

SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 615-921-9470

1033 DEMONBREUN STREET, SUITE 205
NASHVILLE, TN 37203

Facsimile 615-921-8011

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Submitted via E-mail¹ & U.S. Mail

John Michael Japp
FFA Project Manager
Oak Ridge Environmental Management
U.S. Department of Energy Oak Ridge Operations
P.O. Box 2001
Oak Ridge, TN 37831

RE: New information regarding the proposed landfill site for Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste.

Dear Mr. Japp:

As a result of alarming new groundwater and geological information about the proposed landfill site, the U.S. Department of Energy must seek additional public comment on a revised proposed plan for its hazardous and radioactive waste. Under established law, the Department must provide a reasonable opportunity for public comment.² The Department has a statutory and regulatory obligation to seek additional public comment when new information significantly changes the basic features of the remedy with respect to scope, performance, or cost, in a manner unanticipated by the public.³ The Department has already conceded that the public should have had access to the groundwater and geological information prior to the comment period on the Proposed Plan.⁴ Because new information from Technical Memorandum 2 fundamentally changes the suitability of the Bear Creek Valley site, the Department must revise its Proposed Plan and seek additional public comment.

The Southern Environmental Law Center (SELC), Advocates for the Oak Ridge Reservation (AFORR), Tennessee Chapter of the Sierra Club, and Tennessee Citizens for

¹ John.Japp@orem.doe.gov

² Attachment (Att.) 1, U.S. Dep't of Energy, *Technical Memorandum 2 (TM-2)*, May 23, 2019 [hereinafter "TM-2"]; 42 U.S.C. § 9617(a) ("[T]he notice and analysis published . . . shall include sufficient information as may be necessary to provide a reasonable explanation of the proposed plan . . ."); 40 C.F.R. § 300.430(f)(3)(i)(C) (requiring the lead agency to provide a reasonable opportunity for public comment on "the proposed plan and the supporting analysis and information located in the information repository").

³ 40 C.F.R. § 300.430(f)(3)(ii).

⁴ Att. 2, Dispute Resolution Agreement ¶ 3, Dec. 7, 2017.

Wilderness Planning (collectively, Citizen Groups) have repeatedly asked the Department to provide meaningful public comment opportunities, especially after the public has access to complete site characterization data.⁵ In a letter dated December 10, 2018, the Citizen Groups commented on the Proposed Plan and elucidated that the Department failed to provide sufficient supporting analysis, data, and information, including a complete characterization of the proposed landfill location.⁶ Nearly a year has passed since then, and the Citizen Groups and the public have continued ask the Department to comply with applicable law and provide adequate information about the Proposed Plan.⁷ Recently, the Citizen Groups again entreated the Department to reopen the comment period because the Department failed to “include sufficient information” regarding the Proposed Plan before the first public comment period.⁸

Despite the Citizen Groups’ good faith efforts, the Department has not responded to the Citizen Groups’ letters and has not committed to comply with the public comment requirements of the Comprehensive Environmental Response, Compensation, and Liability Act Waste (CERCLA). For the reasons set forth below, the Department must revise the Proposed Plan and provide an additional comment period.

I. New groundwater information significantly undermines the proposed landfill’s ability to contain hazardous and radioactive waste.

New groundwater information in Technical Memorandum 2 significantly affects the design of the proposed landfill and leads to questions about the ability of the proposed landfill to contain hazardous and radioactive waste. Therefore, additional public engagement is both necessary and required by law. Once again, we request that the Department follow the law.

Under CERCLA regulations, “if new information is made available that significantly changes the basic features of the remedy with respect to scope, performance, or cost, such that the remedy significantly differs from the original proposal in the proposed plan and the supporting analysis and information, the lead agency shall . . . [s]eek additional public comment

⁵ Att. 3, Letter from Christina I. Reichert, SELC, et al., to John Michael Japp, DOE, Dec. 10, 2018 [hereinafter “SELC et al. Comment Letter”].

⁶ *Id.*

⁷ Att. 4, Letter from Virginia H. Dale, Advocates for the Oak Ridge Reservation (AFORR), to John Michael Japp, DOE, Dec. 3, 2018 [hereinafter “AFORR Comment Letter”]; Att. 5, Comments from Mark Watson, City of Oak Ridge, to John Michael Japp, DOE, at the Public Hearing on the U.S. Department of Energy’s Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste, Nov. 7, 2018 [hereinafter “City of Oak Ridge Comments”]; Att. 6, Letter from Axel C. Ringe, Tennessee Chapter of the Sierra Club, to John Michael Japp, DOE, Dec. 10, 2018 [hereinafter “Sierra Club Comment Letter”].

⁸ Att. 7, Letter from Nate Watson, SELC, et al., to John Michael Japp, DOE, Aug. 1, 2019.

on a revised proposed plan, when the lead agency determines the change could not have been reasonably anticipated by the public based on the information available in the proposed plan or the supporting analysis and information in the administrative record.”⁹ The Department itself recognized that where “data indicates that site suitability will require any changes to the [landfill] design then, it will be documented consistent with the [National Contingency Plan] at 40 CFR 300.430(f)(3), including possible issuance of a revised Proposed Plan.”¹⁰ That is exactly the case here.

New groundwater information significantly changes the features of the remedy the Department has proposed: to construct a landfill that would taint a greenfield on the Oak Ridge Reservation (the Proposed Plan).¹¹ In the Proposed Plan, the Department claimed the location was the “most appropriate area on the [Oak Ridge Reservation] for locating an onsite disposal facility” in part due to its “groundwater flow conditions,” citing the “considerable amount of information” available about the subsurface and groundwater conditions in Bear Creek Valley.¹² At the time of the public comment period, the Department told the public that the landfill would maintain a “10 ft geologic buffer above seasonal high groundwater.”¹³ The Department said that “[r]esults of the Phase 1 site characterization confirm the acceptability of the [landfill] site for a new, low-level waste landfill and support final site selection.”¹⁴ However, recently released Technical Memorandum 2 reveals that groundwater levels at the site are significantly higher than originally anticipated and understood.¹⁵ According to the new groundwater information, a substantial portion of the landfill would sit below the water table.¹⁶ (Figure 1).

⁹ 40 C.F.R. § 300.430(f)(3)(ii).

¹⁰ U.S. Dep’t of Energy, *Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act Waste*, at 6 (Sept. 2018) [hereinafter “Proposed Plan”].

¹¹ Proposed Plan at 1. See SELC et al. Comment Letter.

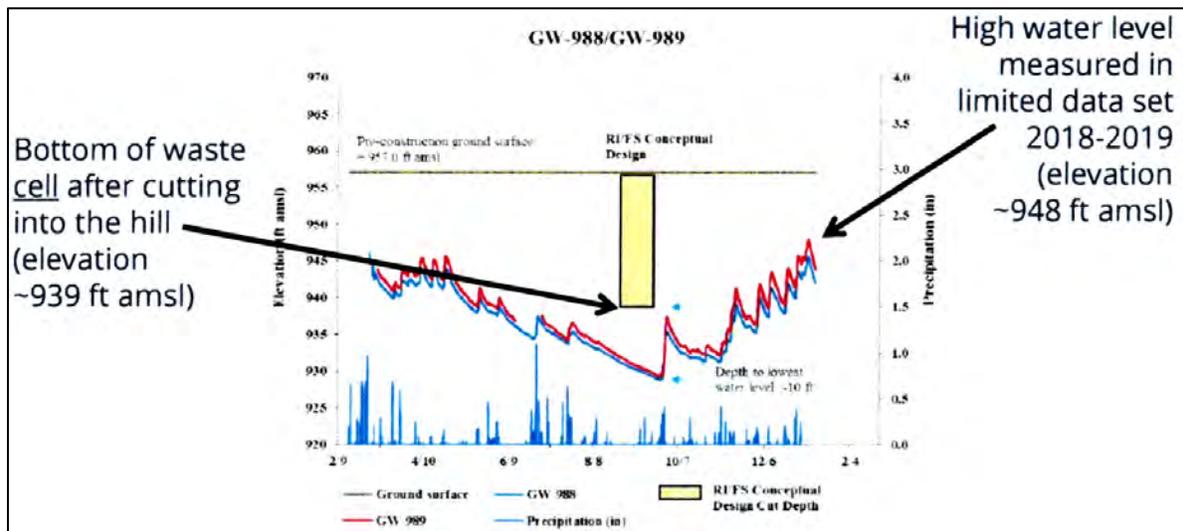
¹² Proposed Plan at 6.

¹³ U.S. Dep’t of Energy, *Draft 2, Version 2 Phase 1 Field Sampling Plan for the Proposed Environmental Management Disposal Facility for Comprehensive Environmental Response, Compensation, and Liability Act 19* (Mar. 2018), in Proposed Plan at Appendix B [hereinafter “D2 Phase 1 Field Sampling Plan”].

¹⁴ D2 Phase 1 Field Sampling Plan at 8 (“As a result, the groundwater elevation will be reduced and will be maintained lower than the geologic buffer, including reduction to the elevation of the groundwater mound below the central knob/spur ridge.”).

¹⁵ Compare Att. 8, U.S. Dep’t of Energy, Technical Memorandum 1 (TM-1), July 2, 2018, at 8-1 [hereinafter “TM-1”] (Results of the Phase 1 site characterization validate the key assumptions regarding the hydrogeologic setting (groundwater and surface water conditions) at the site.) with TM-2 at 7-9 to 7-16 (presenting graphs that show peak seasonal groundwater levels substantially closer to the ground surface than previously reported)..

¹⁶ TM-2 at 7-9 to 7-16.

Figure 1. Site Characterization: Groundwater Levels.¹⁷

The newly revealed groundwater levels at Bear Creek Valley raise critical questions about the design and performance of the landfill as proposed. The U.S. Environmental Protection Agency’s (EPA) comments on Technical Memorandum 2 underline that the proposed landfill must have “a completely unsaturated clay geobuffer layer to demonstrate the protectiveness requirements necessary to obtain waivers.”¹⁸ However, the landfill as proposed would sit below the water table, and there is a substantial risk that waste would not be adequately contained.¹⁹ The Tennessee Department of Environment (TDEC) stated that Technical Memorandum 2 “raises significant questions about how [the Department] will support the contention that the [proposed landfill] site is acceptable.”²⁰ More explicitly, TDEC stated that Technical Memorandum 2 “makes it difficult to determine if the landfill can be constructed and operated in a manner that will meet the two CERCLA threshold criteria.”²¹ In the wake of this new information, the Department has not altered the Proposed Plan or given the public an opportunity to comment on the issues raised by this new information.

The public did not expect that the Department would propose, for a second time, to place a landfill in a location that is entirely unsuitable for containing hazardous and radioactive waste.

¹⁷ Att. 9, Tenn. Dep’t of Env’t. & Conservation, Environmental Management Disposal Facility (EMDF) Stakeholder Brief, at 4 (Aug. 2019) [hereinafter “TDEC Stakeholder Brief”].

¹⁸ Att. 10, Comments from Carl R. Froede, Jr., EPA, to John Michael Japp, DOE, Aug. 29, 2019, at 5 [hereinafter “EPA Comments on TM-2”].

¹⁹ Proposed Plan at 5.

²⁰ Att. 11, Comments from Randy Young, TDEC, to John Michael Japp, DOE, Aug. 27, 2019, at 3 [hereinafter “TDEC Comments on TM-2”].

²¹ *Id.* at 13.

The citizens of Tennessee have already seen the result of the same kind of landfill: the Department's existing landfill sits within the water table, and TDEC has contended that it is contaminating groundwater and nearby surface water.²²

Moreover, the public did not previously know or anticipate the seasonal high groundwater levels for the full winter season. As the EPA explained in its comments on Technical Memorandum 2, Technical Memorandum 1 "did not contain the planned full winter season of surface water and groundwater data."²³ TDEC similarly explained that complete groundwater information was not documented in the Administrative Record at the time the Proposed Plan was released.²⁴ It was not until the Department released Technical Memorandum 2 that the public became aware of the seasonal high groundwater levels that fundamentally challenge the proposed project's scope and signal the proposed landfill's potential inability to meet CERCLA threshold requirements of protectiveness.

In sum, new groundwater information in Technical Memorandum 2 significantly changes the possible performance of the proposed landfill to a manner and extent beyond the comprehension of the public at the time of the comment period. To comply with the law, the Department must seek additional public comment on a revised proposed plan.²⁵

II. New geological information requires the Department to reopen on the comment period on a revised proposed plan.

In addition to new groundwater information, Technical Memorandum 2 also contains new geological information that significantly changes the basic features of the remedy with respect to scope, performance, or cost, such that the remedy significantly differs from the original proposal.²⁶ This geological data shows that, despite the Department's statements in the Proposed Plan and Technical Memorandum 1, limestone, fractured bedrock, and a potential fault line may lie underneath the proposed landfill site.

In the Proposed Plan, the Department repeatedly stated that the geology of the Bear Creek Valley site supports its finding that the site is "the most appropriate area on the [Oak Ridge Reservation] for locating an onsite disposal facility."²⁷ The Department told the public that

²² Att. 12, Letter from Chuck Head, TDEC, to David Adler, DOE, Jul. 8, 2019.

²³ EPA Comments on TM-2, at 1.

²⁴ TDEC Comments on TM-2 at 3.

²⁵ 40 C.F.R. § 300.430(f)(3)(ii).

²⁶ *Id.*

²⁷ Proposed Plan at 6.

the “current valley subsurface appears relatively stable.”²⁸ The Department said, “There is little limestone present in the bedrock underlying the proposed disposal cells.”²⁹ And specifically, the Department stated that “a buffer area would be maintained between the limestone layer and all waste disposal and wastewater management operations.”³⁰

However, information from Technical Memorandum 2 tells a different story. New boring logs from Technical Memorandum 2 note limestone at shallow depth intervals.³¹ For example, boring log 987 reports shale and limestone present at depths of 17–28 feet below ground surface.³² TDEC’s comments on Technical Memorandum 2 explain that the natural process where groundwater flows through individual fractures is “active” at the proposed site.³³ The public neither knew nor anticipated the shallow limestone underneath the site, and therefore require additional opportunity for public comment.

Moreover, a concern that was not raised prior to the public comment period was the threat of earthquakes in Bear Creek Valley. Based on Technical Memorandum 2, however, the EPA is now concerned that “a possible fault zone exists beneath the proposed [landfill] site.”³⁴ There have been earthquakes in the region in recent years.³⁵ The potential placement of a radioactive and hazardous waste landfill on a potential fault line would be untenable and significantly affects the appropriateness of the proposed landfill location. The public was unaware of this risk when providing comments on the Proposed Plan.

Because the new geological information from Technical Memorandum 2 introduces significant changes to the scope and potential performance of the proposed landfill, the Department must revise the Proposed Plan and reopen the comment period.

²⁸ *Id.*

²⁹ TM-1 at 2-1.

³⁰ Proposed Plan at 6.

³¹ EPA Comments on TM-2 at 10.

³² TM-2 at B-47.

³³ TDEC Comments on TM-2 at 21.

³⁴ EPA Comments on TM-2 at 11.

³⁵ Andrew Capps, *Friday Afternoon Earthquake Reported between Oak Ridge and Kingston*, Knox News, Feb. 22, 2019, <https://www.knoxnews.com/story/news/local/2019/02/22/friday-afternoon-earthquake-reported-between-oak-ridge-and-kingston-east-tennessee/2954212002>; Brian Overstreet, *East Tennessee Rattled by 2 More Earthquakes*, ABC News, Dec. 14, 2018, <https://wlos.com/news/local/east-tennessee-rattled-by-2-more-earthquakes>.

III. The December 2017 Dispute Resolution Agreement obligates the Department to seek public comment after it releases the results and analysis of the field investigation.

In addition to CERCLA's requirement that the Department seek additional comments on a revised plan, the Department's own action under the Federal Facilities Agreement necessitates additional public comment. In the December 2017 Dispute Resolution Agreement (the Agreement), the Department, EPA, and TDEC agreed that site characterization must be completed and the results and analysis provided to the public before the public comment period.³⁶ Specifically, "[t]he results and analysis of a field investigation completed in accordance with an approved Field Sampling Plan (FSP) must be included in the administrative record and the Proposed Plan public comment period shall be provided thereafter."³⁷ Pursuant to the Agreement, the Department must also ensure that the site investigation, and review of the results thereof, is completed prior to issuance of a record of decision.³⁸

TDEC and the EPA have consistently reminded the Department of these commitments, as seen in recent letters and comments on both the methodology and results of the Field Sampling Plan. Those comments highlight the necessity of additional public comment and review now that additional site characterization results and analyses have been released:

- **TDEC's Comments on Draft 2 Phase 1 Field Sampling Plan:** "After a January 5, 2018 [Dispute Resolution Agreement (DRA)] clarification call among the principals, it was confirmed that, consistent with the signed DRA, public comment on the Proposed Plan will occur after [Office of Environmental Management] completes the data collection identified in the EPA/TDEC-approved [Field Sampling Plan (FSP)] and the data are in the administrative record and available for public review."³⁹
- **TDEC's Comments on Technical Memorandum 1:** "The December 7, 2018, [sic] Dispute Resolution Agreement (DRA) says the results and analysis of the field investigation shall be included in the administrative record before the Proposed Plan public comment period."⁴⁰

³⁶ Dispute Resolution Agreement ¶ 3, Dec. 7, 2017.

³⁷ *Id.*

³⁸ *See id.* ("This field investigation and EPA/TDEC's review of the results thereof, shall be conducted prior to execution of the Record of Decision (ROD) and shall be used in selecting the remedy.").

³⁹ Att. 13, Letter from Randy Young, TDEC, to John Michael Japp, DOE, Jan. 16, 2018.

⁴⁰ Att. 14, Letter from Randy Young, TDEC, to John Michael Japp, DOE, Jul. 26, 2018.

- **EPA’s Comments on Technical Memorandum 1:** “The results and analysis of the field investigation in accordance with the FSP shall be included in the administrative record and the Proposed Plan public comment period shall be provided thereafter.”⁴¹
- **EPA’s Comments on Technical Memorandum 2:** “The results and analysis of the field investigation in accordance with the FSP shall be included in the administrative record and the Proposed Plan public comment period shall be provided thereafter.”⁴²

Public comment is necessary because the Department has issued new results and analysis from the Field Sampling Plan. Recently released Technical Memorandum 2 contains results and analysis of the Field Sampling Plan, and there is apparently a third technical memorandum that was projected for release this Summer/Fall.⁴³ Technical Memorandum 2 and (if released) Technical Memorandum 3 either were or would be released to the public after the close of the comment period on the Proposed Plan.⁴⁴ That timing categorically fails to adhere to the Agreement between TDEC, EPA, and the Department about what the public must know prior to the comment period on a proposed plan. Simply put, there can be no public acceptance of the proposed landfill when the Department has failed to provide critical information to the public in advance of a public comment period.

Therefore, to honor the Agreement, the Department must reopen the comment period. The Department may not issue a record of decision prior to completion and review of the site investigation.

⁴¹ Att. 15, Letter from Carl R. Froede, Jr., EPA, to John Michael Japp, DOE, Aug. 16, 2018 (quoting Dispute Resolution Agreement ¶ 3, Dec. 7, 2017).

⁴² EPA Comments on TM-2 at 1.

⁴³ TM-2 at ES-1 to ES-6 (summarizing the extensive results in the Technical Memorandum 2); Att. 16, Letter from Brian Henry & John Michael Japp, DOE, to Constance A. Jones, EPA, & Randy C. Young, TDEC, Jun. 7, 2019 (forecasting completion of Technical Memorandum #3 for August 2019) [hereinafter “TM-2 Transmittal Letter”].

⁴⁴ TM-2; TM-2 Transmittal Letter.

CONCLUSION

In conclusion, based on the concerns raised above, we urge the Department to seek additional comments on a revised proposed plan that incorporates complete results and analysis of the Field Sampling Plan. Since the Department has so far failed to comply with its obligations under the December 2017 dispute resolution agreement and CERCLA, it must now provide the public with the information it committed to provide, revise the Proposed Plan accordingly, and reopen the public comment period.

Sincerely,



Christina I. Reichert
Nathanael Watson*
Southern Environmental Law Center

Virginia H. Dale
Advocates for the Oak Ridge Reservation

Axel Ringe
Tennessee Chapter of the Sierra Club

Sandra K. Goss
Tennessee Citizens for Wilderness Planning

*Tennessee Bar Applicant

Attachments provided via ShareFile: <https://southernenvironment.sharefile.com/d-sdf7a3ac30074a4e8>

CC:

Constance A. Jones, EPA
Randy Young, TDEC
Patrick Parker, TDEC

ATTACHMENTS

Att. 1, U.S. Dep't of Energy, *Technical Memorandum 2 (TM-2)*, May 23, 2019.

Att. 2, Dispute Resolution Agreement ¶ 3, Dec. 7, 2017.

Att. 3, Letter from Christina I. Reichert, SELC, et al., to John Michael Japp, DOE, Dec. 10, 2018.

Att. 4, Letter from Virginia H. Dale, Advocates for the Oak Ridge Reservation (AFORR), to John Michael Japp, DOE, Dec. 3, 2018.

Att. 5, Comments from Mark Watson, City of Oak Ridge, to John Michael Japp, DOE, at the Public Hearing on the U.S. Department of Energy's Proposed Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste, Nov. 7, 2018.

Att. 6, Letter from Axel C. Ringe, Tennessee Chapter of the Sierra Club, to John Michael Japp, DOE, Dec. 10, 2018.

Att. 7, Letter from Nate Watson, SELC, et al., to John Michael Japp, DOE, Aug. 1, 2019.

Att. 8, U.S. Dep't of Energy, *Technical Memorandum 1 (TM-1)*, July 2, 2018.

Att. 9, Tenn. Dep't of Env't. & Conservation, Environmental Management Disposal Facility (EMDF) Stakeholder Brief (Aug. 2019).

Att. 10, Comments from Carl R. Froede, Jr., EPA, to John Michael Japp, DOE, Aug. 29, 2019.

Att. 11, Comments from Randy Young, TDEC, to John Michael Japp, DOE, Aug. 27, 2019.

Att. 12, Letter from Chuck Head, TDEC, to David Adler, DOE, Jul. 8, 2019.

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Att. 15, Letter from Carl R. Froede, Jr., EPA, to John Michael Japp, DOE, Aug. 16, 2018.

Att. 16, Letter from Brian Henry & John Michael Japp, DOE, to Constance A. Jones, EPA, & Randy C. Young, TDEC, Jun. 7, 2019.