IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION
Field Office #5
6200 Park Avenue, Suite 200, Des Moines, IA 50321
Phone: (515) 725-0268 FAX: (515) 725-8201

SITE SURVEY

SURVEY DATE:	July 29, 2026		
APPLICANT:	City of Boone	**ENGINEER:**	Christina McCracken, Short Elliott Hendrickson, Inc. (cmccracken@sehinc.com)
REPRESENTATIVE:	JD Roberts, US Water Corp.	**PROJECT OFFICER:**	James Oppelt
NPDES PERMIT #:	0819001		
SUBJECT:	Site Survey for construction of modifications to a wastewater treatment facility serving the City of Boone to provide for treatment capacity expansion (see figure 1 below)		

GENERAL DESCRIPTION:
On the above date a site survey was conducted for proposed modifications to a wastewater treatment facility to determine compliance with required separation distances as specified in 567 IAC 60.2(2) (455B). The proposed project consists of expansion of the VertiCel system by adding two more cells to the south of the existing system, a generator engine for emergency operation of the VertiCel expansion, replacement of the five blowers that provided aeration to the VertiCel tanks, construction of digester #3, replacement of the belt presses with a Fournier rotary sludge press, and construction of a submerged aerated filter (SAF) building, which would be located at the same location as the existing aerated sludge holding tanks. Phase 2 of the project is construction of an equalization tank on the east side of McHose Drive, opposite the gated entrance to the wastewater treatment plant. This structure will be designed and constructed as a future phase of facility improvements.

SITING REQUIREMENTS:
The Iowa Administrative Code, Section 567-60.2(2), requires a separation distance from the treatment units of 1,000 feet from the nearest inhabitable residences, other inhabitable structures, commercial buildings; a separation distance of 200 feet from public water supply shallow wells; a separation distance of 400 feet from public water supply deep wells, private wells, and lakes and reservoirs; a separation distance of 50 feet for below-ground level finished water storage facilities, and a separation distance of 25 feet from property lines and rights-of-way. The rule provides that when separation distances cannot be maintained for the expansion, upgrading, or replacement of existing facilities, the separation distances shall be maintained at no less than 90% of the existing distance.

The City of Boone owns the 40-acre parcel for the existing wastewater treatment plant and surrounding property between South Division Street to the west and McHose Park to the east; the proposed treatment plant expansion is not outside of this property boundary. The closest residential dwelling is located at 1005 S. Division Street and is approximately 425 feet west of the WWTP. There is also a residence and two small cabins at 910 S. Division Street, which is approximately 785 feet north of the WWTP. There are multiple residential or inhabitable dwellings further northwest, north, and east of the WWTP, but they are all further away than the two residences mentioned above. There is a private impoundment with an estimated area of approximately 30,000 ft^2 located 260 feet north of the WWTP, but this is not included as a lake or reservoir for separation distance purposes; furthermore, the WWTP expansion is not expected to move any further north. The new sludge digester will be west of the existing digesters and the two new VertiCel tanks will be south, adjacent to the four existing units. Therefore, it appears that at least 90 percent of the of the existing separation distances will be maintained in all cases. There are no commercial structures, public or private wells, or below-ground finished water storage facilities in the vicinity of the proposed site. The nearest right-of-way is on the City-owned property.

The proposed concrete equalization tank is approximately 1400 feet from the nearest residence, 1501 Kate Shelley Drive. As proposed on the site layout, the southeast corner of the tank would be 1120 feet from the residence, which complies with the 1000 feet separation distance from the treatment units.

CONCLUSIONS:
As proposed, this site appears to meet the site requirements in Iowa Administrative Code 567-60.2(2) as long as 90 percent of existing distances are maintained upon construction.

AUTHENTICATION		
INSPECTOR	NAME/TITLE: Janet Gastineau, Environmental Specialist Senior Janet Gastineau Digitally signed by Janet Gastineau Date: 2026.08.06 13:36:35 -05'00'	DATE: 8/3/2026
REVIEWER	NAME/TITLE: Bryan Bunton, Environmental Specialist Senior Bryan Bunton Digitally signed by Bryan Bunton Date: 2026.08.04 16:05:26 -05'00'	DATE: 8/4/2026

Figure 1: WWTP expansion

