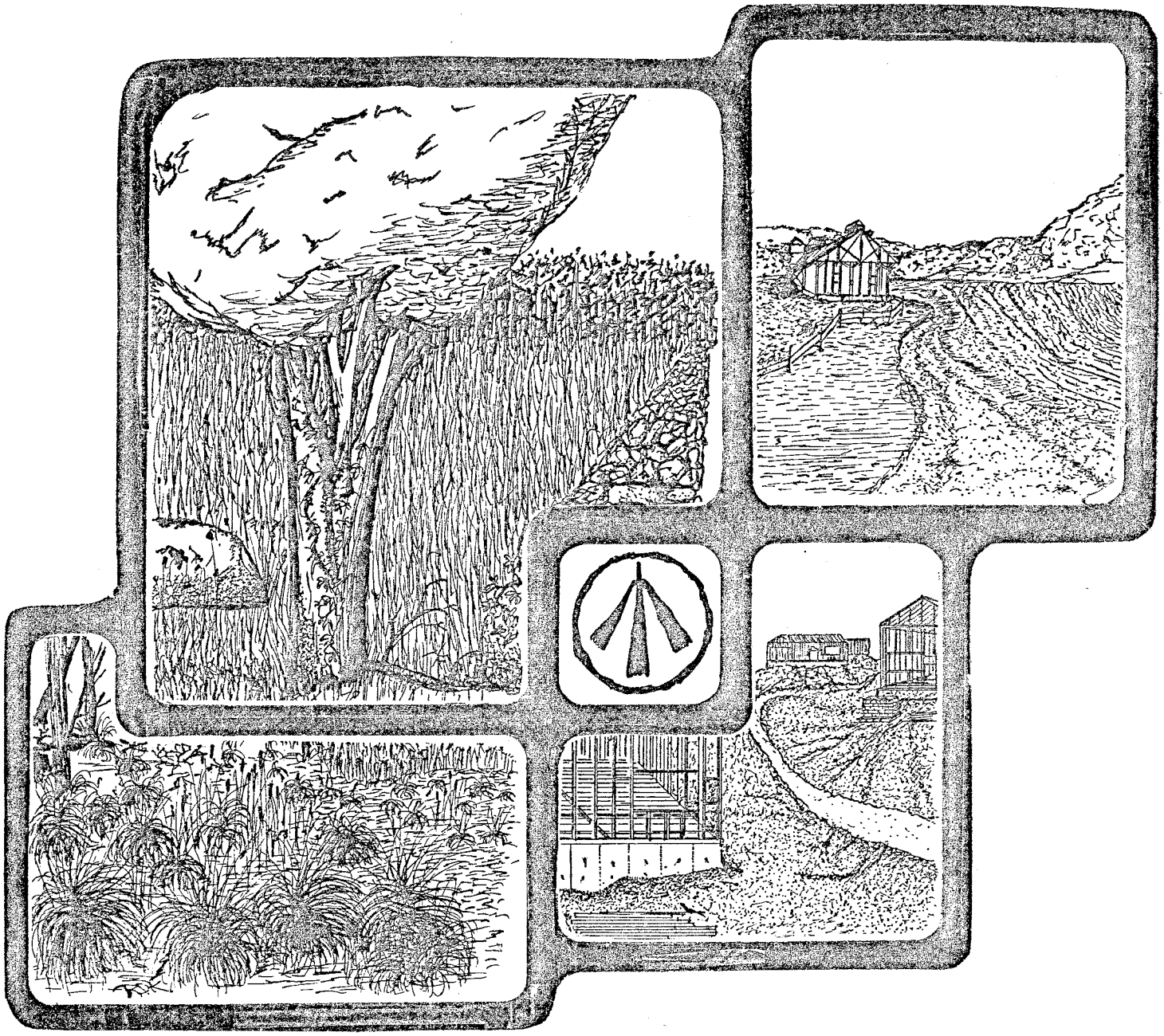
ENVIRONMENTAL REVIEW TEAM REPORT



BOARDMAN ROAD INDUSTRIAL AREA

NEW MILFORD, CONNECTICUT

KING'S MARK
RESOURCE CONSERVATION & DEVELOPMENT AREA

KING'S MARK
ENVIRONMENTAL REVIEW TEAM REPORT

BOARDMAN ROAD INDUSTRIAL AREA

NEW MILFORD, CONNECTICUT

AUGUST, 1983

King's Mark Resource Conservation and Development Area
Environmental Review Team
Sackett Hill Road
Warren,Connecticut 06754

ACKNOWLEDGMENTS

The King's Mark Environmental Review Team operates through the cooperative effort of a number of agencies and organizations including:

Federal Agencies
U.S.D.A. Soil Conservation Service

State Agencies
Department of Environmental Protection
Department of Health
University of Connecticut Cooperative Extension Service
Department of Transportation

Local Groups and Agencies
Litchfield County Soil and Water Conservation District
New Haven County Soil and Water Conservation District
Hartford County Soil and Water Conservation District
Fairfield County Soil and Water Conservation District
Northwestern Connecticut Regional Planning Agency
Valley Regional Planning Agency
Central Naugatuck Valley Regional Planning Agency
Housatonic Valley Council of Elected Officials
Southwestern Regional Planning Agency
Greater Bridgeport Regional Planning Agency
Regional Planning Agency of South Central Connecticut
Central Connecticut Regional Planning Agency
American Indian Archaeological Institute
Housatonic Valley Association

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FUNDING PROVIDED BY
State of Connecticut

POLICY DETERMINED BY
King's Mark Resource Conservation and Development, Inc.
Executive Committee Members

Victor Allan, Chairman, Bethlehem
Harold Feldman, Treasurer, Orange
Stephen Driver, Secretary, Redding
Leonard Assard, Bethlehem
Sam M. Chambliss, Ridgefield
David Hannon, Goshen
Irving Hart, New Hartford
Frederick Leavenworth, Woodbury
David Brooks, North Canaan
John Rabbe, East Hartford
Mrs. Julia Wasserman, Newtown
Donna Lindgren, Ansonia

STAFF ADMINISTRATION PROVIDED BY

Northwestern Connecticut Regional Planning Agency

Dorothy Westerhoff, Chairman
Charles A. Boster, Director
Richard Lynn, ERT Coordinator
Sandra Bausch, ERT Cartographer
Jamie Whitman, Secretary

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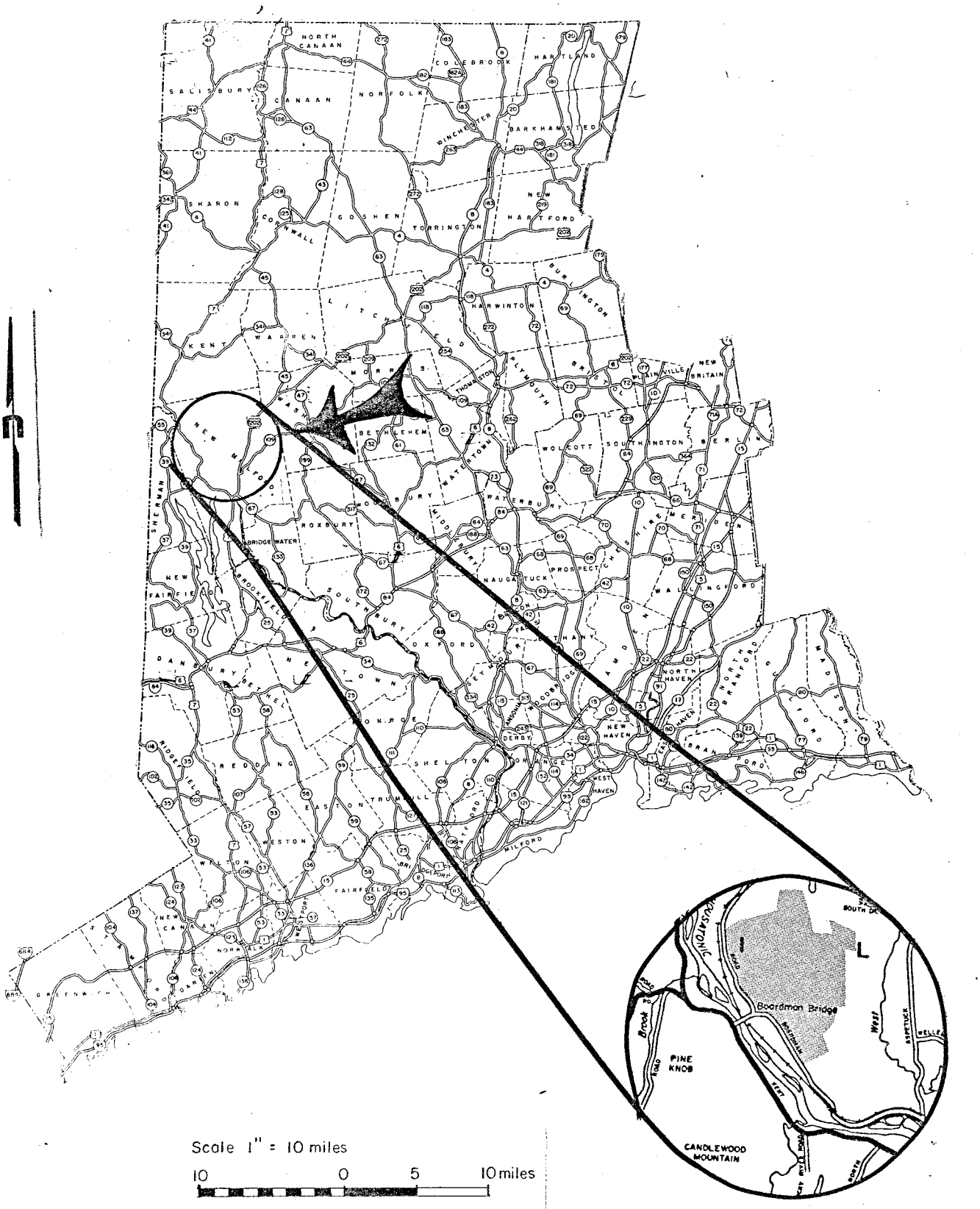


ENVIRONMENTAL REVIEW TEAM REPORT
ON
BOARDMAN ROAD INDUSTRIAL AREA
NEW MILFORD, CT

I. INTRODUCTION

The First Selectman and Economic Development Commission of New Milford are interested in the developability of a 350 acre tract of land proposed for a zoning change and future industrial development.

The subject site is located in the Boardman Bridge area of town and is privately owned. The land is mostly wooded and characterized by moderate to steep slopes. Access to the site is available from the west off Boardman Road and River Road. The western portion of the property (± 67 acres) has been mined for limestone, sand, and gravel. Two additional quarry pits are located in the southcentral portion of the site.

The owners of the property are interested in re-zoning the subject site from residential (R-40) to industrial use. This would allow their formal application for industrial use of the property. Presently, plans for the proposed industrial park are in the preliminary planning stages and no conceptual development plan has been submitted.

The Town of New Milford requested this environmental review to learn of the potential of the subject area for industrial park development. The Team was asked to 1) provide a natural resource inventory and evaluation of the area; 2) discuss the suitability of the area for industrial park use; and 3) discuss mitigating measures which could be implemented to lessen any negative impacts.

The King's Mark Executive Committee considered the Town's request for an ERT study, and approved the project for review by the Team.

The ERT met and field reviewed the site on May 18, 1983. Team members for this review included:

Brant Burz	Wildlife Biologist	Connecticut Dept. of Environmental Protection
Jonathan Chew	Regional Planner	Housatonic Valley Council of Elected Officials
Art Cross	District Conservationist	U.S.D.A. Soil Conservation Service
Brian Curtis	Sanitary Engineer	Connecticut Dept. of Environmental Protection
Russ Handsman	Archaeologist	American Indian Archeological Institute
Ralph Scarpino	Forester	Connecticut Dept. of Environmental Protection
Bill Warzecha	Geohydrologist	Connecticut Dept. of Environmental Protection

Prior to the review day, each team member was provided with a summary of the proposed project, a checklist of concerns to address, a detailed soil survey map, a soils limitation chart and a topographic map of the area. The day of the field review, the ERT met with representatives from the Town of New Milford and the landowners/developers and walked the property. Following the field review, individual reports were prepared by each team member and forwarded to the ERT Coordinator for compilation and editing into this final report.

This report presents the team's findings and recommendations. It is important to understand that the ERT is not in competition with private consultants, and hence does not perform design work or provide detailed solutions to development problems. Nor does the team recommend what ultimate action should be taken on a proposed project. The ERT concept provides for the presentation of natural resources information and preliminary development considerations -- all conclusions and final decisions rest with the town and the landowners/developers. It is hoped the information contained in this report will assist the Town of New Milford and the landowners/developers in making environmentally sound decisions.

If any additional information is required, please contact Richard Lynn, (868-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, Sackett Hill Road, Warren, CT 06754.

* * * * *

II. HIGHLIGHTS

1. *From a geological perspective, it appears that the most limiting factors with respect to developing the site as an industrial park include: a) the presence of the deep, abandoned trench-cut rock quarries in the western portion of the site which lend themselves to being a potential hazard for public use (e.g. injuries resulting from falls off the high cliffs); (b) the presence of steep slopes in the western and extreme eastern section of the site; (c) the shallow to bedrock conditions in the southcentral portion of the site; and (d) the stoniness of many of the glacial till soils. While these geologic characteristics do represent limitations for development of the site, they are not viewed as significant enough to preclude development of the site for industrial purposes. With good planning and engineering, it appears that major portions of the site can support industrial development. (p. 9)*

2. *Development of this site can be expected to lead to increases in stormwater runoff. The amount of increased runoff will depend on the extent of development, amount of vegetation removed, impervious surfaces created and the timing of development on each lot. For this reason, it is important that a stormwater management plan be prepared for the proposed industrial park prior to development. In this regard, consideration should be given to utilizing the three existing quarry cuts throughout the southcentral section of the site as storm water retention basins. (p. 10)*

3. *The development of this tract will call for clearing and grading a substantial portion of the mixed hardwood stand. Located throughout this stand are several large healthy trees which would make ideal specimen trees. These trees have extremely high aesthetic and shade value. They should be worked into the landscape plan for this development where possible. A thinning of the mixed hardwood stand on this property is recommended. (p. 16)*

4. *If this area is zoned industrial, and developed, there will be an immediate negative impact on wildlife throughout the property. The primary impact will be a direct loss of habitat due to roads, buildings and parking areas. A number of measures can be implemented to minimize the adverse impacts of the project on wildlife. A partial list of these measures is provided in the text. (p. 17)*

5. *Connecticut's Water Quality Standards and Criteria currently designate virtually all of the proposed site as having a GA ground water classification. This designation not only has a significant bearing on what types of wastewaters can potentially be discharged to the property but also what types of industrial establishments would possibly be acceptable at all. This issue should be clearly understood by the property owners and municipal officials at the outset. There is no sense in attracting certain types of industrial users to the site if there is a conflict in disposing of wastewaters that they may produce. (p. 18)*

6. *Despite the regulatory programs which are in affect today, there are often associated unregulated operations carried out by certain industrial processes that often cause ground water contamination problems by accident or due to poor management. The town may wish to consider what types of uses will be allowed in industrial zoned areas to preclude those that pose a substantial threat to ground water quality. (p. 19)*

7. *If the parcel under study is re-zoned and if industrial development is initiated, then known historic resources will be disturbed as will any unknown prehistoric sites. Since the development is expected to be implemented and financed by non-public agencies or groups, further studies or other mitigative actions are not required by statute. However the general lack of preserved remains from the entire town and the future threats of continued destruction suggest that some efforts to protect cultural resources should be undertaken prior to large-scale construction. (p. 21)*

8. *Construction of a two lane new Boardman Bridge to replace the existing one lane span appears imminent; thus access to the site is clearly about to be improved. The New Miflord Planning Commission stated in a June 1978 report that "the construction of a new Boardman Bridge would have a positive impact upon the town's circulation pattern, and substantially enhance the major industries already existing in the area. This new facility would also increase the feasability of attracting additional industrial development to the Boardman Road area, and construction of the new bridge will allow the Commission to intensify it's study of that issue". (p. 21)*

9. *A detailed analysis by a traffic engineering consultant of the trip generation, trip distribution and roadway capacity constraints that would occur if major economic growth occurs along Boardman Road will be initiated by the HVCEO in the fall of 1983. (p. 24)*

10. *The presence of an approximately 350 acre parcel of land that can be developed as a coherent unit with a net tax yield presents an opportunity for New Milford to encourage high quality development. This encouragement can be in the form of a request to the property owner to take a multidisciplinary approach to site planning, through the retention of a team of planners, landscape architects, engineers and other professionals. This added expense for the owners should enhance overall marketability and eventual profit. (p.24)*

11. *It appears at this writing that both public water supply and public sewers will be available to service the site. This certainly enhances the industrial development potential of the site. (p.25)*

III. TOPOGRAPHY AND GEOLOGY

The site, which is on the east side of the Housatonic River, occupies a broad hilltop adjacent to the Housatonic Valley. According to the published New Milford topographical map, land surface elevations on the site range between ± 260 feet above mean sea level along River Road and ± 590 feet above mean sea level at the eastern peak of the site (see Figure 1). Much of the mined area on the western border of the site has not been regraded and is thus characterized by a diverse "moonscape" topography. Immediately east of the mined area the land rises quite steeply (± 15% grade) to about the 400 foot contour interval. East of this 400' contour, the land surface is characterized by relatively flat to moderately sloping relief. The extreme eastern border of the property, however, is characterized by very steep slopes (30-35%).

As noted above, the proposed industrial park site is located in an area that is encompassed by the New Milford topographic quadrangle. Both surficial (Woodrow Thompson, 1975) and bedrock (K.G. Caldwell, 1975) geologic maps of the quadrangle have been prepared, but have not been published to date. Both maps are, however, on file for review purposes at the Department of Environmental Protection, Natural Resources Center in Hartford.

The rock unit that underlies or crops out on approximately 75% of the site is the Inwood Marble Formation. This formation consists largely of a tan to light gray dolomite marble; however, it contains calcite marble in the upper part and is locally interlayed with schist or phyllite and with calcareous siltstone or sandstone. It also contains the minerals phlogopite, termolite, diopside and sphene. A "marble" is a metamorphosed (rock that has been geologically altered by great heat and pressure) dolomite limestone which has been formed chiefly through the recrystalization of magnesium-rich limestone. The result is that the marble is usually coarser grained than the original limestone. It should be noted that the western portion of the property is the site of a former limestone quarry. Remains of the operation, which include three open quarries, reportedly 50-100 feet deep, were observed during the ERT's field review.

Bedrock underlying or cropping out along the extreme eastern section of the site is the Dalton Formation (see Figure 2). This formation consists of a gray-tan, weathering, medium-grained, generally well layered gneiss or feldspathic quartzite, which is composed of the minerals quartz-microcline plagioclase muscovite, biotite and tourmaline. The term "gneiss" refers to a crystalline, metamorphic rock which is characterized by bands. These bands are produced primarily by the alteration of dark and light layers of minerals such as quartz, feldspar and biotite. "Feldspathic quartzite" is a term used for a feldspar-rich sandstone containing a high percentage of quartz with smaller percentages of micas.

Bedrock outcropping occurs primarily on the subject site in the south-central portion where the quarry cuts were made and along the eastern boundary line (see Figure 3).

Surficial geologic materials are those unconsolidated rock, organic or deposited materials that overlie the solid continuous bedrock. They are also referred to as "overburden". Till (consisting of non-sorted clay, silt, sand, gravel, and boulders) is the surficial material which occupies most of the sub-

FIGURE 1
TOPOGRAPHIC MAP

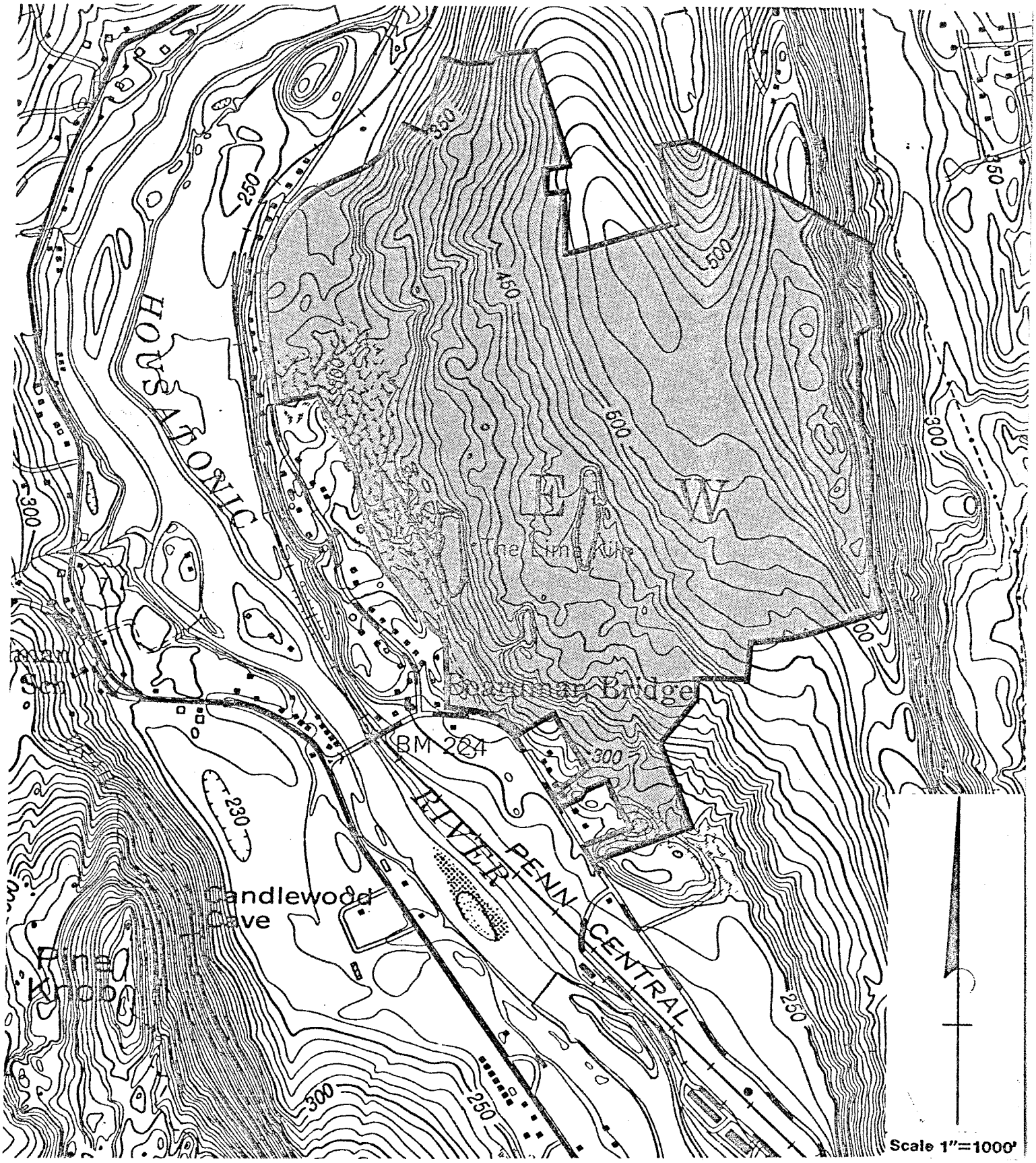
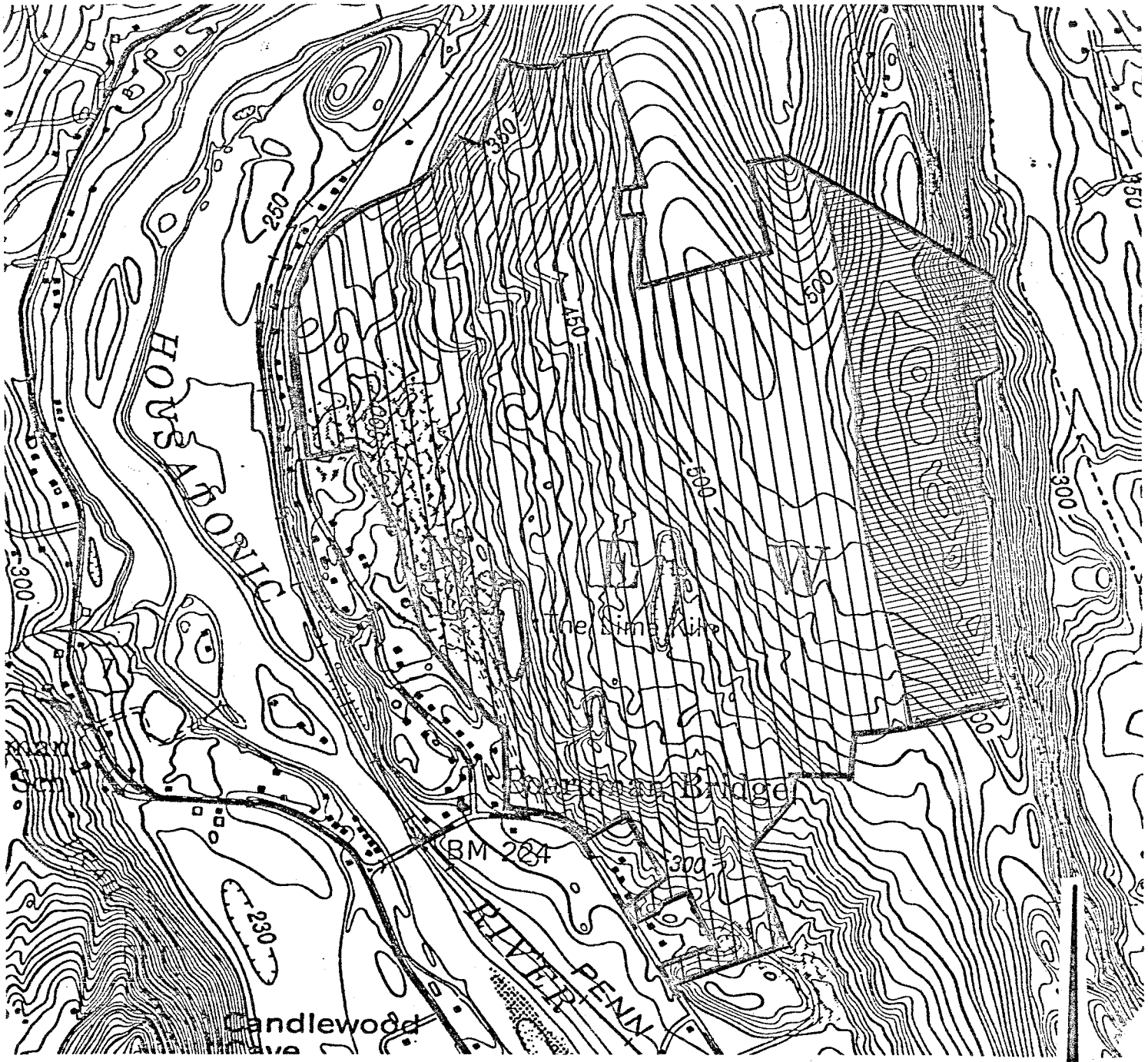


FIGURE 2
BEDROCK GEOLOGY



- Inwood Marble Formation

- Dalton Formation

FIGURE 3
SURFICIAL GEOLOGY

- Till

- Glacial Lake Danbury Deposits

- Shallow Till Deposits with Numerous Bedrock Outcrops

Scale 1"=1000'

ject site. Till was deposited directly from glacier ice without subsequent reworking by meltwaters to any significant degree. Although it is commonly sandy and friable in the upper few feet, till may become silty and tightly compact at greater depths. Since the average thickness of till on the site is probably 10 feet or less, most till on the property would presumably have a sandy texture.

The other type of deposit found on the site is referred to as glacial lake sediments. These sediments consist of sand, gravel and silt that were laid down by meltwater streams that entered in Glacial Lake Danbury, which was created by the damming of the present Housatonic River Valley by glacial ice. These deposits are located in the southern and western portions of the site and have been extensively mined. At the time of the review, it was observed that much of the sand and gravel, especially in the western portion of the site, had been extracted at or near the bedrock surface. The economic value of the remaining stratified sediments is uncertain.

From a geological perspective, it appears that the most limiting factors with respect to developing the site as an industrial park, include: (1) the presence of the deep, abandoned trench-cut rock quarries in the western portion of the site which lend themselves to being a potential hazard for public use (e.g. injuries resulting from falls off the high cliffs); (2) the presence of steep slopes in the western and extreme eastern section of the site; (3) the shallow to bedrock conditions in the southcentral portion of the site; and (4) the stoniness of many of the glacial till soils. While these geologic characteristics do represent limitations for development of the site, they are not viewed as significant enough to preclude development of the site for industrial purposes. With good planning and engineering, it appears that major portions of the site can support industrial development.

IV. WATER SUPPLY

Since public water facilities are not presently available to this property, the underlying bedrock may be the principal, if not sole, source of water. Bedrock based wells are commonly capable of providing small but reliable quantities of groundwater to individual wells. A survey of bedrock wells in the Upper Housatonic River Basin indicates that 80% of the wells that were drilled into a rock type similar to that found on the site yielded 3 gallons per minute or more with 90% yielding 2 gallons per minute or more. Furthermore, less than 20% of the wells yielded 20 gallons per minute or more. Therefore, industrial firms requiring a substantial amount of water would probably necessitate the drilling of more than one well. For industrial firms requiring short term daily high flow rates, a water storage tank might be needed if only a low yielding well is available.

Water obtained from carbonate bedrock, which underlies the greatest percentage of this property,has a tendency to be hard to very hard. "Hard" waters are those which are basic (i.e., alkaline); "soft" water are acidic. Water that is "hard" makes the lathering of soaps more difficult and may form a scale in hot water tanks and boilers which reduces their thermal efficiency and may cause eventual plugging in pipes as indicated in Water Resources Bulletin #21 (Upper Housatonic River Basin, U.S. Geological Survey, 1976). Most of the water in this drainage basin contains calcium bicarbonate which tends to be less alkaline and has a lower hardness than water containing calcium sulfate. As a result, distribution systems carrying water of the calcium-bicarbonate type are less likely

to fail through corrosion and are also less likely to be plugged by hard scale, which is difficult to remove.

Water which exceeds 180 mg/l in hardness commonly requires softening. If the developer or prospective tenant of this industrial park is concerned about possible hardness, owners of existing bedrock wells in this area could be surveyed. It should be noted that hardness can be overcome by various filtration methods.

The gneiss or quartzite bedrock which underlies the eastern portion of the property, generally yields water of good quality; however, it may be the source of undesirably high concentrations of iron and/or manganese. The presence of elevated iron or manganese levels in water can be recognized by their reddish or blackish staining qualities, respectively. Filters are available to remove such mineral-induced concentrations of elements in well water.

Care should be taken in the proper placement of any on-site wells, particularly if on-site sewage disposal systems are to be installed. Generally speaking, a well should be located at a relatively high point, in a direction which will be away from the normally expected flow of contaminants such as septic effluent, road salt, possible chemical storage areas, fuel oil tanks, etc.

V. HYDROLOGY

The largest portion of the property lies within the watershed of the Housatonic River (see Figure 4). Drainage from most of the site now flows, and would probably continue to flow, in a westerly direction by sheet flow into intermittent streams,which ultimately discharge into the Housatonic River. These intermittent streams which were observed on the day of the review, appeared to have been created largely as drainage outlets for the deep quarry cuts in the western portion of the site. It should be noted that a small stream, which appears to emanate from a spring in the western portion of the site, was also observed.

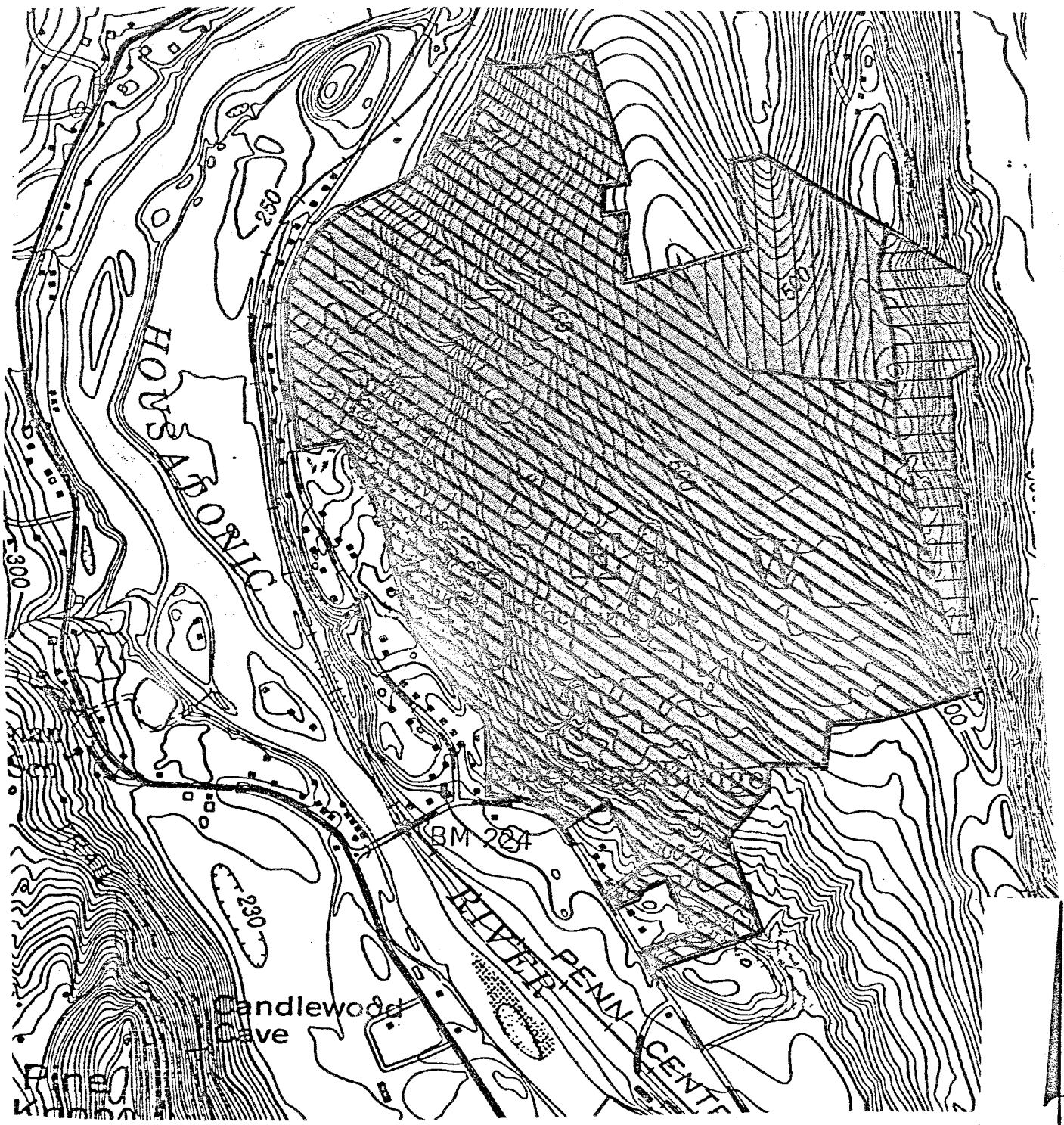
A small, $\pm$ 25 acre area which is located in the northern section of the property drains northerly into Cedar Lake. Surface water from Cedar Lake drains ultimately into the Housatonic River through an unnamed watercourse.

Finally, a thin strip of land along the extreme eastern section of the site drains easterly into the West Aspetuck River. It is unlikely that this portion of the property would be developed for industrial uses due to the extremely steep slopes and shallow to bedrock conditions.

Development of this site can be expected to lead to increases in stormwater runoff. The amount of increased runoff will depend on the extent of development, amount of vegetation removed, impervious surfaces created and the timing of development on each lot. For this reason, it is important that a stormwater management plan be prepared for the proposed industrial park prior to development. In this regard, consideration should be given to utilizing the three existing quarry cuts throughout the southcentral section of the site as storm water retention basins.

As mentioned earlier, a small portion ($\pm$ 25 acres) of the property drains northerly into Cedar Lake, As a result, some property owners around the Lake

FIGURE 4
DRAINAGE CHARACTERISTICS



drainage in a westerly direction by sheet flow into intermittent streams which ultimately discharge into the Housatonic River

area draining northerly into Cedar Lake which in turn drains via an unnamed watercourse to the Housatonic River

drainage in an easterly direction to the West Aspetuck River.

Scale 1"=1000'

have expressed concern with regard to the deterioration of water quality in the lake should development occur in this area. Based on a former preliminary plan of development for the property, the property owners have shown a willingness to designate this portion of the property as open-space, thus leaving it in its natural state. If this area is designated as open space on the final plan and left in its natural state, there should be no adverse affects on Cedar Lake from industrial development of the remainder of the property.

Based on the Flood Boundary and Floodway Map prepared by the Federal Emergency Management Agency/Federal Insurance Administration for the town of New Milford, the subject site does not appear to lie within the floodway of the Housatonic River. However, there may be swampy or topographically low lying areas within the site that may be subject to wetness and perhaps some flooding during periods of particularly heavy rain.

VI. SOILS

A Soils Map of the subject site is presented in the Appendix of this report. The Appendix also contains a Soils Limitation Chart which identified the suitability of the various soils for alternate land uses. By comparing the Soils Map with the Soils Limitation Chart, one can gain an appreciation of the "developability" of various portions of the site. It should be noted that the recent mining operation in the northwestern corner of the property has created a more extensive "mined area" than is shown on the Soils Map. Figure 5 of this report gives a more accurate representation of the extent of the mined land on the site at the present time.

The suitability of the soils on-site for industrial development was addressed by Art Cross, District Conservationist for Litchfield County, in a letter to the landowner dated February 4, 1977. Mr. Cross has indicated to the Team that this information is still valid; excerpts of his report are presented below.

"I. MINDED OUT AREA OR "LOWER AREA"

FINDINGS:

This area has irregular to very irregular slopes and is mostly of bare soil. Soils are very variable in texture from silt to larger boulders and rock. (The landowner)recognizes the need to regrade the area and the need to reestablish vegetation. It is desired to reform existing grades in such a way as to make the quarry pond (± 3 acres) more visible and attractive adjacent to a proposed entrance road. Surface water would go northerly to a natural drainageway and wetland.

RECOMMENDATIONS/COMMENTS:

1. A detailed topography survey of the area should be made and existing and planned grades determined.

2. Soil borings to below planned grades could determine if problems would be encountered such as bedrock, water, areas of unstable silt soil

3. Increased runoff which could cause erosion, sedimentation and

pollution of wetlands and brook northerly of the property which flows into the Housatonic River, should be controlled.

Surface water management practices should be planned in detail along with location of roads, buildings, parking areas.

4. A vegetation plan should be developed to include topsoil needs, liming, fertilizing, seeding, mulching needs and specifications.

5. The final plan of grading, road and building construction, surface water management and vegetation should be developed to show an orderly sequence of operations.

6. Recommend no development take place in the wetland (Rc-Raynham soil). It can better serve as a natural filter retention area.

II. "UPPER AREA" (i.e. the un-mined portion of the site)

FINDINGS:

The slopes are consistently about 15% in ± 49 acres of the area from the toe of the terrace break (Tg) eastward to the top edge of the Merrimac soil (MyC). The remainder of the area has slopes varying mostly from 3-15%. However, ± 43 acres of this area of 3-15% slopes has soil mapped as Farmington (FaC) with bedrock at or very near the ground surface. There are two large deep, dry quarry holes in the Farmington soil area. Large stones are a moderate limitation on the Charlton soils. (See Soils Limitation Chart)

RECOMMENDATIONS/COMMENTS:

1. It is recommended that terrace breaks remain undisturbed other than woodland improvement for aesthetic purposes. Any road from the "lower" area to the "upper" area should avoid steep grades and excessive cuts as much as possible. It may be more feasible to not connect the "lower" area with the "upper" area.

2. Industrial park sites should be realistically located on the ground in areas where slopes are preferably less than 8% and bedrock will not be a problem. Natural drainageways should be left as they are. Then, road layout can be planned, avoiding steep slopes and excessive cuts. This can best be accomplished by a topography survey or a map prepared from aerial photographs.

3. Surface water management and revegetation should be planned as recommended in the "lower area" and of course, integrated into the overall plan, with sequence of operations.

4. Consideration should be given to the quarry holes for disposal of runoff from roads and parking lots".

VII. VEGETATION

A. Vegetative Type Descriptions

The property proposed for a zoning change and future industrial development totals 350 acres in size. According to aerial photo interpretation, approximately 73 acres are non-forested. The remaining 277 acres may be divided into 6 vegetative types. Each of these types is described below; the location of the various types is shown in Figure 5.

TYPE 1, Cedar-Pine-Hardwoods. This area is understocked with sapling to small pole-sized red cedar, white pine, red oak, black oak, quaking aspen, and red maple of poor to medium quality. Shrub species to be found here include smooth and staghorn sumacs, honeysuckle, multiflora rose, and scattered japanese barberry. The ground cover is composed of grasses, mullein, queen anne's lace, virginia creeper, cinquefoil, poison ivy, mustard, white campian, milkweed, steepbush, burdock, and mountain mint.

TYPE 2, Softwood/Hardwood. This area is characterized by well-spaced, medium quality, small sawtimber-sized white pine, ash, sugar maple, big-toothed aspen, and occasional red oak. Red cedar is found here and ranges in size from 3 to 8 inches in diameter. The understory is composed of scattered white pine saplings, black birch and sugar maple saplings, and the smaller red cedars. Scattered basswood saplings can also be found. The ground cover here consists of poison ivy, maple leaved viburnum, and scattered tufts of grasses.

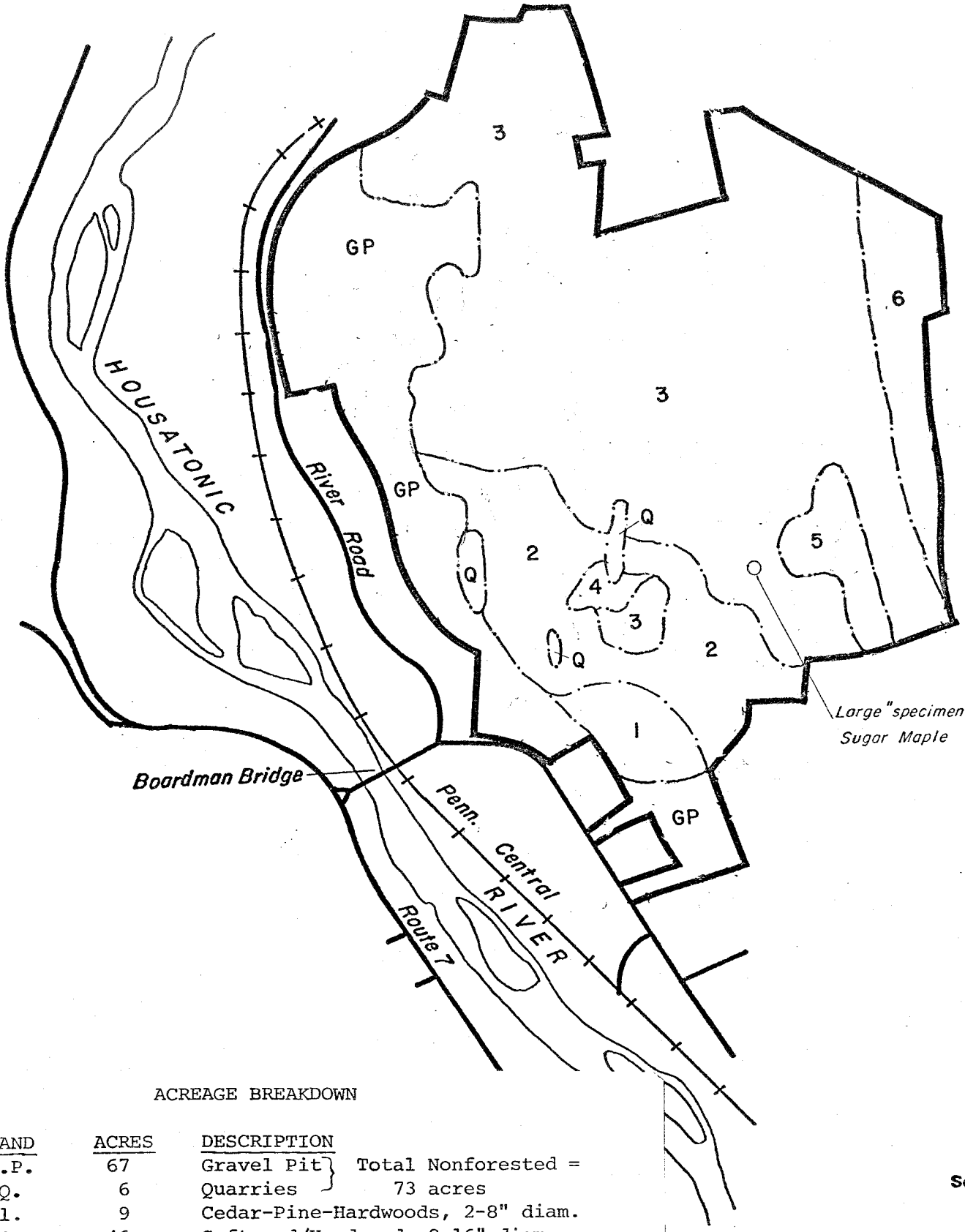
TYPE 3, Mixed Hardwoods. The major portion of the property, this area is fully stocked with pole to small sawlog-sized red oak, black oak, sugar maple, yellow poplar, ash, aspen, black birch, and red maple. All of this material is of fair to good quality. The understory consists of red maple, black birch, and scattered red oak saplings. Dogwoods are plentiful and maple-leaved viburnum can be found throughout. In damp pockets, spicebush can be found. The ground cover here is sparse in places but generally consists of cinammon fern, sensitive fern, virginia creeper, poison ivy, violet, and wild geranium.

TYPE 4, Brush. Located between 2 of the quarry sites, this area is understocked with a minimal overstory composed of scattered poor quality red maple and red oak poles. It appears the area was cleared some 10-15 years ago. Shrub species to be found here include multiflora rose, raspberry, honeysuckle, and smooth and staghorn sumacs. Some aspen, cherry, and red maple reproduction can also be found here. Ground cover consists of grasses, poison ivy, dewberry, milkweed, and queen anne's lace.

TYPE 5, Mixed Hardwood. This area is identical in species composition to type 3 with a higher percentage of ash and red maple. The site is seasonally wet and is capable of greater productivity than that in type 3. More spicebush can be found here.

TYPE 6, Inaccessible. This is the easternmost portion of the property which is excessively steep. Species found here include black and grey birch, aspen, pin cherry, and red maple. Slopes here average 30% and the soils are thin, fragile, and have frequent, large ledge outcrops.

FIGURE 5
VEGETATION TYPE MAP



ACREAGE BREAKDOWN

STAND	ACRES	DESCRIPTION
G.P.	67	Gravel Pit } Total Nonforested =
Q.	6	Quarries } 73 acres
1.	9	Cedar-Pine-Hardwoods, 2-8" diam.
2.	46	Softwood/Hardwood, 8-16" diam.
3.	196	Mixed Hardwoods, (small sawlog 10-16")
4.	3	Brush
5.	8	Mixed Hardwoods,(10-16")
6.	15	Inaccessible
TOTAL	350	

B. Forest Management

Since it appears development will be the future of this parcel, there is a definite sequence of management which should be considered. The owners and developers of the area should be advised of the economic value inherent in a wooded site. A healthy, well-managed site will, as studies have shown, demand a price up to 27% higher than will a cleared site in a residential market. It appears the same may be true of commercial sites. To that end the following sequence of operations should be considered:

1) As soon as is practicable, a private forester should be employed to mark and manage a thinning of types 3 and 5. As aesthetics should be foremost in a parcel eyed for development, the thinning should be designed to remove the poorest quality 1/3 of the stems. This would include severely damaged trees; trees with very small crowns, large seams in the trunk, and obvious disease problems; and trees which are directly competing with more desirable, high vigor, healthy trees.

Not only will this thinning improve the overall health and vigor of the area, as well as the aesthetics, but the thinning also serves to act as a safeguard against large-scale windthrow problems when the site is developed later on.

The crown canopy will be opened, allowing wind penetration. Those trees which are susceptible to windthrow will blow down. Those remaining will develop more widespread root systems and become more windfirm, alleviating the chances for problems with later site development.

It should be pointed out here that several large specimen trees can be found on the property, notably one particular sugar maple in the southeast portion of type 3, (see map). As much reasonable effort as is possible should be made to retain these in the landscape for aesthetic reasons.

The products derived from this thinning will be primarily firewood, with a small percentage of sawtimber material. This should be sold as a premarketed, prepaid, bid sale under a written contract with a performance bond of 10-15% held. Technical advice in this matter can be received from either a state service forester or a private forester.

2) With the thinning accomplished, actual site development and clearing and grading can best be done some 3-5 years hence. This allows time for the trees to develop the additional root systems necessary for increased resistance to windthrow. Those trees which have blown down in the intervening years can be cleaned up at this time.

Additionally, at the time of the thinning in types 3 and 5, a light thinning in type 2 would improve the aesthetic values there. The thinning would be designed to remove only those trees which are severely damaged, diseased, deformed, or represent a hazardous situation. Again, an effort should be made to retain the larger specimen trees of good health and vigor.

C. Aesthetics and Preservation

The development of this tract will call for clearing and grading a sub-

stantial portion of the mixed hardwood stand (vegetation types 3 and 5). Located throughout this stand are several large healthy trees which would make ideal specimen trees. These trees have extremely high aesthetic and shade value. They should be worked into the landscape plan for this development where possible.

It should be noted, especially with the wide spread excacating and grading that is necessary in this area, that trees are very sensitive to soil disturbances within their root zones. This zone corresponds to the entire area under a trees crown. Practices (such as filling and excacating) which disrupt the balance between soil aeration, soil moisture level and soil composition in this zone may cause a decline in tree health and vigor, potentially resulting in tree mortality within three to five years. Mechanical injury to trees may have the same results. Trees which are to be retained should be clearly (but temporarily) marked so that they may be more easily avoided during clearing and bulldozing operations.

With proper controls, the thinning should have an insignificant impact on water quality. It is recommended that: 1) the thinning not take place during the spring season when heavy rains are expected, 2) skid roads (used for moving trees once felled) generally follow contours and avoid slopes greater than 10% 3) the yarding area (where trees are brought to be loaded onto logging trucks) should be located on well drained soils with a slight slope for proper drainage, and 4) major skid trails and yarding areas should be seeded with perennial grasses at the end of the operation. These simple practices, combined most importantly with common sense will help reduce erosion problems during the thinning operation.

VIII. WILDLIFE

Presently the "Boardman Road Property" may be divided into 2 major wildlife habitat types. These include forestland and open land. For a description of the vegetation present and location of these habitat types, please see the preceeding vegetation type descriptions and vegetation type map. The forestland habitat consists predominantly of a mixed hardwood/softwood forest and presently supports those species associated with forestlands (e.g. deer, ruffed grouse, raccoon, opposum, etc.). The ±75 acres of openland habitat is primarily composed of the gravel pit and quarries. Due to the fact that most of this openland habitat has been stripped of vegetation, wildlife species will most likely be found on the "edges" of both the quarry and gravel pit areas. The ± 3 acres of "Brush" which is located between two of the quarry "sites" presently supports a rich variety of wildlife. During the review date the majority of wildlife species were observed in this area. A ruffed grouse, red shafted flicker, bluebird, northern oriole, and a white tailed deer were observed.

If this area is zoned industrial, and developed, there will be an immediate negative impact on wildlife throughout the property. The primary impact will be a direct loss of habitat due to roads, buildings and parking areas. Of primary concern to wildlife managers is the fact that when large blocks of land such as this site are developed, the less tolerant (shy) wildlife species will be driven from the site, even in areas where it has not been physically changed. For example, some species of non-game birds need contiguous large blocks of land in order to survive.

A number of measures can be implemented to minimize the adverse impacts of the project on wildlife. The following is a partial list:

1) Plant perennial vegetation beneficial to wildlife for food and cover.

2) Any impoundments could have control structures designed to regulate water levels favorable for waterfowl. Beaver nuisance control devices could be implemented at water impoundments.

3) Snag/den trees could be left throughout the undeveloped forestlands (5 to 7 snag or den trees/acre are desirable for cavity nesting wildlife).

4) Mast trees (oak, hickory, beech, etc.) which are food producers for a large variety of wildlife species, could be encouraged.

5) Trees with vines which produce berries could be encouraged.

6) Exceptionally "tall" trees which are utilized by nesting raptors could be encouraged.

7) The undeveloped forestland habitats could have small openings (½ acre) created within them in order to produce a diversity of wildlife habitat types.

Should the applicant be interested in landscape design to enhance wildlife habitat, or if any future wildlife related questions arise, the Western District Wildlife Biologist may be contacted at 485-0226.

IX. WATER QUALITY AND WASTE DISPOSAL

Connecticut's Water Quality Standards and Criteria currently designate virtually all of the proposed site as having a GA ground water classification. This means that ground waters in this area should be clean and unpolluted from current land use activities and could be acceptable for drinking without requiring treatment. This refers of course to possible organic or inorganic contamination of ground waters due to man's activities and not to naturally occurring problems such as excessive hardness that may require water softener treatment. This latter problem may very well be a factor on site due to the extensive limestone deposits in the area.

A small part of the extreme eastern part of the property, east of the ridgeline that runs in a general north-south direction, is within the watershed of the East Branch of the Aspetuck River which is a public water supply. As such, ground waters in this area are classified as GAA.

The following excerpt from the Water Quality Standards define those discharges considered compatable with GA and GAA areas:

"1. It shall be the policy of the State to limit discharges to the ground waters to the following categories:

A) Class GAA areas may be suitable to receive discharges of domestic sewage as defined in Section 25-54i-1.0 (of the Regulations of Connecticut State Agencies) or wastes from acceptable agricultural practices or backwash from public drinking water treatment systems or other minor cooling or clean water discharges.

B) Class GA areas may be suitable to receive those discharges permitted in Class GAA areas and septage or other wastes of predominately human or animal origin. These ground waters may also receive effluents containing substances of natural origin or materials which easily biodegrade in the soil system and pose no threat to untreated drinking water supplies drawn from the ground water outside any zone of influence."

As can be seen, this policy not only has a significant bearing on what types of wastewaters can potentially be discharged to the property but also what types of industrial establishments would possibly be acceptable at all. This issue should be clearly understood by the property owners and municipal officials at the outset. There is no sense in attracting certain types of industrial users to the site if there is a conflict in disposing of wastewaters that they may produce.

Another significant environmental issue for the town to consider is in regard to the potentials that various industries pose for ground water contamination. Since the industries themselves as well as homes located downgradient of the site must rely upon well water as a drinking water supply, it would be prudent for the town of New Milford to consider through its planning and zoning commission certain controls to be placed on categories of industrial users that would be permitted in the industrial park if developed. Those that commonly use large quantities of raw chemicals or waste chemicals that are associated with the hundreds of instances of ground water contamination which presently exist around the State should be excluded. Those industries that use smaller amounts of materials should be investigated initially and at the time of property transfers by having detailed reports submitted on raw chemical and waste chemical management practices to be followed. Despite the regulatory programs which are in affect today there are often associated unregulated operations carried out by certain industrial processes that often cause ground water contamination problems by accident or due to poor management. The town may wish to consider what types of uses will be allowed in industrial zoned areas to preclude those that pose a substantial threat to ground water quality.

Actual permitting of subsurface sewage disposal systems for domestic sewage would be regulated through the New Milford Director of Health or the Department of Environmental Protection depending upon size. If the discharge of sewage to the property is less than or equal to 5000 gallons per day, system design and permitting is through the Town. The Department of Environmental Protection regulates those systems larger than 5000 gallons per day. The Department of Environmental Protection would also require a permit for the ground discharge of any wastewaters other than domestic sewage, regardless of quantity.

Those soils suitable for sewage disposal based upon information contained on the soils map and seen during our site walk would be the Charlton, Copake, Terrace escarpments and Merrimac soils (see Soils Map in Appendix). The Farmington soils are unsuitable due to shallow ledge depths and much of the mined area may be unsuitable due to past or present excavation of all good soil materials down to ledge or ground water. In any event detailed site investigation with the excavation of deep test pits is necessary to determine actual capacity. The Charlton soils would be capable of accommodating small to moderate sized septic systems with limitations due to hydraulic capacity and site slopes. The sandier Merrimac and Terrace escarpments would have capacity for moderate to large size systems due to greater hydraulic capacity to transmit waters.

While preliminary plans for the site call for connection to the municipal sewer system which is located some distance away, it should be recognized that it would be possible to provide a separate sewer system and treatment plant serving the industrial park with eventual discharge to the Housatonic River if so desired. An in depth cost analysis would be necessary to determine the possible expenditures for such a system vs. the number of potential industrial parcels it could serve. Any sewage collection and treatment system of this type would be reviewed and permitted by the Department of Environmental Protection through its administration of Section 402 of the Federal Clean Water Act and the State Permit Program.

X. CULTURAL RESOURCES

Evaluations and field studies of New Milford's archaeological resources have been undertaken by the American Indian Archaeological Institute (AIAI) since 1978. More than 24 prehistoric sites have been recorded from the entire town; this number probably represents less than 10% of what once existed. Sadly most of this impressive archaeological record has been destroyed during recent growth and development. Therefore any as-of-yet undiscovered prehistoric sites should be considered to be significant and worthy of study and perhaps preservation.

No archaeological research has been undertaken within the subject tract of 350 acres, although studies of adjacent property and the larger region provide a context for evaluation. All of the project area is located east of the Housatonic River at elevations above its valley floor. The landscape involved has been stable since the disappearance of glacial ice more than 13,000 years ago. Prehistoric sites which might exist are lying on or just beneath the contemporary ground surface and are quite fragile. In such settings any sort of intensive disturbance will easily destroy the integrity of extant archaeological resources.

For example the western section of this tract has been graveled below the 350 foot contour and sites which might have existed are now destroyed. However the eastern half of the area, above the 450 foot contour, seems to be intact and might contain prehistoric resources. Field studies of a similar locality less than one mile to the north discovered important sites in 1978. These prehistoric materials are between 6000 and 4000 years old and represent some prehistoric use of the Housatonic's uplands. The locality involved is situated along a tributary of the Housatonic which flows north from Cedar Pond, just beyond this tract's boundary. While no sites are known from the property under study, the proximity of these resources suggests that similar ones could exist, especially in the "flat saddle" above the 500 foot contour.

More obvious historic archaeological features are extant in the project area and represent the remains of industrial activity from the second half of the 19th century. Published maps from 1859 and 1874 depict a lime kiln along River Road just east of the curve to Boardman's Bridge. The materials processed here were quarried from a series of open mines on the property including three which continue to exist. This industrial activity is also represented by other features including the remains of a narrow-gauge railroad, rubble piles of rejected material, and storage sheds constructed of cut stone blocks. This historic activity does not seem to have occurred above the 450 foot contour and would not have disturbed any prehistoric deposits.

If the parcel under study is re-zoned and if industrial development is initiated, then these historic resources will be disturbed as will any unknown prehistoric sites. Since the development is expected to be implemented and financed by non-public agencies or groups, further studies or other mitigative actions are not required by statute. However the general lack of preserved remains from the entire town and the future threats of continued destruction suggest that some efforts should be undertaken prior to large-scale construction.

For example the local historical society could be contracted to determine whether any maps or photographs exist of the 19th century industrial complex. If such documentation is missing, field studies could be completed. In the same way, archaeological evaluations of the "saddle area" could be undertaken to determine whether prehistoric sites exist. If such remains are located they could be further excavated or even preserved within a parcel of open, undeveloped space. In this way, important archaeological resources could be protected for future study.

XI. PLANNING CONSIDERATIONS

A. Relationship to Town Plan

According to New Milford's 1972 Plan of Development the entire site under study here is recommended for single or multi-family residential development at a density of between 1.1 and 5.0 units per acre.

According to the Plan "substantial areas estimated to be sufficient to serve the town up to the time of saturation population have been designated for industrial use... These are all south of the Town Center". This policy predates the 1973 Ct. Inland Wetlands and Watercourses Act which nullified the development potential of many lands zoned for economic use along the Still River in southern New Milford.

While an update of the Town Plan is in progress, it has not yet developed draft policies of use to this analysis. Verbal comments on the update indicate that additional vacant lands in southern New Milford without wetland constraints that are now recommended for residential use may be recommended for industrial use when the plan is updated.

The 1972 Plan does state that an "assessment of the location and effect of the new Route 7 connection to Route 25 (now Rt. 202) may warrant future industrial designation for some land north of the Housatonic River". The text goes on to imply that the site being reviewed in this report is included in the definition of "some land north of the Housatonic River", although the anticipated Rt. 7 connection seen as needed for the reevaluation is at least 20 years away at this writing.

The 1972 Plan thus tied improved roadway access to the addition of industrial lands in the vicinity of the study site. "Where road trucking is necessary, however, no expansion of the present uses should be undertaken until access to the area is "improved". While the access advantages of the new Route 7 are not available to the study area, construction of a two lane new Boardman Bridge to replace the existing one lane span is imminent. Thus access to the site is clearly about to be improved.

In sum, the policy within the 1972 Plan calling for residential use of this

site is questionable due to the age of the Plan and hints within it about future use of this property for industry.

It is also worth noting that in a June 1978 report by the HVCEO entitled "Development Plan for the Boardman Road Industrial Area", the New Milford Planning Commission stated that "the construction of a new Boardman Bridge would have a positive impact upon the town's circulation pattern, and substantially enhance the major industries already existing in the area. This new facility would also increase the feasability of attracting additional industrial development to the Boardman Road area, and construction of the new bridge will allow the Commission to intensify it's study of that issue".

In the same report the New Milford Economic Development Commission noted "that a change in zoning for an Industrial Park should not be allowed without the installation of a new bridge, or some satisfactory guarantee that it will be installed promptly subsequent to a zone change". A statement by the New Milford Zoning Commission in the report noted that "it is the strong feeling of the Commission that said construction will definitely improve the public safety aspects of the area that it is intended that it will serve. Vehicular access to and movement within the area will be greatly improved. Large truck movement to the present Industrial Zone will be more direct and, thus, more economical and efficient."

B. Relationship to Regional Plan

New Milford is at the northern end of the Housatonic Valley Planning Region and a regional plan entitled A Growth Management Option for the Housatonic Valley Region was adopted in 1981. The plan encourages an energy-efficient development pattern by recommending the concentration of new public facilities, such as water and sewer service extensions, at the edge of existing urban areas.

The regional plan recognizes that New Milford as an urban center with its own suburbs has land suitable for urban growth extending to the north of the Downtown along Route 202 and south from Veterans Bridge along Route 7. The plans policy map gives the location and staging sequence for these recommended growth areas which are intended to guide the location of public utilities and higher density land uses. The plans' urban growth boundary extends from Downtown New Milford to just west of the intersection of Boardman Road and Aspetuck Rd. Thus the entire site in question falls within the plans "rural growth" category.

The Regional plan shows recommendations for overall intensity and environmental sensitivity, not specific land uses. Thus a proposal for additional industrial uses in the rural category is in accordance with the regional plan. According to the HVCEO plan the rural policy for this site implies that it "can absorb some growth, but only in amounts that can permanently be served by on-lot or near-lot septic and well systems that don't impair water quality. By taking extreme caution to insure the permanence of these facilities, sewers and the uncoordinated spread to intensive land uses that often go with them can be kept at the edge of the urban categories".

One concept under consideration for this site involves a small sewerage treatment plant with a discharge to the Housatonic River that will collect effluent from throughout the industrial subdivision and perhaps from adjacent existing industries as well. This would permit development intensities greater than the "near-lot septic system" alternative recommended for the site by the HVCEO. However, since the site is not far distant from HVCEO's boundary for inducing higher intensities,

through provision of utilities such as a "package" sewerage plant, conflict with the goals of the regional plan's "anti-sprawl" policy would not be substantial. The same would hold true if sewers were extended to service the site, which now appears likely.

It is also important to note that according to the HVCEO plan the eastern portion of the site, beyond the ridge line, that lies within the drainage basin of the West Aspetuck River lies within the "Conservation" category. According to the regional plan "the lands within this category are irreplacable environmental resources and their intensive development would seriously jeopardize the quality of life for future generations...Uses incompatible with conservation purposes should be discouraged by local regulations."

According to the plan this designation was made because the West Aspetuck drainage basin is a potential future water supply that falls under Class II criteria of the Council on Water Company Lands. No firm commitment has been made or requested regarding use of West Aspetuck waters for public water supply purposes. According to a report dated September 1982 entitled Housatonic River Basin Urban Study by the U.S. Army Corps of Engineers, diversion of water from the West Aspetuck to points south is feasible. DEP's Proposed Water Quality Classification for the Housatonic Basin recognizes this potential by designating the surface and groundwater of the West Aspetuck basin appropriately for water supply use.

Another section of the regional plan discusses protection for stratified drift aquifers and their recharge areas since these are the best locations for high yield public water supply wells. According to a map entitled "Aquifer Protection Districts", on which protection districts are superimposed upon a New Milford zoning map, southern portions of the site lie within the primary and secondary recharge areas of high priority aquifers and eastern portions lie within a secondary recharge area. The primary recharge area receives recharge directly from precipitation on its surface as well as laterally from adjacent secondary recharge areas. The secondary recharge area is predominantly composed of till and bedrock and is adjacent to the primary area. In this area precipitation travels as surface and groundwater runoff downgradient to the primary aquifer directly, without first reaching a stream.

The goal of aquifer protection is not to stop or severely limit growth within these protection districts. Rather, it is to insure that when hazardous materials are used, moved or stored such operations are conducted in such ways that the risks of spillage and thus groundwater contamination, are minimized. New Milford has not yet officially adopted the above mentioned map for regulatory use.

C. Access to the Site

As shown on the maps in this report all vehicular access to the site is ultimately dependent upon the capacity of Boardman Road. According to the circulation plan within the 1972 New Milford Plan of Development, Boardman Road is a local road that should conduct traffic to collector roads but should not carry through traffic. This low classification, as opposed to designation as a collector, is probably based upon the one lane constraint of the present Boardman Bridge. However, an origin-destination survey conducted by Conn DOT on Oct. 6, 1977 and summarized in a report by the HVCEO entitled Development Plan for the Boardman Road Industrial Area dated June 1978 found that "It is clear from this data that the bridge and thus Boardman Road are important links for the circulation of trips that do not have both their origin and their destination in New Milford.

Only 37% of the trips sampled were entirely internal to New Milford, and most of these were from the Gaylordsville section to either jobs along Boardman Road or shopping in the central business district. The dependence on the bridge of travelers from Wingdale, N.Y. and Sherman, Conn, is particularly noticeable. This survey supports the view that the construction of a new Boardman Bridge is of more than local significance in terms of improving traffic flow as well as for opening latent economic development potential".

According to the circulation plan within the HVCEO's 1982 regional transportation plan entitled A Transportation Management Plan for the Housatonic Valley Region, Boardman Road is classified as a major collector which is intended to "provide both land access service and traffic circulation within residential neighborhoods, commercial and industrial areas". This classification is generally compatible with industrial use of the property under consideration here, which would have relatively high rates of trip generation per acre. A detailed analysis by a traffic engineering consultant of the trip generation, trip distribution and roadway capacity constraints that would occur if major economic growth occurs along Boardman Road will be initiated by the HVCEO in the fall of 1983.

At present public bus service is available in the vicinity of downtown New Milford but not in the study area. This is a fairly new public service and ridership gains are still being consolidated. This local service is part of a regional public bus service operated by the Housatonic Area Regional Transit District (HART) and connects to Brookfield and Danbury. HART operates shuttle services to industrial parks in Danbury at peak hours. It is conceivable that if developed for industrial uses, the persons employed at the site under study here could be served by public bus service linked to the regional system via downtown New Milford.

Rail freight service is currently available to the Nestle Co. which is located on Boardman Rd. just south of the study area. Only a small northwestern corner of the site could be studied during the site planning process for possible future rail freight sidings since the remainder of the property has slopes unsuitable for rail access.

D. Site Development Issues

The presence of an approximately 350 acre parcel of land that can be developed as a coherent unit with a net tax yield presents an opportunity for New Milford to encourage high quality development. This encouragement can be in the form of a request to the property owner to take a multidisciplinary approach to site planning, through the retention of a team of planners, landscape architects, engineers and other professionals, rather than civil engineering and limited other skills acting alone. This added expense for the owners should enhance overall marketability and eventual profit. Municipal commissions, with their extensive review powers and influence over the ultimate intensity of site coverage, could help to insure than an early privately financed outlay for high quality site planning is not unrewarded.

Given the size of this property, the Town would also be wise to consider budgeting for additional professional consulting assistance for itself when the owner's professionally prepared site plans are first submitted for informal review. It is generally known that New Milford has a vast development potential and this one property represents a very significant percentage of it. While there is no argument about the high quality of local staff and consultant services presently available, the need to temporarily bolster these forces is a critical issue to be evaluated and prepared for.

This report cannot identify every site design issue that should be dealt with on this proerpty. However, the following general issues appear relevant in the opinion of the Team's planner:

1) The combination of steep slopes that pervade the site with the limited number of access points from Boardman Road means that the layout of interior roadways will likely involve numerous options and trade-offs. The Town should encourage the development of conceptual traffic circulation options at an early date and then be prepared to comment constructively on them.

2) The elevation of the north-south ridge on this site exceeds 500 feet and can be characterized as a scenic ridgetop due to its visibility. An effort should be made during the site planning process to avoid the placement of structures that will create a stark departure from the natural sloping silhouette of this hill as seen from a distance. Property owners could be compensated for accepting this good design feature with additional density elsewhere on the site.

3) Adequate buffering between proposed industrial uses and existing or proposed residential areas should be mandated.

4) It is possible that a subdivision feature could include a restrictive covenant upon each lot sold involving control over materials used in building exteriors, landscaping, placement of waste receptacles, etc. This process has been used successfully in new industrial parks in Seymour and Naugatuck, Ct. The requirements there were not designed to drive up the price of lots or attract only glamour tenants. Rather, they succeeded in improving the marketability of lots and insuring property values.

5) There are three quarries on this site that predate modern regulation of such activities. How to control access to them will be an important safety issue during the site planning process, assuming no practical use can be found.

E. Availability of Public Water Supply

A report entitled Preliminary Feasibility Study for the Purchase of the New Milford Water Company has recently been completed. The topic of industrial park water access was raised, and the Boardman Road Area was considered one of "three currently viable alternative areas for industrial parks". The future extension of public water service to Boardman Bridge was found to be a feasible option and would involve 8,500 feet of main and cost approximately $470,000.

F. Availability of Public Sewer Service

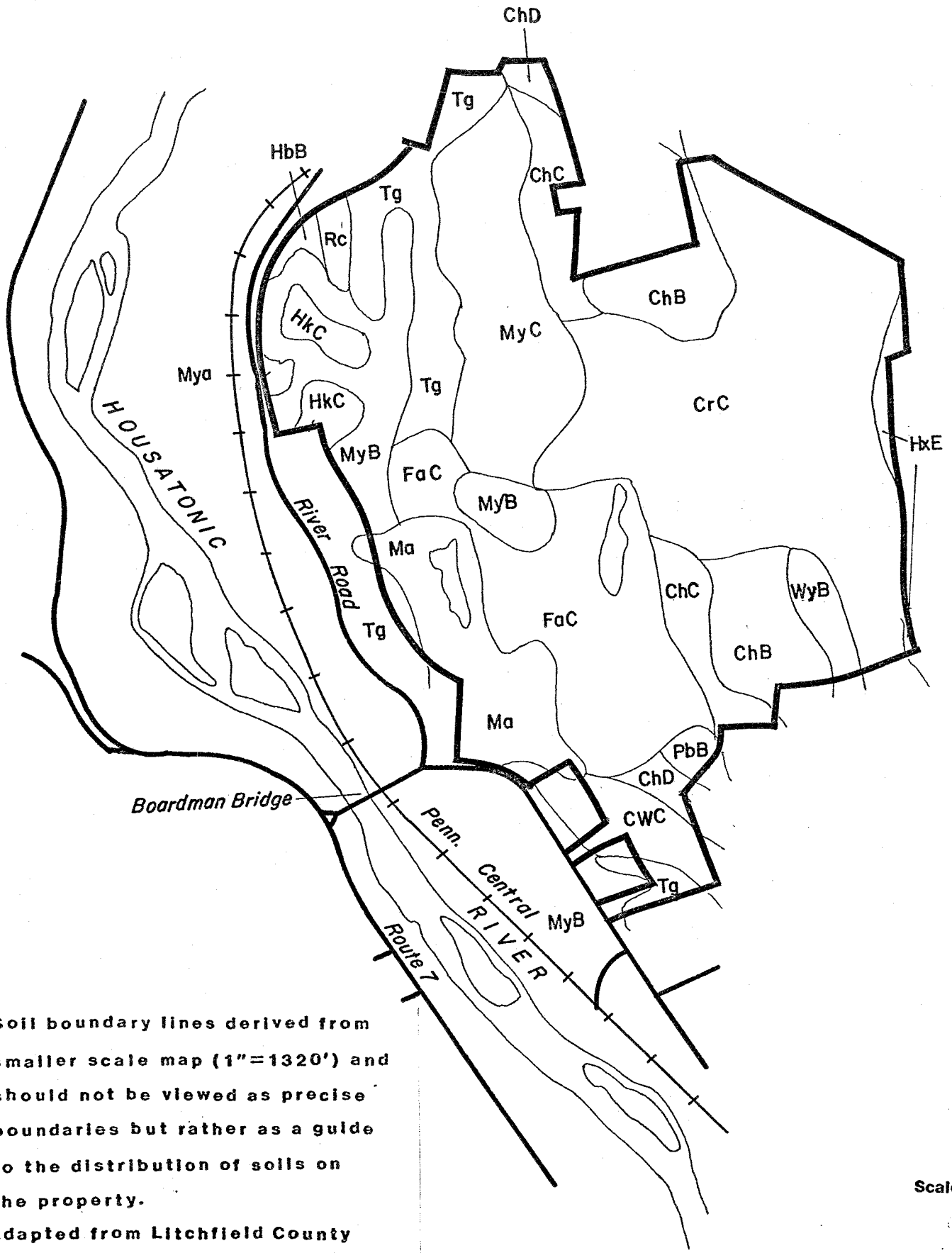
The Town of New Milford is now completing a sewerage planning process. The resulting documents, entitled Preliminary Water Pollution Control Facilities Plan, indicates that 600,000 gallons per day of sewerage treatment capacity be designed into an expanded sewerage treatment plant to serve new industry in the Boardman Road area. The availability of public sewers in the area will certainly enhance the industrial development potential of the site.

* * * * *

XII. APPENDIX

APPENDIX

SOILS MAP



Soil boundary lines derived from smaller scale map (1"=1320') and should not be viewed as precise boundaries but rather as a guide to the distribution of soils on the property.

Adapted from Litchfield County Soil Survey, U.S.D.A.-S.C.S.

BOARDMAN ROAD INDUSTRIAL AREA - SOILS LIMITATION CHART

MAP SYMBOL	SOIL NAME	SEPTIC SYSTEMS	SMALL COMMERCIAL BUILDINGS	LOCAL ROADS	LAWNS & LANDSCAPING
ChB	Charlton stony fine sandy loam, 3-8% slopes	Moderate; Large stones	Moderate Large stones	Slight	Moderate; Large stones
ChC	Charlton stony fine sandy loam, 8-15% slopes	Moderate; Large stones	Severe; Slope	Moderate; Slope, Large stones	Moderate; Large stones
CrC	Charlton very stony fine sandy loam, 3-15% slopes	Moderate; Large stones	Moderate-Severe; Slope, Large stones	Moderate-Severe; Slope, Large stones	Moderate-Severe; Slope, Large stones
FaC	Farmington very rocky silt loam, 3-15% slopes	Severe; Depth to rock	Severe; Depth to bedrock ave. 18" & slope if above 8%	Severe; Depth to bedrock ave. 18"	Severe; Depth to bedrock ave. 18"
HbB	Hartland silt loam, 3-8% slopes	Moderate; Percs slowly	Severe; Frost action	Severe; Frost action	Slight
HkC	Hinckley gravelly sandy loam, 3-15% slopes	Slight-Moderate; Slope	Slight-Severe; Slope	Slight-Severe; Slope	Slight-Moderate; Slope
MyB	Merrimac sandy loam, 3-8% slopes	Slight	Slight	Slight	Slight
MyC	Merrimac sandy loam, 8-15% slopes	Moderate; Slope	Severe; Slope	Moderate; Slope	Moderate; Slope
Ra	Raynham silt loam, 0-8% slopes	Severe; Percs slowly, Wetness	Severe; Frost action, Wetness	Severe; Frost action, Wetness	Severe; Frost action, Wetness
Tg	Terrace escarpments	Severe; Slope	Severe; Slope	Severe; Slope	Severe; Slope
Ma	Mined-out area	On-site Inspection needed	Moderate-Severe Slopes, Area Reclaim	Moderate-Severe Slopes, Area reclaim	Severe; No topsoil
Misc. Soil Areas at corners of property		---------- variable ----------			

EXPLANATION OF RATING SYSTEM:

SLIGHT LIMITATION: indicates that any property of the soil affecting use of the soil is relatively unimportant and can be overcome at little expense.

MODERATE LIMITATION: indicates that any property of the soil affecting use can be overcome at a somewhat higher expense.

SERVERE LIMITATION: indicates that the use of the soil is seriously limited by hazards or restrictions that require extensive and costly measures to overcome.

ABOUT THE TEAM

The King's Mark Environmental Review Team (ERT) is a group of environmental professionals drawn together from a variety of federal, state, and regional agencies. Specialists on the team include geologists, biologists, foresters, climatologists, soil scientists, landscape architects, recreation specialists, engineers, and planners. The ERT operates with state funding under the aegis of the King's Mark Resource Conservation and Development (RC&D) Area - a 47 town area in western Connecticut.

As a public service activity, the team is available to serve towns and developers within the King's Mark Area --- free of charge.

PURPOSE OF THE TEAM

The Environmental Review Team is available to help towns and developers in the review of sites proposed for major land use activities. To date, the ERT has been involved in the review of a wide range of significant activities including subdivisions, sanitary landfills, commercial and industrical developments, and recreation/open space projects.

Reviews are conducted in the interest of providing information and analysis that will assist towns and developers in environmentally sound decision-making. This is done through identifying the natural resource base of the project site and highlighting opportunities and limitations for the proposed land use.

REQUESTING A REVIEW

Environmental Reviews may be requested by the chief elected official of a municipality or the chairman of an administration agency such as planning and zoning, conservation, or inland wetlands. Requests for reviews should be directed to the Chairman of your local Soil and Water Conservation District. This request letter must include a summary of the proposed project, a location map of the project site, written permission from the landowner/developer allowing the team to enter the property for purposes of review, and a statement identifying the specific areas of concern the team should address. When this request is approved by the local Soil and Water Conservation District and the King's Mark RC&D Executive Committee, the team will undertake the review. At present, the ERT can undertake two reviews per month.

For additional information regarding the Environmental Review Team, please contact your local Soil Conservation District Office or Richard Lynn (868-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, P.O. Box 30, Warren, Connecticut 06754.