

DOCKETED	
Docket Number:	24-OPT-05
Project Title:	Corby Battery Energy Storage System Project
TN #:	272752
Document Title:	Sarah Dunn Comments - Ulati Creek and SF Bay Delta
Description:	N/A
Filer:	System
Organization:	Sarah Dunn
Submitter Role:	Public
Submission Date:	9/14/2026 11:05:31 AM
Docketed Date:	9/14/2026

*Comment Received From: Sarah Dunn
Submitted On: 9/14/2026
Docket Number: 24-OPT-05*

Ulatis Creek and SF Bay Delta

Additional submitted attachment is included below.

PUBLIC COMMENT SUBMISSION

TO: California Energy Commission

DOCKET: Docket No. 24-OPT-05 (Corby Battery Energy Storage System)

SUBJECT: Supplemental Technical Objections: Incorporating Verified 1,000-Fold Soil Deposition Error (Appendix LU) into Downstream Hydrologic and Watershed Contamination Analyses

DATE: September 14, 2026

I. INTRODUCTION & EXECUTIVE SUMMARY

This submission provides supplemental technical comments regarding the Environmental Impact Report (EIR) / Staff Assessment for the proposed Corby Battery Energy Storage System (Docket No. 24-OPT-05).

Prior public submissions to this docket (**including TN #272480**) established a fatal mathematical error in Appendix LU of the Staff Assessment: the lead agency executed a 1,000-fold unit conversion error in its soil deposition calculations. Correcting this mathematical oversight elevates the projected post-fire lithium soil concentration from the reported 0.18 mg/kg to 182 mg/kg a value that drastically exceeds Solano County's baseline background soil levels (15-30 mg/kg) and far surpasses agricultural phytotoxicity thresholds (4-50 mg/kg). A parallel 1,000-fold error undercounts aluminum deposition (34.4 mg/kg actual vs. 0.034 mg/kg reported).

This supplemental submission addresses the critical secondary omission: the lead agency has failed to evaluate how these corrected 182 mg/kg contaminant loads will migrate off-site via surface hydrologic pathways during rainfall events.

The natural surface drainage from the project site flows directly through **Sweany Creek (HUC 180201630501)**, emptying into **Ulati Creek** and passing through the **Lower Ulati Creek watershed (HUC 180201630505)** until meeting **Cache Slough (HUC 180201630606)** and discharging into the **San Francisco Bay-Delta Estuary**.

Because the Staff Assessment evaluated water quality and stormwater risks using an invalidated, 1,000-fold understated soil concentration (0.18 mg/kg), the environmental document fails to satisfy the California Environmental Quality Act

(CEQA) requirements for an accurate environmental baseline, realistic impact modeling, and adequate mitigation.

II. TECHNICAL ANALYSIS OF DISCREPANCIES & HYDROLOGIC NEXUS

1. Corrected Soil Deposition Modeling (Appendix LU)

As previously entered into the record, Appendix LU erroneously calculated the soil concentration resulting from a projected 18.0 g/m² lithium deposition across a 7.6 cm (3-inch) soil mixing depth:

- Reported Figure in Assessment: 0.18 mg/kg
- Corrected Mathematical Value: 182 mg/kg (A 1,000-fold undercount)

2. Surface Stratification and Stormwater Remobilization Dynamics

In a real-world, un-tilled storm event following an airborne deposition or fire incident, fallout does not immediately mix evenly down to 3 inches (7.6 cm). Contaminants concentrate in the top 5 mm of surface soil, creating localized surface concentrations up to 15 times higher than the 3-inch average. First-flush storm events will wash this highly concentrated surface layer directly into on-site drainage swales and off-site receiving waters.

3. Complete Downstream Transport Pathway

By assuming an artificially low soil load of 0.18 mg/kg, the Staff Assessment completely omitted sediment transport and off-site water contamination modeling along the site's natural hydrologic flow path:

Project Site -> Sweany Creek (HUC 180201630501) -> Lower Ulatis Creek Watershed (HUC 180201630505) -> Cache Slough (HUC 180201630606) -> SF Bay-Delta Estuary

- Agricultural Supply Vulnerability: Sweany Creek and Ulatis Creek serve as vital agricultural drainage and irrigation conveyances across eastern Solano County. Soil deposition loads exceeding 180 mg/kg of lithium directly threaten local crop health, soil viability, and livestock water safety.
- Private Well Infiltration: Remobilized contaminants in unlined roadside ditches and rural creek beds threaten shallow alluvial aquifer recharge supporting private domestic drinking wells along Byrnes and Kilkenny roads.
- Critical Habitat Contamination: Cache Slough (HUC 180201630606) is an ecologically sensitive habitat for federally protected aquatic species (e.g., Delta smelt, Chinook salmon) and a major intake zone for regional water systems.

Transporting heavy metals and toxic fire byproducts into this basin violates state anti-degradation policies.

4. Invalidation of On-Site Containment & SWPPP Sizing

The on-site stormwater retention, secondary containment facilities, and Stormwater Pollution Prevention Plan (SWPPP) designs were sized based on the assumption that post-fire surface runoff would carry negligible toxic concentrations. Redesign is required to capture and contain runoff carrying the corrected contaminant loads during severe multi-day storm events combined with emergency fire suppression operations.

III. MANDATORY REGULATORY AGENCY NOTIFICATIONS

Because this hydrologic path connects the project site directly to jurisdictional waters of the state and nation, the CEC must formally transmit these corrected calculations to the following trustee and responsible agencies for independent review:

1. Central Valley Regional Water Quality Control Board (Region 5): Enforce Basin Plan water quality standards, Waste Discharge Requirements (WDRs), and Clean Water Act NPDES requirements for runoff entering Ulatis Creek and the Delta.
2. California Department of Fish and Wildlife (CDFW - Bay Delta Region): Evaluate toxic heavy metal transport and acute/chronic aquatic toxicity within Cache Slough and Ulatis Creek riparian corridors.
3. Solano County Water Agency (SCWA) & Solano Irrigation District (SID): Assess operational risks to agricultural water distribution, regional drainage channels, and municipal intake protections.
4. City of Vacaville & Solano County Department of Resource Management: Evaluate agricultural land protection, local groundwater well safety, and emergency response infrastructure.

5. U.S. EPA (Region 9) & U.S. Army Corps of Engineers (Sacramento District): Anti-degradation compliance under Clean Water Act Sections 402 and 404 for downstream navigable waters in the San Francisco Bay-Delta.

IV. REQUESTED REMEDIAL ACTIONS

To ensure CEQA compliance and protect Solano County water resources, the lead agency must require the applicant to:

1. Formally Correct Appendix LU Record: Re-issue the atmospheric deposition assessment incorporating the corrected 182 mg/kg lithium and 34.4 mg/kg aluminum post-fire soil concentration figures.
2. Model Surface Sediment Transport: Execute a full 2D surface water quality and sediment transport model following the complete drainage route: HUC 180201630501 -> HUC 180201630505 -> HUC 180201630606 -> SF Bay-Delta.
3. Establish Baseline Environmental Testing: Mandate comprehensive pre-project baseline testing of site soils, surface water, and adjacent private groundwater wells prior to any site disturbance.
4. Redesign Secondary Containment: Recalculate and expand on-site secondary containment facilities to guarantee 100% capture of contaminated fire suppression water and first-flush stormwater.
5. Recirculate Environmental Documentation: Issue a Revised Environmental Impact Report / Staff Assessment reflecting these corrected impacts for a full 45-day public and agency review period

Respectfully submitted,

Sarah Dunn