WELLHEAD PROTECTION PLAN

for

The Village of Pinehurst,

Moore County, North Carolina

PWS ID # 03-63-108

December 16, 2008

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BACKGROUND

In 1986, Safe Drinking Water Act amendments added Section 1428, "State Programs to Establish Wellhead Protection Areas", which requires each state to develop a program to "protect wellhead areas within their jurisdiction from contaminants which may have any adverse affects on the health of persons". The term wellhead protection area (WHPA) is defined in the law as "the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield". North Carolina's EPA-approved Wellhead Protection Program provides technical support to local governments and public water supply systems in their endeavors to develop and implement their own Wellhead Protection Plans (WHPPs).

North Carolina's objective in developing a protection program is to provide a process for public water system operators to learn more about their groundwater systems and how to protect them. Wellhead Protection Plans allow communities to take charge of protecting the quality of their drinking water by identifying and carefully managing areas that supply groundwater to their public wells. Implementation of a WHPP in North Carolina is voluntary at the present.

INTRODUCTION

The Village of Pinehurst is located in Moore County in south central North Carolina. Locally recognized as an outstanding residential community, Pinehurst is famed around the world as a major golf resort. Pinehurst is located about 60 miles southwest of Raleigh, the State capitol, and about 75 miles east of Charlottte. Pinehurst, as of 2000, had a population of 9,706 people within the corporate limits area (about 14.3 square miles). This is an increase of 4,615 people from the 1990 census. The population is somewhat seasonal because of the attraction of these world-class golfing facilities and other amenities in the area.

The Pinehurst area is located entirely in the Sandhills. The 1985 Geologic Map of North Carolina shows that the near surface sediments consist of the Cretaceous-age Middendorf, and the Tertiary Pinehurst Formations. Gray sand, sandstone, and mudstone, with clay balls and iron-cemented concretions are common in the Middendorf, and medium- to course-sands are found in the Pinehurst area. Formations commonly exhibit crossbedding.

As the name implies, the dominant feature of the Sandhills is a deep layer of unconsolidated to poorly consolidated surficial sand that underlies the upland areas. The area is characterized by rolling hills having rather flat crests and altitudes generally ranging from 450 to 550 feet. The larger streams of the area originate in the Piedmont and flow eastward or southeastward across the Coastal Plain where their valleys have

steep sides and well developed flood plains. Local relief up to 200 feet is common. Rainfall readily infiltrates the surficial sands and percolates downward to the deep water table. Groundwater is the major source of stream flow in the local streams. Accordingly, flow in the streams is the most consistent of any area of the State. The streams seldom flood or go dry, because of the large infiltration capacity of the sandy soil and the great groundwater storage capacity of the thick sand aquifer.

Moore County Public Utilities provides water to the Village of Pinehurst using groundwater exclusively. More than 16,473 persons are served by the system, which has just over 7,162 connections. The system uses twenty operational water supply wells, and has 2.3 million gallons of storage, using 3 elevated tanks (800,000-gallons) and 2 ground tanks (1,500,000-gallons). The served population consumes 2.1 million gallons per day on average. Maximum daily use is 4.12 million gallons per day. Bleach, caustic and phosphate are injected at the wellheads to disinfect, and to control acidity and corrosion. Moore County Public Utility has contracted to purchase 250,000-gallons per day from the Town of Southern Pines and 400,000 for the Town of Aberdeen. Purchases can reach 720,000 gallons per day and 1,000,000 gallons per day from Southern Pines and Aberdeen respectively, if necessary. A bulk water purchase of 1 million gallons per day from the EMWD East Moore Water District is presently available for the fall of 2008.

Wells are controlled by a custom telemetry system, and the pump cycle is typically less than 16 hours per day, unless drought conditions exist. All available data on the water supply wells is listed in Table 1. The portion of the system located in Pinehurst has interconnections to Aberdeen (routine and emergency, Southern Pines (routine and emergency), and Seven Lakes (one-way only). The majority of the area is served by municipal sewerage, with the exception of Clarendon Gardens subdivision, where privately owned septic tanks are used. Moore County inspects all lift stations one to two times per week. By state regulation, the wells are inspected daily.

Large portions of Pinehurst consist of manicured and irrigated grassy areas, such as golf courses, club houses, horse tracks, parks, and private lawns. The Sandhills setting lends itself to some of the finest golf courses in the world, and portions of ten other golf courses are located within the Wellhead Protection Area, as well as other large recreational-use plots, including Rassie Wicker and Cannon Parks.

An area of increasing concern for the Village of Pinehurst is the large number of privately-owned irrigation wells. Pumping irrigation wells can lower the water table and cause problems for the public water supply wells. A wellhead protection committee was formed to address the increasing number of privately-owned irrigation wells, and a well ordinance was written to restrict the construction of new irrigation wells within 2,000 feet of municipal water supply wells.

The wellhead protection area outlined in this plan and in the village irrigation well ordinance is based on a 2,000 foot buffer zone around each well, with the overlap of radii ignored, and enclaves removed. The 2,000 foot radius is based on maximum pumping

rates, and estimated recharge to the aquifer. Two other water systems which operate municipal water supply wells are located within the village and extraterritorial jurisdiction of Pinehurst. Clarendon Gardens (PWS ID# 03-63-102) operates two water supply wells that provide water to the subdivision, and Moore Regional Hospital (PWS ID#03-63-135) operates one municipal well. These three wells have wellhead protection areas assigned the same radii as the 20 Moore County Public Utilities wells.

I. THE WELLHEAD PROTECTION COMMITTEE

A Wellhead Protection Committee (WPC) was formed to develop a Wellhead Protection Plan for The Village of Pinehurst. The committee consists of:

- Mr. William Thurman, Chairman, Wellhead Protection Committee,
- Mr. Donald Van Roosen, Chairman of the Water Committee
- Mr. John Ruggles, Geologist and Committee Member,
- Mr. Charlie Holbrook, Geologist and Committee Member,
- Mr. Brad Kocher, Chair of Conservation Commission Water Committee,
- Mr. Walter Bennett, Wellhead Committee Member, member of Pinehurst Civic Group,
- Ms. Andrea Correll, Pinehurst Director of Planning and Inspections,
- Mr. Dennis Brobst, Moore County Director of Public Works
- Mr. Ben Vaughn, Utility Operation Manager, Moore County Public Utilities,
- Mr. Keith Starner, North Carolina Rural Water Association.

The mission of the Wellhead Protection Committee is to protect the water supply of the Village of Pinehurst by developing an appropriate village ordinance to limit the number of irrigation wells, and to educate the public, local businesses, and industries on best management practices and standard operating procedures to limit the potential for leaks and spills. The Village hopes to manage the aquifer by anticipating wellfield expansion as it keeps pace with demographic growth.

The Director of Public Utilities the Village Director of Planning and Inspections and the Village Engineer are responsible for implementing the plan. Moore County Public Utilities is responsible for all aspects of the plan addressing the water system operation, emergency response procedures, groundwater monitoring, and education of county personnel. The Village of Pinehurst is responsible for managing the wellhead protection area, using regulations and public education. The Village is responsible for distributing educational materials, mapping, enacting and maintaining ordinances, educating village personnel, and public notification. Both the Village of Pinehurst and Moore County Public Utilities have accepted the recommendations made in the plan by the WPC. The Village of Pinehurst and Moore County Public Utilities will begin implementation of the plan immediately following approval by the Public Water Supply Section of NCDENR and will complete implementation within ninety (90) days. Upon completion of the implementation phase of the WHP Plan, the Village Director of Planning will submit notification to the Public Water Supply Section in accordance with the schedule set forth in the approved WHP Plan.

II. DELINEATING THE WELLHEAD PROTECTION AREA

The fixed radius from the wellhead plan approved in 2003 was maintained at 2,000 feet about each public well in the Pinehurst wellfield. The minimum required protection radius around each of the wells was also determined using criterion from *The North Carolina Wellhead Protection Guidebook*. A radius of 2,000-feet was chosen to satisfy these minimum protection requirements. Table 2 shows the minimum protection radii based on a ten year time of travel. The calculations used a maximum pumping cycle of 21 hours per day to determine the radii based on maximum pumping time during seasonal peak demands and under drought conditions. The radii for wells located close to one another intersect, and overlaps with adjacent areas were ignored as mentioned in the previous revision of this document. Twenty-four hour pump tests show that the aquifer behaves as a semi-confined aquifer, which receives a tremendous volume of recharge from the surficial aquifer. The sands are highly transmissive and can allow rapid migration of contamination.

The Pinehurst Wellhead Protection Area map shows the location of the wells, and the wellhead protection area. Circular wellhead protection radii were chosen due to the relatively homogenous and highly transmissive nature of the Sandhills sediments. The minimum required protection areas were determined as follows:

Q = well yield in gallons per day (based on limiting the pumping cycle to less than 22-hours per day),

W = recharge rate, 600,000-gallons per day per square mile, (Heath and Johnson, 2001),

A = the area, in square miles, equal to Q/W.

The radii of circular protection areas (r, in feet) are found by the formula:

$$r = \sqrt{A \text{ (sq. miles)} / \pi} \times 5280 \text{ ft/mile}$$

It is anticipated that a radius of 2,000 feet about each municipal well will provide adequate protection, and prevent lowering of the static water level by irrigation wells. Drawdowns of several feet were noticed in non-pumping wells adjacent to pumping wells located 1,700 feet away, which is indicative of confined or semi-confined aquifers. The Clarendon Gardens and Moore County Regional Hospital well construction data is not presented in this report, but by the rationale provided in Table 1 for the 20 Moore County Public Utilities wells, a 2,000 foot fixed radius should provide an adequate buffer for these wells.

The wellhead protection map maintains a protective area around W01 which is permanently abandoned, also Well 5A was drilled in close proximity to Well 5 as a replacement; Well 5 was grouted to land surface. The wellhead protection area is slightly smaller than the plan approved in 2003.

III. INVENTORY OF POTENTIAL CONTAMINANT SOURCES

All potential contamination sources in the wellhead protection areas were inventoried as listed below:

- A database, file, and literature search of all appropriate Federal, State, and Local databases was conducted. The on-line databases and records searched are listed in the appendix.
- Local records on file at the Village of Pinehurst and Moore County were researched, and the fire departments and county emergency services were contacted to identify past spills, leaks, or other potential sources.
- Records on file at the Fayetteville Regional Office of NCDENR were researched.
- Topographic maps and aerial photographs were used to identify land-use activities, drainage patterns, surface water bodies, and potential contaminant sources no longer in use.
- Windshield and walk-through surveys were conducted to obtain or verify contaminant and owner information.

A database and literature search was conducted to determine potential contamination sources within each protection area. The database and literature search results are listed in the appendix, and potential contaminant sources were added to the inventory for verification and site visits. As a starting point, Pinehurst's "Source Water Assessment Program (SWAP) Report" showed the results of available electronic potential contamination source (PCS) databases with statewide coverage. This search confirmed the location of previously listed potential sources of contamination, but added no new sites. The SWAP Report is available by accessing the PWSS's Source Water Assessment and Protection Web site at http://swap.deh.enr.state.nc.us/swap/.

Records of the local fire department and county emergency management services were searched for any past incidents, spills, or potential contaminant sources within the wellhead protection area. Files at the Fayetteville Regional Office of NCDENR were researched for animal waste operations, leaking Underground Storage Tank (UST) incidents, groundwater pollution incidents, well abandonment records, injection well permits, and federally registered UST's. Waste handling facilities, landfills, and hazardous waste site records on file with the Fayetteville Region Solid and Hazardous Waste Section were also researched.

Private irrigation wells are not depicted on the map, because of the large number of these wells in the area. The Village of Pinehurst requires all new (after 2003) irrigation wells to be permitted and inspected, and well construction records are kept at the Village Hall.

On-site visits were conducted at businesses, chemical handling and storage facilities, and other potential contaminant sources listed on the inventory to obtain contact and potential contaminant information. The "Inventory of Potential Contaminant Sources" survey forms are included in the appendix, which list owner contact information

and data collected during the visits. Similar types of potential contaminant sources were categorized to assist in plotting the site locations on the source inventory map. The types of potential contaminant sources and map plot codes are listed in Table 3.

The windshield and walk-through surveys identified the remainder of the potential contaminant sources, and obtained or verified owner contact information and data regarding the type and quantity of contaminants. All the potential contaminant sources identified in the database, literature, file, and on-site surveys are presented in the contaminant source inventory in Table 4.

Table 4 lists the potential contaminant sources, and the individual plot codes used to label the sites plotted on the inventory maps. Where listed on the potential contamination source inventory forms, "small quantities" means less than 100-gallons or 100-pounds. The Pinehurst Wellhead Protection Area map illustrates the location of the potential contaminant sources relative to the wellheads, using the plot codes from the contaminant source inventory.

A map reconnaissance identified land use activities and other terrain features on aerial photos and 1:24,000 scale, 7.5-minute topographic maps. Determining land use activities helps to formulate management strategies, and assists in identifying the types of potential contaminant sources that can be expected in the protection areas. Land use area determination was based on visual percent estimates, and is shown in Table 5.

The land use activity data indicate that management efforts should be directed primarily toward residences, and golf courses. Residents within the protection areas will be targeted for education on irrigation, water conservation, household hazardous waste disposal and storage, and other pertinent materials. Golf courses and resort land owners will be targeted for education on safe agricultural practices, pesticide and herbicide storage, application, and disposal, and safe operating procedures.

Risk Analysis

The highly transmissive sands of the Pinehurst wellfield would allow rapid transport of anthropogenic spills or leaks of contaminants. The semi-confined aquifer is at risk of the vertical migration of contaminants as evidenced by prolific recharge of the deep aquifer by the surficial sand aquifer. Well logs collected by the village show discontinuous clay pods and lenses which make up the leaky semi-confining unit. Because the wells are located in a semi-confined aquifer, the groundwater is at greatest risk from:

- Improper application or storage of pesticides, herbicides, and fertilizers,
- Long-term, leaking underground or above ground storage tanks,
- Existing Groundwater Pollution Incidents, and
- Sudden, large volume surface releases.

The categories of potential contaminant sources from Table 3 that pose the greatest risk to the water table aquifer are from existing pollution incidents, golf courses, irrigation wells, and facilities that store or mix pesticides or herbicides.

The potential contaminant sources were evaluated to determine the risk posed to each well, using proximity, quantity, relative toxicity, and the likelihood of occurrence. These evaluations were used to rank the sites as high, moderate or low risk. Ranges of values were selected to evaluate the proximity of the source to the well, and the quantity of contaminant each source could potentially release. Categories were chosen to rank the relative toxicity of the contaminants and the likelihood of occurrence that a contamination event could occur.

Table 6 shows the value ranges selected to rank proximity, (in feet) and quantity (in gallons and pounds). Also listed in this document are ranking schemes for relative toxicity, (using general chemical and substance categories) and the likelihood of occurrence (using the plot codes from Table 3 to identify the type of potential contaminant source). The likelihood of occurrence was evaluated by estimating the potential for a spill or leak based on the type of contaminant source.

The ranking criteria were applied to the contaminant source inventory to determine the overall risk posed to each well. The numerical risk analysis, Table 7, shows the risk ranking for proximity, quantity, relative toxicity, and likelihood of occurrence. The overall risk was then determined based on these risk rankings.

The distance from each potential source to the affected wells was determined and ranked according to the proximity criteria. The risk estimates for quantity, relative toxicity, and likelihood of occurrence also appear in Table 7, using the risk evaluation criteria.

To determine the overall numerical risk for each source relative to the potentially affected well, the data from the proximity, quantity, toxicity, and likelihood evaluations were combined numerically, by assigning a value of 1 to low-risk, 2 to moderate-risk, and 3 to high-risk evaluations. The numerical values for each of the four risk evaluations, (proximity, quantity, toxicity, and likelihood of occurrence), were added. The Numerical Risk Ranking column of Table 7 has a numerical ranking from 4, the lowest score possible (lowest risk), through 12, the highest score possible (highest risk).

The potential sources of contamination that represent the greatest risk to the wells are existing pollution incident sites, roads and the railroad, and facilities which mix or store pesticides. Table 8, the Overall Risk, uses the numerical ranking from Risk Analysis table to identify the most vulnerable wells.

Although well W01 is abandoned, it is included in the risk analysis. Well W01 is permanently abandoned by grouting, due to contamination from leaking underground storage tanks. Periodic monitoring in the vicinity of the W01 continues through the use of monitor wells near the suspected contaminant release point, as required by the

Fayetteville Regional Office. Well W06 was temporarily abandoned, also due to leaking underground tanks, but has been returned to service .

IV. MANAGING THE WELLHEAD PROTECTION AREA

The Village of Pinehurst has chosen a dual approach to managing the wellhead areas using a Village ordinance, and public education. Additionally, Moore County Public Utilities is managing the resource by monitoring groundwater conditions.

Amendments to the Pinehurst Development Ordinance, Section 10.2.10 referenced here, will allow approved irrigation wells in the R-210 Zoning District to enable horse farms and other agricultural uses access to needed irrigation water. Also an additional amendment to allow the required lot size in the R-210 Zoning District to be reduced to one acre for public drinking water wells is needed immediately.

A. Village Ordinances

The Pinehurst Development Ordinance was first revised after the adoption of the original Wellhead Protection Plan in 2003. The Ordinance has subsequently been amended in 2005 with the adoption of a new Pinehurst Development Ordinance and in 2007 with the inclusion of a geothermal energy options.

Find below the current Pinehurst Development requirements:

Section 10.2.10 Well Field Protection

10.2.10.1 Purpose and Scope; Well Field Map Established

The main source of safe drinking water for the Village is the Pinehurst Well Field that consists of municipal wells that tap the Middendorf Aquifer that lies beneath the Village. The Middendorf Aquifer is the only available aquifer in the area to supply safe drinking water for the Village. The Pinehurst Well Field is shown on a map on file in the Department of Planning and Inspection and that may be redrawn from time to time by the addition of new municipal wells. The Pinehurst Well Field is established by drawing a circle with a 2,000-foot radius from the center point of each municipal well as now or hereafter established and including any area created as an enclave within the exterior boundaries of such circles. The Pinehurst Well Field map as now or hereafter drawn is hereby adopted and made a part of this Ordinance.

Lots and parcels that are shown on the Well Field Map as being partially within and partially outside the designated well field area may be permitted to construct an irrigation well as a special exception within the part of the lot or parcel within the well field protection area provided that the Zoning Board of Adjustment finds based on factual evidence presented, that no reasonable alternative exists for the construction of an irrigation well on the portion of the lot or parcel that lies outside of the well field area. In approving the construction of an irrigation well within the well field area, the Zoning Board of Adjustment may place such reasonable conditions and safeguards as the Board may deem appropriate to protect the public health, safety and general welfare.

10.2.10.2 Well Field Development Regulations

Within the Pinehurst Well Field the following regulations shall apply, and no development permit shall be issued without the permits and approvals required herein having been obtained:

(a) Public Utility Wells

Public utility wells owned and/or operated by the public utility are exempt from this Section;

(b) Irrigation Wells

(1) Irrigation wells for the purpose of this Ordinance are defined as wells constructed for irrigation only and not for human consumption;

(2) All irrigation wells require a development permit issued to the property owner or well driller. The development permit must be issued before well drilling operations may commence. To receive a development permit, the well must be drilled by a drilling contractor licensed by the State of North Carolina and must be constructed to meet or exceed State Specifications;

(3) No development permits for irrigation wells will be issued for new irrigation wells within the boundaries of The Pinehurst Well Field as now or hereafter fixed except as provided for in 10.2.10.1 above;

(4) Irrigation wells outside the Pinehurst Well Field shall meet the set back requirements listed below:

(i) Two thousand (2,000) feet from a suspected contaminant plume;

(ii) Twenty-five (25) feet from a sewer line;

(iii) Twenty-five (25) feet from a building foundation;

(iv) Fifty (50) feet from an above ground chemical or petroleum tank, above ground or underground storage tank, or other similar known source of potential pollution;

(v) Ten (10) feet from external property lines and ten (10) feet from the full pond of any adjoining lake.

In addition, irrigation wells shall be screened in accordance with Section 10.2.6.5 and shall not be located in a front yard.

(5) Irrigation well permits will be issued for requests outside of The Pinehurst Well Field according to following procedures:

The Permit and Approval Process will be a four-part procedure:

(i) The permit will be issued by the Village to the owner and faxed to Moore County Utility (MCPU) the same day the permit is issued**,** and the permit will be valid for six (6) months;

(ii) The driller must notify the MCPU by phone of desired commencement date for the well. A MCPU Inspector will meet driller on location for site inspection and approval to commence drilling;

(iii) The driller will notify MCPU to inspect well when the driller reaches "Total Depth" and will provide a MCPU Inspector, an accurate Driller's Log and Well Record along with a Well Construction Plan. At that time, the Inspector will make a decision to determine if the well and proposed Construction Plan are in compliance with the Irrigation Well Ordinance;

The Well Construction Plan will show the depth of the well, size of the casing, position of the screen or screens, top of the gravel pack and the depth of grouting. The Inspector may require additional grouting to the top of the gravel pack. Grouting will be pumped not poured;

(iv) If the Well and Construction Plan are in compliance, the Inspector may give the Driller approval on site, to proceed with Construction of the Well and upon return to the MCPU office the Inspector will fax the approved permit (marked approved) back to the Village of Pinehurst Planning and Inspections Department. The Inspector will also fax or forward the Driller's Log and Well Record to the Pinehurst Planning and Inspections Department.

If the Well Construction Plan and accurate Driller's Log are not in compliance with the Ordinance, the Inspector will advise the Drilling Contractor on the required steps to become compliant and will withhold approval for well construction to proceed until the Drilling Contractor has satisfied the requirements.

(c) <u>Potable Wells</u>

(1) Potable wells for the purposes of this ordinance are defined as private drinking water wells;

(2) Permits for new potable wells will be issued only if no public water supply is available for the location within 300 feet;

(3) Permit requirements will be the same as for irrigation wells outside the Pinehurst Well Field;

(4) The permit will require that all potable wells will be drilled by a drilling contractor licensed by the State of North Carolina and the permit will further require that the well will be constructed to meet or exceed minimum State Specifications.

(d) Injection Wells

(1) Injection wells for the purposes of this ordinance are defined as wells drilled to circulate groundwater through ground coupled heating and air conditioning units;

(2) An injection well may be drilled only if groundwater is the only fluid to be circulated through the system. No chemicals may be added to the circulation system;

(3) The permitting process will be the same as for irrigation wells outside the Pinehurst Well Field;

(4) The Ordinance requires that all injection wells will be drilled by a drilling contractor licensed by the State of North Carolina and the permit will further require that the well be constructed to meet or exceed minimum State Specifications.

(e) Septic Tanks

(1) Septic systems for the purposes of this ordinance are defined as private wastewater disposal systems for private home use;

(2) Permits for new Septic Systems may be issued only if no public sewerage system is available for the location within 300 feet;

(3) A permit will be issued in these cases with the requirement that when the public sewer system is available within 300 feet of the location, the septic system will be properly abandoned and pumped out and the owner will be required to connect to the public sewer system within a period of one year at the owner's expense.

(f) Under Ground Storage Tanks

(1) Permits for new Under Ground Storage Tanks containing home heating oil, gasoline, pesticides or other hazardous materials will not be issued for properties within the boundaries of the Pinehurst Well Field;

(2) Permits for new Under Ground Storage Tanks containing butane and propane gas will be issued as long as they meet permitting requirements of this Ordinance.

(g) Above Ground Storage Tanks

(1) Permits for new Above Ground Storage Tanks containing hazardous materials will be issued only if the Above Ground Storage Tank is equipped with a containment structure capable of containing the total capacity of the tank in order to prevent leaks from spilling on to the ground.

(h) Fertilizer/Pesticide Mixing and Storage Areas and Animal Waste Piles

(1) Fertilizer and pesticide mixing and storage areas and animal waste piles must be equipped with a containment structure capable of containing the total capacity of the product being handled to prevent leaching and leaks from infiltrating the ground;

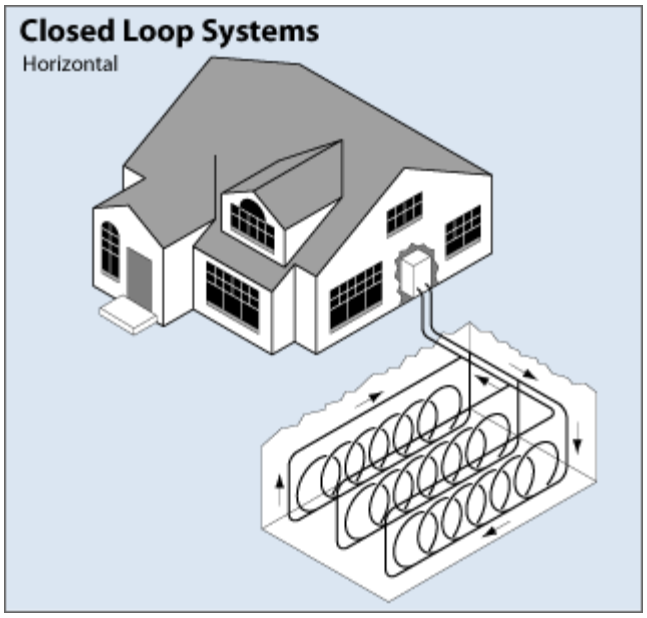
(2) The containment structures mentioned above as they apply to storage of material must have a ground barrier and a cover or cap to prevent leaching into the soil.

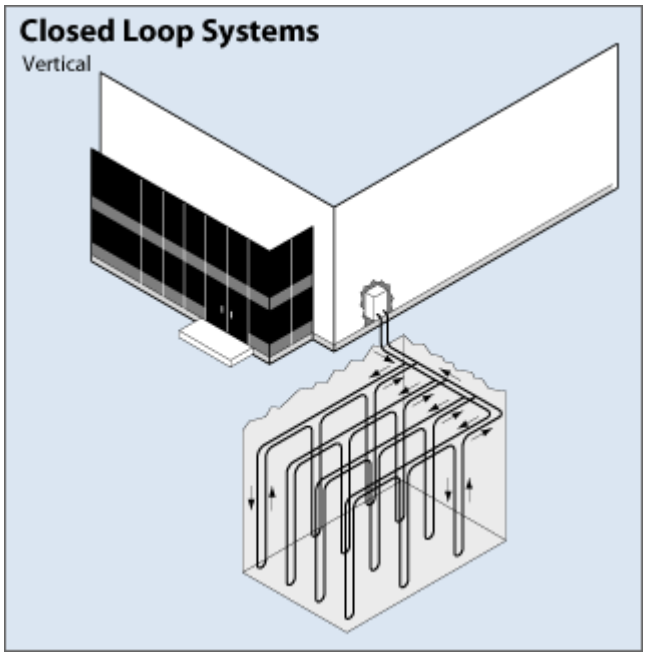
(i) Geothermal Heating and Cooling Closed Loop System

Geothermal Heating and Cooling Closed Loop Systems are permitted both inside and outside of the Pinehurst Well Field Protection Area. To be approved, applications for geothermal systems must be made to the following specifications:

(1) A geothermal system employing drilled well(s) as the earth loop is a permitted application. The application must provide a site plan specifying the location of the well(s) and comply with all applicable Village of Pinehurst and Moore County ordinances and requirements for wells;

(2) A geothermal system employing horizontal closed loops is a permitted application. The applicant shall provide a site plan depicting the layout of the horizontal or vertical closed loop within the property boundaries and its relation to the existing and proposed structures of the site.


Closed Loop Systems
Horizontal


Closed Loop Systems
Vertical

B. Public Education

The Chairman of the Water Committee have primary responsibility for implementing the public education program; the alternate responsibility lies with the Planning Director. The Wellhead Protection Committed may be consulted as required.

A Wellhead Protection Brochure (tri-fold) will be delivered to each resident, farming operation, business, and industry within the Wellhead Protection Area. Copies of this brochure will be made available at the Pinehurst Village Hall, for public education on Wellhead Protection. In general, the brochure will convey to each citizen/business the following information:

- An explanation of groundwater ~~is~~ and the number of wells in their particular system,
- An explanation of the Wellhead Protection Program,
- Sources of groundwater pollution,
- Tips on protecting their water supply,
- Phone numbers to contact for more information,
- Proper disposal of household hazardous wastes and oils (i.e., not disposed of through septic systems, pouring on ground, or through regular garbage collection,
- Proper use of fertilizers, herbicides, and pesticides,
- Information on household hazardous waste collection opportunities, and
- Proper maintenance of heating oil tanks and septic systems.

The Village of Pinehurst will provide information to each golf course, business, and industry located within the WHPA on waste handling practices, best management practices, standard operating procedures, and waste oil disposal methods which could be employed to reduce the potential for ground water contamination. The Village of Pinehurst will also provide information regarding the North Carolina Division of Pollution Prevention and Environmental Assistance (DPPEA) to each golf course, business and industry located within the WHPA. Owners/operators of potential contamination sources will be encouraged to contact the DPPEA.

Personnel at Village-owned and/or operated facilities will be educated on Wellhead Protection and steps they can take to reduce the potential for contamination (e.g., information about best management practices, standard operating procedures, waste handling practices, etc.). County Public Utility personnel will also receive similar training. The water system and the Village of Pinehurst will also contact the State Division of Pollution Prevention and Environmental Assistance (DPPEA) to investigate steps that both entities can take to reduce the amount of waste released into the air and water and on or near the protected areas.

DPPEA provides free technical and other non-regulatory assistance to reduce the amount of waste released into the air and water and on the land. DPPEA serves as a

central repository for waste reduction and pollution prevention information. DPPEA emphasizes waste reduction through pollution prevention, encourages companies and government agencies to go beyond compliance, and provides information about the environmental permitting process. This information is provided at no charge to North Carolina businesses, industries, government agencies, and the general public upon request. For additional information, DPPEA may be contacted at (919) 715-6500 or (800) 763-0136.

The Village of Pinehurst will contact all golf courses, facilities, or agricultural operations within the WHPA that store pesticides, or that are otherwise involved with the application of pesticides, to ensure that they licensed by the State of North Carolina and that proper records are maintained to ensure observance of NC Pesticide Laws. The Village of Pinehurst will provide information to these facilities or agricultural operations regarding waste handling practices, best management practices, standard operating procedures, and proper waste disposal methods which could be employed to reduce the potential for ground water contamination. These facilities will also be provided with information regarding the North Carolina Division of Pollution Prevention and Environmental Assistance (DPPEA).

The Village of Pinehurst will provide EPA Source Water Protection Practices Bulletins regarding turfgrass and agricultural fertilizer application, and small- and large-scale use of pesticides to those involved in the application of these materials, (i.e., businesses, golf courses, athletic fields, lawns, natural areas, etc.).

If any of the residences, businesses, and industries in the WHPA are found to have septic tanks, they will be distributed a copy of the Wellhead Protection Brochure and any other information the system can obtain from County and/or State agencies on proper septic tank maintenance. Information on home heating oil tank maintenance and leak prevention may also be distributed to homeowners.

In the event of a spill, the Moore County Emergency Coordinator will be contacted at the following number:

Moore County Emergency Management: (910) 947-6317

Owners of improperly constructed/abandoned wells identified within the WHPA will be provided information regarding the threat posed to the water supply by these wells. Owners of improperly constructed/abandoned wells will be encouraged to have these wells properly abandoned in accordance with state well construction standards found in 15A NCAC 2C, “Criteria and Standards Applicable to Water Supply and Certain Other Wells”. If information exists that a well is improperly constructed or is contributing to the contamination of groundwater, The Village of Pinehurst will notify the Aquifer Protection Section of the Division of Water Quality.

All owners/operators of regulated USTs and other facilities subject to federal and/or state regulations located within the WHPAs will be requested to supply

documentation that their facility is in compliance with said regulations. Operators of USTs will be asked to supply the system with a copy of their UST permit. If any UST sites are found to be non-compliant, the Underground Storage Tank Section of the State Division of Waste Management will be notified.

If an abandoned UST site is found, the village will contact the North Carolina Division of Waste Management, UST Section, to determine if a closure report was submitted demonstrating that no soil or groundwater contamination was identified during closure. If a closure report was not submitted, The Village of Pinehurst will notify the UST Section of the location of the facility within the WHPA and its proximity to a public water supply well.

For soil or ground-water contamination incidents occurring within the WHPA, The Village of Pinehurst will contact the State agencies with oversight responsibilities for remediation to determine if remediation efforts are proceeding in a timely fashion and in accordance with any schedules established by these agencies. Through this process, the Village will bring to the attention of the State agencies with oversight responsibilities for remediation any failures by the responsible parties to comply with required monitoring and corrective action. The Village of Pinehurst will also notify the State agencies with oversight responsibilities for remediation of the location of the facilities within the WHPA and their proximity to a public water supply well. The Village will also contact the State agencies with oversight responsibilities for the contamination incidents and notify them of the locations of the sites issued notices of "No-Further Action" occurring within the WHPAs and will request a review of this assessment.

The Village of Pinehurst will notify any individual, industry, business, or government agency installing or planning to install a regulated UST within the wellhead protection area of the following regulation: North Carolina Underground Storage Tank Regulation 15A NCAC 2N .0301 stipulates specific siting and secondary containment requirements for UST systems installed after January 1, 1991. The rule is summarized as follows:

- No UST system may be installed within 100 feet of a public water supply well or within 50 feet of any other well used for human consumption.
- Secondary containment is required for UST systems within 500 feet of a well serving a public water supply or within 100 feet of any other well used for human consumption.

Violations of this regulation will be reported to the Division of Waste Management, Underground Storage Tank Section. The UST Section will also be notified of the location of the facility within the WHPA and its proximity to a public water supply well or any other well used for human consumption.

A regulated UST system is any underground storage tank and associated piping that contains petroleum (including gasoline, diesel and used oil) or a hazardous substance

as defined by the State rules (15A NCAC 2N). Tanks containing heating oil for use on the premises where stored are not regulated.

Facilities with an underground buried storage capacity of more than 42,000-gallons of oil, or an aggregate above ground storage capacity greater than 1,320-gallons of oil, or an above ground storage capacity of a single container in excess of 660-gallons are subject to the Oil Pollution Prevention regulations contained in Federal Regulations found in 40 CFR 112. These facilities must prepare and implement a Spill Prevention Control and Countermeasures (SPCC) Plan. The Village will verify the status of the SPCC Plan for each subject facility located within the WHPA. The North Carolina General Statutes require registration of any facilities storing more than 21,000-gallons of petroleum product. Subject facilities not in compliance with these regulations will be notified of their regulatory responsibility under this regulation. The Village will also notify the Division of Water Quality, Aquifer Protection Section, if such facilities do not promptly come into compliance.

The Village of Pinehurst will contact the Division of Water Quality regarding facilities with NPDES permits to determine that all such NPDES discharges are in compliance with applicable regulatory and permit requirements pertaining to environmental protection such as routine monitoring and reporting requirements. Notification will be made to the Division of Water Quality if it is determined that the facility has failed to maintain compliance with any regulatory and/or permit requirements pertaining to environmental protection such as routine monitoring and reporting requirements.

The Village of Pinehurst will contact the Division of Water Quality regarding facilities permitted to discharge wastewater to the land surface (Non-NPDES Permitted Facilities) to ensure that any such operations located within the WHPAs are in compliance with applicable regulatory and permit requirements pertaining to environmental protection, such as routine monitoring and reporting requirements.

The county operates an annual household hazardous waste collection day when funds permit, with cooperation from the NC Cooperative Extension Service and the NC Department of Agriculture. Notification of this service through the news media will be made to those living within the wellhead protection areas. The Village of Pinehurst will make every effort to notify the public of hazardous waste collection days through public service announcements on local news media.

C. Monitoring Groundwater Conditions

The risk analysis identified declining water levels as a risk to the longevity of the wells. The water system will be responsible for monitoring static and pumping water levels in the wells. Static water levels will be measured (well conditions allowing) quarterly after all pumping has been stopped for at least (off) one pump cycle. The static water levels will be graphed against time to determine trends or changes in static water

levels. Identifying trends can support and assist in long term water supply decision-making. Comparing the intake level with the pumping water levels can be used to estimate the life expectancy of the wells or to predict well maintenance.

The specific capacity of the wells will be taken annually (well conditions allowing). Specific capacity is the pumping rate in gallons per minute, divided by the draw down in feet. Draw down, or pumping water level is measured after the water has stabilized some time after pumping(a minimum of 3 to 4 hours, but preferably at the end of a pump cycle). Measuring specific capacity will be part of a well maintenance schedule, to predict:

- The need to repair or rehabilitate a well,
- Life expectancy estimation for the wells,
- Declines in static water levels, and
- Pump failure

Well rehabilitation should be considered when the specific capacity of wells is lowered by forty- to fifty-percent of the original specific capacity values measured after well construction.

V. EMERGENCY CONTINGENCY PLAN

The Moore County Director of Public Utilities is the primary individual responsible for implementing contingency plans. The alternate responsibility lies with the Field Engineer. The WPC may be involved in decision-making in the event that response actions are required.

Short Term (less than 48 hours) Contingency

Should a major oil or chemical spill occur within the Wellhead Protection Area, the local volunteer fire departments and the Moore County Emergency Coordinator will be notified first:

Fire Department 911

Moore County Emergency Coordinator (910) 947-6315

For tank alarms, leaks and fires:

Moore County Public Utilities Emergency Number – (910) 947-6315

Ben Vaughn (Operations Manager) 910-295-3653 or 910-690-3977

Moore County Public Utilities Water Quality Division maintains an on-call schedule for after-hours and holiday emergency contact information. Emergency number for various contingencies, such as alternate water source connections, EMS, fire, storm shelters, and other contact information is also maintained by the county.

ADDITIONAL EMERGENCY CONTACT NUMBERS FOR CONTINGENCIES AND THE ON-CALL SCHEDULE ARE INCLUDED IN THE APPENDIX.

If evidence exists that a well is contaminated, it will immediately be taken off-line and not returned to service until it is determined that water quality from the impacted well is in compliance with standards governing public water supplies. If one of the wells becomes contaminated, it will be isolated from the rest of the system by the Public Works Director, by closing the valve at the wellhead. The contaminant source inventory may prove useful in determining sources of contamination and providing emergency response contact numbers.

If it is determined that contaminants entered the distribution system, residents shall be notified not to drink the water until further notice, by using the emergency notification plan. Media contacts will be used to rapidly get information to the water users supplied by the Village of Pinehurst.

Media Contacts:

Channel 40, WKFT
Carolina Capital Communications, Inc.
230 Donaldson Street
Fayetteville, North Carolina 28301
Phone: (910) 323-4040

550 AM WIOZ
200 Short Road
Southern Pines, NC 28387
(910) 692- 2107, (800) 737-1069, Fax: (910) 692- 6849
Fax: (910) 323-3924

The *Pilot*
145 Pennsylvania Avenue,
P.O. Box 58
Southern Pines, NC 28388
(910) 692-7271, Fax: (910) 692-9384

AM WEEB
Post Office Box 1855
Southern Pine, NC 28388
Fax: (910) 692-7372

High-risk water users, such as the schools, day care centers, and churches, will be notified of water contamination by telephone. For long-term contamination or water outages, public notice will be mailed to all utility customers.

If contamination occurs, the regional office of the Public Water Supply Section shall be notified immediately of the situation and asked for assistance. Sampling (i.e. bacteriological, VOCs, SOCs, etc.) will begin to determine the contaminant involved and the extent of contamination. A systematic flushing of the distribution system will begin with follow-up sampling conducted as needed until the system is determined to be free of contamination and in compliance with standards governing public water supplies. After consultation with the Public Water Supply Section, residents will be notified that The Village of Pinehurst water is once again safe for consumption.

Long-Term (greater than 48 hours) Contingency

In addition to contamination, long-term disruptions (greater than 48 hours) in service could result from:

- Long-term power outages,
- Pump failure,
- Decreased well yield, or
- Other system failures.

If power is lost to the wells on a long-term basis, there are six portable generators (three - 65-kW,two 40-kW, and one 25-kW) and three permanent generators are available at the Moore County Public Utilities building. Generators may also be available through the North Carolina Army National Guard on an emergency, as-available basis. Pump failure or decreased yield in one well can be resolved until it is repaired or rehabilitated, by pumping from the unaffected wells. The system can use interconnections to the Town of Southern Pines(one-way and can gravity flow) and the Town of Aberdeen (two-way). A one-way only interconnection exists to deliver water to the Seven Lakes water system (can be two-way for short periods), which is also managed by Moore County. Interconnection valves for Southern Pines and Aberdeen are controlled by both entities; system schematics with valve locations and distribution lines are available at Moore County Public Utilities offices.

Ice storms, hurricanes, and floods can potentially disrupt water service. All storage tanks will be filled before any major weather events that could disrupt service. County personnel will place a priority on restoring well operation once an outage is identified. Generators will be used to run the most critically needed wells and can be rotated from one well to the next to fill storage tanks.

NEW PUBLIC WATER SUPPLY WELLS

The Village of Pinehurst will amend its Wellhead Protection Plan to include any new wells added to its water system. The following steps will be taken to address any new wells added to the water system:

1. Develop a preliminary WHPA for the proposed well to determine the area of vulnerability.
2. Develop a contaminant source inventory for the preliminary WHPA.
3. Information obtained in items 1 and 2 above will be submitted to the Wellhead Protection Committee (WPC). Any information required by the Public Water Supply Section (PWSS) relating to the development and construction of new public water supply (PWS) wells must also be submitted.
4. If the WPC grants provisional approval of the proposed Wellhead Protection Plan, and the PWSS grants approval to construct or expand the PWS well or well system, then work may proceed with well construction.
5. Finalize the WHPA delineation for the new well.
6. Finalize the contaminant source inventory for the WHPA.
7. Submit finalized WHPA and contaminant source inventory to the WPC.
8. Once approval is received, implement any necessary regulatory and or non-regulatory potential source management practices.
9. Submit the amended WHP Plan and all necessary supporting information to the Public Water Supply Section for review and approval.

PUBLIC PARTICIPATION

The Village of Pinehurst incorporated public participation into the Wellhead Protection Plan by:

- Using public education as a method of managing the WHPAs.
- Informing local business owners and industry of best management practices and providing information on groundwater protection.
- Keeping this plan in the Pinehurst Village Hall for public review at any time.

After the plan is approved, a tri-fold brochure showing the Wellhead Protection Area, including the information listed in Section III, will be mailed to all residents living in the WHPA.

The Draft Wellhead Protection Plan was made available for thirty days for review and comment after publishing a notice in the local paper. A copy of the public notice as printed is included in the appendix. No comments were received. However, the plan will be kept available for public review in the corporation offices. Any substantive comments received from the public will be incorporated into the plan, after review by the WPC.

WELLHEAD PROTECTION PROGRAM REVIEW

The Village of Pinehurst is aware that an effective local Wellhead Protection Program is an ongoing process requiring review and updating of an approved WHP Plan. Therefore, Eastern Pines Water Corporation's WHP Committee will monitor the Wellhead Protection Area for any new or previously unidentified potential contaminant sources (PCSs) and activities occurring within the approved area. The Village will amend the PCS inventory and other Plan components (e.g. the management strategies, emergency contingency plan, etc.) as necessary to incorporate any new threats to the Village's groundwater source of drinking water. Additionally, the PCS inventory will be updated annually using the same procedures used to develop the original PCS inventory. The individual responsible for implementation of the WHP Plan will submit notification to the Public Water Supply Section annually upon completion of the PCS inventory update. Any amended sections of the approved WHP Plan resulting from this update should also be submitted at this time.

WEBSITE AND DATABASE SEARCH:

1. 2002 Water Supply System Report: http://www.ncwater.org/Water_Supply_Planning/Local_Water_Supply_Plan/search.php

2. EPA's Envirofacts data warehouse (including Enviromapper) for information on air, community water sources, water dischargers, toxic releases, hazardous waste and superfund sites: http://www.epa.gov/enviro/index.html

3. Sourcewater Protection and Assessment in NC for information on Animal Operations, CERCLIS, NPL, NPDES, PCS, RCRA, septage disposal, soil remediation, and Tier II sites, non-discharge permits, landfills, pollution incidents, and UIC and UST permits: http://204.211.89.20/Swap/

Table 1 Pinehurst Water Supply Well Data

Well	Depth	Constr. Date	Casing Dia.	Screened Interval	PWL	SWL	Test Date	Yield (gpm)
W2A	170'	2/15/98	8"	105'-155'	-	58'	-	132
W03	205'	8/1/72	8"	88'-130'	102'	47.3'	8/1/72	204
W04	140'	-	8"	84'-112'	-	10.5'	-	170
W05A	132	6/19/07	8"	92'-130'	91.0'	42.6'	7/27/97	220
W06	164'	5/23/72	8"	67'-117'	70.6'	19.5'	5/24/72	208
W07	142'	5/31/78	-	-	-	-	-	160
W08	-	-	-	-	-	-	-	42
W09	144'	-		-	-	-	-	130
W10	168'	-	8"	96'-156'	-	-	-	90
W11	-	-	-	-	-	-	-	60
W12	208'	-	-	-	-	-	-	150
W13	162'	11/4/85	8"	80'-110'	79'	37'	11/4/85	140
W14	165'	5/30/86	-	-	-	-	-	100
W15	216'	-	-	-	109'	78'	-	90
W16	164'	-	-	-	-	-	-	140
W17	178'	6/27/88	8"	80'-173'	-	45'	-	75
W18	210'	6/24/91	-	-	-	-	-	90
W19	151'	11/5/96	8"	85'-146'	-	49'	-	200
W20	210'	-	-	-	-	-	-	150
W21	160'	11/1/00	8"	110'-135'	-	68'	11/8/00	122
W22	119'	7/26/02	8"	84'-114'	-	57' 1"	-	111
W23	180'	3/20/03	8"	91"-110'	-	52'	-	50
W24	180'	4/2/03	8"	91'-111'	-	61'	-	50
Clarendon 1	Well is not is not part of Moore Co. Public Utilities System 03-63-108							
Clarendon 2	"							
MC Hospital	"							

Table 2 Wellhead Protection Area Calculations

Well	Yield gpm	min/ day	Yield (Q) gpd	Area* (mi2)	radius** (mi)	(ft)
W2A	132	1260	166,320	0.277	0.297	1,568
W03	204	1260	257,040	0.428	0.369	1,950

W04	170	1260	214,200	0.357	0.337	1,780
W05	210	1260	264,600	0.441	0.375	1,978
W06	208	1260	262,080	0.437	0.373	1,969
W07	160	1260	201,600	0.336	0.327	1,727
W08	42	1260	52,920	0.088	0.168	885
W09	130	1260	163,800	0.273	0.295	1,556
W10	90	1260	113,400	0.189	0.245	1,295
W11	60	1260	75,600	0.126	0.200	1,057
W12	150	1260	189,000	0.315	0.317	1,672
W13	140	1260	176,400	0.294	0.306	1,615
W14	100	1260	126,000	0.210	0.259	1,365
W15	90	1260	113,400	0.189	0.245	1,295
W16	140	1260	176,400	0.294	0.306	1,615
W17	75	1260	94,500	0.158	0.224	1,182
W18	90	1260	113,400	0.189	0.245	1,295
W19	200	1260	252,000	0.420	0.366	1,931
W20	150	1260	189,000	0.315	0.317	1,672
W21	122	1260	153,720	0.256	0.286	1,508
W22	111	1260	139,860	0.233	0.272	1,438
W23	50	1260	63,000	0.105	0.183	965
W24	50	1260	63,000	0.105	0.183	965
	Not part of system 03-63-108, regulated by village					
CG1	ordinance					
CG2	"					
MCRH	"					
Totals:	2,874		3,621,240			

* Area = Q/W, where W = 600,000 gpd/mi^2

** r = (Area/pi)$^{-1}$

Table 3 Types of Potential Contaminant Sources

Type of Potential Source	Code
Major Road	**A**
Power line	**B**
Railroad	**C**
Aboveground Storage Tank (AST)	**D**
Car Wash	**E**
Chemical storage	**F**
Golf Course	**G**
Cleaner	**H**
Funeral Home	**I**
Irrigation wells	**J**
Lift Station	**K**
Septic system	**L**
Solid waste	**M**
Underground Storage Tank (UST)	**N**
Pollution Incident	**O**

Table 4. Area and Linear Potential Sources of Contamination

Description	Source Type
National Golf Club	Golf Course
Resorts Course 1	Golf Course
Resorts Course 2	Golf Course
Resorts Course 3	Golf Course
Resorts Course 4	Golf Course
Resorts Course 5	Golf Course
Resorts Course 6	Golf Course
Resorts Course 7	Golf Course
Resorts Club House & courts	Golf Course
Pinewild Farm Course	Golf Course
Magnolia & Club House	Golf Course
Race Track & barns	Golf Course
Closed Landfill	Solid waste
Rassie Wicker Park	Village Park
Cannon Park	Village Park
US 15 Highway	Primary Road
NC Highway 2	Primary Road
NC Highway 5	Primary Road
NC Highway 211	Primary Road
Powerline North	Power line
Powerline Central	Power line
Powerline South	Power line
CSX Railroad	Railroad
Clarendon Garden Subdivision	Septic tanks

Table 5 Point Potential Sources of Contamination

Description	Source Type	Map Label
Lift stations	Lift stations	See legend
Pinehurst Maintenance Garage	AST	**D-1**
Abandoned Bulk Facility	AST	**D-2**
Village Car Wash	Car Wash	See legend
Village Paint Store	Chemical Storage	**F-1**
Southern Landscape Group	Chemical Storage	**F-2**
Golf Course Maintenance	Chemical Storage	**F-3**
Pinehurst Hardware & Rental	Chemical Storage	**F-4**
Davis Paint	Chemical Storage	**F-5**
Antex Exterminating Co.	Chemical Storage	**F-6**
Village Printer	Storage	**F-7**
Kelly Road Cleaners	Cleaners	**H-1**
Tufts Cleaners	Cleaners	**H-2**
Boles Funeral Home	Funeral Home	See legend
Macks Food Store 1	UST	**N-1**
Short Stop 78	UST	**N-2**
Pinehurst Elementary School	UST	**N-3**
Bill Clark Chevrolet Cadillac	UST	**N-4**
Village Market Gas Station	UST	**N-5**
Short Stop 77	UST	**N-6**
Moore County Regional Hospital	UST	**N-7**
MCPU Well W01	Pollution incident	**O-1**
MCPU Well W06	Pollution incident	**O-2**
Manor Care Nursing Center	Pollution incident	**O-3**

Table 6. Land Use Activities

Land Use	Percent
Residential	48%
Golf Course	22%
Agriculture	12%
Business	8%
Forest	7%
Rights of way	3%

Table 7. Risk Evaluation Criteria

Risk	Proximity to Well	Quantity		Relative Toxicity	Likelihood of Occurrence
		Liquid	Dry		
HIGHER (H = 3)	< 750 feet	> 1,500-gal.	> 1,000-lbs.	Pesticides Herbicides Metals Solvents	Major Road Railroad Chemical Storage Pollution Incident
MODERATE (M = 2)	750-1,500 feet	100-1,500-gal.	100-1,000-lbs.	Petroleum Fertilizers Sewage Bacteria	AST Cleaners Irrigation wells Solid Waste UST
LOWER (L = 1)	> 1,500 feet	< 100-gal.	< 100-lbs.	Grease Chloride	Powerline Car Wash Golf Course Funeral Home Lift Station Septic Tanks

Table 8 Numerical Risk Analysis

Well	Potential Source Description	Proximity to Well	Quantity or volume	Relative Toxicity	Likelihood of Occurrence	Numerical Risk Ranking
W01	NC Highway 5	3	3	3	3	**12**
	CSX Railroad	3	3	3	3	**12**
	Golf Course Maintenance	2	3	3	3	**11**
	MCPU Well W01	3	3	2	3	**11**
	Resorts Course 1	2	1	3	1	**7**
	Resorts Course 2	2	1	3	1	**7**
	Resorts Course 4	2	1	3	1	**7**
	Resorts Course 5	3	1	3	1	**8**
	Resorts Clubhouse & Courts	2	1	3	1	**7**
	Race Track & Stables	3	1	3	1	**8**
W2A	NC Highway 5	1	3	3	3	**10**
	CSX Railroad	3	3	3	3	**12**
	Resorts Course 3	2	1	3	1	**7**
W03	NC Highway 5	1	3	3	3	**10**
	CSX Railroad	1	3	3	3	**10**
	Resorts Course 1	3	1	3	1	**8**
	Race Track & Stables	3	1	3	1	**8**
	Boles Funeral Home	1	2	2	1	**6**
W04	Resorts Course 3	3	1	3	1	**8**
	Resorts Course 5	1	1	3	1	**6**
W5A	NC Highway 2	3	3	3	3	**12**
	CSX Railroad	3	3	3	3	**12**
	Resorts Course 2	3	1	3	1	**8**
	Resorts Clubhouse & Courts	2	1	3	1	**7**
W06	NC Highway 5	2	3	3	3	**11**
	Powerline Central	2	1	3	1	**7**
	CSX Railroad	2	3	3	3	**11**
	Pinehurst Hardware & Rental	2	2	3	3	**10**

Table 8 Numerical Risk Analysis (continued)

Well	Potential Source Description	Proximity to Well	Quantity or volume	Relative Toxicity	Likelihood of Occurrence	Numerical Risk Ranking
W06, Cont'd	Resorts Course 5	1	1	3	1	**6**
	Boles Funeral Home	1	2	2	1	**6**
	MCPU Well W06	3	3	2	3	**11**
	Short Stop 78	2	3	2	2	**9**
W07	US Highway 15	3	3	3	3	**12**
	NC Highway 211	2	3	3	3	**11**
	National Golf Club	1	1	3	1	**6**
	Resorts Course 2	2	1	3	1	**7**
	Resorts Course 7	3	1	3	1	**8**
	Lift Station	2	2	2	1	**7**
W08	CSX Railroad	3	3	3	3	**12**
	Pinehurst Maint. Garage	3	3	2	2	**10**
	Abandoned Bulk Facility	2	3	2	2	**9**
	Village Car Wash	2	1	2	1	**6**
	Village Paint Store	2	2	3	3	**10**
	Southern Landscape Group	2	3	3	3	**11**
	Davis Paint	1	2	3	3	**9**
	Antex Extermination Co.	1	2	3	3	**9**
	Village Printer	1	1	3	3	**8**
	Kelly Road Cleaners	2	2	3	2	**9**
	Tufts Cleaners	2	2	3	2	**9**
	Closed Landfill	1	3	3	2	**9**
	Pinehurst Elementary School	1	3	2	2	**8**
	Bill Clark Chevrolet Cadillac	2	3	2	2	**9**
	Village Market Gas Station	2	3	2	2	**9**
W09	NC Highway 2	3	2	3	3	**11**
	CSX Railroad	2	3	3	3	**11**
	Resorts Course 2	3	1	3	1	**8**

Table 8 Numerical Risk Analysis (continued)

Well	Potential Source Description	Proximity to Well	Quantity or volume	Relative Toxicity	Likelihood of Occurrence	Numerical Risk Ranking
W09, Cont'd	Resorts Course 4	1	1	3	1	**6**
	Pinehurst Elementary School	1	3	2	2	**8**
W10	US Highway 15	2	3	3	3	**11**
	NC Highway 2	3	3	3	3	**12**
	Powerline North	1	1	3	1	**6**
	National Golf Club	1	1	3	1	**6**
W11	NC Highway 5	3	3	3	3	**12**
	CSX Railroad	3	3	3	3	**12**
	Resorts Course 1	2	1	3	1	**7**
	Resorts Course 5	3	1	3	1	**8**
	Race Track & Stables	3	1	3	1	**8**
	Pinehurst Hardware & Rental	2	2	3	3	**10**
	Boles Funeral Home	2	2	2	1	**7**
	Macks Food Store 1	1	2	2	1	**6**
W12	Powerline South	2	1	3	1	**7**
W13	Powerline South	3	1	3	1	**8**
W14	NC Highway 2	3	3	3	3	**12**
	NC Highway 5	3	3	3	3	**12**
	CSX Railroad	3	3	3	3	**12**
	Golf Course Maintenance	1	2	3	3	**9**
	Resorts Course 2	2	1	3	1	**7**
	Resorts Course 3	3	1	3	1	**8**
	Resorts Course 4	2	1	3	1	**7**
	Resorts Course 5	3	1	3	1	**8**
	Resorts Clubhouse & Courts	3	1	3	1	**8**
	Lift Station	1	2	2	1	**6**

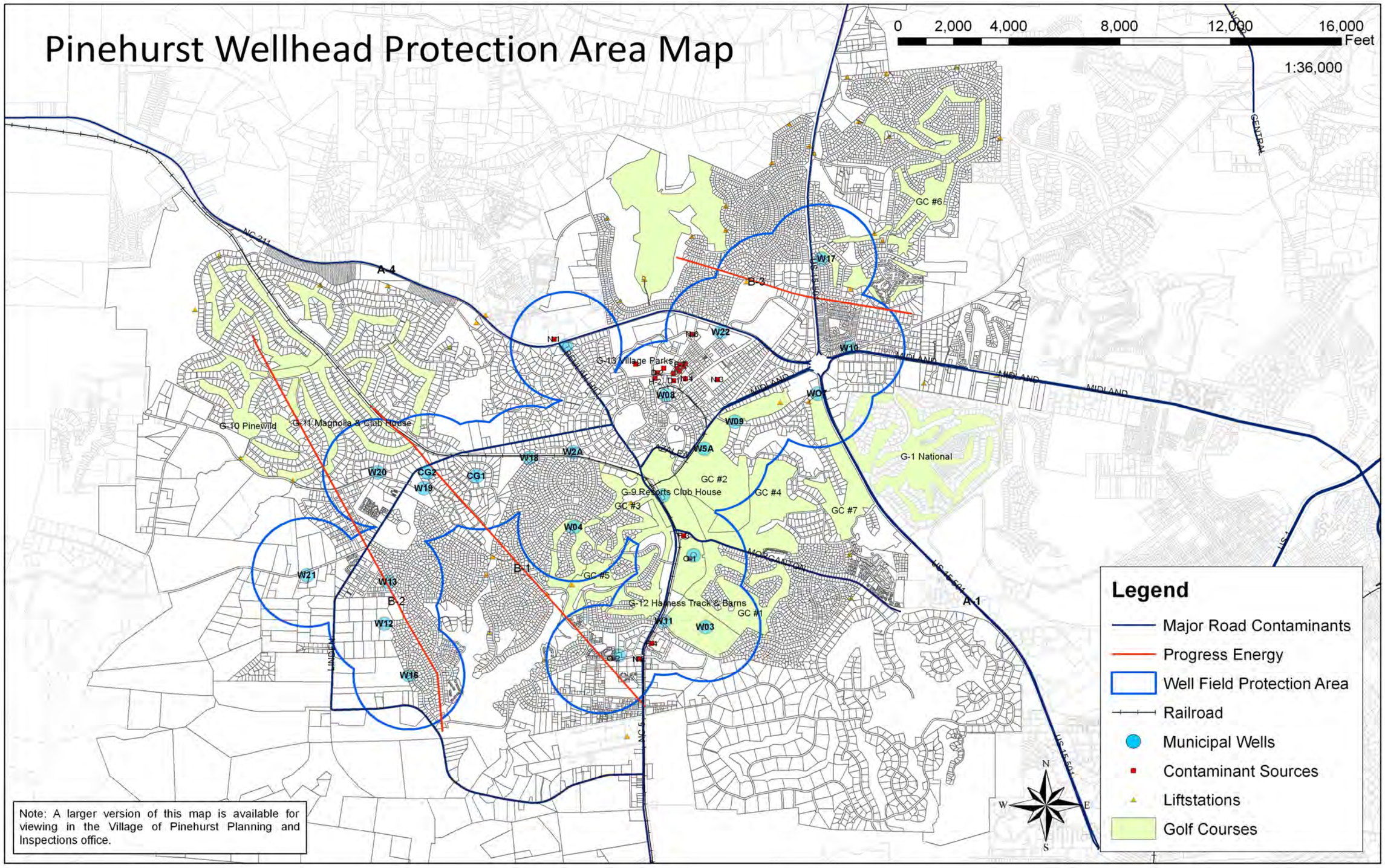
Table 8 Numerical Risk Analysis(continued)

Well	Potential Source Description	Proximity to Well	Quantity or volume	Relative Toxicity	Likelihood of Occurrence	Numerical Risk Ranking
W15	NC Highway 5	3	3	3	3	**12**
	NC Highway 211	3	3	3	3	**12**
	Macks Food Store 1	3	2	2	1	**8**
W16	Powerline South	3	1	3	1	**8**
	Lift Station	1	2	2	1	**6**
W17	US Highway 15	3	3	3	3	**12**
	Powerline North	1	1	3	1	**6**
	Resorts Course 6	3	1	3	1	**8**
	Lift Station	1	2	2	1	**6**
W18	CSX Railroad	3	3	3	3	**12**
	Clarendon Gardens Subdiv.	2	1	2	1	**6**
W19	Powerline Central	3	1	3	1	**8**
	CSX Railroad	2	3	3	3	**11**
	Magnolia Course Clubhouse	1	1	3	1	**6**
	Clarendon Gardens Subdiv.	3	1	2	1	**7**
W20	Powerline Central	2	1	3	1	**7**
	CSX Railroad	2	3	3	3	**11**
	Pinewild Farm Course	1	1	3	1	**6**
	Magnolia Course Clubhouse	3	1	3	1	**8**
	Clarendon Gardens Subdiv.	2	1	2	1	**6**
W21	None noted	0	0	0	0	**0**
W22	NC Highway 211	3	3	3	3	**12**
	Davis Paint	1	2	3	3	**9**
	Antex Extermination Co.	1	2	3	3	**9**
	Village Printer	1	1	3	3	**8**
	Kelly Road Cleaners	1	2	3	2	**8**
	Macks Food Store 1	1	2	2	1	**6**
	Lift Station	1	2	2	1	**6**

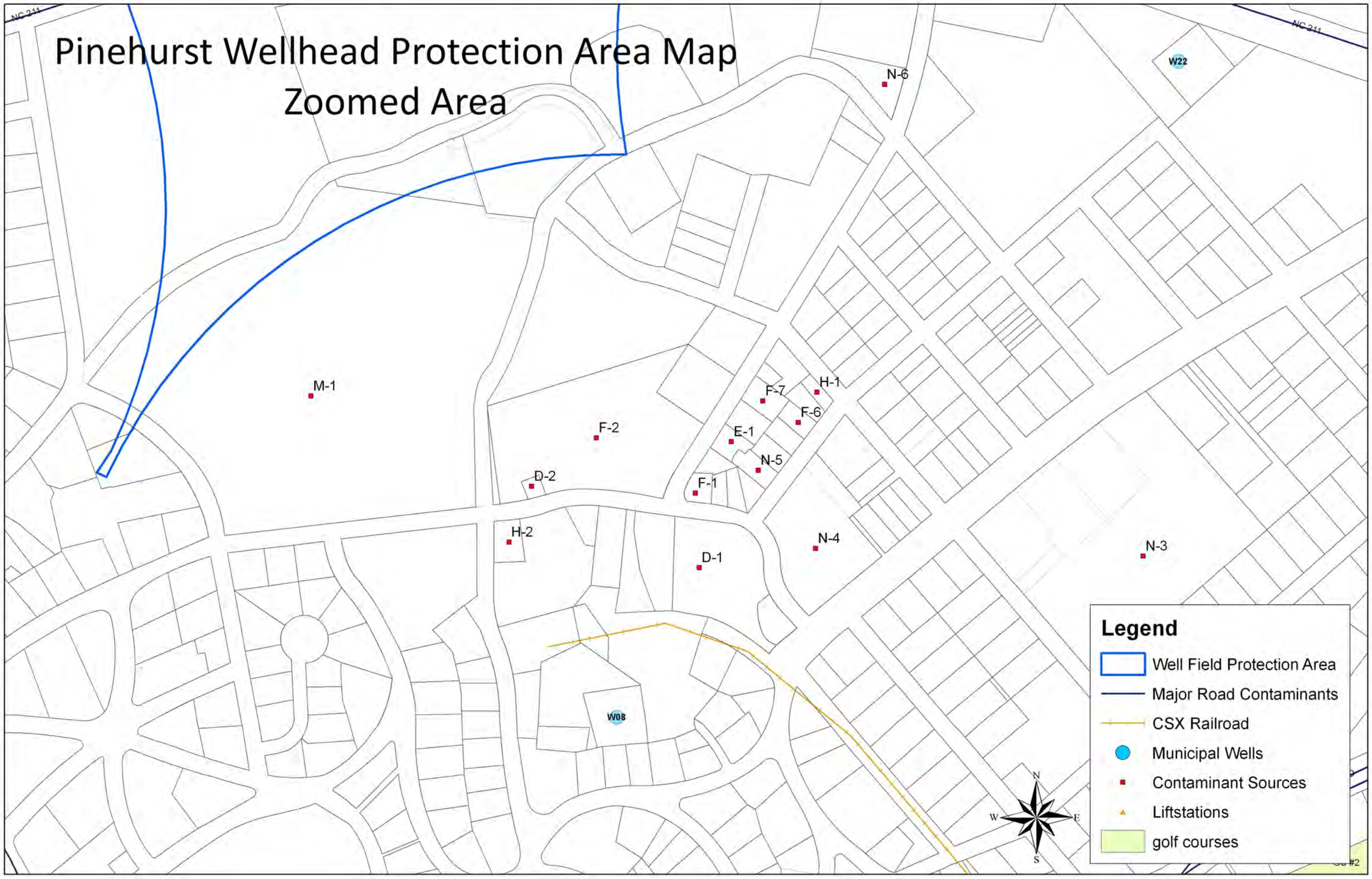
Table 8 Numerical Risk Analysis (continued)

Well	Potential Source Description	Proximity to Well	Quantity or volume	Relative Toxicity	Likelihood of Occurrence	Numerical Risk Ranking
W23	NC Highway 211	1	3	3	3	**10**
	Pinehurst Maint. Garage	1	3	2	2	**8**
	Abandoned Bulk Facility	2	3	2	2	**9**
	Village Car Wash	1	1	2	1	**5**
	Village Paint Store	1	2	3	3	**9**
	Southern Landscape Group	2	3	3	3	**11**
	Davis Paint	1	2	3	3	**9**
	Village Printer	1	1	3	3	**8**
	Tufts Cleaners	3	2	3	2	**10**
	Village Market Gas Station	1	3	2	2	**8**
	Village Parks	3	1	2	1	**7**
	Closed Landfill	3	3	3	2	**11**
W24	NC Highway 211	3	3	3	3	**12**
	Abandoned Bulk Facility	1	3	2	2	**8**
	Village Car Wash	1	1	2	1	**5**
	Village Paint Store	1	2	3	3	**9**
	Southern Landscape Group	1	3	3	3	**10**
	Davis Paint	1	2	3	3	**9**
	Antex Extermination Co.	1	2	3	3	**9**
	Village Printer	1	1	3	3	**8**
	Kelly Road Cleaners	1	2	3	2	**8**
	Village Parks	3	1	2	1	**7**
	Manor Care Nursing Center	2	2	2	3	**9**
	Village Market Gas Station	1	3	2	2	**8**

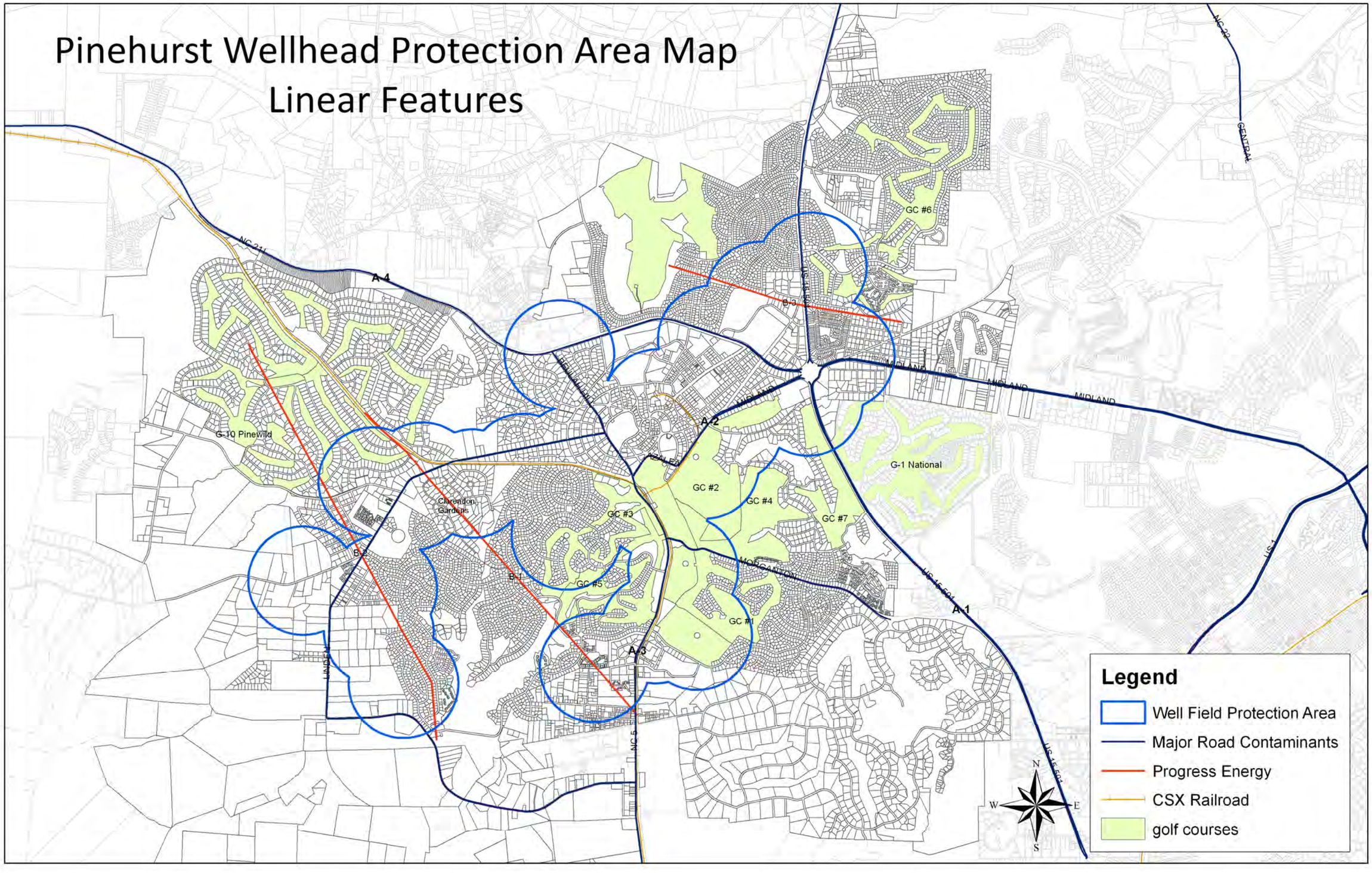
Pinehurst Wellhead Protection Area Map



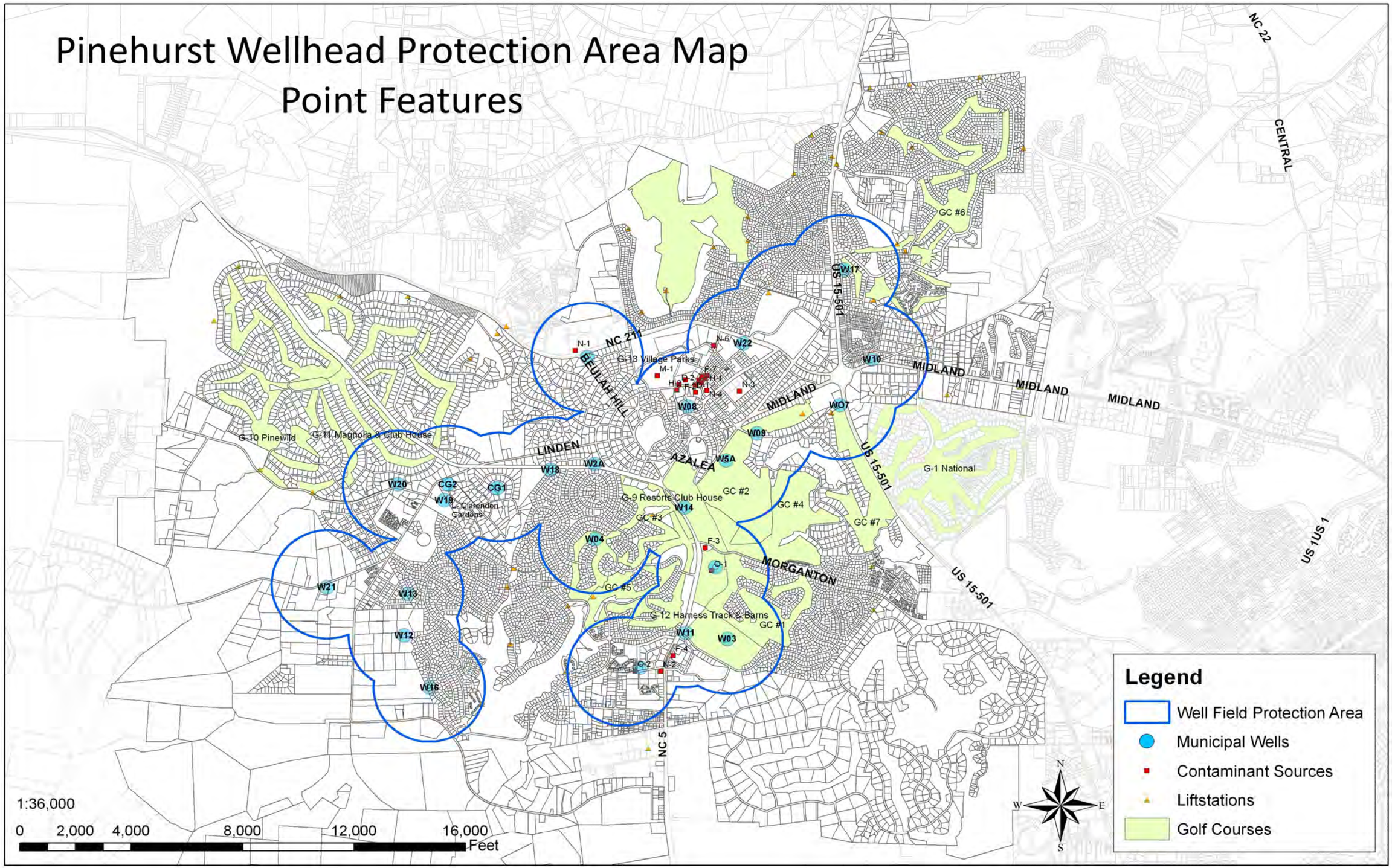
Pinehurst Wellhead Protection Area Map
Zoomed Area



Pinehurst Wellhead Protection Area Map
Linear Features



Pinehurst Wellhead Protection Area Map
Point Features



AFFIDAVIT OF PUBLICATION

NORTH CAROLINA

MOORE COUNTY

DAVID WORONOFF, PUBLISHER of THE PILOT, a tri-weekly newspaper published in Moore County and the State of North Carolina, being duly sworn, deposes and says: that the attached advertisement:

Public Notification

was published in the aforesaid newspaper for 1 consecutive issues/weeks beginning with the issue dated the 26th day of Nov, 20 08 and ending with the issue of ( ), 20 .

Sworn to and subscribed before me, this 26th day of Nov, 20 08.

LEGAL NOTICE
Public Notification

The Village of Pinehurst and Moore County Public Utilities, with assistance from the North Carolina Rural Water Association, are in the process of developing a Wellhead Protection Plan. This is a voluntary program indebted to assist us in protecting the system's water supply from contamination, and to identify vulnerable areas around our wells called "Wellhead Protection Areas". Another goal of this program is to make residents and businesses aware that chemicals and other pollutants spilled or dumped in the vicinity of the "Wellhead Protection Areas" can be drawn into the wells, possibly contaminating the systems drinking water supply.

Village officials are asking for your help in developing this program. A draft copy of the Wellhead Protection Plan will be available for review and comments on November 26, 2008.

In the Planning and Inspections Department at the Village of Pinehurst, for a period of fifteen days. You are invited to review the program and submit any comments or suggestions to the Village of Pinehurst. All written public comments will be reviewed by the Wellhead Protection Committee, and any suggestions or comments that may be beneficial will be incorporated into the program.

The document is also available for review at the Village of Pinehurst website at villageofpinehurst.org

If you have any questions or comments, please feel free to contact Ms. Andrea Correll, Planning and Inspections Director at 910-295-2581 ext. 237.

00163537 11:26c

Sarah H. Frye

Aug. 5, 2011

My Commission Expires

SARAH H FRYE
NOTARY PUBLIC
MOORE COUNTY, NC
My Commission Expires 8-5-2011

APPENDIX

WELLHEAD PROTECTION PLAN
for
The Village of Pinehurst,
Moore County, North Carolina
PWS ID # 03-63-108

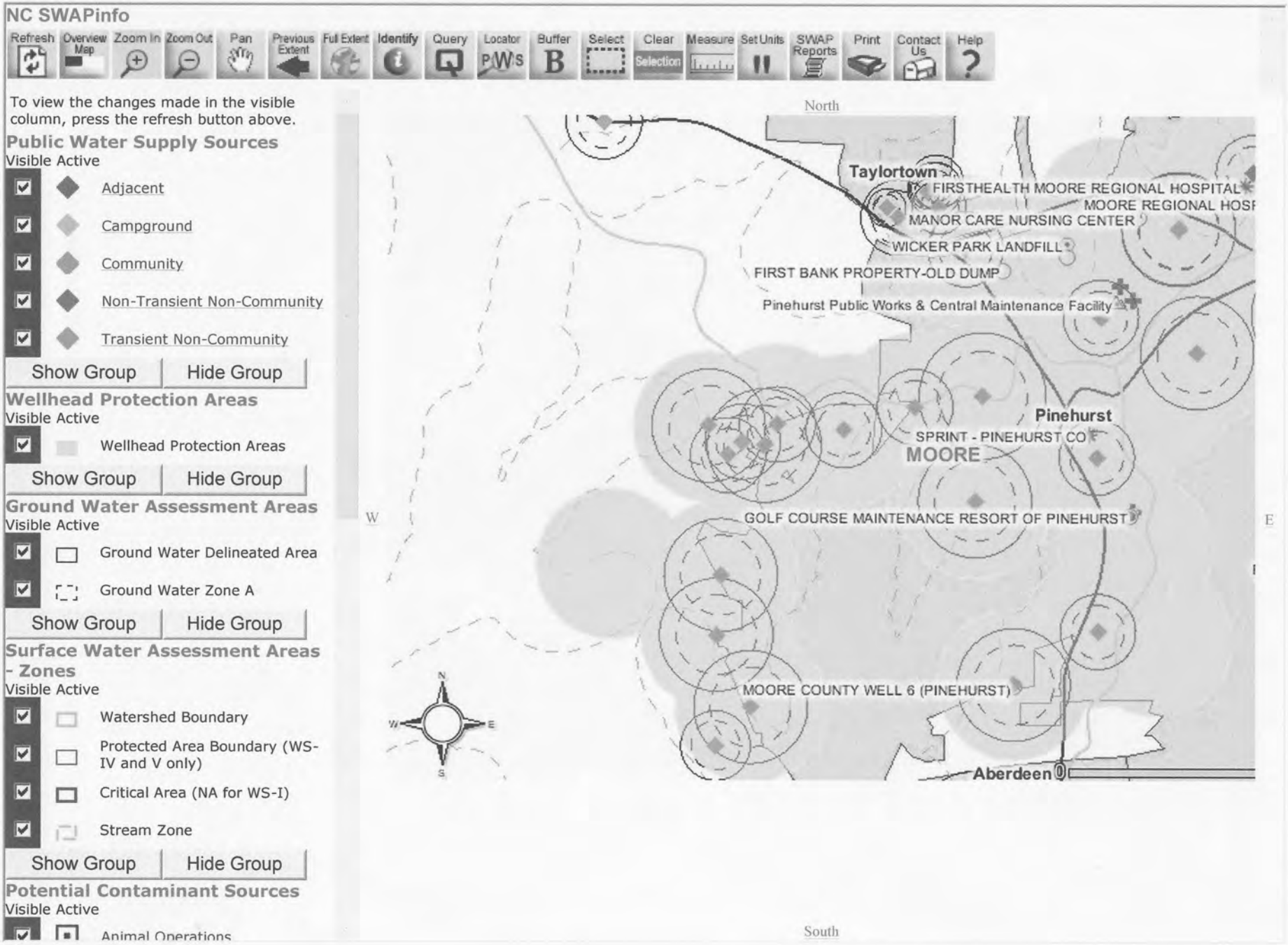
Website & Database Search Results
Well Construction Records
Inventory of Potential Contamination Sources

WEBSITE & DATABASE SEARCH FOR POTENTIAL SOURCES OF CONTAMINATION

1. 2002 Water Supply System Report: http://www.ncwater.org/Water_Supply_Planning/Local_Water_Supply_Plan/search.php

2. EPA's Envirofacts data warehouse (including Enviromapper) for information on air, community water sources, water dischargers, toxic releases, hazardous waste and superfund sites: http://www.epa.gov/enviro/index.html

3. Sourcewater Protection and Assessment in NC for information on Animal Operations, CERCLIS, NPL, NPDES, PCS, RCRA, septage disposal, soil remediation, and Tier II sites, non-discharge permits, landfills, pollution incidents, and UIC and UST permits: http://204.211.89.20/Swap/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SWAP Reports
Print
Contact Us
Help
To view the changes made in the visible column, press the refresh button above.
Public Water Supply Sources
Visible Active
Adjacent
Campground
Community
Non-Transient Non-Community
Transient Non-Community
Show Group
Hide Group
Wellhead Protection Areas
Visible Active
Wellhead Protection Areas
Show Group
Hide Group
Ground Water Assessment Areas
Visible Active
Ground Water Delineated Area
Ground Water Zone A
Show Group
Hide Group
Surface Water Assessment Areas - Zones
Visible Active
Watershed Boundary
Protected Area Boundary (WS-IV and V only)
Critical Area (NA for WS-I)
Stream Zone
Show Group
Hide Group
Potential Contaminant Sources
Visible Active
Animal Operations
North
South
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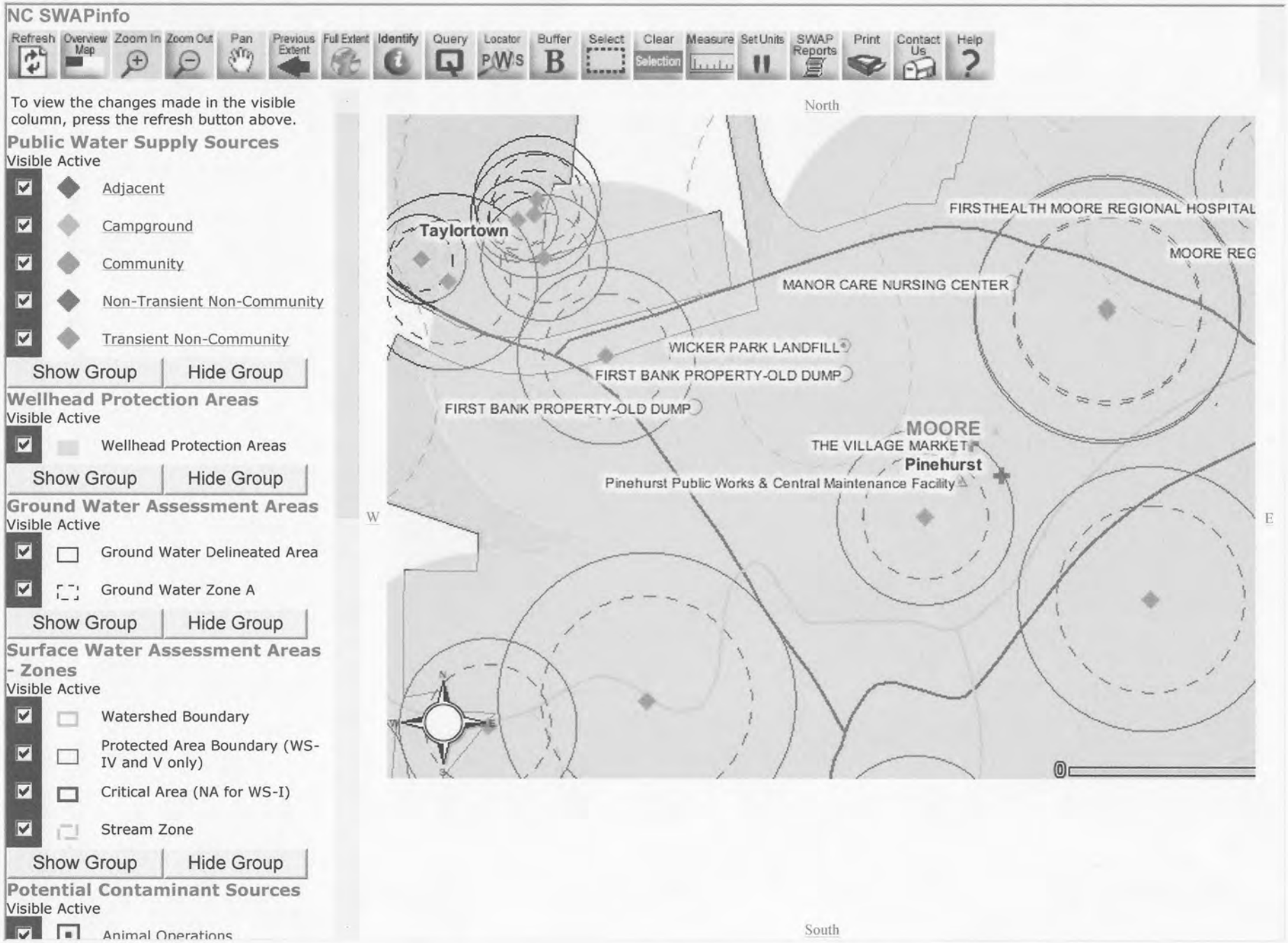
Taylortown
FIRSTHEALTH MOORE REGIONAL HOSPITAL
MOORE REGIONAL HOSP
MANOR CARE NURSING CENTER
WICKER PARK LANDFILL
FIRST BANK PROPERTY-OLD DUMP
Pinehurst Public Works & Central Maintenance Facility
Pinehurst
SPRINT - PINEHURST CO
MOORE
GOLF COURSE MAINTENANCE RESORT OF PINEHURST
MOORE COUNTY WELL 6 (PINEHURST)
Aberdeen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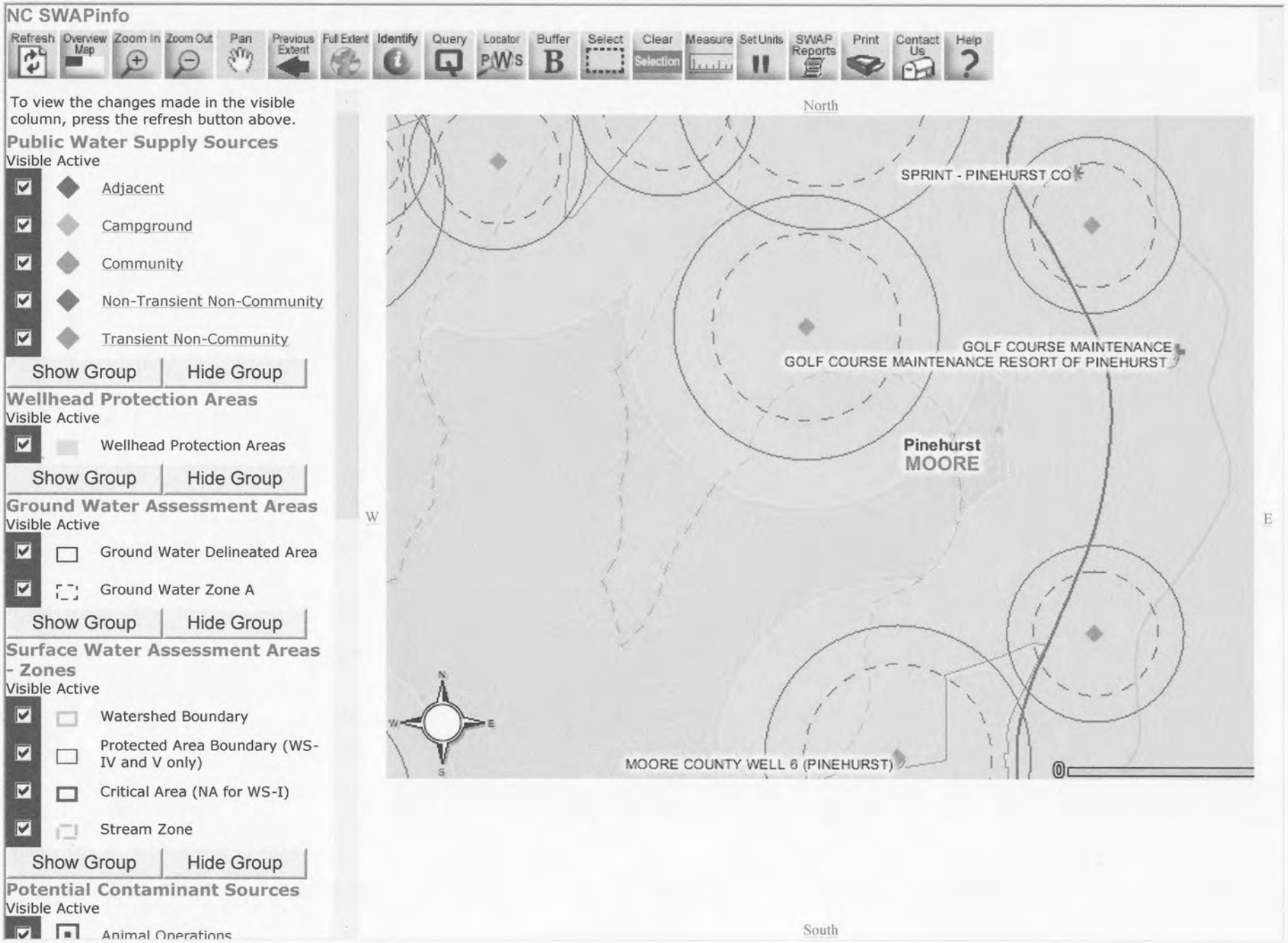
WICKER PARK LANDFILL
FIRST BANK PROPERTY-OLD DUMP
FIRST BANK PROPERTY-OLD DUMP
MOORE
THE VILLAGE MARKET
Pinehurst
Pinehurst Public Works & Central Maintenance Facility
0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E
SPRINT - PINEHURST CO
GOLF COURSE MAINTENANCE
GOLF COURSE MAINTENANCE RESORT OF PINEHURST
Pinehurst
MOORE
MOORE COUNTY WELL 6 (PINEHURST)
0

Well Construction Records for wells in the Pinehurst System (PWSID 03-63-108)

W2A	
W03	
W04	
W5A	Replaces abandoned (grouted to land surface) well W05
W06	
W07	
W08	No construction record available
W09	
W10	
W11	No construction record available
W12	
W13	
W14	
W15	
W16	
W17	
W18	
W19	
W20	
W21	
W22	
W23	Well is not part of system 03-63-108 (Irrigation for parks; not connected)
W24	Well is not part of system 03-63-108 (monitoring only, not connected)
CG1	Well is not part of system 03-63-108
CG2	Well is not part of system 03-63-108
MC Hosp	Well is not part of system 03-63-108

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29578 - Raleigh, N.C. 27626-0578
Phone (919) 733-3221

W2A

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: CAROLINA WELL & PUMPA CO., INC

DRILLER REGISTRATION NUMBER: 136

STATE WELL CONSTRUCTION PERMIT NUMBER: 238

Well 2A

1. WELL LOCATION: (Show sketch of the location below)
   Nearest Town: Pinehurst County: Moore
   _____
   (Road, Community, or Subdivision and Lot No.)
2. OWNER MOWASA
   ADDRESS PO Box 726
   (Street or Route No.)
   Carthage NC 28327
   City or Town State Zip Code
3. DATE DRILLED 2/15/98 USE OF WELL Town
4. TOTAL DEPTH ~~155~~ 170
5. CUTTINGS COLLECTED YES ☐ NO ☐
6. DOES WELL REPLACE EXISTING WELL? YES ☒ NO ☐
7. STATIC WATER LEVEL Below Top of Casing: 58 FT.
   (Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2 FT. Above Land Surface*

* Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118

9. YIELD (gpm): 132 METHOD OF TEST Pump
10. WATER ZONES (depth): As screened
    _____
11. CHLORINATION: Type HTH Amount 51bs
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From 0	To 75	Ft.	18"	3/8	Steel
From 0	To 107	Ft.	8	40	Steel
From _____	To _____	Ft.	_____	_____	_____

13. GROUT:

	Depth		Material	Method
From 0	To 75	Ft.	cement	_____
From _____	To _____	Ft.	_____	_____

14. SCREEN:

	Depth		Diameter		Slot Size		Material
From ~~105~~	To ~~120~~	Ft.	8	in.	30	in.	SS
From ~~125~~	To ~~135~~	Ft.	8	in.	30	in.	SS
From ~~140~~	To 155	Ft.	8	in.	30	in.	SS

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From 0	To 170	Ft.	pea	gravel
From _____	To _____	Ft.	_____	_____

16. REMARKS: _____

DEPTH From	To	DRILLING LOG Formation Description
0	2	Topsoil
2	12	Sandy Clay
12	28	Fine Sand
28	46	sandy clay
47	75	clay
75	98	sandy clay
98	155	sand
155	172	sandy clay
172	209	clay

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT DATE

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 3/96

Q/s = 3.64 @ 204

WELL RECORD

NORTH CAROLINA DEPARTMENT OF WATER AND AIR RESOURCES
DIVISION OF GROUND WATER
BOX 9392 - RALEIGH, N. C.

W03

Well13

Drilling Contractor Carolina Well & Pump Co., Inc. Reg. No. 136 Well Permit No. 7.8

1. Town Pinehurst, N.C. Test well No 5.
2. Location well at race track County Moore
   Show a sketch of location on back of form Quadrangle No. C-49 W-1
3. Owner Pinehurst, Inc.
   Address Pinehurst, N.C.
4. Topography: draw, slope, hilltop, valley, flat
5. Use of Well town Date Completed 8/1/72
6. Rig type or method Rotary Total Depth 205 (154.8)
7. Casing:

	Depth		Diam.	Type
From	0	to 37 ft.	24 in.	94½ S.S.

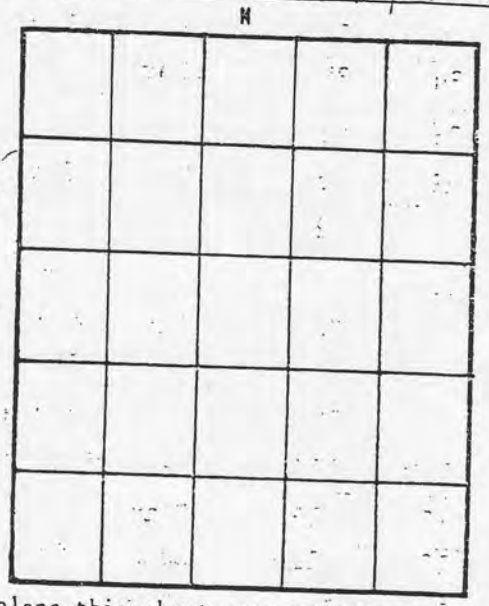
8. Grout:

	Depth		Material	Method
From	0	to 37 ft.		

9. Screen:

	Depth		Diam.	Type and opening
From		to ft.	in.	
	see attachment			

11. Water Zones (depth)
12. Static Water Level: 47.3 ft. above / below top of casing
    which is 2 ft. above land surface.
    Date 8/1/72
13. Yield (gpm) 204 Method of testing Pump
14. Pumping Water Level: 102 ft. after 24 hrs.
    at 204 gpm. Q/s = 204/103-47 = 204/56 = 3.64
15. Water Quality
16. Well sterilization method 1 lb. of H.T.H.
17. Remarks:



(place this sheet over correct square on map, match corners and circle a dot at well location.)

10. Permanent Pump:
    Installed- Date
    By
    Type Make
    Capacity (gpm) Hp.
    Intake depth
    Airline depth
    Temperature (°F)

RECEIVED
APR 2 = 1973
GROUND WATER DIVISION
RALEIGH, N. C.

I do hereby certify that this well record is true and exact.

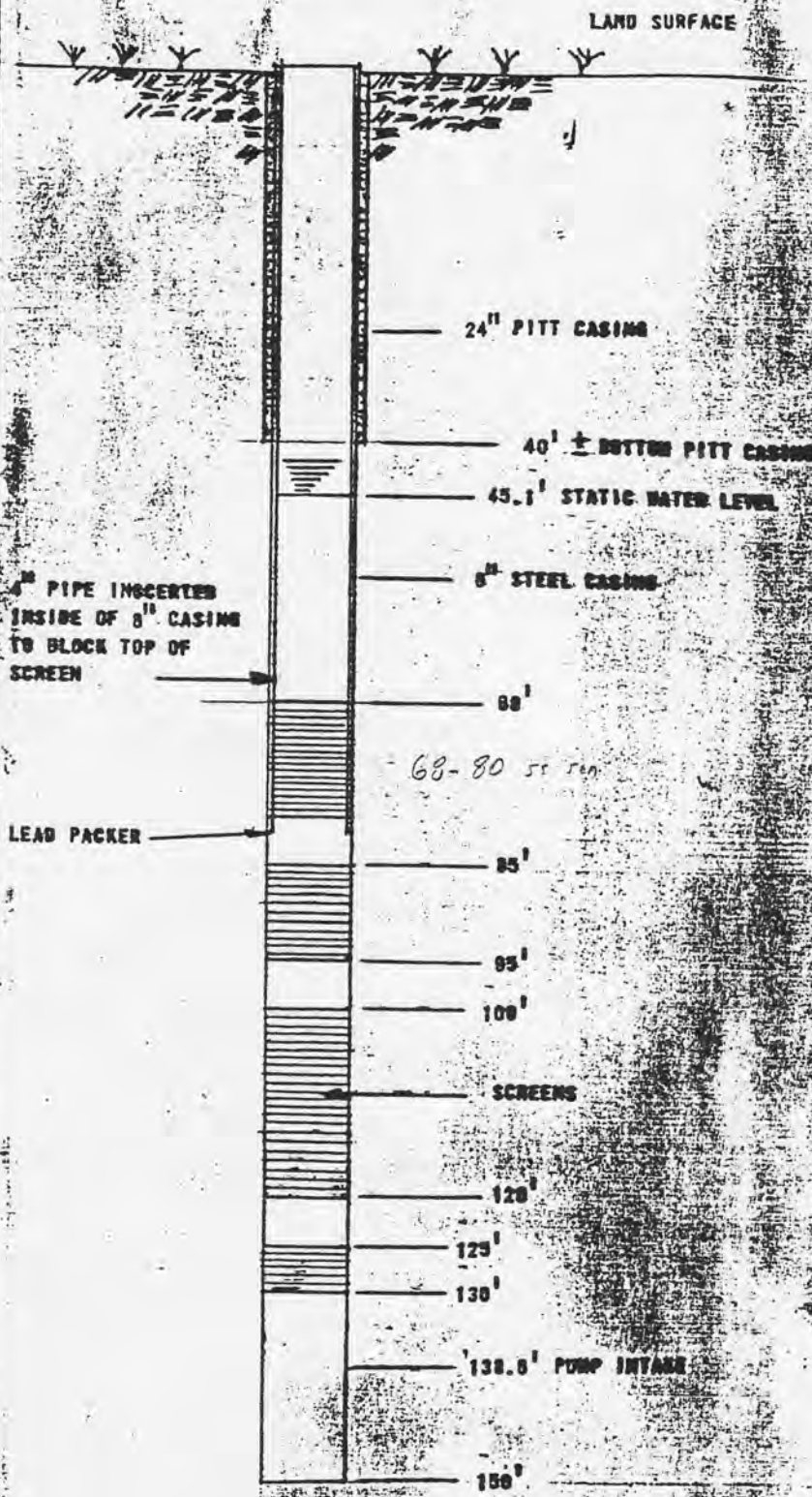
PERMIT WELL

Walter P. Bichard Jr
SIGNATURE OF CONTRACTOR OR AGENT

White copy - Department of Water & Air Resources; Blue-Drillers copy; Green-Owner's copy.

Form GW-1

W03



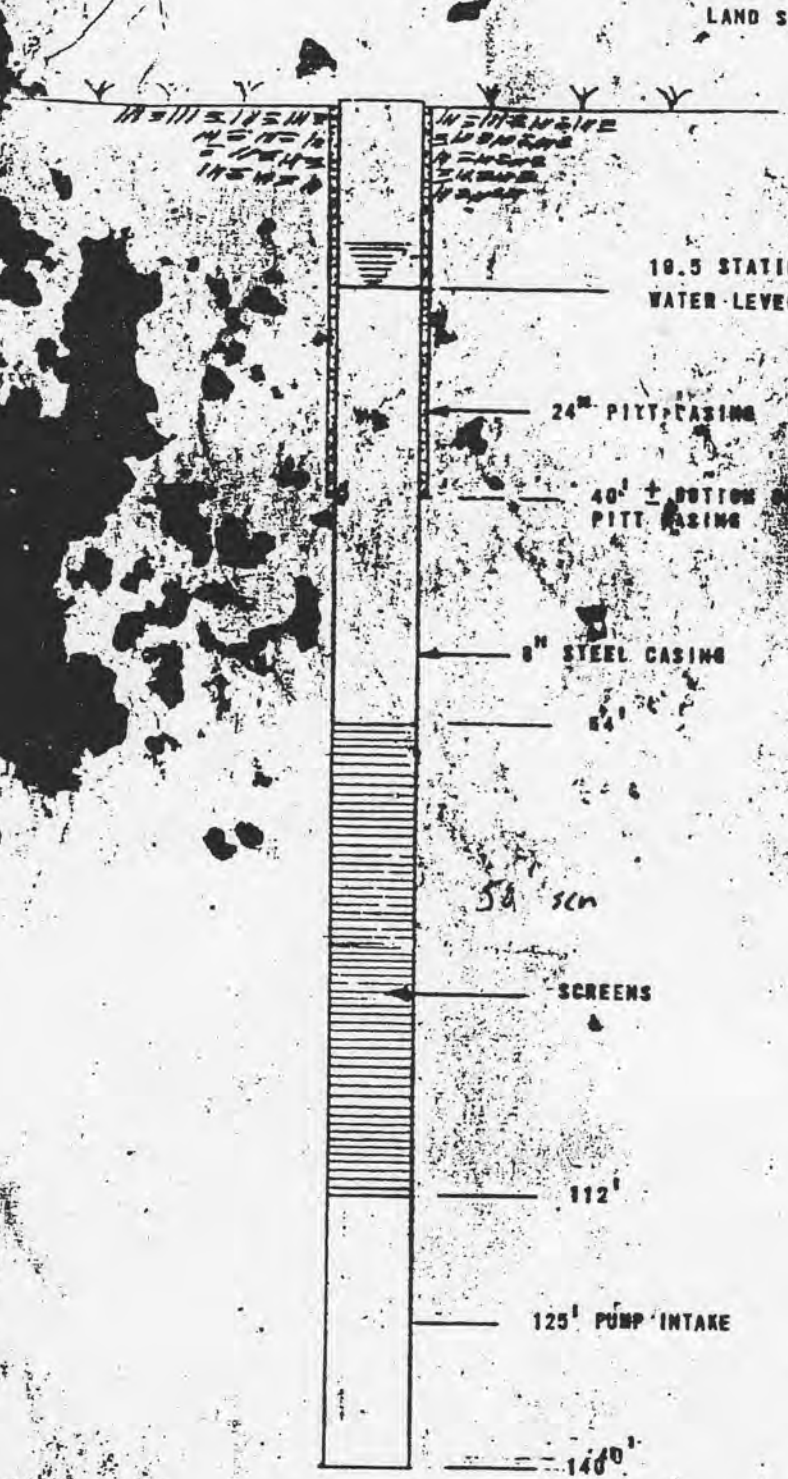
10AC8 DISCHARGE HEAD
15 H.P. V.H.S. ELECTRIC MOTOR
1760 R.P.M. 60 CYCLE 3 PHASE 208V.
WP-1, 1.15 S.F., W/N.R.R.
22 STAGE 6 RH BOWLS
160 G.P.M. 273 FT. PER CURVE 67.1

WELL NO. 3 - 1 MILE TRACK

VERTICAL SCALE

1" = 20'

W04



10ACB - DISCHARGE HEAD
20 H.P. V.H.S. ELECTRIC MOTOR
1750 R.P.M. 60 CLCLE 3 PHASE 208V.
WITH N.R.R., NPSH 1.15 S.F.
11 STAGE 8 EDIT BOWLS
170 G.P.M. 301' FT. PER CURVE 809.1

WELL NO. 4 COURSE NO. 3
VERTICALE SCALE
1" = 20'

W5A

NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2769

1. WELL CONTRACTOR:

Charles McCaskill
Well Contractor (Individual) Name

Charlles R. Underwood, Inc.
Well Contractor Company Name

STREET ADDRESS 2189 Everett Dowdy Rd.

Sanford | NC | 27330
City or Town | State | Zip Code

(919)- 775-2463
Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable)

WELL CONSTRUCTION PERMIT#(if applicable) WS06-01008

OTHER ASSOCIATED PERMIT #(if applicable)

3. WELL USE (Check Applicable Box) Monitoring ☐ Municipal/Public ☑
Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐
Irrigation ☐ Other ☐ (list use)

DATE DRILLED 6/19/07

TIME COMPLETED 10:00 AM ☐ PM ☑

4. WELL LOCATION:

CITY: Pinehurst COUNTY Moore

Palmetto Road
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:
☑ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other
(check appropriate box)

LATITUDE 35 11.540N
LONGITUDE 79 27.80W
May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☑ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable) Well 5 A

NAME OF FACILITY Moore Co. Public Utilities

STREET ADDRESS Palmetto Road

Pinehurst | NC | 28327
City or Town | State | Zip Code

CONTACT PERSON Ben Vaughn

MAILING ADDRESS PO Box 1927

Carthage | NC | 28327
City or Town | State | Zip Code

(910)- 947-6315
Area code - Phone number

6. WELL DETAILS:

a. **TOTAL DEPTH:** 132'

b. **DOES WELL REPLACE EXISTING WELL?** YES ☐ NO ☑

c. **WATER LEVEL** Below Top of Casing: 42.6 FT.
(Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** 3 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** 220 **METHOD OF TEST** Pump/Orfice

f. **DISINFECTION: Type** HTH **Amount** .5 lb.

g. **WATER ZONES** (depth):

From 92	To 118	From 120	To 130
From	To	From	To
From	To	From	To

7. CASING:

	Depth		Diameter	Thickness/ Weight	Material
From +3	To 92	Ft. 8		40	Blk Steel
From 118	To 120	Ft. 8"		40	Blk Steel
From 130	To 132'	Ft. 8"		40	Blk Steel

8. GROUT:

	Depth		Material	Method
Pit From 0	To 52	Ft.	Cement	Pumped
From 0	To 3.5	Ft.	Cement	Pumped
From 3.5	To 75	Ft.	Bentonite	Pumped

9. SCREEN:

	Depth		Diameter		Slot Size		Material
From 92	To 118	Ft.	8"	in.	30	in.	SS
From 120	To 130	Ft.	8"	in.	30	in.	SS
From	To	Ft.		in.		in.	

10. SAND/GRAVEL PACK:

	Depth		Size	Material
From 75	To 135	Ft.	3/16	Gravel
From	To	Ft.		
From	To	Ft.		

11. DRILLING LOG

From	To	Formation Description
~~See Attached~~		

RECEIVED
JUL 19 2007

12. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR — DATE 7-17-07

Charles McCaskill
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt., 1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 3/07

WELL RECORD

W06

NORTH CAROLINA DEPARTMENT OF WATER AND AIR RESOURCES
DIVISION OF GROUND WATER
BOX 9392 - RALEIGH, N. C.

WELL PH-6 @ Pine Hill Tennis Club

R49x3

Drilling Contractor Carolina Well & Pump Co., Inc. Reg. No. 136 Well Permit No. 529

1. Town Pinehurst, N.C. County Moore
2. Location _____ Quadrangle No. _____
   Show a sketch of location on back of form #-6
3. Owner Pinehurst, Inc.
   Address Pinehurst, N.C.
4. Topography: draw, slope, hilltop, valley, flat
5. Use of Well Town Date Completed 5/23/72
6. Rig type or method Rotary Total Depth 164
7. Casing: 0 Depth 44.4 Diam 4 94.5 Type Steel

From	to	ft.	in.		
0	67		8	29	Steel
90	94		8	29	Steel
117	140		8	29	Steel

8. Grout:

From	to	ft.	Material	Method
0	44.4		Cement	Pump

9. Screen:

From	to	ft.	Diam.	in.	Type and opening	
67	90		8		S.S.	50
94	117		8		S.S.	50

11. Water Zones (depth) 67-117 (± 50') probably lower limestone aquifer
    Interval
12. Static Water Level: 19.5 ft. above / below top of casing
    which is 2 ft. above land surface.
    Date 5/24/72 205 Avg
13. Yield (gpm) 208 — Method of testing Pump
14. Pumping Water Level: 70.6 ft. after 24 hrs.
    at 208 gpm.
15. Water Quality _____ Temperature (°F) _____
16. Well sterilization method 5 lbs. H.T.H.
17. Remarks:

    $S_s = 51.1$ $Q/s = 208/51.1 = 4.07$

(place this sheet over correct square on map, match corners and circle a dot at well location.)

10. Permanent Pump:
    Installed- Date _____
    By _____
    Type _____ Make _____
    Capacity _____ (gpm) Hp. _____
    Intake depth _____
    Airline depth _____

RECEIVED
JUN 2 1972
GROUND WATER DIVISION
RALEIGH, N. C.

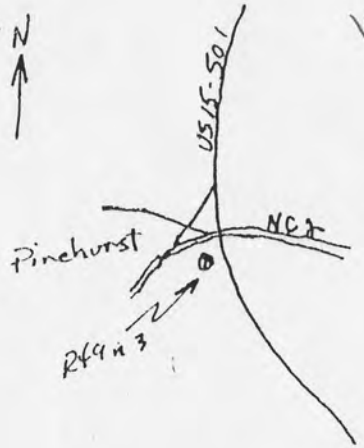
I do hereby certify that this well record is true and exact.

WELL CONTRACTOR

SIGNATURE OF CONTRACTOR OR AGENT

White copy - Department of Water & Air Resources; Blue-Drillers copy; Green-Owner's copy.

Form GW-1



W07

Well Pit-7
Hall of Fame
R49r1

GEOPHYSICAL LOG

NORTH CAROLINA
DIVISION OF GROUND WATER
DEPARTMENT OF WATER AND AIR RESOURCES

Pinehurst #11

LOG NO. 1226

LOG BY: R. L. Haynes DATE: 5-31-78 WELL NO. R-49, ~~R-3~~ R-1

LOCATION: Pinehurst COUNTY: Moore WCP 2698

1000' S. of Int. of NC 2 and US 15-501 and 260' W. of US 15-501 at World Golf Hall of Fame

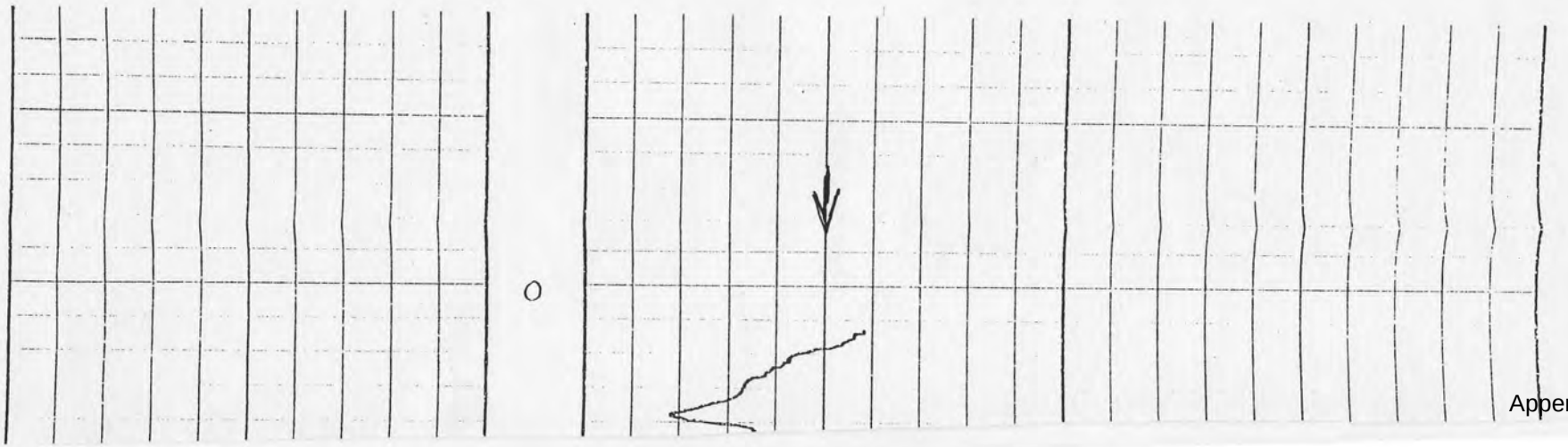
OWNER: Town of Pinehurst DRILLER: Carolina Well & Pump DATE DRILLED: 5-31-78

DEPTH: 142 ft. DIA.: 10 in CASING: none ft. ELEV.: _____ ref. MSL

POTENTIAL: 50 mv/10 div. RESISTIVITY: _____ ohms/10 div.

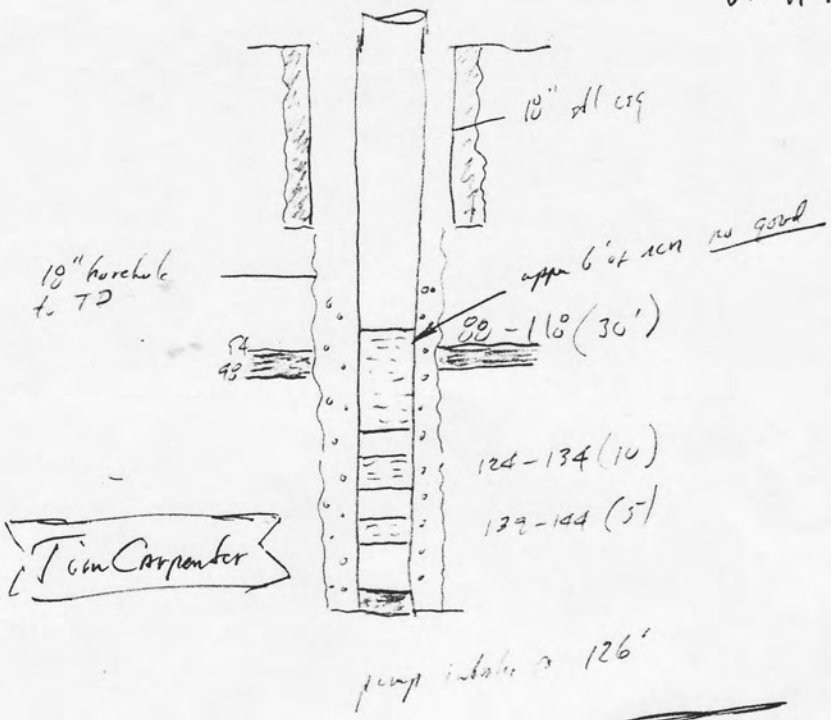
MR/HR: .005

LOGGING RATE: PR _____ ft./min. GAMMA: 16 ft./min. T. C.: 2

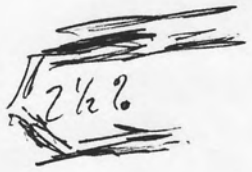


W09

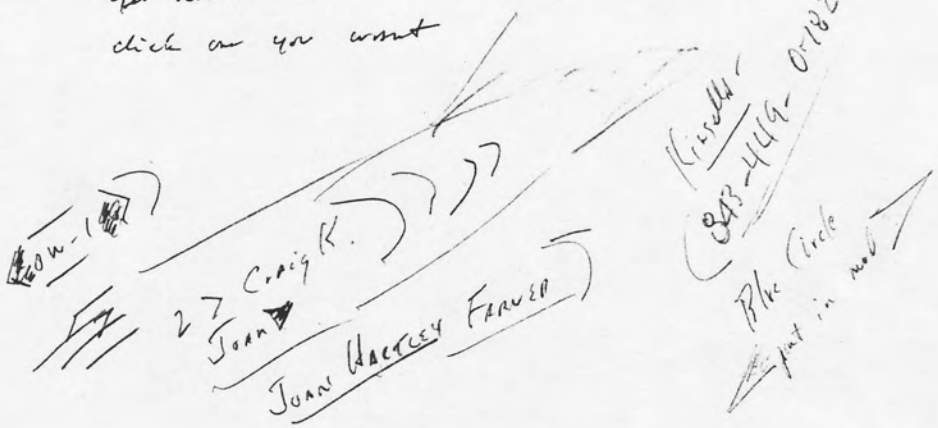
Well 9



Cap of MB
K = 240,000 income



click Set-up
water cycle
click short. cut
gal screen R-hand side e-mail click
click on you want



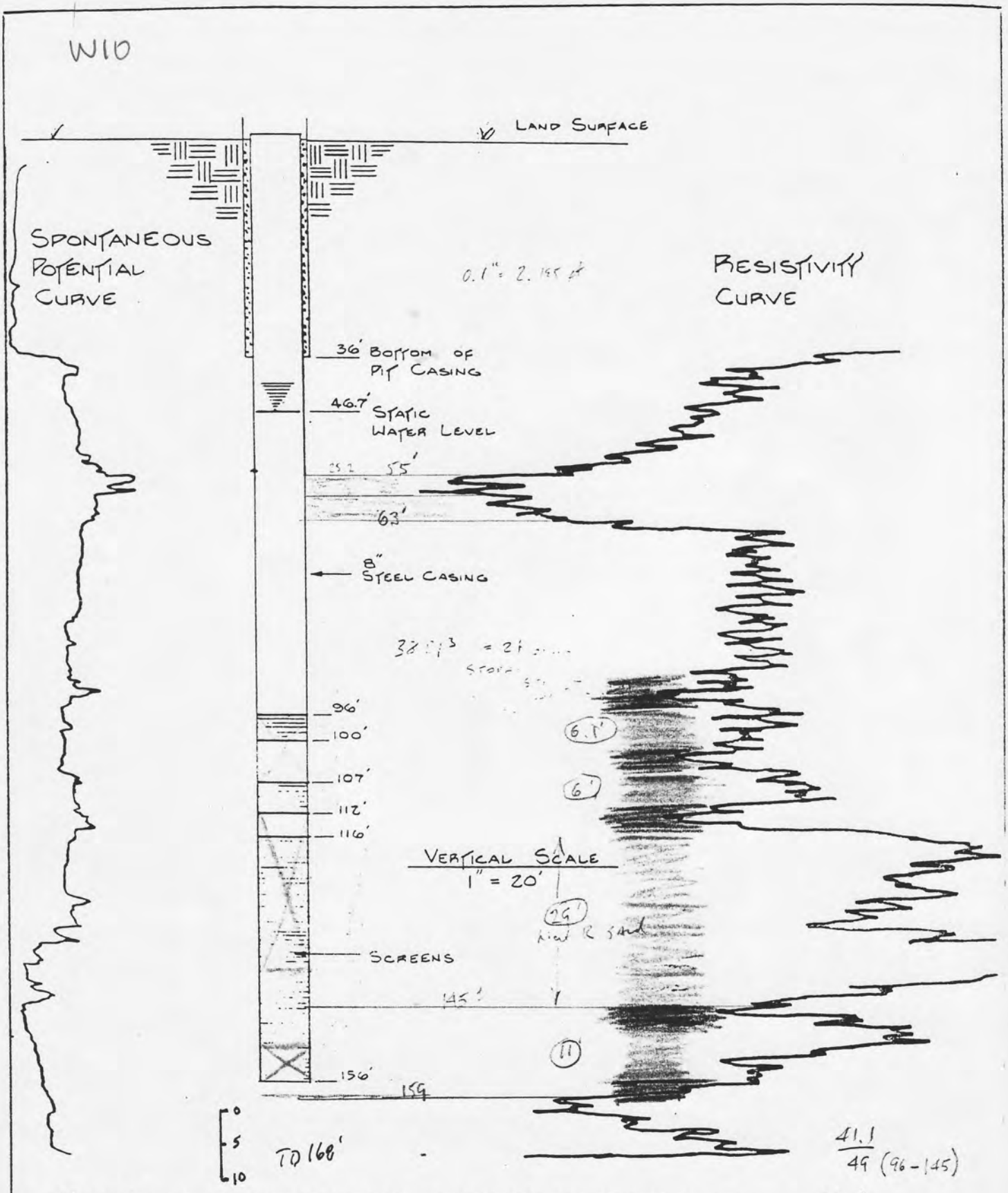


Figure 1 - Well Construction Details and Electric Log of Well No. 10

W12

PHASE II - TEST WELL NO. 1

PRODUCTION WELL NO. 12

PINEHURST WATER COMPANY

0 - 6	SAND
6 - 14	SAND - CLAY
14 - 26	CLAY
26 - 41	SAND
41 - 52	CLAY
52 - 56	SAND
56 - 63	CLAY
63 - 130	SAND
130 - 140	SAND - CLAY
140 - 204	CLAY
204 - 208	ROCK

W13

NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES
OFFICE OF WATER AND AIR RESOURCES
GROUND WATER DIVISION
P. O. BOX 27687 – RALEIGH, N. C. 27611

WELL RECORD

13

DRILLING CONTRACTOR CAROLINA WELL & PUMP CO., INC. REG. NO. 126 WELL CONSTRUCTION PERMIT NO. 37253

1. WELL LOCATION: (Show a sketch of the location on back of form)
   Nearest Town: Pinehurst County: Moore
   Forest Lane (Road, Community or Subdivision and Lot No.) Quadrangle No.
2. OWNER: PINEHURST, INC.
3. ADDRESS: P.O. Box 8200 Pinehurst, NC 28374
4. TOPOGRAPHY: draw, valley, slope, hilltop, flat
5. USE OF WELL: Town well DATE: 11-4-85
6. DOES THIS WELL REPLACE AN EXISTING WELL? NO
7. TOTAL DEPTH: 162' RIG TYPE OR METHOD: Rotary
8. FORMATION SAMPLES COLLECTED: [X] YES No. of Bags
9. CASING:

Depth From	to		Inside Diam.	Wall thick. or weight / ft.	Type
0	20	ft.	18"	3/8	Steel
0	80		8"	3/8	Steel
1	114		8"	3/8	Steel

10. GROUT: Depth From 0 to 20 ft Material cement Method Pump
11. SCREEN: Depth From 80 to 110 ft. Diam. 8" Type and Opening S.S. 30-S
12. GRAVEL: Depth From 0 to 125 ft. Size 1/8-1/16 Material Course sand
13. WATER ZONES (depth): 80 - 110
14. STATIC WATER LEVEL: 37.10 ft. above / below top of casing.
    Casing is 1 ft. above land surface. ELEV.
    DATE MEASURED: 11-4-85
15. YIELD (gpm): 140 METHOD OF TESTING: Pump
16. PUMPING WATER LEVEL: 79 ft. after 24 hours at 140 gpm.
17. CHLORINATION: Type H.T.H. Amount 2 lbs.
18. WATER QUALITY: good TEMPERATURE (°F)
19. PERMANENT PUMP: (Show a sketch of well head on back of form)
    Date installed ___ Type ___ Make ___
    Capacity ___ (gpm) HP
    Intake Depth ___ Airline Depth ___
20. HAVE YOU INFORMED THE WELL OWNER OF THE DEPARTMENTS REQUIREMENTS AND RECOMMENDATIONS?
21. REMARKS:

I do hereby certify that this well record is true and exact.

SIGNATURE OF CONTRACTOR OR AGENT DATE

DRILLING LOG

DEPTH FROM	DEPTH TO	FORMATION DESCRIPTION
0	10	Sand
10	20	Sand, rocks
20	30	Sand, rocks
30	40	Sand, rocks
40	50	Sand
50	60	Clay
60	70	Sand
70	80	Sand
80	90	Sand
90	100	Sand
100	110	Sand
110	120	Clay
120	130	Clay
130	140	Clay
140	150	Clay
150	160	Clay
160	165	Clay, rock
Q/s =		140/41 = 3.4 gpm/ft
SWL = 38' top scn = 80 ft		
Avail s = 42 ft		

White Copy - Office of Water and Air Resources; Blue - Drillers Copy; Green - Owners Copy

W14

GEOPHYSICAL LOG

PH-14

NORTH CAROLINA GEOLOGICAL SURVEY SECTION

ORIGINAL

Well Code: MO-T-3-86 X-Ref: R 49 9 Date Drilled: 5/30/86 Date Logged: 5/30/86

County: Moore Latitude: 351117 Longitude: 792809 Elevation: 500 ft. (MSL) TD 165 ft.

Owner: Pinehurst Enterprises Driller: Carolina Well & Pump (R. Patterson) Borehold Fluid: Super Gel X

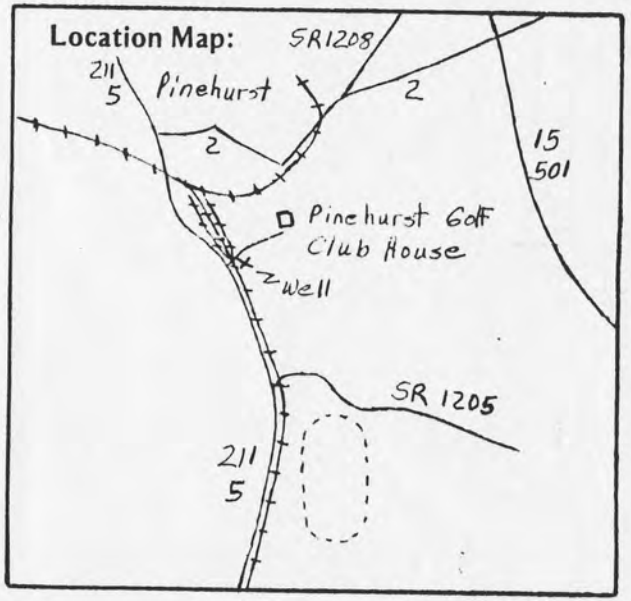
Open-hole Diameter: 9 in. Casing Depth: 0 ft. Casing Diameter: N/A in. Witness: R. Patterson

Operator: J. Carraway Remarks: Well #14

Logging Parameters:

	scale		speed		direction	TC
Gamma	25	units/in.	18	ft./min.	uphole	4 sec.
SP		mv/in.		ft./min.		
SPR		ohms/in.		ft./min.		

Location Map:



W15

Well 15

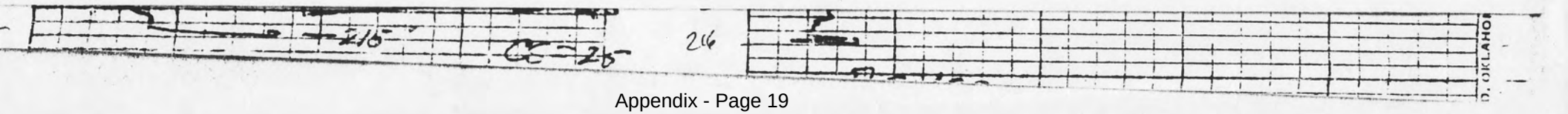
0–30 SAND
30–38 SDY CLY
38–58 SAND
58–65 CLAY
65–74 CLAYEY SAND / SDY CLY
74–84 SDY CLAY
84–90 CL. SD
90–140 (50') SAND (highest perm.)

UPPER MIDDENDORF (0–74)

74–90 "thin" conf. bed (16')

LOWER MIDD. AQUIFER (64')
MDD b = 50 + 8 = 58

140–146 (6) SDY CLAY
146–154 (8) CLAYEY SAND
154–166 (12) CLAYEY SAND
166–177 (11) SDY CLAY low-mod resis Ked
177–216 (39) CLAY



W16

Pinehurst Well # 16
Lots 467-468

0 – 1	top - Soil
1 – 16	Yellow Sandy Clay
16 - 23	Clay
23 - 45	Sand. Dry
45 - 47	Sandy Clay
47 – 103	Good Sand
103 - 104 –	Clay
104 - 113 -	Sand.
113 - 125	soft clay
125 - 140	Clay
140 - 144	hard Clay

Herman Gattis

Joe McDugon

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27687 - RALEIGH, NC 27611-7687
PHONE (919)733-3221

W17

17

WELL CONSTRUCTION RECORD

FOR OFFICE USE ONLY
Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc ____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

DRILLING CONTRACTOR CAROLINA WELL & PUMP COMPANY INC.

DRILLER REGISTRATION NUMBER 136

STATE WELL CONSTRUCTION PERMIT NUMBER: _____

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: _____ County: MOORE
(Road, Community, or Subdivision and Lot No.)

2. OWNER PINEHURST ENTERPRISES INC.
ADDRESS P. O. BOX 182 (Street or Route No.)
PINEHURST NC 28374 (City or Town / State / Zip Code)

3. DATE DRILLED 6-27-88 USE OF WELL TOWN

4. TOTAL DEPTH 178 CUTTINGS COLLECTED ☒ Yes ☐ No

5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☒ No

6. STATIC WATER LEVEL: 45 FT. ☐ above ☒ below TOP OF CASING,
TOP OF CASING IS 2 FT. ABOVE LAND SURFACE.

7. YIELD (gpm): 75 METHOD OF TEST ORIFICE

8. WATER ZONES (depth): 80-100 120-130 153-173

9. CHLORINATION: Type HTH Amount 5 LBS.

10. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From 0	To 80	Ft.	8	375	STEEL
From 100	To 120	Ft.	8	375	STEEL
From 130	To 153	Ft.	8	375	STEEL

11. GROUT:

	Depth		Material	Method
From 0	To 20	Ft.	CEMENT	PUMPED
From	To	Ft.		

12. SCREEN:

	Depth		Diameter		Slot Size		Material
From 80	To 100	Ft.	8	in.	40	in.	
From 120	To 130	Ft.	8	in.	40	in.	
From 153	To 173	Ft.	8	in.	40	in.	

13. GRAVEL PACK:

	Depth		Size	Material
From 0	To 183	Ft.	¼	GRAVEL
From	To	Ft.		

14. REMARKS: _____

DRILLING LOG

From	To	Formation Description
0	12	Clay
12	20	Sand
20	30	Clay
30	34	Clay
34	46	Sand
46	54	Clay
54	120	Sand
120	160	Clay
160	170	Sand
170	182	Clay

If additional space is needed use back of form.

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REVISED 2/90

Submit original to Division of Environmental Management and copy to well owner.

Water Wells and Test Holes
Pump Sales and Service

Down Hole T.V.
Electric and Gramma
Logging

W18

Carolina Well & Pump Co. Inc.

Serving the Carolina's since 1961

DRILLER'S LOG
PINEHURST
WELL # 18
DRILLER RONALD PATTERSON
6-24-91

0	10	Sand & Clay
10	20	Clay & Sand & Clay
20	30	Sand & Clay
30	40	Sand & Clay
40	50	Sand & Clay
50	60	Sand
60	70	Sand
70	80	Sand
80	90	Clay & Sand = caving sand
90	100	Sand
100	110	Sand
110	120	Sand
120	130	Sand
130	140	Sand & Clay
140	150	Sand & Clay
150	160	Clay
160	170	Clay & Straeks of Sand
170	180	Clay & Streak of Sand
180	190	Clay
190	200	Clay
200	210	Clay

Lower Middle Aquifer
90 – 150 (60')

90 - 130 = 40'

20' of cl. sands

Worth F. Pickard **Ronald D. Patterson**

P.O. Box 1085 • 4900 Carbonton Road • Sanford, NC 27330 • 919-776-3415

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION
P.O. BOX 27687 - RALEIGH,N.C. 27611, PHONE (919) 733-5083

W19

WELL CONSTRUCTION RECORD

FOR OFFICE USE ONLY
Quad. No. _____ Serial No. _____
Lat. _____ Long. _____ Pc ___
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

DRILLING CONTRACTOR McCaskill Well Drilling
DRILLER REGISTRATION NUMBER 1181
STATE WELL CONSTRUCTION PERMIT NUMBER: 62-0183-WS-0182

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Pinehurst (Linden Rd) Scully property
(Road, Community, or Subdivision and Lot No.)
County: Moore County

2. OWNER MAWASA
ADDRESS S.R. 1100 4miles S.E (Street or Route No.)
Pinebluff N.C.
City or Town State Zip Code

3. DATE DRILLED Nov. 15, 1996 USE OF WELL Public Supply
4. TOTAL DEPTH 151ft 4in. CUTTINGS COLLECTED ☐ Yes ☑ No
5. DOES WELL REPLACE EXISTING WELL? ☐ Yes ☑ No
6. STATIC WATER LEVEL 49Ft. FT. ☐ above ☑ below TOP OF CASING,
TOP OF CASING IS 3 FT. ABOVE LAND SURFACE.
7. YIELD (gpm): 200 METHOD OF TEST Pump
8. WATER ZONES (depth): 82 to 91 105 to 145
9. CHLORINATION: Type HTH Amount 1.5 pd.

DRILLING LOG

Depth From	Depth To	Formation Description
0	1	Sandy Top
1	7	yellow sand
7	13	clay orange/Tan
13	17	sand Fine clay ∠
17	29	Sand
2	36	Sand very Little clay white
36	39	Sand clay Tanish
39	42	C & sand
42	75	Sand very little CL
75	78	clean sand
78	82	clay & sand Lens
82	91	sand very little clay Lens
91	99	white clay
99	105	sand & clay Lens (over)

If additional space is needed use back of form.

10. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From -3	To 858	Ft.	8 in.	STD	Black steel
From 95	To 105	Ft.	8 in.	STD	"
From 146 4in.	To 151 4in	Ft.	8 in.	STD	"

11. GROUT:

	Depth		Material	Method
From 0	To 42	Ft.	Sand cement	Pumped
From ____	To ____	Ft.	____	____

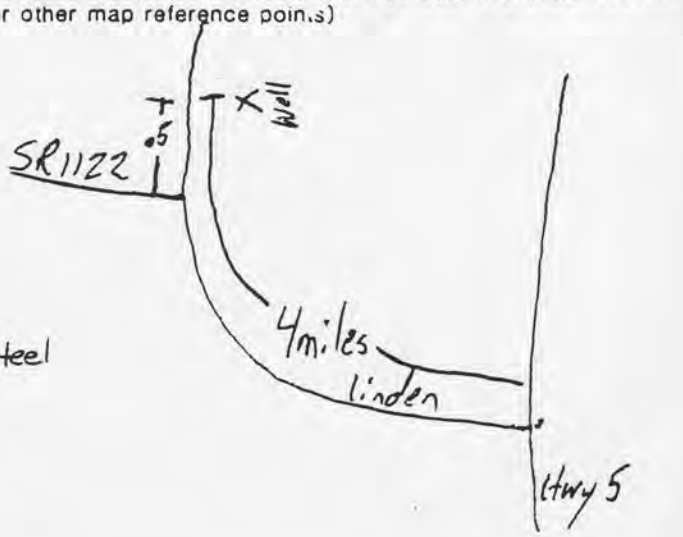
12. SCREEN:

	Depth		Diameter		Slot Size		Material
From 858'	To 91	Ft.	8	in.	20	in.	stainles steel
From 105	To 146 4"	Ft.	8	in.	20	in.	"
From ____	To ____	Ft.	____	in.	____	in.	____

13. GRAVEL PACK:

	Depth		Size	Material
From 42	To 150	Ft.	3/16	Wash stone
From ____	To ____	Ft.	____	____

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



14. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15 NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT DATE 1/20/96

Water Wells and Test Holes
Pump Sales and Service

Down Hole T.V.
Electric and Gramma
Logging

W20

Carolina Well & Pump Co. Inc.

Serving the Carolina's since 1961

PINE WILD DRILLER LOG
DRILLER RONALD PATTERSON

0	10	Sand
10	20	Sand and Streak of Clay
20	30	Clay and Sand
30	40	Sand
40	50	Sand
50	60	Sand
60	70	Sand
70	80	Sand
80	90	Sand
90	100	Sand and Clay
100	110	Clay and Sand and Clay
110	120	Clay and Sand
120	130	Sand
130	140	Sand
140	150	Sand
150	160	Sand
160	170	Sand and Clay
170	180	Sand and Clay
180	190	Sandy Clay
190	200	Sandy Clay
200	210	Sandy Clay

Worth F. Pickard **Ronald D. Patterson**
P.O. Box 1085 • 4900 Carbonton Road • Sanford, NC 27330 • 919-776-3415

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section
1636 Mail Service Center - Raleigh, N.C. 27699-1636-Phone (919) 733-3221

221175

WELL CONSTRUCTION RECORD

W21

WELL CONTRACTOR: ~~Charles M. McCaskill~~, McCaskill Well D.
WELL CONTRACTOR CERTIFICATION #: 2769
STATE WELL CONSTRUCTION PERMIT#: ~~Permit Pending~~

1. WELL USE (Check Applicable Box): Residential ☐ Municipal ☑ Industrial ☐ Agricultural ☐ Monitoring ☐
   Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use: _____
2. WELL LOCATION: (Show sketch of the location below)
   Nearest Town: Pinehurst County: Moore
   well #21 Foxfire Rd. SR. 1122
   (Road Name and Numbers, Community, or Subdivision and Lot No.)
3. OWNER Moore County Dept. of Public Utilities
   Address P.O. Box 1927 (Street or Route No.)
   Carthage (City or Town) N.C. (State) 28327 (Zip Code)
4. DATE DRILLED 11-1-00
5. TOTAL DEPTH 160
6. CUTTINGS COLLECTED YES ☑ NO ☐
7. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☑
8. STATIC WATER LEVEL Below Top of Casing: 68.5 FT.
   (Use "+" if Above Top of Casing)
9. TOP OF CASING IS 1.8 FT. Above Land Surface*
   *Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118
10. YIELD (gpm): 122 METHOD OF TEST Pump/Orifice
11. WATER ZONES (depth): 85 - 138
12. CHLORINATION: Type HTH Amount 2 lbs.
13. CASING:

From	To	Ft.	Diameter	Wall Thickness or Weight/Ft.	Material
0	52.5	Ft.	18	.375	Black Steel
-1.8	110	Ft.	8	.304	Black steel
135	160	Ft.	8	.304	Black steel

14. GROUT:

From	To	Ft.	Material	Method
0	52.5	Ft.	Neat	Pump
0	52	Ft.	Neat	Pump

15. SCREEN:

From	To	Ft.	Diameter	Slot Size	Material
110	135	Ft	8 in.	60 in.	Stainless steel
		Ft.	in.	in.	
		Ft.	in.	in.	

16. SAND/GRAVEL PACK:

From	To	Ft.	Size	Material
52	160	Ft.	Gravel Pack #3	Washed gravel
		Ft.		

17. REMARKS: _____

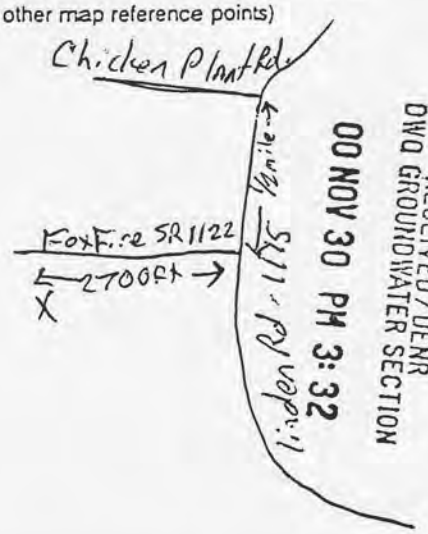
DRILLING LOG

From	To	Formation Description
0	1	Top Soil
1	10	Sand
10	14	sandy Clay
14	19	Clay
19	48	Sand
48	50	Clay
50	52	Clay with Small sand lense
52	52.5	sand
52.5	54	Clay
54	80	sand
80	85	sand fine Clay lenses
85	138	sand
138	142	Clay
142	160	Clay with sand lenses

If additional space is needed use back of form

LOCATION SKETCH

(Show direction and distance from at least two State Roads, or other map reference points)



RECEIVED/DENR
GROUNDWATER SECTION
00 NOV 30 PM 3:32

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF PERSON CONSTRUCTING THE WELL — DATE 11/12/00

Submit original to Division of Water Quality, Groundwater Section within 30 days

GW-1 REV. 1299

FOR OFFICE USE ONLY
Quad No: _____
Serial No. _____

Well 22

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section
1636 Mail Service Center - Raleigh, N.C. 27699-1636-Phone (919) 733-3221

WELL CONSTRUCTION RECORD

WELL CONTRACTOR: Charles McCaskill, McCaskill Well Dr
WELL CONTRACTOR CERTIFICATION #: 2769
STATE WELL CONSTRUCTION PERMIT#: Permit Pending

1. WELL USE (Check Applicable Box): Residential ☐ Municipal ☑ Industrial ☐ Agricultural ☐ Monitoring ☐
   Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use:
2. WELL LOCATION: (Show sketch of the location below)
   Nearest Town: Pinehurst County: Moore
   Short St.
   (Road Name and Numbers, Community, or Subdivision and Lot No.)
3. OWNER County of Moore
   Address P.O. Box 1927 Carthage N.C
   (Street or Route No.)
   Carthage N.C 28327
   City or Town State Zip Code
4. DATE DRILLED 7-26-02
5. TOTAL DEPTH 119
6. CUTTINGS COLLECTED YES ☐ NO ☑
7. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☑
8. STATIC WATER LEVEL Below Top of Casing: 57'1" FT.
   (Use "+" if Above Top of Casing)
9. TOP OF CASING IS 2 FT. Above Land Surface*

*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118

10. YIELD (gpm): 111 METHOD OF TEST pump/orifice
11. WATER ZONES (depth): 57 - 114
12. CHLORINATION: Type HTH Amount 2lbs.
13. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From 0	To 54	Ft. 18		.375	blacksteel
From -2	To 28	Ft. 8		.375	blacksteel
From 114	To 119	Ft. 8		.315	black steel

14. GROUT:

	Depth		Material	Method
From 0	To 54	Ft.	Neat	pump
From 0	To 52	Ft.	Sand cement grout	pump

15. SCREEN:

	Depth		Diameter	Slot Size	Material
From 28	To 114	Ft	8 in.	30 in.	Stainless steel
From ____	To ____	Ft. ____	in.	____ in.	
From ____	To ____	Ft. ____	in.	____ in.	

16. SAND/GRAVEL PACK:

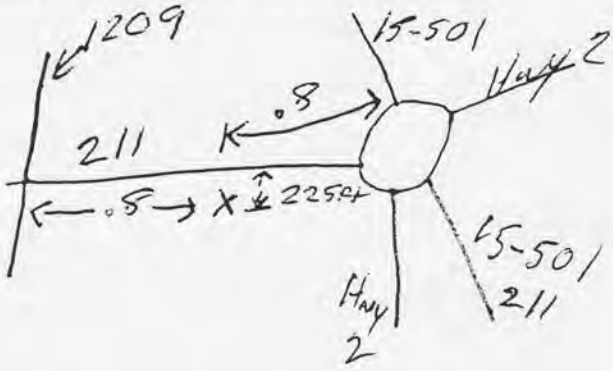
	Depth		Size	Material
From 52	To 140	Ft.	3/16	washed gravel
From ____	To ____	Ft. ____		

17. REMARKS:

DRILLING LOG From	To	DEPTH Formation Description
0	2	Sandy Top Soil
2	8	sandy clay
8	10	Clay
10	15	Sandy Clay
15	20	Clay
20	53	Sand
53	57	Clay
57	114	Sand
114	140	Clay

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF PERSON CONSTRUCTING THE WELL — DATE 5-2-02

Submit original to Division of Water Quality, Groundwater Section within 30 days

GW-1 REV. 1299

FOR OFFICE USE ONLY
Quad No: ____
Serial No. ____

Inventory of Potential Contaminant Sources

National Golf Club
Resorts Course 1
Resorts Course 2
Resorts Course 3
Resorts Course 4
Resorts Course 5
Resorts Course 6
Resorts Course 7
Resorts Club House & courts
Pinewild Farm Course
Magnolia & Club House
Race Track & barns
Closed Landfill (Wicker Park or First Bank property)
Rassie Wicker Park
Cannon Park
US 15 Highway
NC Highway 2
NC Highway 5
NC Highway 211
Powerline North
Powerline Central
Powerline South
CSX Railroad
Clarendon Gardens Subdivision
Lift stations
Pinehurst Maintenance Garage
Abandoned Bulk Facility
Village Car Wash
Village Paint Store
Southern Landscape Group
Golf Course Maintenance
Davis Paint
Antex Exterminating Co.
Village Printer
Kelly Road Cleaners
Tufts Cleaners
Boles Funeral Home
Macks Food Store 1
Short Stop 78
Pinehurst Elementary School
Bill Clark Chevrolet Cadillac
Village Market Gas Station
Short Stop 77
Moore County Regional Hospital
MCPU Well W01
MCPU Well W06
Manor Care Nursing Center
Irrigation Wells are not depicted due to ubiquity

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: NATIONAL GOLF CLUB

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: PINEHURST NATIONAL GOLF CLUB, INC.

ADDRESS: ONE ROYAL TROON DR.
PINEHURST, NC 28374

PHONE #: _____

CLOSEST WELL # W07, W10 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDE, HERBICIDE, FERT APPLICATION @ AGRICULTURAL RATES	SMALL QTY

ADDITIONAL INFORMATION:

W07 1400'
W10 1800'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RESORTS COURSE 1

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: RESORTS OF PINEHURST, INC.

ADDRESS: 301 COMMERCE ST., STE 1900
FT WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W03 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDE, HERBICIDE, FERT	
APPLICATION @ AGRICULTURAL	SMALL
RATES	QTY

ADDITIONAL INFORMATION:

W01 500'
W03 750'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RESORTS COURSE 2

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: RESORTS OF PINEHURST, INC

ADDRESS: 301 COMMERCE ST, STE 1900
FT WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W09, W5A, W07, W14, W01 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDE, HERBICIDE, FERT	
APPLICATION @ AGRICULTURAL	SMALL
RATES	QTYS

ADDITIONAL INFORMATION:

W09 100'
W05 100'
W07 900'
W14 600'
W01 1100'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RESORTS COURSE 3

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: RESORTS OF PINEHURST, INC

ADDRESS: 301 COMMERCE ST., STE 1900
FT WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W04, W14 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDE, HERBICIDE, FERT APPLICATION @ AGRICULTURAL RATES	SMALL QTYS

ADDITIONAL INFORMATION:

W04 100'
W14 300'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RESORTS COURSE 4

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: RESORTS OF PINEHURST, INC

ADDRESS: 301 COMMERCE ST., STE 1900
FT, WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W01 W14 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDE, HERBICIDE, FERT APPLICATION @ AGRICULTURAL RATES	SMALL QTYS

ADDITIONAL INFORMATION:

W01
W01 600
W14 800

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RESORT COURSE 5

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: RESORTS OF PINEHURST, INC

ADDRESS: 301 COMMERCE ST, STE 1900
FT WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W01 W11 W14 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDE, HERBICIDE, FERT APPLICATION @ AGRICULTURAL RATES.	SMALL QTYS

ADDITIONAL INFORMATION:

W11 <500
W14 6000'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RESORTS COURSE 6

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: RESORTS OF PINEHURST, INC

ADDRESS: 301 COMMERCE ST., STE. 1900
FT WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W17 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDES HERBICIDES, FORT APPLICATION @ AGRICULTURAL RATES	SMALL QTYS

ADDITIONAL INFORMATION:

100' W17

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RESORTS COURSE 7

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: RESORTS OF PINEHURST, INC.

ADDRESS: 301 COMMERCE ST., STE #100
FT. WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W07 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDES, HERBICIDES, FERT, APPLICATION @ AGRICULTURAL RATES	SMALL QTYS

ADDITIONAL INFORMATION:

W07 100'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RESORTS CLUB HOUSE & COURTS

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: RESORTS OF PINEHURST, INC

ADDRESS: 301 COMMERCE ST., STE 1900
FT. WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W14 W05 W01 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDES, HERBICIDES, FERT. APPLICATION @ AGRICULTURAL RATES	SMALL QTYS

ADDITIONAL INFORMATION:

W01 700'
W05 1200'
W14 100'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: PINEWILD FARM COURSE

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: PINEWILD COUNTRY CLUB

ADDRESS: PO BOX 3369
PINEHURST, NC 28374

PHONE #: _____

CLOSEST WELL # W20 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDES, HERBICIDES	SMALL
FERTILIZER, APPLICATION	QTYS
@ AGRICULTURAL RATES	

ADDITIONAL INFORMATION:

W20 500'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: MAGNOLIA & CLUB HOUSE

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: PINEHURST COUNTRY CLUB

ADDRESS: PO BOX 3369
PINEHURST, NC 28374

PHONE #: _____

CLOSEST WELL # W20 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDE, HERBICIDE, FERT APPLICATION @ AGRICULTURAL RATES	SMALL QTY

ADDITIONAL INFORMATION:

W20 700'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: RACE TRACK & BARNS

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: VILLAGE OF PINEHURST

ADDRESS: PO BOX 5589
PINEHURST, NC 28374

PHONE #: _____

CLOSEST WELL # W11, W03, W01 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDE, HERBICIDE, FERT, APPLICATION @ AGRICULTURAL RATES	SMALL QTYS

ADDITIONAL INFORMATION:

W01 400'
W03 400'
W11 400'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: CLOSED LANDFILL (FRYE PROPERTY)
(FIRST BANK PROP.)

ADDRESS: HWY 211
PINEHURST, NC

PHONE #: _____

OWNER'S NAME: FIRST BANK - ANNA G. MANESS

ADDRESS: PO BOX 508
TROY, NC 27271

PHONE #: _____

CLOSEST WELL # W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
SOLID WASTE	HIGH*
*ARBITRARY	
INCIDENT 10157	
NOTICE OF REGULATORY REQUIREMENTS	
8/28/01 REQUIRED SOIL REPORT OR LIMITED SITE ASSESSMENT	

ADDITIONAL INFORMATION:

W23 400'
W08 1600'
VILLAGE GARBAGE FROM 1900-1970

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

Source Code _____

Closest Well _____

FACILITY NAME: RASSIE WICKER PARK

ADDRESS:

PHONE #: _____

OWNER/RP:

VILLAGE OF PINEHURST
PO BOX 5589
PINEHURST, NC 28344

PHONE #: (910) 295-1900

MUNICIPALITY: _____

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
LARGE OPEN AREA, WALKING PATHS,	
HERBICIDES, PESTICIDES, FERTILIZER APPLICATION	SMALL QTY'S

ADDITIONAL INFORMATION:

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

Source Code _____

Closest Well _____

FACILITY NAME: CANNON PARK

ADDRESS:

PHONE #: _____

OWNER/RP:

VILLAGE OF PINEHURST
PO BOX 5529
PINEHURST, NC 28374

PHONE #: (910) 295-1900

MUNICIPALITY: _____

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
SOCCER & BALL FIELDS	
HERBICIDES, PESTICIDES, FERTILIZERS APPLICATION	SMALL QTY'S

ADDITIONAL INFORMATION:

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: US HIGHWAY 15

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: NC DOT

ADDRESS: P O BOX 1067
ABERDEEN, NC 28315

PHONE #: (910) 944-7621

CLOSEST WELL # 7, 10, 17 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
TANKER TRUCKS	
PETROLEUM	±10,000-gal
ACID-BASES-SOLVENTS	
CHEMICALS, INDUSTRIAL	

ADDITIONAL INFORMATION:

7 - 500'
10 - 1000'
17 - 600

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: NC HIGHWAY 2

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: NCDOT

ADDRESS: P O BOX 1067
ABERDEEN, NC 28315

PHONE #: (910) 944-7621

CLOSEST WELL # W10, W09, W5A, W07 VILLAGE OF PINEHURST
W14

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
TANKER TRUCKS:	
PETROLEUM	± 10,000-gal.
ACID-BASE-SOLVENTS	
INDUSTRIAL CHEMICALS	

ADDITIONAL INFORMATION:

W5A > 500'
W09 > 1000'
W07 > 1000'
W10 < 500'
W14 < 1000'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: NC HIGHWAY 5

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: NCDOT

ADDRESS: PO BOX 1067
ABERDEEN, NC 28315

PHONE #: (910)944-7621

CLOSEST WELL # W15, W2A, W14, W01 VILLAGE OF PINEHURST
W11, W06

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
TANKER TRUCKS	
PETROLEUM	±10,000-gal
ACIDS BASES SOLVENTS	
INDUSTRIAL CHEMICALS	

ADDITIONAL INFORMATION:

W15 <500 W06 1400
W2A >1500'
W14 ≤100
W01 1100
W11 >100'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: NC HIGHWAY 211

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: NC DOT

ADDRESS: P O BOX 1067
ABERDEEN, NC 28315

PHONE #: (910) 944-7621

CLOSEST WELL # W15, W10, W07, W07 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
TANKER TRUCKS	
PETROLEUM	±10,000 gal
ACIDS BASES SOLVENTS	
INDUSTRIAL CHEMICALS	

ADDITIONAL INFORMATION:

W15 100'
W10 300'
W24 500'
W07 800'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: CP&L POWER LINE NORTH

ADDRESS: SEE MAP

PHONE #:

OWNER'S NAME: PROGRESS ENERGY

ADDRESS:

PHONE #: (800) 452-2777

CLOSEST WELL # W17, W16 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
POWER LINE - HERBICIDES APPLICATION AT AGRICULTURAL RATES	SMALL

ADDITIONAL INFORMATION:

W17 1500'
W16 2000'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: CP&L POWER LINE CENTRAL

ADDRESS: SEE MAP

PHONE #:

OWNER'S NAME: PROGRESS ENERGY

ADDRESS:

PHONE #: (800) 452-2777

CLOSEST WELL # W20 W19 W06 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
POWER LINE	
HERBICIDE APPLICATION	SMALL
AT AGRICULTURAL RATES	

ADDITIONAL INFORMATION:

W20 >1500'
W19 700'
W06 500'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: POWER LINE SOUTH

ADDRESS: SEE MAP

PHONE #:

OWNER'S NAME: PROGRESS ENERGY

ADDRESS:

PHONE #: (800) 452-2777

CLOSEST WELL # W20 W13 W12 W16 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
POWER LINE	
HERBICIDE APPLICATION AT AGRICULTURAL RATES	SMALL

ADDITIONAL INFORMATION:

W20 1500'
W13 200'
W12 >10000'
W16 >10000'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: CSX RAILROAD

ADDRESS: PUBLIC SAFETY COORDINATION CENTER

EMER.
PHONE #: (800) 232-0144

OWNER'S NAME: CSX

ADDRESS: _____

_____

PHONE #: _____

CLOSEST WELL # W20, W19, W18, VILLAGE OF PINEHURST
W2A, W14, W01, W11, W06, W5A, W08

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
RAILROAD TANKER CARS	
PETROLEUM	± 20,000-gal
ACIDS BASES SOLVENTS	
INDUSTRIAL CHEMICALS	

ADDITIONAL INFORMATION:

W20	1500	W01	6000'
W19	1100	W11	300'
W18	200'	W06	1000'
W2A	500'	W05	300'
W14	200'	W08	600'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: SEPTIC SYSTEMS @.

ADDRESS: CLARENDON GARDENS
PINEHURST, NC

PHONE #: _____

OWNER'S NAME: VARIOUS

ADDRESS: _____

_____

PHONE #: _____

CLOSEST WELL # W18 W19 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
SEPTIC TANKS, ABOUT 90-120	- LOW - *
AVE WATER USE ~3000-gal MO.	
* ARBITRARILY RANKED	

ADDITIONAL INFORMATION:

W18 1100'
W19 200'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: LIFT STATIONS

ADDRESS: SEE MAP.

PHONE #: (910) 947-6315

OWNER'S NAME: MOORE CO. PUBLIC UTILITIES

ADDRESS: PO BOX 1927
CARTHAGE, NC 28327

PHONE #: _____

CLOSEST WELL # _____ VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
SEWAGE	± 1000-gal

ADDITIONAL INFORMATION:

INSPECTED 3X WEEK

INVENTORY OF POTENTIAL CONTAMINATION SOURCES D1

FACILITY NAME: PINEHURST MAINTENANCE GARAGE

ADDRESS: McCASKILL ROAD E.
PINEHURST

PHONE #: (910) 295-0005

OWNER'S NAME: VILLAGE OF PINEHURST

ADDRESS: PGA BLVD, PO BOX 5589
PINEHURST, NC 28374

PHONE #: (910) 295-1900

CLOSEST WELL # W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
AST DIESEL	3000-gal
AST GAS	5000-gal
CLOSED OUT: 250, 550, 550,	
& 10,000-gal UST	

ADDITIONAL INFORMATION:

W08 600'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES D-2

FACILITY NAME: ABANDONED BULK FACILITY

ADDRESS: LOT 109 110, MCCASKIL RD
PINEHURST, NC

PHONE #: _____

OWNER'S NAME: JOHN O'MALLEY, O'MALLEY INVESTMENTS

ADDRESS: 5200 W LOOMIS RD
GREEN DALE, WI 53129

PHONE #: _____

ZONE # W08 MUNICIPALITY: PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
AST'S, MULTIPLE	N 30,000-gal
NO CONTAINMENT BERM	
TANKS ARE EMPTY	

ADDITIONAL INFORMATION:

FIRE MARSHALL INSPECTED
TANKS W/ MEMBER OF WELLHEAD
COMMITTEE

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: VILLAGE CAR WASH

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: GENE BURNS

ADDRESS: 32413 HWY 1 S
ABERDEEN, NC 28315

PHONE #: _____

CLOSEST WELL # WOS

VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
AUTOMOBILE RESIDUALS TO STORM SEWER	SMALL QTY

ADDITIONAL INFORMATION:

WOS 1200'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES F1

FACILITY NAME: VILLAGE PAINT STORE

ADDRESS: OWENS
1095

PHONE #:

OWNER'S NAME: MS OWENS

ADDRESS: 1095 MORGANTOWN RD
PINEHURST, NC 28374

PHONE #:

CLOSEST WELL # W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PAINTS, SOLVENTS	~1500-gal TOT.

ADDITIONAL INFORMATION:

W08 <1000'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES F2

FACILITY NAME: SOUTHERN LANDSCAPE GROUP

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: MOORE INVESTMENT GROUP

ADDRESS: PO BOX 1823
PINEHURST, NC 28370

PHONE #: _____

CLOSEST WELL # W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
FERTILIZER	~ 1500 lbs
PESTICIDES	
HERBICIDES	
SPRAYERS	200-gal

ADDITIONAL INFORMATION:

W08 1200'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES F3

FACILITY NAME: RESORTS GOLF COURSE MAINTONANCE

ADDRESS: MORGANTOWN RD
PINEHURST, NC

PHONE #: (910) 295-6811

OWNER'S NAME: RESORTS OF PINEHURST, INC

ADDRESS: 301 COMMERCE ST, STE 1900
FT WORTH, TX 76102

PHONE #: _____

CLOSEST WELL # W01 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDES	~ 200-gal
HERBICIDES	~ 200-gal
FORTILIZER	> 1000-lbs
WASTE OIL	500-gal
BATTERY ACID	~ 50-gal
UST HTG OIL	550-gal

ADDITIONAL INFORMATION:

W01 1000'

INCIDENT NO. 22760
PHASE II LSA REQUIRED

INVENTORY OF POTENTIAL CONTAMINATION SOURCES F4

FACILITY NAME: DAVIS PAINT

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: GREGG BENNETT

ADDRESS: 141 POND VIEW LN
CARTHAGE, NC 28327

PHONE #: _____

CLOSEST WELL # WO8 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PAINTS, SOLVENTS	~1500-gal

ADDITIONAL INFORMATION:

WO8 1500'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES F5

FACILITY NAME: ANTEX EXTERMINATING CO.

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: W. D. PROPERTIES (PROPERTY)

ADDRESS: PO BOX 582
SOUTHERN PINES, NC 28388

PHONE #: _____

CLOSEST WELL # W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
PESTICIDES	< 500 - gal

ADDITIONAL INFORMATION:

W08 1500'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES F6

FACILITY NAME: VILLAGE PRINTER

ADDRESS: 50 RATTLESNAKE TR.
PINEHURST, NC 28347

PHONE #: 295-6317

OWNER'S NAME: TONY GILLEY

ADDRESS: PO BOX 2139
PINEHURST NC 28347

PHONE #:

CLOSEST WELL # W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
SOLVENTS	<50-gal

ADDITIONAL INFORMATION:

W08 1500'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES H1

FACILITY NAME: KELLY RD CLEANERS

ADDRESS: KELLY RD, McINTYRE RDS.
PINEHURST

PHONE #: (910) 295-4932

OWNER'S NAME: HARBOUR LAUNDRY CENTER.

ADDRESS: _____

_____

PHONE #: _____

CLOSEST WELL # W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
DRY CLEANING SOLVENTS	<200-gal

ADDITIONAL INFORMATION:

W08 1300

INVENTORY OF POTENTIAL CONTAMINATION SOURCES 42

FACILITY NAME: TUFTS CLEANERS

ADDRESS: PO BOX 4065
PINEHURST, NC 28374

PHONE #: _____

OWNER'S NAME: _____

ADDRESS: _____
_____

PHONE #: _____

CLOSEST WELL # WO8 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
DRY CLEANING SOLVENTS	<200-gal

ADDITIONAL INFORMATION:

WO8 800'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

FACILITY NAME: BOLES FUNERAL HOME

ADDRESS: 35 PARKER LANE
PINEHURST

PHONE #: (910) 692-6262

OWNER'S NAME: BOLES FUNERAL HOME

ADDRESS:
SOUTHERN PINES, NC

PHONE #:

CLOSEST WELL # WI1 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
EMBALMING FLUIDS	< 200 gal

ADDITIONAL INFORMATION:

WI1 1100'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES N1

FACILITY NAME: MACKS FOOD STORE 1

ADDRESS: HWY 211 & NC 5 N
PINEHURST, NC 28374

PHONE #: (910) 215-0575

OWNER'S NAME: MCNEIL OIL CO

ADDRESS: PO BOX 396
ABERDEEN, NC 28315

PHONE #: (910) 944-2329

CLOSEST WELL # W15 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
UST GAS	10,000-gal
UST GAS	15,000-gal

ADDITIONAL INFORMATION:

W15 <500'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES 1/2

FACILITY NAME: SHORT STOP 78

ADDRESS: PO BOX 3842 / HWY 5
PINEHURST, NC 28374

PHONE #: (910) 295-4567

OWNER'S NAME: LIL THRIFT FOOD MART, INC.

ADDRESS: 1007 ARSENAL AVE
FAYETTEVILLE, NC 28305

PHONE #: (910) 433-4490

CLOSEST WELL # W06 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:		QUANTITY:
UST	GAS	10,000-gal
"	"	10,000-gal
"	"	10,000-gal

ADDITIONAL INFORMATION:

W06 - 900'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES N3

FACILITY NAME: PINEHURST ELEMENTARY SCHOOL

ADDRESS: PO BOX 79, DUNDEE RD.
PINEHURST, NC 28374

PHONE #: (910) 295-6969

OWNER'S NAME: MOORE CO. BOARD OF EDUCATION

ADDRESS: PO BOX 1180
CARTHAGE, NC 28327

PHONE #: (910) 947-2258

CLOSEST WELL # W09, W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
UST HEATING OIL	10,000-gal
(5000-gal UST CLOSED BY REMOVAL 5/26/90)	

ADDITIONAL INFORMATION:

W08 1800
W09 1600

INVENTORY OF POTENTIAL CONTAMINATION SOURCES N4

FACILITY NAME: BILL CLARK CHEVROLET CADILLAC

ADDRESS: 35 DUNDEE ROAD
PINEHURST, NC 28374

PHONE #: (910) 295-6101

~~OWNER'S NAME:~~ RP: FRANK McNEIL

ADDRESS: McNEIL OIL CO, PO BOX 396
ABERDEEN, NC 28315

PHONE #: _____

CLOSEST WELL # W08 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:		QUANTITY:
UST	GAS	5000-gal
	GAS	6000-gal
	GAS	3000-gal
	GAS	2000-gal
UST'S PULLED IN 1980:		
2000, 2000, 4000, 4000, 4000 (ALL GAS)		

ADDITIONAL INFORMATION:

W08 1200'
NEEDS FOLLOW-UP
FREE PRODUCT - AS OF 2/6/92
INCIDENT NO. 5532

INVENTORY OF POTENTIAL CONTAMINATION SOURCES N5

FACILITY NAME: VILLAGE MARKET GAS STATION

ADDRESS: 120 McINTYRE RD.
PINEHURST, NC 28374

PHONE #: (910) 295-1927

OWNER'S NAME: GARY BRIGGS

ADDRESS: PO BOX 5487
PINEHURST, NC 28374

PHONE #: (910) 245-2134

CLOSEST WELL # WO8 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
UST GAS	6000-gal
UST GAS	6000-gal
AST KERO	550-gal

ADDITIONAL INFORMATION:

WO8 1100'

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

Source Code N6

Closest Well W22

FACILITY NAME: SHORT STOP 77

ADDRESS:
RATTLESNAKE TRAIL
PINEHURST, NC

PHONE #:

OWNER/RP:
L'IL THRIFT FOOD MART, INC
1007 ARSENAL AVE
FAYETTEVILLE, NC 28305

PHONE #: (910) 433-4490

MUNICIPALITY:

POTENTIAL CONTAMINATION SOURCES:		QUANTITY:
UST	GAS	10,000-gal
"	"	10,000-gal
"	"	10,000-gal

ADDITIONAL INFORMATION:

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

Source Code N 7

Closest Well _____

FACILITY NAME: MOORE COUNTY REGIONAL HOSPITAL

ADDRESS: 155 MEMORIAL DRIVE PO BOX 3000
PINEHURST, NC 28374

PHONE #: (910) 715-1000

OWNER/RP:

PHONE #: _____

MUNICIPALITY: PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
HEATING OIL UST	5000-gal

ADDITIONAL INFORMATION:

INVENTORY OF POTENTIAL CONTAMINATION SOURCES 0-1

FACILITY NAME: MCPU WELL W01

ADDRESS: _____

_____

PHONE #: _____

~~OWNER'S NAME:~~ RP: RESORTS OF PINEHURST

ADDRESS: PO BOX 4000
PINEHURST, NC 28315

PHONE #: _____

CLOSEST WELL # W06 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
INCIDENT NO. 23723	
PHASE II LSA DATED AUG 8 2001	

ADDITIONAL INFORMATION:

TEMP ABANDONED
NO RP FOUND

INVENTORY OF POTENTIAL CONTAMINATION SOURCES 0-2

FACILITY NAME: MCPU WELL W06

ADDRESS: _____

_____

PHONE #: _____

OWNER'S NAME: _____

ADDRESS: _____

_____

PHONE #: _____

CLOSEST WELL # W01 VILLAGE OF PINEHURST

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:

ADDITIONAL INFORMATION:

POLLUTION INCIDENT 19354

WELL WAS TEMPORARILY ABANDONED BUT NOW IN USE

INVENTORY OF POTENTIAL CONTAMINATION SOURCES

Source Code 0-3

Closest Well _____

FACILITY NAME: MANOR CARE NURSING CENTER

ADDRESS:
205 RATTLESNAKE TRAIL
PINEHURST, NC

PHONE #: _____

OWNER/RP:
MANOR HEALTHCARE CORP.
10750 COLUMBIA PIKE
SILVER SPRINGS, MD 20901

PHONE #: (301) 593-9600

MUNICIPALITY: _____

POTENTIAL CONTAMINATION SOURCES:	QUANTITY:
GASOLINE UST LEAK	SM. QTYS
SOIL CONTAMINATED	

ADDITIONAL INFORMATION:
INCIDENT NO. 21790