

VARIANCE REQUEST

Iowa Department of Natural Resources

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| 1. Date: 12/15/08 | 14. Decision: DENIED |
| 2. Reviewer/Engr.: Larry Bryant | Date: 12/15/08 |
| 3. Date Received: 12/10/08 | |
| 4. Facility Name: Dolliver, City of STP | |
| 5. Facility Number: 6-32-15-0-01 | |
| 6. County Number: 32 (Emmet) | 15. Appealed: |
| 7. Program Area: CP (Wastewater Construction) | Date: |
| 8. Facility Type: C02 (Pumping) | |
| 9. Subject Area: 327 (Valve Pit) | |
| 10. Rule Reference: 567 IAC 64.2(9)a | |
| 11. Design Std. Ref.: 10 States Standards 44.4 (Valves) | |
| 12. Consulting Engr.: DGR Consulting Engineers | |
| 13. Variance Rule: 567 IAC 64.2(9)c | |

16. Description of Variance Request:

Dolliver is an unsewered community. Iowa Lakes Regional Water (ILRW) will be the owner/operator of a proposed Septic Tank Effluent Gravity (STEG) collection system (with some portions of the outlying collection system served by septic tank effluent pumps) and recirculating textile media filter treatment system. Combined flow from the STEG system will be pumped to the treatment system through a main lift station and treated effluent will be transported to the discharge point (the East Fork of the Des Moines River) by an effluent pumping station. Submersible pump arrangements are proposed for both the influent lift station and the effluent pump station. ILRW is proposing buried shutoff valves for both stations in place of the valve chamber required by 10 States Standards Section 44.4. Note: Chapter 13 (Wastewater Pumping Stations and Force Mains) of the Iowa Wastewater Facilities Design Standards applies only to raw wastewater pumping stations. Since 10 States Standards Chapter 40 (Wastewater Pumping Stations) is not restricted to stations that handle raw wastewater and because both pump stations in this application are handling partially or fully treated wastewater, it is believed that reference to 10 States Standards per 567 IAC 64.2(9)a as the review criteria source document is appropriate.

17. Applicant's/Consulting Engineer's Justification:

Cost reduction (however, a specific cost associated with the variance request is not given in the variance request). Historical variances have been granted by the Department to unsewered projects for omission of a valve chamber. "The buried valve maintenance is not any different than a lagoon or treatment facility maintenance and we have an additional valve in the lift station (similar to simplex grinder lift stations on pressure sewer system)."

18. Department's Justification:**Recommend variance denial:**

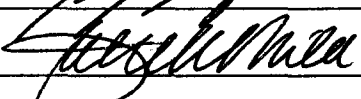
Previous variance requests for eliminating the valve pit have been both approved and denied. The Department's wastewater engineering staff has recently discussed this type of variance for submersible lift stations and made a consensus decision to recommend denial unless

there are unusual circumstances (aside from the unusual circumstance of simultaneously funding both new collection and treatment systems faced by unsewered communities) that warrant special consideration. Although some additional mechanical redundancy is provided in this instance due to proposed placement of shutoff valves both within and outside of the wet well, the shutoff valves would not be accessible without either (a) digging up the valves outside of the wet well or (b) entering the wet well. Although it is noted that gate valves are often buried in other applications (e.g. water service lines), the standards requirement for a valve pit for submersible lift stations provides a relatively easy means of access to the valves in these installations which burial or installation within the wet well does not provide. There do not appear to be any unusual circumstances that would prohibit installation of valve pits for this project and the proposed arrangement does not appear to provide equivalent effectiveness for access to the valves for maintenance or repair.

19. Precedents Used:

WES Technical Staff Meeting – 10/15/08

20. Staff Reviewer:  Date: 12/15/08

21. Supervisor:  Date: 12/15/08

22. Authorized by: _____ Date: _____