



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

CERTIFIED MAIL NO.: **2 262 596 486** JUN 26 2000  
RETURN RECEIPT REQUESTED

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4WM-WPEB

Mr. Terry Barefoot  
Barefoot Farms, Inc.  
2989 Highway 701 South  
Four Oaks, North Carolina 27524

**SUBJ: EMERGENCY ADMINISTRATIVE ORDER**  
Docket No.: SDWA-04-2000-0060

Dear Mr. Barefoot:

The EPA hereby issues to Barefoot Farms, Inc., the enclosed Emergency Administrative Order ("Order") pursuant to Section 1431 of the Safe Drinking Water Act, 42 U.S.C. § 300i. Under the authority granted in Section 1431, where EPA receives information that a contaminant which is present in or is likely to enter a public water system or an underground source of drinking water may present an imminent and substantial endangerment to the health of persons in the area, the Agency may take such action as may be necessary to protect such persons.

The EPA has received information that the contaminant set out in the enclosed Order, which includes but is not limited to nitrate, is present in the ground and in the underground source of drinking water underlying the Barefoot Farm facility and has migrated off the facility property. The Agency has determined that the presence of nitrate presents an imminent and substantial endangerment to persons on and off the facility property.

Should you violate or fail or refuse to comply with this Order issued under Section 1431, you may, in an action brought in the appropriate United States District Court to enforce such order, be subject to a civil penalty not to exceed \$15,000 for each day in which such violation occurs or failure to comply continues.

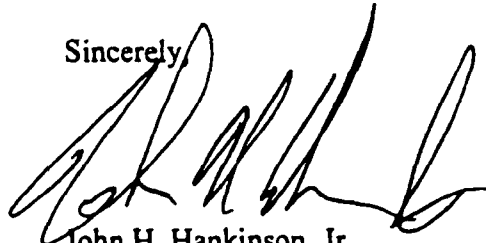
Within 3 calendar days after your receipt of this Order, you may request a conference with EPA regarding this Order. At any conference held pursuant to the request, you may appear in person or be represented by an attorney or other representative. Notification of your intent to comply with this Order, as provided by paragraph 64 of the Order, must occur within 24 hours of issuance of this Order, regardless of whether a conference is requested. This notification may occur by phone or fax to Ms. Carol Tarras, Chief, Safe Drinking Water Act Enforcement Section, at (404) 562-9743 (phone) or (404) 562-9729 (fax). If you choose to notify EPA by phone, you must provide a written response by fax or first class mail as provided for in the enclosed Order.

If a conference is held, you may present any information or comments regarding this Order. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, does not delay the effective date of this Order, and does not give you a right to seek review of this Order. Requests for a conference, or any written submittal under this paragraph, shall be directed to Mr. Adam Sowatzka, Associate Regional Counsel, at 61 Forsyth Street SW, Atlanta, Georgia, 30303-8960, (404) 562-9545.

Enclosed is a supplemental information sheet for small businesses which you may find useful. It explains your right to comment on regulatory enforcement activities pursuant to the Small Business Regulatory Enforcement and Fairness Act.

If you have any questions regarding this matter, you may contact Ms. Carol Tarras, Chief, Safe Drinking Water Act Enforcement Section, at (404) 562-9743. If your attorney has questions, he or she should contact Mr. Adam Sowatzka, Associate Regional Counsel, at (404) 562-9545.

Sincerely,

A handwritten signature in black ink, appearing to read "John H. Hankinson, Jr.", written in a cursive style.

John H. Hankinson, Jr.  
Regional Administrator

Enclosure

cc: Mr. Bill Holman, Secretary - NCDENR  
Mr. Arthur Mouberry - NCDENR  
Mr. Larry Sullivan - Johnston County Health Department

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4

_____ )	
IN THE MATTER OF )	EMERGENCY ADMINISTRATIVE ORDER
)	
BAREFOOT FARMS, INC. )	
William Terry Barefoot )	PURSUANT TO SECTION 1431(a)
2989 Highway 701 South )	OF THE SAFE DRINKING WATER ACT,
Four Oaks, North Carolina 27524 )	42 U.S.C. § 300i(a)
)	
RESPONDENT )	DOCKET NUMBER: SDWA-04-2000-0060
_____ )	

I. STATUTORY AUTHORITY

1. The United States Environmental Protection Agency Region 4 ("EPA") issues this Emergency Administrative Order ("ORDER") pursuant to the authority granted by Section 1431(a) of the Safe Drinking Water Act (referred to as "the Act" or "SDWA"), 42 U.S.C. § 300i(a). This authority has been delegated to the Regional Administrator of EPA, Region 4.

II. DEFINITIONS

2. For purposes of this ORDER, the term "underground source of drinking water" ("USDW") means, in part, an aquifer or its portion which supplies drinking water for human consumption, or contains fewer than 10,000 milligrams per liter ("mg/l") total dissolved solids, and which is not an exempted aquifer. See, 40 C.F.R. § 144.3.

3. For purposes of this ORDER, an aquifer means a geological formation, group of formations or part of a formation that is capable of yielding a significant amount of water to a well or spring. See, 40 C.F.R. § 144.3.

4. The term "Geoprobe" means a truck-mounted system which is a direct push, hydraulic, and percussion drive-point sampling system designed to collect discrete soil and ground-water samples.

5. All terms not defined herein shall have their ordinary meaning, unless such terms are defined in the SDWA or its implementing regulations, in which case the statute or regulatory definitions shall apply.

### III. FINDINGS OF FACT

Based on the information in its possession, particularly that contained in the Administrative Record, EPA makes the following findings of fact:

6. Barefoot Farms, Inc. (referred to as "Barefoot Farms" or "Respondent"), incorporated on September 10, 1996, in North Carolina, owns and operates a swine facility located at 2989 Highway 701 South, in Four Oaks, Johnston County, North Carolina ("facility" or "swine facility"). Barefoot Farms, Inc., is registered at 2989 Highway 701 South, Four Oaks, North Carolina.
7. Section 1401(c)(12) of the SDWA, 42 U.S.C. § 300f(c)(12), defines "person" as including an individual, or corporation.
8. Section 1431(a) of the SDWA, 42 U.S.C. § 300i(a), specifies that upon receiving information that a contaminant which is present in or is likely to enter an underground source of drinking water may present an imminent and substantial endangerment to the health of persons, and that appropriate State and local authorities have not acted to protect the health of such persons, EPA may take such action as deemed necessary in order to protect the health of such persons.
9. Section 1431 of the SDWA further specifies that, to the extent that EPA determines it to be practicable in light of such imminent endangerment, EPA shall consult with the State and local authorities in order to confirm the correctness of the information on which the action proposed to be taken is based and to ascertain the action which such authorities are or will be taking. The action which EPA may take may include (but shall not be limited to) (1) issuing a Section 1431 order to protect the health of persons who are or may be users of such system (including travelers), including requiring the provision of alternative water supplies by persons who caused or contributed to the endangerment, and (2) commencing a civil action for appropriate relief, including a restraining order or permanent or temporary injunction.
10. The Barefoot Farms facility has been in existence since at least 1993, and was incorporated as Barefoot Farms, Inc., from 1996 to the present. Since at least 1993, the facility has operated a waste lagoon and spray irrigation disposal system for the purpose of disposal of wastes generated by swine.
11. The facility is located off of Highway 701 South in Four Oaks, Johnston County, North Carolina. The facility is located on approximately 10 acres of land. The facility lies on the top of a small hill and consists of 4 rectangular shaped covered buildings which house approximately 2,800 swine. The buildings contain an animal waste flushing system which discharges waste to a single waste lagoon. The waste lagoon, located to the west of the buildings, is irregular in shape and is estimated to be 250 feet wide by 425 feet long at its longest dimensions and is approximately 4 to 6 feet in depth. The area surrounding the waste lagoon and buildings consists of a berm and spray application areas. The area to the east of the facility slopes eastward and

consists of a field onto which lagoon waste water is applied by way of a spray irrigation disposal system (waste lagoon, piping, spray heads, sprayfield, etc.). This sprayfield is bordered along the eastern edge with ground cover and is adjacent to U.S. Highway 701. Located on the east side of U.S. Highway 701 South are several homes with private drinking water wells, including the

[REDACTED]

12. This facility is located in North Carolina's coastal plain, consisting of a series of alternating sand and shale units. The area beneath Barefoot Farms, [REDACTED] well consists of the unnamed surficial aquifer. Productive zones of this aquifer consist of sands with yields adequate to supply a water supply well. The thickness of the surficial aquifer can range up to 84 feet. Estimated hydraulic conductivities are 70 feet per day. The soils in this area are characterized as having good infiltration capacity generally varying between well drained to very well drained sandy soil and sandy loam.

13. Respondent continues to operate the waste lagoon and spray irrigation disposal system for the purposes set forth in paragraph 10.

14. Swine produce considerable amounts of nitrogenous organic waste, typically in the range of 6 to 8 pounds of manure per 100 pounds of weight per day. Swine supernatant concentrations of ammonia and nitrate can be considerable, as ammonia is produced by hydrolysis of waste fluids. Due to their high solubility, ammonia and nitrate will readily leach into ground water. Where aerobic conditions are present, such as typical in a surficial aquifer, ammonia will be converted to nitrate and nitrite. Plants can uptake nitrates and nitrites, but only in limited quantities. Quantities of nitrates and nitrites in the soil in excess of levels which can be used by plants will often migrate to the water table where they may adversely impact private wells.

15. The substance nitrate is a "contaminant" within the meaning of Section 1401(c)(6) of the SDWA, 42 U.S.C. § 300f(c)(6).

16. The SDWA requires EPA to publish maximum contaminant level goals ("MCLG's") for contaminants which, in the judgment of the Administrator, may have an adverse effect on the health of persons and which are known or anticipated to occur in public water systems. MCLG's are to be set at a level at which no known or anticipated adverse effects on the health of persons would occur and which allow a margin of safety. See, 40 C.F.R. § 141. At the same time EPA publishes an MCLG, it must also promulgate a National Primary Drinking Water Regulation which includes either (1) a maximum contaminant level ("MCL") or (2) a required treatment technique. An MCL must be set as close to the MCLG as feasible.

17. The EPA has determined that nitrate poses an acute health concern at certain levels of exposure. Nitrate in drinking water is colorless and odorless. Ingestion of nitrate, converted to nitrite in the body, interferes with the oxygen carrying capacity of blood, potentially resulting in cyanosis and, at higher levels, asphyxia. Pregnant women, adults with reduced stomach acidity, and individuals deficient in the enzyme that changes methemoglobin back to normal hemoglobin

are all susceptible to nitrite-induced methemoglobinemia. Prolonged intake of high levels of nitrate are linked to gastric problems due to the formations of nitrosamines, which have been shown to cause cancer in test animals.

18. High levels of nitrate in water can also cause a blood disorder in infants known as methemoglobinemia ("blue baby syndrome") that can be fatal if left untreated. Infants up to 3 months of age are the most susceptible with regard to nitrate. This is due to the fact that about 10 percent of ingested nitrate is transformed to nitrite in the adult and child, and 100 percent of ingested nitrate can be transformed to nitrite in the infant. Thus, infants with a weight of less than 4 kilograms represent a high risk subpopulation. The MCL for nitrate under the National Primary Drinking Water Regulations is 10 mg/l as nitrogen. See, 40 C.F.R. § 141.62. EPA has established this drinking water standard to protect against the adverse effects of nitrate. See, 40 C.F.R. § 141.32(e)(20). At 10 mg/l or higher concentrations, nitrate poses a health threat to the population in general, and an acute health threat to children under 6 months of age. This level was based on human case studies in which fatal poisonings have occurred following ingestion of well water containing nitrate concentrations greater than 10 mg/l. Therefore, at the concentration of 10 mg/l in drinking water, nitrate presents an imminent and substantial endangerment to the health of persons.

19. From 1995 to 1998, the North Carolina Department of Environment and Natural Resources ("NCDENR") offered a free well testing program to owners of private drinking water wells located near large livestock farms after a summer of spills, accidents, and dumping of waste at farms across the region, including Johnston County, including wells in this area.

20. Ground-water sampling has been conducted in this area on several occasions. In June 1997, NCDENR initiated the first ground-water investigation at this site. On December 16 and 17, 1997, NCDENR sampled five ground-water monitoring wells in this area. The nitrate values ranged from 10 mg/l to 38 mg/l with the highest level in well MW-5 nearest the Barefoot facility's sprayfield. On May 3 and 4, 1999, May 12, 1999, and July 15 and 16, 1999, NCDENR again sampled ground-water monitoring wells in the area. In the May 1999 ground-water monitoring well sampling, nitrate concentrations ranged from 5.2 mg/l to 26.0 mg/l with the highest level found in MW-3 between the [REDACTED] property and the Barefoot Farms facility. In July 1999, ground-water monitoring well sampling for nitrate revealed concentrations ranging from 6.4 mg/l to 21.0 mg/l with the highest levels found in MW-2, MW-3, and MW-6 at 21.0 mg/l, 20.0 mg/l, and 20.0 mg/l, respectively. MW-3 and MW-6 are located between the facility and the [REDACTED]. [REDACTED] MW-6 is located between U.S. Highway 701 and the facility.

21. NCDENR's initial report on its investigation of this area, dated April 22, 1998, indicated that any contamination resulting from infiltration of hog-waste material to the water table will eventually impact the [REDACTED] property.

22. The data from the site show changes in the compounds of nitrogen consistent with the nitrogen cycle as waste moves from the waste lagoon to ground water at the facility. A sample of

the waste lagoon taken by EPA in March 2000, revealed levels of ammonia at 330 mg/l and nitrate at 0.094 mg/l. Also in March 2000, the surficial aquifer ground-water sample taken by the Geoprobe nearest to the waste lagoon at the 15 foot to 19 foot level below land surface showed 0.1 mg/l of ammonia and 31 mg/l of nitrate. At the same location at the 23 foot to 31 foot level below land surface, ammonia was found at .33 mg/l and nitrate at 34 mg/l.

23. NCDENR's testing program included samples taken from the [redacted] well and the [redacted] well. These wells are located [redacted] across Highway 701 South. They are located approximately [redacted] of the Barefoot Farms sprayfield boundary and hydraulically downgradient. The [redacted] well was sampled as follows: (1) November 8, 1995, with a result of 8.97 mg/l nitrate; (2) January 11, 1996, with a result of 7.78 mg/l nitrate; (3) April 2, 1997, with a result of 13.9 mg/l nitrate; (4) May 3 and 4, 1999, with a result of 30.0 mg/l nitrate plus nitrite; and (5) July 15 and 16, 1999, with a result of 25.0 mg/l nitrate plus nitrite. The [redacted] well was first sampled August 15, 1996, with a result of 10.02 mg/l nitrate and again on July 21, 1999, with a result of 16.0 mg/l nitrate plus nitrite.

24. In June 2000, NCDENR prepared an addendum to the April 1998 report ("addendum") of investigation at the [redacted] residence. The addendum suggests that animal wastes from the facility may have contributed to the degradation of ground water on and adjacent to the facility property and upgradient of the [redacted] property.

25. On June 8, 2000, NCDENR issued a Notice of Violation ("NOV") to Mr. Terry Barefoot, owner of Barefoot Farms, for violation of ground-water quality standards at or beyond the compliance boundary surrounding the facility. The NOV requires Mr. Barefoot to submit a report assessing the cause, significance, and extent of the violation, and to submit a plan and proposed schedule for restoration of ground-water quality. The plan shall include provisions for alteration of existing site conditions, facility design, or operational controls that will prevent a continued violation of the ground-water quality standards at the compliance boundary. This NOV, and all other actions taken by the State with respect to this facility, are not adequate to address the imminent and substantial endangerment to the health of persons who consume water from the contaminated wells.

26. In August 1999, the EPA's Water Programs Enforcement Branch conducted an initial site screening of contaminated private wells in this area. EPA conducted this effort to validate and confirm results of the State database of impacted nitrate-contaminated private water supply wells.

27. On August 20, 1999, the EPA confirmed the presence of nitrate contamination in wells in the area. During this study, a homeowner indicated to EPA that other homes with private wells within the area were previously sampled by the State, contained high levels of nitrate contamination, and were informed by State personnel not to drink water from their wells.

Exemption 6 Personal privacy

28. EPA consulted with the State regarding contamination at swine facilities, including Barefoot Farms, on numerous occasions. On September 13, 1999, EPA and NCDENR discussed by phone EPA's concerns about ground-water contamination near swine facilities. On October 18, 1999, EPA's Water Management Division Director corresponded with the Secretary of NCDENR regarding swine facilities and ground water contamination issues. On December 2, 1999, NCDENR responded to EPA's letter of October 18, 1999, and EPA sent a reply letter on December 17, 1999.

29. On January 19, 2000, EPA employees met with representatives of the NCDENR to consult with the State to discuss ground-water contamination issues. The discussion included the approaches of both agencies to situations where private wells are impacted. Also, the statutes and regulations of each agency were reviewed to determine potential courses of action.

30. On March 1, 2000, EPA sent a letter to NCDENR summarizing the January 19, 2000, meeting. On March 9, 2000, EPA informed the State that it would be conducting a field investigation of the Barefoot Farms facility beginning March 13, 2000. On March 13, 2000, prior to beginning the field investigation activities at the facility, EPA consulted with NCDENR to discuss EPA's approach and purpose for collection of field data. Additionally, EPA and NCDENR discussed logistics in order to allow the State to participate in split-sampling activities. On April 11, 2000, EPA sent a letter to NCDENR requesting data from ground-water monitoring wells at the investigation site in Johnston County. On June 2, 2000, NCDENR discussed with EPA the imminent completion of the State's addendum to its report of April 1998. On June 15, 2000, EPA spoke telephonically with the Johnston County Health Department regarding the well sampling results for this area and to confirm that the Health Department had not acted with respect to the [REDACTED] wells.

31. During the week of March 13, 2000, EPA conducted its inspection of the facility and conducted a field investigation to determine the source(s) of nitrate contamination previously identified in private water supply wells. This study included sampling of the waste lagoon, ground-water sampling, and private well sampling activities.

32. In June 2000, EPA issued a report titled, "Environmental Investigation -- Highway 701 Ground Water Contamination Site -- Johnston County, North Carolina." The EPA report shows elevated levels of nitrate contamination in ground water ranging up to 34 mg/l on the Barefoot Farms property. The highest value was present in the ground-water sample located up gradient of the sprayfield area. Additionally, nitrate contamination in ground water is present at 26 mg/l in the sample located at the downgradient edge of the sprayfield and just upgradient of the private drinking water wells.

33. The sampling of the private drinking wells during the March 2000 EPA investigation revealed the following: (1) the [REDACTED] well had a result of 21 mg/l nitrate; and (2) the [REDACTED] well had a result of 16 mg/l nitrate.



34. Drinking water from the [REDACTED] wells exceeds the MCL of 10 mg/l for nitrate. Each of the wells draws the ground water from a USDW which is used by each of the families for drinking, food preparation and cooking, dish washing, oral hygiene, and bathing. Similarly, other families in the area also rely on the surficial aquifer for water supply.

35. The general ground water flow direction of the surficial aquifer is to the northeast beneath the facility and continues northeastward and eastward toward the private residences located adjacent to Barefoot Farms. This flow direction for ground water corresponds to the flow directions identified in the State reports.

36. Septic system locations at the [REDACTED] residences are not likely sources of contamination of nitrates due to their downgradient locations from the water supply wells. This is supported by ground-water data obtained during EPA's investigation which show no increase in nitrate concentrations downgradient of the septic systems.

37. Two stable isotopes of nitrogen exist,  $^{14}\text{N}$  and  $^{15}\text{N}$ , which are useful in the evaluation of nitrogen contamination. The measurement of the quantity of the stable isotope of nitrogen,  $^{15}\text{N}$ , can be used in conjunction with site-specific information concerning hydrology to identify sources of contamination. This is due to the enrichment of  $^{15}\text{N}$  in manure and septic waste over the levels found in rainwater and fertilizer. Specifically, the  $^{15}\text{N}$  levels found in animal waste or sewage ranges between 10 to 20 permil ("‰"), whereas fertilizer and rainwater fall in the range of  $\pm 5\%$  of the level found in the atmosphere.

38. With respect to the Barefoot Farms facility and surrounding areas where elevated levels of nitrogen are located, the  $^{15}\text{N}$  analytical data link the contamination to the facility waste. The Barefoot waste lagoon  $\delta^{15}\text{N}$  value is 12.4‰. The shallow Geoprobe ground-water samples at the facility range from 13.8‰ to 19.1‰. These samples are downgradient of the lagoon and surround the sprayfield. Similarly, the  $\delta^{15}\text{N}$  values in the [REDACTED] well were 18.3‰ and 19.3‰ and in the [REDACTED] well were 13.4‰.

39. There are other potential water supply wells within the vicinity of the facility which may not have been sampled for possible contamination. In addition, there may be wells in the vicinity of the facility which have not been identified for sampling.

40. EPA has no record of any ground-water cleanup or remedial activities at Barefoot Farms. The nitrate contamination remains in the surficial aquifer, and the facility continues to contaminate the surficial aquifer via spray irrigation activities and/or waste lagoon leakage.

41. Pursuant to the SDWA Section 1431(a), 42 U.S.C. § 300i(a)(1), EPA has been in communication with the State of North Carolina and local government regarding this endangerment. Additionally, EPA has consulted fully with the State on the correctness of the information upon which this ORDER is based. EPA will exercise its authority under the SDWA.

which authority is not delegable or transferable to the State or local government, in order to expeditiously abate the endangerment

#### IV. CONCLUSIONS OF LAW

Based upon the foregoing Findings of Fact and the Administrative Record supporting this ORDER, EPA hereby concludes that:

42. Barefoot Farms, Inc., is a "person" within the meaning of the SDWA Section 1401(c) (12), 42 U.S.C. § 300f(c)(12), and Section 1431 of the Act.

43. Respondent has caused or has contributed to the introduction of nitrate which is a "contaminant" within the meaning of SDWA 1401(c)(6), 42 U.S.C. § 300f(c)(6) and 1431 of the Act.

44. The contaminant introduced by Barefoot Farms is present in or likely to enter an underground source of drinking water.

45. The aquifer from which the [REDACTED] and other families draw ground water is an "underground source of drinking water."

46. Based upon evidence, EPA has determined that Barefoot Farms' introduction of a contaminant, which is likely to enter a USDW, may present an imminent and substantial endangerment to the health of persons.

47. Nitrate contamination in the soil and ground water at the facility and in the vicinity will continue to threaten human health until the source of the contamination is removed and the site is remediated.

48. State and local authorities have not acted to adequately protect the health of the persons subject to the imminent and substantial endangerment presented by the nitrate introduced by the Barefoot Farms facility.

49. EPA has consulted with the State to confirm the correctness of the information upon which this ORDER is based. All requisite conditions have been satisfied for EPA action under Section 1431(a)(1) of the SDWA, 42 U.S.C. § 300i(a)(1). Furthermore, EPA has determined that the State does not, at this time, intend to take the actions described in paragraphs 52 through 65 below.

50. EPA finds that there continues to be an imminent and substantial risk of harm to people drinking water from wells contaminated by Barefoot Farms. The actions required by this ORDER are necessary to protect the health of persons who are currently consuming or who may consume or use water from the contaminated portion of the surficial aquifer.

51 Section 1431(a), 42 U.S.C. § 300i(a), specifies that the Administrator, upon receipt of information that a contaminant which is present in or is likely to enter a public water system or an underground source of drinking water may present an imminent and substantial endangerment to the health of persons, may issue an order as may be necessary to protect the health of persons, including travelers.

## V. ORDER

As a result of the above Findings of Fact and Conclusions of Law, and pursuant to the authority issued to the EPA Administrator by Section 1431(a)(1) of the SDWA, 42 U.S.C. § 300i (a)(1), Barefoot Farms, Inc., is hereby ORDERED to perform the following actions:

52. Within 7 days of receipt of this ORDER, Respondent shall deliver an emergency supply of potable water to residences on the [REDACTED] property at a rate of not less than 50 to 75 gallons per day per resident. Such water is to be provided at no cost to the [REDACTED]

53. Starting with the 7<sup>th</sup> day after the day of the initial delivery of water, and until otherwise notified in writing by EPA, Respondent shall deliver a sufficient amount of potable water to the [REDACTED] residences once every 7 days so that the families are provided with at least 50 to 75 gallons per day per resident of potable water at the beginning of each 7-day period. This amount may be adjusted in accordance with the actual usage by each family when approved in writing by EPA. Such water is to be provided at no cost to the [REDACTED]

54. An emergency supply of drinking water shall mean bottled water, bulk water from a tank truck, or water from some other source acceptable to EPA that meets the water quality requirements of 40 C.F.R. § 141 for domestic uses, and is provided in a place and container convenient to the residence.

55. Within 15 calendar days of receipt of this ORDER, Respondent shall submit to EPA for approval, an investigation plan ("Well Survey and Sampling Plan") to accomplish the following activities:

- i. Identify all families using water from the surficial aquifer for human consumption downgradient of the facility to the nearest ground-water divide as indicated in Exhibit 1.
- ii. Include identification of any supply wells not currently being used, but which may be used as a viable source of drinking water.
- iii. Conduct analytical testing for the presence of the following contaminants. Each contaminant is followed in parentheses by the EPA method (see EPA

Methods and Guidance for Analysis of Water, EPA 821-C97-001, April 1997). Nitrate (300.0); nitrite (300.0); ammonia (350.1); arsenic (200.7); barium (200.7); chloride (300.0); copper (200.7); sodium (200.7); sulfate (300.0); zinc (200.7). Conduct total coliform analyses in accordance with one of the methods listed in 40 C.F.R. § 141.21(f)(3) as contained in the latest edition of "Standard Methods for the Examination of Water and Wastewater," American Public Health Association. Conduct fecal coliform analysis in accordance with 40 C.F.R. § 141.21(f)(5). A well with a positive total coliform shall be further analyzed for the presence of *e. coli* in accordance with 40 C.F.R. § 141.21(f)(7). Additional analyses shall be conducted for fecal streptococcus, enterococcus, and salmonella in accordance with "Standard Methods for the Examination of Water and Wastewater."

- iv. Include provisions for continued monitoring of private wells on a calendar quarterly basis (July through September; October through December; January through March; April through June) for those parameters listed in item 55.iii. above or until EPA determines that the ground water does not present an imminent and substantial endangerment to human health or until EPA terminates this ORDER.
- v. In the event specific constituents are not detected within 8 consecutive rounds of sampling, Respondent may, upon written request to and approval by EPA, eliminate such analysis for said constituents.

56. The investigation plan shall propose methods of implementation and include a schedule for completion of tasks by Respondent outlined in this ORDER or as otherwise directed by EPA.

57. Respondent shall use best efforts to obtain access to property needed to implement the investigation plan. Best efforts include the payment of reasonable sums of money.

58. Respondent shall follow the EPA Region 4 Environmental Investigations Standard Operating Procedures and Quality Assurance Manual, and other relevant EPA guidance for all sampling and analysis. The investigation plan shall contain quality assurance/quality control and chain of custody procedures for all sampling, monitoring, and analytical activities. The plan shall provide that all samples shall be analyzed by a State or EPA-approved laboratory using an EPA-approved testing method pursuant to 40 C.F.R. § 141.24, or other appropriate methods. Any deviations from the approved plan must be approved in writing by EPA prior to implementation; must be documented, including reasons for the deviations; and must be reported in the applicable report as described in paragraph 60 below.

59. At the request of EPA, Respondent shall allow EPA or its authorized representatives to take split or duplicate samples of all samples collected by Respondent pursuant to this ORDER.

Respondent shall notify EPA not less than 28 days in advance of sample collection activities unless shorter notice is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that EPA deems necessary. Similarly, at the request of Respondent, EPA shall allow Respondent or its authorized representative(s) to take split or duplicate samples of all samples collected by EPA as part of the EPA's oversight of the Respondent's implementation of this ORDER.

60. Within 30 days of the completion of the investigation plan, results of the analysis of the initial samples shall be sent to EPA according to Section IX of this ORDER below. Results of the analysis of the quarterly samples shall be sent to the same address within 15 days of each sampling event.

61. Upon analysis of sample results by EPA, Respondent may be required to provide safe drinking water to all persons who use water from the well where the sample was collected within 7 calendar days after notification by EPA. Safe drinking water quantities shall be calculated in accordance with Part I, "Selection and Management of a Water Source," including Table 3, from Manual of Small Public Water Supply Systems, EPA 570/9-91-003, May 1991, Office of Water, Washington, DC 20460. Respondent shall continue to provide safe drinking water until EPA determines that the well can consistently provide water without contaminants at concentrations of concern.

62. In the event the Respondent proposes and EPA accepts a permanent alternative source of safe drinking water for the water supply wells within the sampling area of this ORDER, implementation of a permanent alternative source of safe drinking water will release the Respondent from all other provisions of this ORDER upon written notice of such by EPA. Any normal and reasonable costs associated with the implementation of a permanent alternative source of water shall be borne by the Respondent. When written notice of successful implementation is provided by EPA, the Respondent will no longer be responsible for any costs unless required by any other federal, state, or local statute or ordinance.

63. Within 14 days of the receipt of this ORDER, Respondent shall issue written public notice by publication in the local newspaper that Respondent is providing potable drinking water to residences in the area delineated in Exhibit 1 whose wells have been tested and have been shown to exceed the MCL for any contaminant. The public notice shall also notify the persons whose wells exceed the MCL for any contaminant not to use their water well for drinking water for human consumption. Respondent shall include in the public notice that an Emergency Administrative Order has been issued by EPA. Specifically, using the language and general content described in 40 C.F.R. § 141.32(e)(20), Respondent shall publish the written notice in a local daily newspaper (a local weekly if no daily newspaper encompasses the area delineated in Exhibit 1). Respondent shall continue providing public notice every 3 months for as long as any resident's well exceeds the MCL for any contaminant. A copy of the public notice published in a local newspaper shall be sent to EPA at the address in Paragraph 76 no later than 3 days after each publication.

64. Respondent shall, within 24 hours after receipt of this ORDER, notify Ms. Carol Tarras, Chief, Safe Drinking Water Act Enforcement Section, by telephone at (404) 562-9743, whether it intends to comply with the provisions of this ORDER in a timely manner. Respondent shall also provide a response in writing by facsimile at (404) 562-9729 or by first class mail at the address in paragraph 76 below.

65. Failure to provide such notice shall be deemed failure to comply with the terms of this ORDER.

## VI. EPA APPROVALS

66. EPA reserves the right to comment on, modify, and direct changes to any plan, report, specification, or schedule submitted pursuant to or required by this ORDER. EPA shall provide Respondent with its written approval, approval with conditions and/or modifications, or disapproval. If such document submittal is disapproved, EPA shall either (1) notify Respondent that EPA will modify the document to cure the deficiencies or (2) direct Respondent to modify the document to cure the deficiencies. Revised submittals are also subject to EPA approval, approval with conditions and/or modifications, or disapproval.

67. Upon receipt of a notice of disapproval and notification directing modification of the document, Respondent shall, within 30 days, cure the deficiencies and resubmit the document for approval. Should EPA determine that Respondent has failed to cure any deficiencies, EPA reserves the right to modify the document to correct the deficiencies and to then direct the Respondent to implement the actions of the document.

68. Upon receipt of EPA's written approval, Respondent shall commence work and implement any approved plan in accordance with the schedule and provisions contained therein. If no schedule is contained in an approved plan, then Respondent shall commence work and implementation of the plan within 15 calendar days of receipt of EPA's written approval of the plan. In the event EPA disapproves the plan, Respondent shall proceed to take any action required by any nondeficient portion of the plan.

69. Any EPA-approved plan, report, specification, or schedule shall be incorporated by reference into this ORDER as if set forth fully herein. Prior to EPA's written approval, no plan, report, specification, or schedule shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA representatives will not constitute an official approval, nor shall any oral approval or oral assurance of approval be considered binding.

70. Noncompliance with plans, reports, specifications, schedules, and attachments approved by EPA pursuant to this ORDER shall be considered a violation of the requirements of this ORDER

and shall subject Respondent to the statutory penalty provisions and enforcement actions pursuant to Section 1431(b) of the SDWA, 42 U.S.C. § 300i(b).

71. Any changes or modifications proposed by Respondent to the EPA-approved plans and timetables required by this ORDER must be approved or may be modified and approved in writing by EPA prior to implementation.

#### VII. ADDITIONAL WORK

72. EPA may determine or Respondent may propose that certain tasks, including investigatory work, engineering evaluation, or procedure/methodology modifications, are necessary in addition to or in lieu of the tasks included in any EPA-approved plan, to meet the purposes set forth in this ORDER. EPA may determine that Respondent shall perform the additional work, and EPA will specify in writing the basis for its determination that the additional work is necessary. Within 30 calendar days after the receipt of such determination, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work. If required by EPA, Respondent shall submit for EPA approval a work plan for the additional work. Such work plan shall be submitted within 30 calendar days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA. Upon EPA's approval of a work plan, Respondent shall implement such work plan in accordance with the schedule and provisions contained therein.

#### VIII. PARTIES BOUND

73. The provisions of this ORDER shall apply to and be binding upon Respondent and its officers, employees, agents, successors, and assigns, and shall apply whether or not Respondent's activities in connection with the facility have occurred while doing business by any other name, including but not limited to Barefoot Farms, Inc. Notice of the ORDER shall be given to any successors in interest prior to transfer of the facility or its operations. Action or inaction of any persons, firms, contractors, employees, agents, or corporations acting under, through, or for Respondent, shall not excuse any failure of Respondent to fully perform the obligations under this ORDER.

74. Respondent shall provide a copy of this ORDER to any and all business organizations, contractors, or subcontractors which do business at the facility. Respondent shall provide a copy of this ORDER to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this ORDER within 7 calendar days of the effective date of this ORDER, or on the date of such retention; and Respondent shall condition all such contracts on compliance with the terms of this ORDER.

75. Respondent shall give notice to EPA at least 30 calendar days prior to transfer of ownership and/or operation of the facility.

IX. GENERAL PROVISIONS

76. All submittals pursuant to this ORDER shall be hand delivered, sent by certified mail (return receipt requested), sent by overnight certified express mail, or sent by overnight delivery service as follows:

Three (3) copies to:

- a. Ms. Carol L. Tarras, Chief  
Safe Drinking Water Act Enforcement Section  
U. S. Environmental Protection Agency, Region 4  
61 Forsyth Street SW  
Atlanta, Georgia 30303-8960

One (1) copy to each of the following:

- b. Mr. Arthur Mouberry, Chief  
Groundwater Section  
North Carolina Department of Environment and Natural Resources  
1636 Mail Service Center  
Raleigh, NC 27699-1636
- c. Mr. Larry Sullivan  
Johnston County Health Department  
205 South Second St.  
Smithfield, NC 27577-4194

77. Each submittal shall include reference to the docket number as shown on the first page of this ORDER.

78. All plans, reports, notices, or other documents submitted by Respondent pursuant to this ORDER, which make any representation concerning Respondent's compliance or noncompliance with any requirement of this ORDER, shall be accompanied by the following statement signed by Respondent:

"I certify under the penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquiry of any and all persons directly responsible for gathering and analyzing the information obtained, I certify that the information contained in or accompanying this submittal is to the best of my knowledge and



belief, true, accurate, and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

79. The certification shall also include the name, title, date, and signature of the person or persons completing the certification.

80. Respondent shall submit to EPA the results of all sampling, tests, or other data generated by Respondent or its agents, consultants, or contractors pursuant to this ORDER.

81. If any event occurs which causes delay in the achievement of the requirements of this ORDER, Respondent shall have the burden of proving that the delay was caused by circumstances beyond the reasonable control of Respondent or the control of any entity controlled by Respondent, including its contractors and consultants which could not have been overcome by due diligence. Respondent shall notify EPA verbally within 24 hours and in writing within 7 calendar days of verbal notification to EPA, of the anticipated length and cause of the delay, the measures taken and/or to be taken to prevent or minimize the delay, and the time table by which Respondent intends to implement these measures. If EPA agrees that the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of Respondent, the time for performance hereunder shall be extended for a period equal to the delay resulting from such circumstances. Respondent shall adopt all reasonable measures to avoid or minimize delay. Failure of Respondent to comply with the notice requirements of this paragraph shall constitute a waiver of Respondent's right to request an extension to meet the requirements of this ORDER.

82. Notwithstanding any other provisions of this ORDER, EPA retains all of its information gathering and inspection authorities and rights, including the right to bring enforcement actions related thereto, under the SDWA and any other applicable statutes or regulations.

83. Respondent may assert a confidentiality claim covering all or part of any information submitted to EPA pursuant to this ORDER. Any assertion of confidentiality must be accompanied by information that satisfies the items listed in 40 C.F.R. § 2.204(e)(4) or such claim shall be deemed waived. Information determined by EPA to be confidential shall be disclosed only to the extent permitted by 40 C.F.R. Part 2. If no such confidentiality claim accompanies the information when it is submitted to EPA, the information may be made available to the public by

EPA without further notice to Respondent. EPA will not accept any confidentiality claim with regard to any physical or analytical data.

84. EPA, its contractors, employees, and/or any EPA representative(s) are authorized to enter and freely move about all property at the facility pursuant to this ORDER for the purposes of, inter alia, interviewing facility personnel and contractors; inspecting records, operating logs, and contracts related to the facility; reviewing the progress of the Respondent in carrying out the terms of this ORDER; conducting such tests, sampling, or monitoring as EPA or its project coordinators deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by the Respondent. Respondent shall provide EPA and its representatives access to the facility at all reasonable times and to any other property to which access is required for implementation of this ORDER. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this ORDER and that are within the possession or under the control of Respondent or its contractors or consultants.

85. To the extent that work being performed pursuant to this ORDER must be done beyond the facility property boundary, Respondent shall use its best effort to obtain site access agreements necessary to complete work required by this ORDER from the present owner(s) of such property for which site access is required. Best efforts as used in this paragraph shall include, at a minimum, a certified letter from Respondent to the present owner(s) of such property requesting access agreement(s) to permit Respondent and EPA and its authorized representatives access to such property, and the payment of reasonable sums of money in consideration of granting such access. Any such access agreements shall be incorporated by reference into this ORDER and shall provide for access by EPA and its representatives. Respondent shall ensure that EPA has a copy of any such access agreements. In the event that agreements for access are not obtained for which access is required, or of the date that the need for access became known to Respondent, Respondent shall notify EPA in writing within 2 calendar days thereafter of both the efforts undertaken to obtain access and the failure to obtain such agreements. EPA may, at its discretion, assist Respondent in obtaining access. In the event EPA obtains access, Respondent shall undertake EPA-approved work on such property. The Respondent shall indemnify EPA for any and all claims arising from activities on such property.

86. Nothing in this section limits or otherwise affects EPA's right of access and entry pursuant to applicable law, including the SDWA, the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 to 6992k, and the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 to 9675.

87. Record Preservation. Respondent shall retain, during the pendency of this ORDER and for a minimum of 6 years after its termination, all data, records, and documents now in its possession or control or which come into its possession or the possession of its divisions, officers, directors, employees, agents, contractors, successors, and assigns which relate in any way to this ORDER.

Subsequent to the termination of the aforementioned 6-year period, Respondent shall provide written notification to EPA 60 calendar days prior to the destruction of any data, records, or documents that relate in any way to this ORDER, its implementation, waste management practices and/or disposal at its facility. At EPA's request, Respondent shall then make such records available to EPA for inspection and/or EPA's retention, or shall provide copies of any such records to EPA prior to discarding. Such written notification shall reference the effective date, caption, and docket number of this ORDER and shall be sent the address at paragraph 76 above.

88. Within 10 calendar days of the effective date of this ORDER, or at the time of retaining or employing any agent, consultant, or contractor for the purpose of carrying out the terms of this ORDER, Respondent shall enter into an agreement with any such agents, consultants, or contractors whereby such agents, consultants, or contractors will be required to provide Respondent a copy of all documents produced pursuant to this ORDER.

89. All documents pertaining to this ORDER shall be stored in a designated area as determined by the Respondent in a centralized location to afford ease of access by EPA or its representatives.

90. All data, information, and records pertaining to, created for, or maintained by Respondent in connection with this ORDER shall be made available to EPA upon request. All employees of Respondent and all persons, including contractors and subcontractors, who engage in activity under this ORDER shall be made available to and shall cooperate with EPA if information is sought.

91. Pursuant to Section 1431(b) of the SDWA, 42 U.S.C. § 300i(b), in the event that Respondent willfully violates, or fails, or refuses to comply with any of the terms or provisions of this ORDER, EPA may commence a civil action in the U.S. District Court where Respondent is doing business to require compliance with this ORDER and to assess a civil penalty of up to \$15,000 per day under the SDWA in which such violation occurs or such failure to comply continues. Respondent shall be deemed severally liable in any such action. Failure to perform any requirement of this ORDER shall be a violation of this ORDER, beginning on the first day that performance is scheduled to commence.

92. EPA expressly reserves all rights and defenses that it may have, including the rights both to disapprove work performed by Respondent pursuant to this ORDER and to request that Respondent perform tasks in addition to those stated in the ORDER Section above.

93. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any of the requirements of this ORDER, including without limitation the assessment of penalties under 1431(b) of the SDWA, 42 U.S.C. § 300i(b). This ORDER shall not be construed as a covenant not to sue, release, waive, or limit any rights, remedies, powers, and/or authorities, civil or criminal, which EPA has under the SDWA, or any other statutory, regulatory, or common law

authority of the United States. Nothing in this ORDER shall diminish, impair, or otherwise adversely affect the authority of EPA to enforce the provisions of this ORDER.

94. This ORDER shall not limit or otherwise preclude EPA from taking additional enforcement action pursuant to the SDWA, or any other available legal authority, should EPA determine that such action is warranted and necessary to protect human health and the environment.

95. EPA reserves the right to perform any portion of the work set forth herein, or any additional work as it deems necessary to protect human health and/or the environment.

96. If EPA determines that activities in compliance or noncompliance with this ORDER have caused or may pose a threat to human health and/or the environment, or if EPA determines that Respondent is not capable of undertaking any of the work ordered, EPA may order Respondent to stop further implementation of this ORDER for such period of time as EPA determines may be needed to abate any threat and/or to undertake any action which EPA determines is necessary to abate such threat.

97. This ORDER does not constitute a waiver, suspension, or modification of the requirements of the SDWA and any of the regulations promulgated thereunder, which remain in full force and effect. Issuance of this ORDER is not an election by EPA to forego any civil or criminal action otherwise authorized under the SDWA or any other statute.

98. Nothing in this ORDER shall constitute or be construed as a release from any claim, cause of action, demand, or defense in law or equity against any person, firm, partnership, or corporation for any liability it may have arising out of, or relating in any way to the release of any wastes, pollutants, or contaminants found at, taken to, or taken or migrating from the facility.

99. All actions required to be taken pursuant to this ORDER shall be undertaken in accordance with the requirements of all applicable local, State, and federal laws and regulations. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations to perform work pursuant to this ORDER and shall submit timely applications and requests for any such permits and approvals.

100. Respondent shall indemnify and save and hold harmless EPA, its agents, and employees from any and all claims or causes of action arising solely from, or on account of, acts or omissions of Respondent or its officers, employees, agents, independent contractors, receivers, trustees, and/or assigns in carrying out activities required by this ORDER. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent, EPA, or the United States under their various contracts.

101. This ORDER may be amended by EPA to ensure protection of human health and the environment. Such an amendment shall be in writing, shall have as its effective date the date on which it is signed by EPA, and shall be incorporated into this ORDER.

102. If any provision or authority of this ORDER, or the application of this ORDER to any party or circumstance, is held by any judicial or administrative authority to be invalid, the application of such provisions to other parties or circumstances and the remainder of the ORDER shall remain in force and shall not be affected thereby.

103. The Administrative Record supporting this ORDER is available for review by Respondent and the public on normal business days between the hours of 9:00 a.m. and 5:00 p.m. at EPA's regional office located at the Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, Georgia. If additional information becomes available, EPA will amend the Administrative Record, if relevant and appropriate. To review the Administrative Record, contact Ms. Carol Tarras, Chief, Safe Drinking Water Act Section, EPA Region 4, at (404) 562-9743.

#### X. OPPORTUNITY TO CONFER WITH EPA

104. Respondent has the opportunity to confer informally with EPA concerning the terms and applicability of this ORDER. Respondent must contact Adam Sowatzka, Associate Regional Counsel, (404) 562-9545, and schedule such a conference within 5 calendar days of receipt of this ORDER. Any such conference with EPA will be held at the following location:

U.S. EPA Region 4  
Atlanta Federal Center  
61 Forsyth Street SW  
Atlanta, Georgia 30303-8960

105. If EPA determines that any element of this ORDER, including work to be performed or scheduled, warrants modification after a conference is held, EPA will modify the ORDER in writing. The modification will be effective on the date it is received by the Respondent. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge the ORDER, and does not give Respondent a right to seek review of this ORDER.

#### XI. EFFECTIVE DATE OF ORDER

106. Pursuant to Section 1431 of the SDWA, 42 U.S.C. 300i, this ORDER shall be effective immediately upon Respondent's receipt of the executed ORDER. If modifications are made by EPA to this ORDER, such modifications will be effective on the date received by Respondent. This ORDER shall remain in effect until the provisions identified in the ORDER have been met in accordance with written EPA approval. This ORDER shall constitute final agency action for purposes of Section 1448 of the SDWA, 42 U.S.C. § 300j-7.

XII. TERMINATION AND SATISFACTION

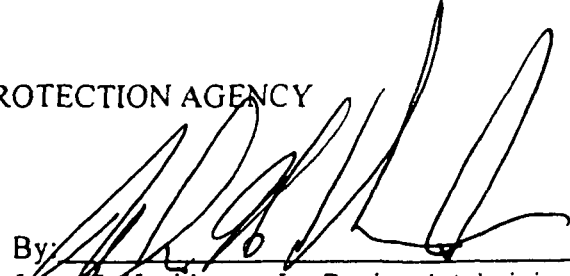
107. The provisions of this ORDER, with the exception of the Record Preservation section, shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this ORDER, including any additional tasks determined by EPA to be required pursuant to this ORDER or any continuing obligation or promises, have been satisfactorily completed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 4

Date:

6/26/00

By:

  
\_\_\_\_\_  
John H. Hankinson, Jr., Regional Administrator  
U.S. Environmental Protection Agency  
Region 4  
61 Forsyth Street, SW  
Atlanta, Georgia 30303-8960

# Exhibit 1

Area Where Private Well  
Sampling Required

