S.C. Department of Health and Environmental Control

Proposed Plan for Site Remediation
Castlebridge Properties, LLC Site

200 and 280 National Avenue, Spartanburg, South Carolina

March 2018

ANNOUNCEMENT OF PROPOSED PLAN

The South Carolina Department of Health and Environmental Control (DHEC or the Department) completed an evaluation of cleanup alternatives to address groundwater contamination at the Castlebridge Properties, LLC Site (the Site). This Proposed Plan identifies DHEC's Preferred Alternative for cleaning up contaminated groundwater and provides the reasoning for this preference. Also, this Plan includes summaries of the other cleanup alternatives that were evaluated. These alternatives were identified based on information gathered during environmental investigations performed at the Site pursuant to Voluntary Cleanup Contract 07-5712-RP, dated June 22, 2007, between Castlebridge Properties, LLC and the Department.

The Department is presenting this Proposed Plan to inform the public of our activities, to gain public input, and to fulfill the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This Proposed Plan summarizes information that can be found in greater detail in the Remedial Alternatives Evaluation (June 10, 2015) and other documents contained in the Administrative Record file. The Department encourages the public to review these documents to gain an understanding of the Site and the activities that have been completed.

The Department will select a final groundwater remedy after reviewing and considering comments submitted during the 30-day public comment period. The Department may modify the Preferred Alternative or select another response action presented in this Proposed Plan based on new information or public comments. Therefore, the public is encouraged to review and comment on all the alternatives presented in this Proposed Plan.

DHEC's Preferred Groundwater Cleanup Summary

Groundwater Cleanup: DHEC's preferred groundwater remedial option includes a combination of:

- Alternative 4: In Situ Enhanced Reductive Dechlorination
- Alternative 2: Institutional/Land Use Controls

MARK YOUR CALENDAR

❑ PUBLIC MEETING:

If requested by the public, DHEC will hold a meeting to explain the Proposed Plan and all of the alternatives presented in the Remedial Alternatives Evaluation. DHEC will respond to your questions. Oral and written comments will be accepted.

❑ PUBLIC COMMENT PERIOD:

March 21 until April 21, 2018

DHEC will accept written comments on the Proposed Plan during the public comment period. Please submit your written comments to:

Keisha D. Long, Project Manager
DHEC - Bureau of Land & Waste Management
2600 Bull Street
Columbia, SC 29201
Email: longkd@dhec.sc.gov

❑ FOR MORE INFORMATION:

Call: Keisha D. Long, Project Manager, 803-898-0774

See: DHEC's website at:

http://www.dhec.sc.gov/environment/lwm/publicnotice.htm

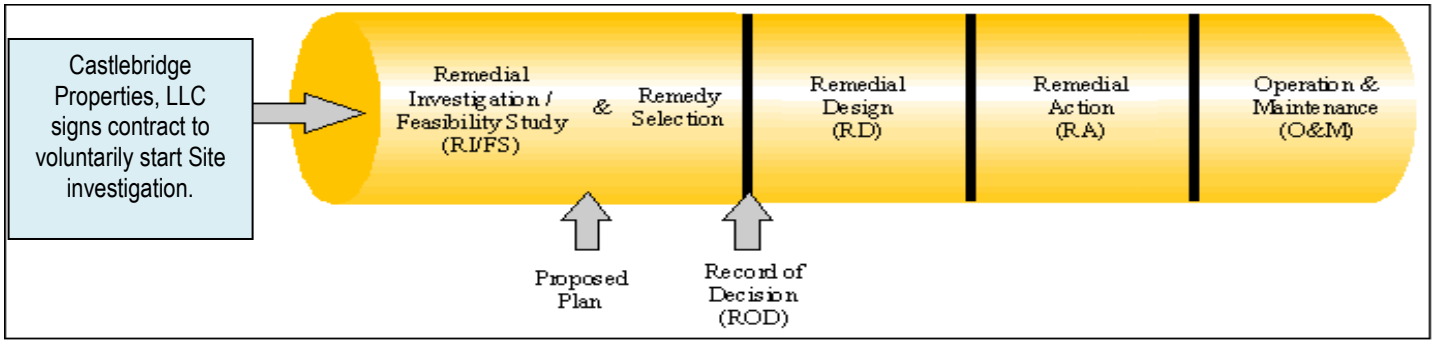
View: The Administrative Record at the following locations:

Spartanburg Public Library - Cyrill-Westside Branch
525 Oak Grove Road, Spartanburg, SC 29301

Hours: Sun: 1:30 PM - 6 PM
Mon-Thurs: 9 AM - 9 PM
Fri: 9 AM - 6 PM
Sat: 10 AM - 6 PM
(864) 574-6815

DHEC Freedom of Information Office
2600 Bull Street, Columbia, SC

Hours: Mon - Fri: 8:30 am - 5:00 pm
(803) 898-3817



SITE HISTORY

The Castlebridge property is located in a developed portion of Spartanburg County. The Site is bound to the east by National Avenue and industrial warehouse operations; to the south by New Cut Road and single-family residential properties; to the north by Southern Railroad, wooded land and industrial warehouse operations; and to the west by undeveloped land, an ephemeral stream, and an industrial facility.

The building located at 200 National Avenue was constructed in 1973. The building consists of 147,000 square feet of warehousing and office space. This building maintains an electrical room, a maintenance room, and a former boiler room. According to the property caretaker, textile dry cleaning machines were previously used in the building with dry cleaning fluids stored in 55-gallon drums in the former boiler room. The boiler room also previously housed a fuel oil fired furnace that was converted to natural gas in 1990. The furnace utilized a 10,000-gallon fuel oil above ground storage tank that is located on the west side of the building. An electrical substation within a fenced enclosure is located on the southwest end of the building.

The 200 National Avenue building was previously used by National Lock from 1983 to 1985 for the manufacturing of cabinet and door hardware. The manufacturing process included metal plating, which was located on the western portion of the building. Located next to the former plating room are two large in-ground concrete basins that housed plastic tanks for the plating discharge waters. Located in the vicinity of the interior in-ground basins are two exterior above ground storage tanks enclosed within a brick containment area with a gravel base. The tanks consist of a 10,000-gallon fuel oil tank and a 6,000-gallon plating fluids tank. Wastewater from the plating operation was piped to a neutralization-settling tank located at the southwestern portion of the 200 National Avenue property. The settling tank was a partial in-ground plastic tank. The discharge waters from the settling tank were piped through an in-ground concrete weir with discharge to the public sanitary sewer. The remaining portions of the property include asphalt pavement for parking and loading docks/trailer storage and landscaped/grassy areas.

The building located at 280 National Avenue was constructed in 1971 and consists of 152,396 square feet of warehousing and office space. No manufacturing was conducted in the building. The building maintains an electrical room, a maintenance room, a cold storage room and a former boiler room. No electrical transformers are present in the electrical room. The boiler room previously housed a fuel oil fired furnace that was removed in 1990. According to the property caretaker, the boiler utilized a 10,000-gallon fuel oil underground storage tank that was located on the south side of the building. The fuel oil tank was removed from the ground in 1990. No release of petroleum products was identified with the tank during the tank removal. Textile dry cleaning machines were previously used at the south central end of the building. Dry cleaning fluids were stored in 55-gallon drums in the boiler room.

An electrical substation within a fenced enclosure is located on the southwest end of the building. Two concrete saddles for a former above ground propane tank are located on the west side of the building. A 300,000-gallon, aboveground water storage tank for fire protection is located on the southwest corner of the property. The remaining portions of the property include asphalt pavement for parking and loading docks/trailer storage, and landscaped/grassy areas.

NATURE AND EXTENT OF CONTAMINATION

The Phase I Remedial Investigation (RI) and subsequent assessment activities at the Site included sampling of various environmental media to determine the nature and extent of contamination. Specifically, soil, groundwater, sediment, and surface water were sampled for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and metals.

Soil samples were compared to the USEPA Regional Soil Screening Levels (RSLs) for residential and industrial scenarios. VOCs were not detected above the industrial RSLs for soil. No SVOCs were detected above the laboratory method detection limit. Further, no PCBs were detected in the soil samples collected from the electrical sub-stations. Arsenic was the only metal detected that exceeded the screening level for industrial soil (1.6 mg/kg). This detection of arsenic is representative of naturally occurring background soil concentrations in the Piedmont of South Carolina.

The volatile organic compounds perchloroethylene (PCE) and trichloroethylene (TCE) are present in groundwater above Maximum Contaminant Levels (MCLs) in the vicinity of the above ground storage tank (AST) area located at the southwest corner of the 200 National Avenue building (MW-2D/MW-3). VOCs are also present in the vicinity of the storage area at the northwest corner of the 200 National Avenue building (MW-1D) and on the west side of the 280 National Avenue building (MW-6D). An illustration of the VOC plume map is shown on **Exhibit 1**.

The northern Cothran property boundary is bordered by a north-northwestern flowing stream and the Southern Railroad line. Sediment samples were collected from the ephemeral stream and the drainage swale from the former Castlebridge weir. No VOCs or SVOCs were detected above residential soil regional screening levels. Detected inorganic (metal) compounds were consistent with naturally occurring conditions.

Surface water samples collected from the stream did not detect VOCs and SVOCs. Inorganic surface water detections were below MCLs or tap water RSLs. A surface water sample was not collected from the drainage swale due to dry conditions.

SUMMARY OF SITE RISKS

As a result of the environmental investigations, volatile organic compounds, particularly PCE and TCE, were found to be present in groundwater above Maximum Contaminant Levels (MCLs). Long-term exposure to these constituents of concern can result in harmful effects to human health and to ecological systems.

Further, South Carolina has established water quality standards, which are outlined in S.C. Regulation 61-68: *Water Classifications and Standards*. This regulation establishes water quality standards that protect existing and classified uses of SC waters. Per this SC regulation, waters which meet standards, e.g., MCLs, shall be maintained. Waters which do not meet standards shall be improved, wherever attainable, to achieve those standards.

CLEANUP GOALS

Remedial Action Objectives (RAOs) are developed in order to set goals for protecting human health and the environment. The goals should be as specific as possible, but should not unduly limit the range of alternatives that can be developed. Accordingly, the following RAO was developed for the Site:

Mitigate the migration of groundwater in excess of remedial goals from the property.

The proposed remedial goals (RGs) identified for groundwater are based on those compounds that have been identified as constituents of concern (COCs). Applicable or Relevant and Appropriate Requirements (ARARs) are those laws or regulations that specifically apply to a hazardous substance, its location, or contemplated remedial action for the Site. For groundwater, the US EPA MCLs for VOCs at the property boundary are ARARs and therefore are proposed as the RGs. The MCLs for PCE and TCE and their breakdown products, dichloroethylene (DCE) and vinyl chloride, are outlined below:

COC	MCL
PCE	5 ppb
TCE	5 ppb
1,2-Cis-DCE	70 ppb
1,2-Trans-DCE	100 ppb
Vinyl Chloride	2 ppb

No RGs are recommended for soil since significant concentrations of contaminants were not present above the Regional SSLs for industrial soil. No RGs for sediment or surface water are recommended since no COCs were detected above applicable regulatory criteria.

SCOPE AND ROLE OF THE ACTION

The proposed action in this plan will be the final cleanup action for Site groundwater. The remedial action objectives for this proposed action include mitigating the migration of groundwater in excess of remedial goals from the property. The proposed response actions will permanently provide and maintain adequate protection of human health and the environment by eliminating, reducing, or controlling exposures. Implementation of the proposed response actions would result in the attainment of media cleanup standards, based on health or risk based criteria, derived from exiting state or federal regulations.

SUMMARY OF REMEDIAL ALTERNATIVES

The information developed during the Remedial Investigation and associated studies led to the development of potential remedial alternatives. The table below briefly describes the alternatives that were carried through the identification and screening process to the final detailed analysis of alternatives. DHEC's current judgment is that the Preferred Alternative identified in this Proposed Plan, or one of the other active measures considered in the Proposed Plan, is necessary to protect public health and the environment from continued releases of hazardous substances into the environment.

SUMMARY OF GROUNDWATER REMEDIAL ALTERNATIVES

Alternative	Description
1	No Action (NA)
2	Institutional / Land Use Controls (ILUC)
3	Monitored Natural Attenuation / Long Term Monitoring (MNA/LTM)
4	Enhanced Reductive Dechlorination (ERD)
5	In Situ Chemical Oxidation (ISCO)
6	Air Sparging / Soil Vapor Extraction (AS/SVE)
7	Permeable Reactive Barrier Wall (PRBW)

GROUNDWATER ALTERNATIVES

Alternative 1 - No Action

The No Action (NA) alternative is a baseline against which other remedial alternatives are compared. This alternative would leave impacted groundwater in place with no control to prevent human or ecological exposure. No remedial action would be undertaken as part of this alternative.

This alternative would not require any specialized equipment or design and could be readily implemented. Under the No Action alternative, migration of COCs to off-property areas is expected to continue. A decrease in the COC concentrations in the groundwater may occur over time through natural processes. However, such reduction is expected to occur very slowly and would not be monitored, quantified, or documented. Costs for Alternative 1 may include a remedy review every five years which would include a review of new regulations, review of the status of the Site, and a meeting with DHEC.

The estimated cost of Alternative 1 is $2,600.

Alternative 2 - Institutional / Land Use Controls

Institutional/Land Use Controls (ILUC) consist of physical, legal, and administrative mechanisms to restrict the use of or limit access to and protect receptors from an affected area of the Site. The implementation of ILUC at the Site would involve the preparation of applicable deed restrictions to limit groundwater use. Possible restrictions imposed on the property would include prohibition of use of Site groundwater for any purpose other than environmental monitoring and testing.

Even though institutional controls would be in place, this alternative would not remediate the contaminated groundwater. ILUC would also not be imposed on off-site properties. No long term monitoring will be employed to manage potential risk.

The estimated cost of Alternative 2, is $5,000.

Alternative 3 – Monitored Natural Attenuation / Long Term Monitoring

Monitored Natural Attenuation/Long Term Monitoring (MNA/LTM) would document COC concentrations in groundwater and verify that natural attenuation mechanisms are remediating the dissolved COCs. Groundwater monitoring and sampling from existing wells would be conducted to evaluate groundwater quality and flow conditions on the Site.

Because active remediation would not be initiated as part of this alternative, it will not provide any increased protection to human health or the environment. Monitoring proposed under this alternative would allow for regulatory authorities to evaluate whether additional actions would need to be taken.

The estimated cost of Alternative 3 is $101,000.

Alternative 4 – Enhanced Reductive Dechlorination

Enhanced Reductive Dechlorination (ERD) is a groundwater technology that involves developing geochemical conditions in the subsurface that allow natural (or introduced) microorganisms to biodegrade target constituents. For chlorinated ethenes, enhanced reductive dechlorination requires the addition of a carbon source within the subsurface to stimulate anaerobic microorganism to biodegrade contaminants. Potential carbon sources include a wide variety of food-grade products such as molasses, emulsified vegetable oil, and cheese whey. Carbon sources are usually injected into the aquifer via temporary or permanent injection wells. During the ERD process, carbon is used as an energy source by the anaerobic microorganisms in the subsurface, and the COCs are used as one of the respiratory substrates during metabolism. Complete reductive dechlorination processes ideally lead to a non-toxic end product, such as ethene. This technology is widely utilized, and has demonstrated success on multiple sites impacted with chlorinated compounds.

This alternative would involve the application of a carbon substrate into the groundwater plume using either direct push or permanent injection points at a targeted depth. Depending on the longevity of the injected material, a single application of the carbon substrate may be sufficient to reach remedial action objectives. Subsequent groundwater monitoring would be performed to insure that adequate distribution is obtained, proper geochemical conditions are developed, and that biological reductive dechlorination is occurring. This post injection monitoring typically transitions into a long term monitoring program to document and verify that the remediation goals are achieved.

The estimated cost of Alternative 4 is $260,000.

Alternative 5 – In Situ Chemical Oxidation

In Situ Chemical Oxidation (ISCO) involves the injection of chemical oxidants into impacted areas. The chemical oxidant reacts with target constituents to reduce concentrations to remediation goals. Typical oxidants used include permanganate salts, persulfate, hydrogen peroxide, and ozone. The effectiveness of each oxidant is typically dependent on many site specific factors. The optimum oxidant type, catalyst, and dose are typically estimated by performing bench and/or pilot scale studies prior to full scale implementation. ISCO is a widely used and effective remedial technology for chlorinated ethenes.

This alternative would involve the application of a chemical oxidant in the treatment area, either by temporary injection points or permanent injection points at a targeted depth. Subsequent groundwater monitoring would be performed to ensure that adequate distribution is obtained and that oxidation processes are occurring. Multiple applications of oxidant are typically necessary to reach the remedial action objectives. Post injection monitoring typically transitions into a MNA program to document achievement of the remedial action objectives.

The estimated cost of Alternative 5 is $351,000.

Alternative 6 – Air Sparging / Soil Vapor Extraction

Air sparging (AS) is an in situ treatment technology that uses injected air to remove volatile organic contaminants from the groundwater. As the injected air rises through the groundwater plume, contaminants are stripped from the water and carried towards the surface and removed from the vadose zone through a soil vapor extraction (SVE) system. This process is very well known and can remove most types of dissolved-phased VOCs.

The estimated cost of Alternative 6 is $857,000.

Alternative 7 – Permeable Reactive Barrier Wall

A permeable reactive barrier wall (PRBW) can be used as a passive option for the treatment of groundwater containing organic contaminants. This option is often used at property boundaries or up-gradient of groundwater discharge points as an approach to mitigate further plume migration. At the Site, this option would involve the installation of a PRBW along the downgradient edge of the property boundary, spanning across the estimated extent of groundwater impact. The wall would be keyed into an underlying layer of less permeable material to prevent movement of contaminants under the wall. These types of barrier walls are often constructed of a mixture of sand and a reactive material (e.g. iron particulate). Groundwater is allowed to flow through the wall naturally, allowing it to come in contact with the reactive material. The oxidation of the material in the presence of the contaminants reduces the chemicals and converts them to less toxic constituents. Once the groundwater has passed through the barrier, it generally requires no further treatment or management.

Native soils present in the path of the barrier wall installation would be removed via trenching activities. The selected media mixture would be used to backfill the trenches and capped to prevent surface water infiltration. Periodic monitoring of downgradient monitoring wells is required to verify PRBW treatment efficacy.

The estimated cost of Alternative 7 is $1,963,000.

EVALUATION OF ALTERNATIVES

The National Contingency Plan requires the Department use specific criteria to evaluate and compare the different remediation alternatives in order to select a remedy. The criteria are:

A. Overall protection of human health and the environment
B. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)
C. Long-term effectiveness and permanence
D. Reduction of toxicity, mobility, or volume through treatment
E. Short-term effectiveness
F. Implementability
G. Cost.

COMPARATIVE ANALYSIS OF GROUNDWATER ALTERNATIVES

A comparative analysis of each groundwater alternative was performed (see Exhibit 2). The No Action alternative, Alternative 1, was used as the baseline for comparison to the criteria outlined above.

A. Overall Protection of Human Health and the Environment

Because remedial actions would not be initiated as part of Alternatives 1 (NA) and 3 (MNA/LTM), they will not provide any increased protection to human health or the environment. Monitoring proposed under Alternative 3 would allow for regulatory authorities to evaluate whether additional actions would need to be taken. Alternative 2 (ILUC) would be effective in protecting human health on the property since access to the property is limited with fencing around the site and includes 24-hour security. Deed restrictions would prohibit future use of the property for residential purposes and future use of groundwater as a potable water supply. Alternative 2 would not be protective of downgradient properties, however, since those properties are not owned or under the control of Castlebridge. Successful implementation of Alternatives 4 (ERD), 5 (ISCO), and 6 (AS/SVE) would reduce risks to human health and the environment and meet RAOs by treatment of contaminated groundwater (toxicity and volume reduction). Alternatives 4, 5, and 6 would also reduce potential impacts to the underlying bedrock through mass reduction. Successful implementation of Alternative 7 (PRBW) would reduce risks to human health and the environment by treatment of contaminated groundwater (toxicity and volume reduction) prior to migrating off property and reduce potential impacts to the underlying bedrock through mass reduction.

B. Compliance with ARARs

Alternatives 1, 2, and 3 would not achieve chemical-specific ARARs for groundwater COCs above RGs. Location and action-specific ARARs do not apply to Alternatives 1, 2, and 3 since remedial actions would not be conducted. Alternatives 4, 5, and 6 would likely achieve chemical-specific ARARs in the water table and subsequently to the bedrock groundwater. All location and action-specific ARARs are expected to be met with Alternatives 4, 5, and 6. The required state and federal permits will be evaluated during the remedial design phase. At a minimum, these are expected to include an underground injection control permit. Alternative 7 would likely achieve chemical-specific ARARs in the water table prior to moving off property. All location and action-specific ARARs are expected to be met with Alternative 7. The required state and federal permits will be evaluated during the remedial design phase.

C. Long-Term Effectiveness and Permanence

Alternative 1 has no long-term effectiveness and permanence, as contaminated groundwater remains on property and would continue to impact adjacent properties. Alternative 2 is expected to be effective as long as institutional controls are maintained. However, Alternative 2 would not result in reducing contaminant migration off property. Alternative 3 would not result in minimizing contaminant migration from off of the property. Long-term monitoring of the groundwater would be conducted to determine any ongoing risks that the property poses to

human health and the environment. Alternative 4 has the best potential for long-term effectiveness. Microbes' growth, both indigenous and introduced, would depend on the availability of the food source and electron acceptor (COCs). Both Alternative 4 and Alternative 5 can effectively reduce COC mass in a relatively short time frame; however, groundwater concentrations have less of a potential for 'rebound' following the initial ERD injection, when compared to ISCO. Alternatives 6 and 7 can also rapidly reduce COC concentrations. Alternative 7 is a slower process overall as it relies on the rate of groundwater flow to reduce contaminant mass when it encounters the reactive barrier wall.

D. Reduction of Toxicity, Mobility, or Volume through Treatment

No significant reductions in contaminant mass are likely under Alternatives 1, 2, and 3 beyond the nominal amount that may occur due to natural processes. Alternative 4 has the best potential for contaminant reduction at the property boundary and can reduce contaminant mass; however, it may create toxic by-products during the dechlorination process under certain conditions. Alternative 5 is effective in reducing contaminant concentrations but can be less reliable for treating lower concentrations. Alternatives 6 and 7 have similar advantages and disadvantages as Alternative 5, but the rate of treatment is usually slower since they rely on physical treatment processes.

E. Short-Term Effectiveness

Alternatives 1, 2, and 3 pose no to minimal short-term risks to on-site workers, the environment, or the nearby community but would not be effective in reducing COC mass in the short-term. Alternative 4 is also very effective in the short term. Alternative 5 has the best potential for short-term effectiveness due to the quick reaction of the oxidant and resulting reactions. Alternative 6 is also moderately effective in the short term based upon the relatively low dissolved concentrations and estimated permeability of soils. Alternative 7 is effective in the short term at the point of contact of the groundwater, but is limited overall since it is a passive system.

F. Implementability

Alternatives 1, 2, and 3 are readily implementable, but wouldn't lead to significant mass reduction or compliance with ARARs. Alternatives 4 and 5 can be readily implemented with commonly available injection fluids and equipment, though each would require the appropriate regulatory permitting and site coordination. Alternatives 6 and 7 would also require environmental permitting and may also require land disturbance permitting. Successful implementation of Alternative 7 at the property would be hindered due to the proximity of the property buildings. Alternative 7 would also require the use of trenching equipment that is not commonly available.

G. Cost

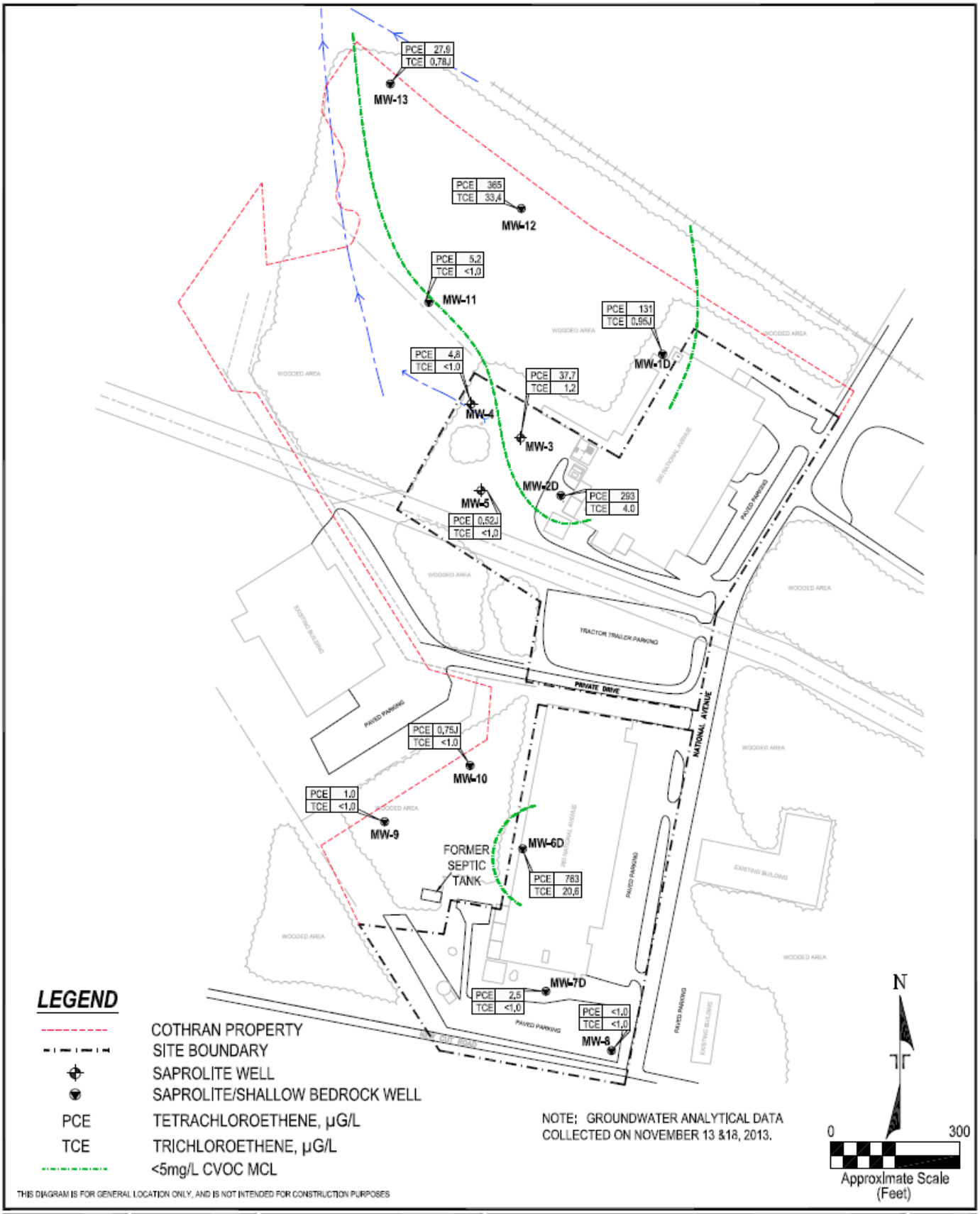
Costs for Alternative 1 may include a remedy review every five years which would include a review of new regulations, review of the status of the Site, and a meeting with DHEC. Expenditures for Alternative 2 would include capital costs for deed restrictions. Expenditures for Alternative 3 would include periodic groundwater monitoring and reporting for a long time period. Alternative 4's expenditures would include capital costs for equipment and construction of injection points and injection material. Operation and Maintenance (O&M) costs would include periodic monitoring of the groundwater network and supplementary injections of substrate or bio-augmenting organisms. The remaining active remedial alternatives (5 through 7) are progressively more expensive. Alternative 5's costs expenditures would include capital costs for equipment, construction of injection points, and injection materials. O&M costs would include periodic monitoring of the groundwater network as well as supplemental rounds of injection. Expenditures for Alternative 6 would include capital costs for equipment, construction of AS and SVE wells, and the installation and maintenance of the AS/SVE system. O&M costs would include periodic maintenance and monitoring of the AS/SVE system and periodic monitoring of the groundwater network. Expenditures for Alternative 7 would include capital costs for trenching equipment and construction of the PRBW, soil disposal, and PRBW materials. O&M costs would include long-term monitoring and O&M of the PRBW and periodic monitoring of the groundwater network.

SUMMARY OF THE DEPARTMENT'S PREFERRED ALTERNATIVE

To achieve the RAOs proposed for the Site, the Department recommends a combination of Alternative 4 and Alternative 2.

With Alternative 4, carbon sources are injected into the aquifer via temporary or permanent injection wells. Potential carbon sources include a wide variety of food-grade products such as molasses, emulsified vegetable oil, or cheese whey. During the Enhanced Reductive Dechlorination (ERD) process, carbon is used as an energy source by the microorganisms in the subsurface, and the COCs are used as one of the respiratory substrates during metabolism. Complete reductive dechlorination processes ideally lead to a non-toxic end product such as ethene. This technology is widely utilized, and has demonstrated success on multiple sites impacted with chlorinated compounds. ERD can treat both dissolved and sorbed contaminants, is not limited to a fixed area because it can move with the contaminant plume, and is usually less expensive than other remediation options. Alternative 2 would be effective in protecting human health on the property since access to the property would be limited with fencing around the Site and 24-hour active, manned security measures. Deed restrictions would prohibit future use of the property for residential purposes and future use of groundwater as a potable water supply, eliminating the groundwater exposure pathway.

The net present value of these combined alternatives is $265,000.



Project Mngr: CDE	Project No. 86117104	Terracon Consulting Engineers and Scientists	COC PLUME CONFIGURATION
Drawn By: DWD	Scale: AS SHOWN	3534 Rutherford Road (864) 292-2901 Taylors, SC 29687 (864) 292-6361	REMEDIAL ALTERNATIVES EVALUATION
Checked By: CDE/MRF	File No. 86117104-3		CASTLEBRIDGE PROPERTIES, LLC PROPERTY
Approved By: CDE	Date: MAY 2015		200 AND 280 NATIONAL AVENUE
			SPARTANBURG, SPARTANBURG COUNTY, SC

EXHIBIT 1

	1 - NA	2 – ILUC	3 – MNA/LTM	4 – ERD	5 – ISCO	6 – AS/SVE	7 - PRBW
Overall Protection of Human Health and the Environment							
Compliance with ARARs							
Long Term Effectiveness and Permanence							
Reduction of Toxicity, Mobility, or Volume through Treatment							
Short Term Effectiveness							
Implementability							
Cost	$2,600	$5,000	$101,000	$260,000	$351,000	$857,000	$1,963,000

LOW

MEDIUM

HIGH

Exhibit 2

USE THIS SPACE TO WRITE YOUR COMMENTS

Your input on the Proposed Plan for the Castlebridge Properties, LLC Site is important. Comments provided by the public are valuable in helping DHEC select a final cleanup remedy.

You may use the space below to write your comments, then fold and mail. Comments must be postmarked by **April 21, 2018**. If you have any questions, please contact Keisha Long at 803-898-0774. You may also submit your questions and/or comments electronically to: longkd@dhec.sc.gov.

Name _____ Telephone _____

Address _____ Email _____

City _____State _____ Zip _____