

# COMMON ISSUES WITH AQUATIC RESOURCE DELINEATIONS

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# OVERVIEW

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- Issues commonly seen in aquatic resource delineations
  - Incomplete/withdraw
  
- Recommendations
  - Best Management Practices

# INCOMPLETE DATASHEETS



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# INCOMPLETE DATASHEETS ISSUES

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- Not indicating problem situation exists (Chapter 5)
- Vegetation not identified to species level
- Texture not added to soils section or incorrect classification
- Secondary hydrology indicators not checked\*
- Not using remarks boxes
- Illegible writing



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# SATURATION





# DATASHEETS CONTIN'

- Recommend using Corps' automated data sheets
- (updated 2024)

<https://www.spk.usace.army.mil/Missions/Regulatory/Jurisdiction/Aquatic-Resources-Delineation/>

## Auto calculates/completes

- Vegetation name, dominant and indicator status
- Dominance/prevalence tests
- Hydric soils test met
- FAC-neutral test- secondary hydrology indicator
- Yes/No boxes
- Prompts for further investigation
  - Soils and hydrology ?

# DIFFICULT WETLAND SITUATIONS



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# DIFFICULT WETLAND SITUATIONS



## Chapter 5 of Regional Supplements

### Process for evaluating

- Vegetation

- Seasonal shift (late season)
- Grazed
- Managed veg- i.e. pastures
- Sparse vegetation
- Removed by fires, floods, and other natural/man disturbances



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# OTHER DIFFICULT SITUATIONS



## ■ Problematic Soils

### ➤ Saline soils

- May appear in wetter areas but not in drier

### ➤ Relict or induced hydric soil indicators

### ➤ Volcanic Ash

### ➤ Vegetated Sand and Gravel Bars within Floodplains

### ➤ Recently Developed Wetlands

### ➤ Seasonally Ponded Soils



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# OTHER DIFFICULT SITUATIONS

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- Hydrology

- Missing optimal time to observe hydrology (late season)
- Above average precipitation

- Tools/Techniques

- Late season water table- requires at least 24-in deep hole
- Review historic aerial photos- Saturation
- Antecedent Precipitation Tool (APT)

<https://www.usace.army.mil/Media/Announcements/Article/3450425/6-july-2023-usace-announces-the-availability-of-the-antecedent-precipitation-to/>

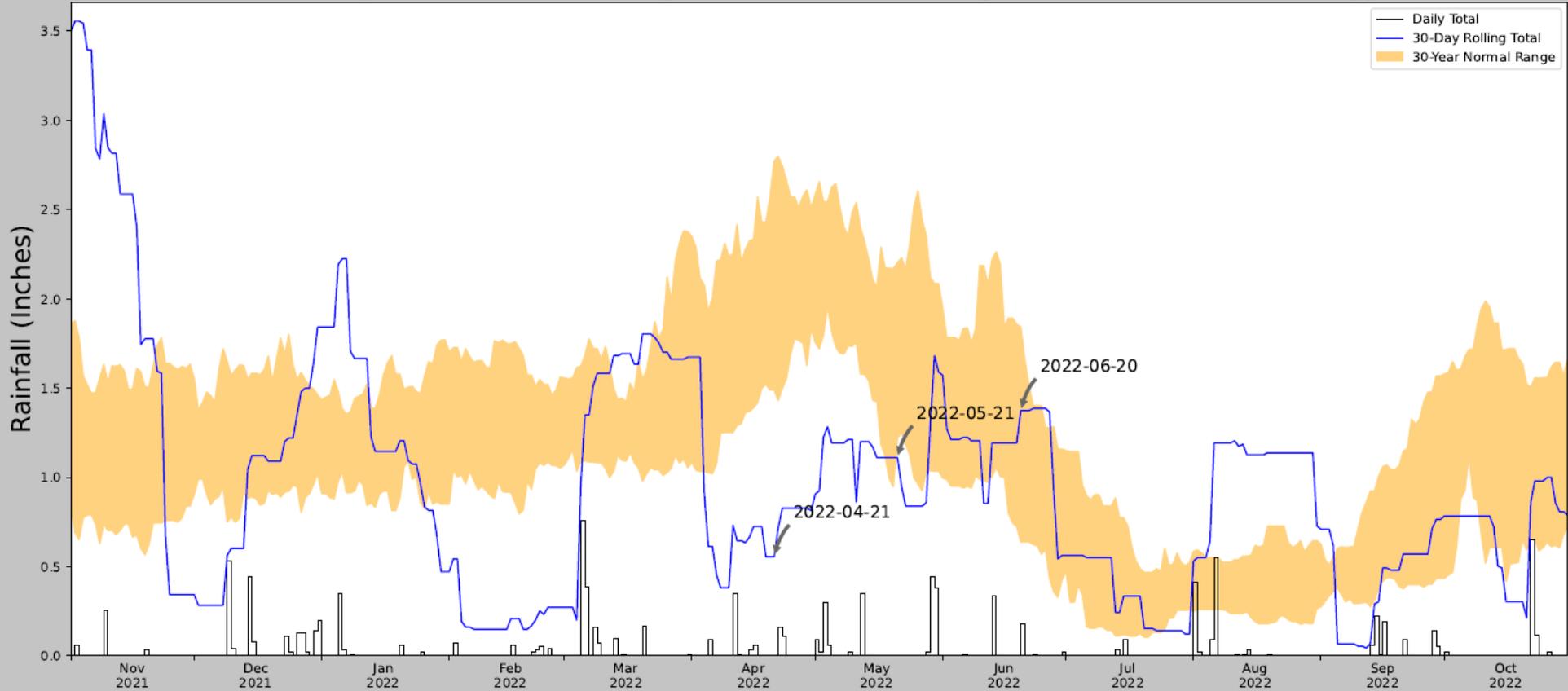


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# APT

## Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	40.984598, -111.916777
Observation Date	2022-06-20
Elevation (ft)	4235.901
Drought Index (PDSI)	Incipient drought
WebWIMP H <sub>2</sub> O Balance	Dry Season

30 Days Ending	30 <sup>th</sup> %ile (in)	70 <sup>th</sup> %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-06-20	0.638189	1.841732	1.374016	Normal	2	3	6
2022-05-21	1.222047	2.201969	1.110236	Dry	1	2	2
2022-04-21	1.490551	2.772441	0.555118	Dry	1	1	1
Result							Drier than Normal - 9



Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by:  
U.S. Army Corps of Engineers and  
U.S. Army Engineer Research and Development Center



Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SALT LAKE CITY INTL AP	40.7706, -111.965	4227.034	14.999	8.867	6.883	11353	90

# GROUNDWATER MONITORING WELLS



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# GROUNDWATER MONITORING WELLS



## ERDC TN-WRAP-05-2 June 2005

### *Technical Standard for Water-Table Monitoring of Potential Wetland Sites*

- Specific installation requirements.
- Not used to over-rule other scientific evidence
- If being used to determine wetland boundary, multiple wells along transects perpendicular to the expected wetland boundary are needed.
- Photos of installed wells

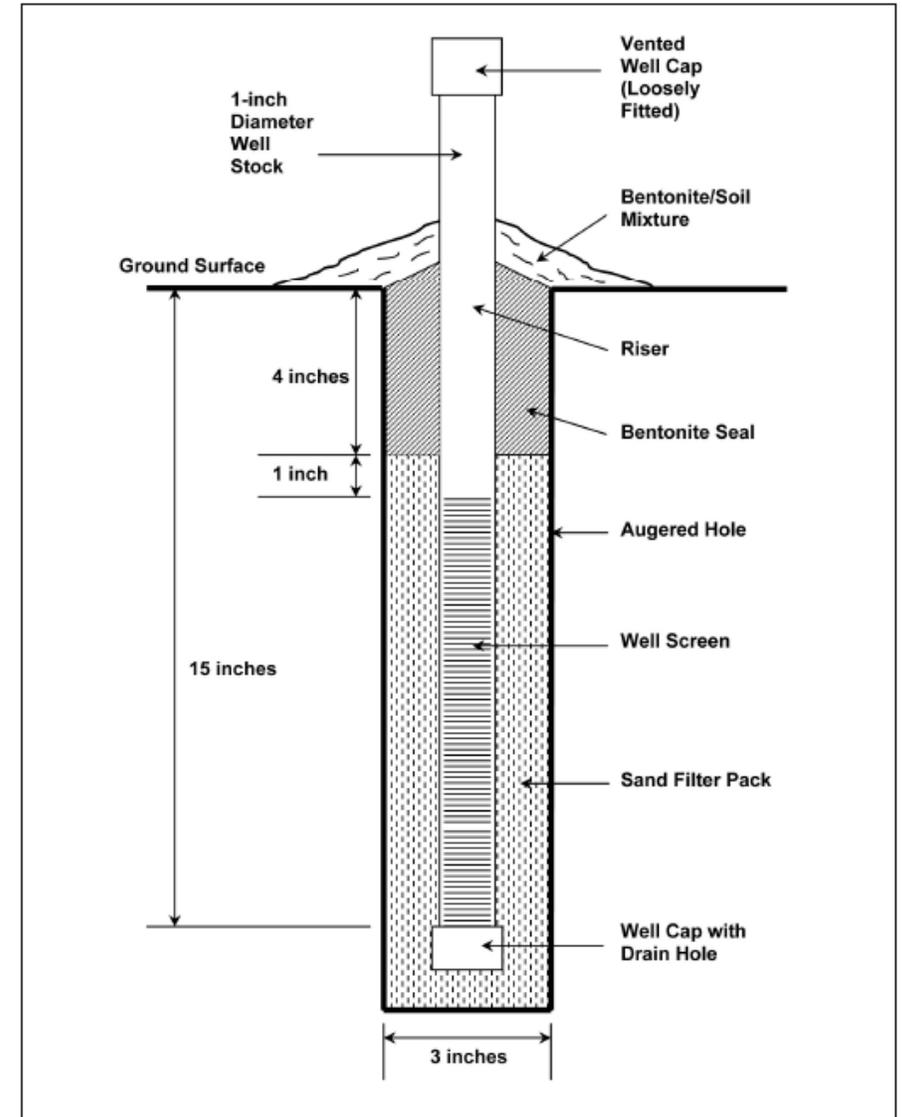
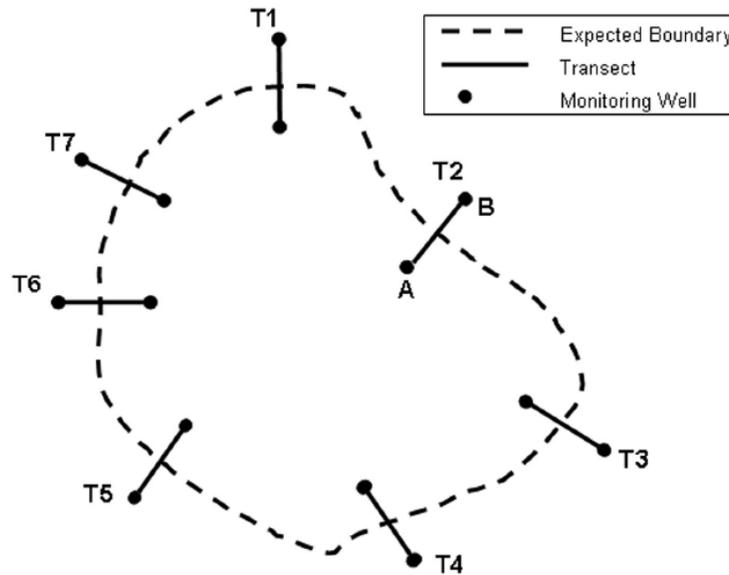


Figure 2. Standard 15-in. monitoring well installed by augering

# OTHER ISSUES



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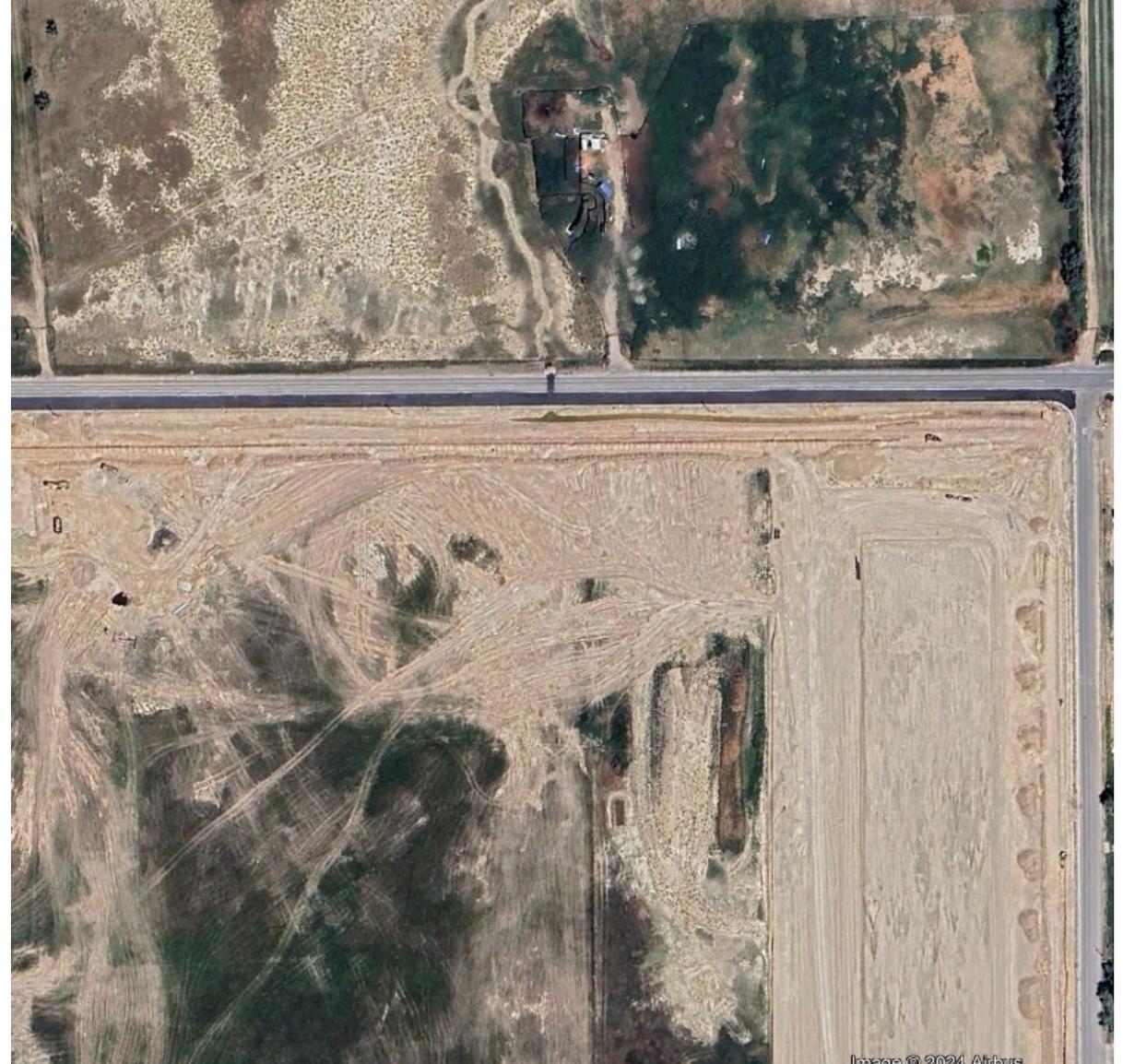


- Wetlands below OHWM
- Fill placed in survey area
  - Increasing occurrences
  - Disclose it upfront in the report
  - Talk to client about why/when occurred
  - Will result in withdraw of request and unauthorized activity investigation
    - May result in significant delay



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# FILL ON SITE



# FLOW PATH



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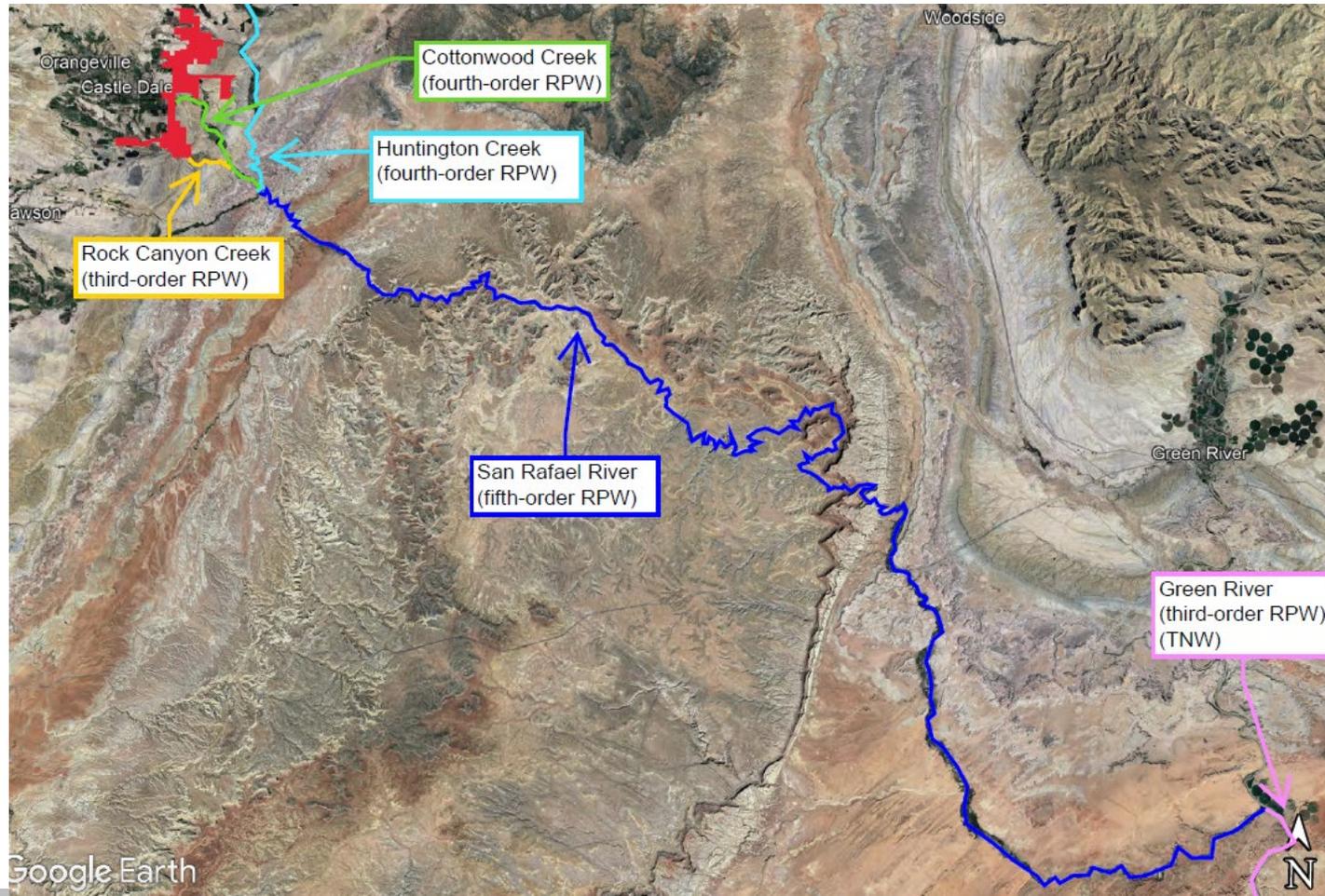


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# FLOW PATH

- Need narrative descriptions
- Need figures



# BEST MANAGEMENT PRACTICES



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## DELINEATION BMPS

- Develop a checklist/standard methodology
  - Adapt/add to as info changes
- Do homework before going into the field
  - Review aerial photos, topo maps, NHD
  - Talk with landowner about land use history
    - Irrigation, veg management
  - Understand sources of hydrology
- Learn from previous Corps RFI's
- Try to catch site in early growing season
- Consult the Corps

# QUESTIONS



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