

March 24, 2025

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**Re: R.W. Commercial Plaza (2850 Mount Pleasant Street, Burlington, Iowa 52601)**  
**Contaminated Sites Database Site ID No. 659**  
**Remedial Action and Groundwater Monitoring Summary Report**

Dear Ms. Chang:

The Iowa Department of Natural Resources, Solid Waste and Contaminated Sites Section (DNR) has reviewed the March 5, 2025 Remedial Action and Groundwater Monitoring Summary Report ([Doc #42403](#)) for the R.W. Commercial Plaza Site located in Burlington, Iowa. The purpose of the report is to summarize remedial actions completed and groundwater monitoring data collected from 2015 through May 2024.

Following a series of initial remedial actions including tank removal, soil excavation, and two rounds of substrate injection of emulsified vegetable oil (EVO) and zero valent iron (ZVI) to promote degradation of chlorinated volatile organic compounds (CVOCs) in the soil and groundwater in 2013 and 2014, it was determined that additional remedial actions were necessary at the site. To further remediate the site, enhanced reductive dechlorination (ERD) was selected as the most optimal treatment strategy to reduce contaminants in groundwater within and downgradient from the source areas. The ERD remedial strategy was implemented via substrate injection of EVO through a series of injection events completed in 2015, 2016, 2017, 2019, and 2021.

To analyze the effectiveness of the remediation, groundwater samples have been collected from the site and analyzed for volatile organic compounds, dissolved gasses (methane, ethane, and ethene), and total organic carbon to monitor the concentrations of contaminants as well as indicators of conditions that allow for the breakdown of those contaminants. Groundwater data collected through May 2024 demonstrates that CVOCs, particularly the parent compounds tetrachloroethene (PCE) and trichloroethene (TCE), have reduced in concentration and extent at the site following the injections, and dissolved gasses as well as other indicators demonstrate that full breakdown of CVOCs is occurring and anaerobic conditions, which are conducive to ERD, have been achieved and maintained in the subsurface. Although elevated concentrations of some CVOCs, mainly Cis-1,2-dichloroethene and Vinyl Chloride, remain elevated in the source areas, this is to be expected as the parent compounds PCE and TCE break down through the daughter compounds and eventually become ethane and ethene. DNR concurs with the consultant's conclusion that given the anaerobic conditions and ERD occurring, CVOC reductions, and the robust data and model available for the site, additional injection and sampling events are not warranted at this time and the site may move forward to the next step in achieving a No Further Action certificate.

DNR notes that a draft Environmental Covenant has been submitted and will review it and provide comments in a separate correspondence. If you have any questions or if we may be of further assistance, please contact me at [\(515\) 415-0889](tel:5154150889) or [jake.bucklin@dnr.iowa.gov](mailto:jake.bucklin@dnr.iowa.gov).

Sincerely,

Jake Bucklin  
Environmental Specialist  
Land Quality Bureau

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