



Guam

SOLID WASTE RECEIVER



Fifth Status Report
of the
Receivership for the Government of Guam
Guam Solid Waste Authority
Pursuant to the Order of the
United States District Court of Guam

Presented by
Gershman, Brickner & Bratton, Inc.
May 10, 2023



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Issues Addressed in
the Fifth Status Report



1. Update on Ordot Dump Field Work and Seeps Reconnaissance
2. Baseline Schedule for Seeps and Leachate Investigations
3. Update Regarding Estimate for Post Closure Costs and Funding Sources
4. Proposed Schedule to Terminate the Receivership
5. Next Joint Status Report
6. Ordot Dump Post-Closure Facility Condition / Operations Update – May 10, 2023



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1 - Update on Ordot Dump Field Work and Seeps Reconnaissance

Work completed since Fourth Joint Report:

4 Seeps Identified & Sampled


- Further evaluation ongoing
- 2023 dry season sampling warranted
- No seepage (Jan.- March 2023)

Ongoing Evaluation: Dump / Dero Road

- Transducers installed in monitoring wells
- Need to collect: dry/wet seasons
- Data analyzed no later than Jan. 2024

Manual Data Collection from Leachate Tank



- Identify changes
- Calculate flow
- Flow/rainfall data periodically provided to tech reps



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1 - Update on Ordot Dump Field Work and Seeps Reconnaissance (cont'd)


Work completed since Fourth Joint Report:

Leak Investigation by GWA

- Vicinity of Ordot Dump
- Leaks in lateral lines connected to distribution waterline
- Leak repaired followed by rapid drop of groundwater levels
- Trend of decreasing leachate despite increasing precipitation
- Not enough data to confirm that GWA leaks solely responsible of leachate increase

Identified Meter Reading Discrepancies

- GWA leachate flow meter vs leachate tank filling rate
- Calibration meter installed in late March 2023 to cross-check
- Operation commencement targeted for April 2023
- GWA conducted unrequested calibration checks on its meter





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GWA Amenable to Rate Rebate if Responsible for Leachate

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1 - Update on Ordot Dump Field Work and Seeps Reconnaissance (cont'd)

GWA Water Line Leak
A Possible Cause for Leachate Increase

	January			February			March		
	2022	2023	Change	2022	2023	Change	2022	2023	Change
Leachate (mil gal mo.)	2.9	2.4	-17.2%	2.5	0.91	-63.6%	2.7	0.67	-75.2%
Precipitation (inches)	6.01	7.59	+26.3%	1.25	2.96	+136.8%	2.24	4.91	+119%





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1 - Update on Ordot Dump Field Work and Seeps Reconnaissance (cont'd)

GSWA in discussion with GWA regarding rate specific to leachate treatment

- GSWA requesting rate change
 - From Commercial 3
 - To Commercial 1
- No response from GWA to date
- No rate adjustment process initiated to date





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2 - Baseline Schedule for Seeps and Leachate Investigations

3 phases:

- Reconnaissance for locating seeps
- Investigate sources of leachate increase
- Plan how to address it

Field Work – Phase 1
(Completed November 14-17, 2022)



Reconnaissance for locating seeps	Visual inspection <ul style="list-style-type: none">○ Cover○ drainage systems	Inspection <ul style="list-style-type: none">○ Stormwater○ Leachate manholes	Perimeter reconnaissance along Dero Road
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2 - Baseline Schedule for Seeps and Leachate Investigations (cont'd)

Phase 1



Investigation of Source of Increasing Leachate Volume	
Collect groundwater/leachate/rainfall data	Nov.'22 – Dec.'23
Data review & analysis	Jan – March '24
Seeps Investigation	
Identify seeps, collect samples	Nov.'22 – Jan.'23 ✓
Review seep data	Feb. – June '23
Leachate Meter Calibration	
Procure meter and parts	Feb. – March '23 ✓
Confirmed with GWA meter location	February '23 ✓
Contract with subcontractor for installation	March '23 ✓



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2 - Baseline Schedule for Seeps and Leachate Investigations (cont'd)

Phase 2 –
Feasibility Study of Mitigation Remedies

- Schedule pending confirmation of the source(s) and amounts of the changing leachate volumes.

Phase 3 –
Implementation/Operation of Remedies



- Schedule pending confirmation of the source(s) and amounts of the changing leachate volumes.



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3 – Update Regarding Estimate for Post Closure Costs and Funding Sources

GEPA-approved
Cost Estimate in 2021: **\$27,740,327**

Annually:



- Must be adjusted for inflation per GEPA regulations
- Amount of financial assurance appropriately adjusted
- Inflation based on GNP Deflator - U.S. Department of Commerce
- Include changes in post-closure plan or MSWLF unit conditions that affect maximum costs of post-closure care
- Requires comprehensive update every 5 years



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3 - Update Regarding Estimate for Post Closure Costs and Funding Sources (cont'd)

- GEPA directed Receiver not to include changes in post-closure plan or MSWLF unit conditions affect maximum costs of post-closure care
 - Wants to wait until results of determination of seeps, leachate volume changes, metering, and GWA possible reimbursement of charges are determined and resolved
- Annual adjustments using GNP Deflator:
 - 2021: additional \$1,694,934
 - 2022: additional \$1,886,800

New post-closure cost estimate per GEPA:



\$31,322,061



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3 - Update Regarding Estimate for Post Closure Costs and Funding Sources (cont'd)



- \$7,166,000: initially set aside for Post Closure in April 2019
- CY 2022:
 - Payments: \$2,741,337
 - Deposits: \$2,000,000
- \$4,503,486.40: Trust Fund balance as of March 31, 2023
- Current funding method:
 - Currently requires GSWA to make \$2 million per year payments, on a monthly basis, through August 2026
 - GSWA has been diligently paying the monthly payments of \$166,667



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3 - Update Regarding Estimate for Post Closure Costs and Funding Sources (cont'd)

Future funding method:



- Depositing inflation adjustments into the Trust Account would increase balance by \$3,581,734, bringing Trust Fund balance to almost \$8.6 million
- Receiver believes the proceeds from the current CERCLA litigation between GovGuam and US should be a source of funding
- No agreement by the Parties to accept any of the Receiver's proposed funding alternatives
- Receiver believes that an agreed upon funding method and financial assurance terms need to be in place before Receivership ends and funds are transferred



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4 - Proposed Schedule to Terminate the Receivership


Tasks to Complete Before End of Receivership
(as proposed by Government of Guam and the US)

Submission/acceptance of SEP completion report and certification relating to HHW Facility Construction

Certification that Ordot Dump no longer receives MSW

New Trust Agreement with funding method and financial assurance terms and transfer of funds to GEPA's control



Transfer of Receiver Ordot related contracts to GovGuam, GSWA, and GEPA



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4 - Proposed Schedule to Terminate the Receivership (cont'd)

Tasks Left to be Completed by GSWA and/or
GEPA to Terminate the Consent Decree

GEPA - Completion/acceptance of the remaining portions
of the SEP completion report

GSWA - Certification that discharges to the waters of the
U.S. from the Ordot Dump have ceased





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4 - Proposed Schedule to Terminate the Receivership (cont'd)

As suggested by Government of Guam and the US:

Estimates that Receivership could terminate
within a year or less.

Suggests a 3 to 6 month transition period prior to
termination of the Receivership





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5 – Next Joint Status Report

Joint Status Report
At the earliest of:



Completion of investigation of seeps and leachate issues	Completion of items required for terminating receivership	Secure inflation payments from GSWA for the Trust Fund	Finalize new Trust Agreement and agree on future funding/financial assurance
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6. Ordot Dump Post-Closure Facility Condition / Operations Update May 10, 2023







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Update Outline

1.Pre-Closure Conditions

2.Post-Closure Conditions



3.Leachate Flow Evaluation – Update



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1 – Pre-Closure Conditions



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Attachment A

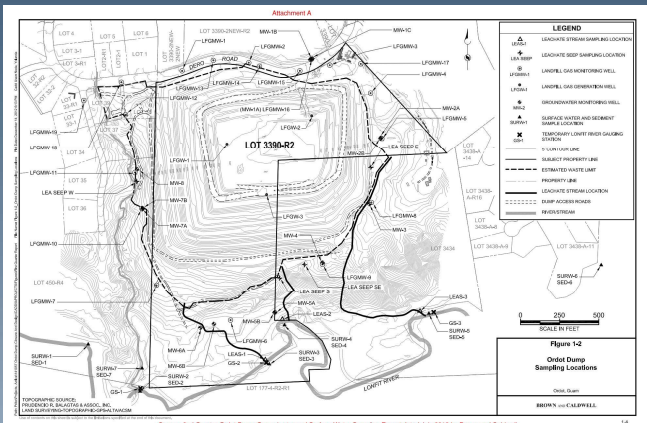
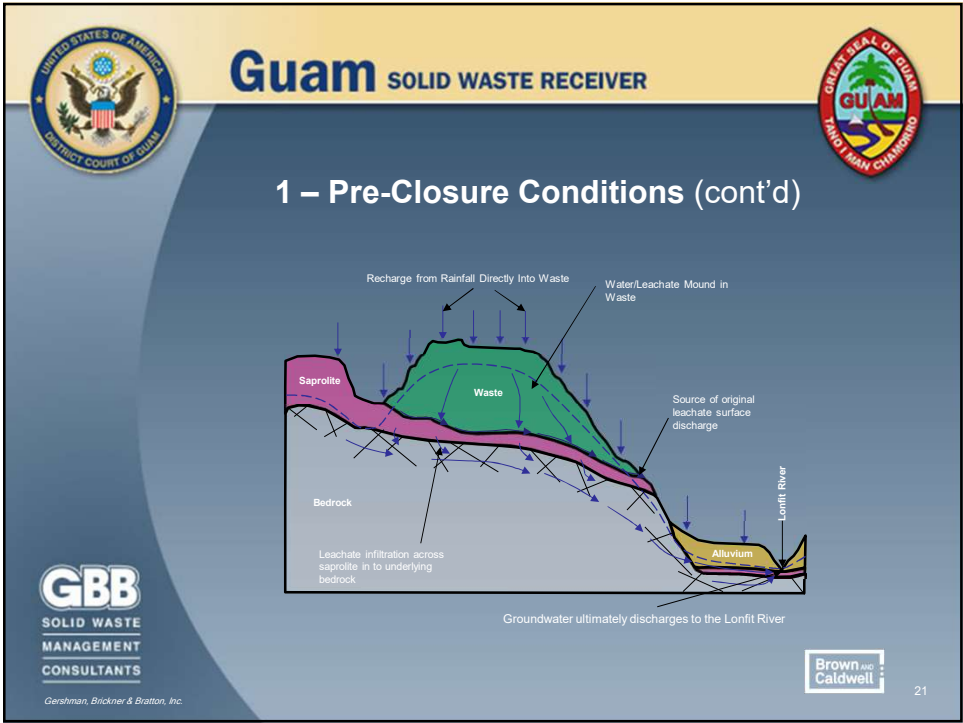


Figure 1-2
Dump Site
Sampling Locations

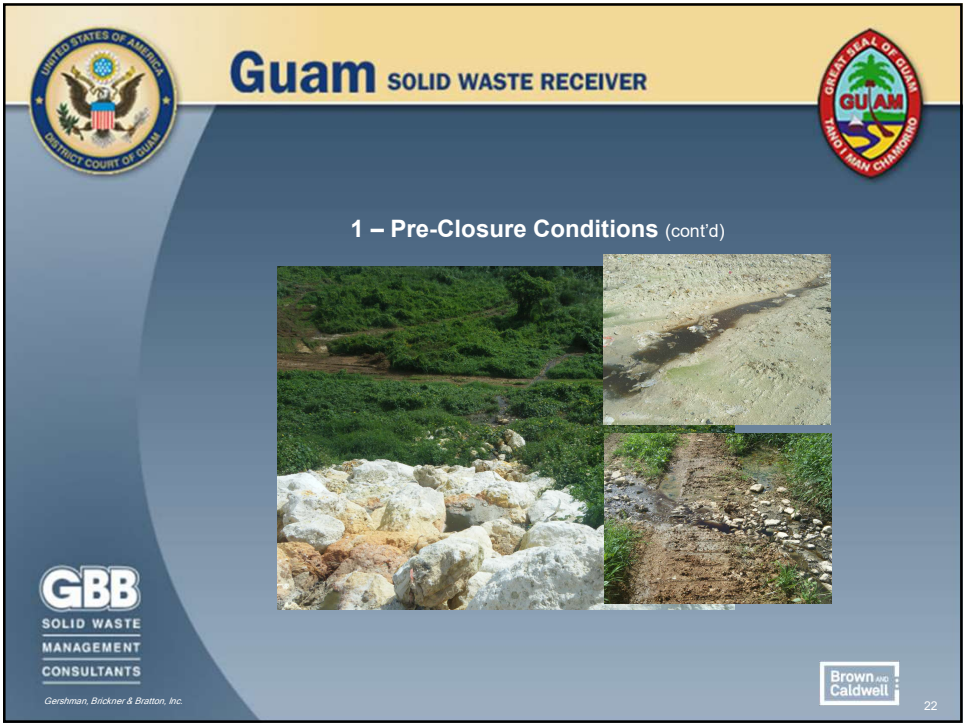
BROWN AND CALDWELL

Source: 2nd Quarter Onsite Dump Groundwater and Surface Water Sampling Report dated July 2013 by Brown and Caldwell



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2 – Post-Closure Conditions

Design Address Historic Leachate Flows



- Cover system has eliminated infiltration of rainfall into the waste resulting in a reduction of the leachate mound
- Cover system manages surface water
- The PLCT intercepts all leachate that would emerge for the toe of the waste thereby eliminating discharge to the nature surface drainage



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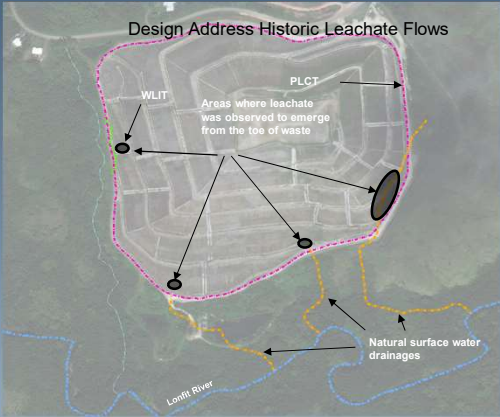


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2 – Post-Closure Conditions (cont'd)

Design Address Historic Leachate Flows




WLIT

PLCT


Areas where leachate was observed to emerge from the toe of waste

Natural surface water drainages

Lorril River




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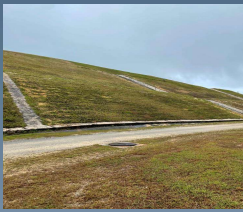

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2 – Post-Closure Conditions (cont'd)






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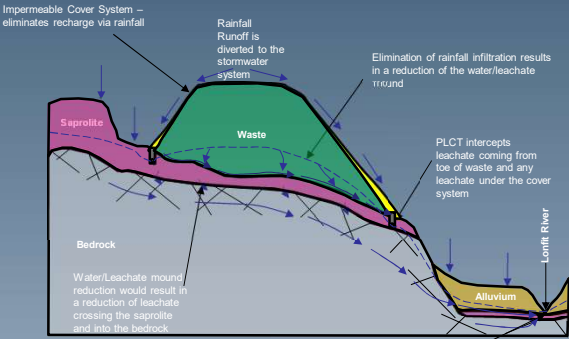


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2 – Post-Closure Conditions (cont'd)



Impermeable Cover System – eliminates recharge via rainfall

Rainfall Runoff is diverted to the stormwater system

Elimination of rainfall infiltration results in a reduction of the water/leachate mound

PLCT intercepts leachate coming from toe of waste and any leachate under the cover system


Bedrock

Water/Leachate mound reduction would result in a reduction of leachate crossing the saprolite and into the bedrock


Alluvium

Lorifit River

Groundwater ultimately discharges to the Lorifit River





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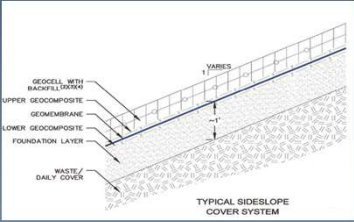
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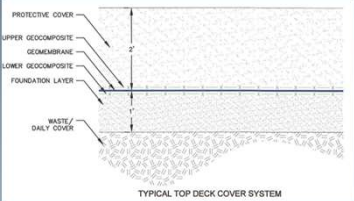
2 – Post-Closure Conditions (cont'd)

Cover System


- Final cover is a multi-layered engineered system designed to prevent water infiltration and withstand a typhoon
- Drainage layer (geocomposite) and protective layer on top of cover manage rainwater
- Leachate seep collection layer beneath the cover conveys leachate to the leachate collection system



TYPICAL SIDE SLOPE COVER SYSTEM




TYPICAL TOP DECK COVER SYSTEM



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2 – Post-Closure Conditions (cont'd)



Groundwater Monitoring Network



MW-14
Monitoring Well



Typical Groundwater Monitoring Well



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2 – Post-Closure Conditions (cont'd)


Groundwater Monitoring/Assessment

- 259 constituents tested at 12 monitoring wells
- 66 constituents were detected and have an Interim Groundwater Protection Standard (IGWPS)
- 5 constituents have exceeded their IGWPS
 - 3 had a single exceedance at a single location
 - 1 had 7 exceedances at 3 locations – 1 location is upgradient
 - 1 detected at 8 locations is a common lab contaminant
- Updated groundwater assessment will be conducted this year to set Final GWPS





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2 – Post-Closure Conditions (cont'd)


Surface Water/Leachate Discharge Assessment

- Pre- and post-closure surface water quality was reviewed and reported in the Post-Closure Care Plan (PCCP)
- Study concluded Facility closure design included provisions for cessation of point source discharges and surface water quality was improved and ongoing monitoring under USEPA's Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity was sufficient
- USEPA allowed cessation of surface water monitoring program in 2019



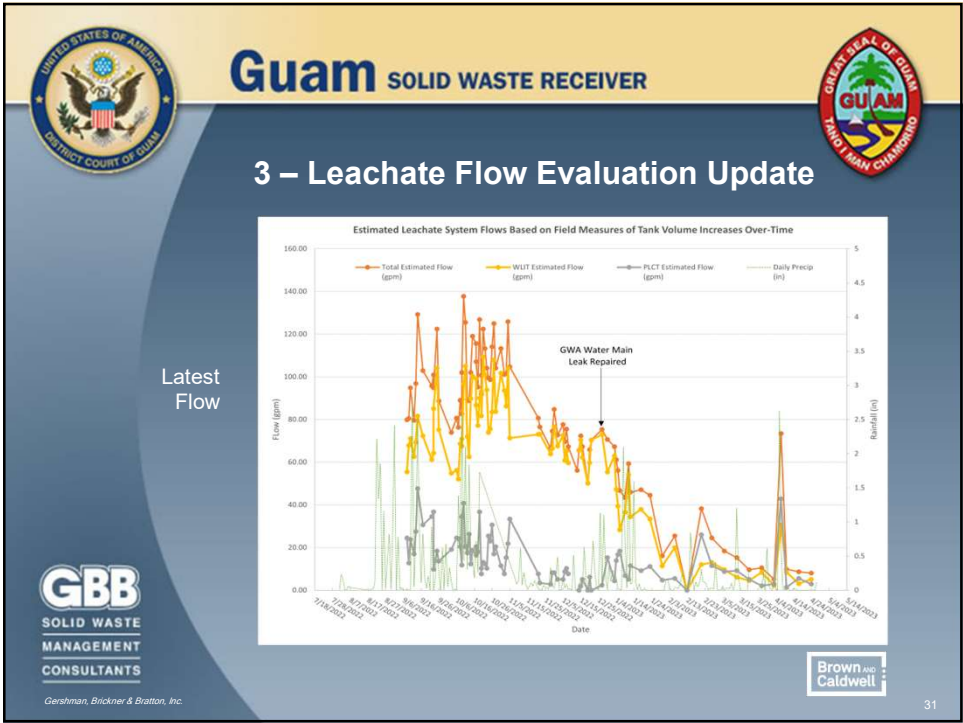
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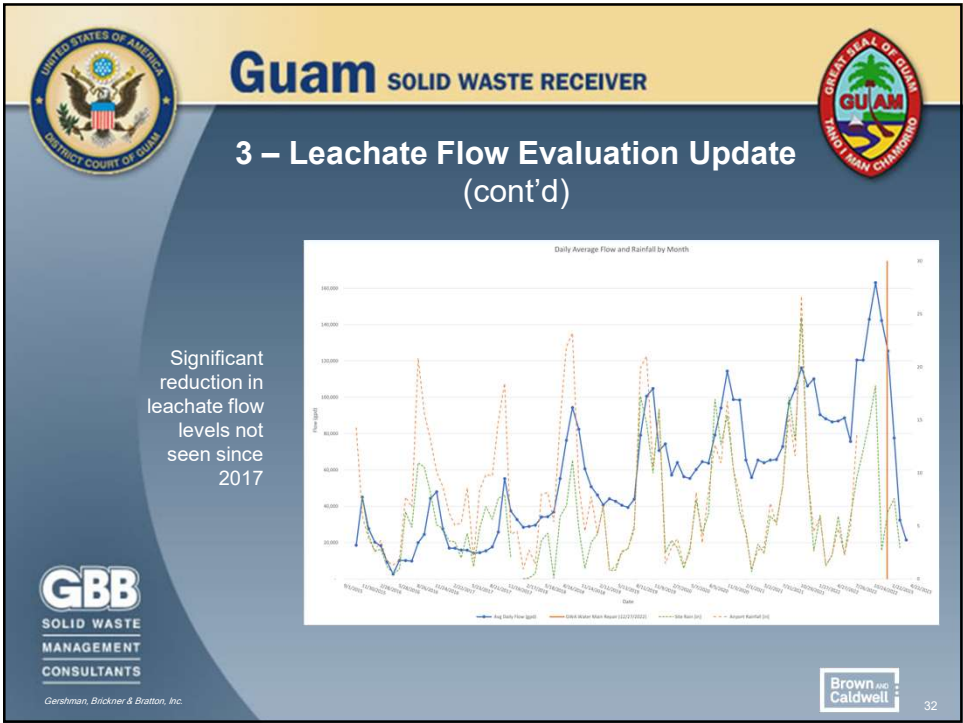


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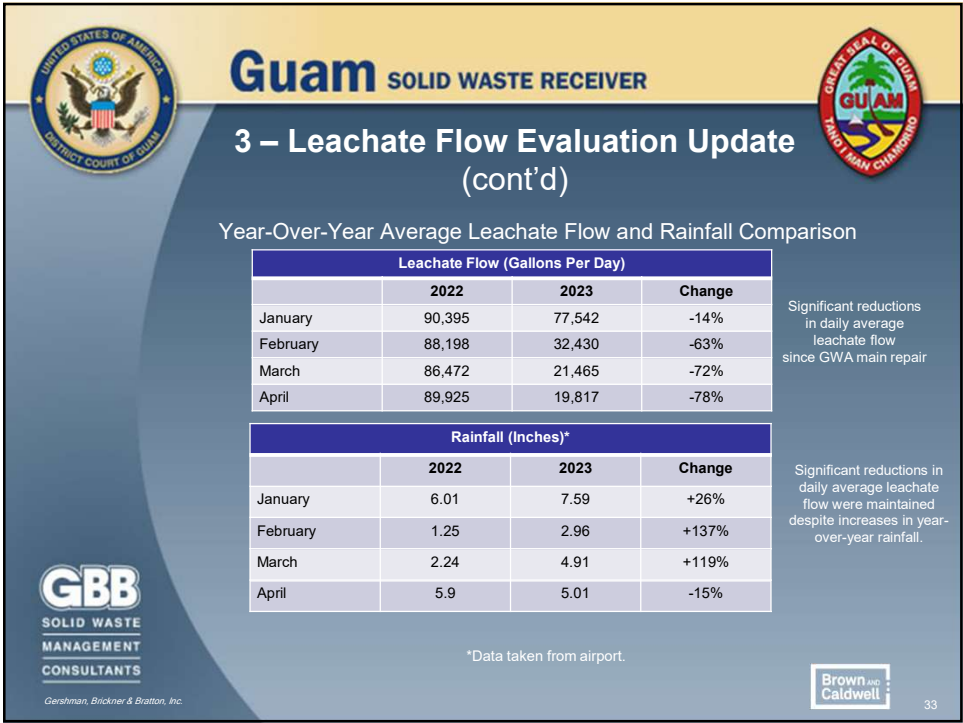
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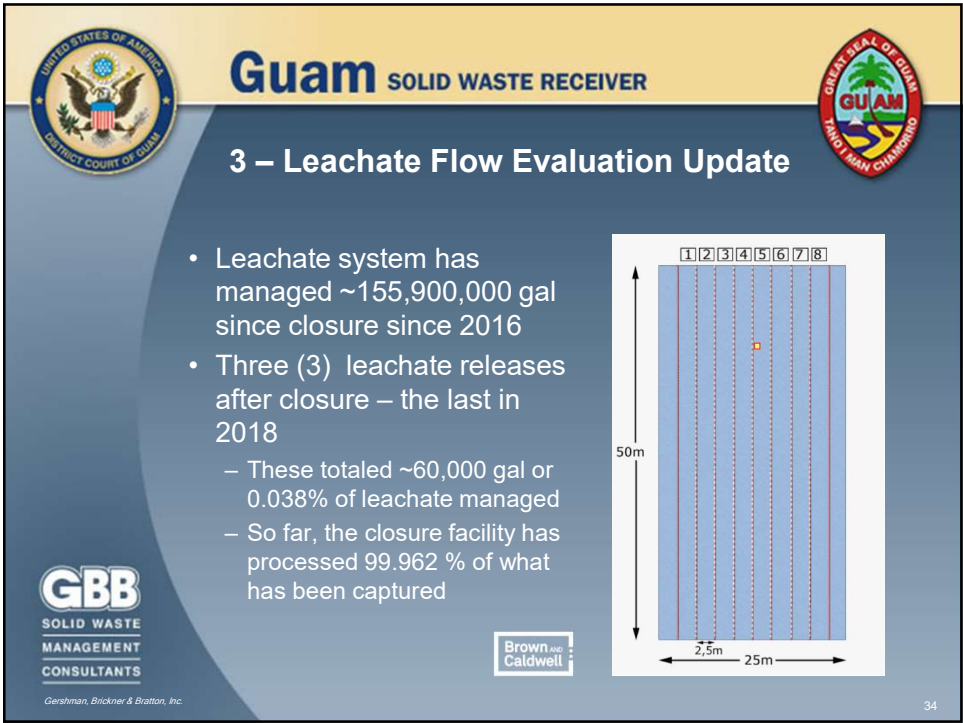
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