

## 5. THE WELLS G&H PROPERTY

**1. Introduction:** The City of Woburn's Wells G&H property lies at the center of the superfund controversy. In 1964, two municipal wells were installed at the edge of the upland portion of the site to provide public drinking water, which were operated until closed in 1979 as a result of the EPA site investigation in 1979. Only about one-third of the site is wooded upland, however; approximately two-thirds of the 35 acre City-owned parcel is a shallow marsh wetland, bordered along the eastern edge by an area of wooded swamp. The Aberjona River flows north to south through the wetland, splitting into two channels just as it enters the property below Olympia Avenue, merging again into a single channel just before it exits the property at Salem Street. The channel width is between eight and fifteen feet along most of its course, and water depth is generally only about twelve inches at the center of the channel. The Aberjona is generally a slow moving, influent river, meaning that most of the time the river draws groundwater from the surrounding area, rather than adding to it.

The wetland area has been characterized by the EPA's environmental consultant as a palustrine emergent wetland, dominated by large stands of broad leaf cattail, purple loosestrife, and giant reeds. Along the eastern edge is what the EPA has characterized as a palustrine forested wetland, with a variety of species, including red maple, swamp white oak, northern red oak, black cherry, gray birch, and quaking aspen. Along the easterly edge of this wooded swamp area rises a ridge of bedrock outcropping; along this ridge located at strategic vantage points are the two now abandoned wellheads. To the east lies the relatively flat upland area, dominated by some of the same species found in the wooded swamp. Along the easterly edge of the property a bituminous drive known as Rifle Range Road provides access from Salem Street to the Massachusetts Rifle Association range and club house.

At the southern end of the upland is a storage yard used by the Woburn Department of Public Works. A storage shed which once occupied the site burned in 2001. Aging concrete sewer pipe, presumably overflow storage from this yard, can be found throughout the upland wooded area. In 2001, the City of Woburn gave permission to a group of local adolescents to use the site for paintball recreation, and temporary blinds and other makeshift structures now dot the woodland landscape as well. At the northeastern edge of the property, an arc of land acquired from the Massachusetts Rifle Association in 1964 to create a proper 400 foot buffer zone for the Well H wellhead is still use by the Association, which operates an archery range at that location. The shooting range is located north of the clubhouse, facing Olympia Avenue.

Based upon the personal observations of committee members and other



Turtle nesting by Well H

neighborhood business and community residents, there is evidence that the Wells G&H site provides habitat for a wide variety of fauna. Migrating waterfowl are heavily observed during the migration season, and other bird species, including red-tailed hawks and wild turkeys, have been observed nesting within the site. Also evident in relatively large numbers are beavers, possums, raccoons and other urban-acclimated species. Overall, the Wells G&H area represents a fast disappearing example of a natural wetland environment in an urban setting. With its conveniently located adjacent upland area, the property is well con-

figured for reuse as a passive recreation resource. The overarching question, of course- is it safe for the public?

While the groundwater contaminants which led to the closing of the municipal wells were primarily volatile organic compounds, the major environmental problem with the Aberjona River itself is not the quality of the water, but rather the relatively high concentrations of heavy metals, in particular arsenic and lead, found in the sediments and along the banks of the river. These metals appear to have primarily migrated from source locations further north, in the Industriplex Superfund Site north of Route 128. While the Wells G&H Advisory Committee has recommended passive recreation and open space as the land use objective for the Wells G&H property, this recommendation is still contingent upon a determination that the environmental risks associated with sanctioned public use of the property can be managed and minimized. Based upon the results of the BRA, and after considering the many comments received in regards to the BRA findings, the Wells G&H Advisory Committee has decided to recommend that the U.S. Environmental Protection Agency conduct additional sampling and testing of surficial soils in the upland area around Wells G and H, to ensure that no deposition of dangerous levels of arsenic or other COCs have occurred over time in the areas planned for public access. The Wells G&H Advisory Committee also supports the EPA's continued effort through the full application of the established Superfund regulatory process to develop and implement appropriate mitigation measures for the high levels of arsenic already identified in the Aberjona shoreline sediments in the vicinity of Well H. This remediation, however ultimately designed, is a prerequisite for the use of the Wells G&H City-owned parcels for public open space and passive recreation.

During the course of its deliberations, the Wells G&H Advisory Committee reviewed a number of important issues related to the reuse of the Wells G&H site. In general terms, these issues were as follows:

- The effective site boundary;

- Active vs. passive recreation use;
- Access to the wetland area; and,
- The interface with the Massachusetts Rifle Club.

In the discussion below, each of these issues shall be reviewed in detail.

**2. The Site Boundary:** Early in the discussions regarding the reuse of the City-owned property, the Committee reviewed the boundaries of the site, and considered the possibility of acquiring additional property to further expand the site location. Three properties which border the Wells G&H site would at first glance enhance the site, including:

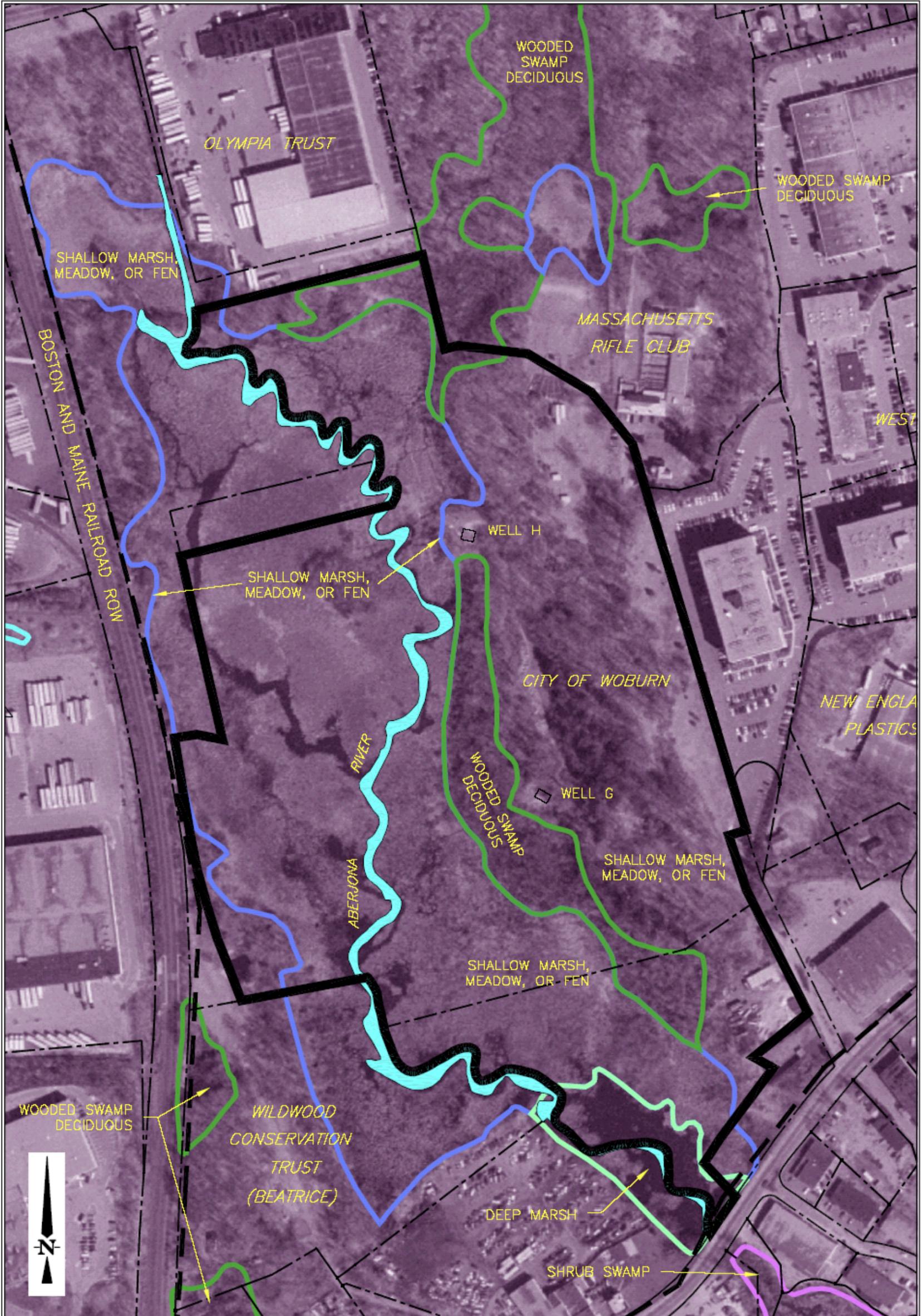
- The Massachusetts Rifle Association;
- 290 Salem Street; and,
- Wildwood Conservation Trust property.

*a. Massachusetts Rifle Association:* The Association's property at the end of Rifle Range Road, officially 290R Salem Street, is approximately 19.5 acres of mostly forested land, and extends from the edge of the City-owned property to Olympia Avenue. According to Association members, it is the oldest gun club in New England, continuously operating from the same location. The Association draws membership from throughout the Boston area, and its facilities are used for training by local area law enforcement agencies, whose personnel can be found among its members.

On its face, the acquisition of the property would have some merit. It would add substantially to the site, increasing the area by approximately 40 percent, remove a potential land use conflict, and create access and visibility from Olympia Avenue. However, a number of factors work against the acquisition, and led the Committee to abandon the notion early in the discussion. First, the cost would be prohibitive. As an substantial commercially zoned parcel with significant frontage on Olympia Avenue, the cost would be far beyond the financial capability of the City or any possible grant source. Furthermore, the Massachusetts Rifle Association has no plans to vacate, so the acquisition would require a taking by eminent domain, substantially increasing the potential cost. As a result, it was clear from the beginning that the reuse of the City-owned property would require careful planning for the interface with the Association's use of its property.

*b. 290 Salem Street:* This property is a single family home on approximately 40,800 square feet of land, which lies between the City-owned property and Salem Street. In recent years, the use of the premises by a general contractor for the storage of construction vehicles has resulted in some conflict between and the Woburn Inspectional Services Department, for although the site is zoned for general industry, the site has never been properly permitted for that use. The cost to the City for this industrial zoned property would also have to include the cost of legal fees, building demolition, and business relocation.

With approximately 350 linear feet of frontage on Salem Street, control of 290 Main Street would greatly increase the visibility of the facility, and eliminate what will prove to be a mildly conflicting land use. However, the site has little conservation value, and adds little to the over-



**CONCEPTUAL PLAN  
THE WELLS G & H SUPERFUND SITE**

THE WOBURN REDEVELOPMENT AUTHORITY

**FIGURE 5.1**  
PROJECT NO. W193-001

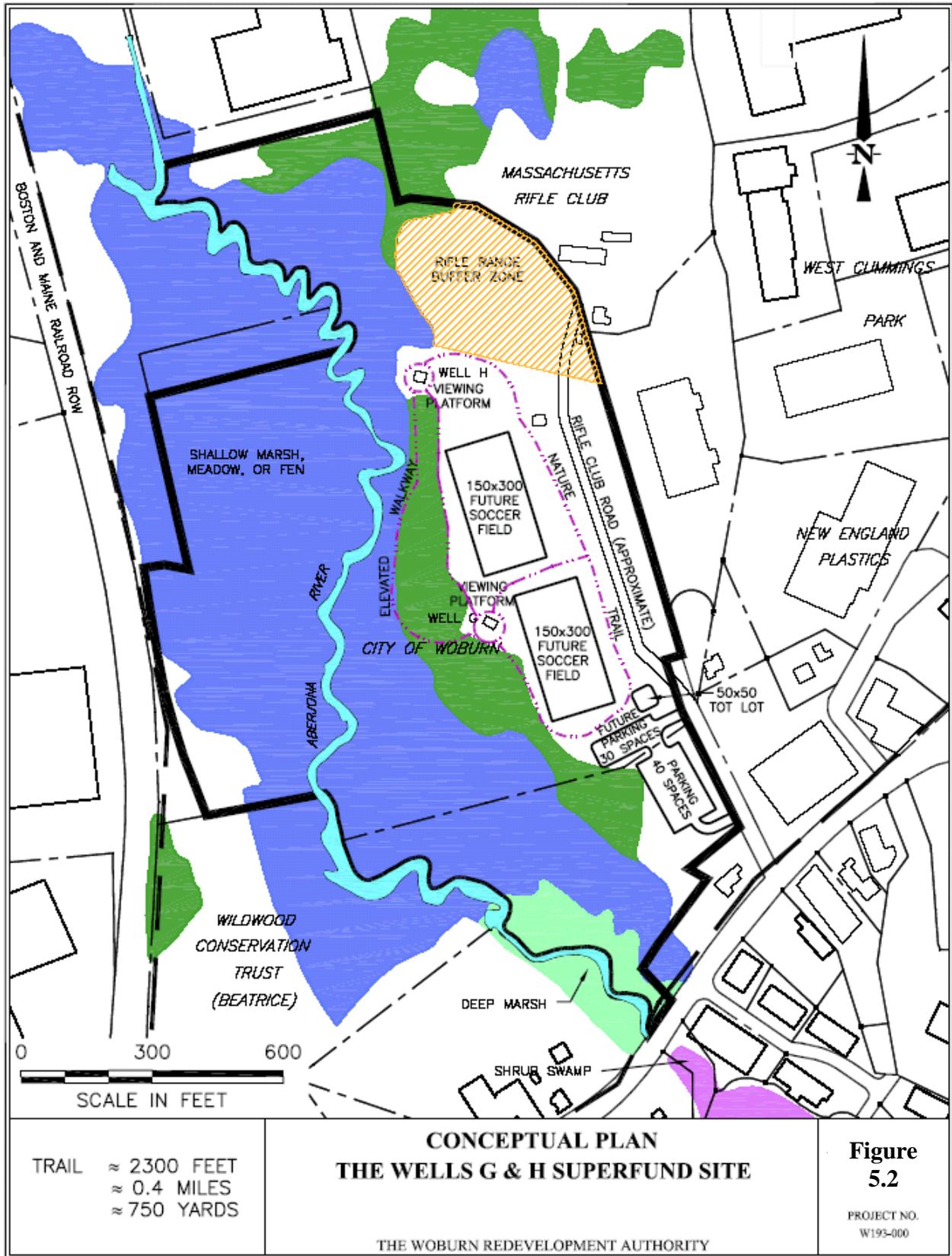
all size of the parcel. While the site could provide public parking, there is adequate area within the old DPW yard just north of the property for that purpose. Since the DPW intends in the future to reconstruct a facility within the yard, possibly to provide office and vehicular storage for the Recreation Department, funds spent on acquisition of 290 Main Street could be better applied to supporting the construction of public facilities, including restrooms and interpretive displays, within that new DPW construction.

*c. Wildwood Conservation Trust Property:* On the western side of the Aberjona, just north of the so-called Southwest Properties, lies the 14.73 acre site owned by the Wildwood Conservation Trust. This site is one of the five source properties identified by the EPA. The Trust was set up by Beatrice Foods, the owner of the property at the time of the EPA investigation, to hold title to the land. It has been suggested that Beatrice Foods would be amenable to transferring the land to the City of Woburn, to incorporate with the City-owned property. However, the Advisory Committee decided not to pursue this option, for the following reasons:

- First, the site is one of the more heavily contaminated sites in the Superfund area, with a wide range of volatile organic compounds and heavy metals found on the site. Direct access and exposure to this source location was problematic;
- With an active groundwater extraction and treatment system located on the premises into the foreseeable future, allowing public access would create a management problem for the PRP; and,
- Located on the far side of the Aberjona, access from the City-owned Wells G&H parcel would require constructing some type of river crossing, which was considered too invasive.

**3. Active vs. Passive Recreation:** Before turning to the configuration of a passive recreation use for the site, the Advisory Committee deliberated the possibility of devoting the site to active recreation. Several concept plans were prepared by E.S.S., to measure the physical capacity of the site. The plan on the following page indicates that two 150 by 300 foot youth soccer fields could be constructed within the confines of the upland area, and still leave room for parking and viewing platforms along the edge of the upland area. There is clearly a need within Woburn for additional athletic fields, including fields suitable for youth soccer play. However, the Committee in the end decided against recommending such active use of the property, for the following reasons:

- Such an active use of the site would conflict with the goal of preserving the area in its natural state, and supporting its further development as a natural habitat, and the quiet enjoyment of such by the public;
- An intense use of the site by large numbers of families during peak use would inevitably result in younger children being relatively unsupervised, which could lead to exposure to river sediment contaminants; and,
- Similarly, and intense use of the site could result in more intrusions onto the Massachu-

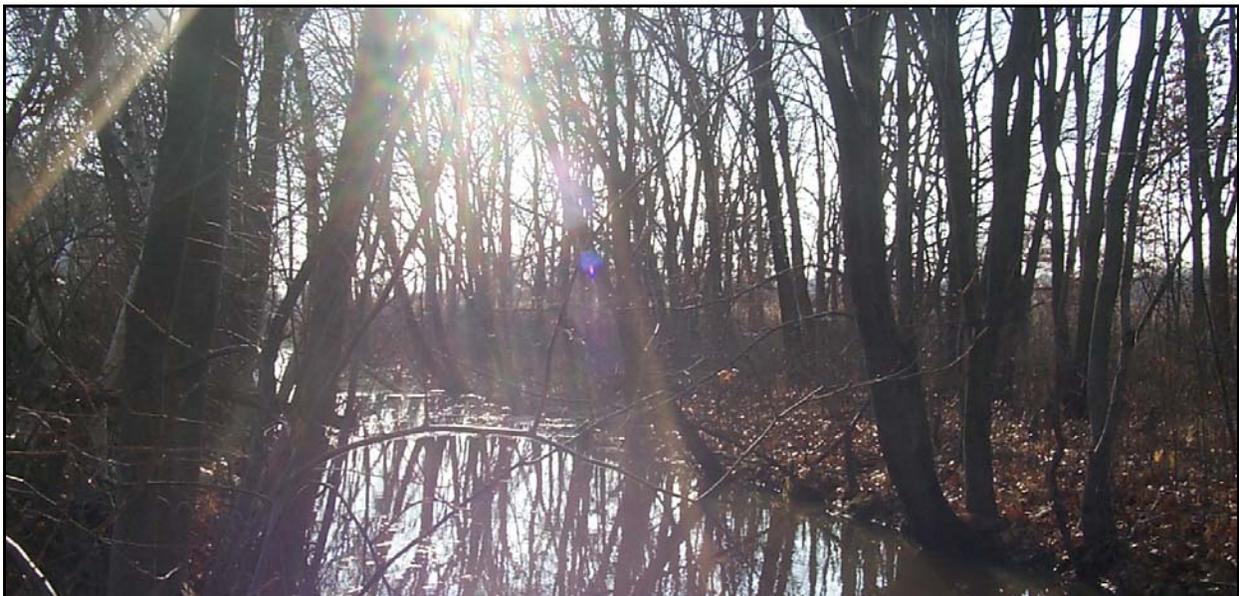


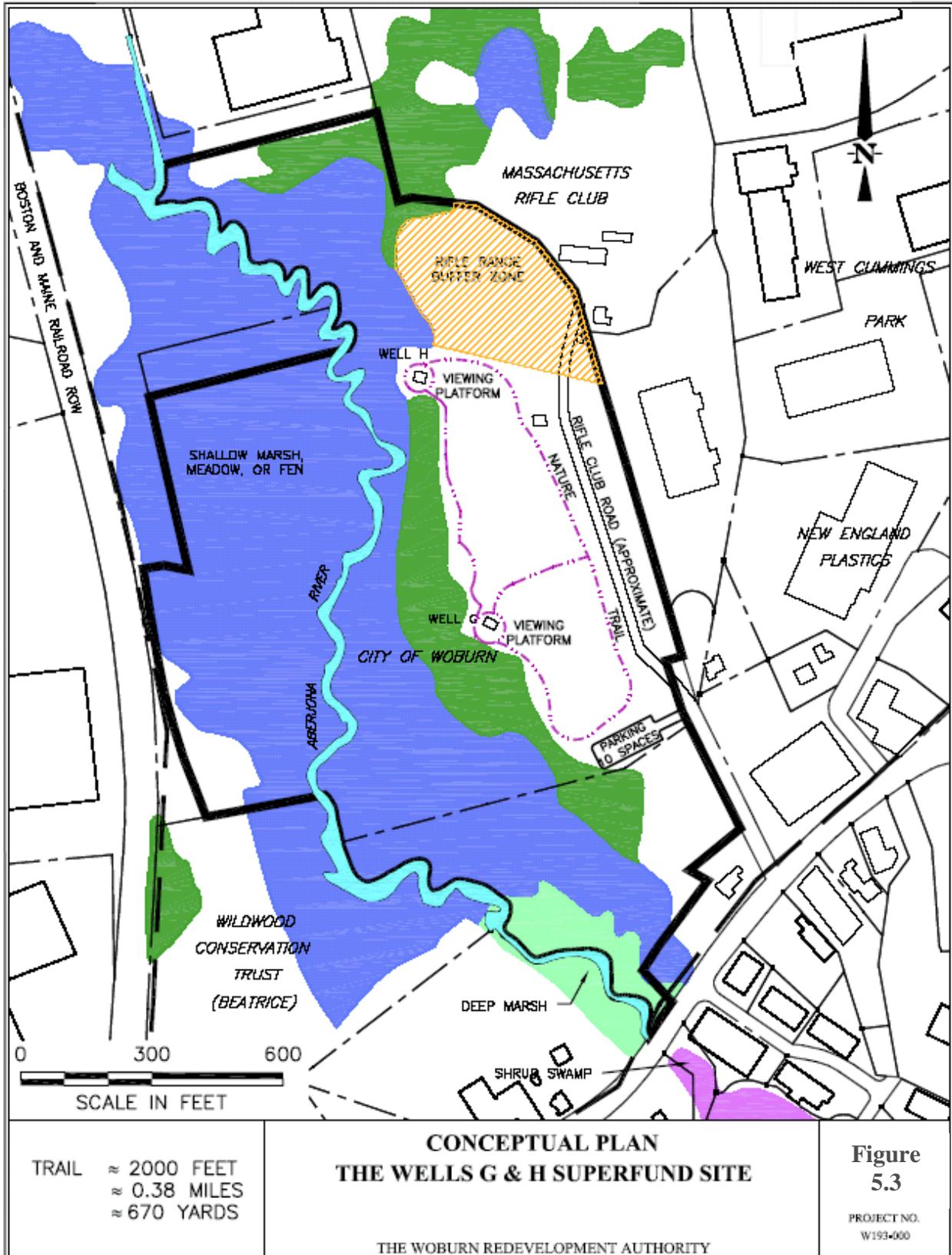
setts Rifle Club property, particularly by young children.

**4. Access to the Wetland Area:** Early in the deliberative process, it became clear to the Advisory Committee that the two wellheads, located on raised bedrock outcroppings along the edge of the marsh and wooded swamp areas, were natural vantage points for the construction of some type of viewing platform. However, though they are located at a relatively higher grade above the wetland itself, the large stands of cattails and giant reeds obstruct the overview of the river and the wetland area from early Spring to early Winter. An early, compelling concept considered by the Committee was the construction of a boardwalk between the two proposed viewing platforms, which would bring the public out to the edge of the forested wetland area and the shallow marsh. This scheme is shown in Map 5.2. However, this boardwalk would bring the public into close proximity with the contaminated river sediments, and very extensive dredging and removal of the sediments from the vicinity of the boardwalk would have been necessary.

An alternative scheme that was considered replaced the long interconnecting boardwalk with a single pier, extending from the Well H platform out to the edge of the river channel. This pier would be approximately 80 feet in length, and would have required far less dredging and disposal of contaminated sediments. However, the results of the BRA identified such substantially elevated levels of arsenic in the sediments around the proposed pier location, that further consideration of that option also was deemed inappropriate.

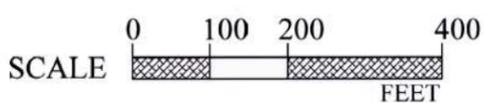
A third option eliminated the boardwalk entirely, in order to remove any possibility that the public could be exposed to river sediments. This option focused instead on the construction of the two observation decks at the wellheads themselves. A conceptual elevation and plan for the proposed decks are shown on the following pages. The decks would ultimately be designed and constructed with sufficient height to permit unobstructed observation of the wetlands and riverway, which the WRA estimates could be as much as 8 feet in height. The observation decks would be fully accessible via a long ramp/boardwalk, which would begin in the recesses of the woodland trail. The boardwalk would widen at the landing areas which are required every 30







**Figure 5.4**  
**Wells G&H Open Space Plan**  
 Proposed Passive Recreation  
 February, 2005



Wells G&H Superfund Redevelopment Initiative

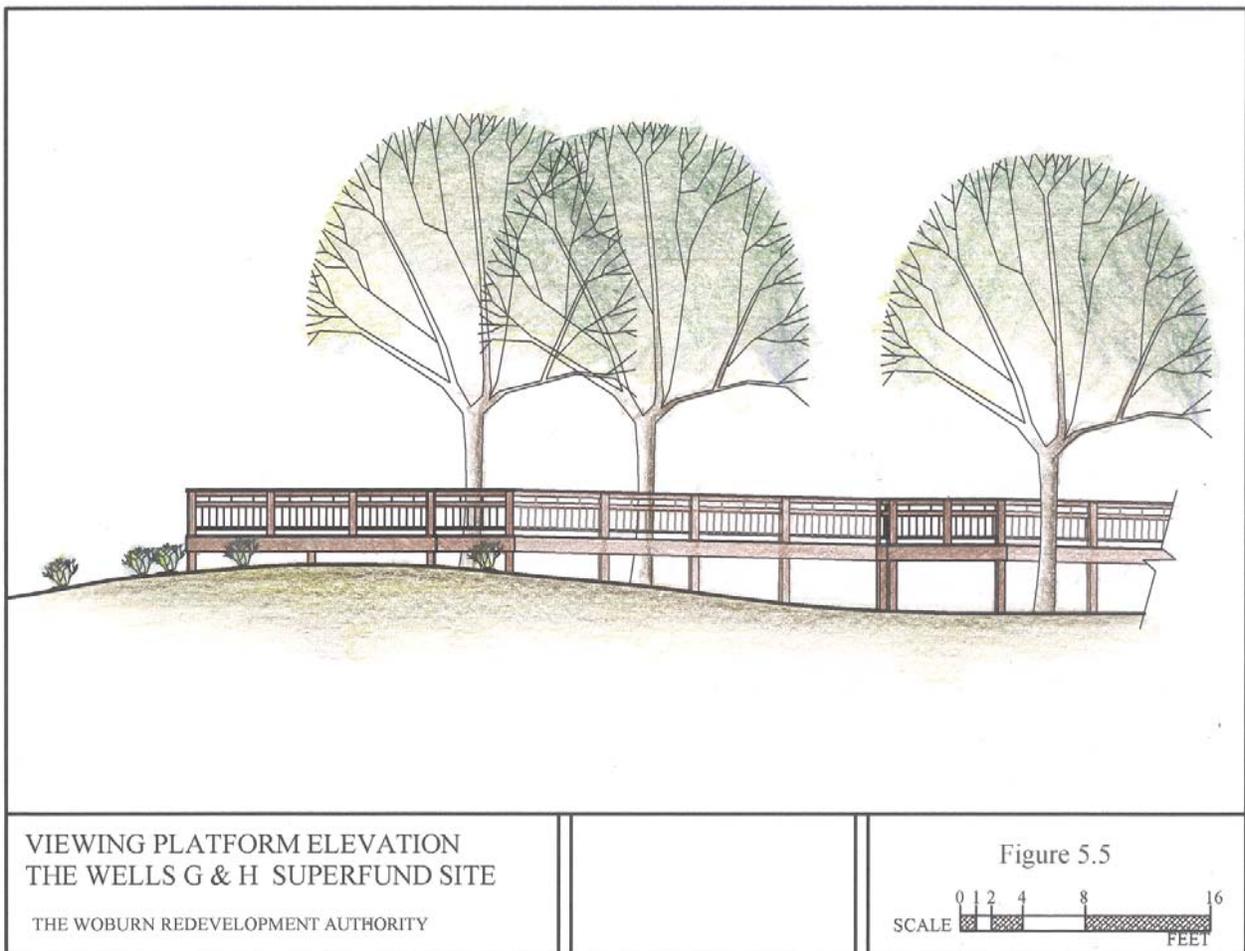
**LEGEND**

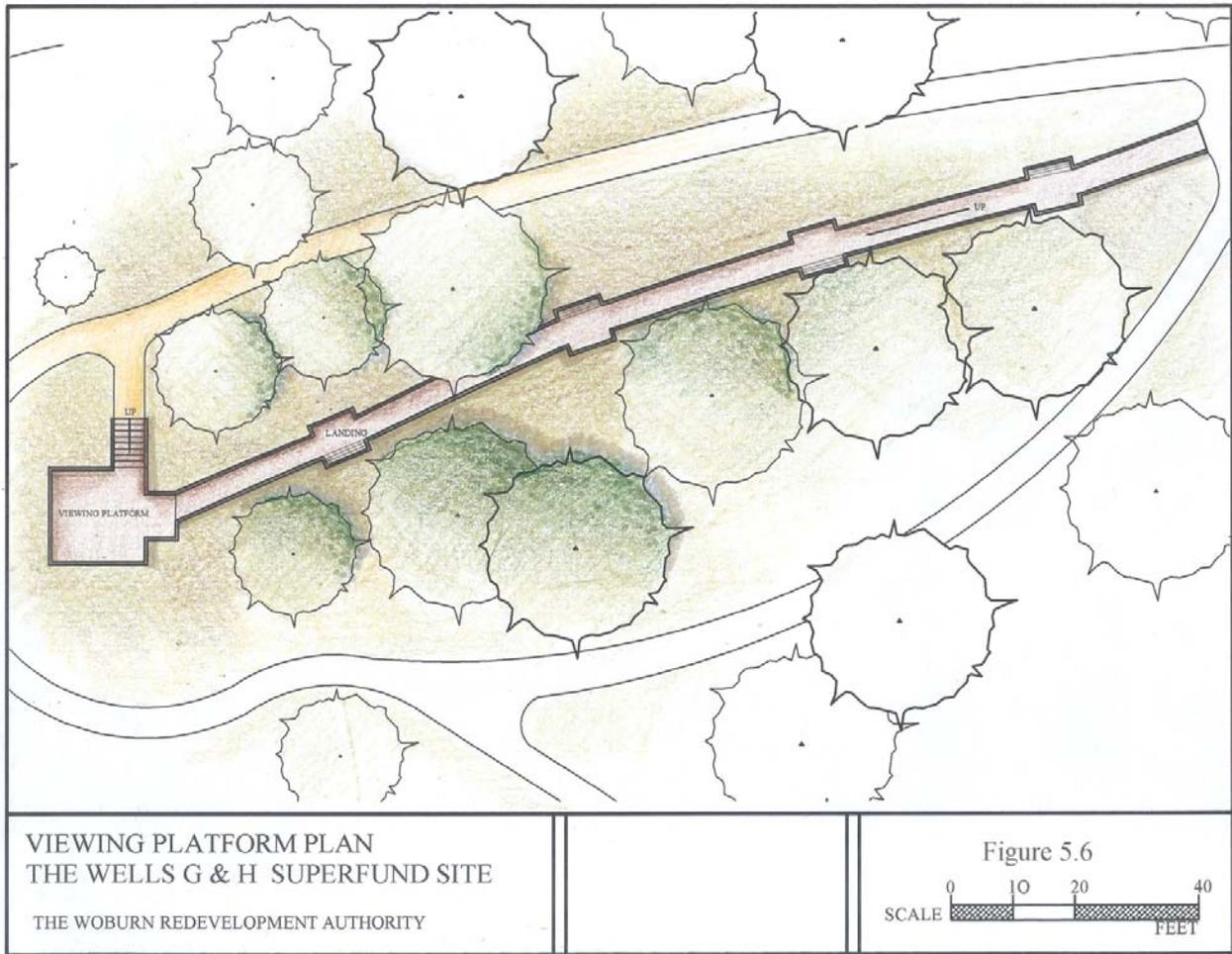
- WOODED
- WOODED SWAMP
- SHALLOW MARSH
- DEEP MARSH

linear feet by regulation, to permit the easier passage of wheelchairs. The observation decks and boardwalks could be built of wood, or a lower maintenance material.

The construction of observation decks would accommodate the viewing and enjoyment of the natural wetland area by the public, while allowing for the construction of a physical barrier, such as a storm fence or densely planted shrubbery, which would serve to keep the public away from the riverbank itself, and protect against direct exposure to contaminated sediments. This assumes, of course, that the soils in the upland area are not also a risk to human health.

**5. Massachusetts Rifle Association Interface:** A concern for any sanctioned public use of the Wells G&H site is the further need to guarantee that there is no conflict between the activities at the club, and the enjoyment of the public of the natural area. Over the course of the deliberations, the Advisory Committee met with officers and members of the Association to discuss this issue. The Advisory Committee agreed that the City-owned property currently used by the Association for archery should continue to be employed as a buffer zone between the shooting range and the conservation area. It was agreed that a barrier should be incorporated into the plan, consisting of a soil berm, chain link fencing, and dense plantings. Adequate signage would need to be installed warning of the dangers of trespassing. The entrance to the club at the end of Rifle Range Road may warrant the installation of a pipe gate or similar barrier, which would be kept closed during non-peak periods of range use.





With these precautions, it was generally agreed that the two uses could coexist safely, with no threat to the public. The Association's outdoor shooting range is located on the north side of the clubhouse, opposite the Wells G&H parcel, and shooting is in the opposite direction, to the north. The Cummings Properties representative on the Committee reports that instances of stray shot from the range landing in the adjacent West Cummings Park are very rare, and there have been no instances of property damage or injury for the years the two uses have been neighbors.