

<b>DOCKETED</b>	
<b>Docket Number:</b>	24-OPT-05
<b>Project Title:</b>	Corby Battery Energy Storage System Project
<b>TN #:</b>	269465
<b>Document Title:</b>	Data Request Response #7
<b>Description:</b>	Response to CEC Staff stormwater pond sizing questions
<b>Filer:</b>	Doug Urry
<b>Organization:</b>	Tetra Tech
<b>Submitter Role:</b>	Applicant Consultant
<b>Submission Date:</b>	4/10/2026 3:39:23 PM
<b>Docketed Date:</b>	4/10/2026

# Data Request Response #7

## Corby Battery Energy Storage System Project (24-OPT-05)

April 2026



Prepared for



700 Universe Boulevard  
Juno Beach, FL 33408

Prepared by



17885 Von Karman Avenue, Suite 500  
Irvine, CA 92614

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## **Acronyms and Abbreviations**

Applicant	North Bay Interconnect, LLC and Corby Energy Storage, LLC
Application	Opt-in Application
BESS	battery energy storage system
CEC	California Energy Commission
Project	Corby Battery Energy Storage System Project
SDR	Supplemental Data Request

## 1.0 INTRODUCTION

This Data Request Response #7 to North Bay Interconnect, LLC and Corby Energy Storage, LLC's (Applicant)<sup>1</sup> Opt-in Application (Application) for the Corby Battery Energy Storage System Project (Project) (24-OPT-05) responds to a supplement data request (SDR) that California Energy Commission (CEC) Staff made as a result of their review of Project Description Update #2, including SDR WATER-1. This SDR was received via email on April 1, 2026, which is provided in Appendix 1-A.

Each data request is presented below in its entirety, followed by the Applicant's response to the information requested. All figures referenced in responses are provided following the set of responses for the technical discipline. If the response requires additional appended material, it is included in numbered appendices at the end of the document.

## 2.0 WATER RESOURCES

### 2.1 Data Request SDR WATER-1

**SDR WATER-1** . CEC staff found discrepancies between the dimensions (surface area, volume) of the two ponds as described in application the Project Description Update #2 (TN 268258). In Appendix 2-A, Grading Plan (Drawing BCR-C 100-E; pdf p. 26), we measured the northern and southern ponds. We made "back of the envelope" measurements using MS Paint. While acknowledge this method produces error, we still have questions we'd like to check.

- Northern pond
  - We calculate a volume of 231,500 cubic ft, which is ~34,593 cubic ft less than the proposed volume of 266,093 cubic ft.
  - We calculate a brim full surface area of 1.2 acres, which is 0.2 acres less than the proposed surface area of 1.4 acres.
- Southern pond
  - We calculate the southern pond volume at 224,158 cubic ft, which is ~14,149 cubic ft greater than the proposed southern pond volume of 210,009 cubic ft.
  - We calculate a brim full surface area of 1.2 acres, which is 0.3 acres greater than the proposed surface area of 0.9 acres.
- Would you please provide the Solano County drainage design requirements for stormwater retention ponds? We are unable to find specific design requirements in the Solano County Code.

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<sup>1</sup> North Bay Interconnect, LLC and Corby Energy Storage, LLC are both wholly-owned subsidiaries of NextEra Energy Resources. North Bay Interconnect, LLC will own and operate the interconnection facilities for the Project; and Corby Energy Storage, LLC will own and operate the BESS components of the Project.

- How did you determine that 0.5 ft of freeboard for both ponds is an appropriate buffer? In guidance documents for stormwater retention ponds (CalTrans, San Bernardino County), minimum freeboard values of 1 ft or 2 ft are recommended or required.

**Response:**

**Retention Pond Dimensions**

Confirmation of the volume and surface area dimensions for each pond are provided below. Pond HydroCAD output is provided in Appendix 2-A as supplemental information.

- **Northern Pond:** The pond volume was measured to the bottom of the spillway (75.50'). The proposed volume of the pond is 258,360 cubic feet. The 266,093 cubic foot number was incorrectly provided from a previous design iteration prior to the technology change, please see attached exhibit for greater detail. The proposed brim surface area, measured to the top of embankment (76.00'), is approximately 1.5 acres.
- **Southern Pond:** The pond volume was measured to the bottom of the spillway (74.50'). The proposed volume is 201,841 cubic feet. The 210,009 cubic foot number was incorrectly provided from a previous design iteration prior to the technology change, please see attached exhibit for greater detail. The proposed brim surface area, measured to the top of embankment (75.00'), is approximately 1.2 acres.

**Retention Pond Design Basis**

Guidance documents from other agencies (e.g., Caltrans, San Bernardino County) that recommend minimum freeboard values of 1 to 2 feet are agency specific and are generally intended for public roadway drainage systems, flood control facilities, or jurisdictions with prescriptive freeboard requirements. These criteria are not incorporated into Solano County's stormwater drainage guidance and are therefore not directly applicable for this project.

At the time of the Project design and Application submittal, Solano County did not identify prescriptive design criteria specific to stormwater retention or detention ponds within the County Code. The Project drainage design was therefore based on the applicable Solano County drainage guidance available, specifically the Solano County Road Improvement Standards and Land Development Requirements (Solano County 2006). The 2006 guidance establishes the requirement that stormwater facilities be designed to safely manage the 100-year storm event, but does not prescribe minimum freeboard requirements, side slopes, or specific geometric criteria for privately owned stormwater retention basins (refer to Section 1-6.6). Consistent with this guidance, the Project retention ponds were evaluated for performance under the 100-year design storm and include defined primary and emergency spillways to control water surface elevations and safely route flows.

The 2006 Solano County drainage guidance does not include a minimum freeboard requirement for stormwater retention ponds. Instead, adequacy is evaluated based on controlled performance during the 100-year storm event, including use of primary and emergency spillways to limit water surface elevations and prevent uncontrolled overtopping. The Project stormwater retention ponds were designed as follows:

- **Northern Pond:** The maximum water surface elevation remains approximately 1 foot below the bottom of the primary spillway under the 100-year storm event. This provides effective freeboard to the controlling discharge structure and ensures that embankment integrity is maintained during the design event.
- **Southern Pond:** The basin is intentionally designed such that the emergency spillway is active during the 100-year storm, thereby controlling the maximum water surface elevation and safely routing flows without reliance on embankment overtopping. The emergency spillway configuration limits hydraulic loading on the embankment and provides a defined, stable overflow path.

The overall Project stormwater system is designed to ensure post-Project discharge flow will not exceed pre-Project flow during the 100-year design storm event in accordance with the 2006 Solano County drainage guidance.

### 3.0 REFERENCES

Solano County. 2006. Road Improvement Standards and Land Development Requirements. Prepared by the Department of Resource Management. Adopted February 28, 2006.

## **APPENDIX 1-A: CEC DATA REQUESTS**

**From:** [Chang, Kaycee@Energy](mailto:Chang_Kaycee@Energy)  
**To:** [Syed, Qaim](mailto:Syed_Qaim)  
**Cc:** [Omercajic, Nadan](mailto:Omercajic_Nadan); [Longman, Renee@Energy](mailto:Longman_Renee@Energy)  
**Subject:** Corby BESS: stormwater pond questions  
**Date:** Wednesday, April 1, 2026 12:45:48 PM  
**Attachments:** [Corby BESS stormwater ponds calculations.xlsx](#)  
[2026.03.25 stormwater ponds msmts.png](#)  
[Outlook-nzi5u4lr.png](#)  
[Outlook-rcunugty.png](#)

**Caution - External Email**

This message is from someone outside of the organization.

Report Suspicious

Hello Qaim,

On behalf of Renee and our geosciences team, can you please file responses to the questions below related to the stormwater retention ponds, with a copy of the questions, to the docket by or before 4/8/26?

- CEC staff found discrepancies between the dimensions (surface area, volume) of the two ponds as described in application the Project Description Update #2 (TN 268258). In Appendix 2-A, Grading Plan (Drawing BCR-C 100-E; pdf p. 26), we measured the northern and southern ponds. We made "back of the envelope" measurements using MS Paint. While acknowledge this method produces error, we still have questions we'd like to check.
  - Northern pond
    - We calculate a volume of 231,500 cubic ft, which is ~34,593 cubic ft less than the proposed volume of 266,093 cubic ft.
    - We calculate a brim full surface area of 1.2 acres, which is 0.2 acres less than the proposed surface area of 1.4 acres.
  - Southern pond
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    - We calculate a brim full surface area of 1.2 acres, which is 0.3 acres greater than the proposed surface area of 0.9 acres.
- Would you please provide the Solano County drainage design requirements for stormwater retention ponds? We are unable to find specific design requirements in the Solano County Code.
- How did you determine that 0.5 ft of freeboard for both ponds is an appropriate buffer? In guidance documents for stormwater retention ponds (CalTrans, San Bernardino County), minimum freeboard values of 1 ft or 2 ft are recommended or required.

Thank you,

Kaycee

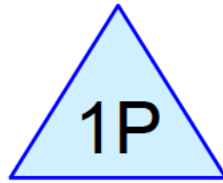
**Kaycee Chang (she, her, hers)**

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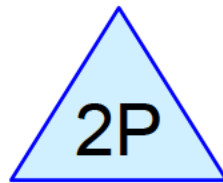


 [Book time to meet with me](#)

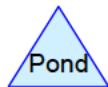
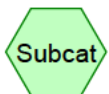
## **APPENDIX 2-A: POND HYDROCAD OUTPUT**



POND 1



POND 2



**163851 Post-Construction B**

Type I 24-hr 100-yr, 24-hr Rainfall=6.67"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Pond 1P: POND 1**

Peak Elev=74.49' Storage=195,278 cf Inflow=30.19 cfs 4.483 af  
Outflow=0.00 cfs 0.000 af

**Pond 2P: POND 2**

Peak Elev=74.59' Storage=206,445 cf Inflow=33.47 cfs 5.020 af  
Outflow=1.11 cfs 0.387 af

**163851 Post-Construction B**

Type I 24-hr 100-yr, 24-hr Rainfall=6.67"

Prepared by Burns & McDonnell

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**Summary for Pond 1P: POND 1**

[62] Hint: Exceeded Reach 3R OUTLET depth by 1.49' @ 45.15 hrs

[64] Warning: Exceeded Reach 3R outlet bank by 0.49' @ 42.80 hrs

Inflow Area = 10.009 ac, 7.60% Impervious, Inflow Depth = 5.37" for 100-yr, 24-hr event  
 Inflow = 30.19 cfs @ 10.01 hrs, Volume= 4.483 af  
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Peak Elev= 74.49' @ 42.80 hrs Surf.Area= 60,993 sf Storage= 195,278 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	71.00'	290,779 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
71.00	51,029	0	0
72.00	53,782	52,406	52,406
73.00	56,623	55,203	107,608
74.00	59,521	58,072	165,680
75.00	62,518	61,020	226,700
75.50	64,122	31,660	258,360
76.00	65,556	32,420	290,779

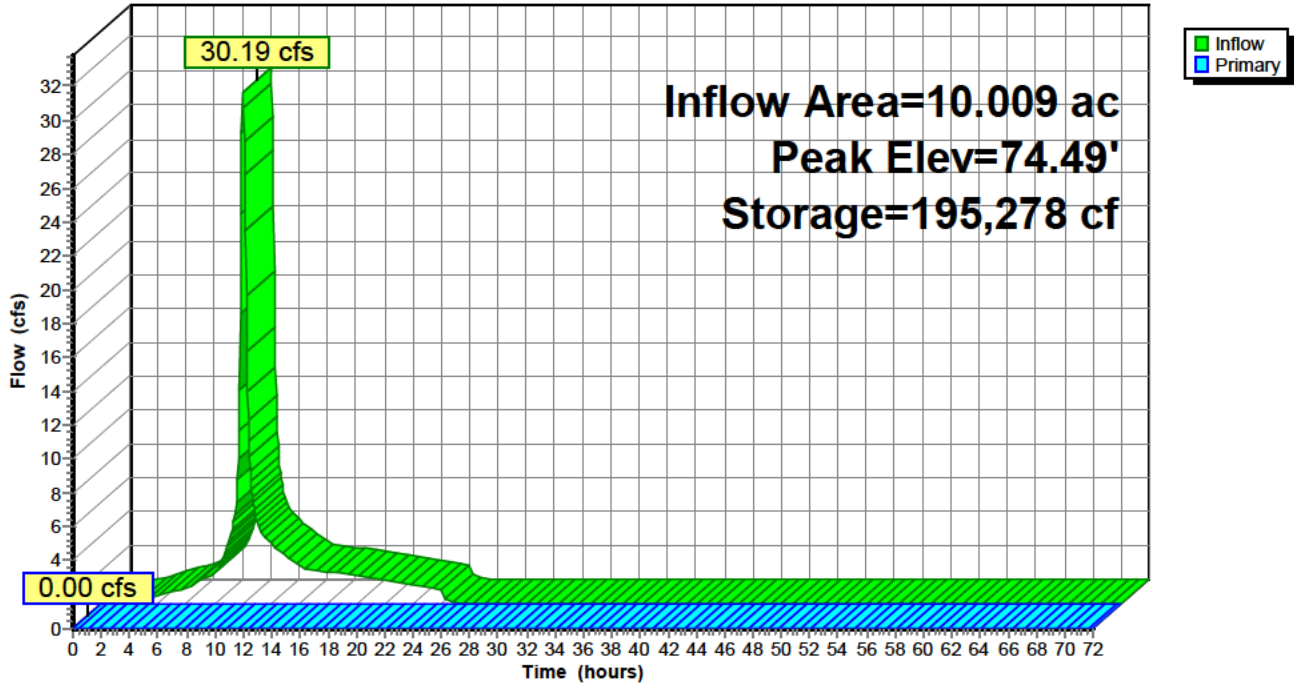
Device	Routing	Invert	Outlet Devices
#1	Primary	75.50'	<b>Custom Weir/Orifice, Cv= 2.62 (C= 3.28)</b> Head (feet) 0.00 0.50 Width (feet) 12.00 15.00

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=71.00' (Free Discharge)

↑1=Custom Weir/Orifice ( Controls 0.00 cfs)

Pond 1P: POND 1

Hydrograph



**163851 Post-Construction B**

Type I 24-hr 100-yr, 24-hr Rainfall=6.67"

Prepared by Burns &amp; McDonnell

Printed 4/8/2026

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**Summary for Pond 2P: POND 2**

[63] Warning: Exceeded Reach 7R INLET depth by 0.77' @ 24.75 hrs

[64] Warning: Exceeded Reach 7R outlet bank by 1.59' @ 22.85 hrs

Inflow Area = 10.598 ac, 10.96% Impervious, Inflow Depth = 5.68" for 100-yr, 24-hr event  
 Inflow = 33.47 cfs @ 10.05 hrs, Volume= 5.020 af  
 Outflow = 1.11 cfs @ 22.85 hrs, Volume= 0.387 af, Atten= 97%, Lag= 768.1 min  
 Primary = 1.11 cfs @ 22.85 hrs, Volume= 0.387 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs  
 Peak Elev= 74.59' @ 22.85 hrs Surf.Area= 51,070 sf Storage= 206,445 cf

Plug-Flow detention time= 1,094.6 min calculated for 0.386 af (8% of inflow)  
 Center-of-Mass det. time= 675.2 min ( 1,411.2 - 736.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	70.00'	227,578 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
70.00	39,087	0	0
71.00	41,581	40,334	40,334
72.00	44,137	42,859	83,193
73.00	46,765	45,451	128,644
74.00	49,472	48,119	176,763
74.50	50,842	25,079	201,841
75.00	52,105	25,737	227,578

Device	Routing	Invert	Outlet Devices
#1	Primary	74.50'	<b>Custom Weir/Orifice, Cv= 2.62 (C= 3.28)</b> Head (feet) 0.00 0.50 Width (feet) 12.00 15.00

**Primary OutFlow** Max=1.09 cfs @ 22.85 hrs HW=74.59' (Free Discharge)

↑1=Custom Weir/Orifice (Weir Controls 1.09 cfs @ 0.98 fps)

### Pond 2P: POND 2

Hydrograph

