



**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

Division of Remediation  
William R. Snodgrass TN Tower  
312 Rosa L. Parks Avenue, 14<sup>th</sup> Floor  
Nashville, Tennessee 37243

**PUBLIC NOTICE  
OF  
RECORD OF DECISION  
FOR  
CASH HOLLOW DUMP SITE  
SITE NUMBER 90-510  
JOHNSON CITY, WASHINGTON COUNTY, TENNESSEE**

The Tennessee Department of Environment and Conservation (TDEC) Division of Remediation (DoR) has finalized a Record of Decision for the Cash Hollow Dump Site (the Site). The Record of Decision is a document used to explain the clean-up plan for the Site.

The Site is made up of about 90 acres located along Cash Hollow Road in Johnson City, Washington County, Tennessee. The Site is being addressed through the Voluntary Cleanup, Oversight and Assistance Program (VOAP). This program lets people or companies voluntarily investigate and clean up hazardous substance sites with oversight from DoR staff. The Site's responsible party has taken action to close the Site. The remedy for the Site is containment and control of landfill gas and leachate.

The Record of Decision may be viewed at <https://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-remediation.html>. For further information about the Site or to request a paper copy of the Record of Decision, please contact the DoR project manager, Justin Fisher at 865-594-5466.

If it is hard for you to read, speak, or understand English, TDEC may be able to provide translation or interpretation services free of charge. Please contact DoR at 615-532-0900 for more information.

**NOTICE ISSUED: June 30, 2020**

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STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF REMEDIATION

RECORD OF DECISION (ROD)  
CASH HOLLOW DUMP  
JOHNSON CITY, WASHINGTON COUNTY, TENNESSEE  
TDOR #90-510

**SITE DESCRIPTION**

The Cash Hollow Dump Site is a 96 acre tract owned by the City of Johnson City located approximately one half mile north of the Johnson City Limits on Cash Hollow Road in Washington County Tennessee. The Site was originally composed of deep draws and ridges with a maximum site relief of 200 feet. The site is currently used as a household waste convenience center, a county brush disposal facility, and a public works storage area.

**SITE OPERATIONAL HISTORY**

The Cash Hollow Dump Site was operated by the city of Johnson City from 1963 until 1977 when a closure plan was implemented. The Cash Hollow Dump accepted waste from private, commercial and industrial producers. Operations consisted of dumping waste into natural hollows and ravines creating slopes with a sheer face reported to exceed 100 feet. No liners or barriers were used and access to waste disposal areas was not restricted. Compaction and daily covering were not routinely practiced. Shallow shaly soils on site were of insufficient volume to provide an adequate amount of cover so ripped weathered shale was used to supplement, resulting in extremely porous cover and continual leaching problems (DSWM). Some industrial residuals disposed at the site are presumed to be hazardous and included plating sludge, painting sludge, solvents, wood preservatives, and pickling wastes. In 1982 one ravine contained several hundred drums of mostly painting booth sludge along with many tires and automobile bodies. Approximately 3.5 acres were set aside following closure for limited disposal of demolition material. This area was ordered closed by the Division of Solid Waste Management in August 1983 and was subsequently closed in March 1985. In late 1998 Washington County upgraded an unregistered convenience center at this site to meet State guidelines and permit requirements and it remains in operation and open to the public. The county brush disposal facility was closed to the public July 17<sup>th</sup>, 2017 and posted "for city use only". Access is restricted by a fence and electronic gate.

## DOCUMENTS REVIEWED

- Reconnaissance and Monitoring Report Phases I and II Cash Hollow Site, MCI Consulting Engineers, Inc., 09/30/1982
- Cash Hollow Dump Potential Hazardous Waste Site Inspection Report, Tennessee Division of Superfund, 10/12/1987
- Cash Hollow Dump Potential Hazardous Waste Site Inspection Report, Tennessee Division of Superfund, 02/28/90
- Cash Hollow Dump Site Inspection, Dynamac Corporation, 07/06/1994
- Consent Order and Agreement in the Matter of City of Johnson City Cash Hollow Dump Site, State of Tennessee Department of Environment and Conservation Division of Superfund, 04/17/1996
- Washington County Convenience Center Relocation Work Plan, Environmental Compliance & Consulting, October 14, 1998
- Cash Hollow Dump Site Remedial Investigation / Feasibility Study Presumptive Remedy Task I and Task II Report, E. Roberts Alley & Associates, Inc., 02/08/2008
- Cash Hollow Dump Site Remedial Investigation / Feasibility Study Presumptive Remedy, E. Roberts Alley & Associates, Inc., 04/11/2008
- Voluntary Oversight & Assistance Program Cash Hollow Dump Site Final Closure Request (as amended and addendum), City of Johnson City Public Works Department Office of Environmental Services, 07/05/2018
- Semi-Annual Post Closure Ground Water and Gas Sampling Letter Reports, 17 submitted 2009 to 2017

## PROBLEM DEFINITION AND PROBABLE IMPACT(S)

The Site is an inactive hazardous substance site within the meaning of TCA 68-212-202(a)(3). The State first determined the Site to be an unacceptable hazard when personnel from the Department of Public Health first inspected it in May 1971. Hazards associated with this site included numerous leachate streams and contaminated groundwater. As late as 1987, eleven residences within one half mile of this site utilized groundwater for domestic purposes, although the area was serviced by public water lines. In December 1989, DOR completed a Site Inspection Report for the Cash Hollow Dump Site and found it did not meet the requirements to be promulgated to the National Priority List. This finding was reiterated in another Site Inspection Report produced in 1994. In 1996 the City of Johnson City entered into a Consent Order and Agreement with the Division of Superfund to implement the Presumptive Remedy for CERCLA Municipal Landfill Sites (EPA 540-F-9-035), which relates primarily to containment of the landfill mass, and control of landfill gas and leachate. Following a Remedial Investigation / Feasibility Study (RI/FS) of the Presumptive Remedy, post closure sampling of groundwater daylighting

at three seeps ("seep sampling") for volatile organic compounds (VOCs) and landfill gas monitoring was initiated in 2009. No VOCs were detected from the Spring, 2012 sampling event until cessation of seep sampling in May 2017. Additional seep sampling for total aqueous levels of metals and semi-volatile organic compounds (SVOCs) conducted in 2016 confirmed these analytes were not migrating in leachate in excess of EPA Regional Screening Levels. Seep sampling and landfill gas monitoring were ceased following the May 2017 event. Cessation of seep sampling was agreed appropriate following the additional analysis for metals and SVOCs conducted in 2016, and the installation of a storm drain let-down structure to divert run-off water from the impervious surface of the brush disposal facility that was previously allowed to run onto the "roadside cell". The storm drain let-down structure will decrease the amount of water both infiltrating and eroding the cap of the "roadside cell" thereby decreasing the amount of leachate emerging from this cell. Installation of the storm drain let-down structure installation was documented to the Division in the July 5, 2018 letter from the City of Johnson City to the Tennessee Division of Remediation. Division of Remediation approval of the let-down structure was subsequently provided to the City of Johnson City, as well as formal approval to cease seep sampling. Analysis of percent lower explosive limit for methane data indicate continued methane monitoring is warranted based upon the significant expanse of time between non-detects and elevated detections at multiple locations.

#### **CRITERIA FOR EVALUATION OF ALTERNATIVES**

The Tennessee Division of Remediation's rules contain nine criteria to be considered in evaluating remedial alternatives. These criteria are set forth in Chapter 0400-15-01-.09 of the Tennessee Rules, and are similar, but not identical, to those in Title 40 of the Code of Federal Regulations (Protection of the Environment) part 300.430(2)(e)(9)(iii). These criteria are:

- Overall protection of human health and the environment;
- Attainment of the remediation goals and compliance with applicable state and federal laws;
- Short-term effectiveness;
- Long-term effectiveness;
- Permanent reduction of toxicity, mobility and volume through treatment;
- Implementability;
- Cost effectiveness;
- Community acceptance; and
- The degree to which recycling, residue and waste minimization are employed.

**EVALUATION OF ALTERNATIVES**

The initiation of a remedial action at the Site began soon after the Remedial Investigation/Feasibility study was completed. Various remediation alternatives were evaluated; however, the presumptive remedy coupled with monitored natural attenuation and long term operation and maintenance was ultimately selected. This was based on the results of the drainage improvements, seep sampling data, restricted access established by fencing and signage, and continued adherence to recorded Land Use Restrictions established to mitigate any risks posed by the potential presence of hazardous substances remaining on site. The Land Use Restrictions restrict property use to municipal government material storage and wood waste processing in accordance with prior state approval, require continued care, operation and maintenance of the remedy, require notification to TDEC prior to any invasive activity, and disallow groundwater access or use.

Operation and Maintenance of the remedy should be established in a Monitoring and Maintenance Agreement between the Division and Johnson City as required by Section IX(B) of the Consent Order and should include continued landfill gas monitoring to protect site workers or any other persons at this site until such time that it is agreed it can be ceased.

**SELECTED ALTERNATIVE AND RATIONALE FOR SELECTION**

The Cash Hollow Dump Site requires no further physical remedial action. Land Use Restrictions sufficient to mitigate any potential risks posed by the presence of hazardous substances remaining on site are the deed at the Washington County Register of Deeds Office. A Department approved Monitoring and Maintenance Agreement shall be established to meet the requirements of the Order and the Land Use Restrictions to protect human health and the environment.

**DECLARATION**

Consistent with Part 2 of the Hazardous Waste Management Act as amended, it has been determined that the selected remedy will be cost effective and provide adequate protection of public health and the environment.



6/19/2020

James S. Sanders  
Director, Division of Remediation  
Tennessee Department of Environment & Conservation

Date