 at the end of this section. This listing includes the parcel designation as indicated on the map, the Map and Lot Number on file with the town assessor, the name and billing address of the property owner, the parcel address, the acreage, and comments. For the parcels located in Montgomery, the comments column contains the Montgomery Parcel ID Number, which is how the records are organized at the Montgomery assessor’s office. In addition, a separate table in Appendix A lists the score that each parcel received based on the three evaluation criteria.

### McLean Reservoir

Because there were only five properties in the McLean Reservoir Watershed not owned by HWW, a scoring mechanism was not used to rank these properties, since they are all located in fairly close proximity to the reservoir and therefore all considered to be high priority parcels. The properties are described below:

1. Mc-1 – This 5-acre parcel is located immediately west of the reservoir and is owned by Daniel O’Connell and Sons, Inc.
2. Mc-2 – This 5-acre parcel is located immediately west of the reservoir and immediately south of Route 202 and is owned by Daniel O’Connell and Sons, Inc.
3. Mc-3 – This 54-acre parcel is located approximately 1,000 feet north of the reservoir, northeast of Appremont Way, and is owned by John and Louise Carpenter. Approximately 50% of the property is located within the McLean Reservoir watershed. The portion of the property in the watershed is primarily forestland.
4. Mc-4 – This 23-acre property is located immediately north of Mc-3 and is owned by Daniel O’Connell and Sons, Inc. Approximately 60% of the property is located within the McLean Reservoir watershed. The portion of the property in the watershed is primarily forestland.
5. Mc-5 – This 44-acre property is located immediately east of Mc-3 and is owned by Daniel O’Connell and Sons, Inc. Approximately 40% of this property is located within the McLean Reservoir watershed; the remainder of the property is located within the Ashley Reservoir watershed.

A complete listing of all the parcels in both the McLean and Ashley Reservoir watersheds is provided in Table 7-2 at the end of this section. This listing includes the parcel designation as indicated on the map; the map, block, and lot number on file with the assessor; the name and billing address of the property owner; the parcel address; and the acreage.

### Ashley Reservoir

Of the parcels identified for acquisition in the Ashley Reservoir watershed, it is noted that two parcels, although not owned directly by HWW, are owned by other State or local entities, which likely also have an interest in protecting the water supply. These properties are:

1. A-3 – This 14-acre parcel, located in the southwestern portion of the Ashley Reservoir watershed, is owned by the Holyoke Conservation Commission.
2. A-14 – This 85-acre parcel, located in the northeastern portion of the watershed, is owned by Massachusetts Division of Fisheries and Wildlife. Approximately 50% of this parcel is located within the watershed.

Since these property owners would likely share the goals of the HWW in protecting and preserving the water supply, it may be more desirable for HWW to focus its acquisition efforts in the Ashley Reservoir watershed on other properties. However, the HWW should remain in contact with these owners to ensure that activities on these properties are consistent with water supply protection.

The remaining properties in the Ashley Reservoir watershed are presented and discussed in order of proximity to the reservoir. The following properties are all located within 2,000 feet of the reservoir and should be considered high priority for acquisition within the Ashley Reservoir watershed:

1. A-2 – This 103-acre parcel is located in the southwestern portion of the watershed and is owned by the Town of West Springfield. Approximately 80% of this parcel is located within the watershed.
2. A-5, A-6, A-7 – These three undeveloped properties, located in the southern portion of the watershed, are currently owned by O’Connell Engineering and Financial, Inc. The total area of the four parcels is 36 acres, although not all of the parcels are located in the watershed. Approximately 50% of parcels A6 (13 acres) and A7 (9 acres) are within the watershed and approximately 75% of parcel A5 (14 acres) is in the watershed. Thus, the total area of these parcels located within the watershed is approximately 22 acres. HWW recently acquired the parcel designated as A4 on the map from O’Connell, which immediately west of parcels A5 and A6.
3. A-8 – This 15-acre parcel in the southeastern portion of the watershed is owned by Lodge No. 902 of the Benevolent and Protective Order of the Elks. Approximately 40% of the parcel is located within the watershed, and this portion of the parcel is primarily undeveloped; the developed portion of the property, which contains the building and parking areas, is located outside of the watershed.
4. A-9 – This 11-acre property, located in the southeastern portion of the watershed, is owned by Geraldine and Jennifer Cain. The undeveloped parcel is located entirely within the watershed and is west of the residential properties at the end of Mayer Drive South and Roland Street.
5. A-11 – This 136-acre parcel, located in the eastern portion of the watershed, is owned by the Commonwealth of Massachusetts and is the site of Holyoke Community College. Only a small portion (approximately 20%) of the western edge of the parcel is located within the watershed, and this portion is primarily undeveloped. The developed portion of the property, including the campus buildings and parking areas, is located outside of the watershed.
6. A-26 - This 44-acre property is located on the western edge of the Ashley Reservoir watershed and is owned by Daniel O’Connell and Sons, Inc. This property was also designated as Mc-3, since it is extends into the McLean Reservoir watershed. Approximately 60% of this property is located within the Ashley Reservoir watershed.

The following parcels are located between 2,000 and 5,000 feet from the reservoir and should be considered a priority, but are not as high as those parcels located closer to the reservoir:

1. A-1 – This 23-acre parcel is located in the southwestern portion of the watershed and is owned by Daniel O’Connell and Sons, Inc.
2. A-12 – This 23-acre parcel is located in the northeastern portion of the watershed off of West Cherry Street and is owned by Timothy Mahoney c/o Edward Foley of 82 Main Street, Ashburnham, MA. Approximately 90% of the parcel is located within the watershed.
3. A-13 – This 2-acre parcel, which is landlocked by property owned by HWW, is located in the northern portion of the watershed. The parcel is semi-circular in shape and is owned by Holyoke Street Railway c/o Pellessier of 1480 Windham Road. This parcel is a former railway turnaround.

The following are located greater than 5,000 feet from the reservoir, and are low priority parcels for acquisition in the Ashley Watershed. However, if one or more of these parcels became available, HWW should pursue acquisition:

1. A-15, A-17, A-21 – These three adjacent parcels are located in the northern portion of the watershed off of Cherry Street and West Cherry Street and are owned by the Holyoke Revolver Club, Inc. The building is located on parcel A-17, which is the largest of the parcels (34 acres). Parcel A-15 and A-21 are 4.5 and 12 acres, respectively.
2. A-16 – This 78-acre is located in the northeastern portion of the watershed and is owned by Westfield Realty LLC. Approximately 25% of this undeveloped parcel is located within the watershed.
3. A-18 – This 16-acre parcel is located in the northwestern portion of the watershed and is owned by Wallace and Joann Peters. Approximately 40% of the property is located within the watershed.
4. A-19 – This 6-acre parcel is located in the northern portion of the watershed and is owned by New England Land Associates.
5. A-20 – This 80-acre parcel is located in the northern portion of the watershed off of Mountain Road and is owned by John and Martha Mulcahy. Approximately 25% of the eastern portion of the property is located within the watershed.

## Best Management Practices

HWW’s current land acquisition program consists of reviewing properties within the Tighe-Carmody, McLean, and Ashley Reservoir watersheds as they become available for purchase and acquiring them if the funds are available and an agreement can be negotiated. Due to fiscal constraints, purchasing land parcels within the watershed is a slow and difficult process for HWW.

HWW has developed a form letter that is periodically sent to watershed property owners. The letter inquires whether property owners are interested in donating, transferring, or selling their property to the HWW. A copy of this letter is included in Appendix C. The billing addresses in Tables 7-1 and 7-2 should be used to revise/develop the mailing list for distribution of the form letter. Any interest that is generated as part of this mailing should be followed up and pursued by HWW.

Based on the prioritization of parcels presented in this section, the HWW should take additional, aggressive measures to pursue acquisition of high priority parcels, especially those in the Tighe-Carmody Reservoir watershed. During its last watershed inspection (May 7, 2002) MADEP identified prioritizing privately owned land parcels and seeking means to purchase sensitive parcels as requirements to maintaining the watershed control program.

The MADEP administers a grant program under the Aquifer Land Acquisition Program to protect both surface water and groundwater sources used for drinking water supplies. Funds from the program may be used to fund or reimburse up to 80% of all costs associated with land purchases by a public water supplier or municipality; the water supplier must provide the remaining funds. Lands acquired using funds from the program must include the granting of a conservation restriction to the Commonwealth that provides for public access compatible with water supply protection. At this time, it is anticipated that funding under the grant program will be available on an annual basis. General information on the grant program, including an application form, draft conservation restriction, and Title report specifications, is included in Appendix D.

Appendix E contains some sample educational material that HWW could also mail to all watershed property owners (including the residential areas) to provide information on measures that they can take to help ensure watershed protection. Additional free educational materials and programs are available from MADEP, MADFA, and USEPA. Other resources are available for purchase from the American Water Works Association and the Water Environment Federation.