GROUND WATER POLLUTION POTENTIAL OF FAIRFIELD COUNTY, OHIO

BY

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ABSTRACT

A ground water pollution potential map of Fairfield County has been prepared using the DRASTIC mapping process. The DRASTIC system consists of two major elements: the designation of mappable units, termed hydrogeologic settings, and the superposition of a relative rating system for pollution potential.

Hydrogeologic settings form the basis of the system and incorporate the major hydrogeologic factors that affect and control ground water movement and occurrence including depth to water, net recharge, aquifer media, soil media, topography (slope), impact of the vadose zone media, and the hydraulic conductivity of the aquifer. These factors, which form the acronym DRASTIC, are incorporated into a relative ranking scheme that uses a combination of weight and ratings to produce a numerical value called the ground water pollution potential index. Hydrogeologic settings are combined with the pollution potential indexes to create units that can be graphically displayed on a map.

Fairfield County lies primarily within the Glaciated Central hydrogeologic region. The extreme southeastern corner of the county lies within the Unglaciated Central hydrogeologic region. The glaciated portion of Fairfield County is covered by varying thicknesses of glacial till. Fairfield County is crossed by a complex network of buried valleys, many of which are quite broad and deep. The buried valleys in northern Fairfield County are filled primarily with fine-grained till and lacustrine deposits. Discontinuous sand and gravel lenses interbedded within the tills typically are poor, low-yielding aquifers with very low vulnerability. Conversely, buried valleys underlying the Hocking River and Blacklick Creek contain thick, extensive sand and gravel outwash deposits. These aquifers, which have potential yields over 500 gallons per minute, tend to be highly vulnerable to contamination. Bedrock aquifers vary considerably and include shales, sandstones, and siltstones which range from the Devonian System to the Pennsylvanian System. The poorest bedrock aquifers are Devonian and Pennsylvanian shales, the best bedrock aquifers are the Black Hand Sandstone and the Logan Formation of the Mississippian System. Ground water pollution potential analysis in Fairfield County resulted in a map with symbols and colors which illustrate areas of varying ground water contamination vulnerability. Nine hydrogeologic settings were identified in Fairfield County with calculated ground water pollution potential indexes ranging from 48 to 182.

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INTRODUCTION

The need for protection and management of ground water resources in Ohio has been clearly recognized. About 42 percent of Ohio citizens rely on ground water for drinking and household use from both municipal and private wells. Industry and agriculture also utilize significant quantities of ground water for processing and irrigation. In Ohio, approximately 750,000 rural households depend on private wells; 12,000 of these wells exist in Fairfield County.

The characteristics of the many aquifer systems in the state make ground water highly vulnerable to contamination. Measures to protect ground water from contamination usually cost less and create less impact on ground water users than clean-up of a polluted aquifer. Based on these concerns for protection of the resource, staff of the Division of Water conducted a review of various mapping strategies useful for identifying vulnerable aquifer areas. They placed particular emphasis on reviewing mapping systems that would assist in state and local protection and management programs. Based on these factors and the quantity and quality of available data on ground water resources, the DRASTIC mapping process (Aller et al., 1987) was selected for application in the program.

Considerable interest in the mapping program followed successful production of a demonstration county map and led to the inclusion of the program as a recommended initiative in the Ohio Ground Water Protection and Management Strategy (Ohio EPA, 1986). Based on this recommendation, the Ohio General Assembly funded the mapping program. A dedicated mapping unit has been established in the Division of Water, Water Resources Section to implement the ground water pollution potential mapping program on a county-wide basis in Ohio.

The purpose of this report and map is to aid in the protection of our ground water resources. This protection can be enhanced by understanding and implementing the results of this study which utilizes the DRASTIC system of evaluating an area's potential for ground water pollution. The mapping program identifies areas that are vulnerable to contamination and displays this information graphically on maps. The system was not designed or intended to replace site-specific investigations, but rather to be used as a planning and management tool. The map and report can be combined with other information to assist in prioritizing local resources and in making land use decisions.

APPLICATIONS OF POLLUTION POTENTIAL MAPS

The pollution potential mapping program offers a wide variety of applications in many counties. The ground water pollution potential map of Fairfield County has been prepared to assist planners, managers, and state and local officials in evaluating the relative vulnerability of areas to ground water contamination from various sources of pollution. This information can be used to help direct resources and land use activities to appropriate areas, or to assist in protection, monitoring, and clean-up efforts.

An important application of the pollution potential maps for many areas will be assisting in county land use planning and resource expenditures related to solid waste disposal. A county may use the map to help identify areas that are suitable for disposal activities. Once these areas have been identified, a county can collect more site-specific information and combine this with other local factors to determine site suitability.

Pollution potential maps may be applied successfully where non-point source contamination is a concern. Non-point source contamination occurs where land use activities over large areas impact water quality. Maps providing information on relative vulnerability can be used to guide the selection and implementation of appropriate best management practices in different areas. Best management practices should be chosen based upon consideration of the chemical and physical processes that occur from the practice, and the effect these processes may have in areas of moderate to high vulnerability to contamination. For example, the use of agricultural best management practices that limit the infiltration of nitrates, or promote denitrification above the water table, would be beneficial to implement in areas of relatively high vulnerability to contamination.

A pollution potential map can assist in developing ground water protection strategies. By identifying areas more vulnerable to contamination, officials can direct resources to areas where special attention or protection efforts might be warranted. This information can be utilized effectively at the local level for integration into land use decisions and as an educational tool to promote public awareness of ground water resources. Pollution potential maps may be used to prioritize ground water monitoring and/or contamination clean-up efforts. Areas that are identified as being vulnerable to contamination may benefit from increased ground water monitoring for pollutants or from additional efforts to clean up an aquifer.

Other beneficial uses of the pollution potential maps will be recognized by individuals in the county who are familiar with specific land use and management problems. Planning commissions and zoning boards can use these maps to help make informed decisions about the development of areas within their jurisdiction. Developers proposing projects within ground water sensitive areas may be required to show how ground water will be protected.

Regardless of the application, emphasis must be placed on the fact that the system is not designed to replace a site-specific investigation. The strength of the system lies in its ability to make a "first-cut approximation" by identifying areas that are vulnerable to contamination. Any potential applications of the system should also recognize the assumptions inherent in the system.

SUMMARY OF THE DRASTIC MAPPING PROCESS

The system chosen for implementation of a ground water pollution potential mapping program in Ohio, DRASTIC, was developed by the National Water Well Association for the United States Environmental Protection Agency. A detailed discussion of this system can be found in Aller et al. (1987).

The DRASTIC mapping system allows the pollution potential of any area to be evaluated systematically using existing information. Vulnerability to contamination is a combination of hydrogeologic factors, anthropogenic influences, and sources of contamination in any given area. The DRASTIC system focuses only on those hydrogeologic factors which influence ground water pollution potential. The system consists of two major elements: the designation of mappable units, termed hydrogeologic settings, and the superposition of a relative rating system to determine pollution potential.

The application of DRASTIC to an area requires the recognition of a set of assumptions made in the development of the system. DRASTIC evaluates the pollution potential of an area under the assumption that a contaminant with the mobility of water is introduced at the surface and flushed into the ground water by precipitation. Most important, DRASTIC cannot be applied to areas smaller than 100 acres in size and is not intended or designed to replace site-specific investigations.

Hydrogeologic Settings and Factors

To facilitate the designation of mappable units, the DRASTIC system used the framework of an existing classification system developed by Heath (1984), which divides the United States into 15 ground water regions based on the factors in a ground water system that affect occurrence and availability.

Within each major hydrogeologic region, smaller units representing specific hydrogeologic settings are identified. Hydrogeologic settings form the basis of the system and represent a composite description of the major geologic and hydrogeologic factors that control ground water movement into, through, and out of an area. A hydrogeologic setting represents a mappable unit with common hydrogeologic characteristics and, as a consequence, common vulnerability to contamination (Aller et al., 1987).

Figure 1 illustrates the format and description of a typical hydrogeologic setting found within Fairfield County. Inherent within each hydrogeologic setting are the physical characteristics which affect the ground water pollution potential. These characteristics or factors identified during the development of the DRASTIC system include:

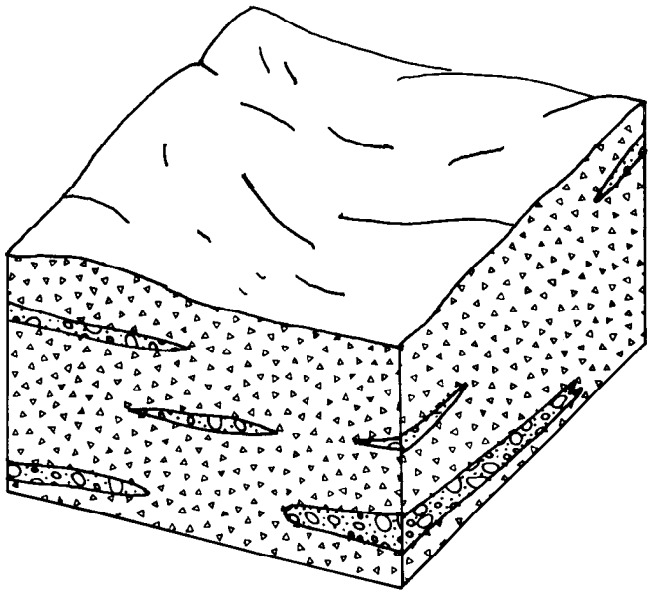
D – Depth to Water
R – Net Recharge
A – Aquifer Media
S – Soil Media
T – Topography
I – Impact of the Vadose Zone Media
C – Conductivity (Hydraulic) of the Aquifer

These factors incorporate concepts and mechanisms such as attenuation, retardation, and time or distance of travel of a contaminant with respect to the physical characteristics of the hydrogeologic setting. Broad consideration of these factors and mechanisms coupled with existing conditions in a setting provide a basis for determination of the area's relative vulnerability to contamination.

Depth to water is considered to be the depth from the ground surface to the water table in unconfined aquifer conditions or the depth to the top of the aquifer under confined aquifer conditions. The depth to water determines the distance a contaminant would have to travel before reaching the aquifer. The greater the distance the contaminant has to travel, the greater the opportunity for attenuation to occur or restriction of movement by relatively impermeable layers.

Net recharge is the total amount of water reaching the land surface that infiltrates the aquifer measured in inches per year. Recharge water is available to transport a contaminant from the surface into the aquifer and affects the quantity of water available for dilution and dispersion of a contaminant. Factors to be included in the determination of net recharge include contributions due to infiltration of precipitation, in addition to infiltration from rivers, streams and lakes, irrigation, and artificial recharge.

Aquifer media represents consolidated or unconsolidated rock material capable of yielding sufficient quantities of water for use. Aquifer media accounts for the various physical characteristics of the rock that provide mechanisms of attenuation, retardation, and flow pathways that affect a contaminant reaching and moving through an aquifer.



7Af Sand and Gravel Interbedded in Glacial Till

This hydrogeologic setting was used for limited areas adjacent to major buried valleys. The total thickness of drift in these areas is less than that found within the buried valleys, but is greater than where till overlies the bedrock-controlled uplands. The setting is characterized by relatively flat to gently rolling topography and relief is low. The aquifer is comprised of thin, discontinuous sand and gravel lenses interbedded within the glacial till. The till averages roughly 50 to 60 feet in thickness and the lenses of sand and gravel seldom exceed 10 feet in thickness. Till comprises the vadose zone material. Soils are typically clay loams derived from the weathered till. Depth to water is moderate and varies with the depth of the sand and gravel lenses being utilized as aquifers. Yields commonly average about 10-15 gpm. Recharge is relatively moderate due to the moderate depth to water, the low slope, and the clay loam soils and till.

Figure 1. Format and description of the hydrogeologic setting - 7Af Sand and Gravel Interbedded in Glacial Till

Soil media refers to the upper six feet of the unsaturated zone that is characterized by significant biological activity. The type of soil media influences the amount of recharge that can move through the soil column due to variations in soil permeability. Various soil types also have the ability to attenuate or retard a contaminant as it moves throughout the soil profile. Soil media is based on textural classifications of soils and considers relative thicknesses and attenuation characteristics of each profile within the soil.

Topography refers to the slope of the land expressed as percent slope. The slope of an area affects the likelihood that a contaminant will run off or be ponded and ultimately infiltrate into the subsurface. Topography also affects soil development and often can be used to help determine the direction and gradient of ground water flow under water table conditions.

The impact of the vadose zone media refers to the attenuation and retardation processes that can occur as a contaminant moves through the unsaturated zone above the aquifer. The vadose zone represents that area below the soil horizon and above the aquifer that is unsaturated or discontinuously saturated. Various attenuation, travel time, and distance mechanisms related to the types of geologic materials present can affect the movement of contaminants in the vadose zone. Where an aquifer is unconfined, the vadose zone media represents the materials below the soil horizon and above the water table. Under confined aquifer conditions, the vadose zone is simply referred to as a confining layer. The presence of the confining layer in the unsaturated zone has a significant impact on the pollution potential of the ground water in an area.

Hydraulic conductivity of an aquifer is a measure of the ability of the aquifer to transmit water, and is also related to ground water velocity and gradient. Hydraulic conductivity is dependent upon the amount and interconnectivity of void spaces and fractures within a consolidated or unconsolidated rock unit. Higher hydraulic conductivity typically corresponds to higher vulnerability to contamination. Hydraulic conductivity considers the capability for a contaminant that reaches an aquifer to be transported throughout that aquifer over time.

Weighting and Rating System

DRASTIC uses a numerical weighting and rating system that is combined with the DRASTIC factors to calculate a ground water pollution potential index or relative measure of vulnerability to contamination. The DRASTIC factors are weighted from 1 to 5 according to their relative importance to each other with regard to contamination potential (Table 1). Each factor is then divided into ranges or media types and assigned a rating from 1 to 10 based on their significance to pollution potential (Tables 2-8). The rating for each factor is selected based on available information and professional judgement. The selected rating for each factor is multiplied by the assigned weight for each factor. These numbers are summed to calculate the DRASTIC or pollution potential index.

Once a DRASTIC index has been calculated, it is possible to identify areas that are more likely to be susceptible to ground water contamination relative to other areas. The higher the DRASTIC index, the greater the vulnerability to contamination. The index generated provides only a relative evaluation tool and is not designed to produce absolute answers or to represent units of vulnerability. Pollution potential indexes of various settings should be compared to each other only with consideration of the factors that were evaluated in determining the vulnerability of the area.

Pesticide DRASTIC

A special version of DRASTIC was developed to be used where the application of pesticides is a concern. The weights assigned to the DRASTIC factors were changed to reflect the processes that affect pesticide movement into the subsurface with particular emphasis on soils. Where other agricultural practices, such as the application of fertilizers, are a concern, general DRASTIC should be used to evaluate relative vulnerability to contamination. The process for calculating the Pesticide DRASTIC index is identical to the process used for calculating the general DRASTIC index. However, general DRASTIC and Pesticide DRASTIC numbers should not be compared because the conceptual basis in factor weighting and evaluation differs significantly. Table 1 lists the weights used for general and pesticide DRASTIC.

TABLE 1. ASSIGNED WEIGHTS FOR DRASTIC FEATURES

Feature	General DRASTIC Weight	Pesticide DRASTIC Weight
Depth to Water	5	5
Net Recharge	4	4
Aquifer Media	3	3
Soil Media	2	5
Topography	1	3
Impact of the Vadose Zone Media	5	4
Hydraulic Conductivity of the Aquifer	3	2

TABLE 2. RANGES AND RATINGS FOR DEPTH TO WATER

DEPTH TO WATER (FEET)	
Range	Rating
0-5	10
5-15	9
15-30	7
30-50	5
50-75	3
75-100	2
100+	1
Weight: 5	Pesticide Weight: 5

TABLE 3. RANGES AND RATINGS FOR NET RECHARGE

NET RECHARGE (INCHES)	
Range	Rating
0-2	1
2-4	3
4-7	6
7-10	8
10+	9
Weight: 4	Pesticide Weight: 4

TABLE 4. RANGES AND RATINGS FOR AQUIFER MEDIA

AQUIFER MEDIA		
Range	Rating	Typical Rating
Massive Shale	1-3	2
Metamorphic / Igneous	2-5	3
Weathered Metamorphic / Igneous	3-5	4
Glacial Till	4-6	5
Bedded Sandstone, Limestone and Shale Sequences	5-9	6
Massive Sandstone	4-9	6
Massive Limestone	4-9	6
Sand and Gravel	4-9	8
Basalt	2-10	9
Karst Limestone	9-10	10
Weight: 3	Pesticide Weight: 3	

TABLE 5. RANGES AND RATINGS FOR SOIL MEDIA

SOIL MEDIA	
Range	Rating
Thin or Absent	10
Gravel	10
Sand	9
Peat	8
Shrinking and / or Aggregated Clay	7
Sandy Loam	6
Loam	5
Silty Loam	4
Clay Loam	3
Muck	2
Nonshrinking and Nonaggregated Clay	1
Weight: 2	Pesticide Weight: 5

TABLE 6. RANGES AND RATINGS FOR TOPOGRAPHY

TOPOGRAPHY (PERCENT SLOPE)	
Range	Rating
0-2	10
2-6	9
6-12	5
12-18	3
18+	1
Weight: 1	Pesticide Weight: 3

TABLE 7. RANGES AND RATINGS FOR IMPACT OF THE VADOSE ZONE MEDIA

IMPACT OF THE VADOSE ZONE MEDIA		
Range	Rating	Typical Rating
Confining Layer	1	1
Silt/Clay	2-6	3
Shale	2-5	3
LImestone	2-7	6
Sandstone	4-8	6
Bedded Limestone, Sandstone, Shale	4-8	6
Sand and Gravel with significant Silt and Clay	4-8	6
Metamorphic/Igneous	2-8	4
Sand and Gravel	6-9	8
Basalt	2-10	9
Karst Limestone	8-10	10
Weight: 5	Pesticide Weight: 4	

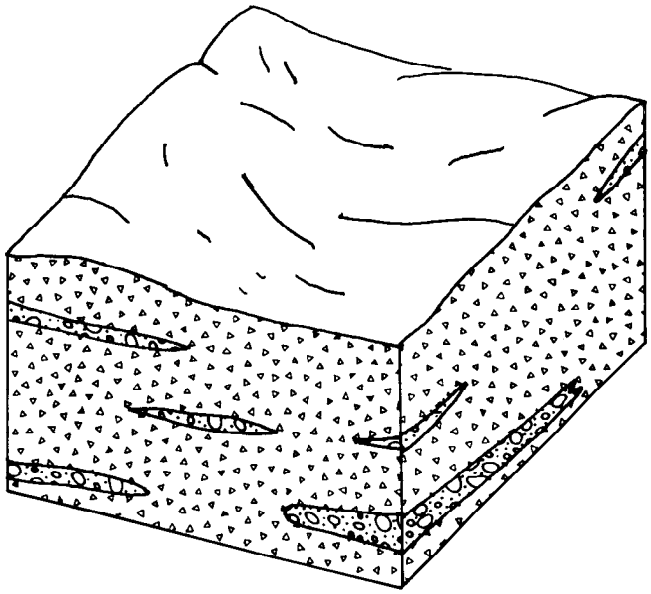
TABLE 8. RANGES AND RATINGS FOR HYDRAULIC CONDUCTIVITY

HYDRAULIC CONDUCTIVITY (GPD/FT^2)	
Range	Rating
1-100	1
100-300	2
300-700	4
700-1000	6
1000-2000	8
2000+	10
Weight: 3	Pesticide Weight: 2

Integration of Hydrogeologic Settings and DRASTIC Factors

Figure 2 illustrates the hydrogeologic setting 7Af 1, Sand and Gravel Interbedded in Glacial Till, identified in mapping Fairfield County, and the pollution potential index calculated for the setting. Based on selected ratings for this setting, the pollution potential index is calculated to be 124. This numerical value has no intrinsic meaning, but can be readily compared to a value obtained for other settings in the county. DRASTIC indexes for typical hydrogeologic settings and values across the United States range from 45 to 223. The diversity of hydrogeologic conditions in Fairfield County produces settings with a wide range of vulnerability to ground water contamination. Calculated pollution potential indexes for the nine settings identified in the county range from 47 to 182.

Hydrogeologic settings identified in an area are combined with the pollution potential indexes to create units that can be graphically displayed on maps. Pollution potential analysis in Fairfield County resulted in a map with symbols and colors that illustrate areas of ground water vulnerability. The map describing the ground water pollution potential of Fairfield County is included with this report.



SETTING 7Af1		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	NUMBER
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand & Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		DRASTIC	INDEX	124

Figure 2. Description of the hydrogeologic setting - 7Af1 Sand and Gravel Interbedded in Glacial Till

INTERPRETATION AND USE OF A GROUND WATER POLLUTION POTENTIAL MAP

The application of the DRASTIC system to evaluate an area's vulnerability to contamination produces hydrogeologic settings with corresponding pollution potential indexes. The higher the pollution potential index, the greater the susceptibility to contamination. This numeric value determined for one area can be compared to the pollution potential index calculated for another area.

The map accompanying this report displays both the hydrogeologic settings identified in the county and the associated pollution potential indexes calculated in those hydrogeologic settings. The symbols on the map represent the following information:

7Ac1 - defines the hydrogeologic region and setting
140 - defines the relative pollution potential

Here the first number (7) refers to the major hydrogeologic region and the upper and lower case letters (**Ac**) refer to a specific hydrogeologic setting. The following number (**1**) references a certain set of DRASTIC parameters that are unique to this setting and are described in the corresponding setting chart. The second number (**140**) is the calculated pollution potential index for this unique setting. The charts for each setting provide a reference to show how the pollution potential index was derived.

The maps are color-coded using ranges depicted on the map legend. The color codes used are part of a national color-coding scheme developed to assist the user in gaining a general insight into the vulnerability of the ground water in the area. The color codes were chosen to represent the colors of the spectrum, with warm colors (red, orange, and yellow) representing areas of higher vulnerability (higher pollution potential indexes), and cool colors (greens, blues, and violet) representing areas of lower vulnerability to contamination.

The map includes information on the locations of selected observation wells. Available information on these observation wells is referenced in Appendix A, Description of the Logic in Factor Selection. Large man-made features such as landfills, quarries, or strip mines have also been marked on the map for reference.

GENERAL INFORMATION ABOUT FAIRFIELD COUNTY

Physiography

Fairfield County occupies approximately 505 square miles in central Ohio (Figure 3). The county is bounded to the north by Licking County, to the east by Perry County, to the south by Hocking County, to the southwest by Pickaway County, and to the northwest by Franklin County. Buckeye Lake is located where the boundaries of Perry County, Licking County, and Fairfield County meet. Elevations range from a high of approximately 1250 feet in central Hocking Township near Delmount, to a low of approximately 750 feet where Walnut Creek leaves Violet Township. Total relief is therefore about 500 feet. The greatest local relief is almost 400 feet at the sandstone bluffs along Clear Creek in Madison Township.

Fairfield County is divided between the Till Plains section of the Central Lowlands Province and the Unglaciated Allegheny Plateau section of the Appalachian Plateau Province (Frost, 1931 and Fenneman, 1938). Wolfe et al. (1962) felt that there was a large transitional zone present between these two Provinces within Fairfield County. Wolfe et al. (1962) extended the term Glaciated Allegheny Plateau into this area from farther north in Ohio.

Northern and far western Fairfield County are characterized by the relatively level to rolling topography of the Till Plains section. Stream dissection and relief are moderate. End moraines (hummocky, low-lying ridges) flat-lying ground moraine, and broad stream valleys characterize this area. In the transitional area, the relief increases and ridges become steeper and are typically bedrock-controlled. Topography in the unglaciated portions of the county is markedly different. Here, the topography is characterized by narrow, very steep ridges and narrow, highly-dissected streams. In these areas, the resistant Black Hand Sandstone and the Pottsville sandstones create many cliffs, ledges, and gorges. Wolfe et al (1962) attributed the accordant (similar) elevations of many of these bedrock ridges to their similar lithologies.

Demographics

The approximate population of Fairfield County, according to 1994 estimates, is 114,741 (Ohio Department of Development, personal communication). Lancaster, the largest city and the county seat, has a population of about 35,808. The northwestern portion of the county, especially in the vicinity of Pickerington and Lithopolis, is experiencing the most rapid growth in population. Roughly 68 % of Fairfield County is used for agriculture, primarily row crops with some pasturelands. Approximately 14% of the county remains as woodlands, particularly in the southeast. The remaining 18 % of the county land use is urban, residential, manufacturing , and sand and gravel pits.

Figure 3. Location of Fairfield County

population. Roughly 68 % of Fairfield County is used for agriculture, primarily row crops with some pasturelands. Approximately 14% of the county remains as woodlands, particularly in the southeast. The remaining 18 % of the county land use is urban, residential, manufacturing , and sand and gravel pits.

Climate

The weather station just northwest of Lancaster reports a thirty-year (1961-1990) average mean annual temperature of 50.5° Fahrenheit (Owenby and Ezell, 1992). According to Harstine (1991), the average temperature is relatively constant across the county. The mean annual precipitation recorded at the weather station is 36.3 inches for the same thirty-year (1961-1990) period (Owenby and Ezell, 1992). Harstine (1991) shows precipitation levels as being relatively constant across the county with perhaps a slight increase towards the southeast.

Modern Drainage

Modern drainage in Fairfield County is complex and largely reflects the influence of glaciation. Figure 4 depicts the modern drainage of Fairfield County. Blacklick Creek drains the area just west of Pickerington in the northwestern corner of Violet Township. Blacklick Creek joins Big Walnut Creek in Franklin County. Big Walnut Creek, in turn, empties into the Scioto River in northern Pickaway County. Little Walnut Creek drains the majority of the northern third of Fairfield County. Little Walnut Creek flows westward and empties into the Scioto River north of Circleville in Pickaway County. Scippo Creek and Salt Creek drain much of Clear Creek Township and southwestern Madison Township and represent the remaining portions of Fairfield County that are part of the Scioto River Watershed. Scippo Creek empties into the Scioto River in southern Pickaway County and Salt Creek joins the Scioto River in southern Ross County.

Small portions of Liberty Township and Walnut Township drain into Buckeye Lake. Buckeye Lake empties into the South Fork Licking River which merges with the Licking River in Newark. The Licking River is part of the Muskingum River Watershed and flows eastward, joining the Muskingum River in Zanesville.

The remainder of Fairfield County is part of the Hocking River Watershed. The Hocking River originates in Bloom Township and flows southeastward through Lancaster and Berne Township. Rush Creek flows southward through Richland Township and Rush Creek Township into Marion Township in Hocking County. From there, Rush Creek bends sharply to the west and flows into Berne Township where it empties into the Hocking River. Little Rush Creek, a major tributary, empties into Rush Creek in Rush Creek Township. Clear Creek originates in northern Amanda Township and flows southeastward, joining the Hocking River in Hocking County.

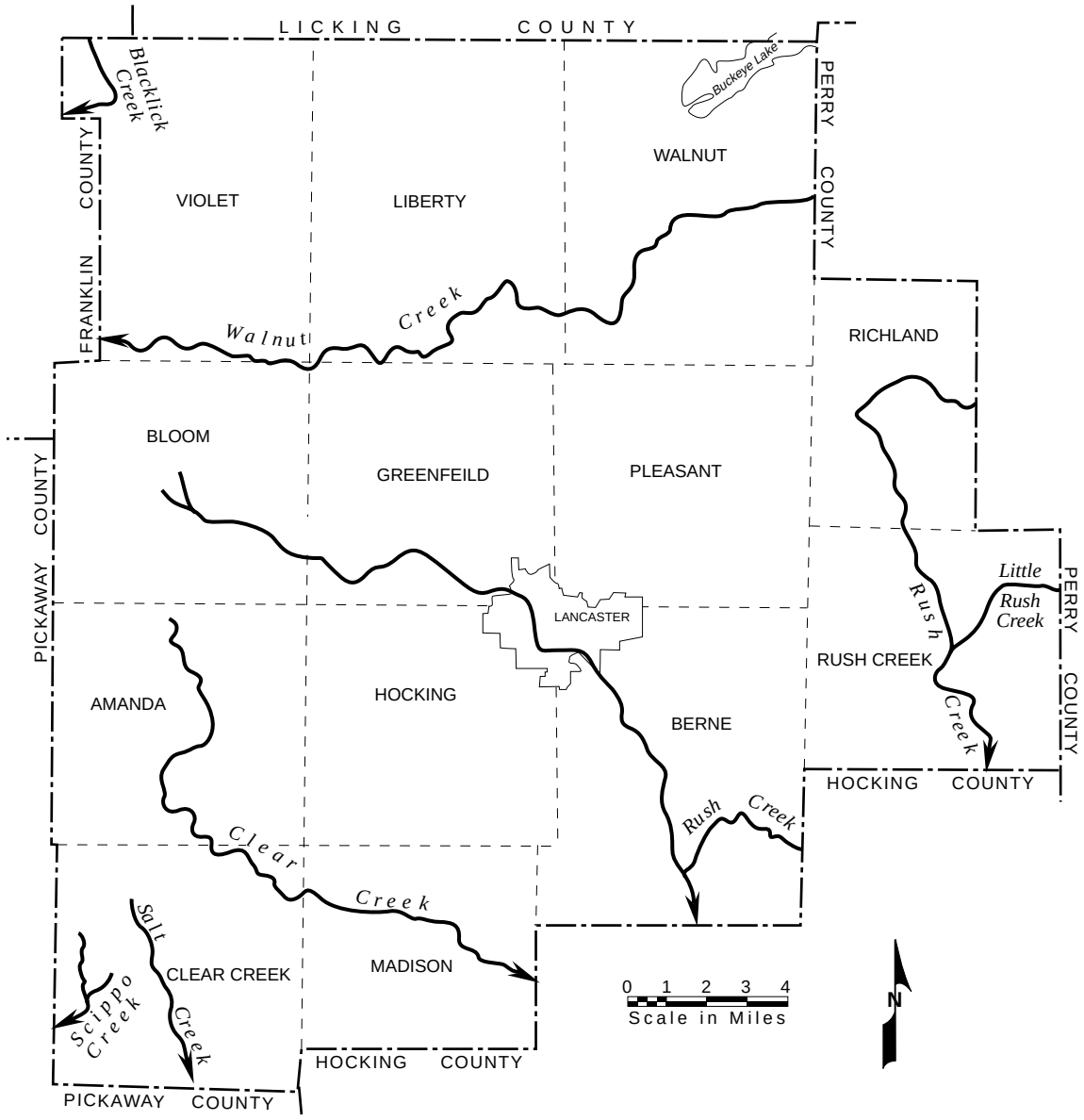


Figure 4. Modern Drainage of Fairfield County (From Wolfe et al., 1962)

Alluvium is associated with the floodplains of most major modern drainageways in Fairfield County (Steiger et al., in progress). Alluvium varies from a clayey-silt to a sandy-silt. Alluvium tends to coarsen within the actual channel areas of streams where finer sediments are washed away and the coarser "bed-load" sediments are re-worked. Finer silts and clays are associated with overbank deposits which occur during flood events.

Pre- and Inter-Glacial Drainage and Topography

The pre-glacial and inter-glacial drainage of Fairfield County is discussed in detail by Stout et al. (1943), Conley (1956), Kempton (1956) and Wolfe et al. (1962). The drainage changes occurring over time in Fairfield County are numerous, complex, and are still not totally understood. It is important to note that entire drainage systems, including tributaries, have changed and these various systems have been superimposed (overlapped) over time.

Prior to glaciation, the majority of Fairfield County was drained by tributaries of the Teays River System. The Teays River originated in the Appalachians and flowed northwest, entering Ohio near Portsmouth. Once in Ohio, the Teays flowed due north, roughly paralleling the present course of the Scioto River (Figure 5). In northern Pickaway County, the Teays turned to the northwest, flowing towards London and Urbana. The Teays then flowed due west, eventually entering Indiana near Celina in Mercer County.

Stout et al. (1943) suggested that the majority of Fairfield County was drained in pre-glacial time by the Groveport River, a major tributary of the Teays. The source of the Groveport River was in Wayne County. The Groveport River flowed south through Newark to the vicinity of Buckeye Lake. From Buckeye Lake the Groveport River flowed westward through northern Fairfield County into Franklin County near Canal Winchester. It then flowed through the southeastern corner of Franklin County and joined the Teays River in north central Pickaway County.

The northern portion of Violet Township was drained by the Mt. Vernon River (Stout et al., 1943 and Wolfe et al., 1962). This major tributary of the Groveport River flowed due south through western Knox County and Licking County before entering Fairfield County. The Mt. Vernon River flowed westward and joined with the Groveport River in southeastern Franklin County.

Stout et al. (1943) and Wolfe et al. (1962) determined that the Logan River, a major tributary of the Groveport River, drained central Fairfield County. Figure 6 depicts the ancestral drainage of Fairfield County. Bremen Creek was a westerly-flowing tributary of the Logan River which extended from Bremen to Lancaster. Smaller, unnamed tributaries, that eventually emptied into the Groveport River, drained the southwestern corner of Fairfield County.

As ice advanced through the pre-Illinoian (Kansan) glacial period, the Teays Drainage System was blocked. Flow backed up in the main trunk of the Teays Valley as well as in many of the tributaries, forming a large network of lakes. The impounded water eventually overflowed the valleys and cut new spillways and channels, allowing new drainage systems to gradually evolve (Stout et al., 1943, Schmidt and Goldthwait, 1958, Dove, 1960, and Wolfe et al., 1962). Downcutting by streams was believed to be relatively rapid, and in many places. The new channels were cut over 100 feet deeper than the previous Teays tributaries. This new drainage system is referred to as the Deep Stage due to the increased downcutting. In Fairfield County, many of the Deep Stage channels closely followed the course of the previous Groveport River and its tributaries (Figure 6). The Deep Stage river which followed the course of the Groveport River was referred to as the Newark River by Stout et al. (1943). The Deep Stage equivalent of the Logan River was referred to as the Lancaster River by Stout et al. (1943).

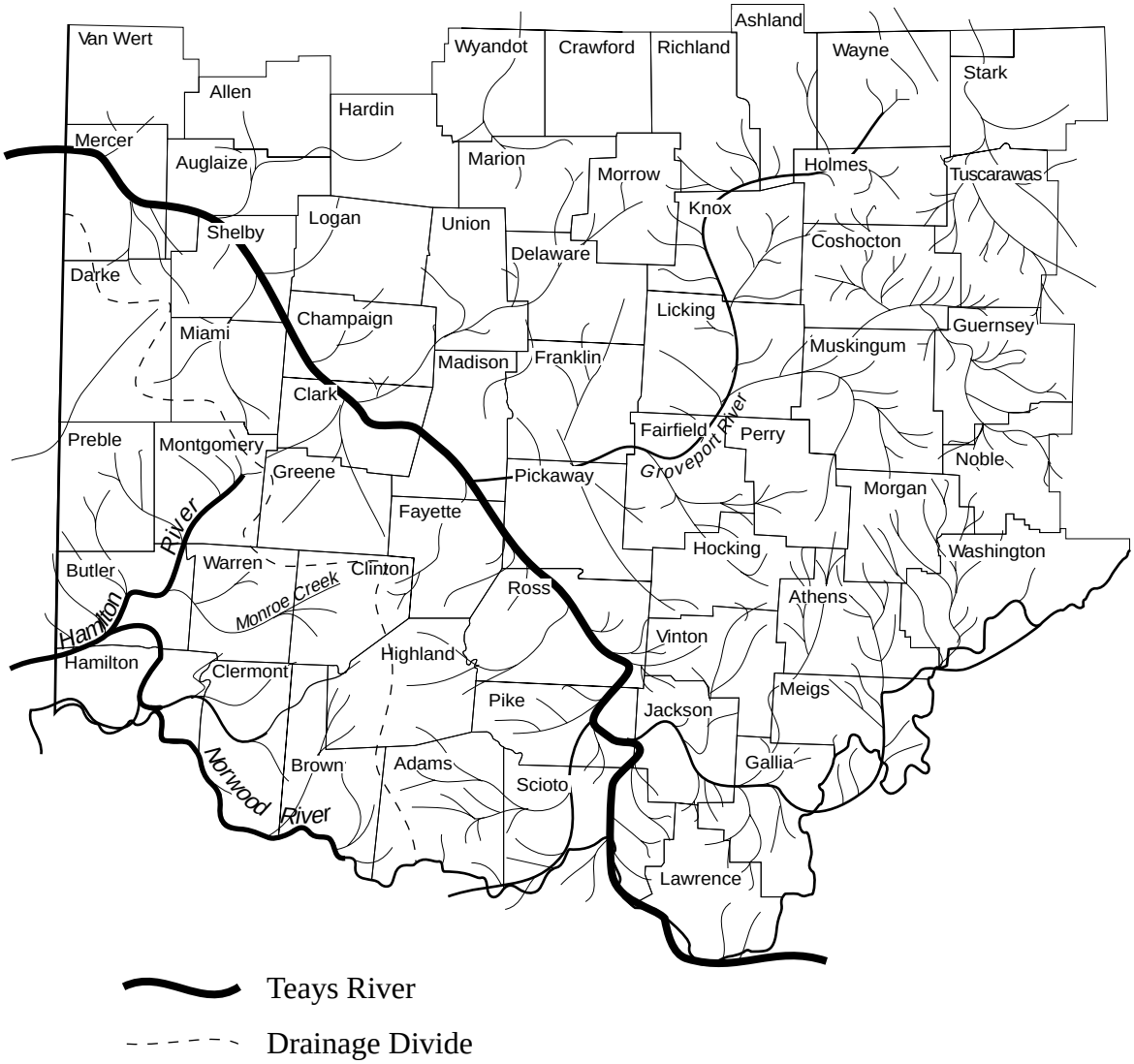


Figure 5. Teays Stage Drainage in Ohio (modified from Stout et al., 1943).

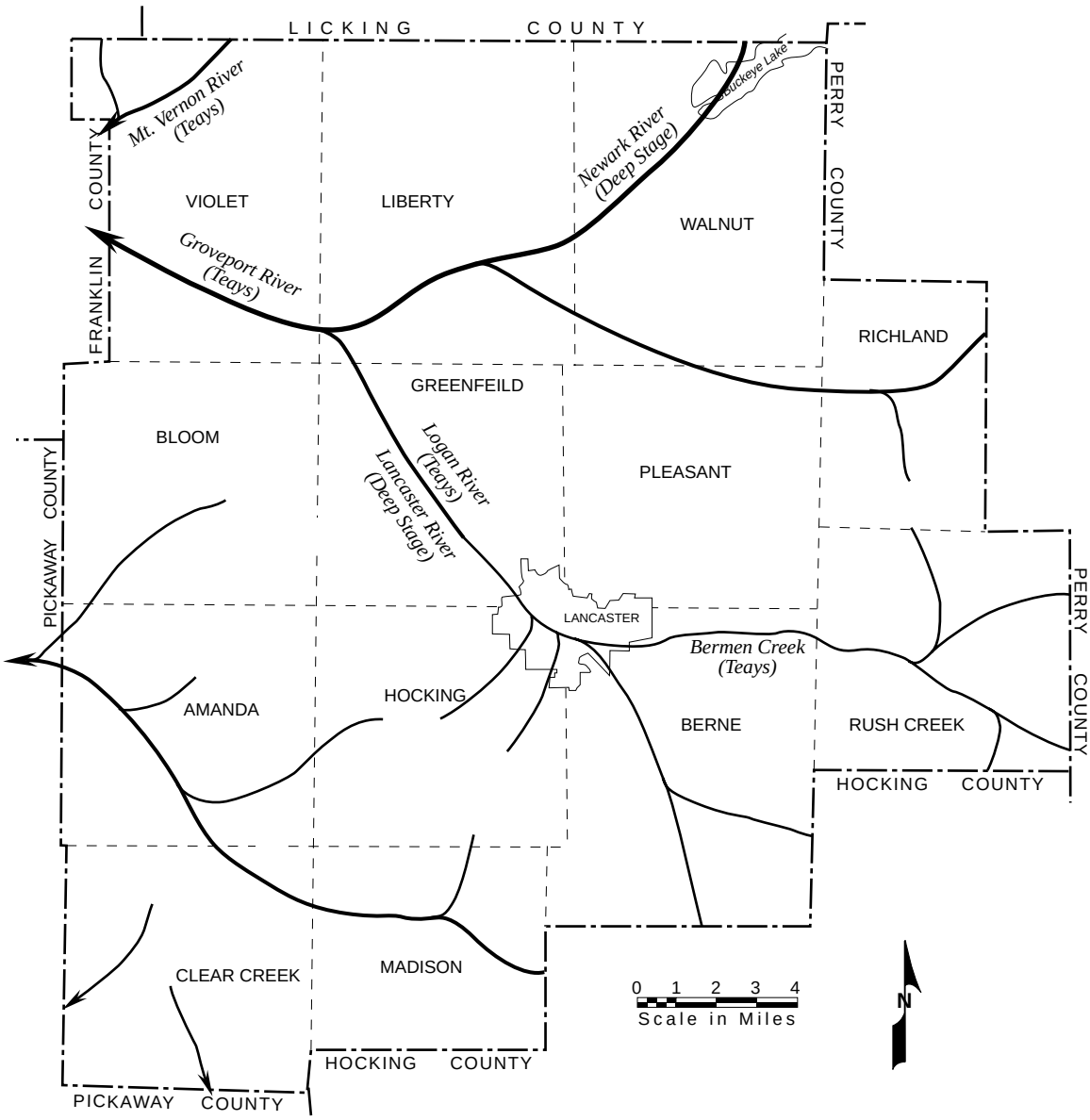


Figure 6. Preglacial Drainage in Fairfield County (modified from Stout, et al., and Wolfe et al., 1962)

The Illinoain glaciations further modified drainage systems in Fairfield County. Illinoian ice is believed to have blocked the northwesterly-flowing Lancaster River, creating a large series of lakes. Eventually these lakes breached the divide near the Hocking County-Athens County boundary (Conley, 1956, Kempton, 1956 and Wolfe et al., 1962). Illinoian ice also blocked the pre-glacial stream flowing northwestward through Amanda Township (Figure 6). The series of lakes caused by this ponding breached the old divide, located at the boundary of Madison Township and Hocking County. The reversal of this stream created a steep gorge and Clear Creek merged with the now southwesterly-flowing ancestral Hocking River in Hocking County.

Minor drainage reversals have also been attributed to the latest or Wisconsinan ice advances. A westerly flowing tributary in Richland Township was blocked by advancing ice. The resultant lakes breached the previous divide, creating the steep gorge near Rushville and establishing the present course of Rush Creek from Oakthorpe in central Richland Township to Bremen (Conley, 1956 and Wolfe et al., 1962). An additional tributary flowed northward through Hocking Township toward the ancestral Hocking River. This stream was blocked by the advancing Wisconsinan ice. The lakes breached the former divide, creating the steep gorges along Arney Run at Christmas Rocks and Jacobs Ladder (Conley, 1956 and Wolfe et al., 1962). Arney Run now empties into Clear Creek in northern Madison Township.

Glacial Geology

During the Pleistocene Epoch (2 million to 10,000 years before present (Y.B.P.)), several episodes of ice advance occurred in central Ohio. Table 9 summarizes the Pleistocene deposits encountered in Fairfield County. Specific names for till units have not been adopted in Fairfield County (Wolfe et al., 1962), therefore, the generalized glacial stratigraphy utilized in Licking County (Forsyth, 1966, Szabo et al., 1993, and Angle, 1995a) was used for this study. The oldest ice advances are conventionally referred to as pre-Illinoian (Kansan) in age. Deposits are determined to be pre-Illinoian if they predate the most recent (Brunhes) magnetic reversal (about 730,000 Y.B.P.). Evidence for these deposits has not been positively identified at the surface or in sub-surface cores in Fairfield County. Further research is needed to determine the age of the oldest deposits in the bottoms of the deeper buried valleys. This discussion will focus on glacial deposits, processes, and landforms.

Table 9. Generalized Glacial Stratigraphy of Fairfield County, Ohio. (After Forsyth, 1966, Szabo et al., 1993, Angle, 1995a)

AGE (years ago)	EPOCH	STAGE		SUBSTAGE	UNIT OR INTERVAL
25, 000	PLEISTOCENE	WISCONSINAN	LATE	Wood-fordian	Centerberg Till (2) Mt. Liberty Till (2) Navarre Till (3)
40,000			MIDDLE	Farmdalian (1)	Paleosol, Loess ?
70,000			EARLY	Altonian (1)	Knox Lake Till (2) Millbrook Till (3,4)
120,000		SANGAMONIAN			Paleosol, Loess ?, Unknown
730,000		ILLINOIAN			Millbrook Till (3,4) Gahanna Till (3)
2,000,000		PRE-ILLINOIAN			

(1) Usage of these terms is being reveiwed.
(2) After Forsyth, 1966.
(3) After Szabo et. al., 1993.
(4) Age duration of the Millbrook Till is currently unknown.

Illinoian deposits have been identified at the base of some of the larger stream exposures as well as within some of the deeper sand and gravel pits and other deep excavations. The margin of Illinoian glaciation extends at least two to three miles beyond the maximum extent of the Wisconsinan glaciation in southern and southeastern Fairfield County. The area of Illinoian drift is typically thin, highly weathered, and is lacking distinctive landforms such as moraines (Wolfe et al., 1962). Steiger (1995) has been reinvestigating the deposits and landforms of both the Illinoian and Wisconsinan glacial boundaries. These deposits include limited exposures of glacial till (Conley, 1956 and Wolfe et al., 1962). Szabo et al. (1993), Hite (1995) and Hite and Szabo (1995) have made some tentative correlations between the Illinoian tills in Licking County and in Fairfield County. Kempton (1956) and Wolfe et al., (1962) discuss two main levels or common elevations of Illinoian outwash terraces found along the Hocking River Valley, the valley between Lancaster and Bremen, and Clear Creek. The two levels of terraces indicate two major melting or deglaciation events during the Illinoian.

The majority of the glacial deposits fall into four main types: (glacial) till, lacustrine (lake), outwash, and ice-contact sand and gravel (kames and eskers). Buried valleys may feature sequences containing all of these types of deposits. Drift is an older term that collectively refers to the entire sequence of glacial deposits. Modern stream valleys contain alluvium or floodplain deposits which also contribute to the valley fill.

Till is an unsorted, non-stratified (non-bedded) mixture of sand, silt, clay, and gravel deposited directly by the ice sheet. There are two main types or facies of till. Lodgement till is "plastered-down" or "bulldozed" at the base of an actively moving ice sheet. Lodgement till tends to be relatively dense and compacted, and pebbles tend to be angular, broken, and have a preferred direction or orientation. Ablation or "melt-out" till occurs as the ice sheet melts or stagnates away. Debris bands are laid down or stacked as the ice between bands of sediment melts and the meltwater carries away some of the fines (clay and silt (mud) sized particles). Ablation till tends to be less dense, less compacted, slightly coarser in texture than lodgement till, and lacks preferred pebble orientation.

At the land surface, till accounts for two primary landforms: ground moraine and end moraine. Ground moraine is typically flat to gently rolling and is also referred to as till plains. End moraines are more ridge-like, having steeper topography and tending to be more rolling or hummocky. The relief of the end moraines is usually enhanced by streams downcutting along their margins. End moraines ideally represent a thickening of till and function as local drainage divides. End moraines classically were believed to have formed along the edge of an ice sheet as the ice sheet began to melt or recede. Many of the moraines in central Ohio appear to have been overridden by numerous advancing ice sheets. Therefore, the core or interior of the moraine may be older than the surficial till.

Numerous end moraines were deposited by the Wisconsinan ice advances (Conley, 1956 and Wolfe et al., 1962). Wisconsinan ice advances in Fairfield County are believed to have occurred during the late Wisconsinan or Woodfordian Substage (approximately 25,000 to 15,000 Y.B.P.). Hite (1995) suggested that at least two Wisconsinan ice sheets covered southeastern Fairfield County. Recent radiocarbon dates of approximately 26,000 Y.B.P. have confirmed that these units are Late Wisconsinan in age (Szabo, 1995,

Univ. of Akron, personal communication). In areas where the end moraines overlie buried valleys and in areas of low relief such as north-central Fairfield County, end moraines tend to be well-formed and are easily recognized. In many parts of western, south-central, and eastern Fairfield County, end moraines are partially obscured due to the largely bedrock-controlled topography.

The Rushville Moraine is the terminal Wisconsinan moraine and is primarily found in Pleasant Township and Richland Township. Inward from the Rushville Moraine is the New Salem Moraine and the Lithopolis Moraine (Conley, 1956 and Wolfe et al., 1962). These two moraines are non-extensive and may be difficult to discern from the surrounding bedrock-controlled topography (Conley, 1956 and Wolfe et al., 1962). The Johnstown Moraine is the most widespread moraine and is prominent in the central portion of the county. The Carroll Kame Complex is associated with this moraine belt (Wolfe et al., 1962). The Cedar Hill Moraine is limited to western Fairfield County, essentially Bloom Township and Amanda Township. This moraine has also been referred to as the Marcy Moraine by Goldthwait et al. (1961). The Walnut kames have been associated with this moraine. The Canal Winchester Moraine is believed to be the youngest moraine and is limited to Violet Township. The Pickerington Esker has been associated with this end moraine (Conley, 1956 and Wolfe et al., 1962). Conley (1956) believed that there was a major difference in soil development between the Rushville Moraine and the younger Wisconsinan moraines. Wolfe et al. (1962) were not convinced of this difference in soils and believed that the Wisconsinan moraines were relatively close in age.

Lacustrine deposits were created during the Illinoian Stage primarily as a result of lakes formed by damming of streams by ice sheets. Buried valleys may contain appreciable thicknesses of lacustrine deposits at depth. Lacustrine deposits tend to be composed of fairly uniform, dense silt and clay with minor fine sand. These deposits may display very thin bedding referred to as laminations. These sediments infer deposition in quiet, low-energy environments with little or no currents or flow.

During the Wisconsinan Stage, the majority of the lacustrine deposits were formed between moraines. All of the major surficial lacustrine deposits in Fairfield County are believed to be Wisconsinan in age (Conley, 1956 and Wolfe et al., 1962). In some instances, the lakes were formed by meltwater filling the area between an end moraine and the receding (retreating) ice sheet. Alternatively, meltwater may have filled the low areas between moraine ridges as stream drainage was trying to re-establish itself in localized areas.

Ponds or lakes that were relatively shallow, yet widespread, are referred to as slackwater deposits. Such deposits may wrap around the base of moraines and may follow small tributaries upward into steeper areas. Areas that contained fairly extensive lakes include the Buckeye Lake Region. Previous lakes in this area may have been drained by Jonathon Creek in Perry County. Other important lacustrine deposits include the area northwest of Baltimore, low-lying areas south of Pleasantville, and flat-lying areas to the northwest and south of Amanda (Wolfe et al., 1962).

Outwash deposits are created by active deposition of sediments by meltwater streams. These deposits are generally bedded (stratified) and sorted. Outwash deposits

in Fairfield County are predominantly limited to stream valleys associated with meltwater from the melting ice sheets. Outwash deposits limited to stream valleys were referred to in earlier literature as valley trains. The majority of these valleys are now occupied by modern streams. Sorting (size distribution) and coarseness of the deposits depended upon the nature and proximity of the melting ice sheet. Outwash is typically deposited by braided streams. Such streams have multiple channels which migrate across the width of the valley floor, leaving behind a complex record of erosion and deposition.

As modern streams evolve and downcut, the older and now higher elevation remnants of the ancestral valley floors are left behind. These remnants are referred to as terraces. Terraces of different ages typically occur at distinct levels or elevations. Terraces may also differ from each other by the nature of the deposits such as coarseness, sorting, and pebble lithologies. Older, Illinoian-age terraces tend to be significantly more weathered than Wisconsinan terraces (Conley, 1956, Kempton, 1956 and Wolfe et al., 1962). Illinoian outwash deposits also have a higher tendency to be cemented by calcite or iron which has seeped through the deposits over time and has precipitated from the ground water. Kempton (1956), Kempton and Goldthwait (1959), and Wolfe et al. (1962) have thorough discussions on terraces in Fairfield County. Two levels of Illinoian terraces are found in the Hocking River Valley (Kempton, 1956) and Illinoian outwash is also present in Clear Creek and in the valley between Lancaster and Bremen (Wolfe et al., 1962). Wolfe et al. (1962) also report two levels of Wisconsinan outwash terraces in the upper portion of the Hocking River Valley. The upper level or older terrace is referred to as the Lancaster Terrace and the younger, lower level terrace is referred to as the Carroll Terrace (Wolfe et al.1962). The Carroll Terrace is believed to be associated with the Johnstown Moraine and the Carroll Kame Complex.

Kames and eskers are ice contact features. They are composed of masses of poorly-sorted sand and gravel with minor till deposited in depressions, holes, crevasses, tunnels, or other cavities in the ice. As the surrounding ice melts, a mound of sediment remains behind. Typically, these deposits may collapse or flow, depending upon the moisture content as the surrounding ice melts. These deposits may display tilting, high-angle or distorted beds, faults, and folds. Kames and eskers may appear as isolated features in uplands or occur in groups along the margin valleys. Groups of kames coalescing along the margin of a valley are referred to as kame terraces. They tend to have roughly uniform elevations and may resemble outwash terraces. Kame terraces represent deposition of materials between the melting ice sheet in the center of the valley and the valley walls. The Carroll Kame Complex was determined to be a kame terrace by Wolfe et al. (1962). The Walnut Kames in Bloom Township were associated with the melting of the ice sheet associated with the Cedar Hill Moraine. The Pickerington Esker is an elongate feature stretching roughly from Pickerington to Baltimore. Eskers are deposited by meltwater flowing in tunnels beneath the ice sheet.

Peat and muck are organic-rich deposits associated with low-lying depressional areas, kettles, bogs, and swamps. Muck is a fine, dense silt with a high content of organics and a rich black color. Peat is typically brownish and contains pieces of decaying plant material. The two deposits commonly occur together. In Fairfield County these organic deposits are usually found along valley floors or overlying lacustrine deposits.

Loess is a deposit formed of wind-blown silt. These deposits are derived from the wind picking up fine silt-sized particles covering the floodplains of the wide outwash valley floors. Kames and the bedrock and till uplands to the east (downwind) of major river valleys are commonly capped by loess. Outwash terraces in southeastern Fairfield County typically have a loess cover. Illinoian deposits appear to be more commonly mantled by loess than Wisconsinan deposits. Loess weathers rapidly and is important in the development of soils in the uplands of southern and eastern Fairfield County. Thicknesses of loess rarely exceed five feet in most areas.

Bedrock Geology

Bedrock exposed at the surface and within the deep stream valleys of Fairfield County varies considerably and ranges from Devonian age in far the western portion of the county to the Pennsylvanian System in the eastern portion of the county. Table 10 summarizes the bedrock stratigraphy found in Fairfield County. Bedrock units as well as contacts between units display a north-south orientation or strike dipping approximately 25 to 30 feet per mile to the east.

Table 10. Generalized Bedrock Stratigraphy of Fairfield County, Ohio. (After Wolfe et al., 1962 and Angle, 1995a, 1995b)

AGE	SYSTEM	SIGNIFICANT FORMATIONS	SIGNIFICANT MEMBERS	DESCRIPTIONS
325 to 280 Million Years Ago	Pennsylvanian	Pottsville		Thin, interbedded dirty sandstones and shales. Poor aquifer.
355 to 325 Million Years Ago	Mississippian	Logan	Vinton	Thin interbedded fine sandstones, siltstone shale. Moderate aquifer.
			Allensville	Thin, interbedded siltstone, sandstone, and shale. Moderate aquifer.
			Byer	Thin, interbedded sandstone and siltstone, minor shale. Moderate aquifer.
			Berne	Thin, interbedded sandstone and conglomerate. Minor shale, siltstone. Moderate aquifer.
		Cuyahoga	Black Hand ("Toboso")	Massive coarse grained, sandstone, conglomerate, fines eastward. Moderate to good aquifer.
			Raccoon Shale ("Granville")	Interbedded siltstone, shale, fine sandstones. Moderate to poor aquifer.
		Sunbury Shale		Thin, fissile, black, organic-rich, pyritic shale. Poor aquifer
		Berea Sandstone		Thin to massive, fine-grained grayish sandstone. Basal portion more shaley, dirty. Moderate aquifer.
		Bedford Shale		Soft, uniform, fine-grained, grayish to redish-pink uniform shale. Very poor aquifer
405 to 355 Million Years Ago	Devonian	Ohio Shale		Thin, fissile, black, organic-rich, pyritic shale. Contains concretions. Poor aquifer

The Devonian age Ohio Shale is the oldest exposed rock formation found in Fairfield County (Stauffer et al., 1911 and Wolfe et al., 1962). The Ohio Shale is a thick sequence of dark black, highly fissile, dirty shale, containing abundant pyrite and excellent examples of round concretions. This formation has a very high organic content and may have both a petroleum and a sulfur odor. The Ohio Shale has only limited exposures in small ravines in Bloom Township. The depositional environment for the Ohio Shale is believed to be a marine basin surrounded by land. The land served as a barrier, prohibiting the circulation of fresh waters into the basin resulting in anoxic (oxygen-poor) conditions. Partially decomposed organic settled to the bottom of the basin where bacterial action resulted in a carbon- and sulfur- rich environment (Wolfe et al., 1962 and Krissek and Coats, 1995).

Overlying the Ohio Shale is the Bedford Shale, which traditionally has been considered to mark the base of the Mississippian System. The Bedford Shale is a soft, relatively uniform, fine-grained shale. It is probably more correctly referred to as a siltstone or a claystone as it lacks the fissility (platey nature) found in some shales. Its color varies from a light bluish-gray to a very distinctive reddish-brown. Exposures in Fairfield County are limited to the base of steep stream valleys south of Lithopolis (Stauffer et al., 1911 and Wolfe et al., 1962). The Bedford Shale marked the beginning of sedimentation in more oxygenated waters as compared to the depositional environment of the Ohio Shale. Circulation of marine waters appears to have improved (Wolfe et al., 192 and Krissek and Coats, 1995) and the sediments consist of fine-grained material deposited at the distal (far) margin of a deltaic system. These sediments were far-removed from the mouth of the streams and were probably carried into the deeper water environment by storm events or floods. The Bedford Shale, where more adequately exposed, includes structures such as ripple marks, laminations, and worm burrow tubes.

The Berea Sandstone overlies the Bedford Shale (Stauffer et al., 1911, Wolfe et al., 1962, Coats, 1988, and Krissek and Coats, 1995). In many parts of central Ohio, the contact between the Bedford Shale and the Berea Sandstone is somewhat transitional (Stauffer et al., 1911 and Krissek and Coats, 1995); however, the contact in Fairfield County is sharp and distinct (Wolfe et al., 1962). The Berea Sandstone is fairly resistant to erosion and tends to be a ledge-former as opposed to the softer, underlying Bedford Shale. Exposures of the Berea Sandstone are limited to deep ravines south of Lithopolis in western Bloom Township. This unit is believed to have been deposited along a major deltaic front. The coarser nature reflects sediments deposited within the stream channels or interdistributaries of a proximal (near) deltaic system. Storm and wave activity, as well as variations in the sediment or bedload carried by the river systems, were the major contributing factors accounting for the variability in the Berea Sandstone.

The contact between the Berea Sandstone and the overlying Sunbury Shale is very sharp and well-defined (Stauffer et al., 1911 and Wolfe et al., 1962). The Sunbury Shale is a black, fissile, organic-rich shale that closely resembles the Ohio Shale. Outcrops of the Sunbury Shale are limited to deep ravines in western Bloom Township south of Lithopolis (Wolfe et al., 1962). The depositional environment of the Sunbury Shale marks a rapid increase in the depth of water, a decline in deltaic sediments, and a return to anoxic conditions similar to the Ohio Shale (Krissek and Coats, 1995).

Various members of the Cuyahoga Formation comprise the bedrock in the majority of Fairfield County. Wolfe et al. (1962) provide an extensive discussion on the Cuyahoga Formation. Historically, the Cuyahoga Formation was divided into two main depositional facies which were referred to as tongues or provinces (Hyde, 1915 and Holden, 1942). The westernmost, or Granville Province, extends across much of western Fairfield and Licking Counties. These sediments (fine silts and muds, with thin bands of fine sand) were washed to the distal margin of a deltaic system by storm or flood events and deposited in the quiet waters there. The fine silts, muds and sand seams translate into the sandy shales, shales, siltstones, mudstones, and fine-grained sandstones presently observed. The Raccoon Shale Member of the Cuyahoga Formation identified in more recent reports (Dove, 1960 and Wolfe et al., 1962) roughly approximates the lithologies present in the Granville Province. This formation underlies the drift in much of western Fairfield County and is only exposed in the deep ravines in western Bloom Township near Lithopolis (Wolfe et al., 1962). Numerous other small exposures occur along Salt Creek and near Chestnut Ridge. The majority of the exposures are found in the Hocking River Valley where the Raccoon Shale underlies the more resistant Black Hand Member (Wolfe et al., 1962).

Older reports (Hyde, 1915 and Holden, 1942) describe the Toboso Tongue or Province as extending south and east of Newark and in central Fairfield County. Rocks of the Toboso Province are typically medium- to coarse-grained sandstones and conglomerates. These sediments were deposited in the interdistributary channels and bars in the proximal portion of a large deltaic system (Wolfe et al., 1962). Lithologically, rocks of the Toboso Province roughly approximate the Black Hand Member of the Cuyahoga Formation identified in more recent reports (Dove, 1960 and Wolfe et al., 1962). The Black Hand Sandstone is a very resistant unit and is responsible for many of the steep ridges and ledges in Fairfield County. It is noted for its thick, massive beds which contain numerous cross-beds and the presence of conglomeratic zones, especially in the upper portions of the section. The Black Hand also has a very distinctive "honeycomb" weathering pattern (Wolfe et al., 1962). Excellent exposures can be found along the Hocking River Valley, along Clear Creek, and at Jacob's Ladder and Christmas Rocks along Arney Run. The westernmost exposure is Chestnut Ridge where the Black Hand Member caps the sequence (Stauffer et al., 1911 and Wolfe et al., 1962). The easternmost exposure is found along the base of stream exposures in eastern Berne Township (Wolfe et al., 1962).

Overlying the Cuyahoga Formation is the Logan Formation which occupies ridgetops in much of eastern Fairfield County. The Logan Formation is composed of four members (Table 10): the Berne, Byer, Allensville, and Vinton. The Berne Member is a thin unit which varies from a coarse sandstone to a conglomerate (Wolfe et al., 1962). The Berne Member was named for exposures in Berne Township. The depositional history of this formation has been interpreted as a near-shore or deltaic deposit that was reworked and incorporated the coarser, conglomeratic pebbles from the underlying Black Hand (Swick, 1956 and Wolfe et al., 1962). The Byer Member is a fine-grained sandstone to sandy shale found in much of southeastern Fairfield County. The Byer was probably deposited in a proximal deltaic interdistributary channel system (Wolfe et al., 1962). The Allensville is a moderately coarse sandstone interbedded with mudstone, siltstone, and shale. Where the sandstone facies predominates, the sandstone is coarser-grained and prominently iron-stained. It was deposited by a rapidly fluctuating deltaic environment (Wolfe et al., 1962). The Vinton Member is comprised of fine-grained sandstones, mudstones, siltstones, and shales. It is very

similar to the Byer Member and its sandstones are finer-grained than the underlying Allensville Member. In some locales, the Vinton can only be distinguished from the Byer because of the coarser Allensville Member separating them. Elsewhere, the Vinton is the finest-grained member of the Logan Formation. The Vinton Member is believed to have been deposited in a somewhat deeper water, distal deltaic system (Wolfe et al., 1962). Exposures are common in Richland Township and Rush Creek Township. Two other Mississippian units, the Rushville Shale and the Maxville Limestone, while important units in Perry County, are not believed to exist in Fairfield County or are so extremely thin and weathered they cannot be readily distinguished.

Rocks of the Pennsylvanian System unconformably overlie the older Mississippian rocks and occupy isolated ridgetops in extreme eastern Fairfield County (Wolfe et al., 1962). The rocks are primarily interbedded shales, siltstones and sandstones of the Pottsville Group (Wolfe et al., 1962). Massive, resistant sandstones are most prominent in exposures. Shales, siltstones, and uncommon clays and coals are soft and generally form slopes which lack observable outcrops. The sandstones are very dirty, poorly sorted, and contain abundant mica. They are easily distinguished from the underlying Mississippian rocks. The sandstones appear to be alluvial channel deposits and may mark a gradual change from a deltaic to more of a terrestrial alluvial plain or coastal plain environment (Wolfe et al., 1962). The thickest exposures of Pottsville rocks are found in eastern Rush Creek Township (Wolfe et al., 1962).

Ground Water Resources

Ground water in Fairfield County is derived from both glacial (unconsolidated) and bedrock (consolidated) aquifers. Glacial deposits are utilized as aquifers within the buried valleys. The coarse sand and gravel outwash deposits within the Hocking River Valley are the most productive aquifers in the county. Sand and gravel lenses interbedded within the glacial till are also used in upland areas of the county. Bedrock aquifers are utilized in much of central and southern Fairfield County. Typically, bedrock aquifers are used where the glacial drift is too fine-grained, too thin, or non-existent. The most productive bedrock aquifers are the sandstones and conglomerates of the Black Hand Member and the Logan Formation.

Yields from glacial aquifers in Fairfield County are highly variable. Aquifers range from thin, isolated lenses of sand and gravel interbedded in thick sequences of fine-grained glacial till or lacustrine deposits, to thick sequences of coarse, well-sorted sand and gravel outwash in close proximity to modern streams. The thick sequence of outwash extending southward from Lancaster in the Hocking River Valley has potential yields exceeding 600 gallons per minute (gpm), from properly developed, large-diameter wells (Wolfe et al., 1962 and Schmidt, 1992). Outwash deposits extending eastward from Lancaster have the capability of producing 100 to 500 gpm (Schmidt, 1992). These deposits occupy the western half of the buried valley between Lancaster and Bremen. Yields of 100 to 500 gpm (Wolfe et al., 1962 and Schmidt, 1992) also may be obtained from the central axis of the large buried valley system which extends from Millersport/Buckeye Lake southwest to Baltimore and then due west to Franklin County. Aquifers with similar potential yields extend southward from the main trunk valley toward Carroll and Pleasantville (Schmidt, 1992) along tributary

buried valleys. Exploratory drilling may be necessary to help find the coarsest deposits, and proper well construction and development is necessary to maximize yields (Schmidt, 1992). Yields of 100 to 500 gpm may also be developed from the buried valley underlying modern Blacklick Creek just west of Pickerington in northwestern Violet Township (Wolfe et al., 1962 and Schmidt, 1992). Deposits in the portion of the buried valley between Carroll and Lancaster appear to be finer-grained and less extensive than most other buried valley aquifers. Maximum yields of 25 to 100 gpm may be obtained from these aquifers (Schmidt, 1992).

The remainder of the buried valley systems in Fairfield County, especially those bordering Licking County, are predominantly filled with thick sequences of clayey till and contain only minor sand and gravel lenses. Yields for wells in these areas range from about 5 to 25 gpm (Wolfe et al., 1962 and Schmidt, 1992). These aquifers are suitable for most domestic and farm purposes, but are not adequate for commercial or municipal needs. Portions of the buried valleys in northern Fairfield County also contain appreciable thicknesses of saturated, very fine sandy-silt to fine sand (Schmidt, 1992). Such deposits are referred to as "heaving sands". Although they contain a considerable amount of water, wells are very difficult to develop and yields in these units may be less than anticipated. Less productive glacial deposits are found in the buried valleys adjacent to Bremen (Schmidt, 1992). Aquifers are limited to thin lenses of fine sand interbedded in thick layers of silty clay. Similar yields are obtained from some of the deeper buried valley systems in southwestern Bloom Township, Amanda Township, and portions of Clear Creek and Madison Township (Wolfe et al., 1962 and Schmidt, 1992). These valleys contain thick sequences of till or lacustrine deposits (Hite, 1995) with only minor, isolated lenses of sand and gravel.

Bedrock aquifers also vary throughout Fairfield County. Wells developed primarily from the Ohio Shale and Bedford Shale interval typically produce less than 5 gpm and yields under 3 gpm are common (Wolfe et al., 1962 and Schmidt, 1992). These aquifers are limited to far western Violet Township and Bloom Township and have high static water levels. However, high drawdowns can be anticipated with any pumping. Locally, wells provide only a meager supply of water barely suitable for domestic supplies. Reports of "dry holes" are not uncommon in these areas.

Yields of 3 to 10 gpm may be expected from the Berea Sandstone/Sunbury Shale sequence as well as from the lower portions of the Raccoon Member of the Cuyahoga Formation. These sequences are dominated by shales, siltstones, sandy shales, and very fine-grained sandstones. These aquifers are found in western Bloom Township, Amanda Township, and in the majority of Clear Creek Township.

Yields from bedrock wells in much of central and southern Fairfield County range from 5 to 25 gpm and are suitable for domestic and farm purposes (Wolfe et al., 1962 and Schmidt, 1992). These aquifers are comprised of rocks from the upper portion of the Raccoon Creek Member, the Black Hand Member, and the Logan Formation. These units contain sandstones, conglomerates, siltstones, and shales. Well yields as high as 75 gpm have been obtained from large diameter wells in the coarser, more extensively fractured intervals of the Black Hand (Schmidt, 1992).

The rocks of the Pennsylvanian System found in Fairfield County are relatively poor aquifers. Yields of 3 to 10 gpm are typical for the interbedded sandstones, shales, and mudstones of the Pottsville Group (Wolfe et al., 1962 and Schmidt, 1992). Yields of less than 3 gpm are obtained from the uppermost Pottsville units in portions of Richland Township and eastern Rush Creek Township (Schmidt, 1992). These intervals are largely comprised of fine shales, siltstones, and mudstones. These wells typically have high drawdowns and represent a meager supply for even domestic purposes.

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APPENDIX A

DESCRIPTION OF THE LOGIC IN FACTOR SELECTION

Depth to Water

This factor was primarily evaluated using information from water well log records on file at the Ohio Department of Natural Resources, Division of Water, Water Resources Section (WRS). Approximately 12,000 water well records are on file for Fairfield County, roughly 70 percent of these have been field located. Data from representative wells were selected and plotted on U.S.G.S. 7 1/2 minute topographic maps during the course of the project. Static water levels and information on depth to the saturated zones were taken from the well log records. The Ground Water Resources map of Fairfield County (Wolfe et al., 1962 and Schmidt, 1992) provided generalized depth to water information throughout Fairfield County. Topographic and geomorphic trends were utilized in areas where other data sources were lacking.

The following reports also provided information on depth to water for site specific areas within Fairfield County: Eagon & Associates (1988), BBC&M (1991), Bair (1992, 1994), and Sieco (1994?).

Depths to water of 5 to 15 feet (DRASTIC value = (9)) and 15 to 30 feet (7) were typical of areas paralleling floodplains of larger valleys and some tributary valleys. Depths of 5 to 15 feet were common for areas with Devonian or Mississippian shale aquifers, particularly if the bedrock was near the ground surface. Depths of 0 to 5 feet (10) were used in some limited areas where streams were immediately adjacent to the aquifer including some areas where streams were flowing directly upon the bedrock surface. Depths of 5 to 15 feet (9) and 15 to 30 feet (7) were common along outwash terraces flanking modern stream valleys.

Depths of 30 to 50 feet (5) were common in many portions of Fairfield County. Depths of 30 to 50 feet (5) included many areas having moderate thicknesses (roughly 40 to 80 feet)of glacial till overlying the aquifer. This included buried valley areas which are lacking modern streams and areas where the till overlies the various bedrock aquifers. Depths of 30 to 50 feet (5) were common along the slopes of bedrock ridges and margins of narrow valleys. End moraines and kame fields also often have depths to water of 30 to 50 feet (5).

Depths of 50 to 75 feet (3) and 75 to 100 feet (2) were most common in areas where thick glacial till (roughly 100 feet or more) overlies the aquifer. This was particularly true for many of the buried valleys in northern Fairfield County, particularly those bordering Licking County between Buckeye Lake and Pickerington. Depths of 50 to 75 feet (3) were used for portions of the buried valleys in Bloom Township. Depths of 50 to 75 feet (3) and 75 to 100 feet were utilized in much of central and southern Fairfield

County. Narrow ridgetops were assigned depths of 75 to 100 feet (2) and depths of 50 to 75 feet (3) were assigned to the steeper slopes adjacent to these ridges. Typically, greater depths to water were noted in the unglaciated area due to the steeper, more rugged topography. Greater depths to water were noted in areas overlain by Pennsylvanian System bedrock. The Pennsylvanian units typically cap the higher ridges and the weathering of these units tends to produce steeper slopes with resistant ridgetops. Water levels in the bedrock uplands varied considerably, especially since wells typically penetrate more than one aquifer. The assigned values therefore sometimes reflect a composite depth to water.

Depths of greater than 100 feet (1) were assigned to some of the highest, steepest, most isolated bedrock ridges. Depths of greater than 100 feet (1) were assigned to portions of buried valleys in which confining conditions occurred. Buried valleys with confining conditions are primarily limited to portions of northern Liberty Township and Violet Township.

Net Recharge

This factor was evaluated using many criteria including depth to water, topography, soil type, surface drainage, vadose zone material, and annual precipitation. General estimates of recharge provided by Pettyjohn and Henning (1979) proved to be helpful. Recharge is the precipitation that is not lost to evapotranspiration and runoff and that reaches or recharges the aquifer system. Although not taken into account by the DRASTIC system man-made activities greatly influence recharge on a local scale. Urbanization decreases recharge as the increased pavement, rooftops, buildings, roadways, and storm sewer systems greatly increase runoff. Similarly, tile drainage in agricultural areas diverts precipitation from the shallow ground water table into ditches and streams and increases runoff.

Values of 7 to 10 inches per year (8) of recharge were assigned to areas with highly permeable soils (e.g. sandy loams) and vadose materials (e.g. outwash), shallow depths to water, and relatively flat topography. These values typically occur in areas along terraces or floodplains flanking modern streams. Values of 7 to 10 inches per year (8) were usually limited to portions of the 7D Buried Valley hydrogeologic setting that contained abundant outwash adjacent to modern streams.

Recharge values of 4 to 7 inches per year (6) were utilized for the vast majority of Fairfield County. This included areas having thin to moderate thicknesses of glacial till overlying both sand and gravel and the various bedrock aquifers. Value of 4 to 7 inches per year (6) were utilized in most areas where bedrock was the vadose zone material.

Recharge values of 2 to 4 inches per year (3) were primarily limited to areas with predominantly shale bedrock and steep topography. Recharge values of 2 to 4 inches (3) were typically utilized in the shaley, uppermost units of the Pennsylvanian System, Pottsville Group. These areas occur in Richland Township and Rush Creek Township.

An assumption of the DRASTIC system is that areas rated as being confined receive recharge values of 0 to 2 inches per year (1). This recharge rate was applied to the portions of buried valleys exhibiting confining conditioned in northern Violet Township and Liberty Township.

Aquifer Media

Information on aquifer media were obtained from the reports of Stauffer et al. (1911), Conley (1956), Kempton (1956), Schmidt and Goldthwait (1958), Dove (1960), Wolfe et al. (1962), Eagon (1988), Sugar (1990), BBC&M (1991), Bair (1992, 1994), Schmidt (1992), Sieco (1994?), and Angle (1995a,1995b). The water well log records on file at the WRS were an invaluable source of data. Field observations at outcrops, borrow pits, excavations, and sand and gravel pits also helped to verify ratings in complex areas. Where more than one aquifer was present, the uppermost aquifer was rated.

The aquifer media rating for bedrock varied across Fairfield County. In the far western part of the county, an aquifer rating of (3) was applied to areas where the Ohio Shale and Bedford Shale were utilized as aquifers. An aquifer rating of (3) was also used for shaley aquifers in extreme southern Clear Creek Township. The shaley, uppermost units of the Pottsville Group were given an aquifer media rating of (3). An aquifer rating of (4) was utilized for the interbedded fine-grained sandstones, sandy shales, and siltstones in areas where the aquifer consists of the Berea Sandstone and the overlying Sunbury Shale and basal Raccoon Shale Member of the Cuyahoga Formation. These areas occurred in southwest Bloom Township, Amanda Township and much of Clear Creek Township. An aquifer rating of (4) was also used for the interbedded dirty sandstones, shales, mudstones, coal, and clay of the lower portions of the Pottsville Group in eastern Fairfield County. An aquifer rating of (5) was utilized for the interbedded sandstones, conglomerates, and sandy shales of the upper Raccoon Member of the Cuyahoga Formation, the Black Hand Member of the Cuyahoga Formation, and the Logan Formation. This aquifer rating was used extensively throughout central Fairfield County, particularly for bedrock adjacent to the Hocking River Valley.

Ratings for the glacial aquifers also varied significantly across Fairfield County. The thick, continuous, clean outwash deposits extending southward from Lancaster down the Hocking River Valley were given an aquifer rating of (8). An aquifer media rating of (7) was selected for outwash deposits within buried valleys systems that were slightly thinner, finer, or less continuous. This rating was used for the main trunk buried valley extending from Buckeye Lake to Baltimore across to Pickaway County, for the productive buried valleys to the west of Pickerington, for portions of the Hocking River Valley between Carroll and Lancaster, and for the western half of the buried valley between Lancaster and Bremen. An aquifer rating of (6) was applied to margins of the trunk buried valleys and to some of the tributary buried valleys. Many of the valleys immediately adjacent to Buckeye Lake received aquifer rating of (6). These valleys vary, some contain appreciable thicknesses of fine sandy-silt, others have thinner, less continuous sands interbedded with clays. An aquifer rating of (5) was selected for buried valleys which contained sand and gravel lenses interbedded with thick sequences of clay. An aquifer rating of (5) was also utilized for sand and gravel lenses interbedded with clay in areas with thinner drift. These areas were included in the 7Af Sand and Gravel Interbedded in Glacial Till hydrogeologic setting. An aquifer

rating of (4) was selected for the most marginal sand and gravel aquifers interbedded in thick sequences of till. This rating was limited to portions of the buried valley in southwestern Bloom Township, Amanda Township, and Clear Creek Township. The eastern half of the buried valley between Lancaster and Bremen was also given a rating of (4).

Soils

This factor was primarily evaluated using data from the ongoing Soil Survey of Fairfield County (Steiger et al., in progress) and from information from Steiger (1995). Table 11 lists the soil types encountered in Fairfield County and gives information on the soil's parent material or setting and the corresponding DRASTIC rating. The nature of the underlying glacial deposits or bedrock lithology were two of the main factors influencing soil types in Fairfield County. Soil ratings were based upon the most restrictive layer or horizon within the soil profile.

Clay loam (3) was the most common soil rating utilized throughout glaciated Fairfield County. Clay loam (3) was encountered in most areas where glacial till or lacustrine deposits were found at the surface. Clay loam (3) soils also commonly developed where shale bedrock was near the surface. Silt loam (4) was common in modern alluvial terraces and floodplains. Silt loam (4) was also found capping some outwash terraces. Silt loam soils (4) tend to develop in areas with appreciable loess cover and in areas where siltstones and sandy shales are

Table 11. Soils of Fairfield County (after Steiger, et al., in progress)

Soil Name	Parent Material or Setting	DRASTIC Rating	Soil Media
Alford	caps outwash terraces	4	silt loam
Algiers	alluvium	4	silt loam
Amands	till	3	clay loam
Amand- Loudonville	thin till over sandstone	10	thin or absent
Amanda-Ockley	thin till over outwash, kames	5	loam
Beaucoup	alluvium	4	silt loam
Bennington	till	3	clay loam
Berks	weathered bedrock	10	thin or absent
Cardington	till	3	clay loam
Carlisle	till	3	clay loam
Cedarfalls	sandstone	10	thin or absent
Celina	till	3	clay loam
Centerburg	till	3	clay loam
Chagrin	alluvium	4	silt loam
Cincinnati	till	3	clay loam
Cincinnati - Wellston	thin till over bedrock	3	clay loam
Condit	till	3	clay loam
Crosby	till	3	clay loam
Eel	alluvium	4	silt loam
Eldean	outwash terraces, kames	6	sandy loam
Euclid	alluvium	4	silt loam
Fitchvillw	silt lacustrine, slackwater	4	silt loam
Fox	dirty outwash, kames	6	sandy loam
Gallman	thin till over outwash, kames	5	loam
Germano	Black Hand Sandstone outcrop	10	thin or absent
Gessie	alluvium	4	silt loam
Gilpin	weathered shale	3	clay loam
Glenford	silty lacustrine, slackwater	4	silt loam
Hickory	till	3	clay loam
Hickery - Germano	till over Black Hand Sandstone	10	thin or absent
Hickory - Gilpin	till over shale	10	thin or absent
Homewood - Westmoreland	till over bedrock	3	clay loam
Jerusalem	loess over till	4	silt loam
Kokomo	till, depressions	3	clay loam
Landside	alluvium	4	silt loam
Loundonville - Steinsburg	weathered sandstone	10	thin or absent
Marengo	till	3	clay loam
McGary	clayey lacustrine	3	clay loam
Medway	alluvium	4	silt loam
Miamian	till	3	Silt loam
Miamian - Thrifton	till, eroded	3	clay loam
Montgomery	clayey lacustrine	3	clay loam
Muskego	bogs, kettles	8	peat
Negley	outwash terraces, kames	5	loam
Newark	alluvium	4	silt loam
Ockley	outwash terraces	6	sandy loam
Patton	silty lacustrine, slackwater	4	silt loam

Pewamo	till, depressions	3	clay loam
Pike	loess over till	4	silt loam
Rossburg	alluvium	4	silt loam
Sebring	silty lacustrine, slackwater	4	silt loam
Shelocta	colluvium, hillslopes	3	clay loam
Shelocta - Berkes	colluvium, hillslopes	3	clay loam
Shelocta - Cruze	colluvium, hillslopes	3	clay loam
Shoals	alluvium	4	silt loam
Sleeth	dirty outwash terraces	5	loam
Stonelick	coarse alluvium	5	loam
Tarlton	till over shale	3	clay loam
Thackery	outwash terraces	5	loam
Thurston	clayey lacustrine	3	clay loam
Violet	alluvium over muck	4	silt loam
Wea	outwash terraces	5	loam
Wellston	loess	4	silt loam
Wellston - Cruze	loess over bedrock	4	silt loam
Westland	outwash terrace	6	sandy loam
Zonesville	loess over bedrock	3	clay loam

close to the surface. Loam (5) and sandy loam (6) soils were associated with kames, outwash terraces and floodplains containing coarser alluvium. Loam (5) and sandy loam (6) soils were found capping ridges where sandstone was close to the surface. Peat (8) soils were found in a few isolated depression areas along floodplains, low terraces, and slackwater lakebeds. Where the bedrock was less than 36 inches from the surface, particularly in areas with steep slopes and high erosion, soils were considered to be thin or absent and given a rating of (10). These areas were typically found in the unglaciated areas and in areas with Pennsylvanian System bedrock. Areas where soils are thin or absent (10) are primarily found in southeastern Fairfield County.

Topography

Topography was evaluated by determining the percentage of slope obtained from the U.S.G.S. 7-1/2 minute (1:24,000 scale) quadrangle maps and from the Soil Survey of Fairfield County (Steiger et al., in progress). Slopes of 0 to 2 percent were selected for floodplains, flat-lying outwash terraces, and large areas of ground moraine. Slopes of 2 to 6 percent (9) were common in areas of both ground moraine and end moraine as well as in some terraces. Slopes of 6 to 12 percent (5) were utilized for steeper kames and end moraines and for many of till-covered upland areas. Slopes of 12 to 18 percent (3) and greater than 18 percent (1) were utilized for steeper, bedrock-controlled ridges and slopes in central and southern Fairfield County. These steep slopes are common in areas with very thin till cover and in the unglaciated areas which lack drift cover.

Impact of the Vadose Zone Media

Water well records on file at the WRS were a primary source of information on vadose zone media. Information on vadose zone media was obtained from the reports of Stauffer et al (1911), Conley (1956), Kempton (1956), Schmidt and Goldthwait (1958), Dove (1960), Wolfe et al. (1962), Eagon (1988), Sugar (1990), BBC&M (1991), Schmidt (1992), Bair (1992,1994), Sieco (1994?), and Angle (1995a,1995b).

Till was selected as the vadose zone media for much of northern, central, and southwestern Fairfield County. This included area of end moraine and ground moraine and areas where moderate thicknesses of till covered the bedrock slopes. Till was also selected as the vadose zone material for the portions of buried valleys which lacked outwash and modern streams. Typically a rating of (4) was selected for the till. An assumption of the DRASTIC system is that the confining layer have a vadose zone media rating of (1). Within the buried valley systems, the confining layer was considered to be the extremely thick sequences of fine-grained till.

In many areas containing modern floodplains and alluvial deposits silt and clay were considered to be the vadose zone media and ratings of (4) and (5) were selected based upon the nature of the materials. Within many of the buried valley areas, along some floodplains, and within some end moraines, sand and gravel with significant silt and clay was chosen as the aquifer and ratings ranged from (5) through (7). For portions of buried valleys containing appreciable outwash, sand and gravel with significant silt and clay with a rating of (7) was selected. This included areas of kames and outwash terraces.

Bedrock was rated as the vadose zone media for many portions of central, southern, and southeastern Fairfield County. In glaciated Fairfield County, bedrock was chosen as the vadose zone media when the overlying till became relatively thin (i.e., typically less than 20 feet thick). A vadose zone media rating of (3) was used for areas with shale bedrock close to the surface. In some areas where the shale bedrock was extremely weathered clay was chosen as the vadose zone material and given a rating of (3). This rating was primarily used in unglaciated areas and areas capped by Pennsylvanian shales in southeastern Fairfield County. Sandstone and shale were given vadose zone ratings of (4), (5), or (6) depending upon the sequence of bedrock units for that area. Typically, the rating of (4) was utilized for the interbedded shales, siltstones, sandstones, and mudstones of the Berea Sandstone, Sunbury Shale, lower Raccoon Member of the Cuyahoga Formation, and the Pennsylvanian Pottsville Group. A vadose zone media of sandstone and shale with a rating of (5) or (6) was utilized in areas of the Logan Formation and the upper Raccoon Member of the Cuyahoga Formation. Sandstone was selected as the aquifer media for the Black Hand Member of the Cuyahoga Formation and vadose zone media ratings of (5) and (6) were assigned depending upon the coarseness of the sandstone and conglomerate units.

Hydraulic Conductivity

Data for hydraulic conductivity was primarily obtained by extrapolating hydraulic conductivity values for similar aquifers in surrounding counties (Sugar, 1990, Angle, 1995a, 1995b). Textbook tables (Freeze and Cherry, 1979, Fetter, 1980, and Driscoll,

1986) were useful in obtaining estimated hydraulic conductivity values for a variety of sediments. Water well log records at the WRS were carefully reviewed and the Ground Water Resource map of Fairfield County (Wolfe et al., 1962 and Schmidt, 1992) proved to be helpful.

Values for hydraulic conductivity roughly followed the ratings for aquifer media; i.e., the more highly rated aquifers have higher hydraulic conductivities. For sand and gravel aquifers, the hydraulic conductivity is a function of coarseness, stratification, sorting, and cleanliness (absence of fines). For the less productive sand and gravel aquifers with aquifer media ratings of (4) or (5), a hydraulic conductivity range of 1-100 gallons per day (gpd) / ft^2 (1). For sand and gravel aquifers with an aquifer media rating of (6), hydraulic conductivity ranges of 100-300 gpd / ft^2 (2) and 300-700 gpd / ft^2 (4) were selected. Sand and gravel aquifers with an aquifer media rating of (7) were given ranges of hydraulic conductivity from 300-700 gpd / ft^2 (4) to 700-1,000 gpd / ft^2 (6). The highest rated (8) sand and gravel aquifers were assigned the hydraulic conductivity range of 1,000-2,000 gpd / ft^2 (8).

Ranges of hydraulic conductivity values also varied between the different bedrock aquifers. The primary porosity and lithology of the bedrock was an important factor. Other important factors were the number of bedding planes and contacts, fracturing, joints, and the effects of weathering. For shale bedrock, hydraulic conductivity values ranged from 1-100 gpd / ft^2 (1). The interbedded sandstone, shale, siltstone, mudstone aquifers with an aquifer media rating of (4) were assigned a hydraulic conductivity range of 1-100 gpd / ft^2 (1). For sandstone aquifers with an aquifer rating of (5), ranges of hydraulic conductivity varied from 1-100 gpd / ft^2 (1) to 100-300 gpd / ft^2 (2). The higher range of hydraulic conductivities, 100-300 gpd / ft^2 (2), was primarily used for the coarse sandstones and conglomerates of the Black Hand Member of the Cuyahoga Formation.

APPENDIX B

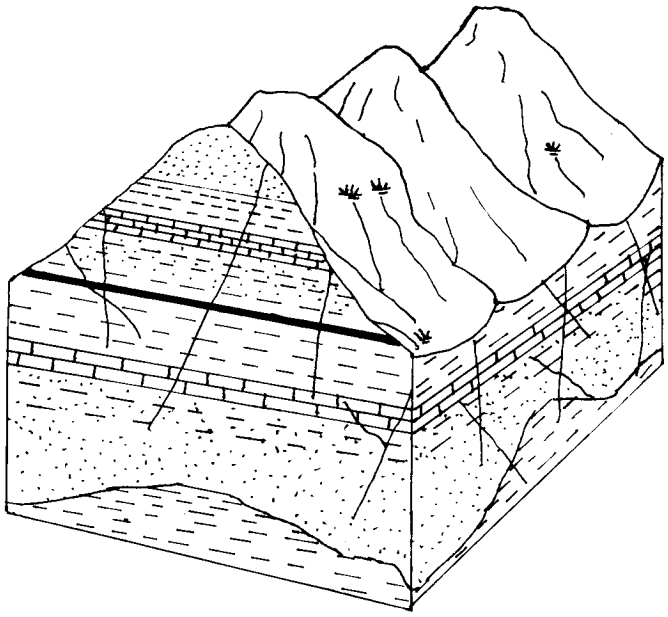
DESCRIPTION OF HYDROGEOLOGIC SETTINGS AND CHARTS

Ground water pollution potential mapping in Fairfield County resulted in the identification of nine hydrogeologic settings within the Glaciated Central Region. The list of these settings, the range of pollution potential index calculations, and the number of index calculations for each setting are provided in Table 14. Computed pollution potential indexes for Fairfield County range from 47 to 182.

Table 12. Hydrogeologic Settings Mapped in Fairfield County, Ohio.

Hydrogeologic Settings	Range of GWPP Indexes	Number of Index Calculations
6Da - Thin Regolith Over Bedded Sedimentary Rock	87-125	13
6Db - Thick Regolith Over Bedded Sedimentary Rock	87-142	15
7Aa - Glacial Till Over Bedded Sedimentary Rock	73-125	46
7Ad - Glacial Till Over Sandstone	47-140	149
7Ae - Glacial Till Over Shale	53-133	49
7Af - Sand and Gravel Interbedded in Glacial Till	82-135	24
7D - Buried Valley	48-182	239
7Ec - Alluvium Over Sedimentary Rock	88-138	41
7Ed - Alluvium Over Glacial Till	115-135	7

The following information provides a description of each hydrogeologic setting identified in the county, a block diagram illustrating the characteristics of the setting, and a listing of the charts for each unique combination of pollution potential indexes calculated for each setting. The charts provide information on how the ground water pollution potential index was derived and are a quick and easy reference for the accompanying ground water pollution potential map. A complete discussion of the rating and evaluation of each factor in the hydrogeologic settings is provided in Appendix A, Description of the Logic in Factor Selection.



6Da Thin Regolith Over Bedded Sedimentary Rock

This hydrogeologic setting is limited to upland areas beyond the glacial boundary in southeastern Fairfield County. The glacial boundary closely follows the boundary of Goldthwait et al. (1961) and Wolfe et al. (1962). The Soil Survey of Fairfield County (Stieger et al., in progress) proved useful in delineating the boundary. The area is characterized by high relief with broad, steep slopes and narrow, somewhat flatter ridgetops. The aquifer consists of fractured sandstones of the Mississippian System. The vadose zone media consist of slightly-dipping, fractured alternating sandstones, shales, siltstones, mudstones, and minor coal of the Mississippian System and Pennsylvanian System. Multiple aquifers are present. Depth to water is generally deep, shallower perched zones overlie low permeability shales and mudstones. Soils are generally thin to absent on the steeper slopes. On gentler slopes, soils vary with bedrock lithology. Small supplies of ground water are obtained from wells intersecting bedding planes or near vertical fractures. Ground water yields average under 10 gpm. Recharge is usually limited due to steep slopes, deep aquifers, and layers of impermeable bedrock.

GWPP index values for the hydrogeologic setting of Thin Regolith Over Bedded Sedimentary Rock range from 87 to 125 with the total number of GWPP index calculations equaling 13.

Setting: 6Da1		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	107

Setting: 6Da2		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	121

Setting: 6Da3		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	97

Setting: 6Da4		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	92

Setting: 6Da5		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	101

Setting: 6Da6		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	111

Setting: 6Da7		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	87

Setting: 6Da8		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	89

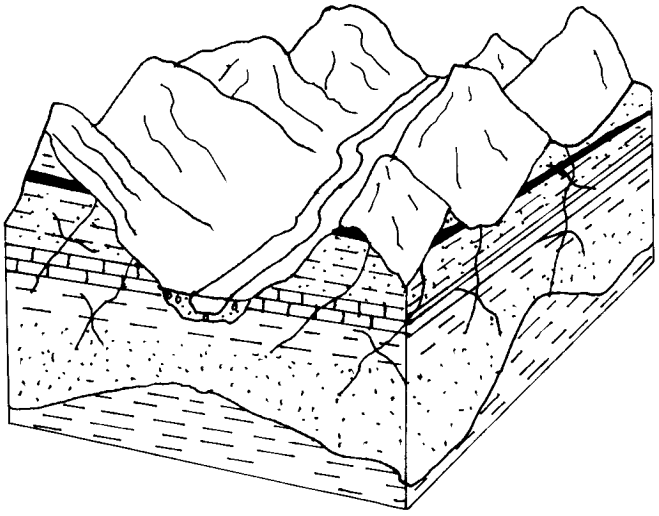
Setting: 6Da9		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	115

Setting: 6Da10		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	125

Setting: 6Da11		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	103

Setting: 6Da12		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	89

Setting: 6Da13		**GENERAL**		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	113



6Db Thick Regolith Over Bedded Sedimentary Rock

This hydrogeologic setting is limited to the unglaciated portions of southeastern Fairfield County. This setting is characterized by moderate to steep relief and is found at the foot of steep ridges. This setting is similar to the 6Da Thin Regolith Over Bedded Sedimentary Rocks except that a thick zone of regolith, or weathered rock debris, overlies the bedrock. It is a transitional area between valley floors and bedrock uplands. Depth to water is typically deep. Soils are usually silt loams or clay loams and are developed on bedrock colluvium. The aquifer is the underlying, fractured sandstone of the Mississippian System. Ground water yields average under 10 gpm. Recharge is relatively low to moderate due to the moderately steep slope, greater depth to water, and lower permeability soils.

GWPP index values for the hydrogeologic setting of Thick Regolith Over Bedded Sedimentary Rock range from 87 to 142 with the total number of GWPP index calculations equaling 15.

Setting: 6Db1		**GENERAL**		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	117

Setting: 6Db2				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	87

Setting: 6Db3				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	91

Setting: 6Db4				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	99

Setting: 6Db5				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-2	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	142

Setting: 6Db6				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	101

Setting: 6Db7				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	89

Setting: 6Db8				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	107

Setting: 6Db9				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	93

Setting: 6Db10		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	96

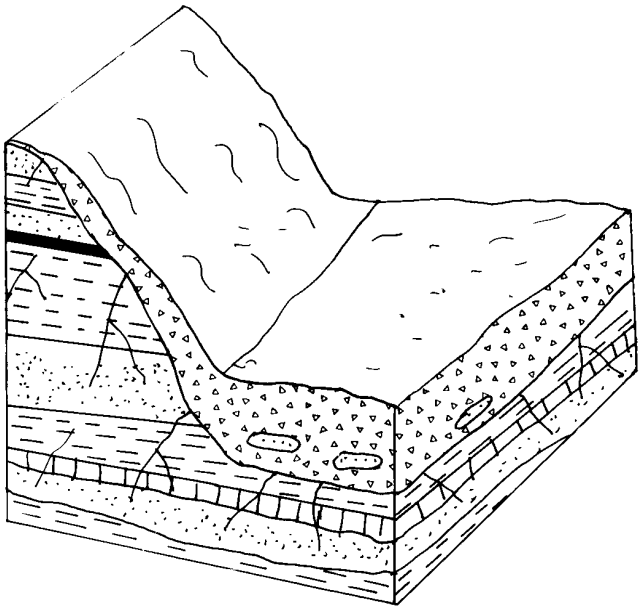
Setting: 6Db11		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	91

Setting: 6Db12		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	97

Setting: 6Db13		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	99

Setting: 6Db14			**GENERAL**	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	109

Setting: 6Db15			**GENERAL**	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shales	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	89



7Aa Glacial Till Over Bedded Sedimentary Rock

This hydrogeologic setting was used in two different areas within Fairfield County. In western Fairfield County, this setting was utilized for areas in which the bedrock aquifer was comprised of alternating fine sandstones, shales, and siltstones of the Berea Sandstone, the Sunbury Shale, and the lower Raccoon Member of the Cuyahoga Formation. This area is characterized by variable topography and moderate relief. Varying thicknesses of glacial till comprise the vadose zone media except along the steepest slopes, at which point bedrock is the vadose zone media. Soils are typically clay loams derived from the weathering till. Depth to water is moderate in areas of rolling topography to deep in areas with steeper topography. Yields average under 10 gpm. Recharge is moderate to low depending upon the slope, thickness of till cover, and the depth.

In far eastern Fairfield County, this setting was used for areas where alternating dirty sandstones, shales, siltstones, mudstones and thin coals of the Pennsylvanian System comprise the aquifer. Multiple aquifers are common in this area. This area is characterized by steep topography and high relief. The bedrock generally comprises the vadose zone media as the till cover is thin. Depth to water is deep, although shallower, perched aquifers may be present locally. Soils are usually clay loams derived from the highly weathered till. Yields average under 10 gpm. Recharge is moderate to low due to the depth to water, steep slopes, and low permeability soils.

GWPP index values for the hydrogeologic setting of Glacial Till Over Bedded Sedimentary Rock range from 73 to 125 with the total number of GWPP index calculations equaling 46.

Setting: 7Aa1				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	110

Setting: 7Aa2				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	100

Setting: 7Aa3				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	90

Setting: 7Aa4				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	89

Setting: 7Aa5		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	85

Setting: 7Aa6		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

Setting: 7Aa7		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	99

Setting: 7Aa8		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	120

Setting: 7Aa9				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7Aa10				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7Aa11				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	113

Setting: 7Aa12				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	83

Setting: 7Aa13				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-75	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	93

Setting: 7Aa14				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Aa15				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	103

Setting: 7Aa16				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	104

Setting: 7Aa17		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	78

Setting: 7Aa18		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7Aa19		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	114

Setting: 7Aa20		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	112

Setting: 7Aa21				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	109

Setting: 7Aa22				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	105

Setting: 7Aa23				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	103

Setting: 7Aa24				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	101

Setting: 7Aa25				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	111

Setting: 7Aa26				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	87

Setting: 7Aa27				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	124

Setting: 7Aa28				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	105

Setting: 7Aa29				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	84

Setting: 7Aa30				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	105

Setting: 7Aa31				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	77

Setting: 7Aa32				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	75

Setting: 7Aa33				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	107

Setting: 7Aa34				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	73

Setting: 7Aa35				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	81

Setting: 7Aa36				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7Aa37				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	85

Setting: 7Aa38				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	91

Setting: 7Aa39				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7Aa40				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

Setting: 7Aa41				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	107

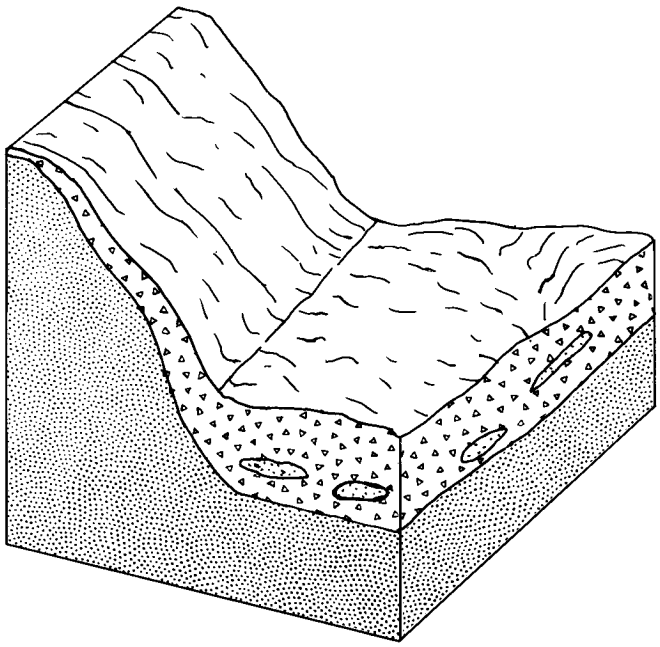
Setting: 7Aa42				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Thin or Absent	2	10	20
Topography	18+%	1	1	1
Impact of Vadose Zone	Sandstone/Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

Setting: 7Aa43				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	93

Setting: 7Aa44				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	79

Setting: 7Aa45		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-3%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	85

Setting: 7Aa46		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone-Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	80



7Ad Glacial Till Over Sandstone

This hydrogeologic setting was used in much of central and southern Fairfield County, especially the Hocking River Valley. The area is characterized by moderately high to high relief and by steep topography. Depth to water is moderate in areas along valleys to deep along steep slopes and ridgetops. The aquifer is usually the Black Hand Sandstone or the lowermost portion of the Logan Formation. These units are the most productive bedrock aquifers in Fairfield County. Yields average from 10 to 25 gpm and maximum yields of 50 gpm are possible. The overlying glacial till is commonly less than 10 feet thick and seldom exceeds 20 feet. Weathered, fractured sandstone is the vadose zone media for much of this setting. Till only comprises the vadose zone media along the gentler slopes. Soils range from clay loam, to sandy loam, to thin or absent depending upon the thickness of the till cover. Recharge is moderate to low due to the permeable bedrock, greater depth to water, and steep slopes.

GWPP index values for the hydrogeologic setting of Glacial Till Over Sandstone range from 47 to 140 with the total number of GWPP index calculations equaling 149.

Setting: 7Ad1		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	113

Setting: 7Ad2		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	93

Setting: 7Ad3		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	103

Setting: 7Ad4		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	108

Setting: 7Ad5		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	112

Setting: 7Ad6		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Ad7		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Clay and Silt	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	129

Setting: 7Ad8		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Clay and Silt	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7Ad9		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	92

Setting: 7Ad10		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	98

Setting: 7Ad11		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	123

Setting: 7Ad12		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	0-2	4	1	4
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Confined	5	1	5
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	48

Setting: 7Ad13				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	0-2	4	1	4
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Confining Layer (Till)	5	1	5
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	47

Setting: 7Ad14				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	107

Setting: 7Ad15				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7Ad16				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7Ad17		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	82

Setting: 7Ad18		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	90

Setting: 7Ad19		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	78

Setting: 7Ad20		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	88

Setting: 7Ad21		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	83

Setting: 7Ad22		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	87

Setting: 7Ad23		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	81

Setting: 7Ad24		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	76

Setting: 7Ad25		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	88

Setting: 7Ad26		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	86

Setting: 7Ad27		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Clay	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	105

Setting: 7Ad28		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	105

Setting: 7Ad29		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	101

Setting: 7Ad30		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	106

Setting: 7Ad31		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-70	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	95

Setting: 7Ad32		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	93

Setting: 7Ad33		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	79

Setting: 7Ad34		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	110

Setting: 7Ad35		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	108

Setting: 7Ad36		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	98

Setting: 7Ad37			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	109

Setting: 7Ad38			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	91

Setting: Deleted			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water		5		0
Net Recharge		4		0
Aquifer Media		3		0
Soil Media		2		0
Topography		1		0
Impact of Vadose Zone		5		0
Hydraulic Conductivity		3		0
		GWPP	INDEX	0

Setting: 7Ad40			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	91

Setting: 7Ad41				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone-Shale	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	89

Setting: Deleted				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water		5		0
Net Recharge		4		0
Aquifer Media		3		0
Soil Media		2		0
Topography		1		0
Impact of Vadose Zone		5		0
Hydraulic Conductivity		3		0
		GWPP	INDEX	0

Setting: 7Ad43				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	107

Setting: 7Ad44				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	113

Setting: 7Ad45		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	109

Setting: 7Ad46		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	103

Setting: 7Ad47		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	105

Setting: 7Ad48		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	93

Setting: 7Ad49				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	136

Setting: 7Ad50				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Clay	2	6	12
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	118

Setting: 7Ad51				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	128

Setting: 7Ad52				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	116

Setting: 7Ad53		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	106

Setting: 7Ad54		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	126

Setting: 7Ad55		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	130

Setting: 7Ad56		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	132

Setting: 7Ad57				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	116

Setting: 7Ad58				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	115

Setting: 7Ad59				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	111

Setting: 7Ad60				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	117

Setting: 7Ad61		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	115

Setting: 7Ad62		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Ad63		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	101

Setting: 7Ad64		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	125

Setting: 7Ad65				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	96

Setting: 7Ad66				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	83

Setting: 7Ad67				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7Ad68				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	110

Setting: 7Ad69		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	140

Setting: 7Ad70		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	92

Setting: 7Ad71		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	96

Setting: 7Ad72		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

Setting: 7Ad73		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	100

Setting: 7Ad74		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	96

Setting: 7Ad75		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandy Till	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	125

Setting: 7Ad76		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone/Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	121

Setting: 7Ad77				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	108

Setting: 7Ad78				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	105

Setting: 7Ad79				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	106

Setting: 7Ad80				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	109

Setting: 7Ad81				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandy Till	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	141

Setting: 7Ad82				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	119

Setting: 7Ad83				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandy Till	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	135

Setting: 7Ad84				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	96

Setting: 7Ad85				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	123

Setting: 7Ad86				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	99

Setting: 7Ad87				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	100

Setting: 7Ad88				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	111

Setting: 7Ad89				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	89

Setting: 7Ad90				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	91

Setting: 7Ad91				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	87

Setting: 7Ad92				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	89

Setting: 7Ad93				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	91

Setting: 7Ad94				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	93

Setting: 7Ad95				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	105

Setting: 7Ad96				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	95

Setting: 7Ad97				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	97

Setting: 7Ad98				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	99

Setting: 7Ad99				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	103

Setting: 7Ad100				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	111

Setting: 7Ad101				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	109

Setting: 7Ad102				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	113

Setting: 7Ad103				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	121

Setting: 7Ad104				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	92

Setting: 7Ad105				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	101

Setting: 7Ad106				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	1-0	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	107

Setting: 7Ad107				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	107

Setting: 7Ad108				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	101

Setting: 7Ad109			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	123

Setting: 7Ad110			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	135

Setting: 7Ad111			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	127

Setting: 7Ad112			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	103

Setting: 7Ad113				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	116

Setting: 7Ad114				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	113

Setting: 7Ad115				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	106

Setting: 7Ad116				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	114

Setting: 7Ad117				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	101

Setting: 7Ad118				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	95

Setting: 7Ad119				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	119

Setting: 7Ad120				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	94

Setting: 7Ad121				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	92

Setting: 7Ad122				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	106

Setting: 7Ad123				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	107

Setting: 7Ad124				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone/Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	98

Setting: 7Ad125				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	105

Setting: 7Ad126				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone/Shale	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	98

Setting: 7Ad127				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	115

Setting: 7Ad128				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone/Shale	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	103

Setting: 7Ad129				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone/Shale	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	96

Setting: 7Ad130				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone/Shale	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	91

Setting: 7Ad131				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	18%+	1	1	1
Impact of Vadose Zone	Sandstone/Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	88

Setting: 7Ad132				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	131

Setting: 7Ad133		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone/Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	96

Setting: 7Ad134		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone/Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	106

Setting: 7Ad135		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	115

Setting: 7Ad136		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	120

Setting: 7Ad137			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	121

Setting: 7Ad138			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	138

Setting: 7Ad139			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	142

Setting: 7Ad140			GENERAL	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sandstone/Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	97

Setting: 7Ad141				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone/Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	101

Setting: 7Ad142				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sandstone/Shale	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	120

Setting: 7Ad143				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	113

Setting: 7Ad144				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	116

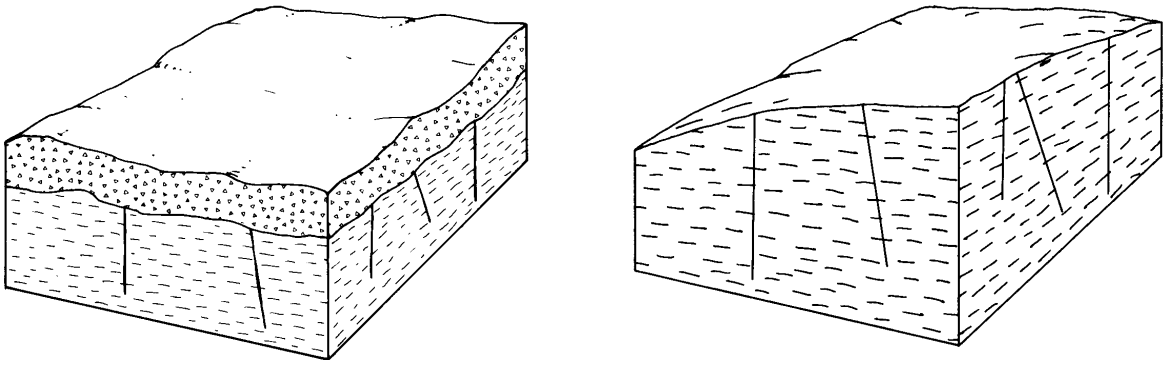
Setting: 7Ad145				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	133

Setting: 7Ad146				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	18+	1	1	1
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	131

Setting: 7Aad147				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	12-18%+	1	3	3
Impact of Vadose Zone	Sandstone	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	123

Setting: 7Ad148				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Loam	2	5	10
Topography	18+	1	1	1
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	121

Setting: 7Ad149		**GENERAL**		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone/Shale	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	120



(A) (B)

7Ae Glacial Till Over Shale

This hydrogeologic setting was used for two different areas within Fairfield County. In western Fairfield County, this setting was selected for areas where the Ohio Shale and Bedford Shale are the aquifer (Block Diagram A). This area varies from relatively flat to rolling to moderately steep topography. Thickness of the overlying till is variable, but is usually over 20 feet. Till is commonly the vadose zone material. Soils are typically clay loams derived from the weathered till. Depth to water is typically shallow to moderate, depending upon the steepness of the topography. The shales comprise a poor aquifer with yields averaging from 3 to 5 gpm. Wells obtain their water supply from intersecting fractures and from the uppermost, weathered portion of the shale. Recharge is moderate due to the relatively shallow depth to water, the moderate slope, and the low permeability soils.

This setting was also used in extreme eastern Fairfield County for ridges comprised of predominantly shale bedrock in the highest portion of the Pottsville Group, Pennsylvanian System (Block Diagram B). This area is characterized by high relief and relatively steep topography. Depth to water is deep. The overlying till is thin, rarely exceeding 10 feet. Shale bedrock is usually both the aquifer and vadose zone media. Soils are typically clay loams derived from weathering till or shale. These shales constitute a very poor aquifer with yields commonly less than 3 gpm. Wells obtain meager supplies from the intersection of fractures and bedding planes. Recharge is typically low due to the high relief, great depth to water, and the low permeability soil and shale.

GWPP index values for the hydrogeologic setting of glacial till over shale range from 53 to 133 with the total number of GWPP index calculations equaling 49.

Setting: 7Ae1				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	117

Setting: 7Ae2				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	107

Setting: 7Ae3				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	3	9
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	121

Setting: 7Ae4				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	3	9
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	133

Setting: 7Ae5		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7Ae6		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7Ae7		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	79

Setting: 7Ae8		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	90

Setting: 7Ae9				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	100

Setting: 7Ae10				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	89

Setting: 7Ae11				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7Ae12				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	86

Setting: 7Ae13				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone/Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	82

Setting: 7Ae14				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	92

Setting: 7Ae15				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	96

Setting: 7Ae16				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	99

Setting: 7Ae17				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	106

Setting: 7Ae18				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Ae19				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	100

Setting: 7Ae20				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	98

Setting: 7Ae21		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sandstone/Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	84

Setting: 7Ae22		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	53

Setting: 7Ae23		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	59

Setting: 7Ae24		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	61

Setting: 7Ae25				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	57

Setting: 7Ae26				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	65

Setting: 7Ae27				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	71

Setting: 7Ae28				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	73

Setting: 7Ae29				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	75

Setting: 7Ae30				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	81

Setting: 7Ae31				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	63

Setting: 7Ae32				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	55

Setting: 7Ae33				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	79

Setting: 7Ae34				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Thin or Absent	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	89

Setting: 7Ae35				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	18%+	1	1	1
Impact of Vadose Zone	Shale	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	73

Setting: 7Ae36				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Ae37				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	83

Setting: 7Ae38				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	85

Setting: 7Ae39				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	90

Setting: 7Ae40				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

Setting: 7Ae41				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	100

Setting: 7Ae42				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Ae43				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	2-4	4	3	12
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	100

Setting: 7Ae44				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

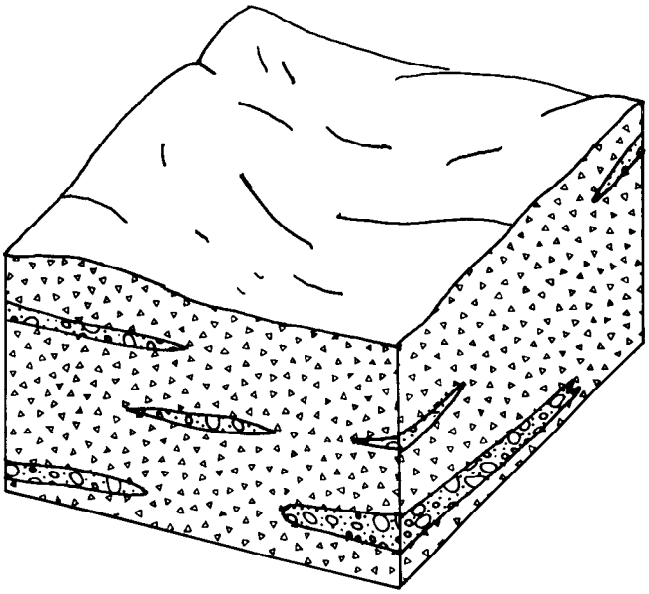
Setting: 7Ae45				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7Ae46				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	2-4	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	101

Setting: 7Ae47				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	9	9
Impact of Vadose Zone	Silt/Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	91

Setting: 7Ae48				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Ae49			**GENERAL**	
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	3	9
Soil Media	Loam	2	5	10
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	104



7Af Sand and Gravel Interbedded in Glacial Till

This hydrogeologic setting was used for limited areas adjacent to major buried valleys. The total thickness of drift in these areas is less than that found within the buried valleys, but is greater than where till overlies the bedrock-controlled uplands. The setting is characterized by relatively flat to gently rolling topography and relief is low. The aquifer is comprised of thin, discontinuous sand and gravel lenses interbedded within the glacial till. The till averages roughly 50 to 60 feet in thickness and the lenses of sand and gravel seldom exceed 10 feet in thickness. Till comprises the vadose zone material. Soils are typically clay loams derived from the weathered till. Depth to water is moderate and varies with the depth of the sand and gravel lenses being utilized as aquifers. Yields commonly average about 10-15 gpm. Recharge is relatively moderate due to the moderate depth to water, the low slope, and the clay loam soils and till.

GWPP index values for the hydrogeologic setting Sand and Gravel Interbedded in Glacial Till range from 82 to 135 with the total number of GWPP index calculations equaling 24.

Setting: 7Af1				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	124

Setting: 7Af2				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	103

Setting: 7Af3				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	105

Setting: 7Af4				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Caly	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	135

Setting: 7Af5				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7Af6				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Af7				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	112

Setting: 7Af8				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	113

Setting: 7Af9				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-35	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	108

Setting: 7Af10				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	93

Setting: 7Af11				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	92

Setting: 7Af12				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	87

Setting: 7Af13				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	94

Setting: 7Af14				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	88

Setting: 7Af15				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	98

Setting: 7Af16				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	117

Setting: 7Af17				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7Af18				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	123

Setting: 7Af19				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	122

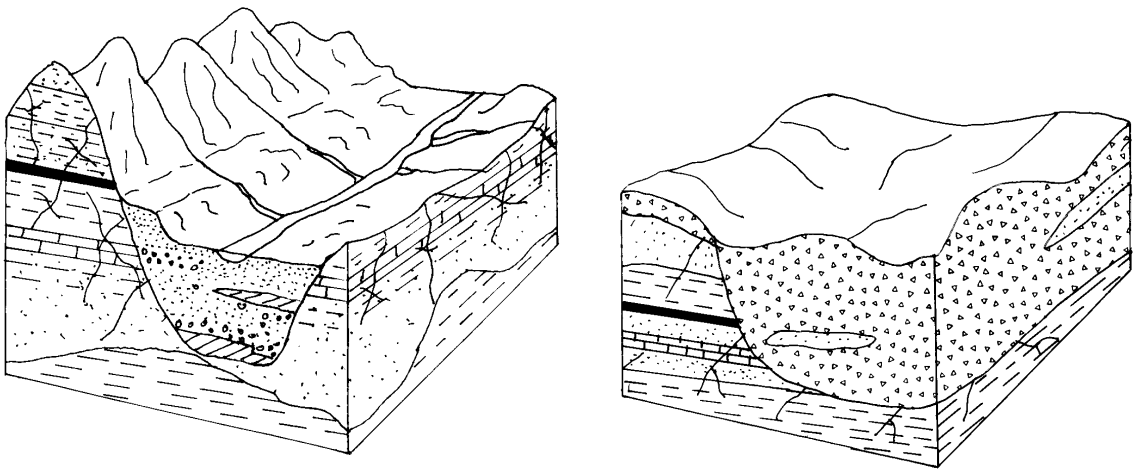
Setting: 7Af20				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	82

Setting: 7Af21				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	96

Setting: 7Af22				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	86

Setting: 7Af23				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	88

Setting: 7Af24				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	123



(A) (B)

7D Buried Valley

This hydrogeologic setting varied considerably across Fairfield County. The buried valleys were created by pre-glacial or inter-glacial rivers which downcut into the bedrock. Drift exceeds 100 feet in thickness. The differing glacial deposits filling these valleys can be best illustrated by describing the two common forms mapped within Fairfield County.

One common form of buried valley deposit (Block Diagram A) is exemplified by the portion of the Hocking River Valley south of Lancaster. Such valleys are occupied by a modern river and floodplain and contain numerous outwash terraces and small kames. Topography is relatively flat and relief is low. The upper portion of these valleys usually contains 50 to 100 feet of outwash. Depth to water is usually less than 30 feet. Soils are typically loams or sandy loams. Outwash, with minor amounts of clay and silt, comprise the vadose zone media. Yields over 500 gpm are possible from large-diameter wells. The streams are in direct hydraulic connection with the aquifer and recharge is high.

The other common form of buried valleys is typified by the broad, deep valleys lying just south of Licking County west of Buckeye Lake (Block Diagram B). These valleys are typically difficult to distinguish from the surrounding topography. The topography varies from flat where the valleys are overlain by ground moraine to moderately rolling where end moraines overlie the valleys. Typically, these valleys are overlain by an intermittent stream or no stream at all. The aquifer consists of thin, discontinuous lenses of sand and gravel interbedded in thick sequences of till or lacustrine deposits. Depth to water is usually deep. Yields commonly range from 10 to 25 gpm, but may average less than 5 gpm in some portions of southwestern Fairfield County. Soils are typically clay loams derived from the weathered till. Recharge is moderate to low due to the nature of the soils and deposits.

GWPP index values for the hydrogeologic setting Buried Valley range from 48 to 182 with the total number of GWPP index calculations equaling 239.

Setting: 7D1				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-200	3	2	6
		GWPP	INDEX	129

Setting: 7D2				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	135

Setting: 7D3				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	119

Setting: 7D4				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	109

Setting: 7D5				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	168

Setting: 7D6				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	103

Setting: 7D7				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7D8				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	93

Setting: 7D9				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	92

Setting: 7D10				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	113

Setting: 7D11				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	112

Setting: 7D12				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	98

Setting: 7D13				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	153

Setting: 7D14				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9-Jan	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	155

Setting: 7D15				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	162

Setting: 7D16				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	152

Setting: 7D17				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	164

Setting: 7D18				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	7-10	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	99

Setting: 7D19				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	142

Setting: 7D20				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	132

Setting: 7D21				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	108

Setting: 7D22				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	111

Setting: 7D23				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	134

Setting: 7D24				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-50	5	5	25
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	141

Setting: 7D25				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	128

Setting: 7D26				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	134

Setting: 7D27				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Clay	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	110

Setting: 7D28				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Laom	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Slit Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	124

Setting: 7D29				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Slit Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7D30				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Slit Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7D31				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	167

Setting: 7D32				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	154

Setting: 7D33				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	0-2	4	1	4
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Confining Layer	5	1	5
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	48

Setting: 7D34				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	134

Setting: 7D35				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Clay	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	125

Setting: 7D36				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	118

Setting: 7D37				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	114

Setting: 7D38				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silty Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	119

Setting: 7D39				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Snady Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silty Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	130

Setting: 7D40				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Snady Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	135

Setting: 7D41				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	126

Setting: 7D42				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	136

Setting: 7D43				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	121

Setting: 7D44				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	116

Setting: 7D45				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	125

Setting: 7D46				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	156

Setting: 7D47				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	152

Setting: 7D48				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	149

Setting: 7D49				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Clay	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	142

Setting: 7D50				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	146

Setting: 7D51				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	89

Setting: 7D52				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	99

Setting: 7D53				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	123

Setting: 7D54				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	133

Setting: 7D55				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	83

Setting: 7D56				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	120

Setting: 7D57				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	131

Setting: 7D58				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	106

Setting: 7D59				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	145

Setting: 7D60				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	129

Setting: 7D61				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	150

Setting: 7D62				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	140

Setting: 7D63				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	135

Setting: 7D64				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	98

Setting: 7D65				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	133

Setting: 7D66				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	123

Setting: 7D67				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	113

Setting: 7D68				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	104

Setting: 7D69				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	134

Setting: 7D70				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	138

Setting: 7D71				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	132

Setting: 7D72				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	102

Setting: 7D73				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	101

Setting: 7D74				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	97

Setting: 7D75				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	117

Setting: 7D76				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	128

Setting: 7D77				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	134

Setting: 7D78				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	131

Setting: 7D79				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	125

Setting: 7D80				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	124

Setting: 7D81				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	128

Setting: 7D82				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	166

Setting: 7D83				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	157

Setting: 7D84				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	145

Setting: 7D85				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	151

Setting: 7D86				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	161

Setting: 7D87				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	137

Setting: 7D88				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	146

Setting: 7D89				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	159

Setting: 7D90				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	147

Setting: 7D91				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Loam	2	5	10
Topography	6-12%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	165

Setting: 7D92				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	88

Setting: 7D93				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	86

Setting: 7D94				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

Setting: 7D95				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	96

Setting: 7D96				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	105

Setting: 7D97				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	109

Setting: 7D98				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7D99				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	123

Setting: 7D100				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7D101				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

Setting: 7D102				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	99

Setting: 7D103				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	93

Setting: 7D104				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	18+	1	1	1
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	91

Setting: 7D105				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	85

Setting: 7D106				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	89

Setting: 7D107				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7D108				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	103

Setting: 7D109				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	101

Setting: 7D110				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	111

Setting: 7D111				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	87

Setting: 7D112				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	18+	1	1	1
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	81

Setting: 7D113				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Sand and Gravel w/Silt and Clay	2	10	20
Topography	18+	1	1	1
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	85

Setting: 7D114				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	73

Setting: 7D115				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	109

Setting: 7D116				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Clay	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	121

Setting: 7D117				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Sand and Gravel w/Silt and Clay	2	10	20
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7D118				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Clay	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	127

Setting: 7D119				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Clay	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	131

Setting: 7D120				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Clay	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	132

Setting: 7D121				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Clay	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	122

Setting: 7D122				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	120

Setting: 7D123				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Snady Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	136

Setting: 7D124				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	112

Setting: 7D125				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	110

Setting: 7D126				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	105

Setting: 7D127				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7D128				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silty Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	121

Setting: 7D129				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silty Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7D130				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	100

Setting: 7D131				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	124

Setting: 7D132				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	95

Setting: 7D133				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silty Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	117

Setting: 7D134				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silty Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	114

Setting: 7D135				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Clay	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	116

Setting: 7D136				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7D137				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Sandy Clay	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	121

Setting: 7D138				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Sandy Clay	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	116

Setting: 7D139				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Thin or Absent	2	10	20
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7D140				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Clay	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	141

Setting: 7D141				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Clay	2	6	12
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	129

Setting: 7D142				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	128

Setting: 7D143				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Clay	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	111

Setting: 7D144				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	156

Setting: 7D145				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	138

Setting: 7D146				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	137

Setting: 7D147				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	4	8
Topography	2-6%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	150

Setting: 7D148				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	4	8
Topography	2-6%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	140

Setting: 7D149				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	148

Setting: 7D150				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Sandy Clay	2	6	12
Topography	0-2	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	144

Setting: 7D151				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	128

Setting: 7D152				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	132

Setting: 7D153				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	118

Setting: 7D154				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	117

Setting: 7D155				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	142

Setting: 7D156				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Peat	2	8	16
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	158

Setting: 7D157				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	117

Setting: 7D158				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Clay	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7D159				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	108

Setting: 7D160				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Laom	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	135

Setting: 7D161				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	106

Setting: 7D162				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	128

Setting: 7D163				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	130

Setting: 7D164				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silty Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	130

Setting: 7D165				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	153

Setting: 7D166				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	169

Setting: 7D167				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silty Clay	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	110

Setting: 7D168				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Loam	2	5	10
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	112

Setting: 7D169				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	129

Setting: 7D170				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	129

Setting: 7D171				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	132

Setting: 7D172				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	139

Setting: 7D173				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	127

Setting: 7D174				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	133

Setting: 7D175				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	18+%	1	1	1
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	111

Setting: 7D176				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Clay	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	124

Setting: 7D177				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silt Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	120

Setting: 7D178				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silt Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	110

Setting: 7D179				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silt Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	127

Setting: 7D180				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	100

Setting: 7D181				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	107

Setting: 7D182				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	5	10
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	109

Setting: 7D183				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Sandy loam	2	6	12
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	111

Setting: 7D184				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7D185				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	114

Setting: 7D186				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	87

Setting: 7D187				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	154

Setting: 7D188				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	164

Setting: 7D189				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	162

Setting: 7D190				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	168

Setting: 7D191				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	166

Setting: 7D192				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	700-1000	3	6	18
		GWPP	INDEX	158

Setting: 7D193				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	8	24
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	1000-2000	3	8	24
		GWPP	INDEX	178

Setting: 7D194				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	8	24
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	1000-2000	3	8	24
		GWPP	INDEX	182

Setting: 7D195				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	7-10	4	8	32
Aquifer Media	Sand and Gravel	3	8	24
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	7	35
Hydraulic Conductivity	1000-2000	3	8	24
		GWPP	INDEX	172

Setting: 7D196				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	154

Setting: 7D197				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Sandy Loam	2	6	12
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	143

Setting: 7D198				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	133

Setting: 7D199				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	113

Setting: 7D200				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	139

Setting: 7D201				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	117

Setting: 7D202				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	118

Setting: 7D203				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	122

Setting: 7D204				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	123

Setting: 7D205				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	124

Setting: 7D206				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	107

Setting: 7D207				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	101

Setting: 7D208				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	103

Setting: 7D209				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	135

Setting: 7D210				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	123

Setting: 7D211				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-2	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	128

Setting: 7D212				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	97

Setting: 7D213				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	108

Setting: 7D214				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	113

Setting: 7D215				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Clay	5	3	15
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	110

Setting: 7D216				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Loam	2	6	12
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	124

Setting: 7D217				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Peat	2	8	16
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	130

Setting: 7D218				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	126

Setting: 7D219				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	116

Setting: 7D220				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	94

Setting: 7D221				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	122

Setting: 7D222				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	154

Setting: 7D223				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	7	21
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	145

Setting: 7D224				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	80

Setting: 7D225				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	79

Setting: 7D226				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	90

Setting: 7D227				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	117

Setting: 7D228				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7D229				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Loam	2	5	10
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	89

Setting: 7D230				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	100+	5	1	5
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Sandy Loam	2	6	12
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	81

Setting: 7D231				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	75-100	5	2	10
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	85

Setting: 7D232				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	132

Setting: 7D233				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	120

Setting: 7D234				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	147

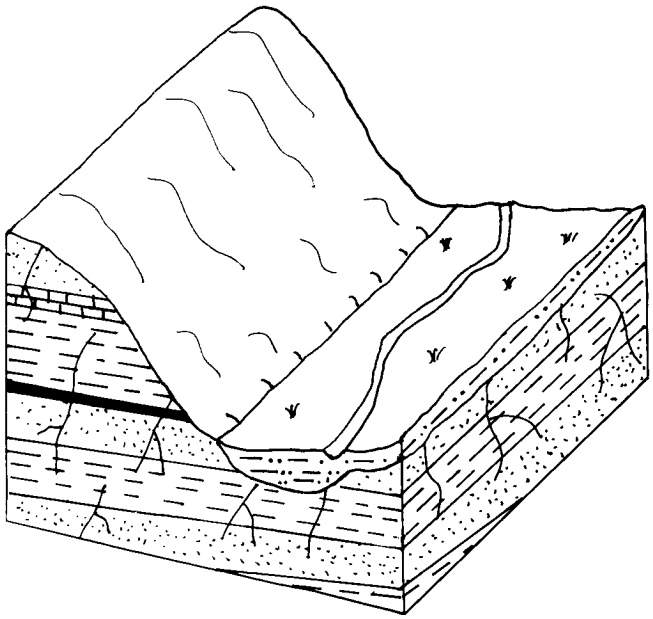
Setting: 7D235				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	129

Setting: 7D236				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	156

Setting: 7D237				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	6	18
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	300-700	3	4	12
		GWPP	INDEX	152

Setting: 7D238				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	12-18%	1	3	3
Impact of Vadose Zone	Till	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	106

Setting: 7D239				GENERAL
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silt Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	130



7Ec Alluvium Over Sedimentary Rock

This hydrogeologic setting is found throughout much of Fairfield County with the exception of extreme northern Fairfield County which is dominated by buried valleys. This setting consists of small tributary streams in upland areas with thin glacial cover. This setting is characterized by relatively narrow, flat-bottomed stream valleys flanked by steep, bedrock-controlled ridges. The underlying aquifers vary considerably and include almost every bedrock unit and lithology encountered in Fairfield County. The vadose zone media typically consists of alluvium composed of silt, clay, and fine sand. Depth to water is typically shallow. Where the bedrock is close to the surface, the aquifer may be in direct hydraulic connection with the stream. Soils are usually silt loams or loams. Yields typically average about 5 gpm for shales, 10 to 15 gpm for interbedded sedimentary rocks, and over 20 gpm for sandstones, particularly, the Black Hand Sandstone. Recharge is moderate to high due to the shallow depth to water, the flat topography, and the moderate permeability of the alluvium.

The GWPP index values for the hydrogeologic setting Alluvium Over Sedimentary Rock ranged from 88 to 138 with the total number of GWPP index calculations equaling 40.

Setting: 7Ec1		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	130

Setting: 7Ec2		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	128

Setting: 7Ec3		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7Ec4		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Silt Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	124

Setting: 7Ec5		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Silt Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	123

Setting: 7Ec6		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silt Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	133

Setting: 7Ec7		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sand and Gravel	2	6	12
Topography	2-6%	1	10	10
Impact of Vadose Zone	Sand and Gravel	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	137

Setting: 7Ec8		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	135

Setting: 7Ec9		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	0-5	5	10	50
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	2	6
		GWPP	INDEX	138

Setting: 7Ec10		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	120

Setting: 7Ec11		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7Ec12		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	118

Setting: 7Ec13		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	129

Setting: 7Ec14		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7Ec15		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	132

Setting: 7Ec16		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	127

Setting: 7Ec17		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	126

Setting: 7Ec18		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	117

Setting: 7Ec19		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	30-50	5	5	25
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	102

Setting: 7Ec20		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone/Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	122

Setting: 7Ec21		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Shale	3	3	9
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	108

Setting: 7Ec22		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-35	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7Ec23		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	90

Setting: 7Ec24		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	50-75	5	3	15
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	88

Setting: 7Ec25		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	114

Setting: 7Ec26		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	120

Setting: 7Ec27		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	108

Setting: 7Ec28		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	110

Setting: 7Ec29		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Interbedded Sandstone and Shale	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7Ec30		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	119

Setting: 7Ec31		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	12-18%	1	3	3
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	108

Setting: 7Ec32		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	127

Setting: 7Ec33		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	124

Setting: 7Ec34		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	123

Setting: 7Ec35		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Clay Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	131

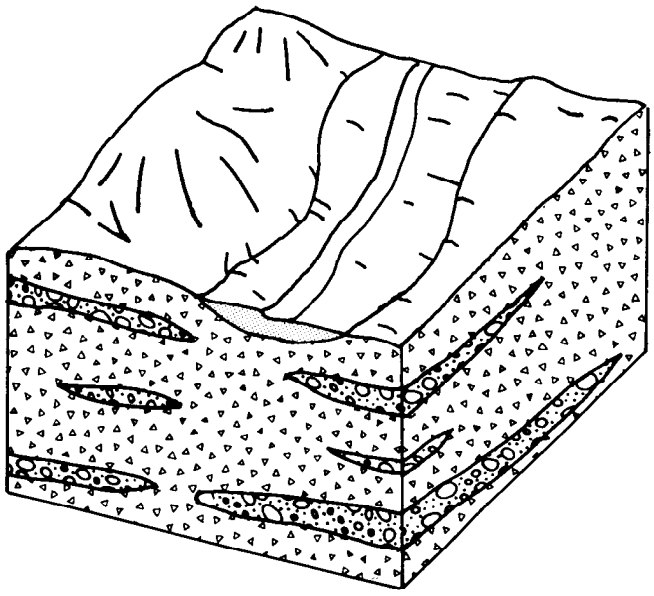
Setting: 7Ec36		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	100-300	3	2	6
		GWPP	INDEX	138

Setting: 7Ec37		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	138

Setting: 7Ec38		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone Shale	3	4	12
Soil Media	Loam	2	5	10
Topography	2-6%	1	9	9
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	113

Setting: 7Ec39		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone Shale	3	4	12
Soil Media	Silty Loam	2	4	8
Topography	2-6%	1	9	9
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	131

Setting: 7Ec40		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sandstone	3	5	15
Soil Media	Loam	2	5	10
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	132



7Ed Alluvium Over Glacial Till

This hydrogeologic setting was used for a limited number of minor stream valleys in Fairfield County. This setting is characterized by flat-lying floodplains and modern stream terraces containing thin to moderate thicknesses of alluvium. This setting is similar to the 7Af Sand and Gravel Interbedded in Glacial Till setting except for the presence of the modern stream and related deposits. The stream may or may not be in hydraulic connection with the underlying sand and gravel lenses which constitute the aquifer. The surficial, silty alluvium is generally more permeable than the underlying till. The alluvium is too thin to be considered the aquifer. Soils are typically silt loams. Yields range from 10 to 25 gpm. Depth to water is shallow, usually under 20 feet. Recharge is moderate due to the shallow depth to water, the flat topography, and the relatively low permeability of the glacial till.

GWPP index values for the hydrogeologic setting Alluvium Over Glacial Till range from 115 to 135 with the total number of GWPP index calculations equaling 7.

Setting: 7Ed1		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	4	12
Soil Media	Clay Loam	2	3	6
Topography	6-12%	1	5	5
Impact of Vadose Zone	Silt Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	120

Setting: 7Ed2		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7Ed3		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Sandy Loam	2	6	12
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	129

Setting: 7Ed4		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Silt Clay	5	4	20
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	115

Setting: 7Ed5		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	125

Setting: 7Ed6		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	5-15	5	9	45
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Silty Loam	2	4	8
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	6	30
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	135

Setting: 7Ed7		GENERAL		
FEATURE	RANGE	WEIGHT	RATING	INDEX
Depth to Water	15-30	5	7	35
Net Recharge	4-7	4	6	24
Aquifer Media	Sand and Gravel	3	5	15
Soil Media	Loam	2	3	6
Topography	0-2%	1	10	10
Impact of Vadose Zone	Sand and Gravel w/Silt and Clay	5	5	25
Hydraulic Conductivity	1-100	3	1	3
		GWPP	INDEX	118

Ground Water Pollution Potential of FAIRFIELD COUNTY

by

James J. Schmidt

Miles

Kilometers

CONTOUR INTERVAL 10 FEET OR 20 FEET

The ground water pollution potential of this county has been mapped using the methodology described in U.S. EPA Publication EPA/600-2-87/035, "DRASTIC: A Standardized System for Evaluating Ground Water Pollution Potential Using Hydrogeologic Settings" (Aller et al., 1987).

County Line

Township Line

Incorporated City Limit

Description of Map Symbols

Hydrogeologic Region — Hydrogeologic Setting

7Ad6
98 — Relative Pollution Potential

Observation Well Site *

Gravel Pit / Quarry

*Observation well sites indicate the location of wells used to collect ground water level information. These wells are part of the state observation well network. Hydrographs of the water levels recorded in these and other State observation wells can be obtained through ODNR-Division of Water.

Pollution Potential Index Range

Higher		180 - 199
		160 - 179
		140 - 159
to		120 - 139
		100 - 119
		80 - 99
Lower		< 79

Hydrogeologic Settings

- 6Da – Alternating Sandstone and Shale – Thin Soil
- 6Db – Alternating Sandstone and Shale – Thick Soil
- 7Aa – Glacial Till Over Bedded Sedimentary Rocks
- 7Ad – Glacial Till Over Sandstone
- 7Ae – Glacial Till Over Shale
- 7Af – Sand and Gravel Interbedded in Glacial Till
- 7D – Buried Valley
- 7Ec – Alluvium Over Bedded Sedimentary Rocks
- 7Ed – Alluvium Over Glacial Till

A more detailed description of the hydrogeologic settings and the evaluation of the pollution potential may be found in the publication "Ground Water Pollution Potential of Fairfield County," GWPP Report No. 41, Ohio Department of Natural Resources, Division of Water.

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George V. Voinovich
Governor
Donald C. Anderson
Director

ERRATA SHEET FAIRFIELD COUNTY
Ground Water Pollution Potential No. 41

Changes on Map (note-values in tables are correct!)

Hydrogeologic Settings (on Map):

-Setting labeled 7Ea11 (115) just west of Liberty Twp. / Violet Twp line should be 7Ec11 (115)
-Unlabeled light blue polygon (next to 7D18) west of Violet Twp. / Liberty Twp. line should be 7Ad2
-Unlabeled light blue polygon on the Bloom Twp. / Amanda Twp. line should be 7Ad84 (96)
-Setting labeled 7Aa77 just west of Amanda Twp. / Hocking Twp. line should be 7Ad77 (108)
-Setting labeled 7Ae89 (89) southwest of Lancaster near Rt 22 should be 7Ad89 (89)
-Setting labeled 7Da2 (121) in the village of Sugar Grove should be 6Da2 (121)

Changes in Report Map

Table omitted from text

7Ec41	
Depth to water	5-15 (9)
Recharge	4-7 (6)
Aquifer	Sandstone (5)
Soil	Silty Loam (4)
Topography	2-6 (9)
Imp. Vadose	Silt / Clay (5)
Hyd. Cond.	1-100 (1)
GWPP Index	129