VARIANCE REQUEST

Iowa Department of Natural Resources

1. Date:	July 12, 2011	14. Decision:	
2. Review Engineer:	Dinbandhu Gupta	Date:	7/14/11 Denied
3. Date received :	October 23, 2009		
4. Facility name:	City of Ollie		
5. Facility number:	6-54-60-0-01		
6. County Number:	54(Keokuk)	15. Appealed:	
7. Program Area:	CP(Wastewater)	Date:	
8. facility Type:	C05 (biological treatment)		
9. Subject Area:	344 (pump cogging protection)		
10.Rule Reference:	567-64.2(9) a		
11.Design Standard Ref:	13.4.2		
12. Consulting Engr.:	Garden and Associates, LTD.		
13 Variance Rule:	567.64.2(9) c		

16. Description of Variance Request:

The City of Ollie is an Unsewered community with a total population of 224. Garden and Associates on behalf of Rural Utilities Service Systems (RUSS) is requesting a variance from the Iowa Wastewater Facilities Design Standards Chapter 13.4-Iowa Standard for Pumps and Pnuematic ejectors-13.4.2-protection against clogging. The Iowa Wastewater Facilities Design Standards Chapter 13.4.2 requires all pumping station handling raw wastewater shall have provision of screening to protect the pump form clogging or damage. RUSS has requested a variance to allow grinder pumps station handling the raw wastewater from Ollie, Iowa and to be exempt from requirement to provide screening.

17. Applicant's /Consulting Engineer Justification:

The Engineer has an opinion that a duplex grinder pump station supplied without a trash basket can effectively function and serve similarly small populations. Grinder pumps have functioned very reliably in similar applications (Kinross, Hamilton, Lincoln, and Morrison) without trash basket; grinder pumps are designed to macerate materials that are drawn into the pump; large objects those that cannot be drawn into the cutting assembly are expected to be remain in the wet well until a cleaning occurs. Excessive quantities of cloth and other fibrous based flexible materials have necessitated more frequent cleaning of the Kinross system, but it is questioned if a conventional screening device (trash basket) would have retained these objects.

18. Department's Justification:

Note: The pumping station in question would be handling raw ww from a conventional gravity sewer system - Not STEP/STEG or LPS

Recommend variance: **denial**

The variance has been denied in the past for Unsewered communities. The omission for trash basket is not unique and does not provide adequate protection to the pumps. Variances for chopper type pumps which have a no-clogging and reversal mechanism to eliminate clogging. Fibrous material, cloth, and other debris are known to clog grinder pumps and cause problems and determined to be providing no equivalent effectiveness, and has been recommended for denial.

19. Precedents Used :

City of Promise City on 10/30/2008
Halbur on 05/06/2005
Keswick on 11/23/2004

20. Staff Reviewer:	DinB	Date:	7/13/2011
21. Supervisor:	Sachya Chennupati	Date:	7/14/2011
22. Authorized by :	Sharon Tokheim Interim WQ BC	Date:	7/14/11

LWB 7/14/11

Fields of Opportunities

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

July 22, 2011

Tracy Balbort
Regional Utility Service Systems (RUSS)
c/o Geode RC&D, Inc.
308 North 3rd Street
Burlington, IA 52601

Subject: Variance request from design standards Sections 12.5.1, 12.5.7.1, 12.6, 13.4.2, 18C.7.4.4& 18C.7.4.6, 18C.10.6 and 18.C.7.7
Re: Wastewater Collection and Treatment System Project,
DNR Project No. S2010-0002
Ollie, Iowa

Dear Ms. Balbort:

After careful and thorough consideration, the department has ***denied*** your October 23, 2009 variance request from section 13.4.2 of the Iowa Wastewater Facilities Design Standards which requires that all pumping station handling raw wastewater have provision for screening to protect the pumps form clogging or damage. The above variance is denied due to the fact that the justification presented does not substantially demonstrate that the project resulting from the proposed variance will provide equivalent or improved effectiveness. The requested variance is not deemed to be necessary and appropriate pursuant to Iowa Code Section 455B.181.

Pursuant to Iowa Code Section 455 B.181 and 561 Iowa Administrative Code (IAC) 7.4(1), as adopted by reference by 567 IAC Chapter 7, a written notice of appeal to Environmental Protection Commission may be filed within 30 days of receipt of this letter. The notice of appeal is required to be filed with the Director of Department, must identify the specific portion or portions of the variance denial that are being appealed and include a short and plain statement of the reasons for appeal. A contested case hearing will be commenced pursuant to Iowa Code Chapter 17A, 561 IAC Chapter 7, and 567 IAC Chapter 7.

The department has ***approved*** your October 23, 2011 request for variance from Section 12.5.1 of the Iowa Wastewater Facilities Design Standards Section 12.5.1, which requires public sanitary sewers to be 8-inch or larger in diameter, except for unsewered communities where 6-inch sewers may be used for the last 800 feet of sewer provided that the 6-inch sewer provides sufficient hydraulic capacity and is a dead end not subject to future extension.. The request is to allow the use of 6-inch pipe anywhere in the collection system where adequate capacity exists. Based on the documentation presented by your Engineer, it is the determination of this department that satisfactory justification has been presented to warrant the granting of a variance for the use of 6-inch pipe anywhere in the proposed collection system where adequate capacity exists. The requested variance is deemed to be reasonable and necessary pursuant to Iowa Code Section 455B.181.

The department has ***approved*** your October 23, 2009 request for variance from Section 12.5.7.1 which requires public sanitary sewer manholes to be located at intervals not exceeding 400 feet or at intervals not exceeding 500 feet where adequate cleaning equipment is available and a cleanout may be permitted in place of manhole at the end of lines which are less that 150 feet in length. The requested variance is to allow manholes to be installed at intervals not exceeding of 600 feet where adequate cleaning equipment is available and also to allow installation of cleanouts in place of manholes at the end of the lines which are less than 600 feet in length. Based on the documentation presented by your Engineer, it is the determination of this department that the satisfactory justification has been presented to warrant the granting of variance for installation of manholes and cleanout as requested and proposed. The requested variance is deemed to be reasonable and necessary pursuant to Iowa Code Section 455B.181.

The department has ***approved*** your October 23, 2009 request for variance from Section 12.6 which requires installation of gravity sanitary sewer pipe using open cut methods. The requested variance is to allow the use of directional boring method in the proposed project. Based on the documentation presented by your Engineer, it is the determination of this department that the satisfactory justification has been presented to warrant the granting of variance for installation of gravity sanitary sewer pipeline with the directional boring method. The requested variance is deemed to be reasonable and necessary pursuant to Iowa Code Section 455B.181.

The department has ***approved*** your October 23, 2009 request for variance from Section 18C.7.4.4 under the conditions described below. Section 18C.7.4.4 requires that influent lines be located below the bottom of the pond seal. Based on the documentation presented by your Engineer, it is the determination of this department that the satisfactory justification has been presented to warrant the granting of variance for the location of influent lines above the pond seal. The requested variance is deemed to be reasonable and necessary pursuant to Iowa Code Section 455B.181.

The department has ***approved*** your October 23, 2009 request for variance from Section 18C.7.4.6 under the conditions described below. Section 18C.7.4.6 requires an influent discharge depression in wastewater ponds. Based on the documentation presented by your Engineer, it is the determination of this department that the satisfactory justification has been presented to warrant the granting of variance for discharge of influent lines onto a concrete apron. The requested variance is deemed to be reasonable and necessary pursuant to Iowa Code Section 455B.181.

Note: Conditions for variances approval from Section 18C.7.4.4 and 18C.7.4.6

a. Ductile iron pipe shall be used.
b. The influent line shall rest on a suitable concrete apron which is large enough such that the terminal influent velocity at the end of apron does not cause soil erosion as required by Iowa Wastewater Facilities Design Standards Section 18C.7.4.6. The apron must have a lip or baffle at the opposite end of the discharge point.
c. Adequate measures must be taken to ensure that the line is properly secured and anchored.

The department has ***approved*** your October 23, 2009 request for variance from Section 18C.10.6 which requires pond level gauges shall be provided to measure the pond level for all cell of controlled discharge pond. Based on the documentation presented by your Engineer, it is the determination of this department that the satisfactory justification has been presented to warrant the granting of variance for installation of buried riser pipe adjacent to controlled structures with the condition that the arrangement allow for independent depth measurement of each cell. The requested variance is deemed to be reasonable and necessary pursuant to Iowa Code Section 455B.181.

The department has reviewed your October 23, 2009 request for variance from Section 18C.7.7 which requires all controlled discharge pond be prefilled to two feet level, where water is available. The

requested variance is to prefill with one foot of water. It is the determination of this department that **a variance is not required** in this instance and a prefill of one foot may be utilized.

If you have any questions or concerns regarding this letter, please contact Dinbandhu Gupta, Project Manager at (515) 281-8367 or Dinbandhu.Gupta@dnr.iowa.gov.

Sincerely,

Satya Chennupati

Satya Chennupati, P.E.
Wastewater Section Supervisor

cc: Garden and Associates, LTD., Oskaloosa Office, Iowa
City of Ollie
Field Office # 6
DNR Legal Services
DNR File: 6-54-60-0-01

S2010-0002

GARDEN & ASSOCIATES, LTD.

1701 3rd Avenue East, Suite 1 • P.O. Box 451 • Oskaloosa, IA 52577
Phone: 641.672.2526 • Fax: 641.672.2091

October 23, 2009

Gabe Lee, P.E.
Iowa Department of Natural Resources
Wastewater Section
Wallace State Office Building
502 E. 9th Street
Des Moines, IA 50319

Re: Wastewater Collection & Treatment Systems – Variance Request
Ollie, Iowa
Regional Utility Service Systems
G&A 3009045

Dear Gabe:

Regional Utility Service Systems (RUSS) is proceeding with the development of a wastewater system in the unsewered community of Ollie in Keokuk County, Iowa. Currently RUSS is in the process of applying for project funding with the Iowa Department of Economic Development and USDA-Rural Development (USDA-RD). RUSS is petitioning for variances from Design Standards in order to significantly reduce the cost of constructing a gravity sewer system and a controlled discharge lagoon while maintaining equivalent effectiveness and protection of the public health, safety, and welfare. Please find the following variance requests pursuant to 561 Iowa Administrative Code (IAC) Chapter 10.

10.9(1)**Name, address and telephone number of the entity for whom the variance is requested:**

Regional Utility Service Systems (RUSS)
901 North 8th Street
Fairfield, Iowa 52556
(641) 209-1011

10.9(2) **Description and citation of specific rule from which a variance is requested:**

Iowa Department of Natural Resources Wastewater Facilities Design Standards:

A. Chapter 12.5.1 – "No public gravity sanitary sewer shall be less than eight inches in diameter, with the following exception. For unsewered communities, six-inch diameter sewers may be used for the last 800 feet…"
B. Chapter 12.5.7.1.a.4 – "Manhole shall be installed:"… "at intervals not exceeding 500 feet when adequate cleaning equipment is available."
C. Chapter 12.5.7.1.c – "Cleanouts may be permitted in place of a manhole at the end of lines which are less than 150 feet in length."

RECEIVED NOV 2 5 2009

D. Chapter 12.6 – Details of Construction; Excavation, bedding, and installation does not provide for installation of gravity sewer mains utilizing directional bore methods.
E. Chapter 13.4.2 – "All pumping stations handling raw wastewater shall have provisions for screening"…
F. Chapter 18C.5.1.2 – "A minimum of three cells are required for all facilities greater than one acre total surface area."
G. Chapter 18C.7.4.4 – "Influent lines for controlled discharge ponds shall be located along the bottom of the pond so that the top of the pipe is just below the average elevation of the pond seal."
H. Chapter 18C.7.4.6 – "The influent line(s) shall discharge horizontally into a shallow saucer-shaped depression"…
I. Chapter 18C.7.7 – "Where water is available, the pond shall be prefilled to the two foot level"…
J. Chapter 18C.10.6 – "Pond level gauges shall be provided for all cells of controlled discharge ponds."… "a calibrated mast, pipe, or inclined concrete"…

10.9(3) **The specific variance requested and the precise scope, (see section a) and operative period the variance will extend (see section b).**

a. Variance scope:
A. Chapter 12.5.1 – Allow six inch sewer anywhere in the unsewered community of Ollie, Iowa, where adequate capacity exists.
B. Chapter 12.5.7.1.a.4 – Allow manholes to be installed in Ollie, Iowa at intervals not exceeding 600 feet when adequate cleaning equipment is available.
C. Chapter 12.5.7.1.c – Allow cleanouts in Ollie, Iowa in place of a manhole at the end of lines which are less than 600 feet in length, when adequate cleaning equipment is available.
D. Chapter 12.6 – Allow for installation of gravity sewer mains in Ollie, Iowa utilizing directional bore methods.
E. Chapter 13.4.2 – Allow grinder pump station handling raw wastewater from Ollie, Iowa to be exempt from requirement to provide screening.
F. Chapter 18C.5.1.2 – Allow the Ollie, Iowa controlled discharge pond system to consist of two cells.
G. Chapter 18C.7.4.4 – Allow the influent line for controlled discharge ponds for Ollie, Iowa to be located on top of the pond liner; constructed of ductile iron pipe; suitably anchored.
H. Chapter 18C.7.4.6 – Allow the influent lines to discharge horizontally at the level of the pond liner for Ollie, Iowa.
I. Chapter 18C.7.7 – Allow RUSS to prefill the Ollie ponds to the one foot level due to very limited availability of water.
J. Chapter 18C.10.6 – Allow RUSS to utilize riser piping buried adjacent to control structures to measure pond level in lieu of device installed in the pond.

b. Operative period:
A. Chapter 12.5.1 – during the life of the Ollie, Iowa sanitary sewer system.
B. Chapter 12.5.7.1.a.4 – during the life of the Ollie, Iowa sanitary sewer system.
C. Chapter 12.5.7.1.c – during the life of the Ollie, Iowa sanitary sewer system.
D. Chapter 12.6 – during the construction of the Ollie, Iowa sanitary sewer system.
E. Chapter 13.4.2 – during the life of the Ollie, Iowa sanitary sewer system.
F. Chapter 18C.5.1.2 – during the life of the Ollie, Iowa wastewater treatment system; until a facility upgrade is required.
G. Chapter 18C.7.4.4 – during the life of the Ollie, Iowa wastewater facility.
H. Chapter 18C.7.4.6 – during the life of the Ollie, Iowa wastewater facility.

I. Chapter 18C.7.7 – during the construction of the Ollie, Iowa wastewater treatment system.
J. Chapter 18C.10.6 – during the life of the Ollie, Iowa wastewater facility.

10.9(4) **Relevant facts that would justify a variance.**

Below are the relevant facts that Garden & Associates, Ltd, believes justify the requested variances. Garden & Associates, Ltd. is hereby attesting to the accuracy of the facts provided herein (signed below).

Equivalent effectiveness for each of the above requested Design Standards variances (except item D) has been investigated as part of the small unsewered community pilot program, beginning with the Southern Iowa Rural Water Association system constructed in 1995 at Cromwell, Iowa. In our opinion, the findings of the pilot program have indicated that equivalent effectiveness can be attained with the above requested variances, and that significant savings in construction cost are attained for the unsewered communities.

Garden & Associates has first-hand experience and knowledge of design of similar systems to that requested above; as constructed in other small unsewered communities during the past ten (10) years. We have observed the construction of similar systems and have continued discussion with the owners and operators of these systems, and have not learned of any deficiencies. Similarly we have observed a reduction in construction costs for these systems.

The requested design standard variance D, in addition to the others listed above were investigated, allowed by the IDNR, and utilized in the previously unsewered Iowa communities of Kinross, Harper, Hamilton, Keswick, Morrison, Plano, and Conroy, all designed by Garden & Associates. We are aware of no problems related to any of the above variances being implemented in any of the above wastewater systems; we observed equivalent effectiveness; we observed significant cost savings.

In our opinion the requested Design Standards variances for the Collection System (Items A through D above) will provide equivalent effectiveness of transporting the wastewater from the service connection to the treatment system.

Item A: The smaller diameter gravity sewer should adequately serve the small and stable population of Ollie, and measures will be taken to restrict extraneous flows from entering the sewer system. We are not aware of any problems associated with operation and maintenance of gravity sewer systems installed with six inch diameter pipe.

Items B and C: Increased manhole spacing (600 feet maximum), and cleanouts in lieu of manholes at the end of sewer mains, has not created any problems that we are aware of with sewer maintenance where the practice was utilized. We understand that standard commercial sewer cleaning equipment is fitted with 700 feet of hose and that jetting equipment can easily and properly function in these circumstances. Written assurance is include herein, to the department, that any additional maintenance required will be provided to clean increased length of sewer main, including sections of main terminating at a cleanout (see attached).

Item D: The use of directional bore equipment for the installation of sanitary sewer has proven a significant cost savings as compared to conventional 'open trench' construction. In order to reduce the likelihood of pipe deflection with directional bore installation, the maximum Standard Dimension Ration (SDR) for all directionally bored PVC gravity sewer

shall give a calculated long-term deflection of not more than 5% for all anticipated loads assuming prism loading; this results in a pipe minimum of SDR 21.

Item E: It is our opinion that a duplex grinder pump station supplied without a trash basket can effectively function and serve similarly small populations. Grinder pumps have functioned very reliably in similar applications (Kinross, Hamilton, Lincoln, and Morrison) without trash baskets; grinder pumps are designed to macerate materials that are drawn into the pump; larger objects, those that can not be drawn into the cutting assembly, are expected to remain in the wet well until a cleaning occurs. Excessive quantities of cloth and other fibrous based flexible materials have necessitated more frequent cleaning of the Kinross system, but it is questioned if a conventional screening device (trash basket) would have retained these objects.

Items F through J will in our opinion provide equivalent effectiveness in complying with anticipated effluent limitations, system protection during start up, and system operational flexibility and reliability.

Item F: The 2 cell controlled discharge lagoon system provides reduced BOD loadings in the primary cell as compared to a 3 cell system, while hydraulic loading is equivalent. In the event that the primary cell is taken out of service for repairs or maintenance, it is believed that the 60 day storage in the secondary cell will provide adequate capacity to store and treat wastewater while the work is performed. Fecal coliform decay will occur and treatment approaching secondary treatment standards should be achieved. Cost savings related to control structures, piping, excavation, reduction in land use, and revetment, are in our opinion significant.

Item G and H: Piping was installed on top of the lagoon liner and without inlet depressions in numerous lagoons; we do not know of any problems that have developed as a result of installing ductile iron pipe, properly anchored, without an inlet depression. We believe that the liner has better integrity without piping installed below the floor; ground water separation is more easily attained; and the lagoons can be maintained during the long term.

Item I: Water needed to prefill the ponds is in short supply: rural water system capacity is reported to be limited; no ponds or perennial streams are located nearby; we are aware of no other viable water supplies in the vicinity of the lagoons. We believe the lagoon liner can be protected and pond start up can be accomplished with one foot of water in a controlled discharge lagoon.

Item J: Pond level measurements have been accomplished by use of buried riser piping located adjacent to control structures in many lagoons throughout the state; we are aware of no problems related to this practice and believe that pond level measurement is more accurately and reliably accomplished with use of buried piping and staff gauge.

Garden & associates, Ltd is not aware of any public agency or political subdivision of the state or federal government which also regulates the activity in question, or might be affected by the granting of the petition.

10.9(8) **Name, address, and telephone number of any person or entity that would be adversely affected by the granting of the petition.**

Garden & associates, Ltd is not aware of any person or entity that would be adversely affected by the granting of the petition.

10.9(9) **Name, address, and telephone number of any person or entity of knowledge of relevant facts relating to the proposed variance.**

Garden & Associates, Ltd.
Mark J. Fincel, P.E.
P.O. Box 451
Oskaloosa, Iowa 52577
641-672-2526

USDA-Rural Development
Jim Carroll, P.E.
873 Federal Building
210 Walnut Street
Des Moines, Iowa 50309
515-284-4136

10.9(10) **Signed releases authorizing persons with factual knowledge concerning the request to furnish the Department with information relevant to the variance.**

By signature below, the Department is authorized to contact persons listed in item 10.9(9) above, and any other person with factual knowledge of the request.

Criteria for variance approval:

Chapter 561-10.4(1) – The application of the specific listed existing design standards above would pose an unnecessary (and therefore undue) financial hardship on the City of Ollie, in our opinion. Each of the requested variances have in our opinion, been proven to provide equivalent effectiveness and protection of the public health.

Chapter 561-10.4(2) – The application of the variances from specific listed existing design standards above would not prejudice the substantial legal rights of any person in our opinion. We are not aware of any person to be negatively impacted if the variances were implemented.

Chapter 561-10.4(3) – The specific listed existing design standards above would are not specifically mandated by statute or another provision of law, to the best of our knowledge.

Chapter 561-10.4(4) – The application of the variances from specific listed existing design standards above would provide substantially equal protection of public health, safety, and welfare as is provided by the design standards listed, in our opinion.

We are not aware of any persons who are to be served notice of the above petitioned variance requests. Therefore, by signature below, we are attesting to the Department that required notice has been provided.

- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- J (18C.10.6) – approved
- The following items was allowed by IDNR in separate correspondence:
    - I (18C7.7) – lagoon was prefilled to one (1) foot level due to limited availability of water
- E (13.4.2) – was not allowed

Morrison, Iowa (IDNR Construction Permit dated February 16, 2006):
- A (12.5.1) – approved
- B (12.5.7.1.a.4) – approved
- C (12.5.7.1.c) – approved
- D (12.6) – approved
- E (13.4.2) – approved

Plano, Iowa (IDNR Response to Variance Requests dated February 26, 2007):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- J (18C.10.6) – approved
- The following items was allowed by IDNR in separate correspondence:
    - I (18C7.7) – lagoon was prefilled to one (1) foot level due to limited availability of water

Conroy, Iowa (IDNR Response to Variance Requests dated July 25, 2007):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- I (18C7.7) – approved
- J (18C.10.6) – approved

Promise City, Iowa (IDNR Response to Variance Requests dated October 30, 2008):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- I (18C7.7) – variance not required
- J (18C.10.6) – approved

10.9(7) **Name, address, and telephone number of any public agency or political subdivision of the state or federal government which also regulates the activity in question, or might be affected by the granting of the petition.**

10.9(5) **Relevant History of prior contacts for the past five years: notices of violation, administrative orders, contested case proceedings, and lawsuits involving the Department or the petitioner.**

Garden & Associates, Ltd is not aware of any affected permit held by the petitioner or any other case proceedings or lawsuits involving the petitioner and the department for the above referenced project.

10.9(6) **Any information known to the petitioner regarding the Department's treatment of similar cases.**

Kinross, Iowa (IDNR Response to Variance Requests dated July 19, 2001):
- A (12.5.1) – approved for 0.6% slope
- B (12.5.7.1.a.4) – denied due to utility not showing ability to maintain system
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- J (18C.10.6.) – approved
- The following items were allowed by IDNR in separate correspondences
    - D (12.6) – directional bore installation of gravity sewer was allowed based on SDR 21 and 0.5% minimum slope
    - E (13.4.2) – no trash basket provided in grinder pump station
    - I (18C7.7) – lagoon was prefilled to one (1) foot level due to limited availability of water

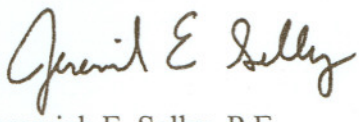
Harper, Iowa (IDNR Response to Variance Requests dated May 6, 2005):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- J (18C.10.6) – approved
- The following items were allowed by IDNR in separate correspondences
    - E (13.4.2) – no trash basket provided in grinder pump station
    - I (18C7.7) – lagoon was prefilled to one (1) foot level due to limited availability of water

Hamilton, Iowa
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- The following items was allowed by IDNR in separate correspondence:
    - E (13.4.2) – no trash basket provided in grinder pump station

Keswick, Iowa (IDNR Response to Variance Requests dated November 23, 2004):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- F (18C.5.1.2) – approved

If you are in need of additional information or documentation, in order to process this request, please contact me at 641-672-2526.

Sincerely,
GARDEN & ASSOCIATES, LTD.



Jeremiah E. Selby, P.E.

Enc: Adequate cleaning equipment letter from RUSS

cc: Kelly Lewiston, CEO/Director-RUSS
Steve Kinnamon, USDA-RD, Mt. Pleasant
Jim Carroll, P.E., USDA-RD, State Office

R. U. S. S.

Regional Utility Service Systems
901 N. 8th Street
Fairfield, IA 52556

cipating Counties:
s
Moines
y
rson
uk
sa
aska
Buren
ello
ington

November 7, 2007

IDNR Wastewater Section
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319

RE: Request for Design Variance
Sewer Cleaning Equipment

Dear IDNR:

RUSS is coordinating the design and financing of wastewater systems for various unsewered communities in Iowa. RUSS will own, operate and maintain the wastewater systems. The wastewater systems are being designed by Garden & Associates of Oskaloosa, Iowa with Mark Fincel serving as the project engineer.

To proceed with the variance request, RUSS wants to assure the IDNR that appropriate sewer cleaning equipment will be made available to clean up to 600 foot lengths of 6 and 8 inch gravity sewer on an as necessary basis. Also, RUSS wants to assure the IDNR that the additional sewer maintenance, which may be required as a result of 6 inch sewer installed at grades less than 0.6ft/100ft, will be provided on an as necessary basis.

Sincerely,

Henry Van Weelden
Chairperson

cc: M. Fincel, Garden & Assoc.

Phone: 641-209-1011 Fax: 641-469-3398
E-mail: klewiston@lisco.com

- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- J (18C.10.6) – approved
- The following items was allowed by IDNR in separate correspondence:
    - I (18C7.7) – lagoon was prefilled to one (1) foot level due to limited availability of water
- E (13.4.2) – was not allowed

Morrison, Iowa (IDNR Construction Permit dated February 16, 2006):
- A (12.5.1) – approved
- B (12.5.7.1.a.4) – approved
- C (12.5.7.1.c) – approved
- D (12.6) – approved
- E (13.4.2) – approved

Plano, Iowa (IDNR Response to Variance Requests dated February 26, 2007):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- J (18C.10.6) – approved
- The following items was allowed by IDNR in separate correspondence:
    - I (18C7.7) – lagoon was prefilled to one (1) foot level due to limited availability of water

Conroy, Iowa (IDNR Response to Variance Requests dated July 25, 2007):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- I (18C7.7) – approved
- J (18C.10.6) – approved

Promise City, Iowa (IDNR Response to Variance Requests dated October 30, 2008):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- I (18C7.7) – variance not required
- J (18C.10.6) – approved

10.9(7) **Name, address, and telephone number of any public agency or political subdivision of the state or federal government which also regulates the activity in question, or might be affected by the granting of the petition.**

10.9(5) **Relevant History of prior contacts for the past five years: notices of violation, administrative orders, contested case proceedings, and lawsuits involving the Department or the petitioner.**

Garden & Associates, Ltd is not aware of any affected permit held by the petitioner or any other case proceedings or lawsuits involving the petitioner and the department for the above referenced project.

10.9(6) **Any information known to the petitioner regarding the Department's treatment of similar cases.**

Kinross, Iowa (IDNR Response to Variance Requests dated July 19, 2001):
- A (12.5.1) – approved for 0.6% slope
- B (12.5.7.1.a.4) – denied due to utility not showing ability to maintain system
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- J (18C.10.6.) – approved
- The following items were allowed by IDNR in separate correspondences
    - D (12.6) – directional bore installation of gravity sewer was allowed based on SDR 21 and 0.5% minimum slope
    - E (13.4.2) – no trash basket provided in grinder pump station
    - I (18C7.7) – lagoon was prefilled to one (1) foot level due to limited availability of water

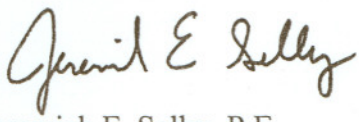
Harper, Iowa (IDNR Response to Variance Requests dated May 6, 2005):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- F (18C.5.1.2) – approved
- G (18C.7.4.4) – approved
- H (18C.7.4.6) – approved
- J (18C.10.6) – approved
- The following items were allowed by IDNR in separate correspondences
    - E (13.4.2) – no trash basket provided in grinder pump station
    - I (18C7.7) – lagoon was prefilled to one (1) foot level due to limited availability of water

Hamilton, Iowa
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- The following items was allowed by IDNR in separate correspondence:
    - E (13.4.2) – no trash basket provided in grinder pump station

Keswick, Iowa (IDNR Response to Variance Requests dated November 23, 2004):
- A (12.5.1) – approved with letter of assurance for maintenance
- B (12.5.7.1.a.4) – approved with letter of assurance for maintenance
- C (12.5.7.1.c) – approved with letter of assurance for maintenance
- D (12.6) – approved directional bore of glue-joint SDR 21
- F (18C.5.1.2) – approved

If you are in need of additional information or documentation, in order to process this request, please contact me at 641-672-2526.

Sincerely,
GARDEN & ASSOCIATES, LTD.



Jeremiah E. Selby, P.E.

Enc: Adequate cleaning equipment letter from RUSS

cc: Kelly Lewiston, CEO/Director-RUSS
Steve Kinnamon, USDA-RD, Mt. Pleasant
Jim Carroll, P.E., USDA-RD, State Office

R. U. S. S.

Regional Utility Service Systems
901 N. 8th Street
Fairfield, IA 52556

cipating Counties:
s
Moines
y
rson
uk
sa
aska
Buren
ello
ington

November 7, 2007

IDNR Wastewater Section
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319

RE: Request for Design Variance
Sewer Cleaning Equipment

Dear IDNR:

RUSS is coordinating the design and financing of wastewater systems for various unsewered communities in Iowa. RUSS will own, operate and maintain the wastewater systems. The wastewater systems are being designed by Garden & Associates of Oskaloosa, Iowa with Mark Fincel serving as the project engineer.

To proceed with the variance request, RUSS wants to assure the IDNR that appropriate sewer cleaning equipment will be made available to clean up to 600 foot lengths of 6 and 8 inch gravity sewer on an as necessary basis. Also, RUSS wants to assure the IDNR that the additional sewer maintenance, which may be required as a result of 6 inch sewer installed at grades less than 0.6ft/100ft, will be provided on an as necessary basis.

Sincerely,

Henry Van Weelden
Chairperson

cc: M. Fincel, Garden & Assoc.

Phone: 641-209-1011 Fax: 641-469-3398
E-mail: klewiston@lisco.com