

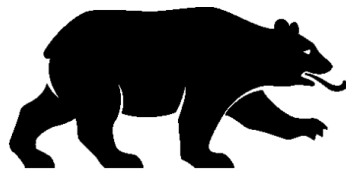
LOCAL WELLHEAD PROTECTION PLAN

for

The City of New Bern,

Craven County, North Carolina

PWS ID # 04-25-010



NEW BERN

CITY OF NEW BERN

November 29th, 2023



Mr. Jordan Hughes
City of New Bern
PO Box 1129
527 NC HWY 55 W
New Bern, NC 28562
Phone: 252-639-7527

Table of Contents

Background	3
Introduction	6
Planning Team	6
Delineation of Wellhead Protection Areas.....	7
Potential Contaminant Source Inventory.....	24
Risk Assessment.....	130
Management of the Wellhead Protection Areas	139
Contingency Plan.....	148
Public Participation	151
New Public Water Supply Wells	151
Future Wellhead Protection.....	151
Appendix	153

Background

In 1986, Safe Drinking Water Act (SDWA) 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 effects on the health of persons.” The term wellhead protection area 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 Environmental Protection Agency (EPA) approved Wellhead Protection Program (WHPP) provides technical support to local governments and public water supply systems in their endeavors to develop and implement their own Wellhead Protection Plans.

One of North Carolina’s objectives in developing a protection plan 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.

Regulations of the **Division of Water Resources (DWR), under the Department of Environmental Quality** require wellhead protection measures for any public water supply wells to be used as a community or non-transient, non-community water system to meet the following requirements:

- (1) The well shall be located on a lot so that the area within 100 feet of the well is owned or controlled by the person supplying the water. The supplier of water shall be able to protect the well lot from potential sources of pollution and to construct landscape features for drainage and diversion of pollution.
- (2) The minimum horizontal separation between the well and known potential sources of pollution shall be as follows:
 - (a) 100 feet from any sanitary sewage disposal system, sewer, or a sewer pipe unless the sewer is constructed of water main materials and joints, in which case the sewer pipe shall be at least 50 feet from the well;
 - (b) 200 feet from a subsurface sanitary sewage treatment and disposal system designed for 3000 or more gallons of wastewater a day flows, unless the well water source is from a confined aquifer;
 - (c) 500 feet from a septage disposal site;
 - (d) 100 feet from buildings, mobile homes, permanent structures, animal houses or lots, or cultivated areas to which chemicals are applied;
 - (e) 100 feet from surface water;
 - (f) 100 feet from a chemical or petroleum fuel underground storage tank with secondary containment;
 - (g) 500 feet from a chemical or petroleum fuel underground storage tank without secondary containment;
 - (h) 500 feet from the boundary of a ground water contamination area;
 - (i) 500 feet from a sanitary landfill or non-permitted non-hazardous solid waste disposal site;
 - (j) 1000 feet from a hazardous waste disposal site or in any location that conflicts with the North Carolina Hazardous Waste Management Rules cited as 15A NCAC 13A;
 - (k) 300 feet from a cemetery or burial ground; and
 - (l) 100 feet from any other potential source of pollution.
- (3) The Department may require greater separation distances or impose other protective measures if necessary to protect the well from pollution, taking into consideration factors such as:

- (a) The hazard or health risk associated with the source of pollution;
 - (b) The proximity of the potential source to the well;
 - (c) The type of material, facility, or circumstance that poses the source or potential source of pollution;
 - (d) The volume or size of the source or potential source of pollution;
 - (e) Hydrogeological features of the site that could affect the movement of contaminants to the source water;
 - (f) The effect that well operation might have on the movement of contamination; and
 - (g) The feasibility of providing additional separation distances or protective measures.
- (4) The lot shall be graded or sloped so that surface water is diverted away from the wellhead. The well shall not have greater than a one percent annual chance of flooding.
- (5) If a supplier of water demonstrates that it is impracticable, taking into consideration feasibility and cost, to locate water from any other approved source and an existing well can no longer provide water that meets the requirements of this Subchapter, a representative of the Division may approve a variance for a smaller well lot and reduced separation distances to meet existing demands. Additional monitoring under this Part or other conditions shall be imposed if necessary to mitigate the increased risk from the variance.

In addition to this delineation, communities are encouraged to establish wellhead protection plans, which include the following:

- (1) The formation of a wellhead protection committee to establish and implement the wellhead protection program whose role it is to conduct a potential contaminant source inventory, provide options for the management of the WHP area, seek public input into the creation of the WHP plan, seek approval of the WHP program and to implement the WHP program;
- (2) Development of a public education program;
- (3) Delineation of the contributing areas of the water sources;
- (4) Identification of potential contamination sources within the wellhead protection area;
- (5) Develop and implement wellhead protection area management actions to protect the water sources;
- (6) Develop an emergency contingency plan for alternative water supply sources in the event the groundwater supply becomes contaminated and emergency response planning for incidents that may impact water quality;
- (7) Conduct new water source planning to insure the protection of new water source locations and to augment current supplies.

Wellhead protection for existing wells is a voluntary program, but water systems across the state are encouraged to take the above steps in protecting all groundwater sources.

The Public Water Supply Section (PWSS) provides the final approval for WHP Programs. The NC Wellhead Protection Program Coordinator is:

Danny Edwards
Public Water Supply Section
1634 Mail Service Center
Raleigh, North Carolina 27699-1634
Phone: 919-707-9070
Fax: 919-715-4374

INTRODUCTION

This is the first Wellhead Protection Plan for the City of New Bern. The City of New Bern is located in the central portion of Craven County. Its PWS ID# is 04-25-010. The city operates twenty (20) wells (as described in **Table 1** on pgs. 12-13), which serve a population of 30,070 people via 15,146 connections. New Bern's wells #1-#15 pump from the Castle Hayne aquifer and New Bern's Cove City wells #1-#5 pump from the Black Creek and Upper Cape Fear aquifers. The city maintains two (2) ground storage tanks (one (1) 2,000,000-gallon capacity and one (1) 4,000,000-gallon capacity), one (1) standpipe (1,000,000-gallon capacity), and six (6) elevated storage tanks (five (5) 500,000-gallon capacity and one (1) 200,000-gallon capacity). The total water storage capacity of the city is 9.7 million gallons. The wells are treated as two systems; the New Bern system is pumped to the New Bern Water Treatment Plant, where chlorine, ammonia, and orthophosphate are added, while the Cove City system is treated with chlorine individually at each wellhead followed by being pumped collectively to the standpipe for treatment with ammonia. There are twelve (12) certified operators for the system, which uses an average of 3,500,000 gallons per day.

I. The Wellhead Protection Committee

The following people have been designated as New Bern's Wellhead Protection Committee (WPC):

<u>Name</u>	<u>Position</u>
Mr. Luke Cowley	Cross Connection Coordinator
Mr. Dalton Gaskins	Treatment Plant Manager
Mr. Jordan Hughes	City Engineer
Mr. Charles Bauschard	Director of Public Utilities
Ms. Katie Dunning	NCRWA

Ms. Katie Dunning of the North Carolina Rural Water Association provided technical assistance throughout the development of this plan. The positions responsible for implementing the plan are the Board of Alderman. They have accepted the recommendations made in the plan by the WPC. The Board of Alderman have granted the Cross Connection Coordinator, Mr. Luke Cowley, authority to implement the Plan. The City of New Bern will begin implementation of the plan immediately following its approval by the Public Water Supply Section of the North Carolina Division of Water Resources and will complete implementation within ninety (90) days. Upon completion of the implementation phase of the WHP Plan, the individual responsible for implementation 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 AREAS

Wellhead protection is simply protection of all or part of the area surrounding a well from which the well's groundwater is drawn. This is called a Wellhead Protection Area (WHPA). The Safe Drinking Water Act (SDWA) defines a WHPA 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 wellfields".

WHPA delineation methods typically involve estimating the size of the contributing area to the well or wellfield. The contributing area is the land area from which water pumped from the well is derived. If a contaminant reaches groundwater within the well's contribution area, the contaminant can move with the groundwater into the well. If the contributing area for the well is identified, and management strategies are set in place to manage certain activities, the possibility that the well might become contaminated can be significantly reduced. This is the area where the wellhead protection (WHP) plan will apply. For a surficial, unconfined aquifer, the contributing area is the area surrounding the well in which precipitation that infiltrates to and recharges the groundwater eventually flows to and discharges from the pumping well. Stated another way, the contributing area is the area in which the rate of recharge to the aquifer equals the rate of withdrawal from the pumping well.

There are several methods that are used to delineate WHPAs. The one that is most appropriate for each well system depends upon many factors including the well's geographic location, depth, and characteristics of the subsurface geology. A type of calculated fixed radius method known as the "Recharge Method" is typically used to estimate the size of the WHPA for wells withdrawing water from unconfined surficial aquifers and certain semi-confined aquifers. However, the average recharge rate to confined and certain semi-confined aquifers of the coastal plain are, in general, small in comparison to the average recharge rate to unconfined surficial aquifers. WHPAs for wells withdrawing water from confined/certain semi-confined aquifers could potentially be unmanageably large if based on the recharge rate to these aquifers; also, because the land area in which recharge to a confined aquifer is derived may be located many miles from the pumping well, accurate determination and management of WHPAs based on recharge presents numerous technical and jurisdictional difficulties in these types of aquifers.

In North Carolina, the WHPA for wells withdrawing water from certain confined aquifers encompasses the area surrounding the well for which the time of travel from the outer edge of the area to the well is 10 years. A 10-year period was selected to provide time to assess the potential impact of any groundwater contamination entering the WHPA and for developing appropriate remediation and ground water protection strategies for the water supply. A WHPA based on a longer time of travel may provide a greater degree of protection to the well and allow more advance warning to respond to a contamination incident within the WHPA, but it will also expand the area to manage under the WHP Plan.

WHPAs based on a 10-year time of travel from their outer edge to the pumping well can be estimated by using the ground-water velocity or by estimating the volume of the aquifer required to supply 10 years of withdrawals (i.e., the Volumetric method).

Data from the City of New Bern's well construction records, SDWIS (Safe Drinking Water Information System), and the DWR Groundwater Management Branch (**Figure 5a-e**) were compiled for the Wellhead Protection Areas delineation and aquifer determination. Information from these sources is present in **Table 1** on pgs. 12-13. The New Bern centric wells #1-#15 were determined to draw from the Castle Hayne aquifer, while the Cove City centric wells #1-#5 were determined to draw from the Black Creek and Upper Cape Fear aquifers. The "Map of Highly Confined Aquifers" prepared by Ralph Heath in August 2000 (**Figure 1**) indicates that all Cove City wells (#1-#5) are drawing from a highly confined

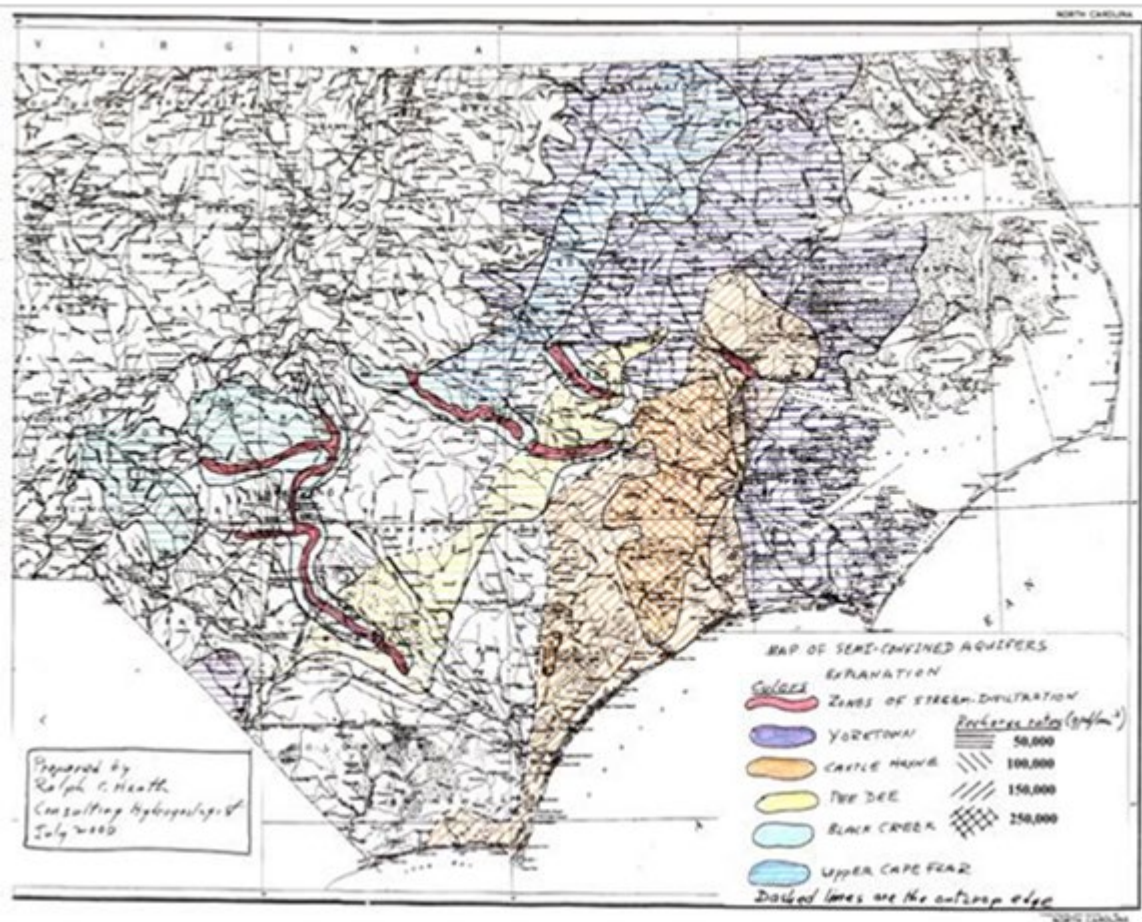
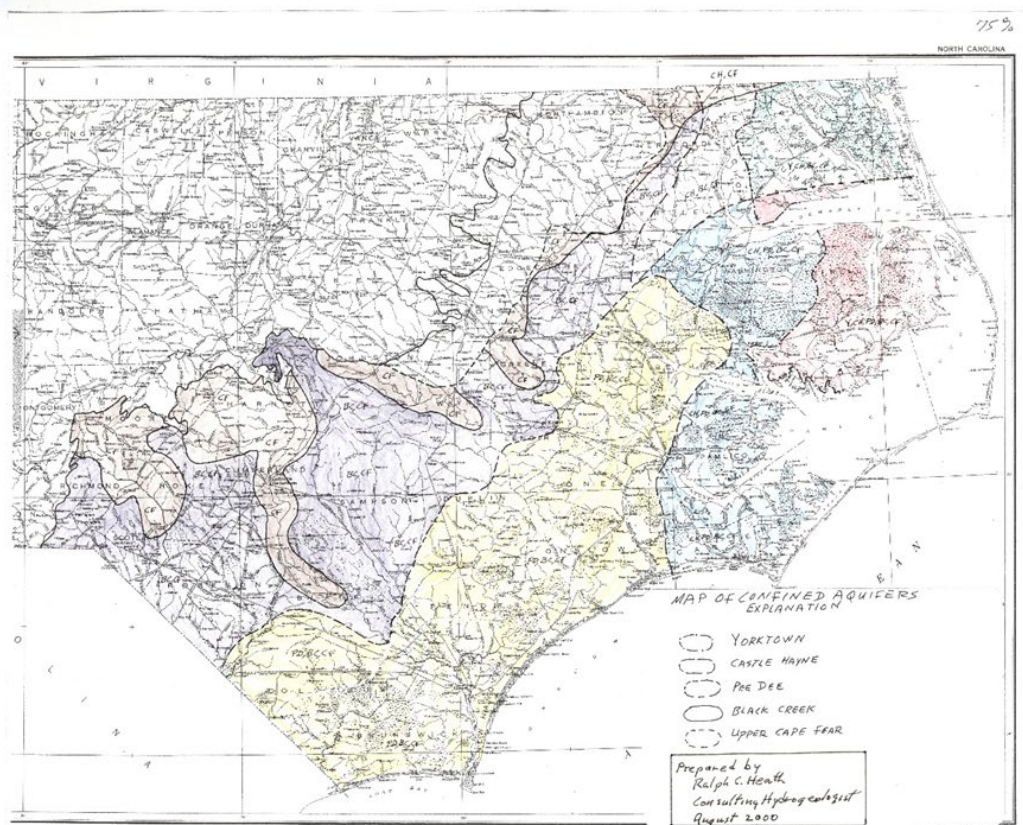
portion of the respective aquifer(s), while the “Map of Semi-Confined Aquifers” prepared by Ralph Heath in July 2000 (**Figure 1**) indicates that all New Bern wells (#1-#15) are drawing from a semi-confined portion of the respective aquifer.

The City of New Bern chose to use the **Volumetric Method**, as described on pages 10 and 11, for the highly confined Cove City Wells #1-#5 to complete the Cove City portion of the wellhead protection delineation. The chart utilized for this assessment is present as **Table 2** on pg. 14 with calculation results in **Table 3b** on pg. 15. In using Table 2 to determine the radii of WHPAs, it is recommended that the well yield, in gpm, be read as “up to” (unless the well yield is within 10% of the table value). Thus, the radius of the WHPA for a well pumped at a rate of 150 gpm would be 1500 ft. The Recharge Method is recommended for delineating the wellhead protection area(s) for public water supply wells withdrawing water from the Castle Hayne aquifer in its outcrop area. This method results in the delineation of a circular contributing area centered on a supply well based on the pumping rate of the well and the estimated rate of recharge to the aquifer. The City of New Bern chose to use the **Recharge Method** for the semi-confined New Bern Wells #1-#15 to complete the New Bern centric portion of the wellhead delineation because the wells are drawing from an outcropped area of the Castle Haynes aquifer, which contains thin and discontinuous confining layers. The Recharge Method calculation results are present in **Table 3a** on pg. 14.

Figure 1. Map of Highly Confined Aquifers (Top), and Map of Semi-Confined Aquifers (Bottom), North Carolina Wellhead Protection Program.

MAP of
HIGHLY CONFINED AQUIFERS
 2nd version - August 2000
 BOUNDARIES OF AQUIFERS
 Yorktown - Y
 Castle Hayne - CH
 Pee Dee - PD
 Black Creek - BC
 Upper Cape Fear - CFC
 Western boundaries - are either the western limit of the aquifers or the eastern boundary of the semi-confined parts of the aquifers.
 Eastern boundary - the mainland coast.
 Map colors

CF	Brown
BC, CF	Violet
PD, BC, CF	Yellow
CH, PD, BC, CF	Blue
CH, BC, CF	Pink
CH, CF	Tuscan red
Y, CH, BC, CF	Green
Y, CH, PD, BC, CF	Carmine red



Volumetric Method

The volume of the aquifer that supplies withdrawals for a specified period of time can be estimated with the following equation:

$$V_p = Q \left(\frac{\text{gal}}{\text{min}} \right) \times t_d \left(\frac{\text{min}}{\text{day}} \right) \times \left(\frac{\text{ft}^3}{7.48 \text{ gal}} \right) \times \left(\frac{365.25 \text{ days}}{\text{year}} \right) \times \frac{P (\text{years})}{n}$$

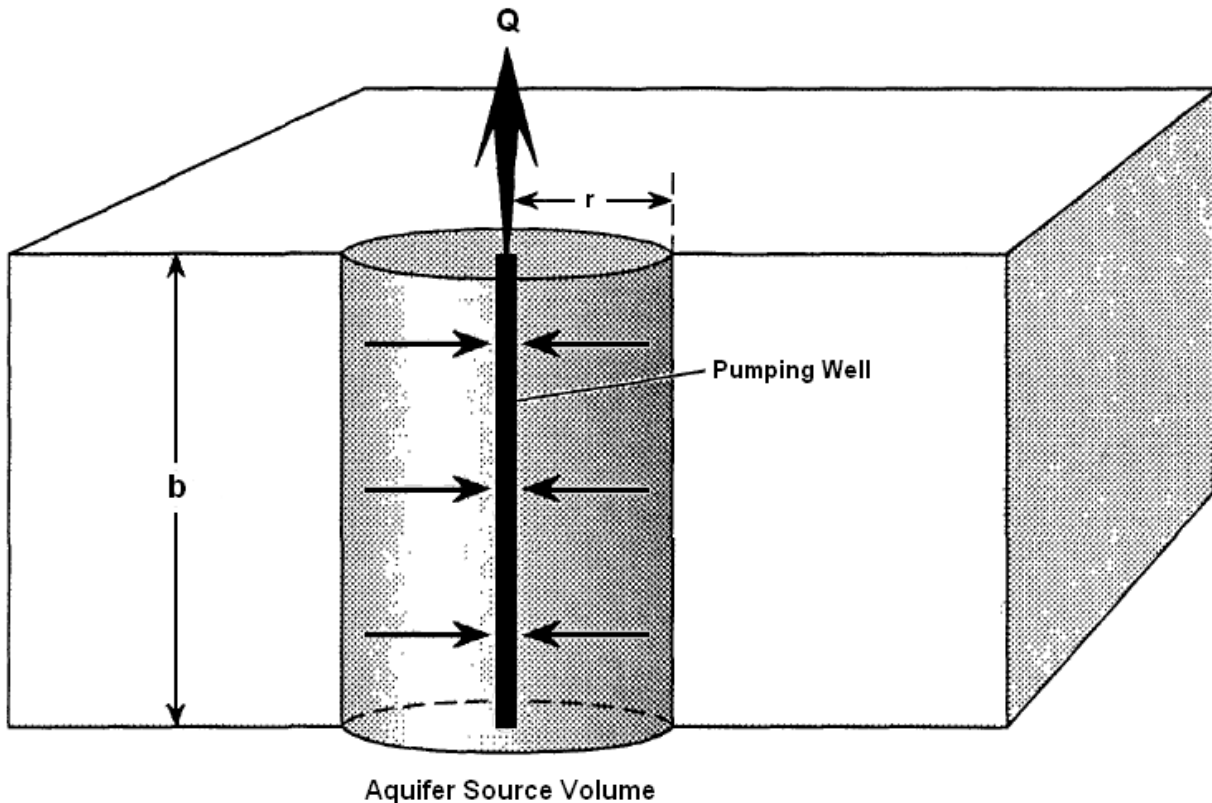
Where: V_p = the volume of aquifer in ft^3 that supplies withdrawals for period P,
 Q = the well yield in gallons per minute,
 t_d = the daily pumping period in minutes per day,
 P = the period of withdrawals in years, and
 n = the estimated porosity, dimensionless.

The well yield is the maximum sustained pumping rate possible for the well (not the daily pumping rate) as determined from a 24-hour drawdown test pursuant to North Carolina Administrative Code 15A NCAC 18C.0402(g). If well yield information is unavailable, the maximum capacity of the pump installed on the well may be substituted. The daily pumping period t_d is the number of minutes per day that the well is pumped and should equal 720 (the number of minutes in 12 hours). This value is used because State regulations require that the yield of a public water supply well provide the average daily demand in 12 hours. If the actual pumping period exceeds 12 hours, then the actual pumping period in minutes per day should be used. Using a daily pumping period t_d of 720 minutes per day, a period of withdrawal P of 10 years and an estimated porosity of 0.2, the above equation, rounded, reduces to:

$$V_{10} = 1,800,000 \times Q$$

Where: V_{10} = the volume of aquifer in ft^3 that supplies 10 years of withdrawals.
 Q = well yield in gallons per minute

For ease (convenience) in applying the Volumetric Method, it is assumed that the volume is contained in a cylinder centered on the well.



$$r = \sqrt{\frac{V_{10}}{\pi b}}$$

Before the radius of the cylinder, and therefore the WHPA, can be calculated, it is first necessary to determine or to estimate the thickness (b) of the aquifer (or the thickness of the part of the aquifer) that supplies water to the well. The WHPA radius for each well is then calculated by substituting the aquifer thickness and the calculated volume (V₁₀) into the following equation:

$$r = \sqrt{\frac{V_{10}}{\pi b}}$$

Where:

- r = the radius in feet,
- V₁₀ = the volume of the aquifer, in ft³, that supplies 10 years of withdrawals,
- π = 3.1416, and
- b = the aquifer thickness or the length of screened or open-hole section, in feet.

Because actual aquifer thickness may be underestimated by well screen length alone, the City of New Bern chose to use the recommended WHPA radii given in **Table 2** shown on page 14. Table 2 is taken from the NC Wellhead Protection Guidebook, Step 2, page 11. Once mapped, the individual WHPAs for the Cove City Wells #1-#5 were combined to produce the official final WHPA shown in the bottom of Figure 3 on page 17.

Recharge Method

The following equation was utilized to calculate the size of each wellhead protection area for the New Bern Wells #1-#15:

Recharge Method Equation

$$A = \frac{Q}{W}$$

Where: A = contributing area in square miles,
 Q = maximum permitted daily withdrawal in gallons per day
 (based on a 720-minute per day pumping cycle)
 W = average recharge rate, 250,000-gallons per day per square mile in the
 New Bern area, (Heath and Johnson, 2001).

The radius (r) was determined using the following formula:

$$r = \sqrt{(A/\pi)} (5280)$$

Using this method, WHPAs were delineated for each of the New Bern Wells #1-#15. Once mapped, the resulting WHPAs for the New Wells #1-#15 displayed considerable overlap due to the relatively small distance between the wells. To compensate for this overlap, a final WHPA was delineated around the approximate hydraulic center of the 15 New Bern wells using the combined pumping rate of all 15 wells. The official final WHPA for the New Bern Wells #1-#15 is shown in the bottom of Figure 2 on page 16.

Table 1. Information gathered for New Bern Wells #1-15 and Cove City Wells #1-#5

Well #	City Location	Physical Location	Depth (ft) **	Maximum Yield (gpm) *	Aquifer ****	Well Screen Intervals (ft) ***
#1 Group A	New Bern	Hwy 55 near solar farm	250	1000	Castle Hayne	225-245
#2 Group A		At New Bern WTP	265	963	Castle Hayne	233-263
#3 Group B		Hwy 55 near Ipock Ln.	231	350	Castle Hayne	196-226
#4 Group A		Hwy 55 near Holstein Dr.	237	410	Castle Hayne	207-232
#5 Group B		Hwy 70 near Moen	243	600	Castle Hayne	218-238
#6 Group A		Hwy 17/70 near Hwy 43	269	750	Castle Hayne	236-264
#7 Group B		Off Downey Dr.	271	600	Castle Hayne	238-248; 256-266
#8 Group A		Off Mayhew Dr.	278	700	Castle Hayne	246-273
#9 Group B		Highway 17 near golf club	287	700	Castle Haynes	264-282
#10 Group B		Across from Evergreen Ln.	297	670	Castle Haynes	280-292
#11 Group B		End of Hwy	269	1000	Castle Haynes	239-264

		43				
#12 Group A		North of SR 1223	269	700	Castle Haynes	244-264
#13 Group B		Southeast of BSH	274	449	Castle Haynes	234-269
#14 Group A		South of BSH	242	475	Castle Haynes	222-237
#15 Group B		Hwy 55 and Beaman Rd.	247	975	Castle Haynes	212-242
#1	Cove City	Between Prentiss Riggs and Cicero Riggs Rds.	842	1400	Black Creek and Upper Cape Fear	490-510; 568-573; 595-600; 653-658; 673-678; 697-737; 803-818; 832-837
#2		Old US Hwy 70 near C&B Septic Tank Pumping	820	1400	Black Creek and Upper Cape Fear	460-500; 555-585; 674-704; 810-815
#3		End of E Railroad St.	796	1450	Black Creek and Upper Cape Fear	465-485; 509-519; 571-581; 669-689; 717-722; 732-737; 744-764; 774-779;
#4		Trenton Rd. near SR 1232	839	1400	Black Creek and Upper Cape Fear	465-485; 500-510; 530-540; 586-591; 686-706; 715-725; 752-762; 780-785; 824-834
#5		Trenton Rd. near Woodrow McCoy Rd.	889	1400	Black Creek and Upper Cape Fear	495-515; 527-532; 565-570; 594-599; 649-654; 665-680; 690-730; 756-766; 806-811; 839-849; 859-869

* Well yields were determined from well construction records and SDWIS data.

**Well depths were determined from well construction records.

***Well screen intervals were determined from well construction records.

****Aquifer data came from the DWR Groundwater Management Branch.

Table 2. Recommended radii of WHPAs for wells withdrawing from semi-confined and highly confined aquifers. Sourced from *Table 1 from The Wellhead Protection Guidebook*.

Table 1. Recommended radii of WHPAs for wells withdrawing from semi-confined and highly confined aquifers.			
Well Yield Q ¹ (gpm)	Maximum Permitted Withdrawal (Q _{MPW} ²) (gallons)	Aquifer Thickness ³ (ft)	Radius of WHPA (ft) (rounded)
50	36,000	25	1,000
100	72,000	50	1,000
200	144,000	50	1,500
500	360,000	75	2,000
1000	720,000	75	3,000
2000	1,440,000	100	3,500

¹ Maximum sustained well yield or maximum capacity of the pump, in gallons per minute. Read as "up to" the indicated value; e.g., for a well yield of 150 gpm, use line representing 200 gpm.
² Maximum Permitted Withdrawal (Q_{MPW}) based on 12 hours per day of pump operation.
³ Aquifer thickness is a value assumed on the basis of the pumping rate.

Table 3a. Calculated Fixed Radii Data and Delineation for New Bern Wells #1-#15

Well #	Maximum Yield (gpm)	Daily Period of Well Operation (minutes per day)	Maximum Permitted Daily Withdrawal (Gallons per day)	Recharge Rate (gpd/mi ²)	A _{cmax} (Sq mi)	WHPA Radius (Rounded) (ft)
#1 Group A	1000	720	720,000	250,000	2.88	5,055
#2 Group A	963	720	693,360	250,000	2.77344	4,961
#3 Group B	350	720	252,000	250,000	1.008	2,991
#4 Group A	410	720	295,200	250,000	1.1808	3,237
#5 Group B	600	720	432,000	250,000	1.728	3,916
#6 Group A	750	720	540,000	250,000	2.16	4,378
#7 Group B	600	720	432,000	250,000	1.728	3,916
#8 Group A	700	720	504,000	250,000	2.016	4,230
#9 Group B	700	720	504,000	250,000	2.016	4,230
#10 Group B	670	720	482,400	250,000	1.9296	4,138
#11 Group B	1000	720	720,000	250,000	2.88	5,055
#12 Group A	700	720	504,000	250,000	2.016	4,230
#13 Group B	449	720	323,280	250,000	1.29312	3,387
#14 Group A	475	720	342,000	250,000	1.368	3,484
#15 Group B	975	720	702,000	250,000	2.808	4,992
All Wells (Total/Final WHPA)	10342	720	7,446,240	250,000	29.78496	16,258

Table 3b. Volumetric Delineated radii of the Cove City #1-#5 Wellhead Protection Areas

Well #	Physical Location	Maximum Yield (gpm)	Delineated Radius (ft) *****
1	Hwy 55 near solar farm	1400	3500
2	At New Bern WTP	1400	3500
3	Hwy 55 near Ipock Ln.	1450	3500
4	Hwy 55 near Holstein Dr.	1400	3500
5	Hwy 70 near Moen	1400	3500

***** The individual WHPA Radii were determine from **Table 2** "Recommended radii of WHPAs for wells withdrawing from semi-confined and highly confined aquifers" for the wells withdrawing water from the Black Creek and Upper Cape Fear aquifers (wells #1 through #5).

The WHPAs resulting from these assessments are depicted in **Figures 2 and 3** on pgs. 16 and 17.

Figure 2. City of New Bern Wells #1-#15 Individual Delineated Radii and Final WHPA Overlay

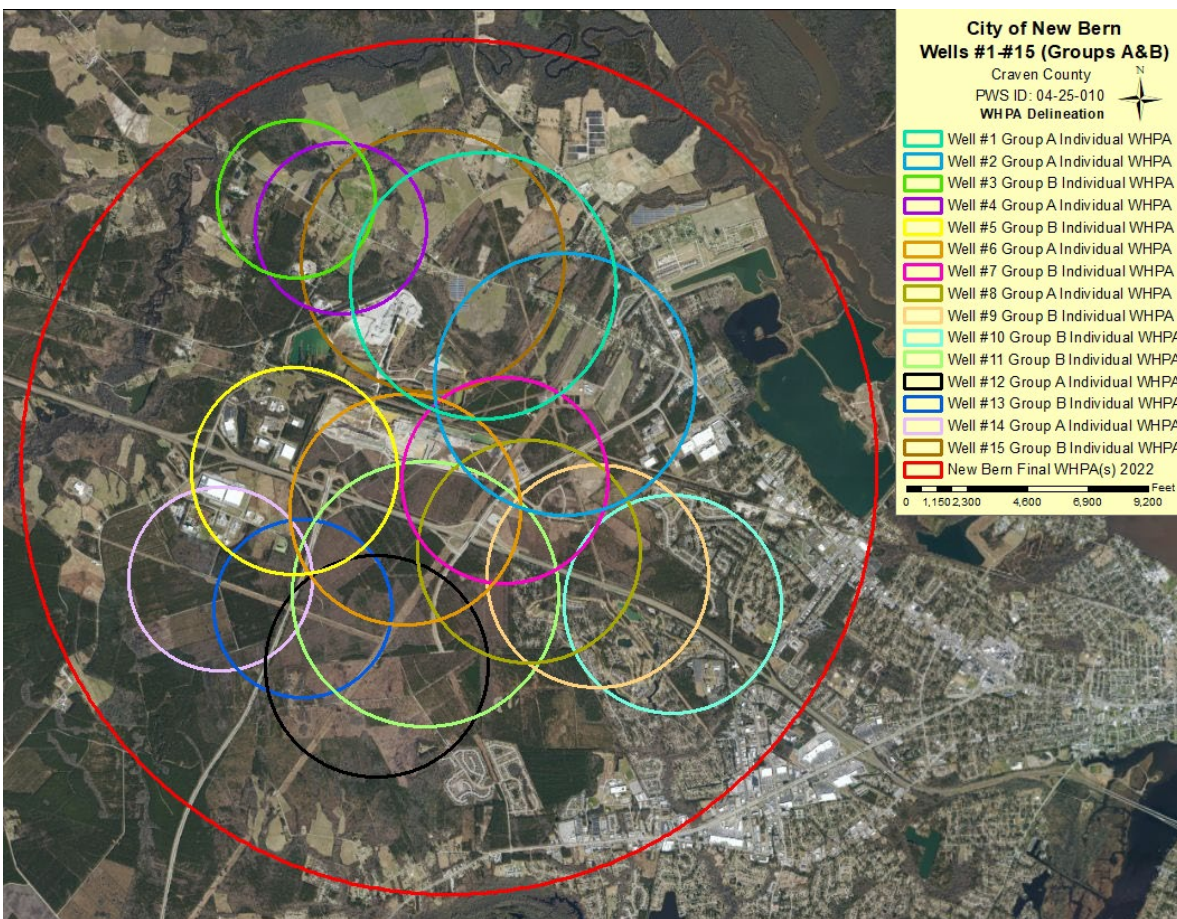
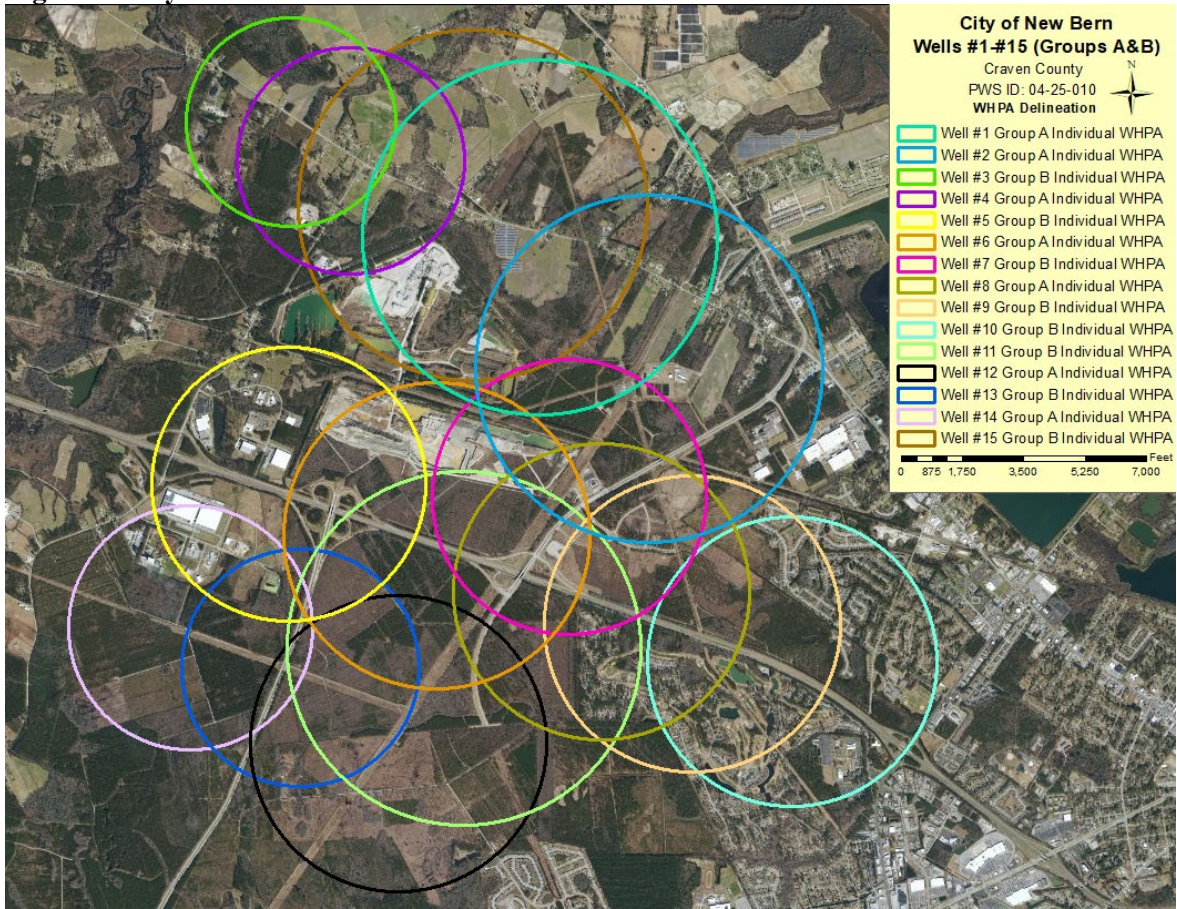


Figure 3. City of New Bern Cove City Wells #1-#5 Individual Delineated WHPAs and Final WHPA Overlay

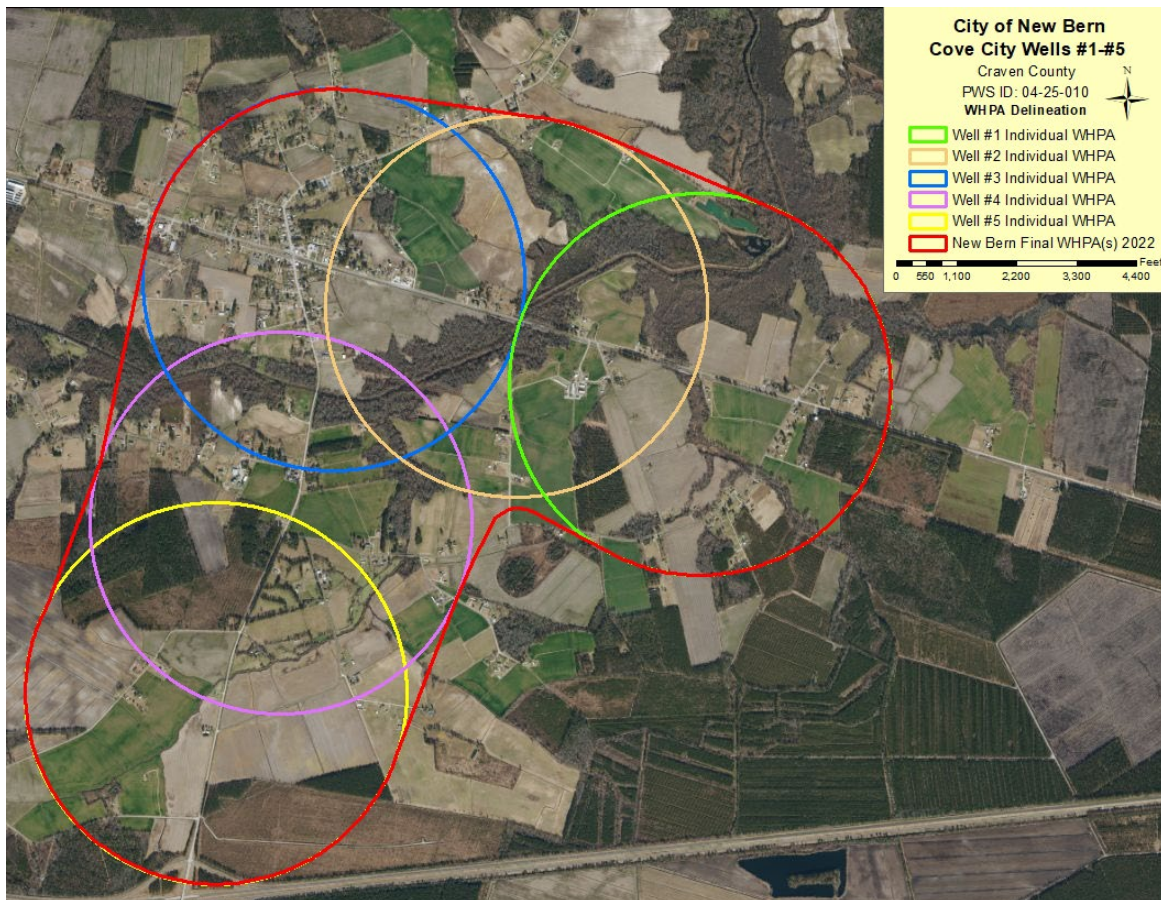
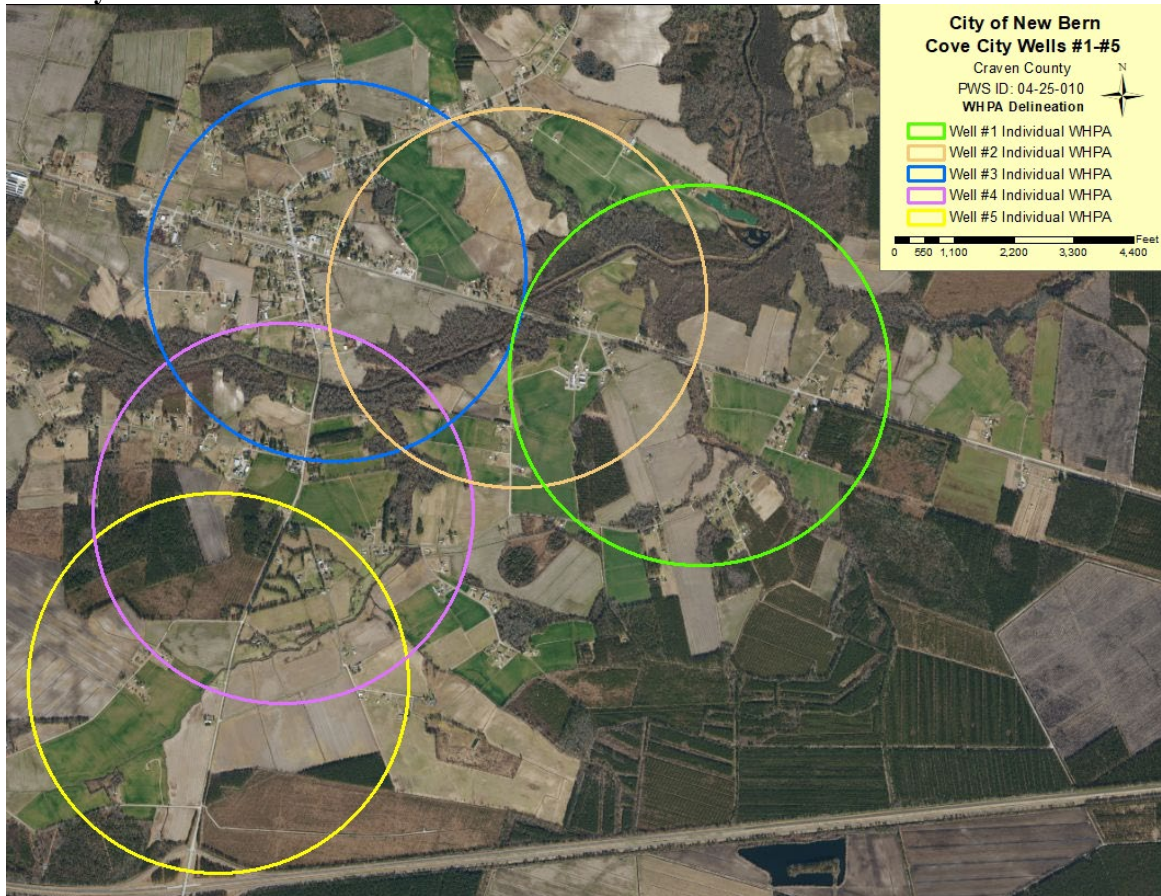


Figure 4. City of New Bern 2022 delineated Wellhead Protection Areas

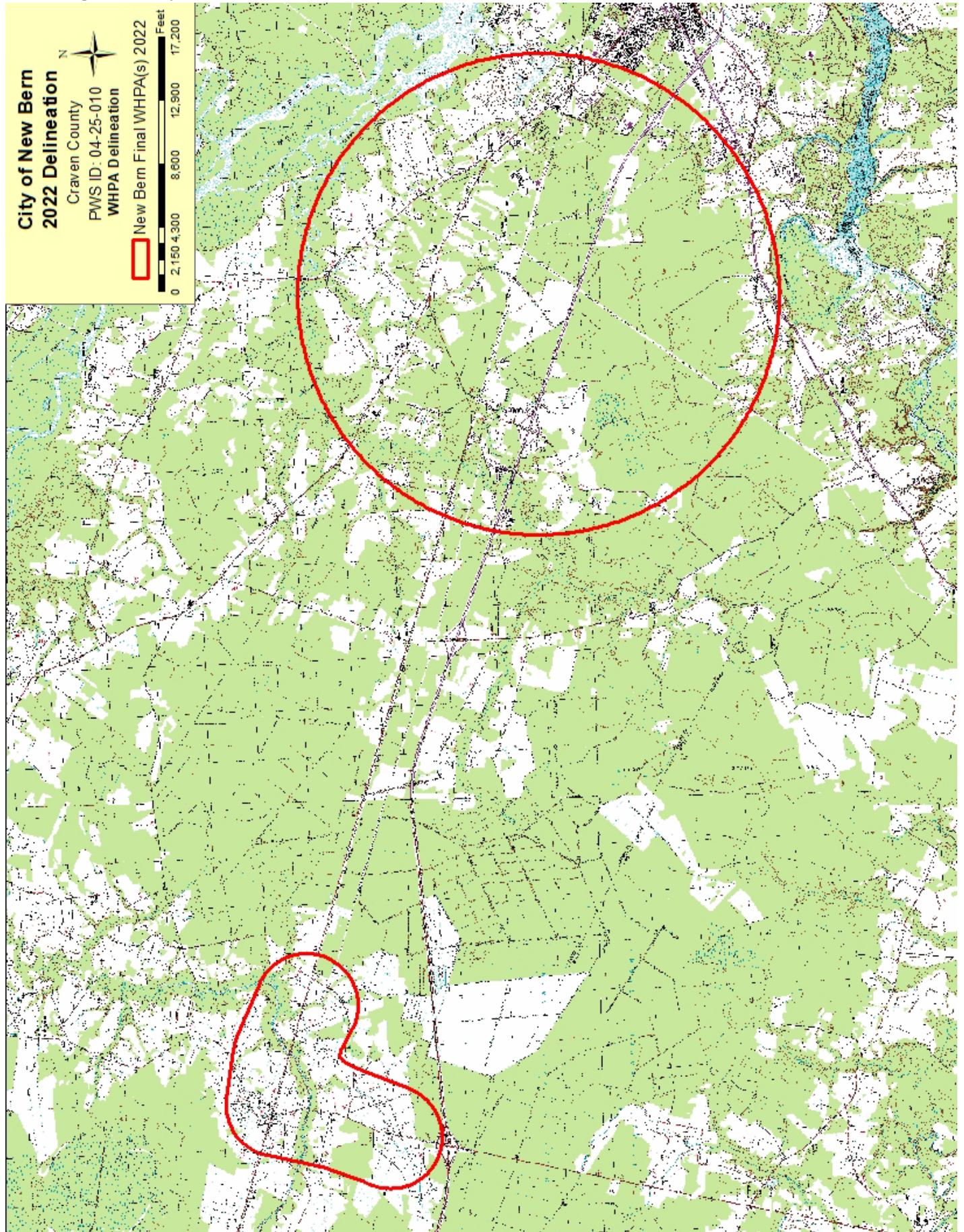


Figure 5a. City of New Bern Wells #1 Group A, #2 Group B, #3 Group B, and #4 Group A Hydrogeological Framework. (hydrogeologic framework information provided by the NC Division of Water Resources, Groundwater Management Branch)

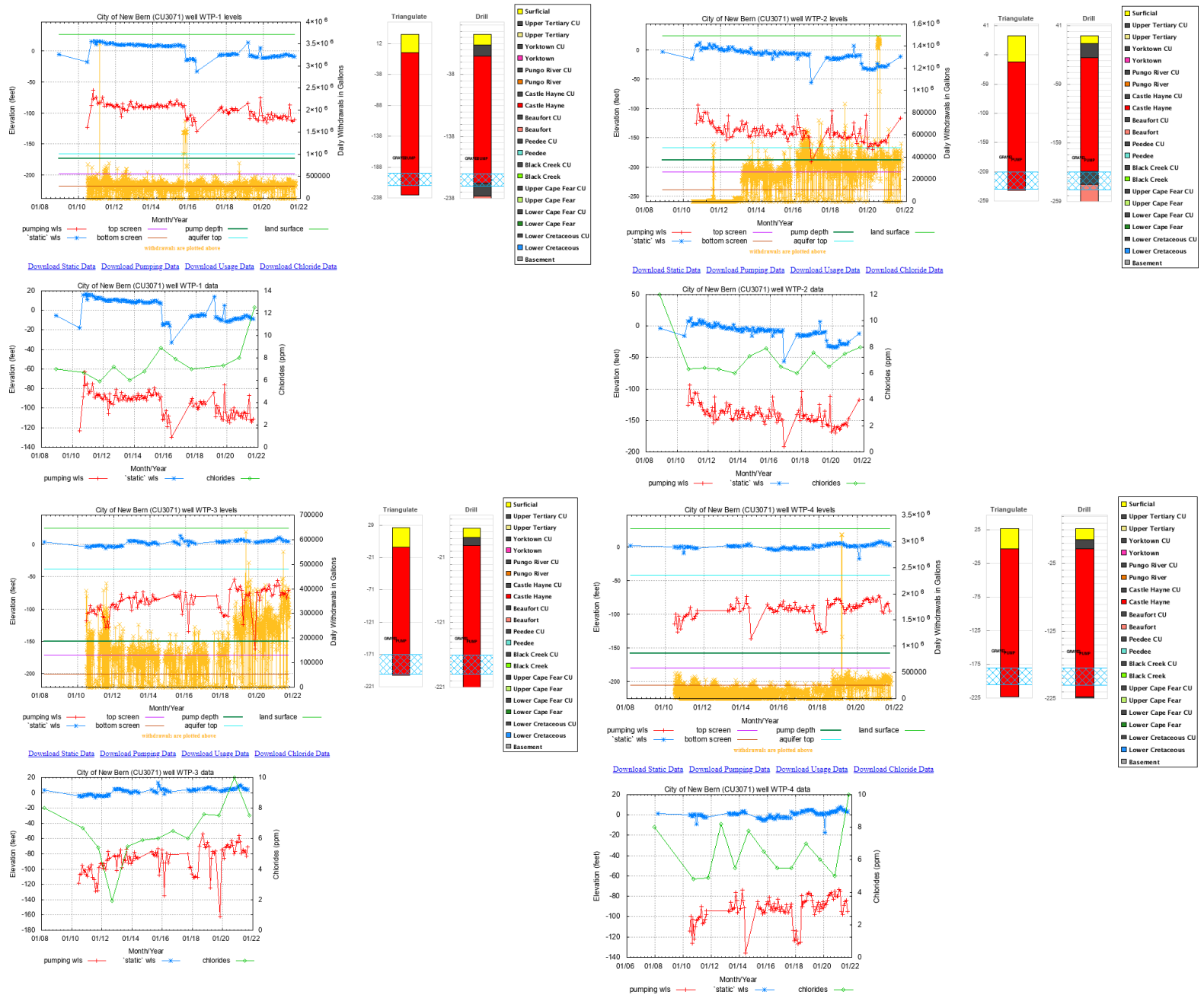


Figure 5b. City of New Bern Wells #5 Group B, #6 Group A, #7 Group B, and #8 Group A Hydrogeological Framework. (hydrogeologic framework information provided by the NC Division of Water Resources, Groundwater Management Branch)

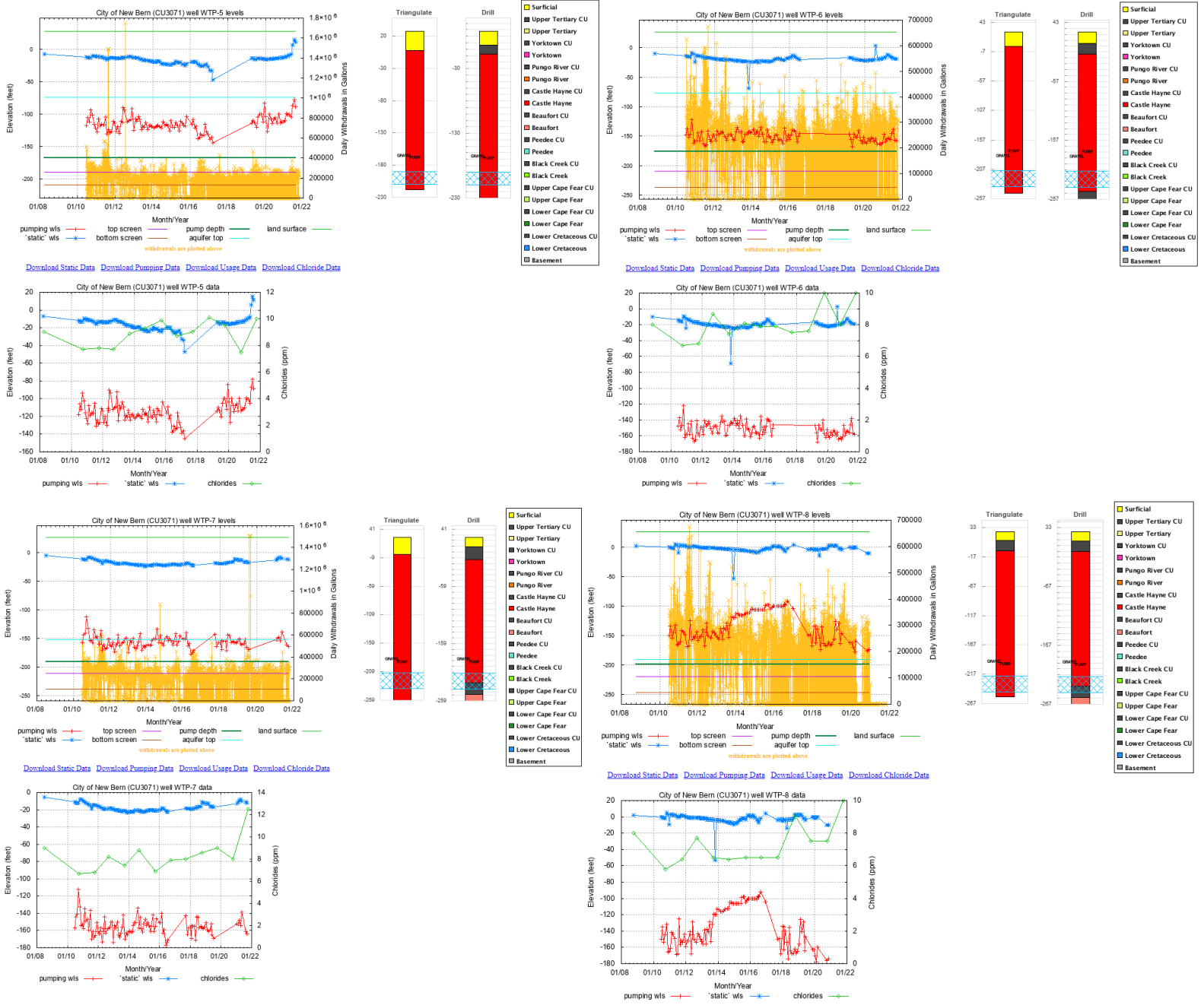


Figure 5c. City of New Bern Wells #9 Group B, #10 Group B, #11 Group B, and #12 Group A Hydrogeological Framework. (hydrogeologic framework information provided by the NC Division of Water Resources, Groundwater Management Branch)

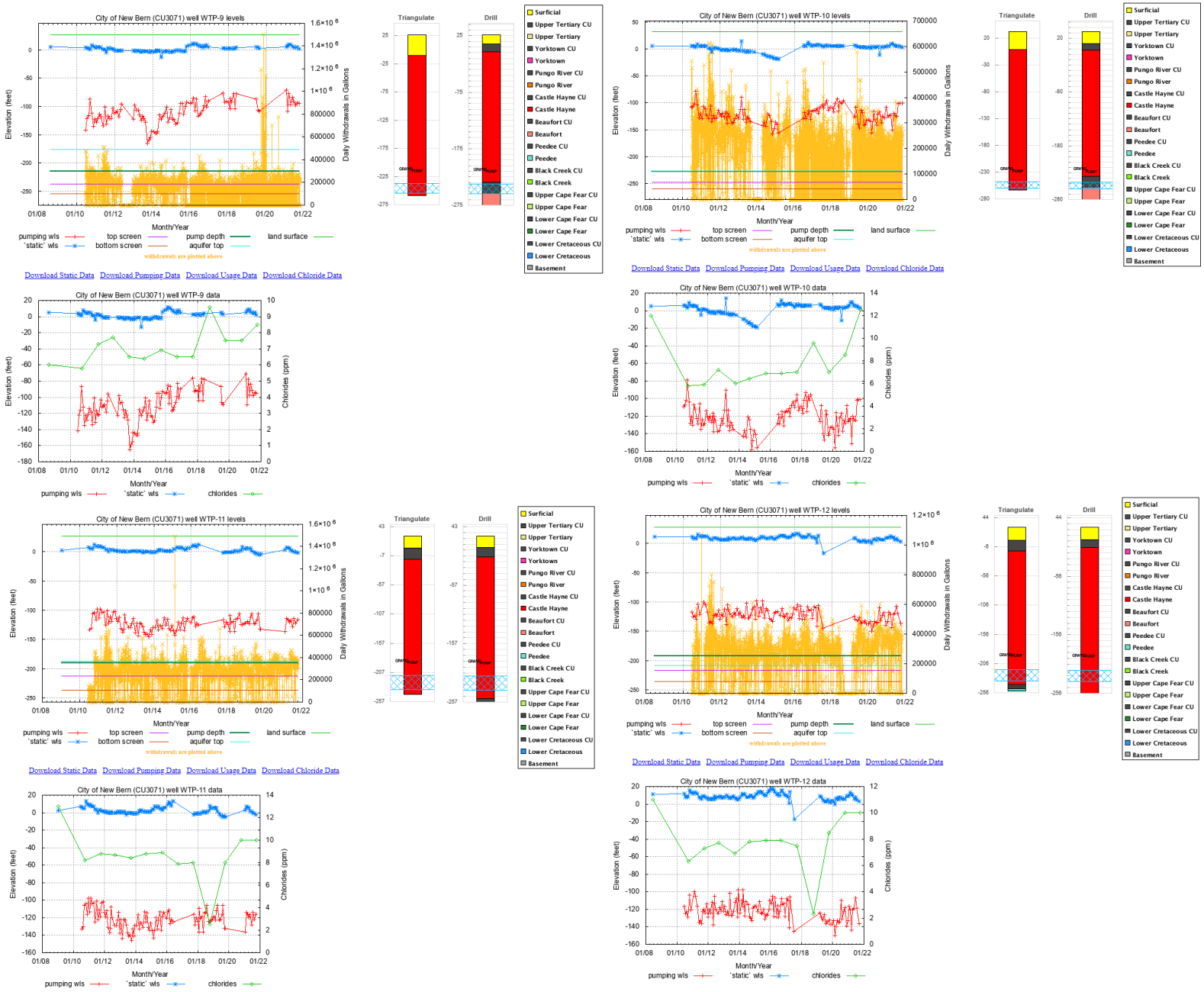


Figure 5d. City of New Bern Wells #13 Group B, #14 Group A, and #15 Group B Hydrogeological Framework. (hydrogeologic framework information provided by the NC Division of Water Resources, Groundwater Management Branch)

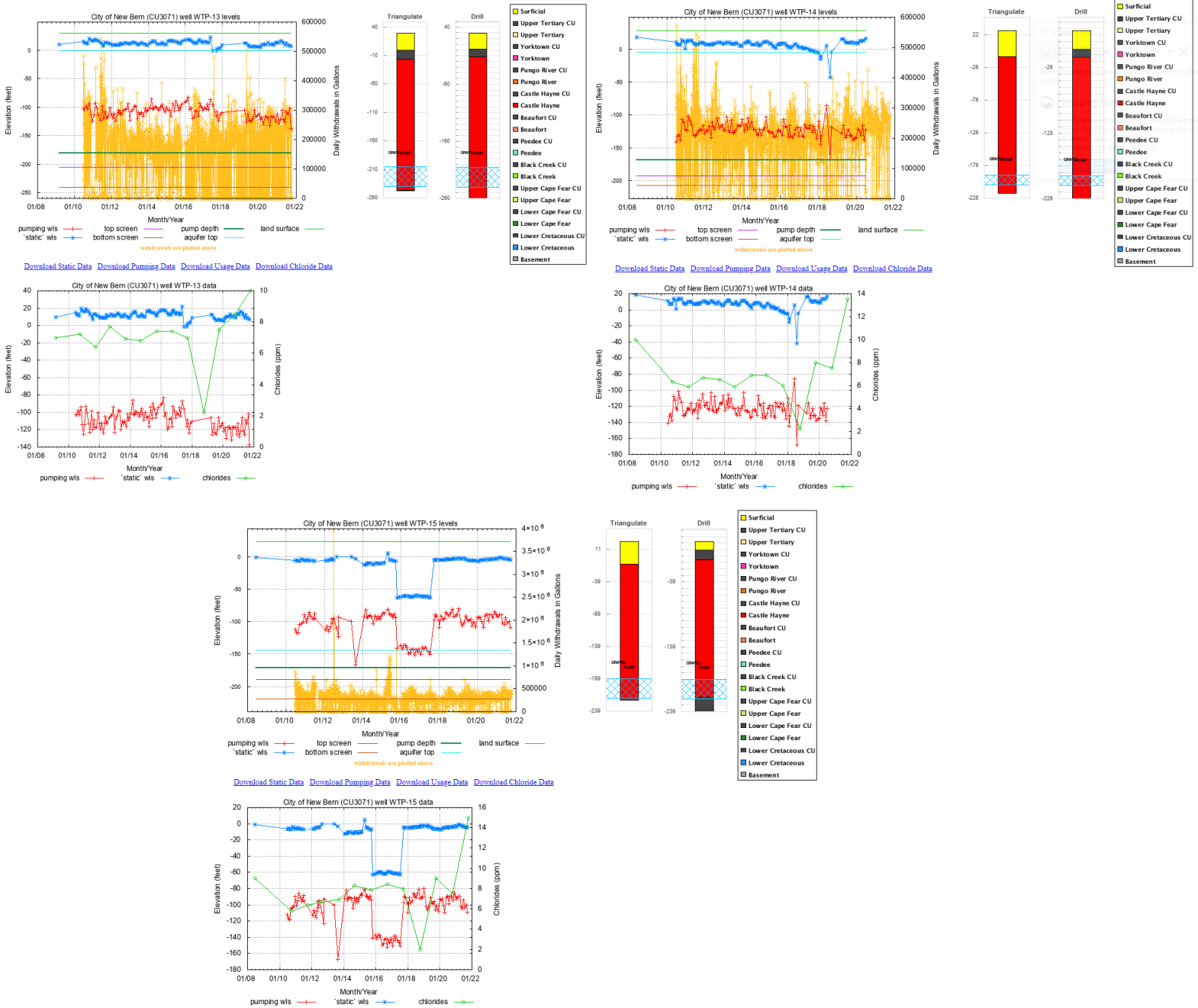
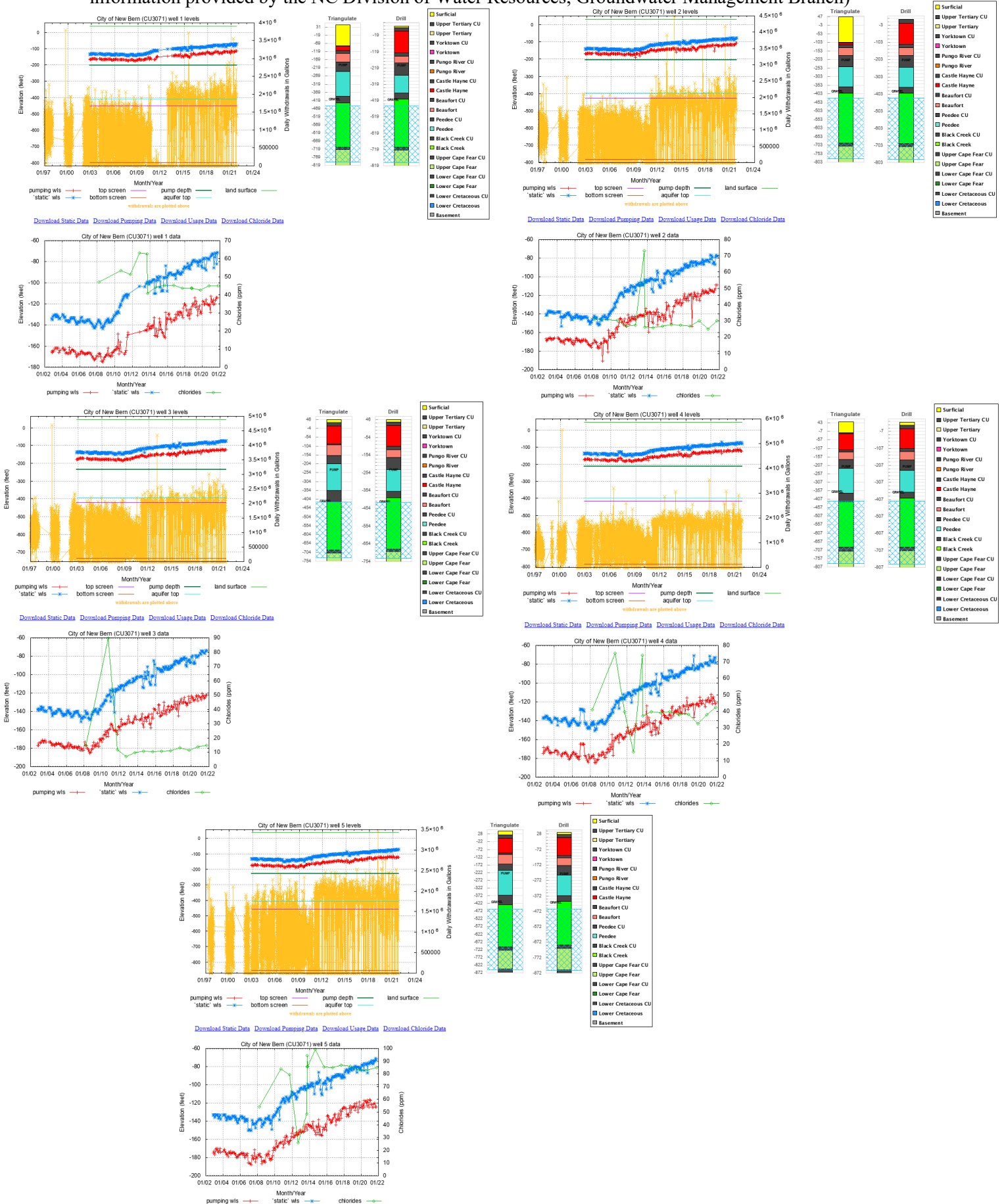


Figure 5e. City of New Bern Wells #1-#5 Hydrogeological Framework. (hydrogeologic framework information provided by the NC Division of Water Resources, Groundwater Management Branch)



III. POTENTIAL CONTAMINANT SOURCE INVENTORY

A Potential Contaminant Source (PCS) is any substance or activity that could adversely affect the quality of a drinking water supply. The PCS inventory is a complete listing, including mapped locations, of past (known contaminants/pollution incidents) and present land use activities within the wellhead protection areas (WHPAs) that threaten groundwater quality.

The initial list of potential contaminants was compiled by gathering information from aerial maps and the utilization of twenty (20) data sets which are referenced in the appendix. The SWAP (Source Water Assessment Program) report provided by the Public Water Supply Section, which is defined in the report itself as “a qualitative evaluation of the potential of a drinking water source to become contaminated by the identified potential contaminant sources (PCS) within the delineated area,” sections pertaining to Potential Contaminant Source Attributes were compared against the initial list. The completed list was further assessed by a windshield survey conducted by Ms. Katie Dunning of the entire WHPAs to positively confirm/identify each potential contamination source (PCS) facility or activity that might exist within the WHPAs. Onsite visits were made by Mr. Luke Cowley and Mr. Dalton Gaskins and additional information was obtained regarding quantity and types of contaminants kept on site from each location remaining on the final list acquired from the windshield survey. The full surveys are present in the appendix and the relevant information/locations were included in the series of tables and maps included on the pages after the pg. 25 and 26 PCS inventory table/map introduction.

Due to the shape of the final WHPA for the Cove City centric wells, as well as for increased accuracy when assessing the New Bern centric wells, wells were assessed based on their individual WHPAs which can be seen on pgs. 16-17. This was necessary to complete the risk assessment, which utilizes the radius to assess risk based on proximity. Any PCSs which were present outside of the individual WHPAs, but inside of the final WHPAs, were added to their own table; these specific PCSs were not included in the calculations for the risk assessment.

The sections below briefly describe contaminants with special details not contained in the tables to follow or that are more prevalent and not included individually in a table (e.g. Septic Tanks).

Septic Tanks – There are no septic tanks within the WHPAs. The areas are entirely serviced by sewer system.

Abandoned Wells – No abandoned wells have been identified at this time.

Lift Stations- There are one-hundred and nine (109) lift stations utilized by the City of New Bern. Thirty-three (33) of the lift stations are located within one or more WHPAs. This includes twenty-six (26) of City of New Bern’s lift stations and seven (7) of Cove City’s lift stations.

Tier II facilities- There are twenty (20) Tier II facilities in the Wellhead Protection Areas. These facilities are present in the PCS inventories, maps, and risk assessment.

Potential Contaminant Source Inventory: Tables and Maps

The following tables list the potential sources of contamination in the City of New Bern's Wellhead Protection Areas. The exception to this are home heating oil tanks used at many residences, and which remain off the inventory for this reason. The tables have map codes used to identify the potential sources of contamination on the PCS Inventory Maps. While the tables contain a majority of the relevant information, notes can be found on the surveys located at the back of the appendix. Where listed on the PCS Data Chart, "small quantities" refers either to unknown amounts totaling less than 100-gallons or 100-pounds or small quantities (<100 gallons or pounds combined) of many related chemicals that are fully listed in the survey section of the appendix.

Potential Contaminant Source Inventory: Pollution Incident Glossary

NFA: Notice of No further Action- Incident close-out.

NRP: Notice of Residual Petroleum- Deed recordation of petroleum remaining on-site (in soil or groundwater).

NORR: Notice of Regulatory Requirement- Letter sent by the NC DEQ regarding further incident requirements.

NOV: Notice of Violation- Letter sent by the NC DEQ regarding a violation.

MMPE: Mobile Multi-Phase Extraction- A form of pollution remediation.

MSSC: Maximum Soil Contaminant Concentration- Soil to groundwater limit for soil contamination with reference to the protection of groundwater.

MAC: Maximum Allowable Concentration- The maximum allowable concentration of contaminants that can be tolerated without threatening to harm to human health.

2L: Standards for groundwater- Baseline for determining drinkability and effects on human health.

UST: Underground Storage Tank

AST: Aboveground Storage Tank

CAP: Corrective Action Plan- A plan created for approval and implementation of a remediation strategy for soil/groundwater. This is sometimes also called a Remedial Action Plan (RAP)

GCL: Gross Contamination Level- An action level for high amounts of total contamination.

TPH-GRO: Total Petroleum Hydrocarbon Gasoline-Range Organics- An analytical lab method to determine the quantity of volatile range hydrocarbons.

TPH-DRO: Total Petroleum Hydrocarbon Diesel-Range Organics- An analytical lab method to determine the quantity of semi-volatile range hydrocarbons.

RAL: Regulatory Action Level- The concentration limit of a contaminant. When exceeded, this limit triggers remediation or regulatory action.

MCL: Maximum Contaminant Level- The highest allowable level of a contaminant that may be present in drinking water.

CSA: Comprehensive Site Assessment- A document created to investigate and provide background information related to the location, soil, and groundwater.

LEL: Lower Explosive Limit- The lowest percentage concentration of gas/vapors that has the capability to combust given the correct input (fire, friction, heat, etc.).

STF: State Trust Fund- A fund which provides reimbursement for remediation of pollution incidents.

EPH: Extractable Petroleum Hydrocarbons- A laboratory test to identify certain target compounds and hydrocarbons in drinking water.

LSA: Limited Site Assessment- An initial assessment with risk characterization under the guidance of 15A NCAC 2L .0405.

Potential Contaminant Source Inventory: Map code list

The list below shows general map/category codes of Potential Contaminant Sources (PCS) that are present in the Wellhead Protection Areas. Each potential contaminant site present in the tables beginning on pg. 27 has been given a category code that was used to locate it on the inventory maps beginning on pg. 29. Multiple facilities in one category are assigned letters accordingly.

1	Agricultural Operations
2	Asphalt/Cement/Concrete
3	AST
4	Auto Repair/Sale
5	Body Shop
6	Car Wash
7	Cemetery
8	Chemical Storage
9	Electrical Substation
10	Fertilizer
11	Fire Station
12	Golf Course
13	Hazardous Waste Generator
14	Hardware
15	Highway
16	Inactive Hazardous Waste
17	Inactive Landfill
18	Landfill
19	Laundromat
20	Lift Station
21	Maintenance
22	Manufacturer
23	Medical/Dental
24	Metal Fabricator
25	NCG Permit (NPDES Stormwater Permit)
26	Print Shop
27	Quarry (Mining)
28	Railroad
29	School
30	Scrap Yard
31	Septic Hauler
32	Settling Basin
33	Solid Waste
34	Storage
35	Stormwater Permit
36	Underground Injection Control
37	UST
38	Wood Processing
39	WQ Permit (Non-Discharge Permit)
40	WTP/WWTP NPDES Permit

WELL 1 – Group A			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
#31583	Ipock Grocery/M.Jolly Residence Incident	Pollution Incident	NFA 4/13/2006 (Water supply well did not exceed 2L)
#88143	Apac Clarks Asphalt Plant (AST)	Pollution Incident	Close-out 3/27/2008 (File unavailable)
Higher Risk Sources			
3A, 8A, 25A, 27A	Martin Marietta-Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (Mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25-12
4A	On Spot Service & Repair & Alignment	Auto Repair/Sale	Used motor oil: 50 gallons Motor oil: 50 gallons Tires: 12
3B, 8B, 35A, 40A	New Bern WTP	Chemical Storage, AST, Stormwater Permit, WTP/WWTP NPDES Permit	Potassium Permanganate (3%): 1,920 gallons Orthophosphate (36%): 340 gallons Bleach (9%): 10,000 gallons Liquid Ammonium Sulfate: 1,300 gallons Diesel: 3,000 gallons Gasoline: 20 gallons SW7070104: City of New Bern Water Treatment Plant – Express: State Stormwater - Low Density Discharges under NPDES Permit No: NC0025348
9A	Electrical Substation #1 *Tier II	Electrical Substation	
9B	Electrical Substation #2	Electrical Substation	
9C	Electrical Substation #3	Electrical Substation	
Moderate Risk Sources			
15A	Highway 55	Highway	
15B	Old Highway 70	Highway	
15C	Highway 43	Highway	

21A	Craven County Schools Facility	Maintenance	No response to survey. This building is used for maintenance and repair of school related buildings and grounds. This includes mechanical, structural, and electrical components.
20A	Lift Station #47	Lift Station	
20B	Lift Station #83	Lift Station	
3C	Beech Grove Fuel Market	AST	(x3) est. ~6,000-gallon gasoline ASTs
Lower Risk Sources			
34A	Bennettco Secure Storage	Storage	Est. ~125 storage units.
35B	New Bern Solar Site - NC Hwy 55	Stormwater Permit	SW7160102: New Bern Solar Site- NC Hwy 55- State Stormwater - Low Density





#31583 WA-26384 Ipock Grocery/M.Jolly Residence: The residence was impacted by a spill at a grocery store across the street. Only two files of a non-handwritten nature were available for the incident. An NFA was issued on April 13th, 2006, but only stated that the contamination in the water supply well did not exceed 2L standards.

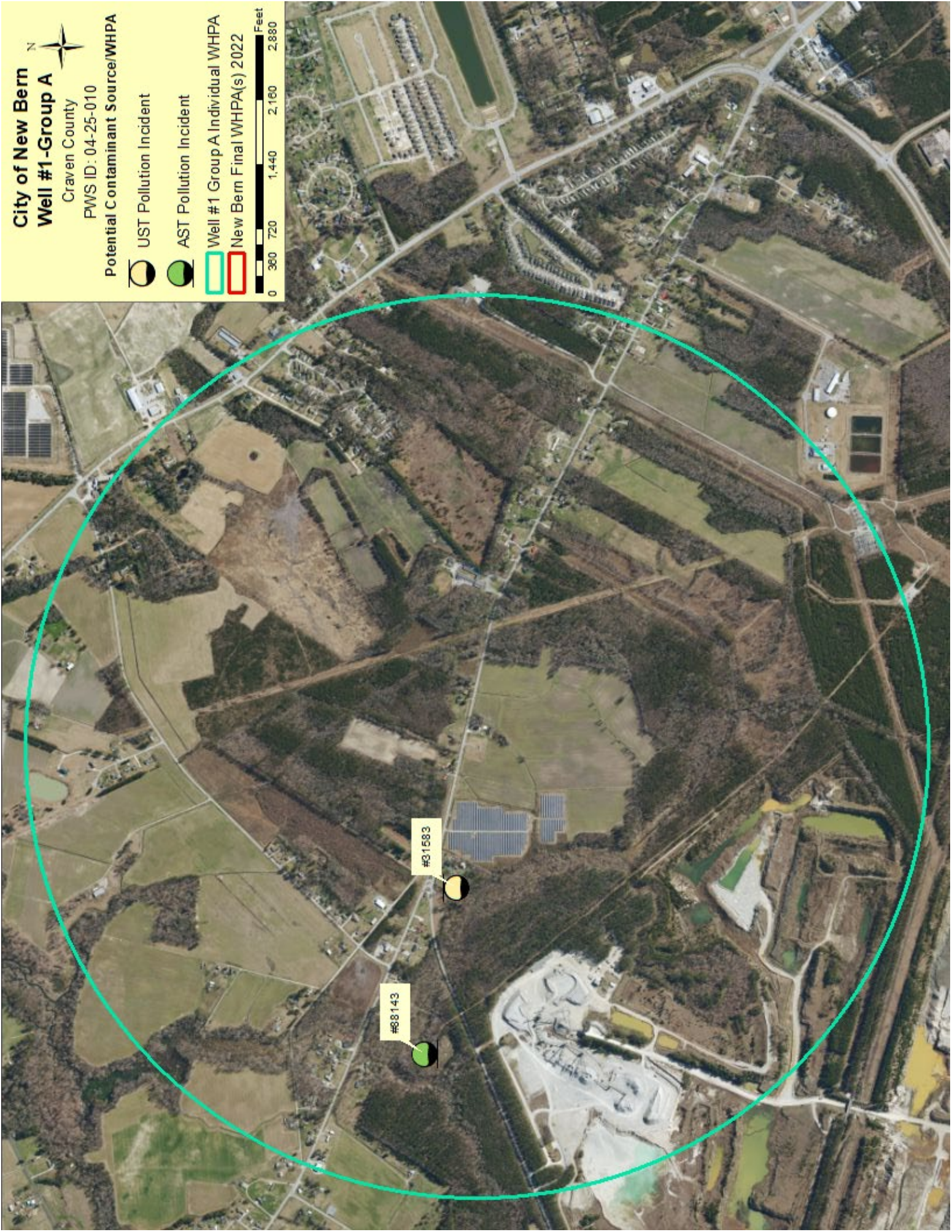
#88143 APAC Clarks Asphalt Plant (AST): The incident was reported in 2006. The site was closed-out on March 27th, 2008. The file was sent to the Inactive Hazardous Sites Branch and is not available through the WaRO.

City of New Bern
Well #1-Group A

Craven County
PWS ID: 04-25-010

Potential Contaminant Source/WHPA

-  UST Pollution Incident
-  AST Pollution Incident
-  Well #1 Group A Individual WHPA
-  New Bern Final WHPA(s) 2022



#88143

#81583

City of New Bern Well #1-Group A

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA

Electrical Substation

Auto Repair/Sale

Chemical Storage

Quarry (Mining)

Highway

WTP/WWTP NPDES Permit

Maintenance

Above Ground Storage Tank

NCG Permit

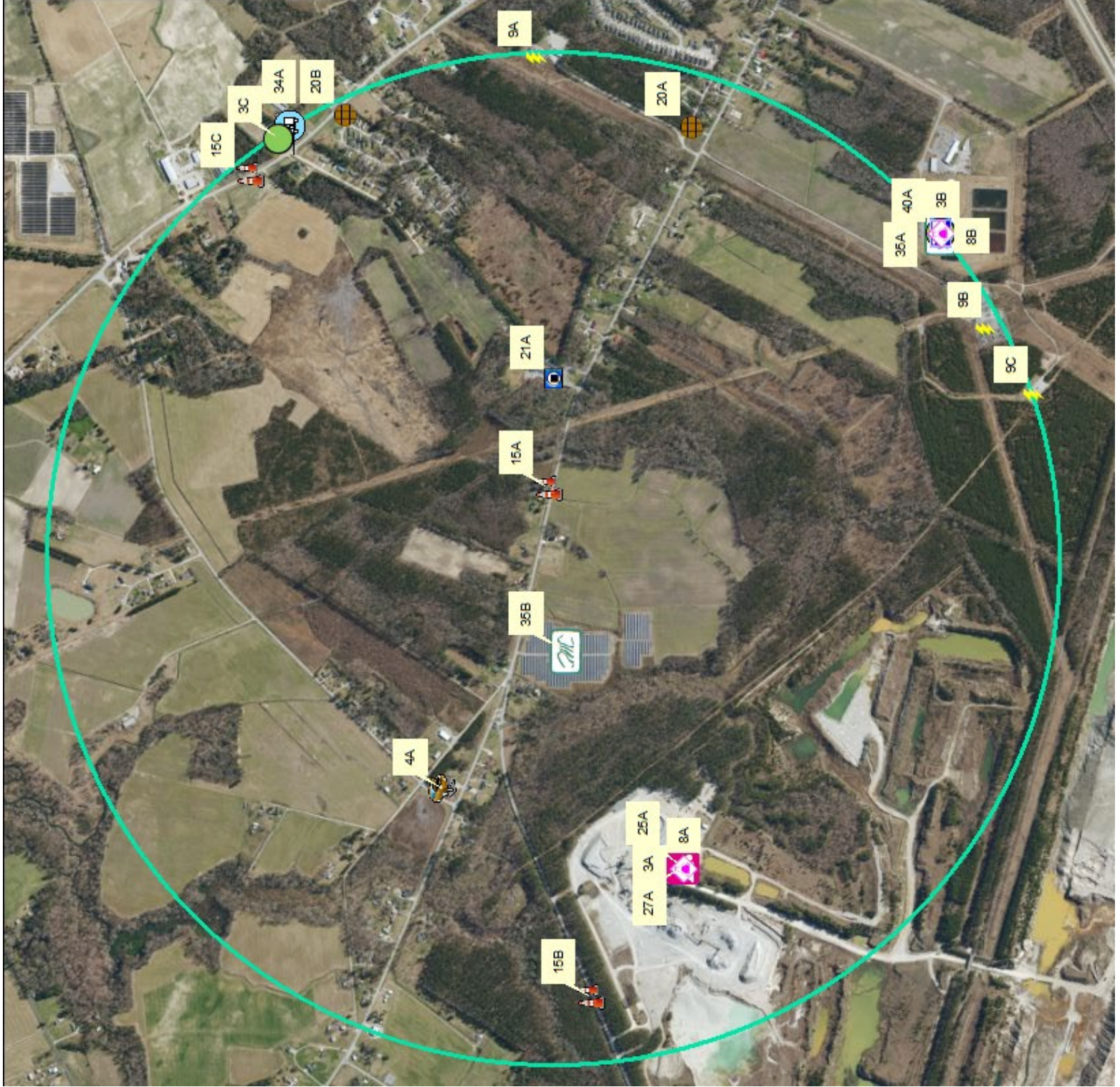
Lift Station

Storage

Stormwater Permit

Well #1 Group A Individual WHPA

New Bern Final WHPA(s) 2022



WELL 2 – Group A			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
#38751	SECU*RE Washington Post Property	Pollution Incident	NFA 3/13/2019 (NRP 3/11/2019)
#31566	Treschan Property (Helmut)	Pollution Incident	NFA 3/4/2010 (NRP 2/8/2010)
#31891	Trade-Wilco #1849 Inc.	Pollution Incident	NFA 1/23/2013 (NRP 4/19/2012)
#31540	Trade-Wilco #1849 (FMR. TRADE 49) Inc.	Pollution Incident	Close-out 3/4/2008 (NRP 4/19/2012)
#18446	Scotchman # 61	Pollution Incident	NFA 2/22/2012 (NRP 2/7/2012)
#87232	B&L Trucking Fuel Spill (AST)	Pollution Incident	Close-out 3/16/2005 (Remaining soil contamination)
9D, 16A, 22A, 25B, 36A	Dradura USA Corporation/Electrical Substation #4	Manufacturer, Electrical Substation *Tier II, Inactive Hazardous Waste, NCG Permit, Underground Injection Control	Above ground water tank: size unspecified. Manufactures wire products, such as dishwasher baskets. NCD981928088: Texfi Industries- Superfund site as included in the FY2017-2018 priority list. NCG170031: Amital Spinning Corporation- Textile Mill Products Stormwater Discharge COC WQ0004936: Amital Spinning Corp/Texfi Industries Groundwater Remediation System
Higher Risk Sources			

3A(#2), 8A(#2), 25A(#2), 27A(#2)	Martin Marietta- Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (Mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25-12
3B, 8B, 35A, 40A	New Bern WTP	Chemical Storage, AST, Stormwater Permit, WTP/WWTP NPDES Permit	Potassium Permanganate (3%): 1,920 gallons Orthophosphate (36%): 340 gallons Bleach (9%): 10,000 gallons Liquid Ammonium Sulfate: 1,300 gallons Diesel: 3,000 gallons Gasoline: 20 gallons SW7070104: City of New Bern Water Treatment Plant – Express: State Stormwater - Low Density Discharges under NPDES Permit No: NC0025348
9A	Electrical Substation #1 *Tier II	Electrical Substation	
9B	Electrical Substation #2	Electrical Substation	
9C	Electrical Substation #3	Electrical Substation	

22B, 25C	Schlaadt Plastics Ltd.	Manufacturer, NCG Permit	No response to survey. Molds plastic parts with Styropor (EPS), EPP, and special foam (per website) NCGNE1009: Schlaadt Plastics LTD- Stormwater Discharge, No Exposure Certificate
37A	Speedway #8277	UST	(x1) Diesel UST: 20,000-gallon capacity (x1) Gasoline UST: 15,000-gallon capacity (x1) Gasoline UST: 10,000-gallon capacity
5A	E&J Automotive Inc. Body Shop	Body Shop	Paint: 60 gallons Paint Thinner: 50 gallons Oil (recycle container): 150 gallons Anti-freeze (recycle): 100 gallons
Moderate Risk Sources			
15A	Highway 55	Highway	
15C(#2)	Highway 43	Highway	
21A	Craven County Schools Facility	Maintenance	No response to survey. This building is used for maintenance and repair of school related buildings and grounds. This includes mechanical, structural, and electrical components.
21B	R Brown Electrical Services	Maintenance	No response to survey. This building is an electrical maintenance shop.
20A	Lift Station #47	Lift Station	
20C	Lift Station #40	Lift Station	
28A	Atlantic and East Carolina Railroad	Railroad	
11A	West-New Bern Vol Fire Department	Fire Station	No response to survey. Refer to New Bern Fire Station #1 for possible chemicals onsite.
Lower Risk Sources			
35C	Craven 30 West - Phase III (SW)	Stormwater Permit	SW7141009: Craven 30 West - Phase III- State Stormwater - Low Density

35D	Craven 30 North Pump Station & Force Main (SW)	Stormwater Permit	SWG040003: Craven 30 North Pump Station & Force Main- State Stormwater - General Permit
35B(#2)	New Bern Solar Site - NC Hwy 55	Stormwater Permit	SW7160102: New Bern Solar Site- NC Hwy 55- State Stormwater - Low Density
35E	West New Bern	Stormwater Permit	SW7171010: West New Bern- State Stormwater - HD - Detention Pond

#38751 WA-27614 SECU*RE Washington Post Property: In 2018, a 300-gallon heating oil tank was removed from the site and contamination was discovered. An NFA was issued on March 13th, 2019, preceded by an NRP received on March 11th, 2019. The NFA states that the soil contamination exceeds residential MSCCs, and the groundwater contamination exceeds 2L standards.

#31566 WA-26368 Treschan Property (Helmut): In 2008, two (2) 550-gallon gasoline USTs were removed from the site and contamination was discovered. An NFA was issued on March 4th, 2010, preceded by an NRP received on February 8th, 2010. The NFA states that the groundwater contamination is above 2L standards, but below GCLs. The soil contamination limits the site to only commercial/industrial use.

#31891 WA-26702 Trade-Wilco #1849 (Related to #31540): In 2008, four (4) USTs (two (2) 6,000-gallon gasoline tanks, one (1) 10,000-gallon gasoline tank, and one (1) 12,000-gallon diesel tank) were removed from the site. An NFA was issued on January 23rd, 2013, preceded by an NRP received on April 19th, 2012, from the previous incident (#31540). The NFA states that the soil contamination does not exceed residential MSCCs, but the groundwater does exceed 2L standards.

#31540 WA-26338 Trade-Wilco #1849 (FMR.TRADE 49) (Related to #31891): A release was discovered at the site in 2005 as the result of an NC DOT investigation. The site was closed out (no NFA present in available documents) on March 12th, 2008, with an NRP filed on April 19th, 2012. A comment on the file states that the soil does not exceed soil-to-groundwater MSCCs, and the groundwater does exceed 2L standards.

#18446 WA-1574 Scotchman # 61: In 1998, five (5) USTs (two (2) 7,500-gallon gasoline tanks, one (1) 4,000-gallon gasoline tank, one (1) 4,000-gallon kerosene tank, and one (1) 3,000-gallon diesel tank) were removed from the site and contamination was discovered. An NFA was issued on February 22nd, 2012, preceded by an NRP received on February 7th, 2012. The NFA states that the soil contamination exceeds residential MSCCs, and the groundwater contamination exceeds 2L standards.

#87232 WA-87232 B&L Trucking Fuel Spill (AST): The incident occurred in 2004 during a traffic accident where a truck spilled more than 50 gallons of diesel fuel. The contaminated soil was excavated, however, due to the number of utilities present at the site, a certain amount of contamination remained. The ditch water at the site was tested and deemed clean enough to close out the site. The site was closed out on March 16th, 2005.

Resolved Incidents (Not included in list/map/risk assessment):

#38771 WA-27637 Speedway #8277: Close-out on July 8th, 2019. A failed compliance check at the site resulted in a site check with sampling. The NC DEQ RUST database lists the contamination as “no” and states that all sampling values were below soil MSCCs.

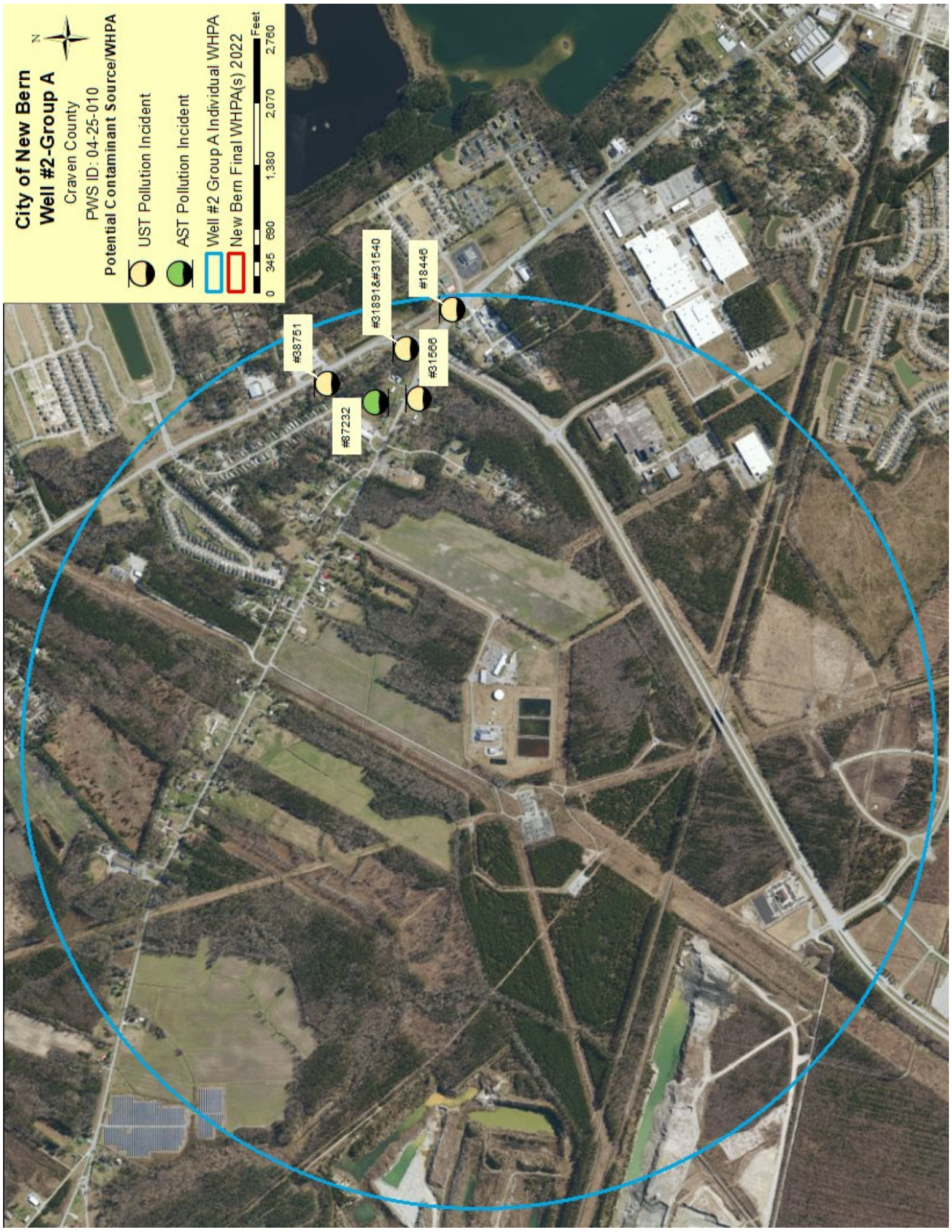
#24407 WA-2217 Golden, Margaret Rental: In May of 2002, one (1) 1,000-gallon heating oil tank was removed from the site and contamination was discovered. An NFA was issued on November 6th, 2002, stating that the soil contamination does not exceed the lower of the maximum soil contaminant concentrations and groundwater does not exceed 2L standards.

City of New Bern
Well #2-Group A

Craven County
PWS ID: 04-25-010

Potential Contaminant Source/WHPA

- UST Pollution Incident
- AST Pollution Incident
- Well #2 Group A Individual WHPA
- New Bern Final WHPA(s) 2022



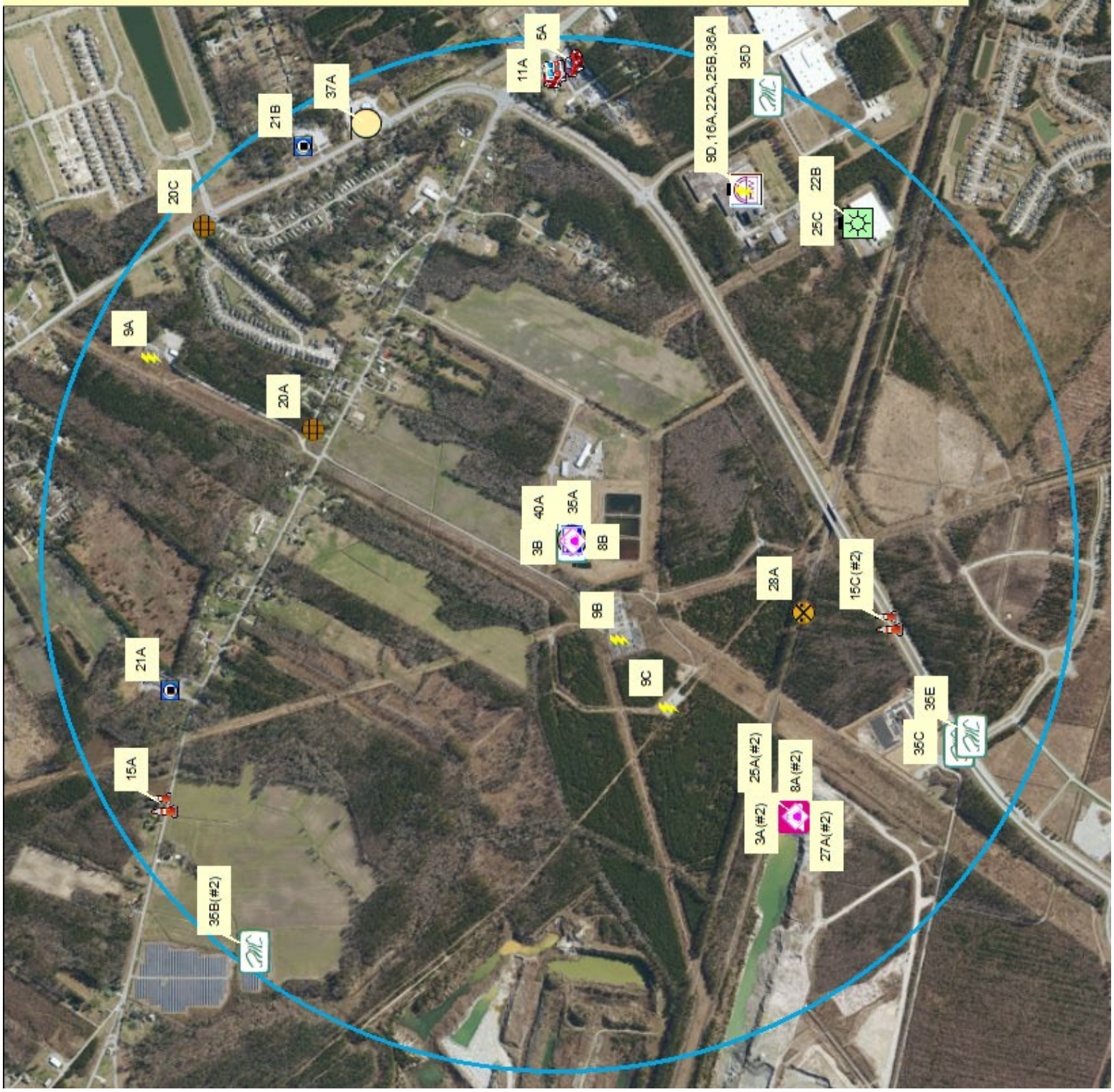
City of New Bern Well #2-Group A

Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA

- Electrical Substation
- Inactive Hazardous Waste
- Manufacturer
- Chemical Storage
- Underground Storage Tank
- Railroad
- Quarry (Mining)
- Underground Injection Control
- Auto Body
- Highway
- WTP/WWTP/NPDES Permit
- Maintenance
- Above Ground Storage Tank
- NCG Permit
- Lift Station
- Fire Station
- Stormwater Permit
- Well #2 Group A Individual WHPA
- New Bern Final WHPA(s) 2022



Well 3 – Group B			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
#21592	Railworks Wood Waste Energy Incident	Pollution Incident	Active
Higher Risk Sources			
31A	Craven Ag. Services	Septic Hauler	No response to survey. Large quantity topsoil/compost with permit: 2514-COMPOST-2014 Porta-potties and septic hauling trucks. Waterbody behind building.
2A, 3D, 25D, 39A	S.T. Wooten Corporation	Asphalt/Cement/Concrete *Tier II, AST, WQ Permit, and NCG Permit	No response to survey. AC-20 Liquid Asphalt tank: 999,999 units daily max/ave Diesel Fuel Tank: 99,999 units daily max/ave Refined Petroleum Oils: 99,999 units daily max/ave Refined Petroleum Oils (used): 99,999 units daily max WQ0004438: Treated wastewater irrigation. Annual volume in gallons (2010 documentation): 139,895 NCG160019: S T Wooten Corporation-New Bern-Asphalt Paving Mixture Stormwater Discharge COC
17A, 35F, 35G	Craven LCID/Sanders Lane Landfill	Inactive Landfill, Stormwater Permit (x2)	Permit No: 2513-LCID-2013, Site No: N0634 Landfill for land clearing and inert debris. Was closed in 2011. SW7050818: State Stormwater - General Permit SW7130612: State Stormwater - Exempted
Moderate Risk Sources			
15A(#2)	Highway 55	Highway	

33A	Craven County Solid Waste Convenience Site	Solid Waste	County Solid Waste Convenience Site. Site accepts: mixed recyclables, cardboard/paper, scrap metal, yard waste, motor oil, batteries, bulk domestic waste, residential construction materials, and bagged garbage.
Lower Risk Sources - None			

#21592 WA-21592 Railworks Wood Waste Energy (AST) (Active): This incident occurred in 1999 when a leaking diesel AST was discovered onsite. A deep type-III well was slated to be installed. A sampling report was submitted in 2006, which indicated cadmium at the site above 2L standards. Database notes state that this overage may be due to natural causes. The database notes also state that the site will not be closed unless the exceedance can be attributed to background contamination or turbidity interference in the sampling. The facility abandoned the well, but there is no indication of a close out, which means that the site may be active.

City of New Bern
Well #3-Group B

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



AST Pollution Incident



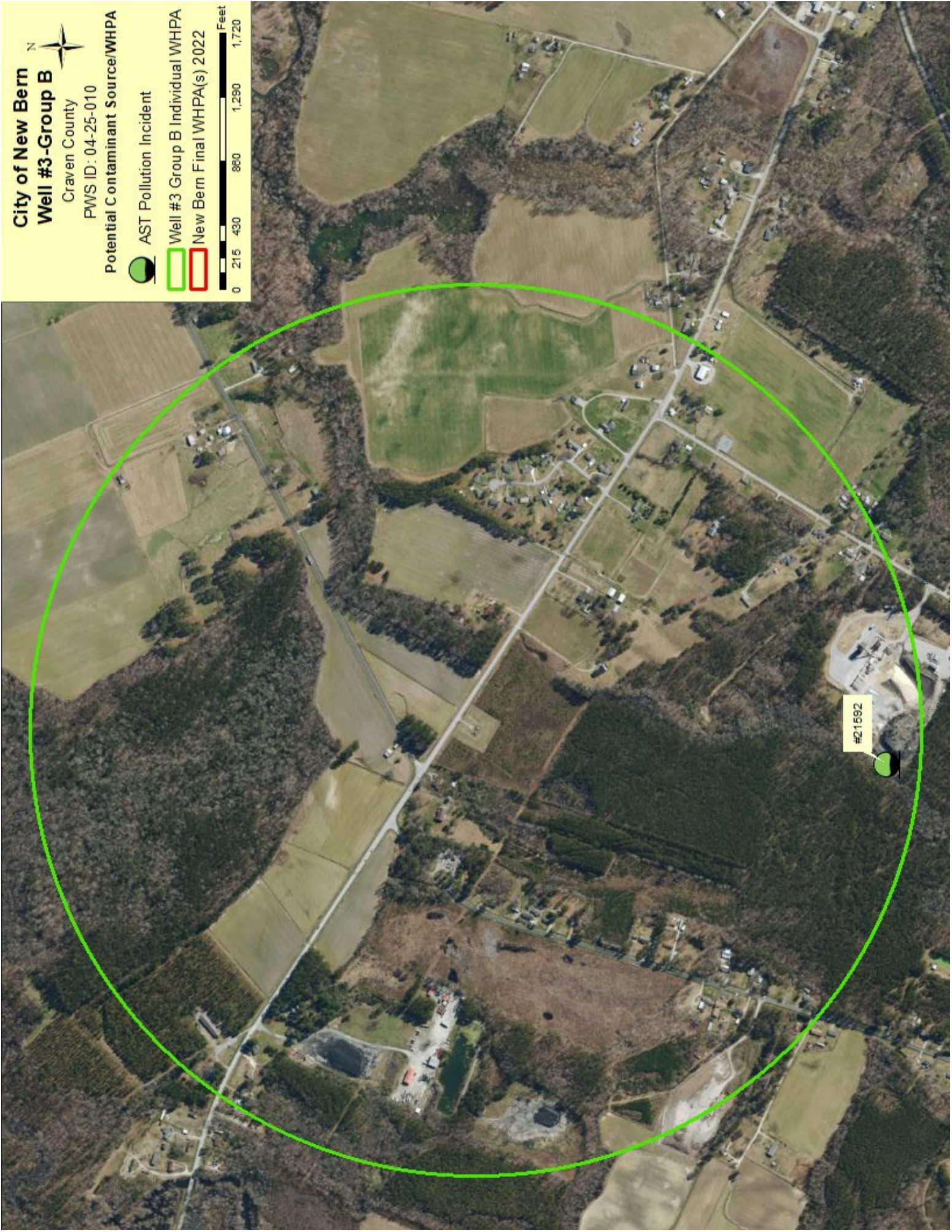
Well #3 Group B Individual WHPA



New Bern Final WHPA(s) 2022



0 215 430 860 1,290 1,720 Feet



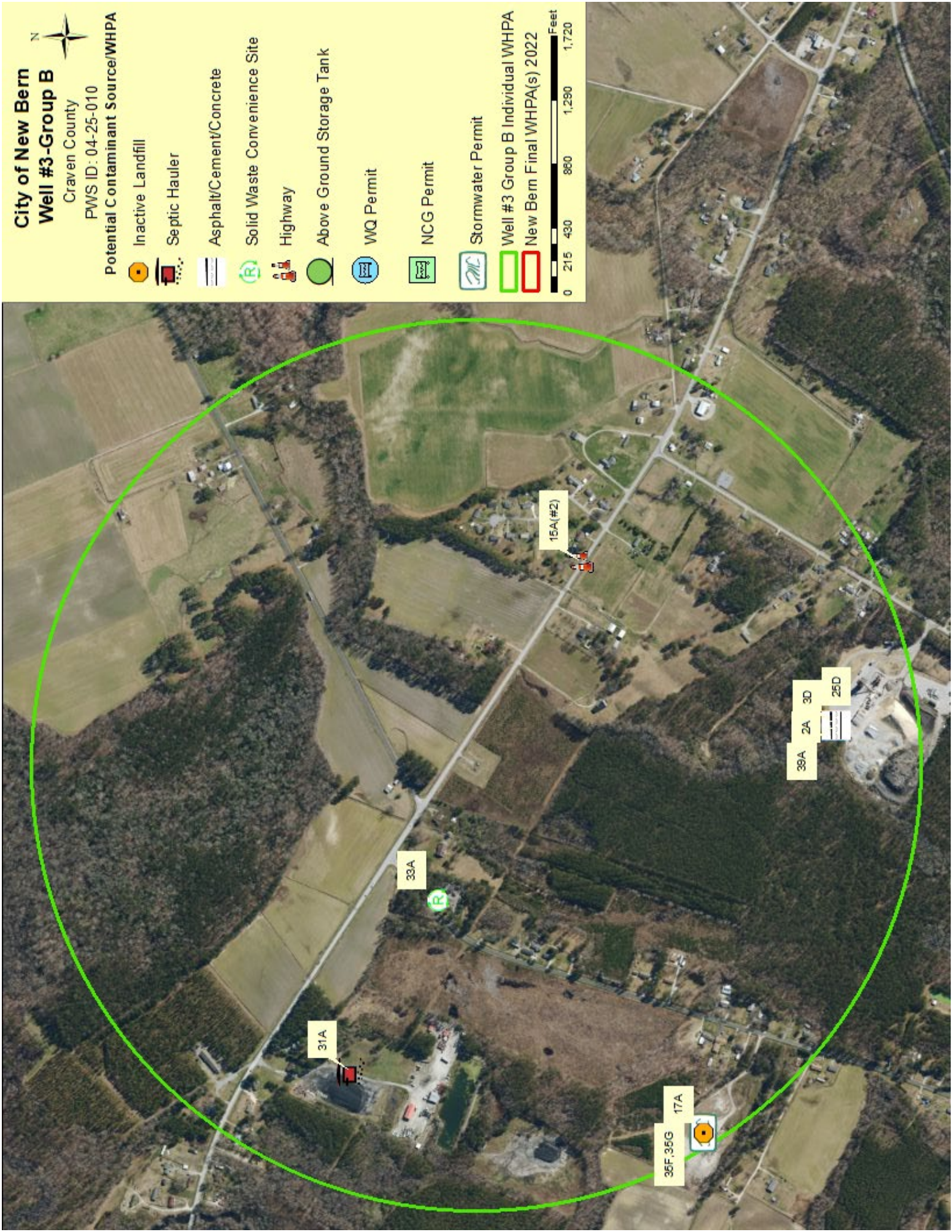
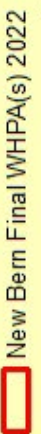
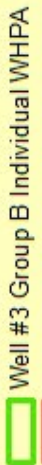
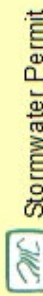
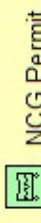
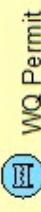
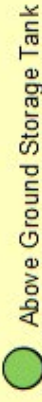
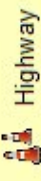
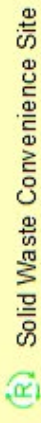
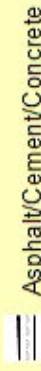
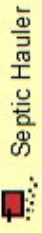
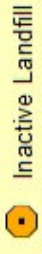
#21692

City of New Bern
Well #3-Group B

Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA



Well 4 – Group A			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
#21592	Railworks Wood Waste Energy Incident	Pollution Incident	Active
#88143	Apac Clarks Asphalt Plant (AST)	Pollution Incident	Close-out 3/27/2008 (File unavailable)
Higher Risk Sources			
3A(#3), 8A(#3), 25A(#3), 27A(#3)	Martin Marietta-Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (Mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25-12
2A, 3D, 25D, 39A	S.T. Wooten Corporation	Asphalt/Cement/Concrete *Tier II, AST, WQ Permit, and NCG Permit	No response to survey. AC-20 Liquid Asphalt tank: 999,999 units daily max/ave Diesel Fuel Tank: 99,999 units daily max/ave Refined Petroleum Oils: 99,999 units daily max/ave Refined Petroleum Oils (used): 99,999 units daily max WQ0004438: Treated wastewater irrigation. Annual volume in gallons (2010 documentation): 139,895 NCG160019: S T Wooten Corporation-New Bern-Asphalt Paving Mixture Stormwater Discharge COC

2B, 3E	Craven County Asphalt Plant/Barnhill	Asphalt/Cement/Concrete, AST	Liquid Asphalt: 48,000-gallon capacity Diesel fuel: 1,500 gallons
4A	On Spot Service & Repair & Alignment	Auto Repair/Sale	Used motor oil: 50 gallons Motor oil: 50 gallons Tires: 12
Moderate Risk Sources			
15A(#2)	Highway 55	Highway	
15B	Old Highway 70	Highway	
33A	Craven County Solid Waste Convenience Site	Solid Waste	County Solid Waste Convenience Site. Site accepts: mixed recyclables, cardboard/paper, scrap metal, yard waste, motor oil, batteries, bulk domestic waste, residential construction materials, and bagged garbage.
Lower Risk Sources - None			

#21592 WA-21592 Railworks Wood Waste Energy (AST) (Active): This incident occurred in 1999 when a leaking diesel AST was discovered onsite. A deep type-III well was slated to be installed. A sampling report was submitted in 2006, which indicated cadmium at the site above 2L standards. Database notes state that this overage may be due to natural causes. The database notes also state that the site will not be closed unless the exceedance can be attributed to background contamination or turbidity interference in the sampling. The facility abandoned the well, but there is no indication of a closeout, which means that the site may be active.

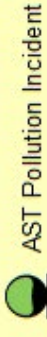
#88143 APAC Clarks Asphalt Plant (AST): The incident was reported in 2006. The site was closed-out on March 27th, 2008. The file was sent to the Inactive Hazardous Sites Branch and is not available through the WaRO.

**City of New Bern
Well #4-Group A**

Craven County

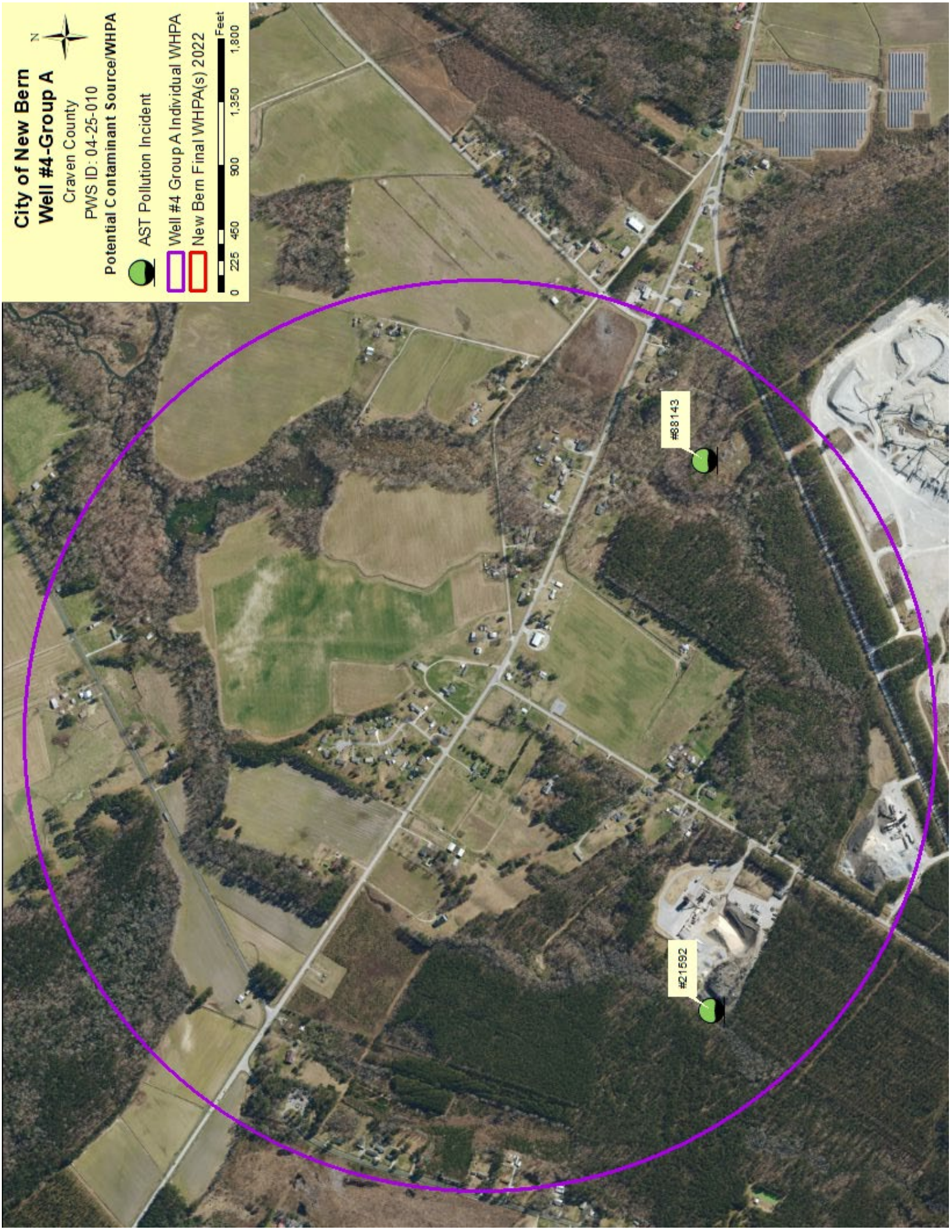
PWS ID: 04-25-010

Potential Contaminant Source/WHPA



Well #4 Group A Individual WHPA

New Bern Final WHPA(s) 2022



City of New Bern Well #4-Group A

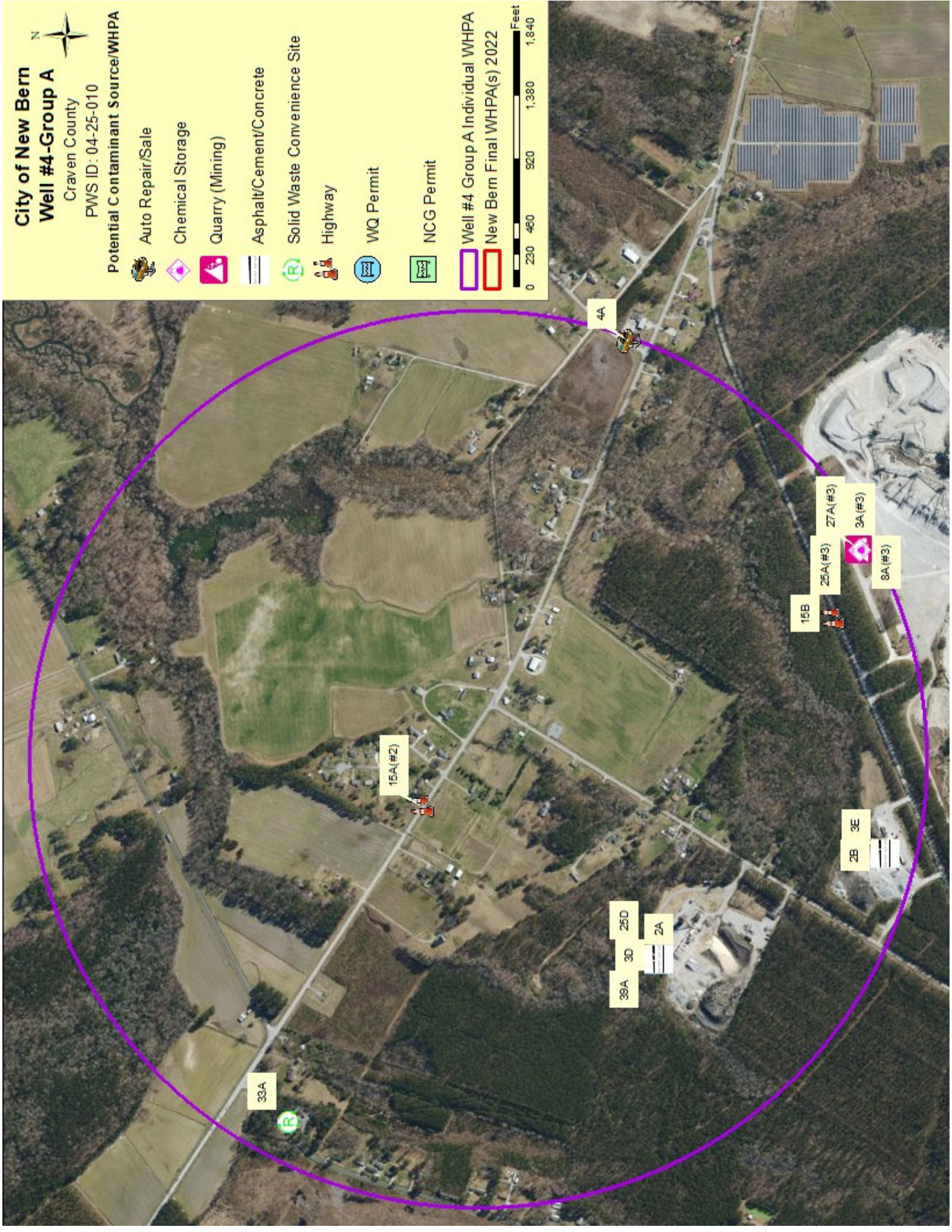
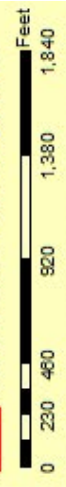
Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA

- Auto Repair/Sale
- Chemical Storage
- Quarry (Mining)
- Asphalt/Cement/Concrete
- Solid Waste Convenience Site
- Highway
- WQ Permit
- NCG Permit

- Well #4 Group A Individual WHPA
- New Bern Final WHPA(s) 2022



WELL 5 – Group B			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
16B, 22H	Urethane Innovators	Manufacturer, Inactive Hazardous Waste	No response to survey. Manufactures custom urethane and silicone products. Primary NAICs code: 326150- Urethane and Other Foam Product (except Polystyrene) Manufacturing NONCD0003061: Inactive Hazardous Waste site
Higher Risk Sources			
3A(#4), 8A(#4), 25A(#4), 27A(#4)	Martin Marietta-Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (Mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25-12
13A, 22C, 25E	Moen Industries	Manufacturer *Tier II, Hazardous Waste Generator, NCG Permit	Lead Acid Batteries/Sulfuric Acid, Max Quantity: 2,456 units NAICS Code: 332913 - Plumbing Fixture Fitting and Trim Manufacturing Water Tank for Fire Suppression NCD980602445: Small Quantity Generator (SQG) NCG030061: Metal Fabrication Stormwater Discharge COC

8C	Moen Warehouse	Chemical Storage *Tier II	Lead Acid Batteries/Sulfuric Acid, Max Quantity: 6,912 units
34B, 35H	BSH	Storage, Stormwater Permit	Logistics center. Likely to ship and store appliances. SW7050524: B/S/H Home Appliances Logistics Center- State Stormwater - HD - Detention Pond
22D, 35I	Wirthwein New Bern Corp.	Manufacturer, Stormwater Permit	No response to survey. NAICs Code: 326199, All Other Plastics Product Manufacturing This site conducts plastic fabrication/plastic components and assembly. SW7030115: Carolina Technical Plastics- State Stormwater - HD - Detention Pond
22E	Wheatstone Corporation	Manufacturer	No response to survey. Manufacturer for broadcasting systems NAICS Code: 334220, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
22F, 35J	Chatsworth Products	Manufacturer *Tier II, Stormwater Permit	No response to survey. Batteries (lead acid): 4,999 daily max/ave SW7980113: Low Density Stormwater Project
22G, 25F	Alyward Enterprises	Manufacturer, NCG Permit	No response to survey. Manufacturer for Pharmaceutical Packaging Equipment NAICS Code: 333249- Other Industrial Machinery Manufacturing NCGNE0761: Stormwater Discharge, No Exposure Certificate

3F, 8D, 38A	Craven County Wood Energy, LP	Wood Processing, Chemical Storage *Tier II, AST	Flooded Lead Calcium Battery: 4,999 max/avg units Fuel Oil #2: 31,500 max units Gasoline: 4,150 max units Sodium Hypochlorite: 5,500 max units Sulfuric Acid: 63,140 max units.
22I	Chesapeake Mfg, LLC	Manufacturer	No response to survey. This company manufactures/fabricates SeaDeck Marine Products.
32A	City of New Bern Settling Basin	Settling Basin	These are settling basins used by the City of New Bern. The basins receive flow from the City's sewer vac- trucks and can transmit flow to the main WWTP via pump station. The WWTP NPDES Permit No is: NC0025348
Moderate Risk Sources			
21C, 35K	Carolina GSE (Executive)	Maintenance, Stormwater Permit	No response to survey. This company supplies and repairs aircraft-related equipment. SW7181111: Craven 100 Alliance-State Stormwater
15D	Highway 70	Highway	
15E	Highway 17	Highway	
28A(#2)	Atlantic and East Carolina Railroad	Railroad	
3G, 35L	Atlantic Enviro	AST, Stormwater Permit	Diesel Tank: 500 gallons SW7191002: William S. Lane Jr.-State Stormwater
34C, 35M	Mutual Distributing Co.	Storage, Stormwater Permit	No response to survey. This company is a beverage distributor. SW7021011: Mutual Distributing Company - State Stormwater - HD - Detention Pond
3H, 34D, 35N	Minges Bottling Group- Distribution	AST, Storage, Stormwater Permit	Diesel Tank: 15,000 gallons SW7141201: State Stormwater - HD - Detention Pond

20D	Lift Station #69	Lift Station	
20E	Lift Station #70	Lift Station	
20F	Lift Station #71	Lift Station	
25G, 34E, 35O, 35P	Chemac	NCG Permit, Storage, Stormwater Permit (x2)	No response to survey. This company offers equipment and services for pumps, valves, piping, etc. NCGNE0934: Petroliance LLC- Stormwater Discharge, No Exposure Certificate SW7150114: Craven County Industrial Park - Lot 27- State Stormwater – Exempted SW7150114: Urach, LLC- State Stormwater - Low Density
11B	West of New Bern Vol. Fire Dept, Station 3	Fire Station	No response to survey. Refer to New Bern Fire Station #1 for possible chemicals onsite.
Lower Risk Sources			
35Q	Project Global (SW)	Stormwater Permit	SW7150101: Project Global- State Stormwater - HD - Detention Pond
35R	Executive Parkway Extension (SW)	Stormwater Permit	SW7150704: Craven County Industrial Park-State Stormwater
35S	Aeronautical Systems, Inc. (SW)	Stormwater Permit	SW7211208: Aeronautical Systems, Inc.-State Stormwater
35T	Titan Aviation Fuels (SW)	Stormwater Permit	SW7220406: Titan Aviation Fuels-State Stormwater
35U	Bayfront Craven Shell (SW)	Stormwater Permit	SW7210209: Bayfront Craven Shell-State Stormwater
35V	Jono LLC (SW)	Stormwater Permit	SW7220308: Jono LLC-State Stormwater
35W	Firefighter Training Center (SW)	Stormwater Permit	SW7060616: Firefighter Training Center- State Stormwater - Low Density
35X, 35Y	Piedmont Natural Gas (SW)	Stormwater Permit (x2)	SW7011022: NCNG, New Bern Operations Center- State Stormwater – Exempted SW7011001: Piedmont Natural Gas, New Bern Operations Center- State Stormwater - HD - Detention

			Pond
--	--	--	------

Resolved Incidents (Not included in list/map/risk assessment):

#10232 WA-735 Mack Trucks, Inc.: Close-out in 1994.

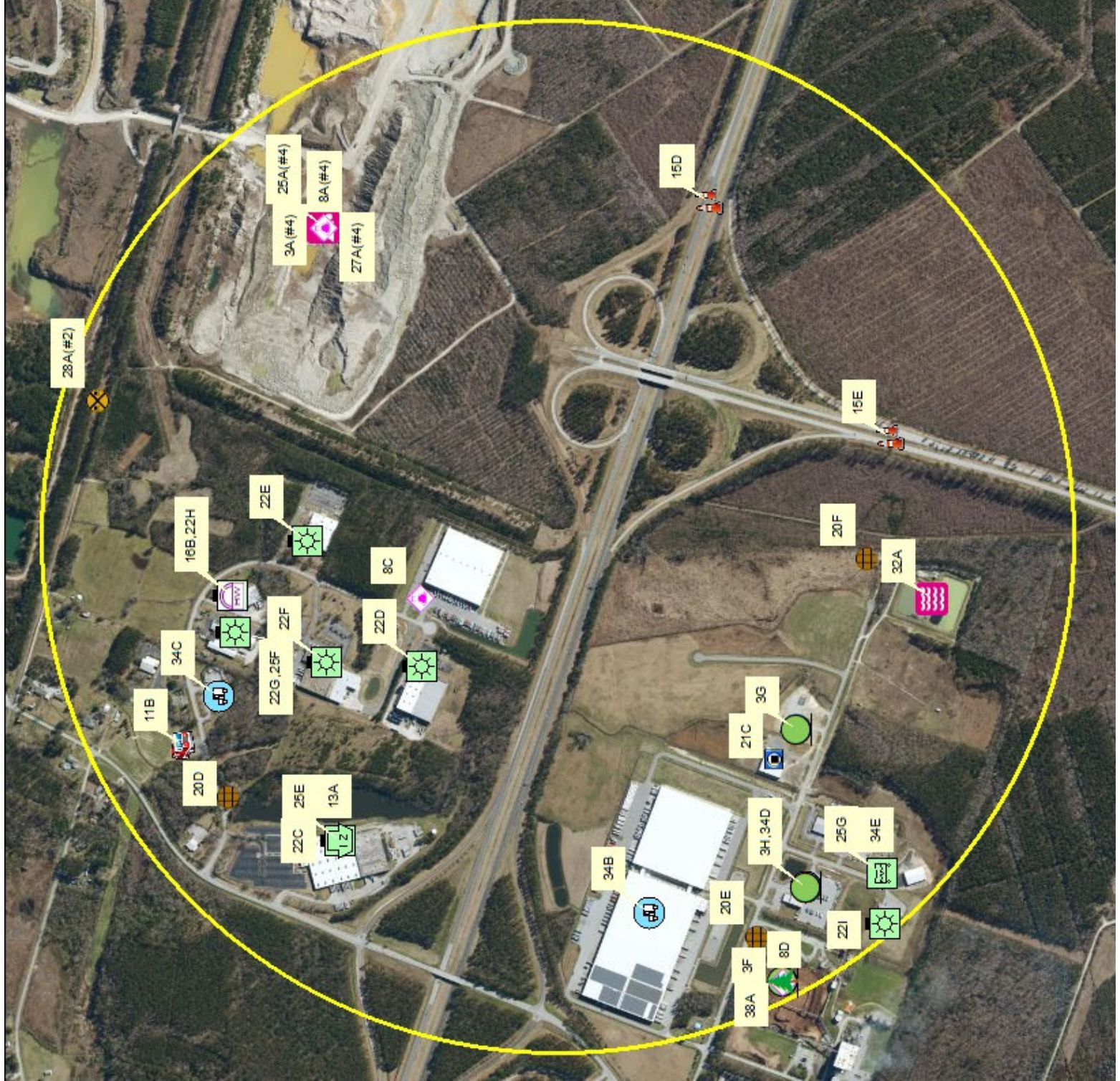
#95975 WA-92887 Shirkey Trucking Diesel Fuel Release (AST): A multi-vehicle accident occurred in January of 2021 resulting in the release of approximately 60-gallons of diesel fuel. An NFA was issued on February 22nd, 2021, stating that soil contamination does not exceed the lower of the maximum soil contaminant concentrations. Groundwater was not encountered during excavation.

City of New Bern
Well #5-Group B
 Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA

- Inactive Hazardous Waste
- Hazardous Waste Generator
- Wood Processing
- Manufacturer
- Chemical Storage
- Quarry (Mining)
- Settling Basin
- Railroad
- Highway
- Maintenance
- Above Ground Storage Tank
- NCG Permit
- Lift Station
- Fire Station
- Storage
- Well #5 Group B Individual WHPA
- New Bern Final WHPA(s) 2022



City of New Bern
Well #5-Group B
Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA



Stormwater Permit



Well #5 Group B Individual WHPA



New Bern Final WHPA(s) 2022



WELL 6 – Group A			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
3A(#4), 8A(#4), 25A(#4), 27A(#4)	Martin Marietta-Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (Mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25- 12
Moderate Risk Sources			
15D	Highway 70	Highway	
15C(#3)	Highway 43	Highway	
15E	Highway 17	Highway	
28A(#3)	Atlantic and East Carolina Railroad	Railroad	
Lower Risk Sources			
35Z	Harrison Residence/Harrison Shop (SW)	Stormwater Permit	SW7050109: Harrison Residence/Harrison Shop- State Stormwater - Low Density
35AA	Craven 30 South - Access Ramp (SW)	Stormwater Permit	SW7120611: Craven 30 South - Access Ramp- State Stormwater - Low Density
35C	Craven 30 West – Phase III (SW)	Stormwater Permit	SW7141009: Craven 30 West - Phase III- State Stormwater - Low Density
35BB	Clarks Quarry Bridge (SW)	Stormwater Permit	SW7060920: Clarks Quarry Bridge- State Stormwater - Exempted

Resolved Incidents (Not included in list/map/risk assessment):

#95975 WA-92887 Shirkey Trucking Diesel Fuel Release (AST): A multi-vehicle accident occurred in January of 2021 resulting in the release of approximately 60-gallons of diesel fuel. An NFA was issued

on February 22nd, 2021, stating that soil contamination does not exceed the lower of the maximum soil contaminant concentrations. Groundwater was not encountered during excavation.

#93368 WA-89242 Lawrence Company Truck Spill (AST): In 2018, a vehicular accident caused a 50-gallon release of petroleum product. The product was removed, and the soil samples were above action levels. The impacted soil was excavated, and the confirmation soil samples read below detection levels. An NFA was issued on August 27th, 2018, stating that soil contamination does not exceed the lower of the maximum soil contaminant concentrations. Groundwater was not encountered during excavation.

City of New Bern
Well #6-Group A
 Craven County
 PWS ID: 04-25-010



Potential Contaminant Source/WHPA

Chemical Storage

Quarry (Mining)

Railroad

Highway

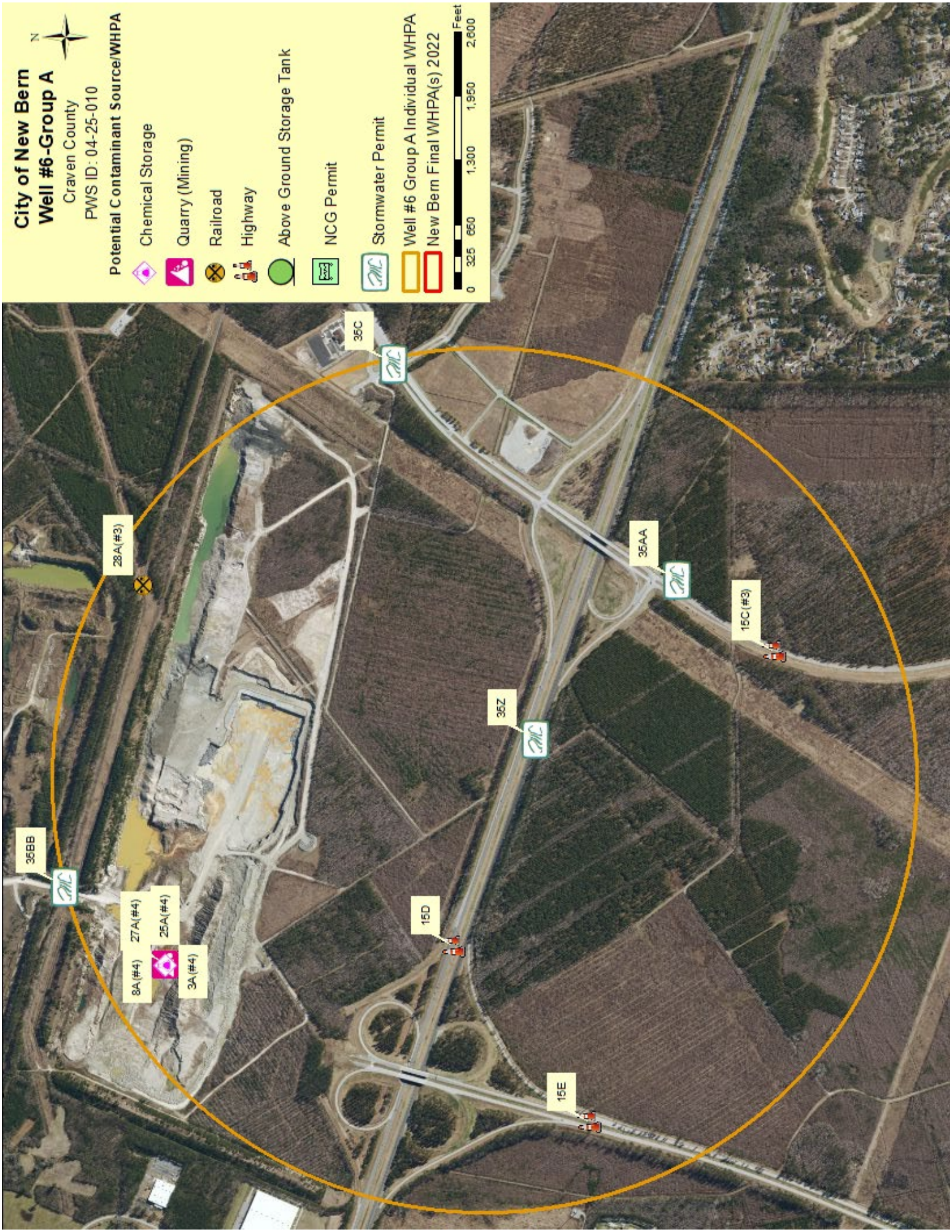
Above Ground Storage Tank

NCG Permit

Stormwater Permit

Well #6 Group A Individual WHPA

New Bern Final WHPA(s) 2022



28A (#3)

36C

36AA

15C (#3)

36Z

15D

15E

36BB

8A (#4)

27A (#4)

25A (#4)

3A (#4)

WELL 7 – Group B			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
3A(#2), 8A(#2), 25A(#2), 27A(#2)	Martin Marietta-Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25- 12
3B(#2), 8B(#2), 35A(#2), 40A(#2)	New Bern WTP	Chemical Storage, AST, Stormwater Permit, WTP/WWTP NPDES Permit	Potassium Permanganate (3%): 1,920 gallons Orthophosphate (36%): 340 gallons Bleach (9%): 10,000 gallons Liquid Ammonium Sulfate: 1,300 gallons Diesel: 3,000 gallons Gasoline: 20 gallons SW7070104: City of New Bern Water Treatment Plant – Express: State Stormwater - Low Density Discharges under NPDES Permit No: NC0025348
9B	Electrical Substation #2	Electrical Substation	
9C	Electrical Substation #3	Electrical Substation	
Moderate Risk Sources			
15C(#2)	Highway 43	Highway	
15D(#2)	Highway 70	Highway	
28A	Atlantic and East Carolina Railroad	Railroad	
Lower Risk Sources			
35C	Craven 30 West - Phase III (SW)	Stormwater Permit	SW7141009: Craven 30

			West - Phase III- State Stormwater - Low Density
35AA	Craven 30 South - Access Ramp (SW)	Stormwater Permit	SW7120611: Craven 30 South - Access Ramp- State Stormwater - Low Density
35Z	Harrison Residence/Harrison Shop (SW)	Stormwater Permit	SW7050109: Harrison Residence/Harrison Shop- State Stormwater - Low Density
35E	West New Bern	Stormwater Permit	SW7171010: West New Bern- State Stormwater - HD - Detention Pond

Resolved Incidents (Not included in list/map/risk assessment):

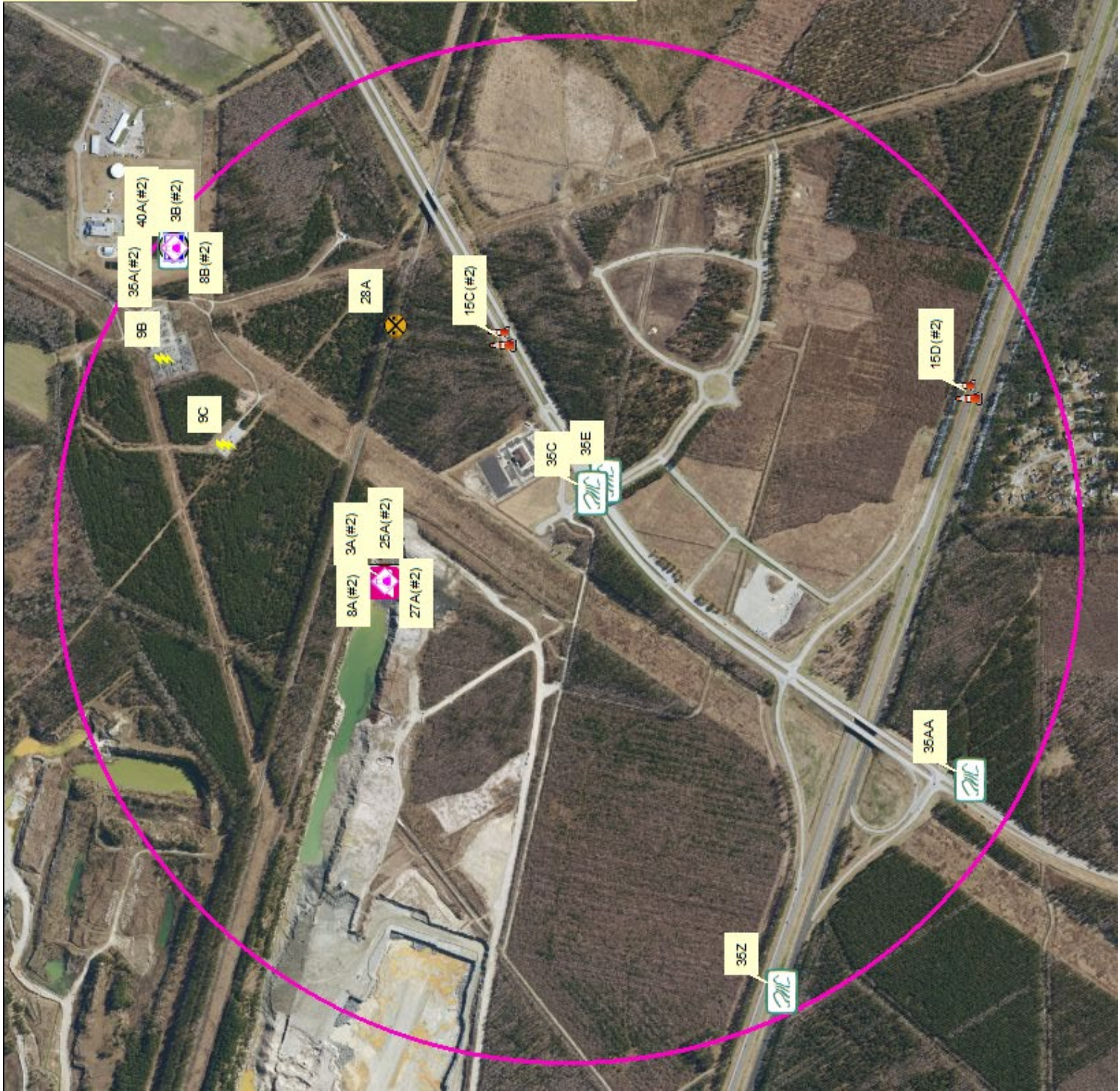
#93368 WA-89242 Lawrence Company Truck Spill (AST): In 2018, a vehicular accident caused a 50-gallon release of petroleum product. The product was removed, and the soil samples were above action levels. The impacted soil was excavated, and the confirmation soil samples read below detection levels. An NFA was issued on August 27th, 2018, stating that soil contamination does not exceed the lower of the maximum soil contaminant concentrations. Groundwater was not encountered during excavation.

City of New Bern
Well #7-Group B
 Craven County
 PWS ID: 04-25-010



Potential Contaminant Source/WHPA

-  Electrical Substation
-  Chemical Storage
-  Railroad
-  Quarry (Mining)
-  Highway
-  WTP/WWTP NPDES Permit
-  Above Ground Storage Tank
-  NCG Permit
-  Stormwater Permit
-  Well #7 Group B Individual WHPA
-  New Bern Final WHPA(s) 2022



WELL 8 – Group A			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
3A(#5), 8A(#5), 25A(#5), 27A(#5)	Martin Marietta-Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (Mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25- 12
Moderate Risk Sources			
15C(#2)	Highway 43	Highway	
15D(#2)	Highway 70	Highway	
20G	Lift Station #42	Lift Station	
20H	Lift Station #50	Lift Station	
12A	Emerald Golf Club	Golf Course	Chlorine: 150 gallons Hydrochloric acid: 12 gallons Herbicide: 10 gallons Pesticide: 10 gallons Insecticide: 10 gallons
28A	Atlantic and East Carolina Railroad	Railroad	
Lower Risk Sources			
35C	Craven 30 West - Phase III (SW)	Stormwater Permit	SW7141009: Craven 30 West - Phase III- State Stormwater - Low Density
35AA	Craven 30 South - Access Ramp (SW)	Stormwater Permit	SW7120611: Craven 30 South - Access Ramp- State Stormwater - Low Density
35E	West New Bern	Stormwater Permit	SW7171010: West New Bern- State Stormwater - HD - Detention Pond

Resolved Incidents (Not included in list/map/risk assessment):

#93368 WA-89242 Lawrence Company Truck Spill (AST): In 2018, a vehicular accident caused a 50-gallon release of petroleum product. The product was removed, and the soil samples were above action levels. The impacted soil was excavated, and the confirmation soil samples read below detection levels. An NFA was issued on August 27th, 2018, stating that soil contamination does not exceed the lower of the maximum soil contaminant concentrations. Groundwater was not encountered during excavation.

City of New Bern
Well #8-Group A
 Craven County
 PWS ID: 04-25-010



Potential Contaminant Source/WHPA

- Chemical Storage
- Quarry (Mining)
- Golf Course
- Railroad
- Highway
- Above Ground Storage Tank

- NCG Permit
- Lift Station
- Stormwater Permit

- Well #8 Group A Individual WHPA
- New Bern Final WHPA(s) 2022



WELL 9 – Group B			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources - None			
Moderate Risk Sources			
15D(#2)	Highway 70	Highway	
12A	Emerald Golf Club	Golf Course	Chlorine: 150 gallons Hydrochloric acid: 12 gallons Herbicide: 10 gallons Pesticide: 10 gallons Insecticide: 10 gallons
20I	Lift Station #22	Lift Station	
20G	Lift Station #42	Lift Station	
20H	Lift Station #50	Lift Station	
20J	Lift Station #85	Lift Station	
Lower Risk Sources			
35CC	Ellis Park Stormwater	Stormwater Permit	SW7061103: Ellis Park Stormwater- State Stormwater - High Density
35DD	WyndSOR Park - Express project	Stormwater Permit	SW7050636: WyndSOR Park - Express project- State Stormwater - HD - Detention Pond
35EE	Derby Park IV	Stormwater Permit	SW7060703: Derby Park VI – stormwater- State Stormwater - High Density

Resolved Incidents (Not included in list/map/risk assessment):

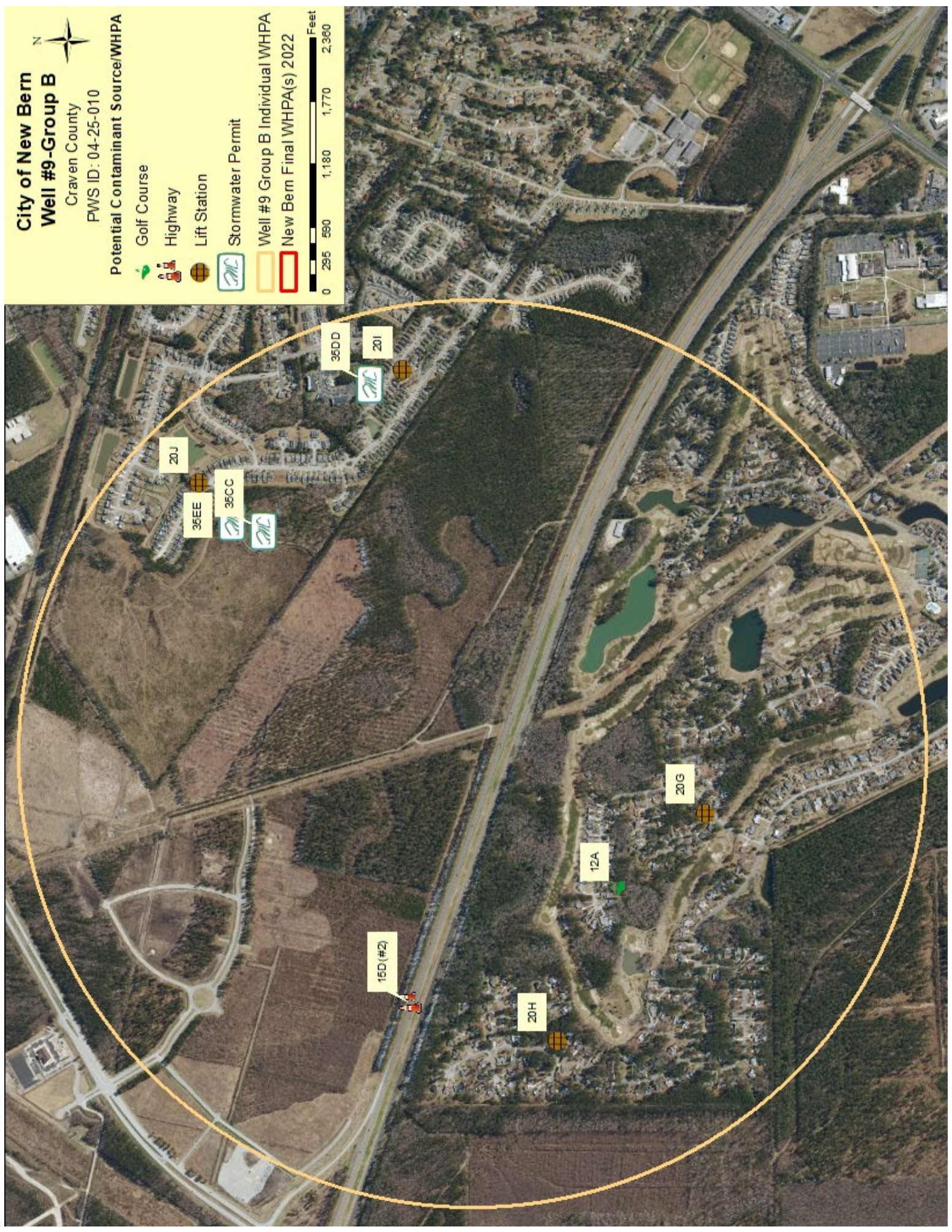
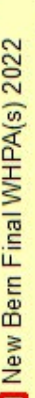
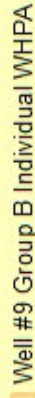
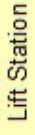
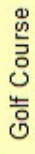
#93368 WA-89242 Lawrence Company Truck Spill (AST): In 2018, a vehicular accident caused a 50-gallon release of petroleum product. The product was removed, and the soil samples were above action levels. The impacted soil was excavated, and the confirmation soil samples read below detection levels. An NFA was issued on August 27th, 2018, stating that soil contamination does not exceed the lower of the maximum soil contaminant concentrations. Groundwater was not encountered during excavation.

City of New Bern
Well #9-Group B

Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA



WELL 10 – Group B			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
8E, 22J, 35FF, 35GG, 35HH, 35II	Craven Community College	Chemical Storage, Manufacturer, *Tier II, Stormwater Permit (x4)	No response to survey. Propane: x10 tanks varying from 100 gallons to 500 gallons. Bosch and Siemens advanced manufacturing center onsite. SW7060822: Craven Community College - Bosch & Siemens Advanced Manufacturing Center- State Stormwater - HD – Infiltration- State Stormwater - HD - Infiltration SW7080217: Craven Community College Parking Lot Expansion – Express- State Stormwater - HD - Wetlands SW7040706: Craven Comm College - Bldg H & Maint.- State Stormwater - HD - Detention Pond SW7011203: Campus Entrance Landscaping- State Stormwater - Other
Moderate Risk Sources			
15D(#3)	Highway 70	Highway	
12A(#2)	Emerald Golf Club	Golf Course	Chlorine: 150 gallons Hydrochloric acid: 12 gallons Herbicide: 10 gallons Pesticide: 10 gallons Insecticide: 10 gallons
20I	Lift Station #22	Lift Station	
20K	Lift Station #31	Lift Station	
20L	Lift Station #36	Lift Station	*Generator
20G	Lift Station #42	Lift Station	
20M	Lift Station #82	Lift Station	
20J	Lift Station #85	Lift Station	

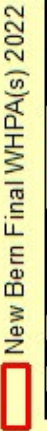
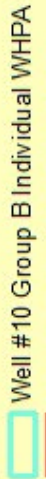
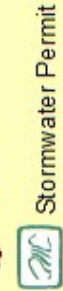
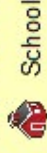
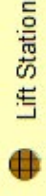
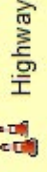
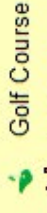
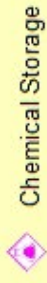
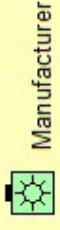
29A	H J Macdonald Middle School	School	No response to survey. Recreational field present. May use pesticides and herbicides. Potential for AST generator.
Lower Risk Sources			
35CC	Ellis Park Stormwater	Stormwater Permit	SW7061103: Ellis Park Stormwater- State Stormwater - High Density
35DD	Wyndson Park - Express project	Stormwater Permit	SW7050636: Wyndson Park - Express project- State Stormwater - HD - Detention Pond
35JJ	Eden Grove Subdivision	Stormwater Permit	SW7021019: Eden Grove Subdivision- State Stormwater - HD - Detention Pond
35KK	Fairlawn	Stormwater Permit	SW7980525: Fairlawn- State Stormwater - Low Density
35LL	Derby Park V	Stormwater Permit	SW7030614: Derby Park V- State Stormwater - HD - Detention Pond
35MM	New Bern Church of God	Stormwater Permit	SW7020501: New Bern Church of God- State Stormwater - HD - Detention Pond
35EE	Derby Park IV	Stormwater Permit	SW7060703: Derby Park VI – stormwater- State Stormwater - High Density
35NN	Beaver Creek Apartments	Stormwater Permit	SW7960815: Beaver Creek Apartments- State Stormwater - HD - Detention Pond

City of New Bern Well #10-Group B

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



20J

36EE

36CC

36DD

20I

35JJ

20M

35LL

29A

35KK

20L

22J

8E

35FF, 35GG, 35HH, 35II

15D (#3)

12A (#2)

20G

35KK

35NN

20K

35LL

29A

35KK

20L

22J

8E

35FF, 35GG, 35HH, 35II

12A (#2)

20G

WELL 11 – Group B			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
3A(#6), 8A(#6), 25A(#6), 27A(#6)	Martin Marietta-Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (Mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25- 12
Moderate Risk Sources			
15C(#3)	Highway 43	Highway	
15D	Highway 70	Highway	
15E	Highway 17	Highway	
12A(#3)	Emerald Golf Club	Golf Course	Chlorine: 150 gallons Hydrochloric acid: 12 gallons Herbicide: 10 gallons Pesticide: 10 gallons Insecticide: 10 gallons
20H	Lift Station #50	Lift Station	
Lower Risk Sources			
35AA	Craven 30 South - Access Ramp (SW)	Stormwater Permit	SW7120611: Craven 30 South - Access Ramp- State Stormwater - Low Density
35Z	Harrison Residence/Harrison Shop (SW)	Stormwater Permit	SW7050109: Harrison Residence/Harrison Shop- State Stormwater - Low Density

Resolved Incidents (Not included in list/map/risk assessment):

#93368 WA-89242 Lawrence Company Truck Spill (AST): In 2018, a vehicular accident caused a 50-gallon release of petroleum product. The product was removed, and the soil samples were above action levels. The impacted soil was excavated, and the confirmation soil samples read below detection levels.

An NFA was issued on August 27th, 2018, stating that soil contamination does not exceed the lower of the maximum soil contaminant concentrations. Groundwater was not encountered during excavation.

City of New Bern Well #11-Group B

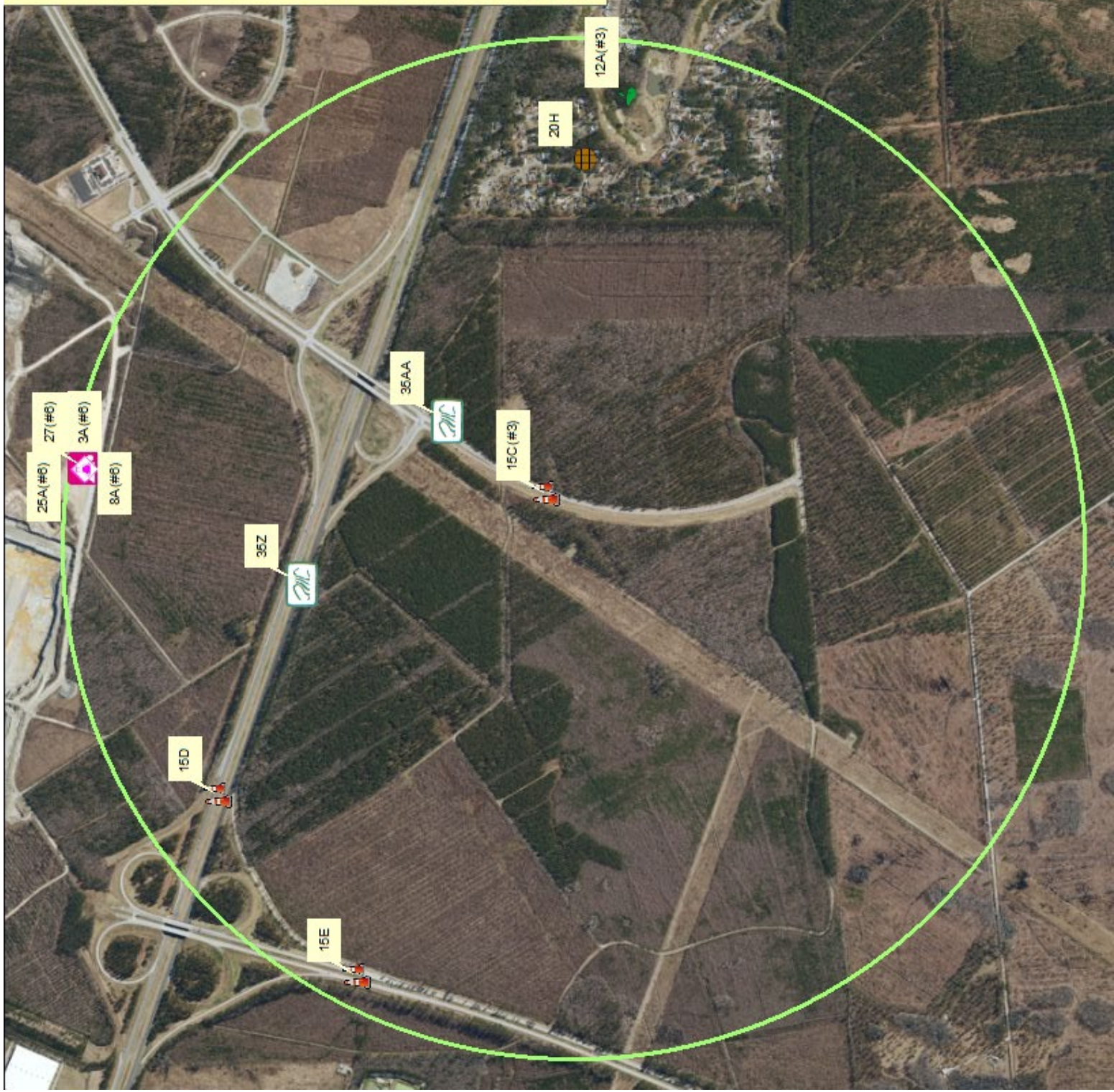
Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA

- Chemical Storage
- Quarry (Mining)
- Golf Course
- Highway
- Above Ground Storage Tank
- NCG Permit
- Lift Station
- Stormwater Permit

- Well #11 Group B Individual WHPA
- New Bern Final WHPA(s) 2022



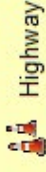
WELL 12 – Group A			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources - None			
Moderate Risk Sources			
15C(#3)	Highway 43	Highway	
15E(#2)	Highway 17	Highway	
Lower Risk Sources			
35OO	Craeberne Forest Subdivision	Stormwater Permit	SW7061230: Craeberne Forest Subdivision- State Stormwater - General Permit

City of New Bern
Well #12-Group A

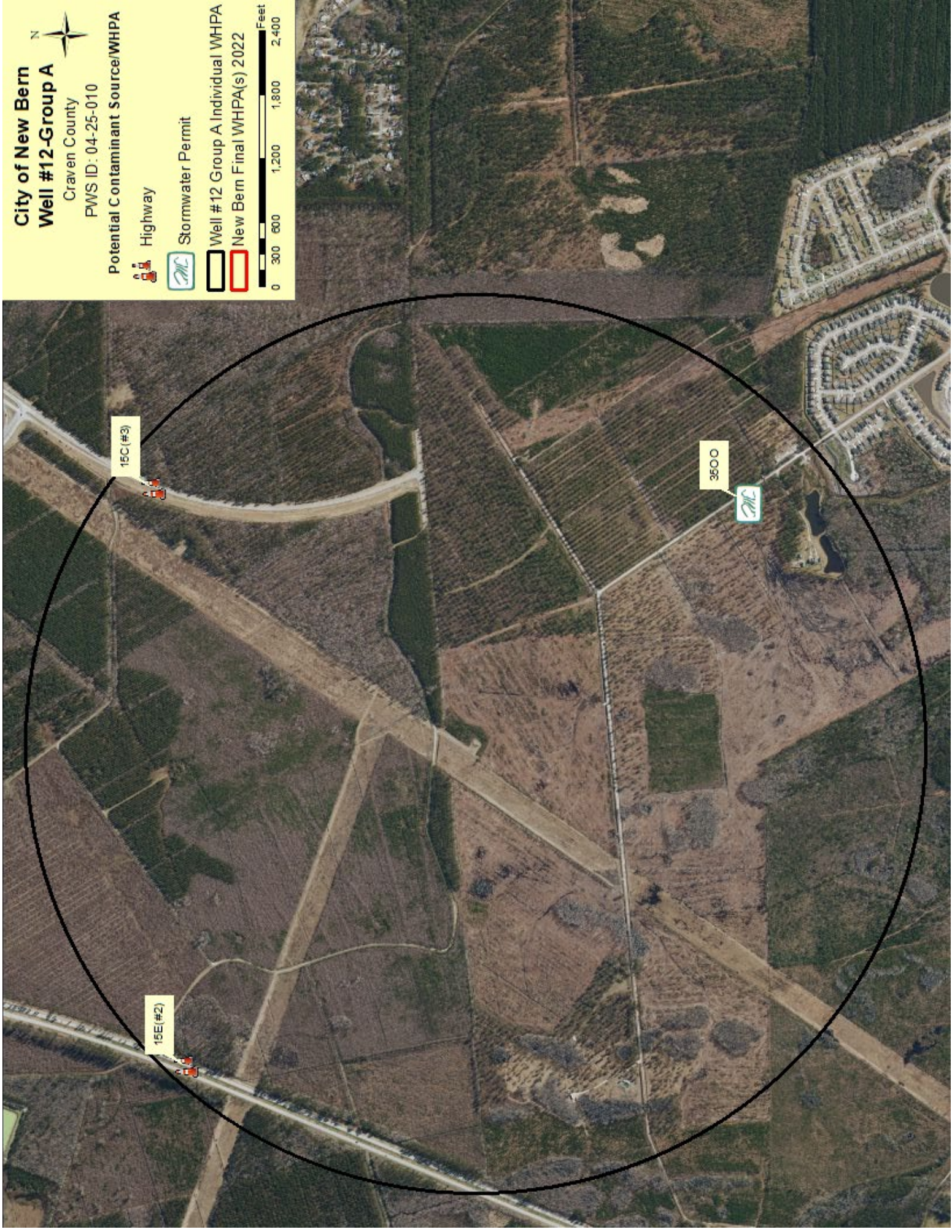
Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



Well #12 Group A Individual WHPA
New Bern Final WHPA(s) 2022



15C (#3)



3600



15E (#2)

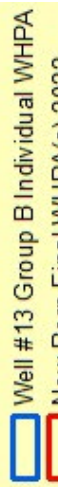
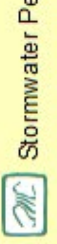
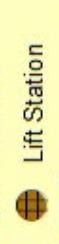
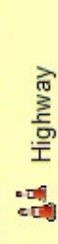


WELL 13 – Group B			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources - None			
32A	City of New Bern Settling Basin	Settling Basin	These are settling basins used by the City of New Bern. The basins receive flow from the City's sewer vac-trucks and can transmit flow to the main WWTP via pump station. The WWTP NPDES Permit No is: NC0025348
Moderate Risk Sources			
15E(#2)	Highway 17	Highway	
20F	Lift Station #71	Lift Station	
Lower Risk Sources			
35W	Firefighter Training Center (SW)	Stormwater	SW7060616: Firefighter Training Center- State Stormwater - Low Density

City of New Bern
Well #13-Group B
Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA



WELL 14 – Group A			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
3F, 8D, 38A	Craven County Wood Energy, LP	Wood Processing, Chemical Storage *Tier II, AST	Flooded Lead Calcium Batteries (Max units): 4,999 #2 Fuel Oil (Max units): 31,500 Gasoline: 4,150 max units Sodium Hypochlorite: 5,500 max units Sulfuric Acid: 63,140 max units.
22I	Chesapeake Mfg, LLC	Manufacturer	No response to survey. This company manufactures/fabricates SeaDeck Marine Products.
34B, 35H	BSH	Storage, Stormwater permit	Logistics center. Likely to ship and store appliances. SW7050524: B/S/H Home Appliances Logistics Center- State Stormwater - HD - Detention Pond
8F	Duke Energy	Chemical Storage *Tier II	No response to survey. Hand sanitizer: 8,328,735 units (max) and 4 units (average) Hyvolt II Ergon MTL: 17,747 units (max) and 8,722 units (average)
32A	City of New Bern Settling Basin	Settling Basin	These are settling basins used by the City of New Bern. The basins receive flow from the City's sewer vac-trucks and can transmit flow to the main WWTP via pump station. The WWTP NPDES Permit No is: NC0025348
Moderate Risk Sources			
21C, 35K	Carolina GSE (Executive)	Maintenance, Stormwater Permit	No response to survey. This company supplies and repairs aircraft-related equipment. SW7181111: Craven 100 Alliance-State Stormwater

3H, 34D, 35N	Minges Bottling Group- Distribution	Storage, AST, Stormwater Permit	Diesel Tank: 15,000 gallons SW7141201: State Stormwater - HD - Detention Pond
25G, 34E, 35O, 35P	Chemac	Storage, NCG Permit, Stormwater Permit	No response to survey. This company offers equipment and services for pumps, valves, piping, etc. NCGNE0934: Petroliance LLC- Stormwater Discharge, No Exposure Certificate SW7150114: Craven County Industrial Park - Lot 27- State Stormwater - Exempted SW7150114: Urach, LLC- State Stormwater - Low Density
3G, 35L	Atlantic Enviro	AST, Stormwater Permit	Diesel Tank: 500 gallons SW7191002: William S. Lane Jr.-State Stormwater
15E(#2)	Highway 17	Highway	
20E	Lift Station #70	Lift Station	
20F	Lift Station #71	Lift Station	
Lower Risk Sources			
35R	Executive Parkway Extension (SW)	Stormwater Permit	SW7150704: Craven County Industrial Park-State Stormwater
35W	Firefighter Training Center (SW)	Stormwater Permit	SW7060616: Firefighter Training Center- State Stormwater - Low Density
35U	Bayfront Craven Shell (SW)	Stormwater Permit	SW7210209: Bayfront Craven Shell-State Stormwater
35V	Jono LLC (SW)	Stormwater Permit	SW7220308: Jono LLC-State Stormwater
35X, 35Y	Piedmont Natural Gas (SW)	Stormwater Permit (x2)	SW7011022: NCNG, New Bern Operations Center- State Stormwater – Exempted SW7011001: Piedmont Natural Gas, New Bern Operations Center- State Stormwater - HD - Detention Pond

City of New Bern Well #14-Group A

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA

Wood Processing



Manufacturer



Chemical Storage



Settling Basin



Highway



Maintenance



Above Ground Storage Tank



NCG Permit



Lift Station



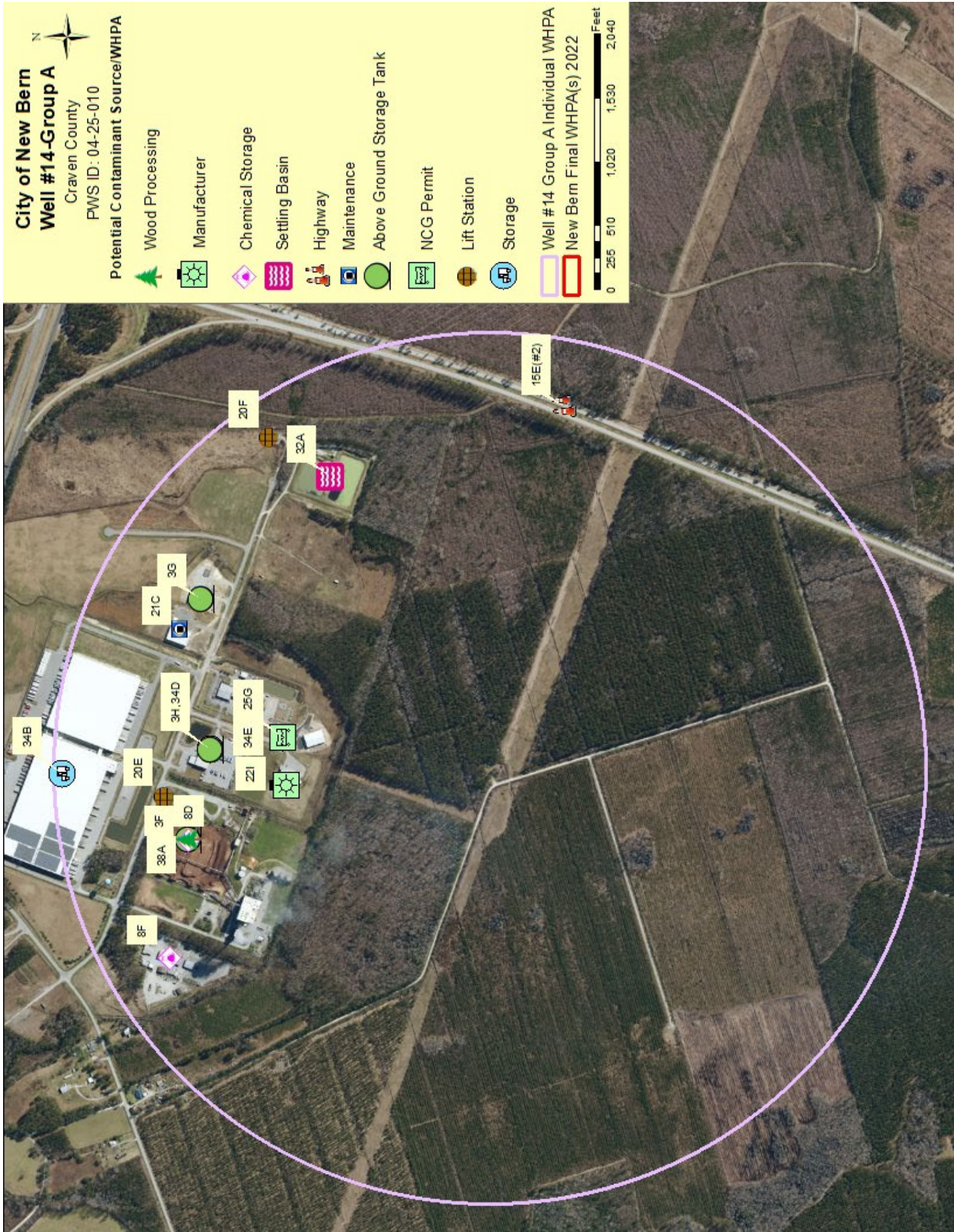
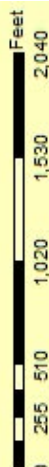
Storage



Well #14 Group A Individual WHPA



New Bern Final WHPA(s) 2022



City of New Bern
Well #14-Group A
Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA



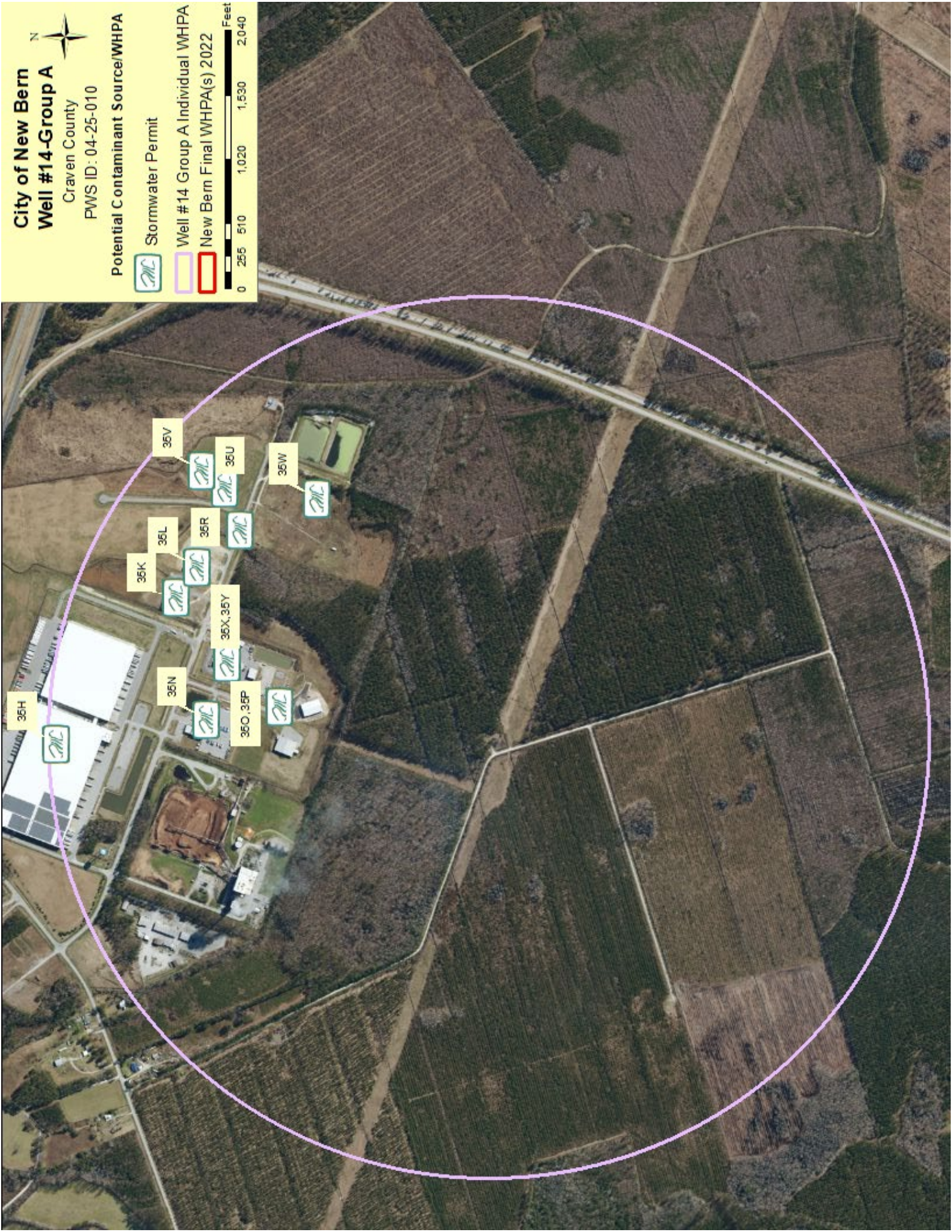
Stormwater Permit



Well #14 Group A Individual WHPA



New Bern Final WHPA(s) 2022



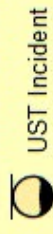
WELL 15 – Group B			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
#31583	Ipock Grocery/M.Jolly Residence Incident	Pollution Incident	NFA 4/13/2006 (Water supply well did not exceed 2L)
#88143	Apac Clarks Asphalt Plant (AST)	Pollution Incident	Close-out 3/27/2008 (File unavailable)
Higher Risk Sources			
3A, 8A, 25A, 27A	Martin Marietta-Clarks Quarry	Chemical Storage, AST, NCG Permit, Quarry (Mining)	NCG020171: Minor: General Permit Covered Facility (x3) 2,000-gallon bulk oil tanks (x1) 1,000-gallon waste oil tank (x1) 1,000-gallon bulk oil tank (x1) 10,000-gallon diesel tank (x1) 6,000-gallon diesel tank (x1) 1,000-gallon gasoline tank (x1) 100-gallon kerosene tank Chargepac 55: 1,000L Mining permit number 25-12
4A	On Spot Service & Repair & Alignment	Auto Repair/Sale	Used motor oil: 50 gallons Motor oil: 50 gallons Tires: 12
2B, 3E	Craven County Asphalt Plant/Barnhill	Asphalt/Cement/Concrete, AST	Liquid Asphalt: 48,000-gallon capacity Diesel fuel: 1,500 gallons

2A, 3D, 25D, 39A	S.T. Wooten Corporation	Asphalt/Cement/ Concrete *Tier II, AST, WQ Permit, and NCG Permit	No response to survey. AC-20 Liquid Asphalt tank: 999,999 units daily max/ave Diesel Fuel Tank: 99,999 units daily max/ave Refined Petroleum Oils: 99,999 units daily max/ave Refined Petroleum Oils (used): 99,999 units daily max WQ0004438: Treated wastewater irrigation. Annual volume in gallons (2010 documentation): 139,895 NCG160019: S T Wooten Corporation-New Bern- Asphalt Paving Mixture Stormwater Discharge COC
Moderate Risk Sources			
15A	Highway 55	Highway	
15B	Old Highway 70	Highway	
21A	Craven County Schools Facility	Maintenance	No response to survey. This building is used for maintenance and repair of school related buildings and grounds. This includes mechanical, structural, and electrical needs.
Lower Risk Sources			
35B	New Bern Solar Site - NC Hwy 55	Stormwater Permit	SW7160102: New Bern Solar Site- NC Hwy 55- State Stormwater - Low Density

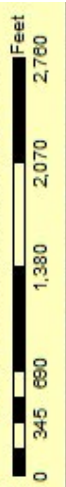
#31583 WA-26384 Ipock Grocery/M.Jolly Residence: The residence was impacted by a spill at a grocery store across the street. Only two files of a non-handwritten nature were available for the incident. An NFA was issued on April 13th, 2006, but only stated that the contamination in the water supply well did not exceed 2L standards.

#88143 APAC Clarks Asphalt Plant (AST): The incident was reported in 2006. The site was closed-out on March 27th, 2008. The file was sent to the Inactive Hazardous Sites Branch and is not available through the WaRO.

City of New Bern
Well #15-Group B
Craven County
PWS ID: 04-25-010
Potential Contaminant Source/WHPA



Well #15 Group B Individual WHPA
New Bern Final WHPA(s) 2022



City of New Bern Well #15-Group B

Craven County

PWS ID: 04-25-010

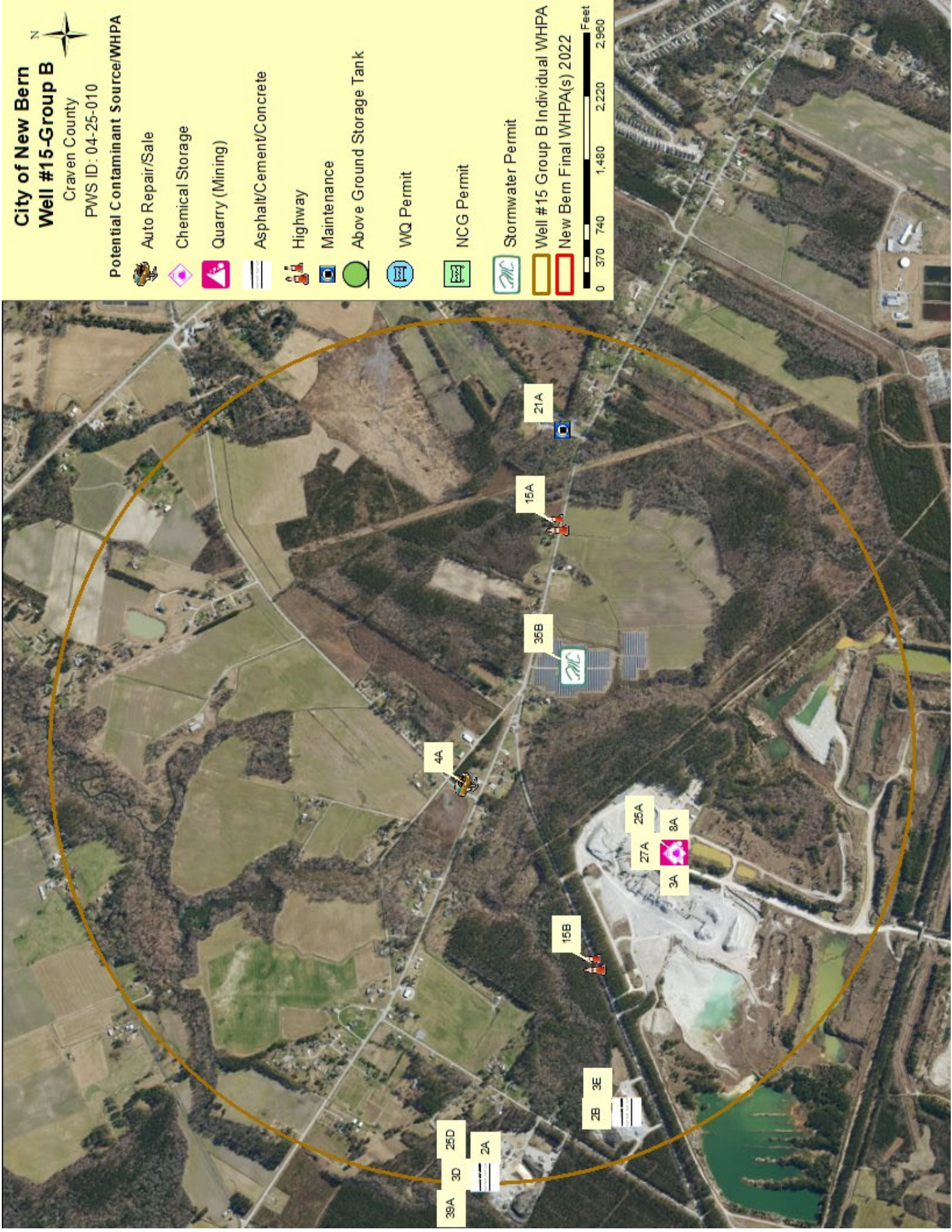


Potential Contaminant Source/WHPA

- Auto Repair/Sale
- Chemical Storage
- Quarry (Mining)
- Asphalt/Cement/Concrete
- Highway
- Maintenance
- Above Ground Storage Tank
- WQ Permit
- NCG Permit
- Stormwater Permit

Well #15 Group B Individual WHPA

New Bern Final WHPA(s) 2022



WELL 1			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
N/A	Cove City Well #1	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons daily max
Moderate Risk Sources			
28A(#4)	Atlantic and East Carolina Railroad	Railroad	
15B(#2)	Old US Highway 70	Highway	
1A, 3I	Dawson Farm Operation	Agricultural Operation, AST	No response to survey. Multi-parcel farm. ~295ft potential greenhouse structure. ~200ft potential tobacco barn structure. Concrete pad with possible tanks.
Lower Risk Sources			
7A	McCoy Cemetery	Cemetery	~35-50 graves

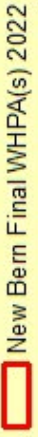
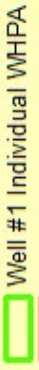
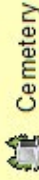
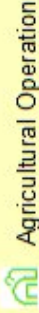
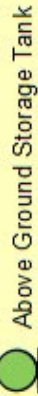
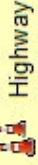
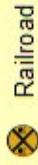
City of New Bern

Well #1

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



0 260 520 1,040 1,560 2,080 Feet



WELL 2			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
#38788	Myrtle Holland Site	Pollution Incident	NFA 8/7/2022 (NRP 8/3/2020)
Higher Risk Sources			
N/A	Cove City Well #2	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons max daily
N/A	Cove City Well #3	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons max daily
Moderate Risk Sources			
15B(#2)	Old US Highway 70	Highway	
28A(#4)	Atlantic and East Carolina Railroad	Railroad	
3J	Cove City Express	AST	(x3) ASTs, presumed gasoline: estimated 6,000-gallon capacity per tank.
1A, 3I	Dawson Farm Operation	Agricultural Operation, AST	No response to survey. Multi-parcel farm. ~295ft potential greenhouse structure. ~200ft potential tobacco barn structure. Concrete pad with possible tanks.
20N	Cove City Lift Station #2	Lift Station	
Lower Risk Sources - None			

#38788 WA-27660 Myrtle Holland Site: In 2019, two (2) USTs (petroleum-based, unspecified) were removed, and contamination was discovered at the site. An NFA was issued on August 7th, 2020, preceded by the receipt of the NRP on August 3rd, 2020. The NFA states that the soil contamination exceeds residential MSCCs, and the groundwater contamination exceeds 2L standards.

City of New Bern

Well #2

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



UST Pollution Incident



Well #2 Individual WHPA



New Bern Final WHPA(s) 2022



#38788

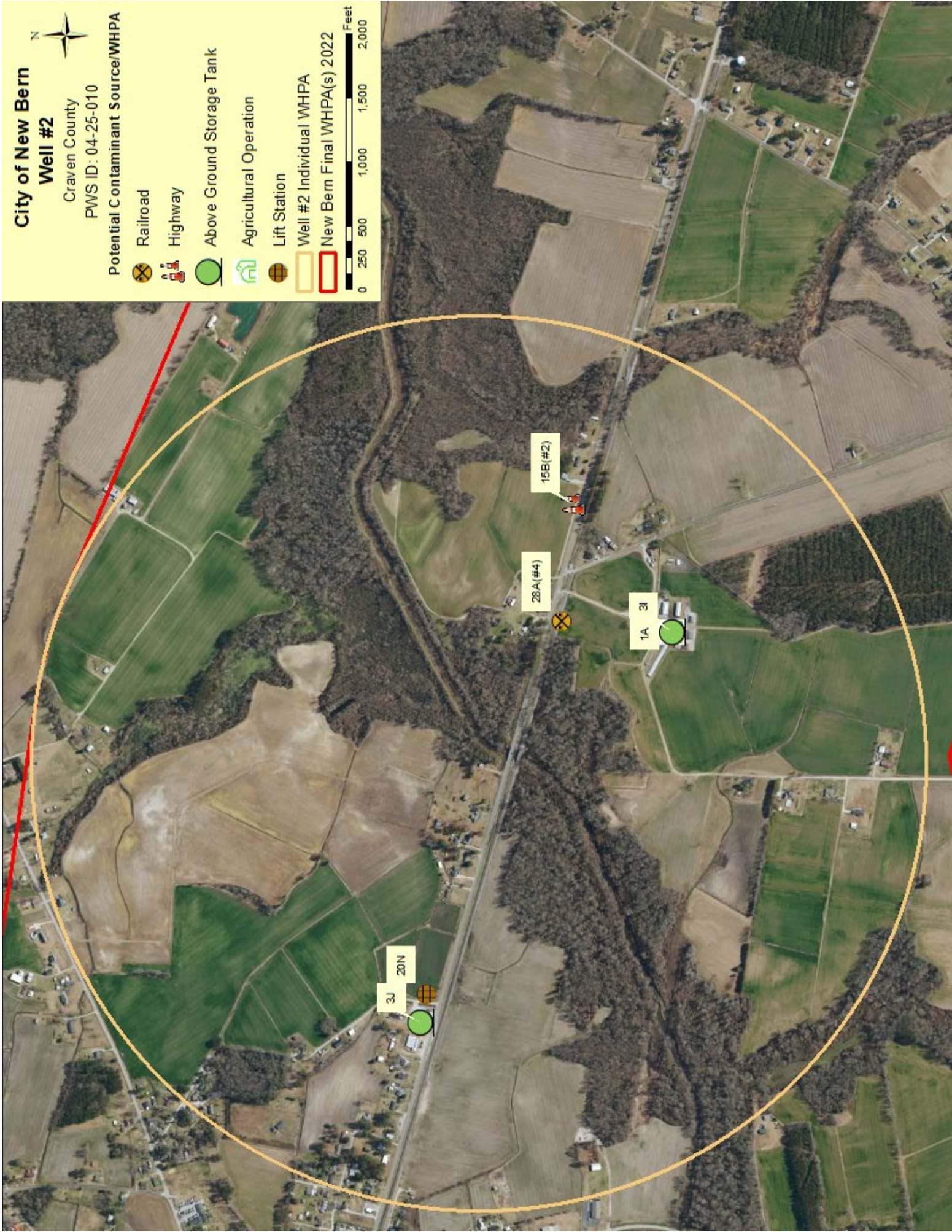
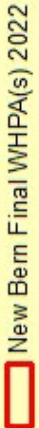
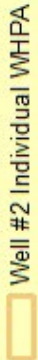
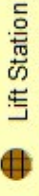
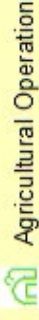
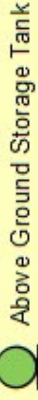
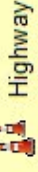
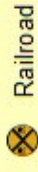
City of New Bern

Well #2

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



WELL 3			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
#38788	Myrtle Holland Site	Pollution Incident	NFA 8/7/2022 (NRP 8/3/2020)
#14303	Charlton Mitchell Property	Pollution Incident	NFA 7/19/2013 (NRP 7/19/2013)
#14294	Midway Grocery	Pollution Incident	Close-out 11/6/2014 (Land-use restriction 11/1/2014)
#23285	A	Pollution Incident	NFA 6/6/2002 (NRP 5/29/2002)
Higher Risk Sources			
N/A	Cove City Well #2	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons max daily
N/A	Cove City Well #3	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons max daily

3K, 10A	Cove City Fertilizer	Fertilizer *Tier II, AST	Calcium Nitrate: 22,940 (Max daily) and 5,715 (Average daily) AgLogic 15GG 45#: 3,060 (Max daily) and 2,121 (Average daily) AgriPOP 9-20-3-1S (Tote): 73,543 (Max daily) and 24,448 (Average daily) AP 2x2 (10-8-10) (2x2.5): 12,381 (Max daily) and 1,206 (Average daily) Defol 5 (265): 15,436 (Max daily/Average daily) Flexstar GT 3.5 (bulk): 17,111 (Max daily) and 10,472 (Average daily) Gramoxone SL 3.0 (bulk): 1,505 (Max daily) and 446 (average daily) Halex GT (bulk): 10,201 (Max daily) and 4,534 (Average daily) Imitator DA (265): 13,489 (Max daily) and 5,522 (Average daily) Paraquat Concentrate (265): 6,088 (Max daily) and 5,088 (Average daily) Paraquat Concentrate (2x2.5): 1,344 (Max daily) and 764 (Average daily) Pelletized Lime (50#): 13,160 (Max daily) and 8,363 (Average daily) Roundup PowerMax 3 (2x2.5): 10,222 (Max daily) and 4,135 (Average daily) Roundup PowerMax 3 (bulk): 62,183 (Max daily) and 21,686 (Average daily) Thimet 20G LNL (40#): 880 (Max daily) and 97 (Average daily) Vydate L (2x2.5): 2,495 (Max daily) and 339 (Average daily) Propane tank: 1500 Fuel Tank: 1000 gallons
3L, 38B	Warmack Lumber	Wood Processing, AST	Fuel Tank: 500 gallons

Moderate Risk Sources			
28A(#5)	Atlantic and East Carolina Railroad	Railroad	
15B(#3)	Old US Highway 70	Highway	
3J	Cove City Express	AST	(x3) ASTs, presumed gasoline: estimated 6,000-gallon capacity per tank.
3M	Cove City Rescue Squad	AST (Potential)	No response to survey. May have either fuel tank or generator.
20O	Cove City Lift Station #1	Lift Station	*Generator
20N	Cove City Lift Station #2	Lift Station	*Portable generator
20P	Cove City Lift Station #3	Lift Station	*Generator
20Q	Cove City Lift Station #4	Lift Station	
20R	Cove City Lift Station #5	Lift Station	
20S	Cove City Lift Station #6	Lift Station	
20T	Cove City Lift Station #7	Lift Station	*Generator
11C	Cove City Fire Department	Fire Station	No response to survey. Likely to have a firefighting foam, such as A-FFF. Potential for other chemicals, such as gasoline cans. The site would have a motor fleet containing fire trucks and potentially support vehicles.
Lower Risk Sources			
7B	Cove City Cemetery	Cemetery	~400 graves
35PP	Cove City - 99 San. Sewer Improvements - SW	Stormwater Permit	SW7060414: Cove City - 99 San. Sewer Improvements – SW- State Stormwater - Exempted

#38788 WA-27660 Myrtle Holland Site: In 2019, two (2) USTs (petroleum-based, unspecified) were removed, and contamination was discovered at the site. An NFA was issued on August 7th, 2020, preceded by the receipt of the NRP on August 3rd, 2020. The NFA states that the soil contamination exceeds residential MSCCs, and the groundwater contamination exceeds 2L standards.

#14303 WA-1225 Charlton Mitchell Property: Prior to 2004, a UST was removed from the site (unspecified substance and capacity) where contamination was discovered. An NFA was issued on July 19th, 2013, with an NRP filed the same day. The NFA states that the soil and groundwater contamination are “above applicable standards.”

#14294 WA-1222 Midway Grocery: Prior to 2001, an unknown number of USTs (unspecified substance and capacity) were removed, where contamination was discovered. The NFA is not available on Laserfiche with the rest of the documents, however the site close-out is listed in the database as November 6th, 2014, preceded by a land-use restriction on November 1st, 2014.

#23285 WA-2027 A: In 2001, one (1) 280-gallon tank of gasoline was removed from the site and contamination was discovered. An NFA was issued on June 6th, 2002, preceded by an NRP filed on May 29th, 2002. The NFA states that the soil does not exceed residential MSCCs, however the groundwater contamination does exceed 2L standards.

City of New Bern

Well #3

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



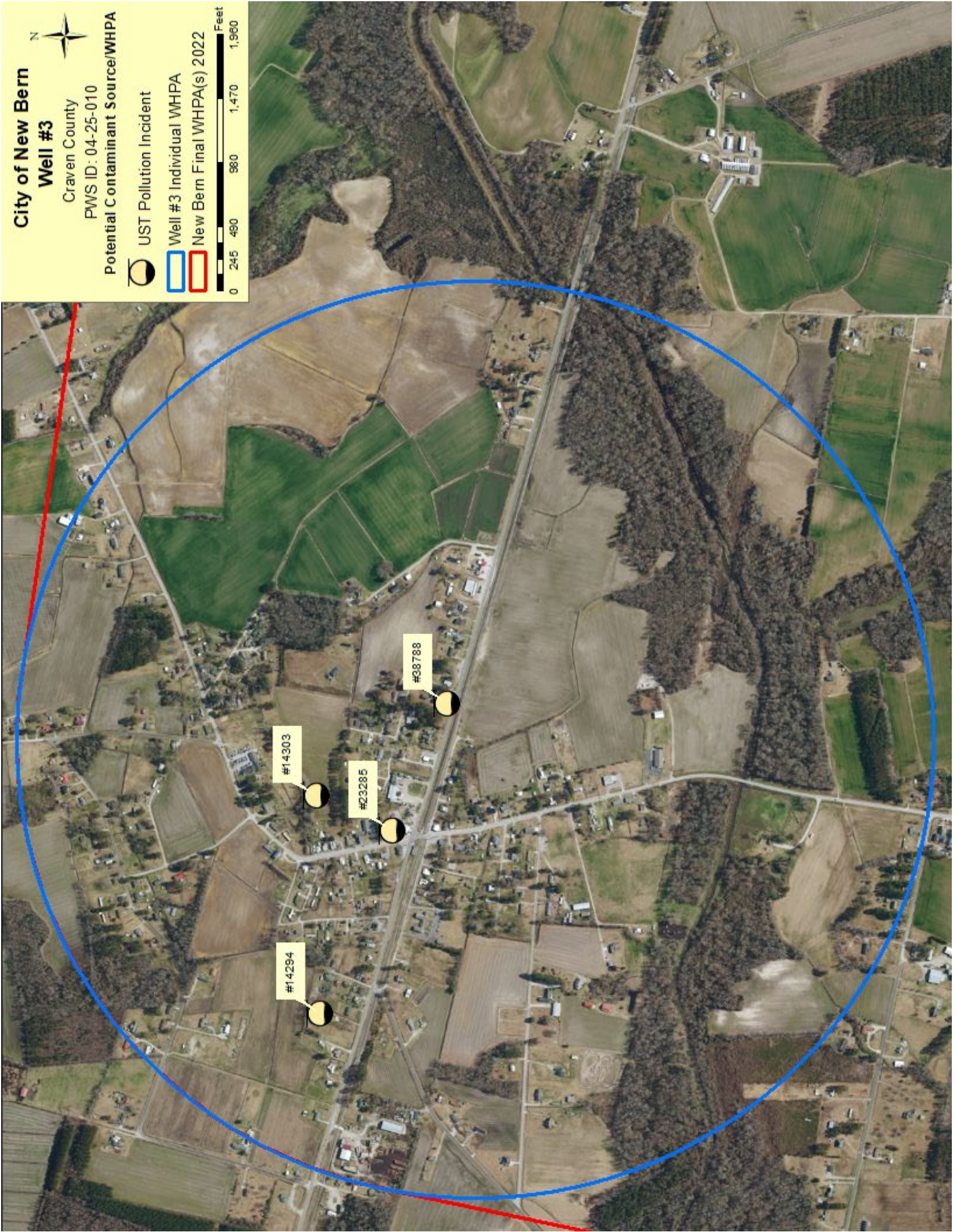
UST Pollution Incident



Well #3 Individual WHPA



New Bern Final WHPA(s) 2022



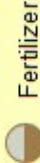
City of New Bern

Well #3

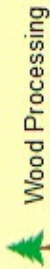
Craven County

PWS ID: 04-25-010

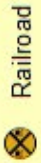
Potential Contaminant Source/WHPA



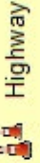
Fertilizer



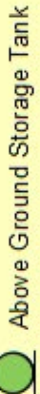
Wood Processing



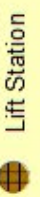
Railroad



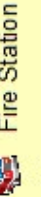
Highway



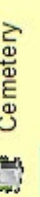
Above Ground Storage Tank



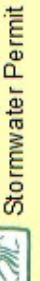
Lift Station



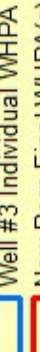
Fire Station



Cemetery



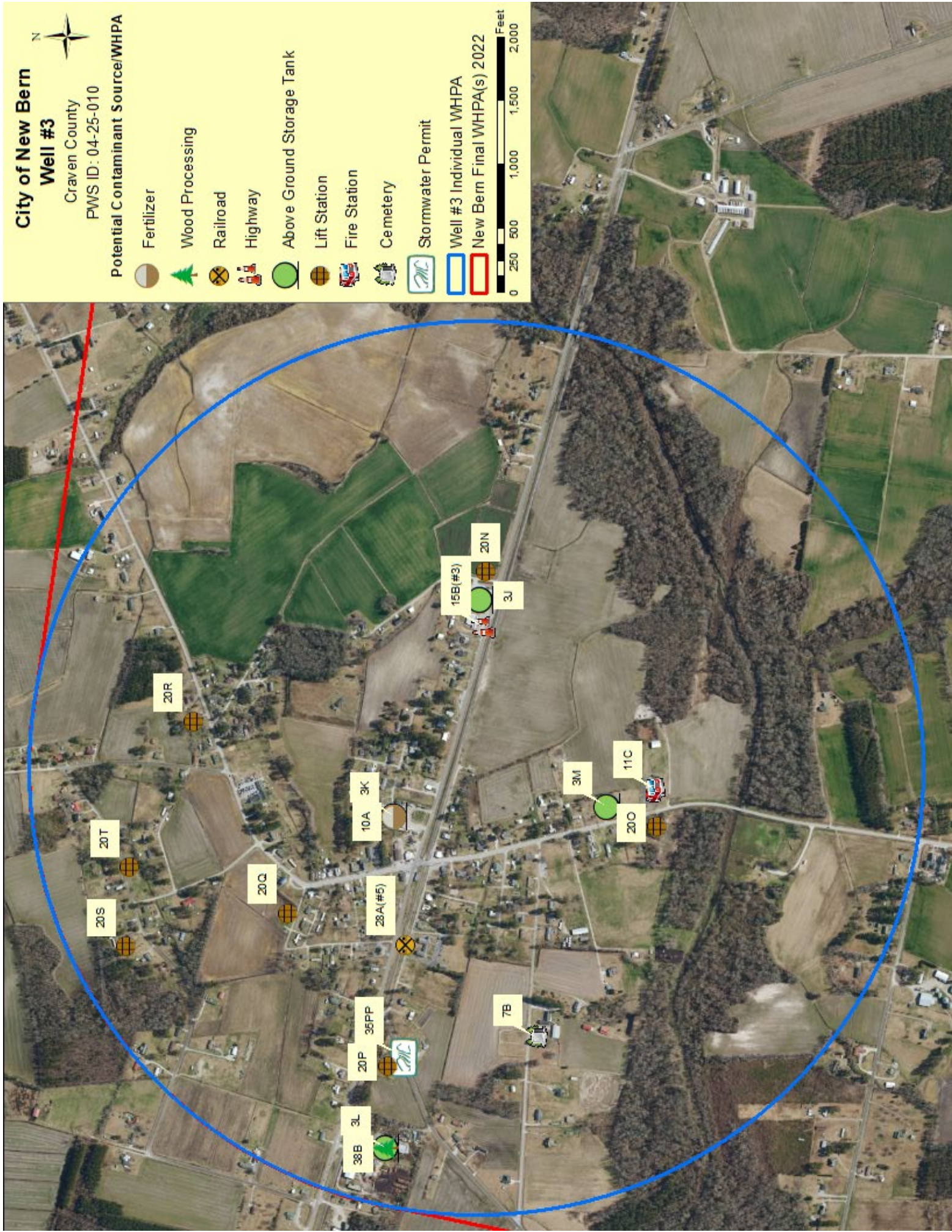
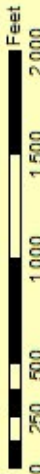
Stormwater Permit



Well #3 Individual WHPA



New Bern Final WHPA(s) 2022



WELL 4			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
N/A	Cove City Well #4	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons max daily
N/A	Cove City Well #5	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons daily max
Moderate Risk Sources			
1B, 3N	450 Willis Rd. Farm	Agricultural Operations, AST	No response to survey. Likely storage house onsite. Three (3) main grain bins onsite. Tanks onsite (2-4 total in view), potential for fuel and/or agricultural chemicals (such as nitrogen)
1C, 3O	476 Willis Rd. Farm	Agricultural Operations, AST	No response to survey. Main building onsite, possible storage. Four (4) main grain bins onsite. Tanks onsite (~6), potential for fuel and/or agricultural chemicals (such as nitrogen). Farm equipment lined up near rear of parcel.
20O	Cove City Lift Station #1	Lift Station	*Generator
3M	Cove City Rescue Squad	AST (Potential)	No response to survey. May have either fuel tank or generator.
11C	Cove City Fire Department	Fire Station	No response to survey. Likely to have a firefighting foam, such as A-FFF. Potential for other chemicals, such as gasoline cans. The site would have a motor fleet containing fire trucks and potentially support vehicles.
Lower Risk Sources - None			

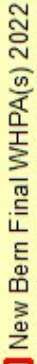
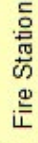
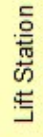
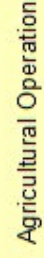
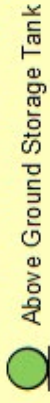
City of New Bern

Well #4

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



WELL 5			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources - None			
Higher Risk Sources			
N/A	Cove City Well #4	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons max daily
N/A	Cove City Well #5	Chemical Storage *Tier II	Sodium Hypochlorite Solution: 4,170 gallons daily max
Moderate Risk Sources			
15F	Highway 70/41 Intersection	Highway	
Lower Risk Sources – None			

Resolved Incidents (Not included in list/map/risk assessment):

#19690 WA-1713 Evans Seafood Company: Close-out in 1999.

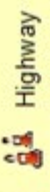
City of New Bern

Well #5

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



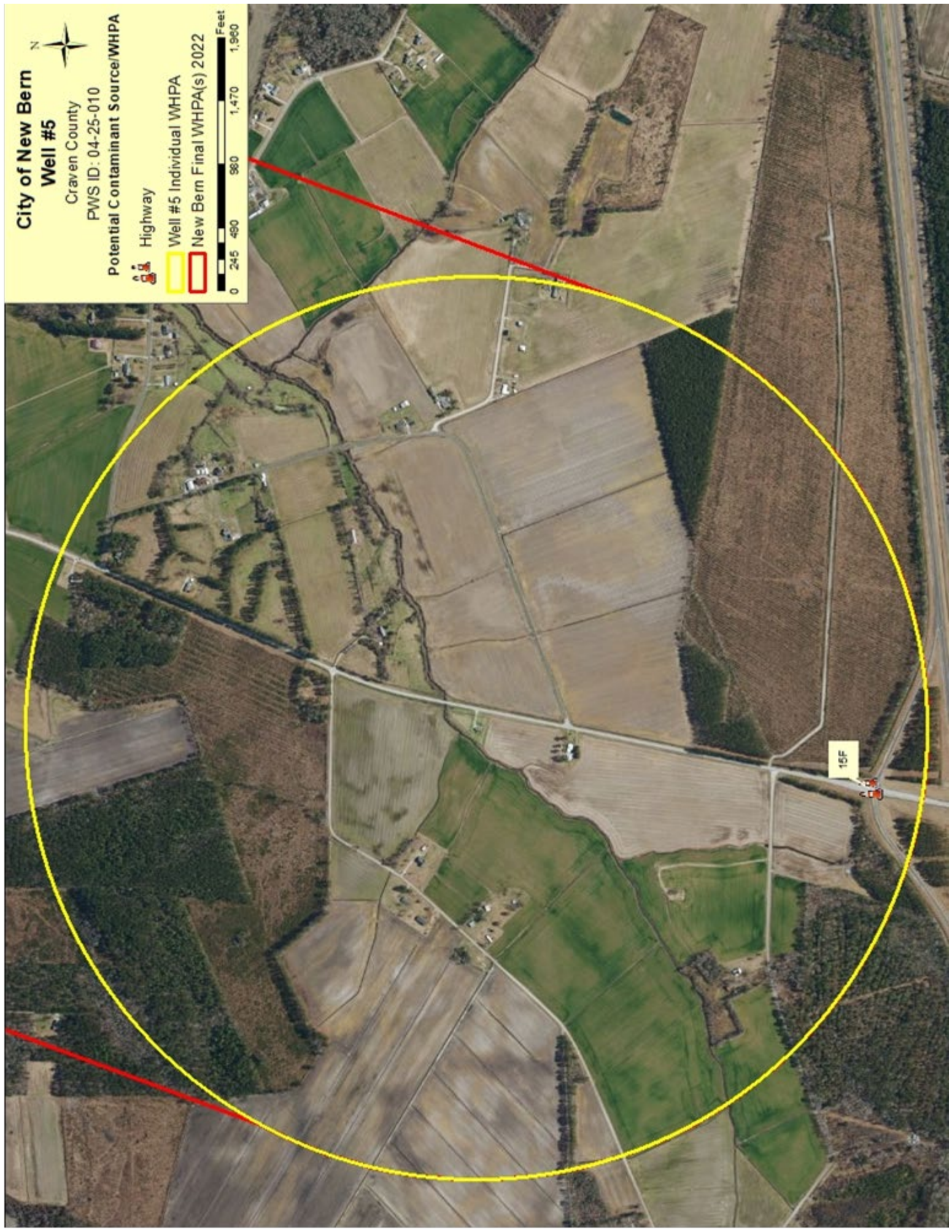
Highway



Well #5 Individual WHPA



New Bern Final WHPA(s) 2022



Outer/Final WHPA			
Map Code	PCS Site	Potential Contaminant	Quantity
Known Risk Sources			
#7143	Mallard Mart #14 (#1) Incident	Pollution Incident	Active
#38641	Speedway 8282	Pollution Incident	Active
#10195	Coca Cola of New Bern	Pollution Incident	Close-out 7/27/2000 (File Lost)
#10464	Coca Cola of New Bern (AST)	Pollution Incident	NFA 7/27/2000 (Cleaned up to level economically feasible)
#38693	Speedway #8275	Pollution Incident	NFA 8/8/2019 (NRP 8/8/2019)
#38521	Handy Mart 53	Pollution Incident	NFA 3/25/2015 (NRP 2/19/2015)
#38776	Family Outreach Church	Pollution Incident	NFA 11/5/2019 (NRP 10/17/2019)
#38429	New Bern Building Supply (Former)	Pollution Incident	NFA 10/21/2013 (NRP 10/18/2013)
#38396	Carebridge Assisted Living	Pollution Incident	NFA 7/22/2013 (NRP 7/19/2013)
#9617	Handy Mart #20 / E.J. Pope	Pollution Incident	NFA 5/7/2001 (Groundwater does not exceed GCLs)
#11657	Clarks County Store	Pollution Incident	NFA 6/13/2005 (NRP 5/5/2005)
#31434	Unicon Block Plant (Former)	Pollution Incident	NFA 3/7/2006 (NRP 2/24/2006)
#11334	Handy Mart #32 / E.J. Pope	Pollution Incident	NFA 5/21/2012 (NRP 5/5/2012)
#11877	Short Stop #6	Pollution Incident	NFA 7/3/2001 (Soil does not exceed TPH action levels and groundwater does not exceed laboratory quantification limits)
#38363	Glenburnie Family Fare #264	Pollution Incident	NFA 6/19/2013 (Soil does not exceed residential MSCCs, however, a few chemicals do exceed soil-to-groundwater MSCCs)
#88142	Harold Watson Waste Oil Service Spill Incident (AST)	Pollution Incident	Active
#87702	Clarks Road Tract (AST)	Pollution Incident	Close-out 3/21/2006 (contamination below regulatory action levels)
#17830	Craven Oil Company (AST)	Pollution Incident	NFA 6/30/2021 (NRP 12/27/2017)

16C	Anthony Scarano Residence	Inactive Hazardous Waste	NONCD0001274, Awaiting evaluation.
Higher Risk Sources			
37B	Speedway #8214	UST *Tier II	Gasoline UST (x3): 10,000-gallon capacity Diesel UST: 8,000-gallon capacity Kerosene UST: 8,000-gallon capacity
3P, 25H, 30A	Sims Metal	Scrap Yard, AST, NCG Permit	Used Gas: 375 gallons Used Oil: 200 gallons Used Antifreeze: 50 gallons Diesel Tank: 270 gallons Hydraulic Fluid Tank: 250 gallons DEF Tank: 100 gallons Car Crusher: 400 gallons NCG030333: New Bern Recycling
9E	Electrical Substation #5	Electrical Substation	
24A	First Light Custom Builders	Metal Fabricator	Survey refusal. Business fabricates custom law enforcement/emergency vehicle equipment.
24B	Full Width Fabrication	Metal Fabricator	Unable to make contact. Business fabricates and welds for off-road vehicles.
4B, 35QQ	O'Reilly Auto Parts	Auto Repair/Sale, Stormwater Permit	Survey refusal. See Advance Auto Parts for likely stock. SW7090607: State Stormwater - HD - Bioretention
4C, 13B, 35RR	Advance Auto Parts (1901 Glenburnie)	Auto Repair/Sale, Hazardous Waste Generator, Stormwater Permit	Mix paint toners: 300 gallons Motor oil: 1500 gallons Batteries: 400 units Used oil: 55 gallons NCR000151670: Car Quest Auto Parts #1119. RCRA NAICS- 44131 Automotive Parts and Accessory Store SW7980818: Napa Auto Store- State Stormwater - HD - Detention Pond
4D	Advance Auto Parts (1210 Glenburnie)	Auto Repair/Sale	Motor oil: 300 gallons Batteries: 350 batteries Used oil: 55 gallons

4E	Mike's Tire and Auto	Auto Repair/Sale	Motor oil: 50 gallons Used oil: 500 gallons Transmission fluid: 20 gallons Batteries: 10 Tires: 300
4F	Pecheles Honda	Auto Repair/Sale	No response to survey. Car sales lot that likely performs maintenance. Likely to contain motor oil, used oil, batteries, tires, anti-freeze, transmission fluid, and a variety of car parts.
4G	Jason Roach Auto Parts	Auto Repair/Sale	Unable to contact owner. Site is an auto repair facility located inside of a commercial storage unit. Please view PCS quantities for other auto repair/sales sites in the area for estimate.
4H	Jiffy Lube	Auto Repair/Sale	Motor oil: 1,500 gallons Waste oil: 300 gallons Anti-freeze: 160 gallons Transmission fluid: 150 gallons Axle grease: 150 gallons
4I	VZF Racing Co.	Auto Repair/Sale	Survey refusal. Potentially moving in the near future. Please view PCS quantities for other auto repair/sales sites in the area for estimate.
4J	Martin Auto	Auto Repair/Sale	Oil in a drum: 6 gallons
4K	White's Tire Service	Auto Repair/Sale	Survey refusal. Please view PCS quantities for other auto repair/sales sites in the area for estimate.
4L	Bear City Cycles LLC	Auto Repair/Sale	20W-50 Synthetic Oil: 24-36 quarts
4M	Arnold Automotive Inc.	Auto Repair/Sale	Survey refusal. Please view PCS quantities for other auto repair/sales sites in the area for estimate.

4N	Tony's Tires LLC	Auto Repair/Sale	Survey refusal. Please view PCS quantities for other auto repair/sales sites in the area for estimate.
4O	J W Sanders Trucking	Auto Repair/Sale	Def Fluid: 200 gallons Motor oil: 300 gallons Used oil: 200 gallons Batteries: 8 Tires: 30
4P	RZG Motorsports LLC	Auto Repair/Sale	Used oil: 55 gallons
5B	Bear Auto Body	Body Shop	Car paint: unspecified quantity Thinner: unspecified quantity Storage tank (waste): 55 gallons
22K,25I 35SS, 35TT	BSH Home Appliances Corporation	Manufacturer *Tier II, NCG Permit, Stormwater Permit (x2)	Liquid Nitrogen: 24,999 units NAICS Code: 335220 - Major Household Appliance Manufacturing NCG030088: Metal Fabrication Stormwater Discharge COC SW7010908: State Stormwater - HD - Detention Pond SW7001203: State Stormwater - HD - Detention Pond
13C, 34F	Shamrock Environmental Corp.	Hazardous Waste Generator, Storage	Non N92 Water: 40,000 NCR000147678: Small Quantity Generator (SQG) As per 2016 NC DEQ inspection report, the site does not keep hazardous waste; the business functions as a mobile waste operation and transfers waste to the Greensboro facility.
37C	Speedway #8275	UST	(x1) Gasoline UST: 10,000-gallon capacity (x2) Gasoline UST: 6,000-gallon capacity (x1) Diesel UST: 10,000-gallon capacity

37D	Glenburnie Family Fare #264	UST	(x1) Gasoline UST: 12,000-gallon capacity (x1) Gasoline UST: 8,000- gallon capacity (x1) Diesel UST: 6,000- gallon capacity
37E	Fresh Food/New Bern Express	UST	(x1) Gasoline UST: 8,000- gallon capacity (x1) Gasoline UST: 6,000- gallon capacity
37F	Handy Mart 55/Exxon	UST	(x1) Gasoline UST: 20,000-gallon capacity (x1) Gasoline UST: 12,000-gallon capacity
37G	Speedway #8282	UST	(x2) Gasoline UST: 6,000- gallon capacity (x2) Gasoline UST: 4,000- gallon capacity (x1) Gasoline UST: 4,000- gallon capacity
37H	S & Y Market/WC Gas Station	UST	(x2) Gasoline UST: 12,000-gallon capacity (x1) Gasoline UST: 10,000-gallon capacity (x1) Kerosene UST: 10,000-gallon capacity (x1) Diesel UST: 10,000- gallon capacity
37I	Park N Shop	UST	(x2) Gasoline UST: 8,000- gallon capacity (x1) Gasoline UST: 15,000-gallon capacity
37J	Fuel Warehouse	UST *Tier II	(x1) Gasoline UST: 15,000-gallon capacity (x1) Gasoline UST: 5,000- gallon capacity
2C	ABHW Concrete	Asphalt/Concrete/ Cement	Calcium: 200 gallons

2D, 3Q	SRM Concrete/Agros USA	Asphalt/Concrete/ Cement *Tier II, AST	Diesel Tank: 6,000 gallons Tank Bio (Truck Wash): 500 gallons Retarter Tank: 1,500 gallons Calcium Tank: 1,500 gallons Bitumious Coal Ash: 150,000 daily max Concrete Admixture: 49,999 daily max Portland Cement: 732,000 daily max
8G	SuddenLink Telecom/Optimum	Chemical Storage *Tier II	Sulfuric Acid Batteries: 7,800 units (max and daily amount)
34G, 35UU, 37K	Walmart	UST, Storage, Stormwater Permit	Gasoline UST: 15,000- gallon capacity Gasoline UST: 8,000- gallon capacity Diesel UST: 7,000-gallon capacity Cleaning products (Ecolab): 18 gallons SW7131016: State Stormwater - HD - Detention Pond
8H,35VV	New Bern Public Works	Chemical Storage, Stormwater Permit	Round up: 20 gallons Fuel: 20 gallons Mix gas: 20 gallons Hydraulic fluid: 10 gallons Asphalt release: 110 gallons Round up (custom): 5 gallons Tac (asphalt): 300 gallons Brush Killer: 10 gallons Herbicide: 12 gallons SW7050307: City of New Bern Public Works Facility '05- State Stormwater - Alternative Design/HD- Detention Pond
22L	Coca-Cola Bottling Co Cons.	Manufacturer	No response to survey. This site is listed as a manufacturer/beverage distributor online.
18A	Rocky Run LCID	Landfill	Landclearing and Inert Debris landfill. Permit No: 67F

Moderate Risk Sources			
26A	Southeast Signs and Screen printing	Print Shop	No response to survey. Site could use printing ink or other chemicals related to signs and screen printing.
3R, 35WW, 35XX	Craven County Jail	AST (potential), Stormwater Permit	No response to survey. Potential generator located on the site via satellite imagery. SW7070213: State Stormwater - Other SW7070310: State Stormwater - HD - Detention Pond
1D, 39B	MacKilwean Turf Farm	Agricultural Operations, WQ Permit	Round-up: 50 gallons. No other chemicals stored onsite. WQ0017635: Martin Marietta Quarry Reclamation Facility-reclaimed water application
6A	1 st Class Auto & Boat Wash	Car Wash	Owner could not be reached. Refer to Pirates Cove Car Wash for a list of potential chemicals.
6B	Pirates Cove Car Wash	Car Wash	Fusion Bath (red, yellow, blue): 45 gallons Protect 2x: 15 units Infusions Fresh: 5 units Hyper Sheen: 30 units Fusion Wax: 30 units Hi Suds Red: 30 units Fusion Prime: 15 units Ceramic Step 1,2,&3: 90 units Presoak HWS: 30-60 units Crosh Plus: 5 units Glass & Multisurface Cleaner: 5 units AF2010: 15 units Bug remover 2x: unspecified quantity Laundry detergent: 5 units *All products are diamond shine brand

6C	Car Wash	Car Wash	Could not reach owner. Refer to Pirates Cove Car Wash for a list of potential chemicals.
14A	Down East Ace	Hardware Store	Fertilizer: 200lbs Batteries: 1000 Motor Oil: 50 gallons Fuel: 150 gallons Propane: 1000lbs Paint: 300lbs Stain: 100lbs Solvent: 70 units
14B	Harbor Freight Tools	Hardware Store	Spray paint, oil, 2-in-1 fuel, lubricants, grease tubs, and freon: unspecified quantities
14C	Tractor Supply Co.	Hardware Store	Herbicides: unspecified quantity Pesticides: unspecified quantity Automotive oil: unspecified quantity Hydraulic fluid: unspecified quantity Kerosene: unspecified quantity LP Gas
14D	Builders Discount Center	Hardware Store	Paint: 50 gallons Roof Tar: 50 gallons Paint Thinner: 1 gallon Acetone: 7 gallons Caulk product: 50 cases
20U	Lift Station #18	Lift Station	*Generator
20V	Lift Station #25	Lift Station	
20W	Lift Station #26	Lift Station	
20X	Lift Station #28	Lift Station	
20Y	Lift Station #29	Lift Station	*Generator
20Z	Lift Station #35	Lift Station	
20AA	Lift Station #38	Lift Station	
20BB	Lift Station #57	Lift Station	
20CC	Lift Station #66	Lift Station	
20DD	Lift Station #90	Lift Station	
20EE	Lift Station #102	Lift Station	*Generator
20FF	Lift Station #104	Lift Station	*Generator
20GG	Lift Station #109	Lift Station	*Generator
21D	Carolina GSE (Clarks)	Maintenance	No response to survey. This company supplies and repairs aircraft related equipment.

21E	James River Equipment	Maintenance	No response to survey. This company provides sales, parts, and service for construction equipment.
21F	Carolina Tool and Equipment Rental	Maintenance	Gasoline: 25 gallons (In equipment) Diesel: 45 gallons (In equipment) Motor oil: 5 gallons (In shop)
3S, 23A, 35YY	Bayview Nursing Home	AST, Medical/Dental, Stormwater permit	Diesel Generator Green cleaning supplies: unspecified quantity. SW7051206: 10 bed addition – Express- State Stormwater - HD - Detention Pond
29B	Ben D Quinn Elementary School	School	No response to survey. Recreational field present. May use pesticides and herbicides. Potential for AST generator.
29C	New Bern High School	School	No response to survey. Recreational field present. May use pesticides and herbicides. Potential for AST generator.
11D	New Bern Fire Station #1	Fire Station	A-FFF “Fire Bull” Foam: Unspecified quantity Gasoline/mixed fuel: unspecified quantity Fire apparatus: see appendix
Lower Risk Sources			
26B	Advanced Signs and Awnings	Print Shop	Dye: 1 gallon
19A	The Wash House	Laundromat	Laundromats may have detergent/bleach dispensers onsite.
23B	Goshen Medical Center New Bern	Medical/Dental	Basic cleaning supplies: unspecified quantities
23C	Eastern Carolina Women’s Center	Medical/Dental	*See footnote
23D	Coastal Carolina Health Care	Medical/Dental	*
23E	New Bern Surgical Associates PA	Medical/Dental	No response to survey.
23F	Coastal Children's Clinic - Pediatrics	Medical/Dental	*
23G	CCNC Urology	Medical/Dental	*
23H	CCHC Atlantic Internal Medicine	Medical/Dental	*
23I, 35ZZ,	Carolina Orthopedics	Medical/Dental,	*

35AAA		Stormwater Permit	SW7011202: Armistead Orthopedic Office / Rehab Clinic- State Stormwater - HD – Bioretention SW7160703: Carolina Orthopedics & Sport Medicine # 2- State Stormwater - HD - Infiltration
23J, 35BBB	CCHC Heart and Vascular Specialists	Medical/Dental, Stormwater Permit	No response to survey. SW7100907: Cardiac, Thoracic & Vascular Associates- State Stormwater - HD - Detention Pond
23K	Coastal Pediatric Dentistry	Medical/Dental	*
23L	CarolinaEast Physicians	Medical/Dental	*
23M	Nephrology Care of New Bern	Medical/Dental	*
23N	CarolinaEast Heart Center	Medical/Dental	*
23O, 35CCC	Southern Gastro Associates	Medical/Dental, Stormwater Permit	Basic Cleaning Supplies: Unspecified quantity SW7990308: Carolina Physicians - Wellons Ctr- State Stormwater - HD - Detention Pond
23P, 35DDD	CarolinaEast Ear Nose & Throat	Medical/Dental, Stormwater Permit	No response to survey. SW7990418: Wellons Ctr - Parc. 2A22A32A42A5- State Stormwater - HD - Detention Pond
23Q	CCHC Twin Rivers Family Practice	Medical/Dental	*
23R, 35EEE	East Carolina Dermatology and Skin Surgery, PLLC	Medical/Dental, Stormwater Permit	All Natural Cleaning Supplies: Unspecified quantity SW7061107: Kenneth L. Klein- State Stormwater - HD - Detention Pond
23S, 35FFF	Coastal Oral and Maxillofacial Surgery	Medical/Dental, Stormwater Permit	* SW7061106: Drs. Johnson & Foley, PA- State Stormwater - HD - Detention Pond
23T, 35GGG	Rankin and Flume Orthodontics	Medical/Dental, Stormwater Permit	* SW7061105: Todd H. Rankin, DDS- State Stormwater - HD - Detention Pond
23U, 35HHH	Coastal Carolina Foot & Ankle	Medical/Dental, Stormwater Permit	* SW7961006: Coastal Bone & Joint Medical Suites- State Stormwater - HD - Detention

			Pond
23V, 35III	New Bern Anesthesia Associates/Surgery Pa	Medical/Dental, Stormwater Permit	No response to survey. SW7960703: New Bern Surgery Center- State Stormwater - HD - Detention Pond
23W	Kincaid & Purvis Family Dentistry and Implants	Medical/Dental	Survey refusal Dentist offices will likely contain similar PCSs to medical facilities. A dental office may also dispose of mercury amalgam fillings.
23X	CarolinaEast Diagnostic Center	Medical/Dental	*
23Y	CCHC Craven Podiatry	Medical/Dental	*
23Z	Brookdale New Bern (Assisted living)	Medical/Dental	*
23AA	Gardens of Trent/Carebridge Assisted Living	Medical/Dental	*
23BB	CCHC Primary Care	Medical/Dental	Degreaser: Unspecified quantity Basic Cleaning Supplies: Unspecified quantity
23CC	McCarthy Dental	Medical/Dental	*
23DD	Kenneth E. Holton, Dds, Pa	Medical/Dental	*
34H	Tarheel Building Systems	Storage	No response to survey. This site is a general contractor/construction company site. Construction materials are present outside of the building and other materials may be stored onsite.
34I, 35JJJ	United Storage – Storaway Center	Storage, Stormwater	Est. ~250 units. SW7170103: Stor-A-Way Storage Units - Ph I & II- State Stormwater - HD - Detention Pond
34J, 35KKK	Craven Maxi Storage	Storage, Stormwater Permit	Est. ~33 larger sized units. SW7991119: Craven Maxi Storage- State Stormwater - HD - Detention Pond
34K, 35LLL	Jimmies Creek Maxi Storage	Storage, Stormwater Permit	Est. ~80 larger sized units SW7090814: Jimmies Creek Maxi-Storage- State Stormwater - HD - Detention Pond
34L	Tryon Storage	Storage	Est. ~60 units
34M	Valley Storage	Storage	Est. ~75 units
34N	Prime Storage	Storage	Est. ~330 units
34O	New Bern Self Storage	Storage	Est. ~80 units

35MMM	NCDOT - NC 43 Connector (Bosch Blvd)	Stormwater Permit	SW7070609: NCDOT - NC 43 Connector (Bosch Blvd)- State Stormwater - Other
35NNN	Westport (SW)	Stormwater Permit	SW7061203: Westport- State Stormwater - HD - Detention Pond
35OOO	Taylor Land (SW)	Stormwater Permit	SW7060628: Taylor Land- State Stormwater - General Permit
35PPP	West Cross Roads (SW)	Stormwater Permit	SW7060107: West Cross Roads- State Stormwater - HD - Detention Pond
35QQQ	Without Limits Christian Center (SW)	Stormwater Permit	SW7100609: Without Limits Christian Center- State Stormwater - HD - Detention Pond
35RRR	VOA Elderly Housing (SW)	Stormwater Permit	SW7961015: VOA Elderly Housing- State Stormwater - HD - Detention Pond
35SSS	Dollar General - New Bern (SW)	Stormwater Permit	SW7101211: Dollar General - New Bern- State Stormwater - Exclusion
35TTT	Pinecrest Estates (SW)	Stormwater Permit	SW7071016: Pinecrest Estates- State Stormwater - HD - Detention Pond
35UUU	3401 Neuse Blvd. (SW)	Stormwater Permit	SW7050630: 3401 Neuse Blvd.- State Stormwater - HD - Detention Pond
35VVV	Colony Trade Center (SW)	Stormwater Permit	SW7970311: Colony Trade Center- State Stormwater - HD - Detention Pond
35WWW	Fairview Apartments (SW)	Stormwater Permit	SW7990321: Fairview Apartments- State Stormwater - HD - Detention Pond
35XXX	Whitfield Landing (SW)	Stormwater Permit	SW7070724: Whitfield Landing- State Stormwater - HD - Detention Pond
35YYY	Wendy's – New Bern (SW)	Stormwater Permit	SW7120308: Wendy's – New Bern- State Stormwater - Exclusion
35ZZZ	Tryon Center (SW)	Stormwater Permit	SW7060603: Tryon Center- State Stormwater - HD - Detention Pond
35AAAA	Sterling House - New Bern (SW)	Stormwater Permit	SW7970708: Sterling House - New Bern- State Stormwater - HD - Detention Pond
35BBBB	The Reserve at Glenburnie (SW)	Stormwater Permit	SW7071109: The Reserve at Glenburnie- State

			Stormwater - HD - Detention Pond
35CCCC	Tryon Palace History Education & Visitor Center (SW)	Stormwater Permit	SW7010803: Tryon Palace History Education & Visitor Center- State Stormwater - Other
35DDDD	Axelson Properties (SW)	Stormwater Permit	SW7091214: Axelson Properties- State Stormwater - HD - Sand filters
35EEEE	Sun Journal (SW)	Stormwater Permit	SW7960908: Sun Journal- State Stormwater - HD - Detention Pond
35FFFF	Cardinal Leasing Services (SW)	Stormwater Permit	SW7220104: Cardinal Leasing Services- State Stormwater
35GGGG	Copperfield Apartments (SW)	Stormwater Permit	SW7980118: Copperfield Apartments- State Stormwater - HD - Detention Pond
35HHHH	Andrew Farm Solar Energy System (SW)	Stormwater Permit	SW7150505: Andrew Farm Solar Energy System- State Stormwater - Low Density
35IIII	Lake Tyler - Force Main Construction (SW)	Stormwater Permit	SW7080915: Lake Tyler - Force Main Construction- State Stormwater - General Permit
35JJJJ	Lake Tyler – SW (SW)	Stormwater Permit	SW7070514: Lake Tyler – SW- State Stormwater - HD - Other
35KKKK	Gracie Farm Mobile Home Park (SW)	Stormwater Permit	SW7140502: Gracie Farm Mobile Home Park- State Stormwater - Low Density
35LLLL	McNaughton-McKay Electric Company (SW)	Stormwater Permit	SW7980523: McNaughton-McKay Electric Company- State Stormwater - HD - Detention Pond
35MMMM	Hardees of New Bern	Stormwater Permit	SW7160608: Hardees of New Bern- State Stormwater - HD - Detention Pond
35NNNN	State Employees' Credit Union - New Bern - Elizabeth Ave	Stormwater Permit	SW7170107: State Employees' Credit Union - New Bern - Elizabeth Ave- State Stormwater - Low Density
35OOOO	Jimmies Creek Commercial Park, Parcel B	Stormwater Permit	SW7041014: Jimmies Creek Commercial Park, Parcel B- State Stormwater - HD - Detention Pond/Other
35PPPP	Arbor Green	Stormwater Permit	SW7051109: Arbor Green- State Stormwater - HD -

			Detention Pond
35QQQQ	Amhurst Place	Stormwater Permit	SW7061201: Amhurst Place- State Stormwater - HD - Detention Pond

*Since medical/dental centers are considered low risk PCS sites and since the city contained a large concentration of facilities, a representative sample of medical/dental locations were selected to be surveyed inside of the WHPA(s). This site was not selected; however, it would likely contain similar PCSs to the surveyed group.

#7143 (Same as #10942) WA-355 Mallard Mart #14 (#1) (Active): In 1993, a release from a deteriorated UST system containing five (5) USTs (one (1) 2,000-gallon gasoline tank, three (3) 6,000-gallon gasoline tanks, and one (1) 7,500-gallon gasoline tank) was discovered. The site is currently active. An LSA was compiled on September 10th, 2022, which stated that an MMPE event was conducted recently for the site. Sampling was conducted in April of 2022 and contamination consistent with gasoline constituents exceeding 2L standards was detected in several Type-II monitoring wells. The most recent available document is an October 14th, 2022, NORR, which states that groundwater contamination and free product are still present on the site.

#38641 WA-27480 Speedway 8282 (Active): The site has five (5) current USTs (two (2) 6,000-gallon gasoline tanks, two (2) 4,000-gallon gasoline tanks, and one (1) 4,000 gallon-diesel tank) and this incident is considered active. An NRP was filed for this location previously on December 27th, 2017. The site is currently considered an intermediate risk due to the presence of free product. The most recent available report, the CSA for March-April 2022, recommends the installation of an oil-sorbent sock in MW-8 to remove free product and for additional 2022 sampling.

#88142 WA-88142 Harold Watson Waste Oil Service Spill Incident (AST) (Active): This incident occurred in 1989 and is still active. Very little information was available for the incident. A lab chain of custody and lab results from 1989 were present. The lab results indicate that several benzene compounds were present, as well as a few naphthalene compounds. There were also chemicals present that were not identified at the time. The last file available includes handwritten notes indicating that part of the contamination was from a company named A.J. Ballard., while there was product from another source at the associated ditch bank near the highway.

#11657 WA-882 Clarks County Store: In 1993, a release was discovered at the site of six (6) USTs (one (1) 750-gallon gasoline tank, two (2) 550-gallon gasoline tanks, one (1) 1,000-gallon gasoline tank, one (1) 4,000-gallon diesel tank, and one (1) unknown tank). An NFA was issued on June 13th, 2005, preceded by an NRP filed on May 5th, 2005. The NFA states that soil contamination does not exceed residential MSCCs, but the groundwater contamination does exceed 2L standards.

#38429 WA-27265 New Bern Building Supply (Former): An NFA was issued on October 21st, 2013, preceded by an NRP received on October 18th, 2013. The UST specifics of the site were unavailable.

#11334 WA-829 Handy Mart #32 / E.J. Pope: In 1995, five (5) 4,000-gallon gasoline USTs were removed from the site following a release. An NFA was issued on May 21st, 2012, preceded by an NRP received on May 5th, 2012. The NFA states that the soil contamination exceeds residential MSCCs, and the groundwater contamination exceeds 2L standards.

#38396 WA-27231 Carebridge Assisted Living: In 2013, a compromised 550-gallon heating oil tank was removed from the site. An NFA was issued on July 22nd, 2013, preceded by an NRP received on July 19th, 2013.

#9617 WA-663 Handy Mart #20 / E.J. Pope: In 1992, eight (8) USTs (six (6) 4,000-gallon gasoline tanks and two (2) 8,000-gallon gasoline tanks) were slated for permanent closure and signs of contamination were determined. An NFA was issued on May 7th, 2001. The NFA states that the soil contamination does not exceed MSCCs, however the Soil Cleanup Report states that groundwater contamination levels do not exceed GCLs but do exceed 2L standards.

#38521 WA-27343 Handy Mart 53: Contamination was discovered in 2014 originating from a system of three (3) USTs (two (2) 8,000-gallon gasoline tanks and one (1) 15,000-gallon gasoline tank). An NFA was issued on March 25th, 2015, preceded by an NRP received on February 19th, 2015. The NFA states that groundwater contamination exceeds 2L standards.

#38776 WA-27645 Family Outreach Church: The site contained a two (2) UST system (one (1) 2,000-gallon gasoline tank, and one (1) 1,000-gallon gasoline tank). An NFA was issued on November 5th, 2019, preceded by an NRP received on October 17th, 2019. The NFA states that the soil contamination exceeds MSCCs, and the groundwater exceeds 2L standards.

#10195 WA-733 Coca Cola of New Bern: Close-out on July 27th, 2000. A comment on the database states that the file is lost.

#10464 WA-88297 Coca Cola of New Bern: Incident reported in 1992. A grease trap and a septic system produced petroleum and chlorinated solvent contamination. An NFA was issued on July 27th, 2000, stating that there was no longer any free product at the site and that the site was cleaned up to the level that was economically feasible.

#11877 WA-910 Short Stop #6: In 1993, four (4) USTs (two (2) 4,000-gallon gasoline tanks and two (2) 3,000-gallon gasoline tanks) were removed from the site and contamination was discovered. An NFA was issued on July 3rd, 2001. The NFA states that the soil contamination does not exceed TPH action levels, and the groundwater contamination does not exceed the laboratory's quantitation limits.

#31434 WA-26173 Unicon Block Plant (Former): In 2001, a Phase I ESA identified pollution at multiple areas of the site, which included one (1) fuel oil UST (no size indication), one (1) 10,000-gallon diesel UST, one (1) 8,000-gallon diesel UST, one (1) 10,000-gallon fuel oil UST, one (1) 500 gallon AST, one (1) 1,000 gallon diesel AST, and some other areas previously associated with tanks or vehicles. An NFA was issued on March 7th, 2006, preceded by an NRP received on February 24th, 2006. The NFA states that the soil contamination exceeds residential MSCCs, and the groundwater contamination exceeds 2L standards.

#38693 WA-27544 Speedway #8275: Contamination was discovered at the site of a four (4) UST system (two (2) 6,000-gallon gasoline tanks and two (2) 10,000-gallon gasoline tanks). An NFA was issued on August 8th, 2019, on the same day that the NRP was received. The NFA states that the soil contamination does not exceed residential MSCCs, but the groundwater contamination does exceed 2L standards.

#38363 WA-27198 Glenburnie Family Fare #264 (Related to BP): A release was caused by a malfunctioning auto-shutoff feature on a gas pump, which resulted in between 25 to 40 gallons of gasoline being spilled. Site listed in the database as soil contamination. An NFA was issued on June 19th, 2013, stating that the soil contamination does not exceed residential MSCCs; however, a few chemicals are above soil-to-groundwater MSCCs as per the May 8th, 2013, *Site Check Addendum Report*.

#87702 WA-88140 Clarks Road Tract (AST): This site was an area primarily utilized for agricultural activities which contained drums and ASTs. There were six sampled areas of concern on the site and analytical tests detected carbon disulfide and ethylbenzene above laboratory reporting limits. These

levels were below regulatory action levels. A letter dated March 21st, 2006, states that the WaRO would not require additional assessment at the time.

#17830 WA-17830 Craven Oil Company (AST): This site originally contained AST contamination and some offsite contamination. The site was being monitored for natural attenuation until contamination from the #38641 Speedway 8282 incident was also detected onsite. An NFA was issued on June 30th, 2021, and the NRP for incident #38641 was received on December 17th, 2017, which accounted for the soil and groundwater contamination onsite.

Resolved Incidents (Not included in list/map/risk assessment):

#9138 WA-614 Cargill-Nutrena Feeds-Clarks: Close-out in 1997.

#11203 WA-126 Goldman Salvage: Close-out in 1990.

#7819 WA-500 Ben's Convenience Store: Close-out in 1992.

#47368 WA-28103 Speedway #8214: A spill occurred from malfunctioning spill buckets on two (2) USTs (one (1) 10,000-gallon gasoline tank and one (1) 8,000-gallon diesel tank). The incident is listed only as "soil." An NFA was issued on February 8th, 2021, stating that the soil contamination does not exceed the lower of the maximum soil contaminant concentrations.

#7804 WA-487 Tarmac Inc. Of New Bern: Close-out in 1992.

#3260 WA-36 Ready Mix/Stevenson Brick: Close-out in 1986.

#14276 WA-1218 Coble Dairy: Close-out in 1996.

#3743 WA-77 Scotchman Store #111: Close-out in 1998.

#38437 WA-27273 Wilco Hess 1853 (see also 38641 WA-27480): A release occurred at the site of a five (5) UST system (two (2) 6,000-gallon gasoline tanks, two (2) 4,000-gallon gasoline tanks, and one (1) 4,000-gallon diesel tank). An NFA was issued on September 5th, 2014, stating that the soil contamination does not exceed the lower of the maximum soil contaminant concentrations and groundwater does not exceed 2L standards.

#31563 WA-26363 Glenburnie Road BP: In 2006, a UST system closure occurred at the site involving four (4) USTs (three (3) 10,000-gallon gasoline tanks and one (1) 10,000-gallon diesel tank), during which contamination was discovered. An NFA was issued on February 15th, 2008, stating that the soil contamination does not exceed the lower of the maximum soil contaminant concentrations and groundwater does not exceed 2L standards.

City of New Bern Outer/Final WHPA

Craven County

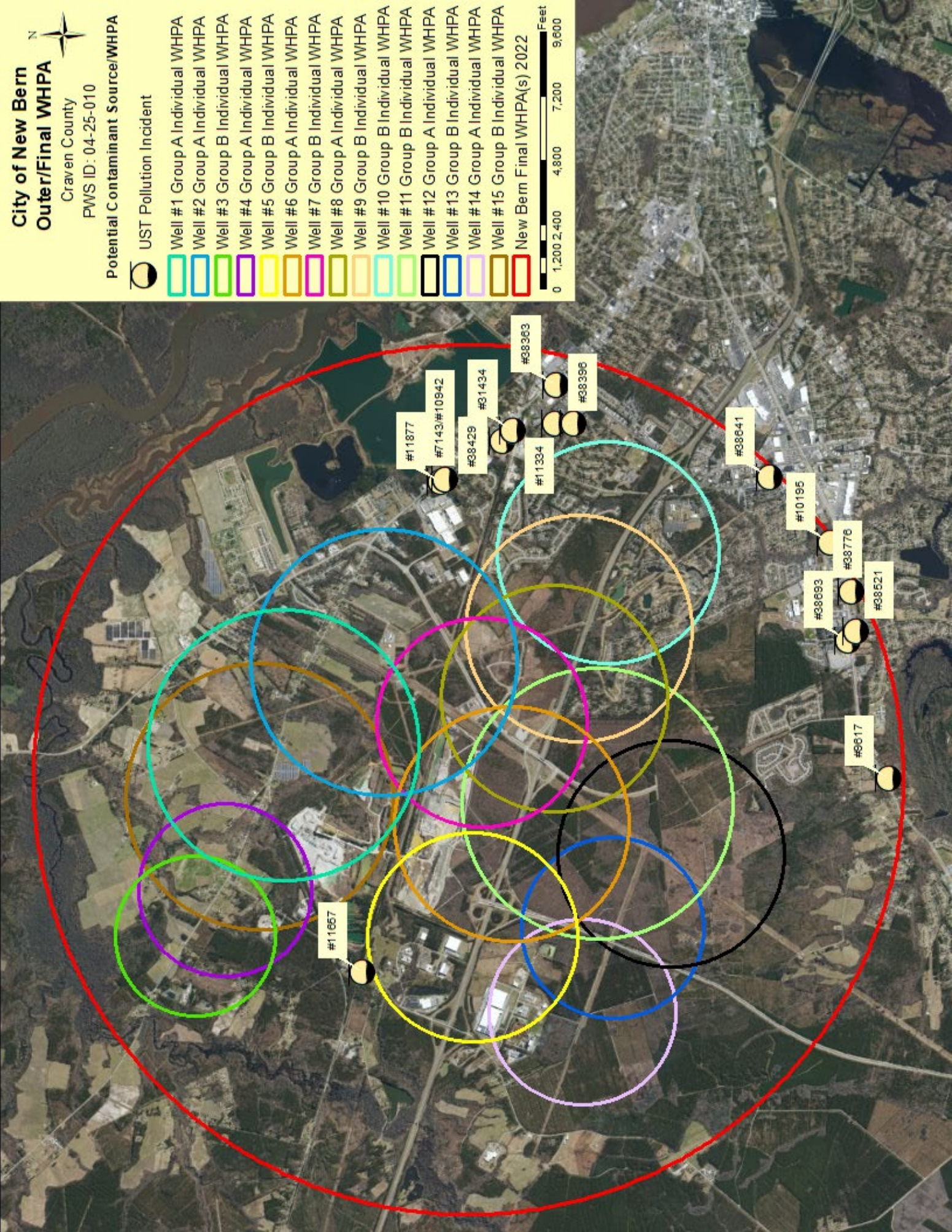
PWS ID: 04-25-010

Potential Contaminant Source/WHPA



UST Pollution Incident

- Well #1 Group A Individual WHPA
- Well #2 Group A Individual WHPA
- Well #3 Group B Individual WHPA
- Well #4 Group A Individual WHPA
- Well #5 Group B Individual WHPA
- Well #6 Group A Individual WHPA
- Well #7 Group B Individual WHPA
- Well #8 Group A Individual WHPA
- Well #9 Group B Individual WHPA
- Well #10 Group B Individual WHPA
- Well #11 Group B Individual WHPA
- Well #12 Group A Individual WHPA
- Well #13 Group B Individual WHPA
- Well #14 Group A Individual WHPA
- Well #15 Group B Individual WHPA
- New Bern Final WHPA(s) 2022

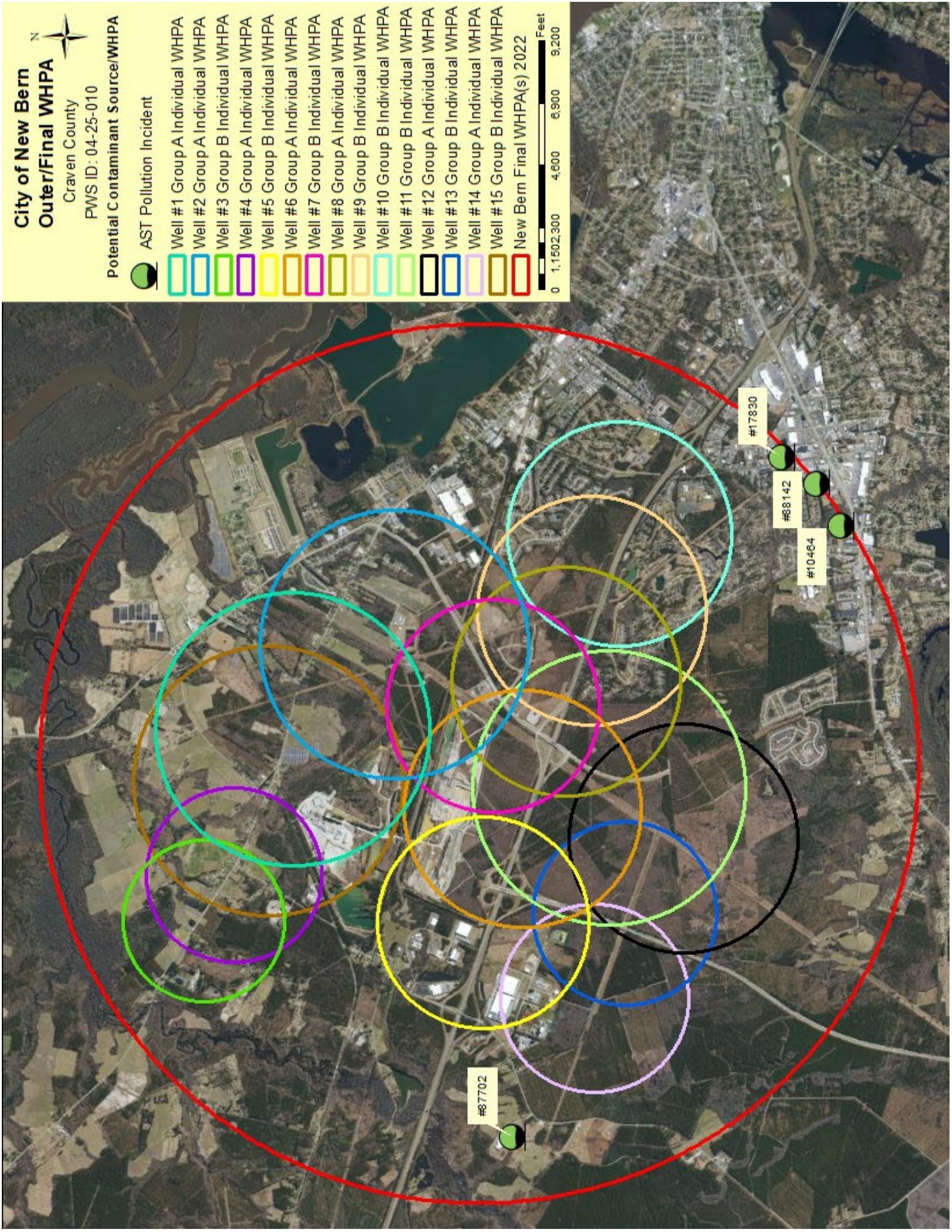


City of New Bern
Outer/Final WHPA
 Craven County
 PWS ID: 04-25-010



Potential Contaminant Source/WHPA

- AST Pollution Incident
- Well #1 Group A Individual WHPA
- Well #2 Group A Individual WHPA
- Well #3 Group B Individual WHPA
- Well #4 Group A Individual WHPA
- Well #5 Group B Individual WHPA
- Well #6 Group A Individual WHPA
- Well #7 Group B Individual WHPA
- Well #8 Group A Individual WHPA
- Well #9 Group B Individual WHPA
- Well #10 Group B Individual WHPA
- Well #11 Group B Individual WHPA
- Well #12 Group A Individual WHPA
- Well #13 Group B Individual WHPA
- Well #14 Group A Individual WHPA
- Well #15 Group B Individual WHPA
- New Bern Final WHPA(s) 2022



City of New Bern Outer/Final WHPA

Craven County

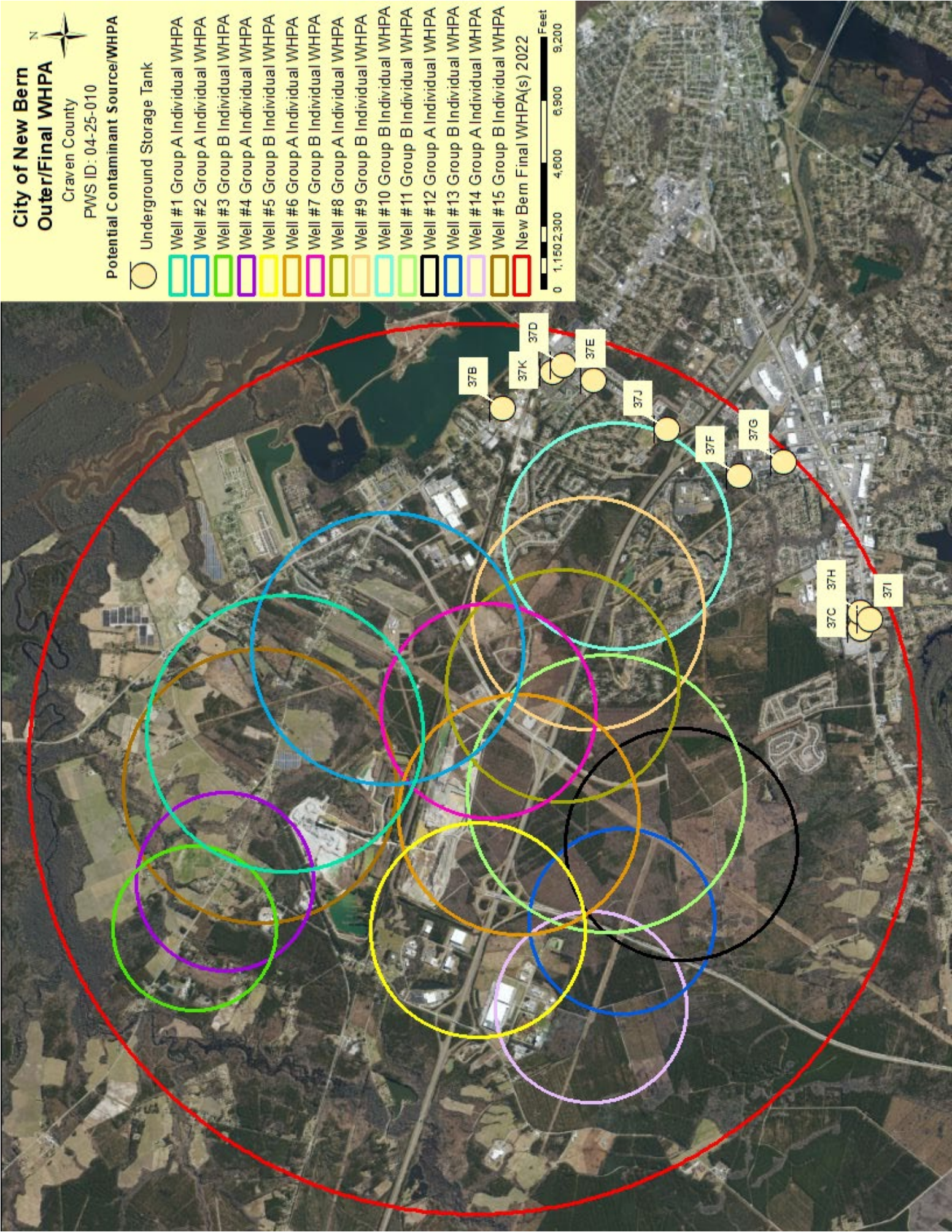
PWS ID: 04-25-010



Potential Contaminant Source/WHPA

Underground Storage Tank

- Well #1 Group A Individual WHPA
- Well #2 Group A Individual WHPA
- Well #3 Group B Individual WHPA
- Well #4 Group A Individual WHPA
- Well #5 Group B Individual WHPA
- Well #6 Group A Individual WHPA
- Well #7 Group B Individual WHPA
- Well #8 Group A Individual WHPA
- Well #9 Group B Individual WHPA
- Well #10 Group B Individual WHPA
- Well #11 Group B Individual WHPA
- Well #12 Group A Individual WHPA
- Well #13 Group B Individual WHPA
- Well #14 Group A Individual WHPA
- Well #15 Group B Individual WHPA
- New Bern Final WHPA(s) 2022

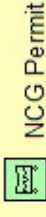
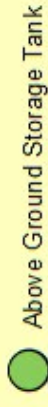
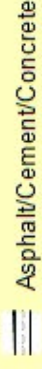
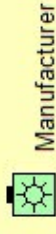
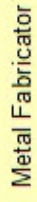
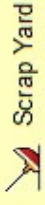


City of New Bern Outer/Final WHPA

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



Well #1 Group A Individual WHPA

Well #2 Group A Individual WHPA

Well #3 Group B Individual WHPA

Well #4 Group A Individual WHPA

Well #5 Group B Individual WHPA

Well #6 Group A Individual WHPA

Well #7 Group B Individual WHPA

Well #8 Group A Individual WHPA

Well #9 Group B Individual WHPA

Well #10 Group B Individual WHPA

Well #11 Group B Individual WHPA

Well #12 Group A Individual WHPA

Well #13 Group B Individual WHPA

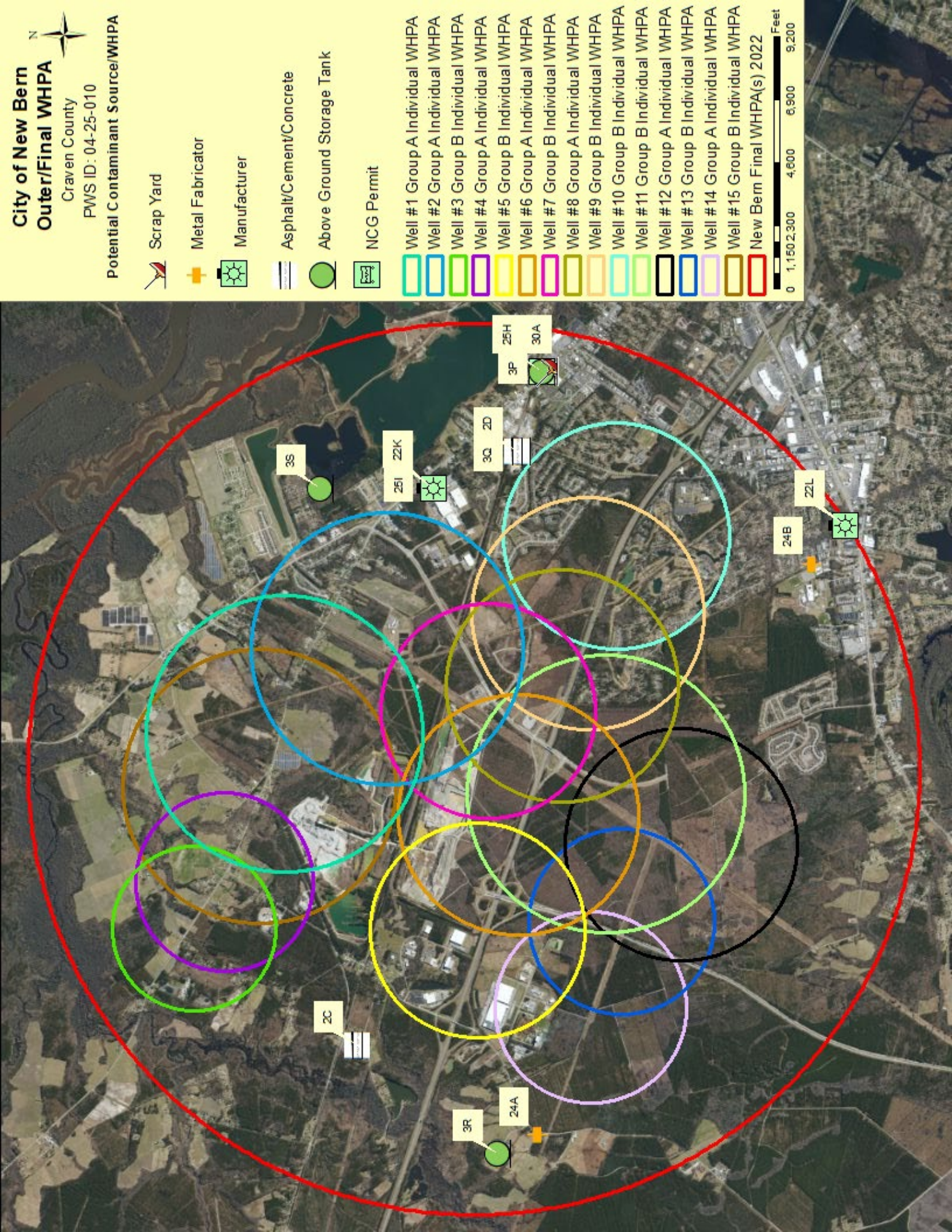
Well #14 Group A Individual WHPA

Well #15 Group B Individual WHPA

New Bern Final WHPA(s) 2022

0 1,150,2,300 4,600 6,900 9,200

Feet



City of New Bern Outer/Final WHPA













Craven County

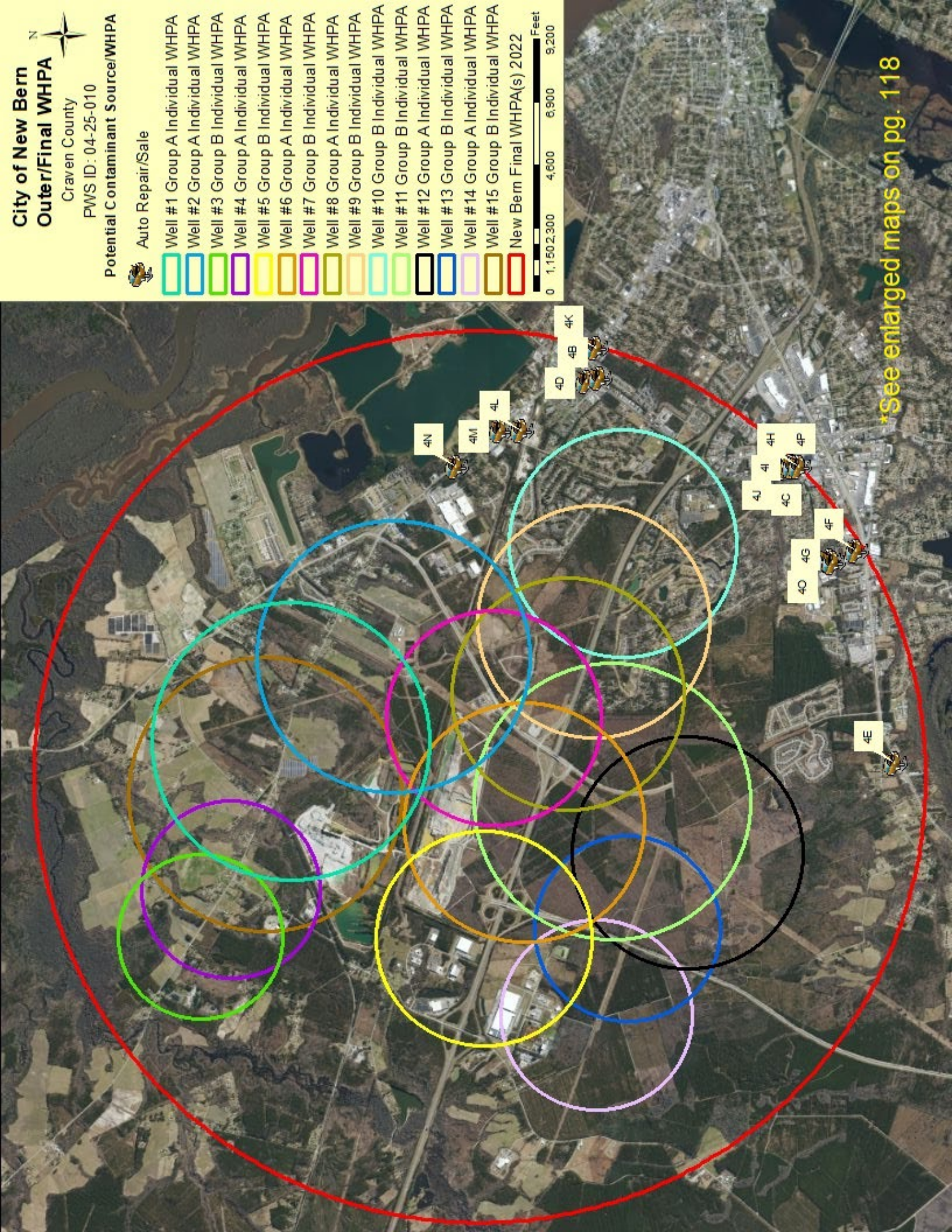
PWS ID: 04-25-010

Potential Contaminant Source/WHPA



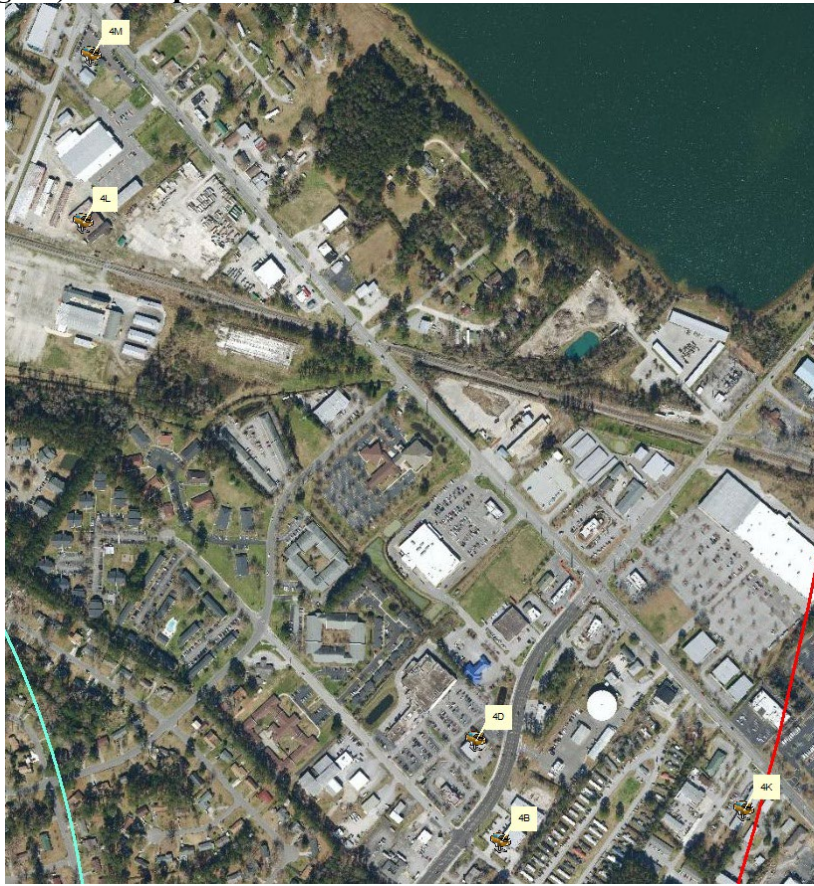
Auto Repair/Sale

-  Well #1 Group A Individual WHPA
-  Well #2 Group A Individual WHPA
-  Well #3 Group B Individual WHPA
-  Well #4 Group A Individual WHPA
-  Well #5 Group B Individual WHPA
-  Well #6 Group A Individual WHPA
-  Well #7 Group B Individual WHPA
-  Well #8 Group A Individual WHPA
-  Well #9 Group B Individual WHPA
-  Well #10 Group B Individual WHPA
-  Well #11 Group B Individual WHPA
-  Well #12 Group A Individual WHPA
-  Well #13 Group B Individual WHPA
-  Well #14 Group A Individual WHPA
-  Well #15 Group B Individual WHPA
-  New Bern Final WHPA(s) 2022



*See enlarged maps on pg. 118

Figure 6a. Enlarged maps of upper (top) auto repair/sale locations and lower (bottom, excluding 4E) auto repair/sale locations

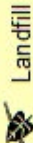
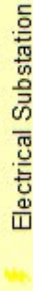
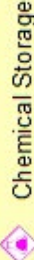


City of New Bern
Outer/Final WHPA

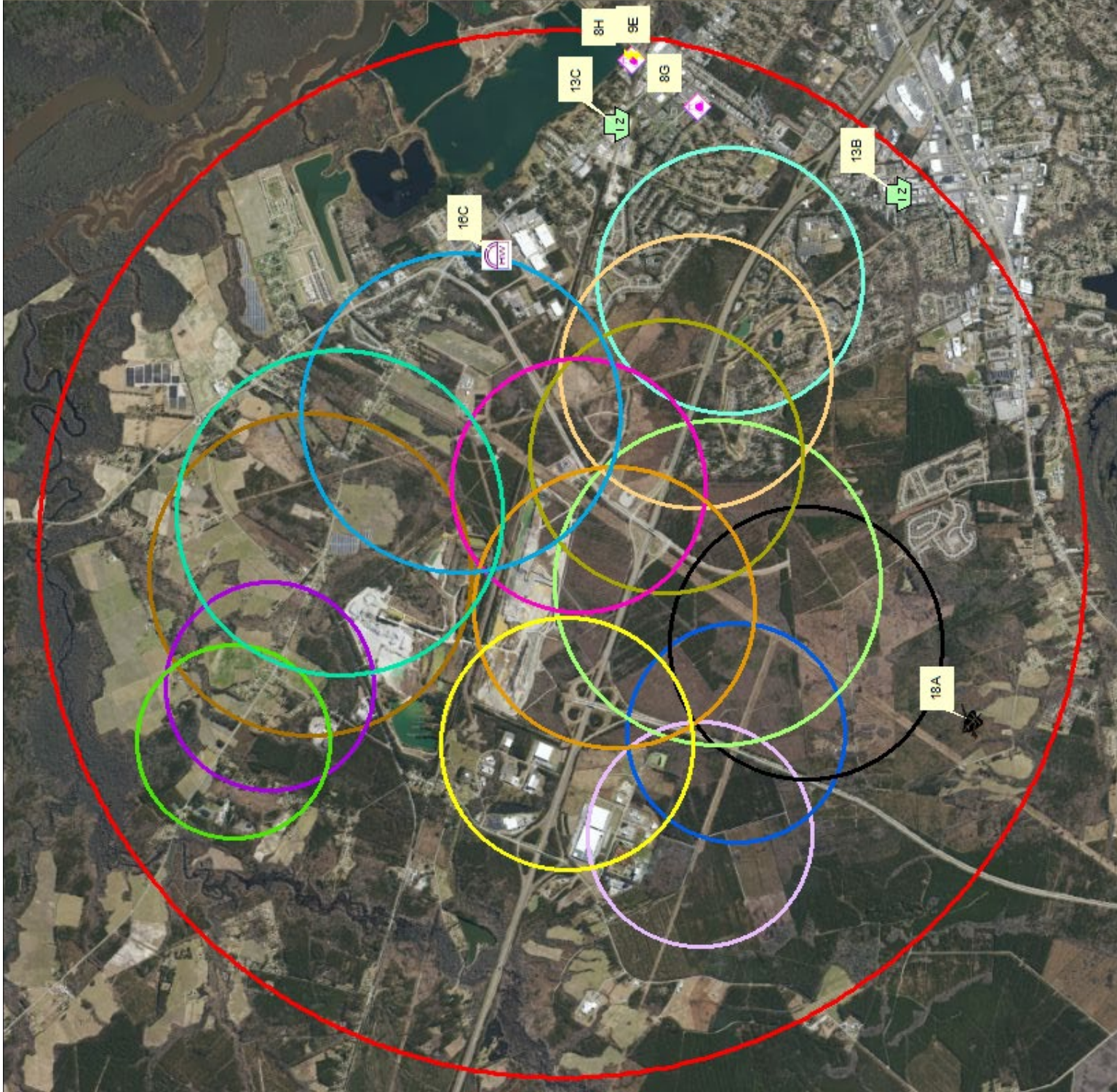
Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



- Well #1 Group A Individual WHPA
- Well #2 Group A Individual WHPA
- Well #3 Group B Individual WHPA
- Well #4 Group A Individual WHPA
- Well #5 Group B Individual WHPA
- Well #6 Group A Individual WHPA
- Well #7 Group B Individual WHPA
- Well #8 Group A Individual WHPA
- Well #9 Group B Individual WHPA
- Well #10 Group B Individual WHPA
- Well #11 Group B Individual WHPA
- Well #12 Group A Individual WHPA
- Well #13 Group B Individual WHPA
- Well #14 Group A Individual WHPA
- Well #15 Group B Individual WHPA
- New Bern Final WHPA(s) 2022

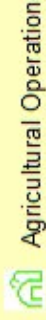
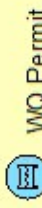
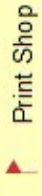
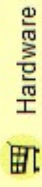
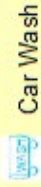
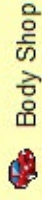


City of New Bern Outer/Final WHPA

Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA



Well #1 Group A Individual WHPA

Well #2 Group A Individual WHPA

Well #3 Group B Individual WHPA

Well #4 Group A Individual WHPA

Well #5 Group B Individual WHPA

Well #6 Group A Individual WHPA

Well #7 Group B Individual WHPA

Well #8 Group A Individual WHPA

Well #9 Group B Individual WHPA

Well #10 Group B Individual WHPA

Well #11 Group B Individual WHPA

Well #12 Group A Individual WHPA

Well #13 Group B Individual WHPA

Well #14 Group A Individual WHPA

Well #15 Group B Individual WHPA

New Bern Final WHPA(s) 2022



City of New Bern
Outer/Final WHPA
 Craven County

PWS ID: 04-25-010

Potential Contaminant Source/WHPA

-  Lift Station
-  Well #1 Group A Individual WHPA
-  Well #2 Group A Individual WHPA
-  Well #3 Group B Individual WHPA
-  Well #4 Group A Individual WHPA
-  Well #5 Group B Individual WHPA
-  Well #6 Group A Individual WHPA
-  Well #7 Group B Individual WHPA
-  Well #8 Group A Individual WHPA
-  Well #9 Group B Individual WHPA
-  Well #10 Group B Individual WHPA
-  Well #11 Group B Individual WHPA
-  Well #12 Group A Individual WHPA
-  Well #13 Group B Individual WHPA
-  Well #14 Group A Individual WHPA
-  Well #15 Group B Individual WHPA
-  New Bern Final WHPA(s) 2022



City of New Bern Outer/Final WHPA

Craven County
PWS ID: 04-25-010



Potential Contaminant Source/WHPA

- Maintenance
- School
- Fire Station
- Laundromat

- Well #1 Group A Individual WHPA
- Well #2 Group A Individual WHPA
- Well #3 Group B Individual WHPA
- Well #4 Group A Individual WHPA
- Well #5 Group B Individual WHPA
- Well #6 Group A Individual WHPA
- Well #7 Group B Individual WHPA
- Well #8 Group A Individual WHPA
- Well #9 Group B Individual WHPA
- Well #10 Group B Individual WHPA
- Well #11 Group B Individual WHPA
- Well #12 Group A Individual WHPA
- Well #13 Group B Individual WHPA
- Well #14 Group A Individual WHPA
- Well #15 Group B Individual WHPA
- New Bern Final WHPA(s) 2022



City of New Bern Outer/Final WHPA

Craven County

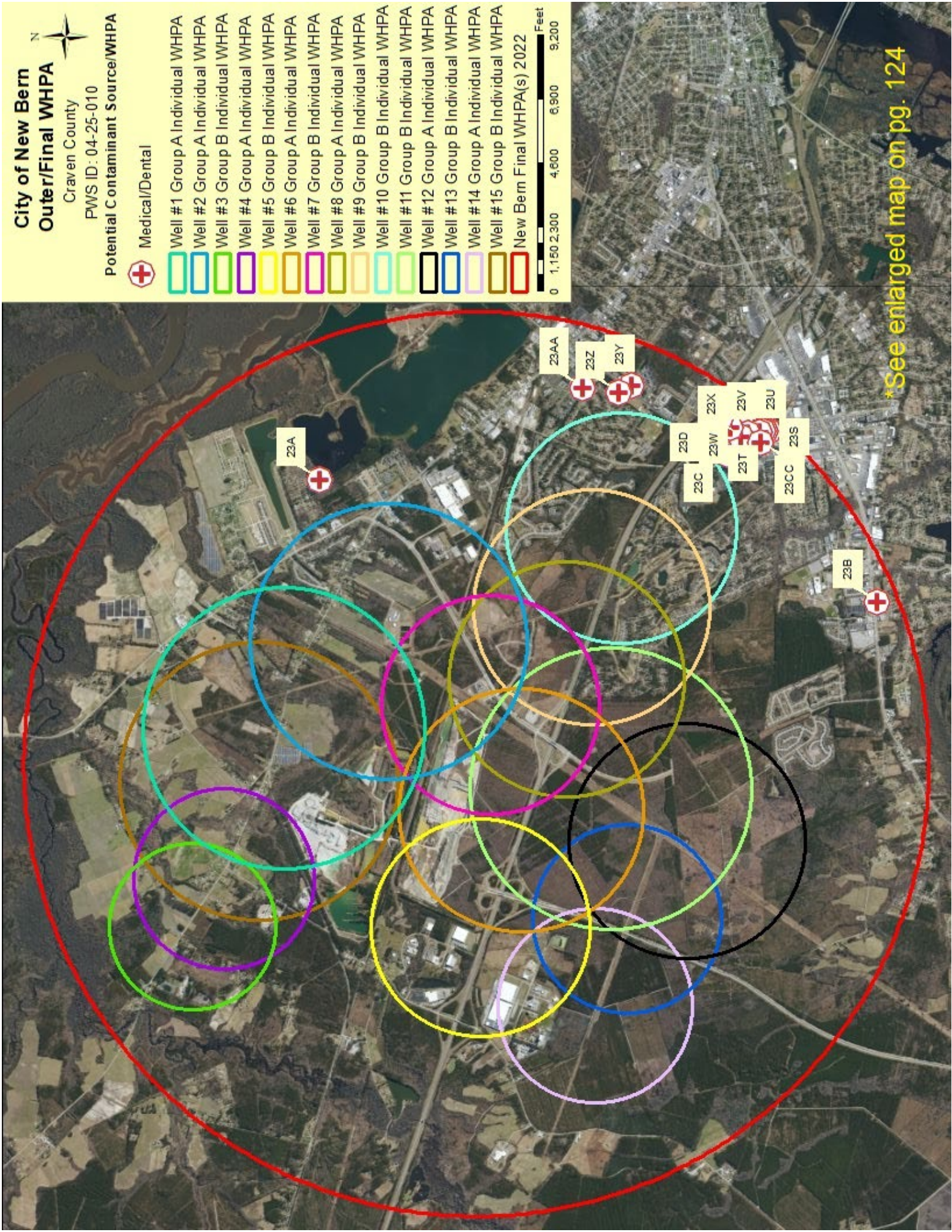
PWS ID: 04-25-010

Potential Contaminant Source/WHPA



Medical/Dental

- Well #1 Group A Individual WHPA
- Well #2 Group A Individual WHPA
- Well #3 Group B Individual WHPA
- Well #4 Group A Individual WHPA
- Well #5 Group B Individual WHPA
- Well #6 Group A Individual WHPA
- Well #7 Group B Individual WHPA
- Well #8 Group A Individual WHPA
- Well #9 Group B Individual WHPA
- Well #10 Group B Individual WHPA
- Well #11 Group B Individual WHPA
- Well #12 Group A Individual WHPA
- Well #13 Group B Individual WHPA
- Well #14 Group A Individual WHPA
- Well #15 Group B Individual WHPA
- New Bern Final WHPA(s) 2022



*See enlarged map on pg. 124

Figure 6b. Enlarged map of dense medical facility middle cluster



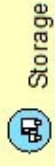
City of New Bern
Outer/Final WHPA

Craven County

PWS ID: 04-25-010



Potential Contaminant Source/WHPA

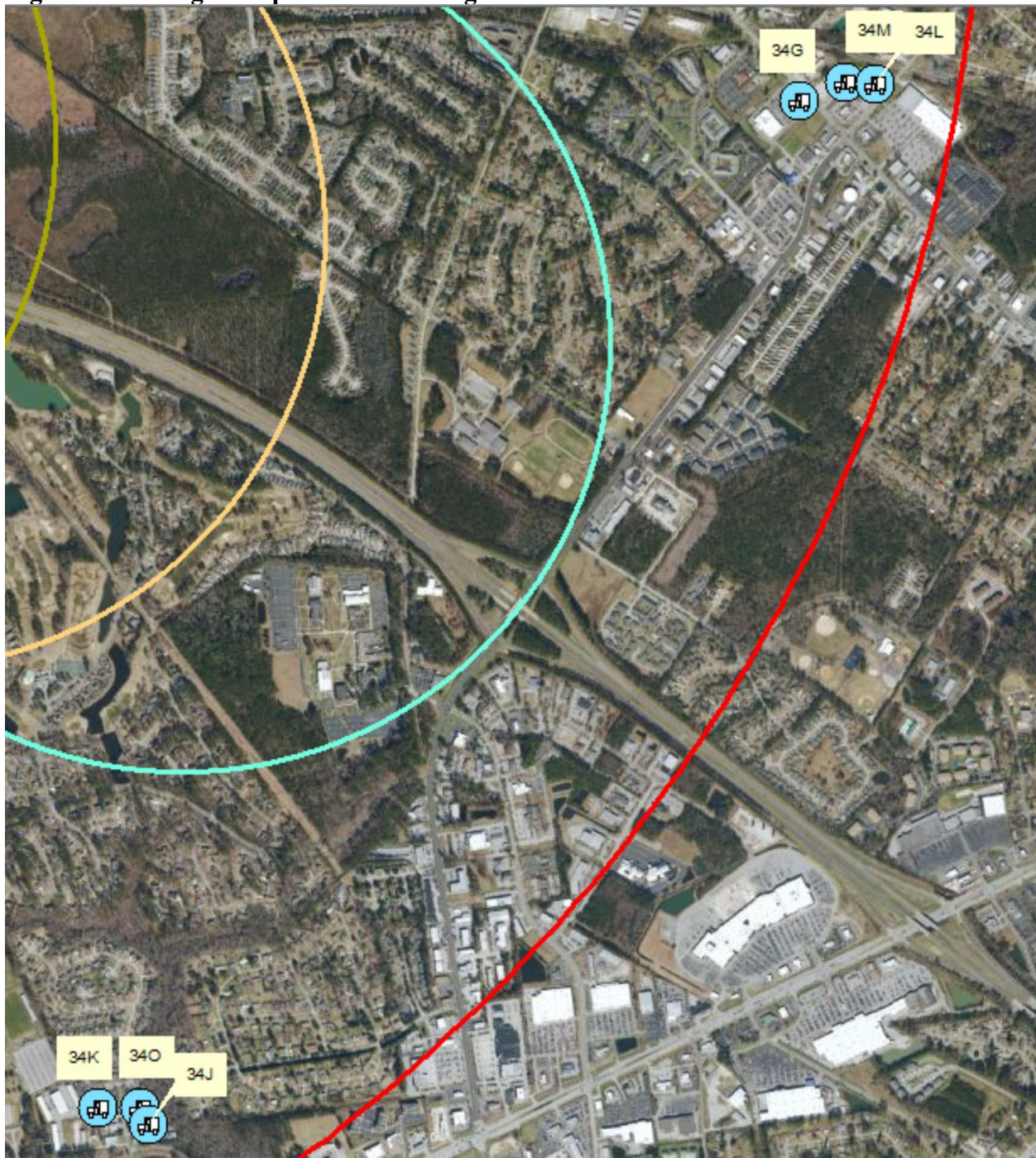


- Well #1 Group A Individual WHPA
- Well #2 Group A Individual WHPA
- Well #3 Group B Individual WHPA
- Well #4 Group A Individual WHPA
- Well #5 Group B Individual WHPA
- Well #6 Group A Individual WHPA
- Well #7 Group B Individual WHPA
- Well #8 Group A Individual WHPA
- Well #9 Group B Individual WHPA
- Well #10 Group B Individual WHPA
- Well #11 Group B Individual WHPA
- Well #12 Group A Individual WHPA
- Well #13 Group B Individual WHPA
- Well #14 Group A Individual WHPA
- Well #15 Group B Individual WHPA
- New Bern Final WHPA(s) 2022



*See enlarged map on pg. 126

Figure 6c. Enlarged map of middle storage facilities



**City of New Bern
Outer/Final WHPA**

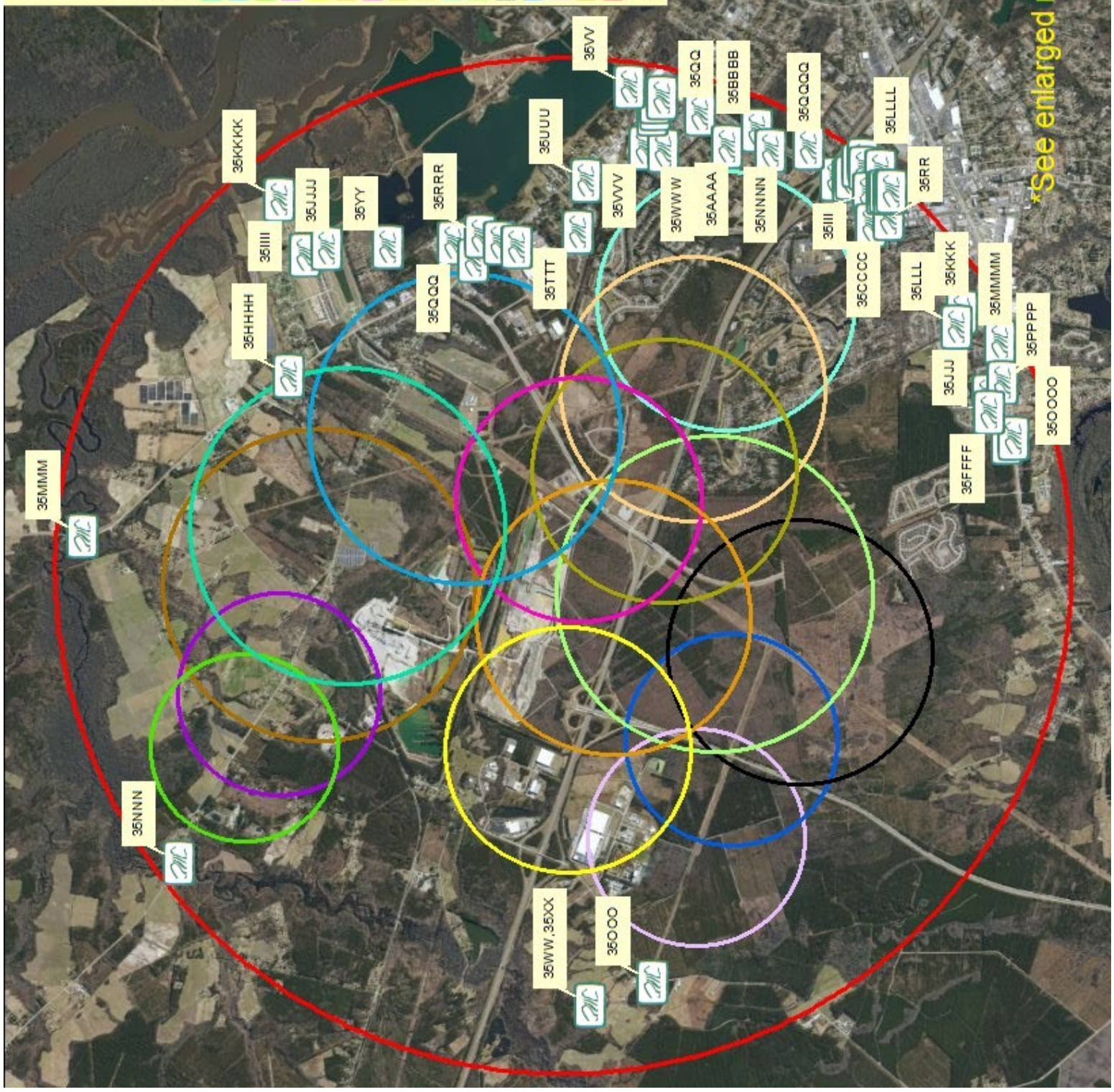
Craven County

PWS ID: 04-25-010



Potential Contaminant Source/WHPA

- Stormwater Permit
- Well #1 Group A Individual WHPA
- Well #2 Group A Individual WHPA
- Well #3 Group B Individual WHPA
- Well #4 Group A Individual WHPA
- Well #5 Group B Individual WHPA
- Well #6 Group A Individual WHPA
- Well #7 Group B Individual WHPA
- Well #8 Group A Individual WHPA
- Well #9 Group B Individual WHPA
- Well #10 Group B Individual WHPA
- Well #11 Group B Individual WHPA
- Well #12 Group A Individual WHPA
- Well #13 Group B Individual WHPA
- Well #14 Group A Individual WHPA
- Well #15 Group B Individual WHPA
- New Bern Final WHPA(s) 2022



***See enlarged maps on pg. 128-129**

Figure 6d. Enlarged map of clustered stormwater permitted facilities from upper to lower.

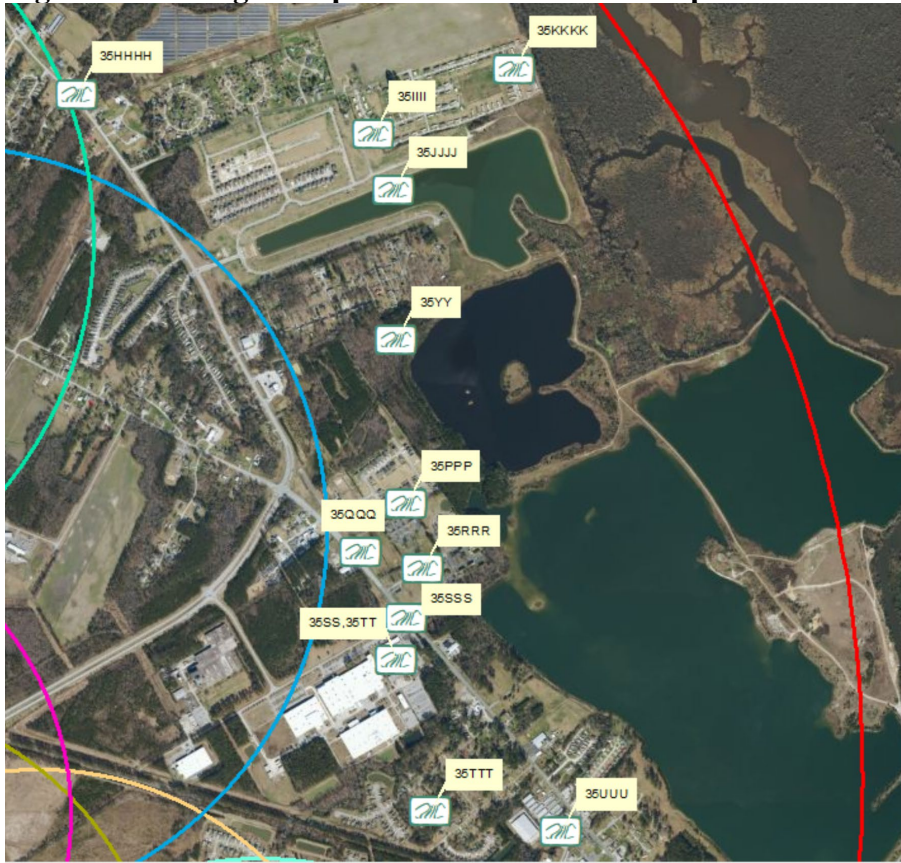


Figure 6d (Continued). Enlarged map of clustered stormwater permitted facilities from upper to lower.



IV. RISK ASSESSMENT

A Risk Assessment for New Bern was conducted. For each WHPA, the PCSs were ranked according to the threat each presented to the water supply well or wells. The following method was used to rank each PCS in each WHPA:

Each PCS was assigned to a risk category of higher, moderate, or lower based on information adapted from the EPA (1993), and from the Oregon Wellhead Protection Program. Each PCS was assigned a numerical "category" score to correspond with the risk category (e.g., higher (H)-3, moderate (M)-2, lower (L)-1). Sites with known soil and/or groundwater contamination were assigned a score of "4" and a symbol of "X." Each site of potential contamination was then assigned a "proximity" score calculated with the following equation:

$$\text{proximity score} = 1 - (\text{distance from the well (or well center point for combined wells)} / \text{radius of the WHPA})$$

The final PCS ranking was obtained by multiplying the category score by the proximity score for each potential contaminant site. This resulted in a relative ranking of each PCS within a given WHPA according to the threat it poses to the water supply well. Assessing the relative risk of contamination within each WHPA from the PCSs it contains allows for a determination of (1) which water supply wells are at greatest risk of contamination, and (2) which PCSs should be considered first with respect to wellhead protection. Once the risk assessment is carried out, priorities can be set to more effectively manage the PCSs. **Table 4a-f** below shows the results of this assessment. Martin Marietta-Clarks Quarry has an upper section and a lower section. The notation of "(2)" near any instance of Martin Marietta-Clarks Quarry indicates that it was measured from the lower of the two sites.

Table 4a. PCS Risk Score and Relative Ranking (Well #1-Group A through Well #2-Group A)

Well Site: New Bern W01-Group A

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
3A,8A,25A,27A	Martin Marietta-Clarks Quarry *	H,H,M,M	5055	2,489.79	0.51	10	5.10
#31583	Ipock Grocery/M. Jolly Residence Incident	X	5055	1,601.01	0.68	4	2.72
15A	Highway 55 *	M	5055	154.80	0.97	2	1.94
4A	On Spot Service & Repair & Alignment *	H	5055	2,413.66	0.52	3	1.56
15B	Old Highway 70 *	M	5055	1,392.16	0.72	2	1.44
21A	Craven County Schools Facility	M	5055	1,807.01	0.64	2	1.28
#88143	Apac Clarks Asphalt Plant	X	5055	3,489.84	0.31	4	1.24
35B	New Bern Solar Site - NC Hwy 55 (SW) *	L	5055	624.67	0.88	1	0.88
3B,8B,35A,40A	New Bern WTP *	H,M,M,L	5055	4,760.23	0.06	8	0.48
20A	Lift Station #47	M	5055	4,535.20	0.10	2	0.20
15C	Highway 43*	M	5055	4,815.89	0.05	2	0.10
9B	Electrical Substation #2	H	5055	4,918.45	0.03	3	0.09
20B	Lift Station #83	M	5055	4,895.47	0.03	2	0.06
9A	Electrical substation #1	H	5055	5,015.77	0.01	3	0.03
9C	Electrical Substation #3	H	5055	5,015.77	0.01	3	0.03
3C	Beech Grove Fuel Market	M	5055	5,016.33	0.01	2	0.02
34A	Bennettco Secure Storage	L	5055	5,061.62	0.00	1	0.00
Total Risk Score							17.17

Well Site: New Bern W02-Group A

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
3B,8B,35A,40A	New Bern WTP *	H,M,M,L	4961	121.25	0.98	8	7.84
9D,16A,22A,25B,36A	Dradura USA Corp, Electrical Substation #4	X,H,H,M,M	4961	3,359.60	0.32	14	4.48
3A(#2),8A(#2),25A(#2),27A(#2)	Martin Marietta-Clarks Quarry (2) *	H,H,M,M	4961	2,953.32	0.40	10	4.00
9B	Electrical Substation #2 *	H	4961	623.53	0.87	3	2.61
9C	Electrical Substation #3	H	4961	1,800.56	0.64	3	1.92
28A	Atlantic and East Carolina Railroad	M	4961	2,403.32	0.52	2	1.04
15C(#2)	Highway 43 *	M	4961	2,425.56	0.51	2	1.02
15A	Highway 55 *	M	4961	2,434.37	0.51	2	1.02
20A	Lift Station #47	M	4961	2,653.09	0.47	2	0.94
#31566	Treschan Property (Helmut) Incident	X	4961	3,894.06	0.22	4	0.88
#31891笴	Trade-Wilco #1849 Incidents	X,X	4961	4,456.07	0.10	8	0.80
#87232	B&L Trucking Fuel Spill (AST)	X	4961	3,968.79	0.20	4	0.80
22B,25C	Schlaadt Plastics Ltd	H,M	4961	4,274.71	0.14	5	0.70
#38751	Secu*re Washington Post Property	X	4961	4,326.96	0.13	4	0.52
5A	E & J Automotive Inc Body Shop *	H	4961	4,100.90	0.17	3	0.51
21A	Craven County Schools Facility	M	4961	3,954.90	0.20	2	0.40
9A	Electrical Substation #1	H	4961	4,336.67	0.13	3	0.39
37A	Speedway #8277	H	4961	4,537.27	0.09	3	0.27
21B	R Brown Electrical Services	M	4961	4,619.64	0.07	2	0.14
11A	West-New Bern Vol Fire Department	M	4961	4,608.22	0.07	2	0.14
35C	Craven 30 West - Phase III (SW)	L	4961	4,255.76	0.14	1	0.14
35E	West New Bern (SW)	L	4961	4,315.31	0.13	1	0.13
#18446	Scotchman #61 Incident	X	4961	4,819.92	0.03	4	0.12
20C	Lift Station #40	M	4961	4,650.73	0.06	2	0.12
35B(#2)	New Bern Solar Site - NC Hwy 55 (SW) *	L	4961	4,635.56	0.07	1	0.07
35D	Craven 30 North Pump Station & Force Main (SW)	L	4961	4,846.59	0.02	1	0.02
Total Risk Score							31.02

Table 4b. PCS Risk Score and Relative Ranking (Well #3-Group B through Well #6-Group A)

Well Site: New Bern W03-Group B

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
33A	Craven County Solid Waste Convenience Site	M	2991	933.87	0.69	2	1.38
15A(#2)	Highway 55 *	M	2991	130.08	0.96	2	1.92
2A,3D,25D,39A	S.T. Wooten Corporation *	H,M,M,M	2991	2,422.14	0.19	9	1.71
31A	Craven Ag Services, Inc. *	H	2991	1,751.93	0.41	3	1.23
17A,35F,35G	Craven LCID/Sanders Lane Landfill *	H,L,L	2991	2,754.35	0.08	5	0.40
#21592	Railworks Wood Waste Energy Incident (AST)	X	2991	2,770.65	0.07	4	0.28
Total Risk Score							6.92

Well Site: New Bern W04-Group A

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
2A,3D,25D,39A	S.T. Wooten Corporation *	H,M,M,M	3237	1,824.45	0.44	9	3.96
15A(#2)	Highway 55 *	M	3237	133.73	0.96	2	1.92
#88143	Apac Clarks Asphalt Plant	X	3237	2,523.93	0.22	4	0.88
#21592	Railworks Wood Waste Energy Incident (AST)	X	3237	2,547.94	0.21	4	0.84
3A(#3),8A(#3),25A(#3),27A(#3)	Martin Marietta-Clarks Quarry *	H,H,M,M	3237	3,066.34	0.05	10	0.50
2B,3E	Craven County Asphalt Plant/Barnhill *	H,M	3237	2,695.37	0.17	5	0.85
15B	Old Highway 70 *	M	3237	2,765.55	0.15	2	0.30
33A	Craven County Solid Waste Convenience Site	M	3237	2,949.05	0.09	2	0.18
4A	On Spot Service & Repair & Alignment	H	3237	3,237.00	0.00	3	0.00
Total Risk Score							9.43

Well Site: New Bern W05-Group B

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
3A(#4),8A(#4),25A(#4),27A(#4)	Martin Marietta-Clarks Quarry (2) *	H,H,M,M	3916	1,812.62	0.54	10	5.40
13A,22C,25E	Moen Industries *	H,H,M	3916	2,445.14	0.38	8	3.04
16B,22H	Urethane Innovators	X,H	3916	2,304.56	0.41	7	2.87
8C	Moen Warehouse *	H	3916	437.11	0.89	3	2.67
22D,35I	Wirthwein New Bern Corp.	H,L	3916	1,429.23	0.64	4	2.56
22F,35J	Chatsworth Products	H,L	3916	1,849.39	0.53	4	2.12
22G,25F	Aylward Enterprises Inc. *	H,M	3916	2,391.13	0.39	5	1.95
15D	Highway 70 *	M	3916	175.91	0.96	2	1.92
34B,35H	BSH *	H,L	3916	2,091.61	0.47	4	1.88
22E	Wheatstone Corporations *	H	3916	1,668.50	0.57	3	1.71
3G,35L	Atlantic Enviro *	M,L	3916	2,127.63	0.46	3	1.38
15E	Highway 17 *	M	3916	1,318.24	0.66	2	1.32
21C,35K	Carolina GSE (Executive)	M,L	3916	2,349.12	0.40	3	1.20
3F,8D,38A	Craven County Wood Energy, LP *	H,H,M	3916	3,379.51	0.14	8	1.12
32A	New Bern Settling Basin *	H	3916	2,552.00	0.35	3	1.05
3H,34D,35N	Minges Bottling Group - Distribution Center *	M,L,L	3916	2,987.78	0.24	4	0.96
34C,35M	Mutual Distributing Co.	M,L	3916	2,849.66	0.27	3	0.81
20F	Lift Station #71	M	3916	2,347.21	0.40	2	0.80
35Q	Project Global (SW)	L	3916	1,355.38	0.65	1	0.65
35T	Titan Aviation Fuels (SW)	L	3916	1,402.96	0.64	1	0.64
35S	Aeronautical Systems, Inc. (SW)	L	3916	1,437.94	0.63	1	0.63
25G,34E,35O,35P	Chemac *	M,L,L,L	3916	3,542.99	0.10	5	0.50
35V	Jono LLC (SW)	L	3916	1,960.71	0.50	1	0.50
35X,35Y	Piedmont Natural Gas (SW)	L,L	3916	2,998.95	0.23	2	0.46
35U	Bayfront Craven Shell (SW)	L	3916	2,185.90	0.44	1	0.44
20D	Lift Station #69	M	3916	3,176.45	0.19	2	0.38
35R	Executive Parkway Extension (SW)	L	3916	2,430.13	0.38	1	0.38
11B	West of New Bern Vol. Fire Dept, Station 3	M	3916	3,256.53	0.17	2	0.34
20E	Lift Station #70	M	3916	3,372.58	0.14	2	0.28
35W	Firefighter Training Center (SW)	L	3916	2,897.17	0.26	1	0.26
28A(#2)	Atlantic and East Carolina Railroad	M	3916	3,651.09	0.07	2	0.14
22I	Chesapeake Mfg, LLC	H	3916	3,842.53	0.02	3	0.06
Total Risk Score							40.42

Well Site: New Bern W06-Group A

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
3A(#4),8A(#4),25A(#4),27A(#4)	Martin Marietta-Clarks Quarry *	H,H,M,M	4378	1,735.63	0.60	10	6.00
15D	Highway 70 *	M	4378	172.59	0.96	2	1.92
35Z	Harrison Residence/Harrison Shop (SW)	L	4378	670.77	0.85	1	0.85
15C(#3)	Highway 43 *	M	4378	2,663.30	0.39	2	0.78
15E	Highway 17*	M	4378	2,995.28	0.32	2	0.64
35AA	Craven 30 South - Access Ramp (SW)	L	4378	2,824.08	0.35	1	0.35
28A(#3)	Atlantic and East Carolina Railroad *	M	4378	3,785.89	0.14	2	0.28
35C	Craven 30 West - Phase III (SW)	L	4378	4,324.54	0.01	1	0.01
35BB	Clarks Quarry Bridge (SW)	L	4378	4,378.58	0.00	1	0.00
Total Risk Score							10.83

Table 4c. PCS Risk Score and Relative Ranking (Well #7-Group B through Well #11-Group B)

Well Site: New Bern W07-Group B

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
3A(#2),8A(#2),25A(#2),27A(#2)	Martin Marietta-Clarks Quarry *	H,H,M,M	3916	654.35	0.83	10	8.30
15C(#2)	Highway 43 *	M	3916	355.54	0.91	2	1.82
28A	Atlantic and East Carolina Railroad *	M	3916	1,749.11	0.55	2	1.10
9C	Electrical Substation #3	H	3916	2,719.13	0.31	3	0.93
35C	Craven 30 West - Phase III (SW)	L	3916	471.72	0.88	1	0.88
35E	West New Bern (SW)	L	3916	601.35	0.85	1	0.85
15D(#2)	Highway 70 *	M	3916	2,477.07	0.37	2	0.74
9B	Electrical Substation #2 *	H	3916	3,179.63	0.19	3	0.57
3B(#2),8B(#2),35A(#2),40A(#2)	New Bern WTP *	H,M,M,L	3916	3,676.53	0.06	8	0.48
35AA	Craven 30 South - Access Ramp (SW)	L	3916	3,530.25	0.10	1	0.10
35Z	Harrison Residence/Harrison Shop (SW)	L	3916	3,742.69	0.04	1	0.04
Total Risk Score							15.81

Well Site: New Bern W08-Group A

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
15D(#2)	Highway 70 *	M	4230	172.67	0.96	2	1.92
3A(#5),8A(#5),25A(#5),27A(#5)	Martin Marietta-Clarks Quarry (2) *	H,H,M,M	4230	3,420.72	0.19	10	1.90
20H	Lift Station #50	M	4230	1,701.96	0.60	2	1.20
12A	Emerald Golf Club *	M	4230	1,862.28	0.56	2	1.12
15C(#2)	Highway 43*	M	4230	2,116.54	0.50	2	1.00
35E	West New Bern (SW)	L	4230	2,460.87	0.42	1	0.42
35C	Craven 30 West - Phase III (SW)	L	4230	2,582.22	0.39	1	0.39
35AA	Craven 30 South - Access Ramp (SW)	L	4230	2,680.01	0.37	1	0.37
20G	Lift Station #42	M	4230	3,711.71	0.12	2	0.24
28A	Atlantic and East Carolina Railroad *	M	4230	4,097.17	0.03	2	0.06
Total Risk Score							8.62

Well Site: New Bern W09-Group B

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
15D(#2)	Highway 70 *	M	4230	184.10	0.96	2	1.92
12A	Emerald Golf Club *	M	4230	832.46	0.80	2	1.60
20G	Lift Station #42	M	4230	2,236.68	0.47	2	0.94
20H	Lift Station #50	M	4230	2,785.64	0.34	2	0.68
35CC	Ellis Park (SW)	L	4230	2,856.77	0.32	1	0.32
20J	Lift Station #85	M	4230	3,594.36	0.15	2	0.30
20I	Lift Station #22	M	4230	3,653.09	0.14	2	0.28
35EE	Derby Park IV (SW)	L	4230	3,122.05	0.26	1	0.26
35DD	Wyndors Park - Express project (SW)	L	4230	3,582.57	0.15	1	0.15
Total Risk Score							6.45

Well Site: New Bern W10-Group B

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
8E, 22J, 35FF,35GG,35HH,35II	Craven Community College *	H,H,L,L,L,L	4138	2,313.35	0.44	10	4.40
15D(#3)	Highway 70 *	M	4138	152.26	0.96	2	1.92
12A(#2)	Emerald Golf Club *	M	4138	472.56	0.89	2	1.78
20M	Lift Station #82	M	4138	1,532.18	0.63	2	1.26
20I	Lift Station #22	M	4138	1,869.68	0.55	2	1.10
29A	H J Mac Donald Middle School	M	4138	2,784.08	0.33	2	0.66
35JJ	Eden Grove Subdivision (SW)	L	4138	1,677.68	0.59	1	0.59
35DD	Wyndors Park - Express project (SW)	L	4138	2,106.73	0.49	1	0.49
20K	Lift Station #31	M	4138	3,227.38	0.22	2	0.44
35KK	Fairlawn (SW)	L	4138	2,631.34	0.36	1	0.36
35LL	Derby Park V - stormwater (SW)	L	4138	2,902.69	0.30	1	0.30
20G	Lift Station #42	M	4138	3,570.11	0.14	2	0.28
35CC	Ellis Park (SW)	L	4138	3,104.84	0.25	1	0.25
20J	Lift Station #85	M	4138	3,625.87	0.12	2	0.24
20L	Lift Station #36	M	4138	3,732.07	0.10	2	0.20
35NN	Beaver Creek Apartments (SW)	L	4138	3,359.91	0.19	1	0.19
35EE	Derby Park IV (SW)	L	4138	3,371.70	0.19	1	0.19
35MM	New Bern Church of God (SW)	L	4138	3,918.55	0.05	1	0.05
Total Risk Score							14.70

Well Site: New Bern W11-Group B

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
15C(#3)	Highway 43 *	M	5055	389.66	0.92	2	1.84
15D	Highway 70 *	M	5055	2,431.61	0.52	2	1.04
35AA	Craven 30 South - Access Ramp (SW)	L	5055	1,781.71	0.65	1	0.65
3A(#6),8A(#6),25A(#6),27A(#6)	Martin Marietta-Clarks Quarry (2) *	H,H,M,M	5055	4,811.72	0.05	10	0.50
12A(#3)	Emerald Golf Club *	M	5055	3,899.52	0.23	2	0.46
35Z	Harrison Residence/Harrison Shop (SW)	L	5055	2,707.59	0.46	1	0.46
20H	Lift Station #50	M	5055	3,870.91	0.23	2	0.46
15E	Highway 17 *	M	5055	4,564.56	0.10	2	0.20
Total Risk Score							5.61

Table 4d. PCS Risk Score and Relative Ranking (Well #12-Group A through Well #15-Group B)**Well Site: New Bern W12-Group A**

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
15C(#3)	Highway 43 *	M	4230	2,221.41	0.47	2	0.94
15E(#2)	Highway 17*	M	4230	3,801.04	0.10	2	0.20
3500	Craeberne Forest Subdivision (SW)	L	4230	3,428.27	0.19	1	0.19
Total Risk Score							1.33

Well Site: New Bern W13-Group B

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
15E(#2)	Highway 17 *	M	3387	358.89	0.89	2	1.78
32A	New Bern Settling Basin *	H	3387	2,212.44	0.35	3	1.05
20F	Lift Station #71	M	3387	2,942.83	0.13	2	0.26
35W	Firefighter Training Center (SW)	L	3387	2,781.75	0.18	1	0.18
Total Risk Score							3.27

Well Site: New Bern W14-Group A

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
3F,8D,38A	Craven County Wood Energy, LP *	H,H,M	3484	1,792.35	0.49	8	3.92
25G,34E,35O,35P	Chemac *	M,L,L,L	3484	1,349.26	0.61	5	3.05
22I	Chesapeake Mfg, LLC	H	3484	1,632.85	0.53	3	1.59
3H,34D,35N	Minges Bottling Group - Distribution Center	M,L,L	3484	2,237.15	0.36	4	1.44
32A	New Bern Settling Basin *	H	3484	2,393.13	0.31	3	0.93
35X,35Y	Piedmont Natural Gas (SW)	L,L	3484	2,155.97	0.38	2	0.76
34B,35H	BSH *	H,L	3484	2,818.21	0.19	4	0.76
3G,35L	Atlantic Enviro	M,L	3484	2,671.66	0.23	3	0.69
21C,35K	Carolina GSE (Executive)	M,L	3484	2,711.94	0.22	3	0.66
8F	Duke Energy	H	3484	2,835.29	0.19	3	0.57
20E	Lift Station #70	M	3484	2,616.80	0.25	2	0.50
15E(#2)	Highway 17 *	M	3484	2,824.43	0.19	2	0.38
35W	Firefighter Training Center (SW)	L	3484	2,332.46	0.33	1	0.33
35R	Executive Parkway Extension (SW)	L	3484	2,567.60	0.26	1	0.26
20F	Lift Station #71	M	3484	3,184.71	0.09	2	0.18
35U	Bayfront Craven Shell (SW)	L	3484	2,871.20	0.18	1	0.18
35V	Jono LLC (SW)	L	3484	3,105.83	0.11	1	0.11
Total Risk Score							16.31

Well Site: New Bern W15-Group B

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
3A,8A,25A,27A	Martin Marietta-Clarks Quarry *	H,H,M,M	4992	1,471.84	0.71	10	7.10
#31583	Ipock Grocery/M. Jolly Residence Incident	X	4992	754.66	0.85	4	3.40
4A	On Spot Service & Repair & Alignment *	H	4992	276.43	0.94	3	2.82
#88143	Apac Clarks Asphalt Plant	X	4992	1,562.23	0.69	4	2.76
15A	Highway 55 *	M	4992	157.56	0.97	2	1.94
15B	Old Highway 70 *	M	4992	392.40	0.92	2	1.84
2A,3D,25D,39A	S.T. Wooten Corporation *	H,M,M,M	4992	4,505.61	0.10	9	0.90
2B,3E	Craven County Asphalt Plant/Barnhill *	H,M	4992	4,173.82	0.16	5	0.80
35B	New Bern Solar Site - NC Hwy 55 (SW) *	L	4992	1,013.19	0.80	1	0.80
21A	Craven County Schools Facility	M	4992	3,835.22	0.23	2	0.46
Total Risk Score							22.82

Table 4e. PCS Risk Score and Relative Ranking (Cove City Well #1-Well #5)

Well Site: Cove City W01

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
N/A	Cove City Well #1	H	3500	10.00	1.00	3	3.00
1A,3I	Dawson Farm Op.	M,M	3500	1,636.82	0.53	4	2.12
28A(#4)	Atlantic and East Carolina Railroad	M	3500	137.18	0.96	2	1.92
15B(#2)	Old US Highway 70 *	M	3500	220.15	0.94	2	1.88
7A	McCoy Cemetery *	L	3500	3,378.80	0.03	1	0.03
Total Risk Score							8.95

Well Site: Cove City W02

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
N/A	Cove City Well #2	H	3500	10.00	1.00	3	3.00
1A,3I	Dawson Farm Op. *	M,M	3500	1,469.06	0.58	4	2.32
15B(#2)	Old US Highway 70 *	M	3500	198.53	0.94	2	1.88
28A(#4)	Atlantic and East Carolina Railroad *	M	3500	273.85	0.92	2	1.84
20N	Cove Lift Station #2	M	3500	1,841.20	0.47	2	0.94
3J	Cove City Express *	M	3500	1,975.29	0.44	2	0.88
#38788	Myrtle Holland Site	X	3500	3,146.33	0.10	4	0.40
N/A	Cove City Well #3	H	3500	3,381.64	0.03	3	0.09
Total Risk Score							11.35

Well Site: Cove City W03

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
3K,10A	Cove City Fertilizer	H,M	3500	508.65	0.85	5	4.25
#38788	Myrtle Holland Site	X	3500	352.40	0.90	4	3.60
N/A	Cove City Well #3	H	3500	10.00	1.00	3	3.00
#23285	A	X	3500	935.93	0.73	4	2.92
#14303	Charlton Mitchell Property	X	3500	1,284.58	0.63	4	2.52
28A(#5)	Atlantic and East Carolina Railroad *	M	3500	170.97	0.95	2	1.90
15B(#3)	Old US Highway 70	M	3500	224.94	0.94	2	1.88
3M	Cove City Rescue Squad	M	3500	1,063.02	0.70	2	1.40
#14294	Midway Grocery	X	3500	2,400.34	0.31	4	1.24
3J	Cove City Express	M	3500	1,322.26	0.62	2	1.24
11C	Cove City Fire Department	M	3500	1,411.53	0.60	2	1.20
200	Cove Lift Station #1	M	3500	1,477.80	0.58	2	1.16
20N	Cove Lift Station #2	M	3500	1,553.71	0.56	2	1.12
20Q	Cove Lift Station #4	M	3500	1,859.79	0.47	2	0.94
3L,38B	Warmack Lumber *	H,M	3500	2,854.98	0.18	5	0.90
20R	Cove Lift Station #5	M	3500	2,248.53	0.36	2	0.72
20P	Cove Lift Station #3	M	3500	2,421.57	0.31	2	0.62
7B	Cove City Cemetery *	L	3500	2,044.33	0.42	1	0.42
20T	Cove Lift Station #7	M	3500	2,818.31	0.19	2	0.38
35PP	Cove City - 99 San. Sewer Improvements - SW	L	3500	2,326.25	0.34	1	0.34
20S	Cove Lift Station #6	M	3500	3,071.58	0.12	2	0.24
N/A	Cove City Well #2	H	3500	3,381.64	0.03	3	0.09
Total Risk Score							32.08

Well Site: Cove City W04

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
N/A	Cove City Well #4	H	3500	10.00	1.00	3	3.00
1B,3N	530 Willis Rd. Farm *	M,M	3500	436.04	0.88	4	3.52
1C,3O	476 Willis Rd. Farm *	M,M	3500	1,022.36	0.71	4	2.84
200	Cove Lift Station #1	M	3500	3,088.07	0.12	2	0.24
11C	Cove City Fire Department	M	3500	3,154.66	0.10	2	0.20
N/A	Cove City Well #5	H	3500	3,343.53	0.04	3	0.12
3M	Cove City Rescue Squad	M	3500	3,497.48	0.00	2	0.00
Total Risk Score							9.92

Well Site: Cove City W05

Map Code	PCS Site	Risk	WHP Radius	Distance	Proximity Score	Category Score	Final PCS Score
N/A	Cove City Well #5	H	3500	10.00	1.00	3	3.00
15F	Highway 70/41 Intersection	M	3500	3,094.76	0.12	2	0.24
N/A	Cove City Well #4	H	3500	3,343.53	0.04	3	0.12
Total Risk Score							3.36

Table 4f. PCS Risk Score and Relative Ranking (Extended WHPA PCSs)

Extended WHPA (Outside of Individual WHPAs)

Map Code	PCS Site	Risk
#10195, #10464, 22L	Coca-Cola Bottling Co Cons, Coca-Cola of New Bern Incs.	X,X,H
#7143/#10942,4N	Tony's Tires LLC, Mallard Mart #14 Incidents	X,H
#38641,37G	Speedway #8282, Speedway #8282 Inc.	X,H
#38693,37C	Speedway #8275, Speedway #8275 Inc.	X,H
#38521, 37I	Park N Shop 17/BP, Handy Mart 53 Inc.	X,H
4C,13B,35RR	Advance Auto Parts (1901 Glenburnie)	H,H,L
#38363,37D	Glenburnie Family Fare #264, Glenburnie Family Fare Inc.	X,H
3P,25H,30A	Sims Metal	H,M,M
22K,25I,35SS,35TT	BSH Home Appliances Corporation	H,M,L,L
#38776,14B	Harbor Freight Tools, Family Outreach Church Inc.	X,M
#38429,14D	Builders Discount Center, New Bern Building Supply Inc.	X,M
#38396,23AA	Gardens of Trent, Carebridge Assisted Living	X,L
#9617,34H	Tarheel Building Systems, Handy Mart #20/E.J. Pope Inc.	X,L
13C,34F	Shamrock Environmental	H,M
2D,3Q	SRM Concrete/Agros USA	H,M
34G,35UU,37K	Walmart	H,L,L
#11657	Clarks County Store Incident	X
#31434	Unicon Block Plant (Former)	X
#11334	Handy Mart #32/E.J. Pope	X
#11877	Short Stop #6	X
#88142	Harold Watson Waste Oil Service Spill Incident (AST)	X
#87702	Clarks Road Tract (AST)	X
#17830	Craven Oil Company (AST)	X
16C	Anthony Scarano Residence	X
8H,35VV	New Bern Public Works	H,L
4B,35QQ	O'Reilly Auto Parts	H,L
1D,39B	Mac Kilwean Turf Farm	M,M
3R,35WW,35XX	Craven County Jail	M,L,L
3S,23A,35YY	Bayview Nursing Center	M,L,L
37B	Speedway #8214	H
9E	Electrical Substation #5	H
24A	First Light Custom Builders	H
24B	Full Width Fabrication Inc.	H
4D	Advance Auto Parts (1210 Glenburnie)	H
4E	Mike's Tire and Auto	H
4F	Pecheles Honda	H
4G	Jason Roach Auto Repair	H
4H	Jiffy Lube	H
4I	VZF Racing Co.	H
4J	Martin Auto	H
4K	White's Tire Service	H
4L	Bear City Cycles LLC	H
4M	Arnold Automotive Inc	H
4O	J W Sanders Trucking Co.	H
4P	RZG Motorsports LLC	H
5B	Bear Auto Body	H
37E	Fresh Food/New Bern Express	H
37F	Handy Mart 55	H
37H	S & Y Market/WC Gas Station	H
37J	Fuel Warehouse	H
2C	ABHW Concrete	H
8G	SuddenLink Telecom/Optimum *Tier II	H
18A	Rocky Run Road LCID	H
23I,35ZZ,35AAA	Carolina Orthopedics	L,L,L
26A	Southeast Signs and Screenprinting	M
6A	1ST Class Auto & Boat Wash	M
6B	Pirates Cove Car Wash	M
6C	Car Wash	M
14A	Down East Ace	M
14C	Tractor Supply Co.	M
20U	Lift Station #18	M
20V	Lift Station #25	M
20W	Lift Station #26	M
20X	Lift Station #28	M
20Y	Lift Station #29	M
20Z	Lift Station #35	M

Table 4f (Continued). PCS Risk Score and Relative Ranking (Extended WHPA PCSs)

20AA	Lift Station #38	M
20BB	Lift Station #57	M
20CC	Lift Station #66	M
20DD	Lift Station #90	M
20EE	Lift Station #102	M
20FF	Lift Station #104	M
20GG	Lift Station #109	M
21D	Carolina GSE (Clarks)	M
21E	James River Equipment	M
21F	Carolina Tool and Equipment Rental	M
29B	Ben D Quinn Elementary School	M
29C	New Bern High School	M
11D	New Bern Fire Station #1	M
23J,35BBB	CCHC Heart and Vascular Specialists	L,L
23O,35CCC	Southern Gastro Associates	L,L
23P,35DDD	CarolinaEast Ear Nose & Throat	L,L
23R,35EEE	East Carolina Dermatology and Skin Surgery, PLLC	L,L
23S,35FFF	Coastal Oral and Maxillofacial Surgery	L,L
23T,35GGG	Rankin and Flume Orthodontics	L,L
23U,35HHH	Coastal Carolina Foot & Ankle	L,L
23V,35III	New Bern Anesthesia Associates/Surgery Pa	L,L
34J,35KKK	Craven Maxi Storage	L,L
34K,35LLL	Jimmies Creek Maxi Storage	L,L
34I,35JJJ	United Storage - Storaway Center	L,L
26B	Advanced Signs & Awnings	L
19A	The Wash House	L
23B	Goshen Medical Center New Bern	L
23C	Eastern Carolina Women's Center	L
23D	Coastal Carolina Health Care	L
23E	New Bern Surgical Associates Pa	L
23F	Coastal Children's Clinic - Pediatrics	L
23G	CCNC Urology	L
23H	CCHC Atlantic Internal Medicine	L
23K	Coastal Pediatric Dentistry	L
23L	CarolinaEast Physicians	L
23M	Nephrology Care of New Bern	L
23N	CarolinaEast Heart Center	L
23Q	CCHC Twin Rivers Family Practice	L
23W	Kincaid & Purvis Family Dentistry and Implants	L
23X	CarolinaEast Diagnostic Center	L
23Y	CCHC Craven Podiatry	L
23Z	Brookdale New Bern	L
23BB	CCHC Primary Care	L
23CC	McCarthy Dental	L
23DD	Kenneth E. Holton, Dds, Pa	L
34L	Tryon Storage	L
34M	Valley Storage	L
34N	Prime Storage	L
34O	New Bern Self Storage	L
35MMM	NCDOT - NC 43 Connector (Bosch Blvd) (SW)	L
35NNN	Westport (SW)	L
35OOO	Taylor Land (SW)	L
35PPP	West Cross Roads (SW)	L
35QQQ	Without Limits Christian Center (SW)	L
35RRR	VOA Elderly Housing (SW)	L
35SSS	Dollar General - New Bern (SW)	L
35TTT	Pinecrest Estates (SW)	L
35UUU	3401 Neuse Blvd (SW)	L
35VVV	Colony Trade Center (SW)	L
35WWW	Fairview Apartments (SW)	L
35XXX	Whitfield Landing (SW)	L
35YYY	Wendy's - New Bern (SW)	L
35ZZZ	Tryon Center (SW)	L
35AAAA	Sterling House - New Bern (SW)	L
35BBBB	The Reserve at Glenburnie (SW)	L
35CCCC	Tryon Palace History Education & Visitor Center (SW)	L
35DDDD	Axelson Properties (SW)	L
35EEEE	Sun Journal (SW)	L
35FFFF	Cardinal Leasing Services (SW)	L
35GGGG	Copperfield Apartments (SW)	L
35HHHH	Andrew Farm Solar Energy System (SW)	L
35IIII	Lake Tyler - Force Main Construction (SW)	L
35JJJJ	Lake Tyler - SW (SW)	L
35KKKK	Gracie Farm Mobile Home Park (SW)	L
35LLLL	McNaughton-McKay Electric Company - New Bern (SW)	L
35MMMM	Hardees of New Bern (SW)	L
35NNNN	State Employee's Credit Union (SW)	L
35OOOO	Jimmies Creek Commercial Park, Parcel B (SW)	L
35PPPP	Arbor Green (SW)	L
35QQQQ	Amhurst Place (SW)	L

*Measured from satellite imagery, not from map point.

Risk Assessment Summary

Below are the wells ranked in order from most at risk to least at risk based on the total risk scores.

Well Site	Final PCS Score
W05-Group B	40.42
Cove City W03	32.08
W02-Group A	31.02
W15-Group B	22.82
W01-Group A	17.17
W14-Group A	16.31
W07-Group B	15.81
W10-Group B	14.70
Cove City W02	11.35
W06-Group A	10.83
Cove City W04	9.92
W04-Group A	9.43
Cove City W01	8.95
W08-Group A	8.62
W03-Group B	6.92
W09-Group B	6.45
W11-Group B	5.61
Cove City W05	3.36
W13-Group B	3.27
W12-Group A	1.33

As shown in **Table 4a-f** on pgs. 130-136, the five (5) wells with the highest risk score are: Well #5-Group B, Cove City Well #3, Well #2-Group A, Well #15-Group B, and Well #1-group A, which makes them the most vulnerable. Well #5-Group B has a risk score of 40.42, and the top three (3) PCSs in the WHPA are: Martin-Marietta Clarks Quarry, Moen Industries, and the Urethane Innovators. Cove City Well #3 has a risk score of 32.08, and the top three (3) PCSs in the WHPA are: Cove City Fertilizer, Pollution Incident #38788-Myrtle Holland Site, and Cove City Well #3 (Tier II site). Well #2-Group A has a risk score of 31.02, and the top three (3) PCSs in the WHPA are: New Bern WTP, Dradura USA Corp and associated electrical substation #4, and Martin-Marietta Clarks Quarry. Well #15-Group B has a risk score of 22.82, and the top three (3) PCSs in the WHPA are: Martin-Marietta Clarks Quarry, Incident #31583-Ipock Grocery/M. Jolly Residence, and On Spot Service & Repair & Alignment. Well #1-Group A has a risk score of 17.17, and the top (3) PCSs in the WHPA are: Martin Marietta-Clarks Quarry, Ipock Grocery/M. Jolly Residence Pollution Incident #31583, and Highway 55.

Vulnerability Assessment

A Source Water Assessment Program (SWAP) Report has been made available for the City of New Bern by the NC Public Water Supply Section. Water sources can be threatened by many potential contaminant sources, including permitted wastewater discharges, underground storage tanks, urban storm water runoff, or other types of non-point source contamination such as runoff produced by agricultural activities and land clearing for development. A source water assessment is a qualitative evaluation of the potential of a drinking water source to become contaminated by the identified potential contaminant sources (PCSs) within the delineated area. A SWAP Report consists of an assessment area delineation, a potential

contaminant source inventory and map, a susceptibility rating, maps, tables and a detailed description of North Carolina's SWAP approach. The city's water source is comprised of twenty (20) groundwater wells, which have been assigned a qualitative susceptibility rating of Lower or Moderate, based on a contaminant rating of Lower, Moderate, or Higher and an inherent vulnerability rating of Lower as seen in **Table 5**. The rating process is described in detail in Sections 3 and 6 of the SWAP Report. The City of New Bern's entire SWAP Report for September 10th, 2020 can be found on the PWS website,

SOURCE NAME	INHERENT VULNERABILITY RATING	CONTAMINANT RATING	SUSCEPTIBILITY RATING
Well #1	Lower	Higher	Moderate
Well #1-Group A	Lower	Moderate	Moderate
Well #10-Group B	Lower	Higher	Moderate
Well #11-Group B	Lower	Lower	Lower
Well #12-Group A	Lower	Lower	Lower
Well #13-Group B	Lower	Lower	Lower
Well #14-Group A	Lower	Moderate	Moderate
Well #15-Group B	Lower	Higher	Moderate
Well #2	Lower	Higher	Moderate
Well #2-Group A	Lower	Higher	Moderate
Well #3	Lower	Higher	Moderate
Well #3-Group B	Lower	Higher	Moderate
Well #4	Lower	Higher	Moderate
Well #4-Group A	Lower	Higher	Moderate
Well #5	Lower	Higher	Moderate
Well #5-Group B	Lower	Higher	Moderate
Well #6-Group A	Lower	Lower	Lower
Well #7-Group B	Lower	Lower	Lower
Well #8-Group A	Lower	Lower	Lower
Well #9-Group B	Lower	Moderate	Moderate

Table 5: New Bern SWAP Vulnerability, September 10th, 2020

The entire SWAP report including explanations for ratings can be found at:

https://www.ncwater.org/SWAP_Reports/NC0425010_SWAP_Report-20200909.pdf

V. MANAGEMENT OF THE WELLHEAD PROTECTION AREAS

There are two methods of managing a Wellhead Protection Area. They are regulatory and non-regulatory. The City of New Bern has chosen a **non-regulatory** approach, which will include the following:

A Wellhead Protection Brochure (tri-fold) will be delivered to each resident, business, agricultural operation, school, and industry within the Wellhead Protection Areas. Copies of this brochure will be made available at City Hall and other locations deemed necessary for public education on Wellhead Protection. In general, the brochure will convey to each citizen/business the following information:

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

The City of New Bern will provide information to each business, industry, and farm located within the WHPAs 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 City of New Bern will also provide information regarding the North Carolina Division of Environmental Assistance and Customer Service (DEACS) to each business, industry, and farm located within the WHPAs. Owners/operators of potential contamination sources will be encouraged to contact the DEACS. The DEACS provides free technical and other non-regulatory assistance to reduce the amount of waste released into the air and water and on the land. The DEACS serves as a central repository for waste reduction and pollution prevention information. The DEACS 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, the DEACS may be contacted at (877) 623-6748 or (919) 707-8100.

Personnel at city 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.). The City of New Bern will also contact the State Division of Environmental Assistance and Customer Service (DEACS) to investigate steps that the city can take to reduce the amount of waste released into the air and water and on the land at city owned and/or managed facilities.

Trash and Recycle

Trash and recycle pick-up are provided by the City of New Bern. Hazardous waste items are not accepted pick-up items. Scheduled hazardous waste day events can be found on the NC DEQ website.

UST

The City of New Bern will notify any individual, industry, business, or government agency installing or planning to install a regulated underground storage tank within the city's wellhead protection areas of the following regulation:

North Carolina Underground Storage Tank (UST) 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:

(1) 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.

(2) 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(s) 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.

All owners/operators of regulated underground storage tanks (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 UST's will be asked to supply the city 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 city 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 the removal of UST's. If a closure report was not submitted, the City of New Bern will notify the UST Section of the location of the facility within the WHPAs and its proximity to a public water supply well.

AST

Owners of above ground storage tanks (ASTs) containing oil with a volume greater than 660 gallons or a combination of ASTs with an aggregate volume greater than 1320 gallons are subject to the Oil Pollution Prevention regulations contained in Federal Regulations found at 40 CFR 112. In most cases, these facilities must prepare and implement a Spill Prevention Control and Countermeasures (SPCC) Plan. The City of New Bern will verify the compliance status with regard to this regulation of each subject AST located within the WHPAs. Facilities with subject ASTs found not to be in compliance with this regulation will be notified of their regulatory responsibility under this regulation and notify the NC Department of Environmental Quality, UST Section.

Pollution Incidents

For soil or ground-water contamination incidents occurring within the WHPAs, the City of New Bern 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 city 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 City of New Bern will also notify the State agencies with oversight responsibilities for remediation of the location of the facilities within the WHPAs and their proximity to a public water supply well. The City of New Bern will also contact the State agencies with oversight responsibilities for the contamination incidents and notify them of the locations of any sites issued notices of "No-Further Action" occurring within the WHPAs and will request a review of this assessment.

No Further Action (NFA): For certain petroleum UST releases, a determination that no further action is required to assess or remediate soil and/or groundwater. For all releases the responsible party is required to restore soil and groundwater quality to concentration levels that are equal to or less than the standards established by State groundwater classification and water quality standards (15A NCAC 2L) before being granted No Further Action status. For the majority of releases, the groundwater contamination must be remediated, using one or more technologies, to these standard levels. However, for some releases, if stringent requirements are met, the contamination may be allowed to naturally attenuate to the standard levels or to be remediated actively to alternate concentration levels and then allowed to attenuate to the standard levels.

Septic Tanks and Heating Oil

All farms, residents, businesses, and industries in the WHPAs with septic tanks and heating oil tanks will be distributed a copy of the Wellhead Protection Brochure and any other information the city can obtain from County and/or State agencies on proper septic tank and heating oil tank maintenance.

Lift Stations

The City of New Bern uses SCADA to monitor all lift stations. Most of the lift stations are inspected daily, while the smaller lift stations are inspected three (3) times a week. The wastewater collection system is inspected and cleaned every business day.

Non-NPDES (Including WQ Permits)

The City of New Bern will contact the Division of Water Resources regarding facilities permitted to discharge wastewater to the land surface (Non-NPDES Permitted Facilities) to determine if 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. Notification will be made to the Division of Water Resources 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.

NPDES (Including Settling Basin as extension of WWTP and NCG Permits)

The City of New Bern will contact the Division of Water Resources regarding facilities with NPDES permits to determine if 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 Resources 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.

Stormwater Permits

The City of New Bern will contact the Division of Energy, Mineral and Land Resource's Washington Regional Office at 252-946-6481 regarding facilities with stormwater permits to determine that all such stormwater 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 Energy, Mineral and Land Resources 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.

Agricultural Operations/Pesticides

The City of New Bern will contact all agricultural operations within the WHPAs with pesticide storage or otherwise involved with the application of pesticides to ensure that they are pesticide operators licensed by the State of North Carolina and that proper records are maintained to ensure that all NC Pesticide Laws are adhered to. The City of New Bern will provide information to these facilities or agricultural

operations on waste handling practices, best management practices (BMPs), standard operating procedures, and proper waste disposal methods which could be employed to reduce the potential for ground water contamination. The BMPs will at minimum include the EPA Managing Large-Scale Application of Pesticides and Managing Agricultural Fertilizer Application BMPs located in the appendix of this plan. These facilities will also be provided with information regarding the North Carolina Division of Environmental Assistance and Customer Service (DEACS).

The city will also coordinate with the Pesticide Disposal Assistance Program (PDAP) to provide information about proper disposal of pesticides. The PDAP is a consumer services program in the North Carolina Department of Agriculture and Consumer Services. The PDAP, part of the Structural Pest Control and Pesticides Division, is a NON-REGULATORY program that provides cost-free assistance to farmers and homeowners. The goal of the Pesticide Disposal Assistance Program is to assist these citizens of North Carolina by managing and supervising the safe collection and lawful disposal of banned, outdated, or unwanted pesticides. Additional information about the PDAP along with the current collection schedule can be located at:

<http://www.ncagr.gov/SPCAP/pesticides/pdap/>

Asphalt/Cement/Concrete

The City of New Bern may find guidance for concrete operations in these locations:

Federal guidance for cement and concrete operations may be found on the EPA's webpage:

<https://www.epa.gov/smm/comprehensive-procurement-guidelines-cement-and-concrete-specifications#03>. This page describes material, state, contract, performance, mix design, quality control, and cenosphere/silica fume specifications/information. NC concrete building specifications can be determined in Section 1901 Chapter 19 of the 2018 North Carolina State Building Code. NC Department of Labor information regarding concrete regulations may be found on their website:

<https://www.labor.nc.gov/safety-and-health/occupational-safety-and-health/occupational-safety-and-health-topic-pages/concrete-and-masonry-construction#regulations>

Federal guidance for asphalt (paving and roofing materials) operational effluent guidelines may be found on the EPA's webpage:

<https://www.epa.gov/eg/paving-and-roofing-materials-effluent-guidelines>. Additional information may be found in 40 CFR Part 443.

The authority entity and/or branch of the authority entity in charge of compliance will vary based on permit(s). For chemical spills or other chemical related emergencies/accidents, the Chemical Storage management strategy should be followed on pg. 143.

Auto Waste (Auto Repair/Sale and Body Shop)

All businesses in the wellhead protection areas that produce auto wastes (oils, acids, antifreeze, etc.) will be provided information 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. They will also be provided information regarding the North Carolina Division of Environmental Assistance and Customer Service (DEACS). Owners/operators of these potential contamination sources will be encouraged to contact the DEACS. The DEACS provides free technical and other non-regulatory assistance to reduce the amount of waste released into the air and water and on the land. The DEACS serves as a central repository for waste reduction and pollution prevention information. The DEACS 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, the DEACS may be contacted at 1-877-623-6748 or to report an environmental emergency, call 1-800-858-0368. Their website is <http://portal.ncdenr.org/web/deao/>.

Car Wash

The City of New Bern will provide Best Management Practices to carwashes present in the Wellhead Protection Areas. For carwashes in a permanent location, North Carolina 15A NCAC 02T .0113 should be referenced. All carwashes in the WHPAs will be required to gain and maintain any permitting required of them by the NC DEQ. If the site contains a Class V injection well, the business will be expected to demonstrate excellent compliance with all applicable federal regulations.

Cemetery

The City of New Bern will contact the North Carolina Cemetery Commission to determine if any complaints have been filed with regards to any cemeteries located in the city. Should a complaint have been filed, a record of the advice and/or resolution will be kept on file by the city. Laws regarding cemeteries may be found at the North Carolina Cemetery Commission's website. Cemetery owners will be distributed the EPA BMPs for turfgrass fertilizer application and small-scale use of pesticides present in the appendix.

Chemical Storage (Including Electrical Substations and Tier II Facilities)

The City of New Bern will provide information to each business, industry, and farm located within the WHPAs on chemical storage practices, best management practices for handling and disposal of chemicals, and resources for the development of spill response plans. Operators/owners of potential contaminant sources which store hazardous chemicals will be encouraged to follow all OSHA regulations and standards including proper labeling of chemicals, proper chemical storage and handling practices, and maintaining records of Safety Data Sheets (SDS) for all chemicals onsite. Businesses, industries, and agricultural operations who employ staff will be encouraged to train their employees on the proper handling and disposal of all hazardous chemicals. All owners/operators of potential contaminant sites which use, store, or handle hazardous chemicals will be provided with a contact name and number for the City of New Bern for reporting any chemical release or spill to the ground surface or if damage is found to any sewage or drain lines or chemical storage disposal containers that could potentially cause a contamination event. In the event of any large chemical release reported, the city will contact the NC Hazardous Materials Williamston Regional Response Team at (800) 545-7781 or (252) 792-3521.

Dentists and Medical Facilities

The City of New Bern will maintain information regarding the current method of mercury amalgam disposal (or transport to an off-site facility) for all dentists (present in the wellhead protection areas) provided by each dental office. Staff of potential contaminant sources with hazards such as mercury and bloodborne pathogen risk will be encouraged to follow all OSHA regulations and standards regarding handling safety and proper disposal of hazardous substances. Federal information for dental office discharge can be found in 40 CFR Part 441. To determine the control authority for discharges, a Pretreatment Coordinator from the National Pretreatment Program may be contacted by Headquarters, Region, or State Contact.

Medical center waste management regulations can be found in 15A NCAC 13B. Most medical waste is considered solid waste as opposed to hazardous waste, therefore solid waste regulations should be consulted. These regulations are administered by, and in the event of a lapse of compliance reported to, the Solid Waste Section under the Division of Waste Management (NCDEQ).

Fertilizer

The City of New Bern will encourage fertilizer producers containing materials potentially hazardous to the water supply to follow all OSHA guidelines regarding safe material handling and appropriate material

storage. Any fertilizer operations present in New Bern will be required to stay in compliance with the groundwater standards determined by the Board of Agriculture (by the authority of Article 56. North Carolina Commercial Fertilizer Law) and enforced by the NC Department of Environmental Quality. Any fertilizer company discovered to be in non-compliance will be reported to the NCDEQ for corrective action. For federal regulations, the 40 CFR part 418 on fertilizer manufacturing may be consulted.

Golf Course

The City of New Bern will reference the applicable management strategies depending on the types of PCSs contained onsite. In the event that the golf course owns an above ground storage tank or underground storage tank for storage of fuel, the AST and UST management strategies should be followed on pg. 140. Should a golf course use pesticide, the pesticide management strategy should be followed on pgs. 141-142. The City of New Bern will provide any golf courses located within the WHPAs with the EPA Best Management Practice for turf grass fertilizer.

Hardware

The City of New Bern will encourage hardware stores containing materials potentially hazardous to the water supply to follow all OSHA guidelines regarding safe material handling and appropriate material storage. In the event a hardware store carries hazardous chemicals (ae. Industrial cleaners, solvents, lacquer, paint, etc.), the management strategy for Chemical Storage on pg. 143 should be referred to. In the event a hardware or parts and lumber store has an underground storage tank (UST) or an above ground storage tank (AST), the respective management strategies should be referred to on pg. 140. The city will provide a contact name and a phone number to these locations to be contacted in the event of an emergency.

Hazardous Waste/RCRA

The city will frequently monitor federal databases to determine compliance of industries with special classifications (ae. RCRA, TRI, etc.). Notification will be made to the appropriate State and Federal organizations of any compliance violations with regards to special classifications (ae. RCRA, TRI, etc.). These facilities will also be encouraged to follow all applicable OSHA regulations regarding facility operations and maintenance as well as material storage and handling.

Inactive Hazardous Waste

The City of New Bern will contact the Inactive Hazardous Site Branch, Superfund Section to determine whether the designated site has taken initial abatement actions required under North Carolina groundwater quality regulations (15A NCAC 2L). Under these regulations, any person conducting or controlling an activity which causes an unpermitted discharge of a waste or hazardous substance must take immediate action to stop and control the discharge and address any hazards posed by the contaminants. If groundwater has become contaminated, as a result of the discharge, the responsible party must take immediate action to eliminate the sources of contamination. Failure of a responsible party to take the initial discharge abatement steps required in 15A NCAC 2L may result in the assessment of a civil penalty or other enforcement action against that responsible party. The City of New Bern will notify the Inactive Hazardous Site Branch, Superfund Section of the location of the site within the WHPAs and its proximity to a public water supply well.

Landfill/Dump (Active and Inactive)

The City of New Bern may find guidance for landfill/dump operations in these locations:

Federal information on different types of landfills may be found on the EPA's website:

<https://www.epa.gov/landfills>

Safety practices in 29 CFR 1910 may apply to landfill workers and may be found at:

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910>

The NC DEQ Division of Waste Management is the authority that manages landfill compliance. The City of New Bern will contact the NC DEQ Division of Waste Management should a landfill/dump location violate compliance.

Laundromat

The City of New Bern will provide laundromats located within the wellhead protection areas with a copy of the Wellhead Protection Brochure and remind them that all wash water should be managed and disposed of according to state and federal regulations. Should the site contain a Class V injection well, the business will be expected to demonstrate excellent compliance with all applicable state/federal regulations.

Maintenance

The City of New Bern will issue Best Management Practices of the appropriate type to the maintenance center depending on the type of maintenance performed. Should maintenance involve automotive fluids of any kind (motor oil, gasoline, etc.), the Auto Waste management strategy on pgs. 142-143 should be referred to. Any site(s) will be encouraged to research and follow any OSHA regulations that pertain to the business. Should a hazardous chemical spill occur, the Chemical Storage management strategy on pg. 143 should be referred to.

Manufacturing

The City of New Bern will provide manufacturers with appropriate Best Management Practices. The city will frequently monitor federal databases to determine compliance of manufacturers with special classifications [ae. RCRA (Resource Conservation and Recovery Act), TRI (Toxics Release Inventory), etc.]. Notification will be made to the appropriate State and Federal organizations of any compliance violations with regards to special classifications (ae. RCRA, TRI, etc.). Manufacturing facilities will be encouraged to contact the DEACS with regards to waste reduction. These facilities will also be encouraged to follow all applicable OSHA regulations regarding facility operations and maintenance as well as material storage and handling. Please see the Chemical Storage (pg. 143) management strategy for manufacturers that also store chemicals.

Metal Finisher/Fabricator/Machine Shop

Federal information for Metal Finishers can be found in the 40 CFR Part 433. OSHA classifies Metal Finishers as “Major Group 34: Fabricated Metal Products, Except Machinery And Transportation Equipment.” For technical assistance, compliance centers can be found on the NC DEQ’s website under “Coaters.” Metal Finishers in the area will be expected to remain in compliance with all applicable state/federal regulations. Additional information regarding effluent guidelines of machine shops and metal fabricators may be found here:

<https://www.epa.gov/eg/metal-products-and-machinery-effluent-guidelines>

Municipal (Fire Stations, Police Stations, and Public Works)

The City of New Bern will keep proper maintenance on all vehicles owned by the Fire Department/Police Department/Public Works and/or city. For management of vehicular waste, the Auto Waste strategy on pgs. 142-143 will be followed. All chemicals stored will be clearly labeled and properly contained in accordance with State and Federal guidelines. Should a chemical spill occur, the Chemical Storage management strategy on pg. 143 will be followed. Any Fire Station/Police Station/Public Works with an Above Ground Storage tank or an Underground Storage tank should follow the management strategies present on pg. 140 for ASTs and USTs. Any Fire Station/Police Station/Public Works within the Wellhead Protection Areas will remain in excellent compliance with any applicable OSHA standards present.

Fire Stations should actively educate staff on the potential environmental risks of certain firefighting foams as well as methods to mitigate those risks. An appropriate foam should be selected for probable applications with the consideration of both effectiveness and environmental impact. The document provided in the appendix can be referenced for general information regarding AFFF type foams.

Print Shop

The City of New Bern will encourage printing operations to follow OSHA standards (some provided in the “printing industry” section of the OSHA website) regarding printing, health, and safety. For federal regulations, EPA 744B-94-001 titled “Federal Environmental Regulations Potentially Affecting the Commercial Printing Industry” should be consulted.

Quarry (Mining)

The City of New Bern will contact the Division of Energy, Mineral and Land Resource’s Washington Regional Office at 252-946-6481 regarding facilities with mining permits to determine that all such activities 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 Energy, Mineral and Land Resources 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.

For more information about mining regulations, the City of New Bern can reference *N.C. Mining Act of 1971 - G.S. 74, Article 7* and *NCAC Title 15A, Chapter 5: Mining: Mineral Resources*. For any OSHA related concerns, *OSHA Division B: Mining* can be referenced for the specific mining subsection applicable.

School

Schools may contain above ground storage tanks (ASTs) in the form of a generator and/or a heating oil tank. The AST status of schools within the WHPAs in New Bern is unknown. Should ASTs be found at any of these schools, the AST management strategy on pg. 140 should be followed. All schools within the WHPAs in New Bern have recreational fields. These fields may use pesticides; therefore, the pesticide management strategy should be followed on pgs. 141-142. Schools will receive the EPA BMPs for Small Scale Pesticides and Turf Grass Fertilizer, which are present in the appendix.

Septic Hauler

The City of New Bern will contact the local health department to determine the septage authority for the area. For more information, the City of New Bern can review the NC DEQ page on septage: <https://www.deq.nc.gov/about/divisions/waste-management/solid-waste-section/special-wastes-and-alternative-handling/septage#SeptageManagementFirmorFacilityPermit-2889>. Septic haulers within the WHPAs will be required to receive any applicable permits to operate, as well as to adhere to the parameters of all permits held. Septic haulers within the WHPAs will receive a copy of the NC DEQ’s Septage Pumper Vehicle Best Management Practice, which is present in the appendix.

Scrap Yard

The City of New Bern can reference the Federal definition of “scrap metal” in 40 CFR 261.1 (c), as well as what constitutes “recycling” and “reclamation.” The City of New Bern will require scrap yards to remain in compliance with applicable NC DEQ Solid Waste Section and/or Hazardous Waste Section regulations. Scrap yards holding NCG permits will be required to maintain and remain in compliance with said permits. Scrap yards are also subject to the Auto Waste management strategy on pgs. 142-143. In the event of a chemical spill, consult the Chemical Storage strategy on pg. 143. Sites should be encouraged to follow the standards outlined in OSHA 3348: Metal Scrap Recycling.

Solid Waste and Recycling Center

The City of New Bern will remain in compliance with State and Federal regulations applicable to recycling and solid waste convenience centers. The city will remain vigilant of activities regarding recycling and solid waste centers inside of the WHPAs and notify the appropriate authorities and state agencies should an issue arise. The NC DEQ Solid Waste Section can be contacted by phone at 919-707-8200.

Storage (non-chemical or unknown)

The City of New Bern will encourage sites to maintain appropriate facilities and containment based on any existing OSHA or other State or Federal standards for the storage and/or handling of both unknown and known materials. An updated contact and/or tax parcel owner will be kept on file for each storage hazard of concern within the WHPAs in the event of an emergency.

Transportation Corridors and Railways

The City of New Bern will regularly monitor public state databases and will regularly contact the NCDEQ, UST Section of the Washington Regional Office to determine if there have been any new contaminant spills or releases on any of the corridors within the city's wellhead protection areas. Local fire department personnel, as well as police personnel, will be requested to provide information to the city in the event a situation should arise.

Underground Injection Wells

The City of New Bern will contact the Division of Water Resources under the Department of Environmental Quality regarding residences and businesses in possession of a Geothermal Well(s) to determine if all wells in the wellhead protection area are permitted. All permits should be correct based on the type of Geothermal Well or other type of Underground Injection Well (Closed-loop, Open-loop, "pump and dump," Horizontal Closed-loop, Remediation, etc.) installed. Should any construction/operation require notice, the city will confirm with the DWR that the appropriate paperwork has been filed. Notification will be made to the Division of Water Resources if it is determined that a Geothermal Well or UIC well is out of compliance (ae. Circulation of an unapproved liquid, improper construction, etc.). Federal guidance can be found with the EPA, Underground Injection Control, Region 4.

Wood Processing

The City of New Bern will encourage wood processors to follow OSHA standards (some provided in the "wood products" section of the OSHA website) regarding wood products and hazard recognition. Should any logging occur, owners/operators should also familiarize themselves with any OSHA materials specific to this process. During any logging operations, the rules of the Sedimentation Pollution Control Act must be followed as well as any other applicable forestry regulations. Any wood processing activity which requires discharge to land or water will be required to obtain all required permits (ae. Stormwater permit) to maintain compliance with the NC DEQ. For federal regulations, some relevant information may be found in 40 CFR part 429 on timber products. In the event of non-compliance, multiple NC DEQ divisions may be involved (Division of Air Quality, Division of Waste Management, Division of Water Resources, etc.) the most relevant of which will be contacted first.

VI. Contingency Plan

The primary person responsible for implementing the emergency contingency plan is the Treatment Plant Manager. The back-up person responsible for implementation is the Water Plant Superintendent. The WPC may be involved in decision-making in the event that response actions are required.

Short Term Contingency Plan (less than 48 hours)

The City of New Bern water system has a total storage capacity of 9.7 million gallons (see pg. 6 for water storage breakdown). Its average daily usage is approximately 3.5 mgd. This confirms that the system has enough water stored for more than 48 hours but less than 72 hours of use under normal operating conditions. The City of New Bern maintains interconnections with Craven County Water System (PWSID #: 04-25-055) and the Town of Cove City (PWSID #: 04-25-045) used for the purchase or sale of water during emergencies. With the occurrence of a brief power outage, the City of New Bern will operate from the stored water supply and/or utilize fixed generators at Wells #2, #3 (Cove City), #7, #8, and three (3) portable generators stored between Cove City Well #4 and Well #2. If the water supply reaches the point of low pressure, the city will utilize its interconnection(s) with Craven County Water System and/or the Town of Cove City. Minor contamination events (e.g. sulfur dioxide, discolored water due to manganese, iron or sediment) would require the city to isolate the contaminated section of the distribution system and flush the section thoroughly.

Long Term Contingency Plan

If one or more of New Bern's wells were to become contaminated, they would be isolated from the rest of the public water supply system by shutting off the well pump(s) and closing the valve(s) to the system. If evidence exists that a well is contaminated, it will immediately be taken offline 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 it were determined that contaminated water had entered the distribution system, the incident would be handled by a public information officer through a notice transmitted by TV broadcast on an in-house cable channel, newspaper, radio broadcast, and a social media post stating that the water should not be consumed until further notice is given. The Public Water Supply Section of NCDEQ would be notified immediately of the situation and assistance would be requested to help ensure safe drinking water for the residents of New Bern. The next step would be to determine if all or part of the distribution system was affected by the contaminant through testing and sample analysis. The testing performed would be determined by what the contaminant was thought to be (e.g. bacteriological, SOCs, VOCs, etc.) If only a portion of the system was affected, that portion would be isolated from the rest of the system by closing valves around the contaminated section. The affected portion, or the entire system if necessary, would be systematically flushed and purged until sample results showed the contaminant was no longer present. Once sample analysis (e.g. bacteriological, SOCs, VOCs, etc.) showed the contaminant was no longer present in the public water supply system, and after consultation with the Public Water Supply Section of NCDEQ, the information will be relayed by a public information officer through a notice transmitted by TV broadcast on an in house cable channel, newspaper, radio broadcast, and a social media post informing that the City of New Bern's water supply was once again safe for consumption. Boil water advisories would be used throughout applicable contamination incidents (e.g. bacteriological) in accordance with state regulations.

Should simultaneous contamination of all water sources including the interconnections with Craven County Water System and the Town of Cove City occur, the NC Army National Guard (301 Glenburnie Dr, New Bern, NC 28560) in New Bern could be contacted for assistance.

Should a major oil or chemical spill occur within the Wellhead Protection Areas, appropriate emergency agencies will be notified. The first agency contacted will be Craven County Emergency Services.

Craven County Emergency Services: 252-636-6608

Additional emergency contact numbers and resources are listed below on pg. 149.

Emergency Contact Numbers and Additional Resources:

Name	Resource
Primary person responsible for implementing emergency contingency plan Dalton Gaskins Treatment Plant Manager 252-639-7553	Emergency Response
Secondary person Jon Hammond Water Plant Superintendent 252-639-7557	Emergency Response
Public Water Supply Section Jamie Midgette Engineering Supervisor Washington Regional Office 943 Washington Square Mall Washington, NC 27889 Phone-252-948-3974 Pager-252-495-1389	Technical Assistance Regulatory guidance
NC Department of Environmental Quality, Washington Regional Office 943 Washington Square Mall Washington, NC 27889 252-946-6481	Regional Water Quality Section, Public Water Supply Section, UST Section, Hazardous Waste Section Spills, Regulatory information and technical assistance
Department of Transportation Division Engineer Jeff Cabaniss, PE 2815 Rouse Road Extension Kinston, NC 28504 252-775-6100	Division 2, District 2
NC Army National Guard 301 Glenburnie Dr, New Bern, NC 28560 919-750-0235	Emergencies, as available: (Varies based on location) Generators, water trailers, bottled water, transportation
NC Rural Water Association Post Office Box 590 Welcome, NC 27374 336-731-6963	Technical assistance Education
North Carolina Cooperative Extension Service Campus Box 7602 North Carolina State University Raleigh, NC 27695-7602 919-515-2811 www.bae.ncsu.edu	Educational brochures, publications
US EPA Regional Office AST/SPCC Program Region IV 61 Forsyth Street Atlanta, GA 30365-3415	Above ground storage tank information

404-562-8761 www.epa.gov/oilspill	
US EPA Regional Office GW & UIC Section Region IV Atlanta Federal Center 61 Forsythe St. Atlanta, GA 30303-8960 www.epa.gov	Educational brochures, publications
NC Division of Environmental Assistance and Customer Service (DEACS) 1639 Mail Service Center Raleigh, NC 27699-1639 877-623-6748 http://ncenvironmentalassistance.org/	Technical and non-regulatory assistance to reduce waste
National Small Flows Clearinghouse West Virginia University Post Office Box 6064 Morganton, WV 26506-6064 800-624-8301 http://www.nesc.wvu.edu/nsfc/nsfc_index.htm	Pamphlets, brochures, training aids
Craven County Water System Nadyne Bentley Water Treatment Operator 2830 Neuse Boulevard New Bern, NC 28560 Phone: 252-636-6615 https://www.cravencountync.gov/192/Water-Department	Emergency Connection
Town of Cove City Jamie Cannon/Lydia P Monette PO Box 8 204 South Main St. Cove City, NC 28523 Phone: 252-568-3006/252-633-1595	Emergency Connection

VII. Implementing, Maintaining, And Updating The WHP Plan

Public Participation

This plan will be available for public review during a 30 day comment period by visiting the New Bern City Hall or by viewing the plan online at City of New Bern's website. The City of New Bern will post a notice in the local newspaper, the New Bern Sun Journal, explaining to its customers what a Wellhead Protection Program is and how they have the opportunity to review the proposed WHPP and make comments. Any substantive comments received from the public will be considered for inclusion into the final version of the City of New Bern's WHPP. Proof of Public Notice will be provided to the Public Water Supply Section upon publishing in the form of either an affidavit or a copy of the newspaper article with date visible.

New Public Water Supply Wells

The City of New Bern will amend its Wellhead Protection Plan to include any new well(s) 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 in order to determine the area of vulnerability.
2. Develop a contaminant source inventory for the preliminary WHPA.
3. Submit the information obtained in items 1 and 2 above to the Wellhead Protection Committee identified in Section 1. 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 Wellhead Protection Committee grants provisional approval of the proposed WHP 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 Wellhead Protection Committee.
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 PWSS for review and approval.

Future Wellhead Protection

The City of New Bern is aware that an effective local Wellhead Protection (WHP) Program is an ongoing process requiring monitoring of the Wellhead Protection Areas (WHPAs) and periodic review and updating of an approved WHP plan. Therefore, New Bern's WPC will monitor the Wellhead Protection Areas (WHPAs) for any new or previously unidentified potential contaminant sources (PCSs) and activities occurring within the approved WHPAs. The city 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 systems 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 city will also fully update the WHP Plan every five years or at any time a new well is constructed for use with the city's water supply system or a major land use change occurs within a WHPA. The individual(s) responsible for implementation of the WHP Plan will submit notification to the Public

Water Supply Section annually upon completion of the PCS inventory update or immediately following the completion of a major revision. Any amended or revised sections of the approved WHP Plan resulting from an update or revision will also be submitted upon completion.