

**IOWA DEPARTMENT OF NATURAL RESOURCES
ADMINISTRATIVE CONSENT ORDER**

IN THE MATTER OF: CITY OF BOONE Boone, Iowa	ADMINISTRATIVE CONSENT ORDER NO. 2009-WW- 11
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TO: City of Boone
John Slight, Mayor
923 8th Street
Boone, IA 50036

I. SUMMARY

This administrative consent order (Order) is entered into between the City of Boone (Boone) and the Iowa Department of Natural Resources (DNR) for the purpose of establishing a compliance schedule for the completion of construction of Boone's sanitary sewer collection system. The parties have agreed to the provisions below.

Any questions regarding this administrative consent order should be directed to:

Relating to technical requirements:
Charles Furrey, Environmental Specialist
DNR Field Office #5
401 SW 7th Street, Suite 1
Des Moines, Iowa 50309
Phone: 515/725-0268

Relating to legal requirements:
Jon Tack, Attorney for the DNR
Iowa Department of Natural Resources
502 E. 9th Street
Des Moines, Iowa 50319
Phone: 515/281-8889

Payment of penalty to:
Director of the Iowa DNR
Wallace State Office Building
502 East Ninth Street
Des Moines, Iowa 50319-0034

II. JURISDICTION

This Order is issued pursuant to the provisions of Iowa Code section 455B.175(1), which authorizes the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code Chapter 455B, Division III, Part 1 (waste water) and the rules adopted or permits issued pursuant to that part, and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10, which authorize the Director to assess administrative penalties.

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III. STATEMENT OF FACTS

1. Boone has a Vertical Loop Reactor (VLR) activated sludge wastewater treatment plant constructed in 1995-1996. The treatment facility consists of the following units: a traveling bar fine-screen, 12 inch and a 36 inch Parshall flumes for flow measurement with a sonic head flow sensor and Inventron flow recorder, a 20,000-gallon capacity aerated grit chamber (two units), four VLR activated sludge aeration basins, and two 110 ft. final clarifiers. Sludge is stored in four aerobic digesters/aerated sludge holding tanks, which were the former primary clarifiers. Sludge is dewatered using one of two 2-meter belt filter presses then hauled to the Richard Thompson farm where it is mixed with cattle manure, stored in bunkers, and eventually land applied in accordance with the DNR's regulations.

There are five lift stations in the collection system. The Boone's sanitary sewer collection system serves approximately 12,800 people including industrial and commercial customers. The original collection system in the west part of town was installed in the late 1800's. The east portion of the collection system was installed between 1910 and 1920. New additions were installed in 1972 which included trunk sewers for future industry in the eastern part of town and residential additions in the western part of town.

The existing collection system is comprised of approximately 341,000 feet of sewer pipe ranging from 6 inch to 27 inch diameter pipe. There are approximately 1,000 manholes. Most of the manholes are brick.

Most of the system is over 80 years old. The sewer collection system, other than a few rehabilitations, is still the original system.

2. On July 10, 2003, DNR received a complaint from Chris Miller who lives at 1128 17th Street in Boone. Mr. Miller's complaint was regarding the backup of raw sewage into his basement. The backup also included grass clippings. An investigation was made on July 16, 2003 by David Perry of DNR Field Office 5. During the investigation, Mr. Perry met with Mr. Miller, Duane Ely, who is Mr. Miller's neighbor, and city officials. Mr. Miller stated during this meeting that he has experienced periodic problems with sewage backing up in a basement floor drain since he bought the house in October, 1998. Also during this meeting, Boone officials revealed that the city had numerous cross connections in its sewer and that several residents had installed valves to prevent backups into their basements.

3. On July 24, 2003, Mr. Perry sent Boone a certified letter outlining the discussion held on July 16, 2003. The letter requested that Boone provide a written response to the DNR within 5 days identifying what measures the city intended to take to address the periodic backups of wastewater into Mr. Miller's residence. It also requested that a plan of action be submitted within 30 days identifying what measures will be taken by the city to identify and eliminate all cross connections within the collection system. The letter stated that the plan should include time frames associated with specific milestones pertinent to the project.

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4. On December 22, 2003, McClure Engineering Company (McClure) submitted to DNR the plan of action in response to Mr. Perry's July 24, 2003 letter regarding a citizen's complaint of sewage backup in the basement located at 1128 17th Street in Boone.

5. On February 19, 2004, Field Office 5 sent a review letter to Boone commenting on the December 22, 2003 plan of action. The comments are summarized as follows:

- The plan of action deals almost exclusively with the basement backup on 17th Street and actions to address that problem. However the basis for the plan of action request was not only the 17th Street complaint but the acknowledgment by city staff that such problems exist throughout the collection system. Complaints seem to be avoided in most cases only because residents have installed valving to prevent the sewage from actually entering basements. This suggests that a significant I/I (inflow/infiltration) and/or capacity problem exists in extensive parts of the collection system and is not limited to the 17th Street problem.

- The plan of action needs to be expanded to include a discussion of and a plan to address the collection system problems. The DNR stated that as a part of the plan of action there would need to be a time schedule for preparation of an engineering evaluation of the collection system; and a cost effective analysis to determine whether it will be cheaper to provide additional sewer capacity, and perhaps treatment capacity to handle these additional flows or if collection system rehabilitation is cheaper.

Other requirements were placed in the letter, and a new date for submitting a revised plan of action was set for May 1, 2004.

6. On April 27, 2004, DNR received a letter from McClure requesting additional time to investigate several other areas within the city which seem to have wastewater conveyance problems, review the city's available budgeting for such work, and resubmit the plan of action within 90 days.

7. On May 3, 2004, DNR Field Office 5 sent a letter to Boone acknowledging McClure's April 27, 2004 letter. In this letter, DNR Field Office 5 granted an extension for the submitting of the plan until July 30, 2004.

8. On July 15, 2004, Boone sent a letter to the DNR requesting that the July 30, 2004 date for submitting the plan of action be extended another 90 days. The letter explained that the reason for the request was that the city had been in the transition of hiring a new engineering firm to provide services for the city. The letter also cited corrective actions that had been taken in the elimination of I/I problems in the north part of town where the original basement flooding complaint occurred.

9. On August 1, 2005, DNR received a sanitary sewer plan of action submitted by Nilles Associates, Inc. on behalf of Boone.

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10. On October 5, 2005, DNR Field Office 5 sent a letter to Boone approving the sanitary sewer plan of action. The letter contained the following comment:

- The plan of action indicates that the existing peak hour flow rate was determined to be 27.4 MGD. The existing hydraulic capacity of the treatment plant upgraded in 1994 was 22.7 MGD. The plan of action indicates that the treatment plant has not experienced peak hour flow problems since the plant was upgraded in 1994. This could be because of bypassing that now occurs at known points and losses that occur at unknown places due to sewer surcharging. The plan of action recommends that flows at the treatment plant be monitored in the future to determine if increasing the hydraulic capacity is warranted. In light of the fact that the plan of action indicates that the existing peak hour flow rate, not including future flow from areas of possible development already has the potential to exceed the existing plant capacity, consideration should now be given to providing additional treatment plant capacity. Additional capacity will prevent bypassing when it flows to the plant are increased as a result of the elimination of sewer bypasses and sewer surcharging.

11. On April 30, 2007, the DNR received a complaint concerning sewage backup in the basement at 1128 17th Street, Boone. The complainant alleged that the city refused to do anything about the backup. DNR Field Office 5 contacted the city manager and suggested a meeting within one week to ten days to renegotiate the plan of action time schedule to complete the work in the next three years. The meeting did not occur.

12. On June 7, 2007, the DNR received a letter from Boone stating that the Boone City Council had met on May 21, 2007, and voted unanimously to accept the request by the DNR to accelerate the schedule on the previously approved five-year plan of action to a three year schedule with the anticipated construction start dates for trunk sewer upgrades to the existing system as follows:

- Phase I Construction – Fall 2007
- Phase IIA and IV Construction – Summer 2008
- Phase IIB and III Construction – Summer 2009
- Phase V – To be determined

13. On October 15, 2007, Construction Permit Number 2008-0181-S was issued for sanitary sewer improvements. This permit was for the construction of 7 linear feet of 8-inch sanitary sewer and 2,350 feet of 10-inch sanitary sewer.

14. On October 18, 2007, Construction Permit Number 2008-0190-S was issued for sanitary sewer improvements Phase I. This permit was for the construction of 4,762 linear feet of 36-inch sanitary sewer and 1,449 feet of 27-inch sanitary sewer and appurtenances. Construction of Phase I began in the spring of 2008.

15. On March 25, 2008, an SRF project initiation meeting was held regarding Phase II and Phase III construction of sanitary sewer improvements.

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16. Beginning the last week of May, 2008, Boone experienced severe flooding that delayed sewer construction activities.

17. Boone began construction of Phases IIA and IIB in the summer of 2008.

18. Boone substantially completed construction of the Phase I sewer improvements in October of 2008.

19. The Department and Boone have agreed that the remaining phases of construction of the necessary sewer improvements can be completed with the schedule set forth in this order if satisfactory financing can be obtained. It is the understanding of the parties that acceptable financing is available at bank-qualified tax exempt rates through the assistance of the Iowa Finance Authority.

IV. CONCLUSIONS OF LAW

1. 567 IAC 64.7(5)(f) states that each issued NPDES permit shall provide for and ensure that the permittee at all times maintains in good working order and operate as efficiently as possible any facilities or systems of control to achieve compliance with the terms and conditions of the permit. The above-mentioned facts indicate noncompliance with this provision.

2. 567 IAC 64.7(5)(i) states that each issued NPDES permit shall provide for and ensure that the permittee shall take all reasonable steps to minimize or prevent any discharge in violation of the permit which has a reasonable likelihood of adversely affecting human health or the environment. The above-mentioned facts indicate noncompliance with this provision.

3. Pursuant to 567 IAC 63.6(1), bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.

V. ORDER

THEREFORE, the DNR orders and Boone agrees to the following:

1. Complete construction of sanitary sewer collection system improvements which will eliminate bypasses and basement backups by November 1, 2010.

2. Pay a stipulated penalty of \$1,000 per month for failure to meet the completion date of November 1, 2010.

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VI. PENALTY

1. Iowa Code section 455B.191 authorizes the assessment of civil penalties of up to \$5000.00 per day of violation for the violations involved in this matter.

2. Iowa Code section 455B.109 authorizes the Environmental Protection Commission (Commission) to establish by rule a schedule of civil penalties up to \$10,000 that may be assessed administratively. The Commission has adopted this schedule with procedures and criteria for assessment of penalties at IAC Chapter 567 - 10. Pursuant to this chapter, the DNR has determined that the most effective and efficient means of addressing the above-cited violations is the issuance of an Order with stipulated penalties.

a. Economic Benefit. Boone has achieved a cost savings by delaying the upgrade or replacement of the existing sanitary sewer collection system. This cost savings includes savings realized through the delay in incurring the costs of replacement or repair. The execution of this Order constitutes a good faith attempt by both parties to achieve compliance and resolve past violations, therefore the DNR is assessing economic benefit penalties only in the event of noncompliance with the compliance schedule contained in this Order. The stipulated penalties contained herein give consideration to the economic benefit achieved by Boone.

b. Gravity of the Violation. One of the factors to be considered in determining the gravity of a violation is the amount of penalty authorized by the Iowa Code for the type of violation. As indicated above, substantial civil penalties are authorized by statute. Despite the high penalties authorized, the DNR has decided to handle the violations administratively at this time, as the most equitable and efficient means of resolving the matter. Maintaining compliance with water pollution control laws is a major program priority of the federal and state pollution control agencies. Boone has failed to maintain compliance with the applicable permit and this has caused a direct threat to human health due to the back-up of raw sewage into homes. In light of these factors and the cooperative efforts of Boone, the DNR has determined that the assessment of a penalty is appropriate only in the event of noncompliance with the compliance schedule contained in this Order. The stipulated penalties contained herein also give consideration to the gravity of the violation.

c. Culpability. Boone has been aware of the inadequacies of the existing sanitary sewer collection system for a considerable period of time yet has failed to take action to correct the problem and has instead relied upon valves placed at individual homes to reduce the impact of the problem. This culpability is somewhat mitigated by the steps Boone has now taken to address the problem. The DNR has determined that the assessment of a penalty is appropriate only in the event of noncompliance with the compliance schedule contained in this Order. The stipulated penalties contained herein also give consideration to the culpability of Boone.

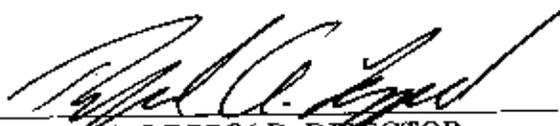
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VII. WAIVER OF APPEAL RIGHTS

This Order is entered into knowingly by and with the consent of Boone. For that reason, Boone waives the right to appeal this administrative consent order or any part thereof.

VIII. NONCOMPLIANCE

Failure to comply with this Order may result in the imposition of administrative penalties or referral to the Attorney General to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.191. Compliance with section V. Order, paragraph 1, of this Order constitutes full satisfaction of all requirements pertaining to the violations described in section "IV. Conclusions of Law" of this administrative consent order. The DNR reserves the right to bring issue a new administrative order with an administrative penalty or to seek referral to the Attorney General in lieu of collecting the agreed upon stipulated penalties established by this Order.



RICHARD A. LEOPOLD, DIRECTOR
Iowa Department of Natural Resources

Dated this 11 day of
May, 2009



JOHN SLIGHT, MAYOR
City of Boone

Dated this 4 day of
MAY, 2009

NPDES #0819001; Field Office #5; Jon Tack; EPA; Wayne Farrand; I.C.1