

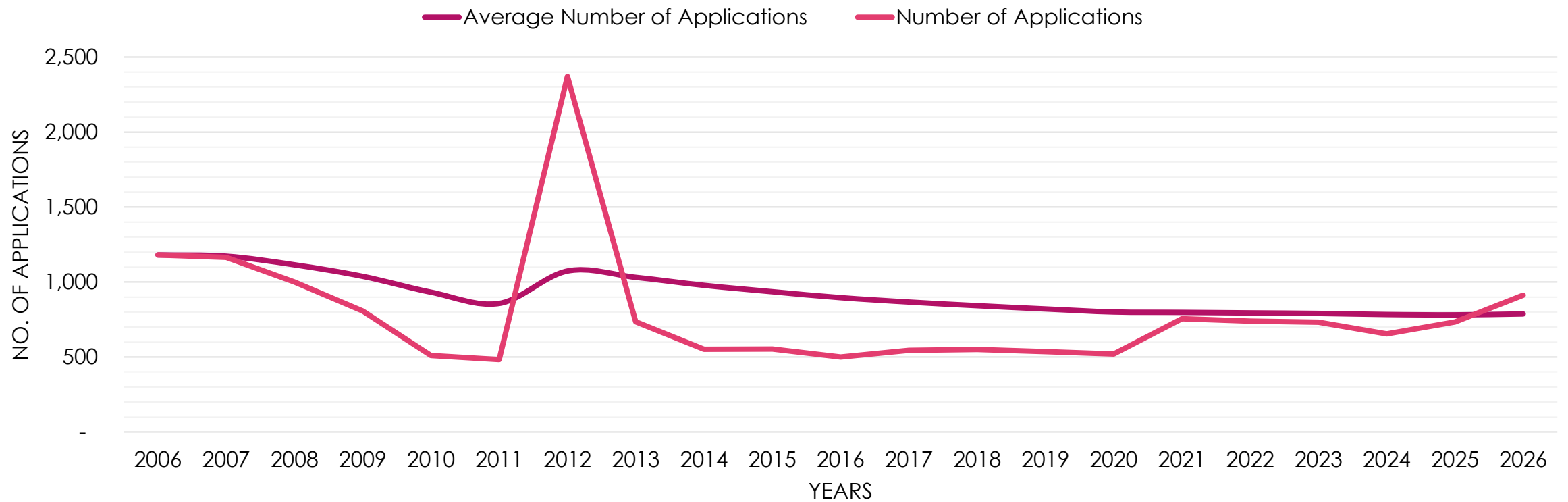


Availability of Water for Real Estate Development

JDA REAL ESTATE DEVELOPMENT WEBINAR

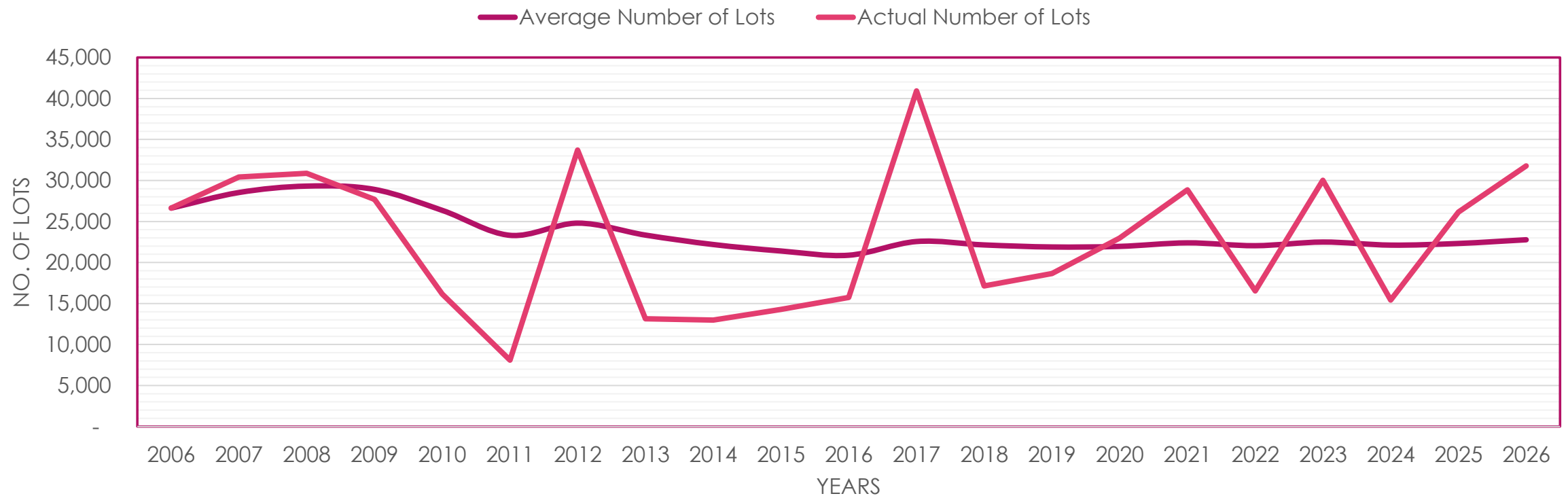
HISTORICAL DATA – WATER - Applications

Number of Applications vs Years - Total



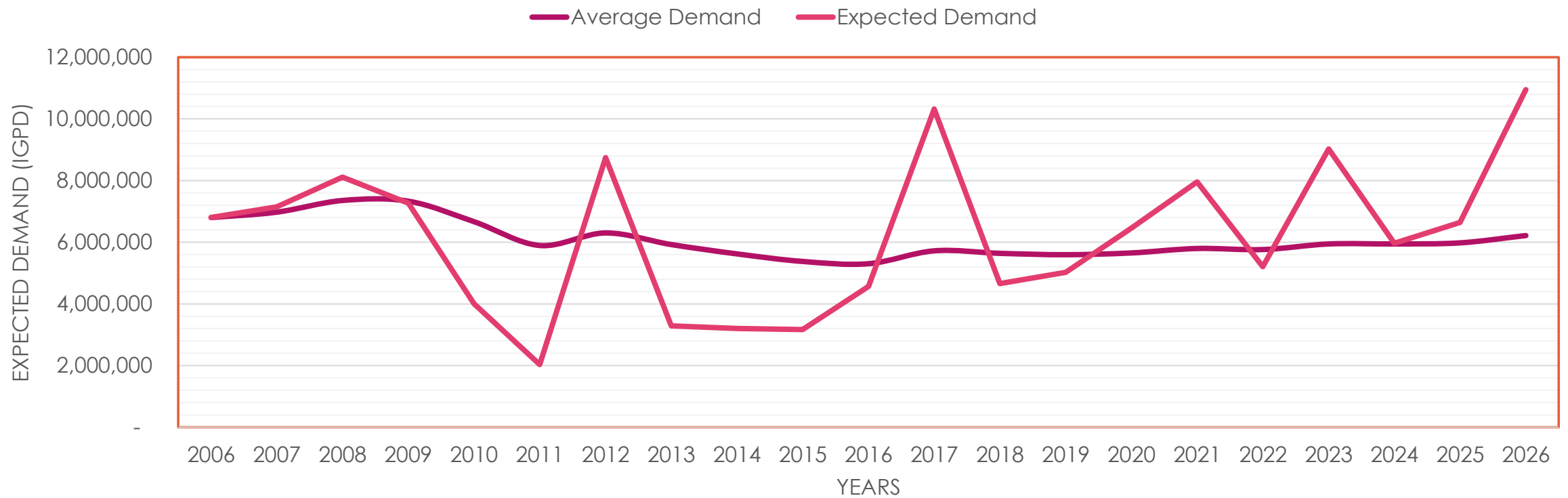
HISTORICAL DATA – WATER – Lots/ Units

Number of Lots vs Years - Total



HISTORICAL DATA – Demand - IGPD

Expected Demand vs Years - Total



HISTORICAL DATA – STATUS - Water

Subdivisions	Status	Lots	IGPD	Lots/ Total (%)	IGPD/ Total (%)
7,814	Endorsements	262,055	74,992,324	55%	57%
5,855	Not endorsed	121,347	31,769,843	25%	24%
1,039	Under Investigation	42,092	9,870,153	9%	8%
367	Applicant Data Needed	17,307	4,512,202	4%	3%
1,098	New Supplies	14,705	3,991,831	3%	3%
360	Not current	19,484	5,099,763	4%	4%
2	Enquiry	1,202	300,500	0%	0%
16,535	TOTAL	478,192	130,536,616	100%	100%
	Lots/ Subdivision	29			
	IGPD/ Subdivision	7,895			

LOCATION MAP – STATUS - Water

Subdivisions in Jamaica



- Map File Events
WATER_APP1
- Additional Information Required from Customer
 - Application Cancelled
 - Application Incomplete
 - Approved by Committee
 - Approved
 - Committed
 - Deferred
 - Deferred: Pending Upgrade of Source
 - Deferred: Pending Upgrade of Source and Transmission
 - Deferred: Certificate Complete & Delivered
 - Deferred: Certificate Complete & Expired
 - Enquiry
 - Enquiry Answered
 - For Committee
 - For Review
 - Further Investigation Required
 - Location Map Unclear
 - Need Formal Application
 - Need Formal Application Needs
 - Engineering Report
 - New Supplies - Not Recommended
 - New Supplies - Recommended
 - No Objection
 - Not Approved
 - Not for WWC
 - Not Received
 - Not Recommended
 - Not a Subdivision
 - Processing
 - Recommended
 - Sent to Area
 - Service Available
 - Under Investigation

0 5 10 15 20 25 30 Kilometers

Subdivisions	Status
7,814	Endorsements
5,855	Not endorsed
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367	Applicant Data Needed
1,098	New Supplies
360	Not current
2	Enquiry

THE NETWORK

An Extensive Islandwide Infrastructure Network



WATER SUPPLY SYSTEMS

Approximately

450

Water supply systems*



WATER PIPELINE NETWORK

12,000 km

Water pipeline network



WATER SUPPLY FACILITIES

1,000+

Water supply facilities



SEWER MAINS

1,000+ km

Sewer mains



SEWERAGE FACILITIES

100+

Sewerage facilities



ISLANDWIDE OPERATIONAL FOOTPRINT

ALL 14 PARISHES

Islandwide operational footprint

*A water supply system can contain several facilities- wells, pumping stations, treatment plants, reservoirs, etc.

NWC OVERVIEW



WATER PRODUCTION

Approximately
190 Million
gallons daily



POPULATION SERVED

Approximately
2 Million
Jamaicans daily



CUSTOMER BASE

550,000+
registered customer accounts



JM NATIONAL SUPPLY

Produces
90%+
of Jamaica's potable water



FACILITIES

1,000+
water supply facilities

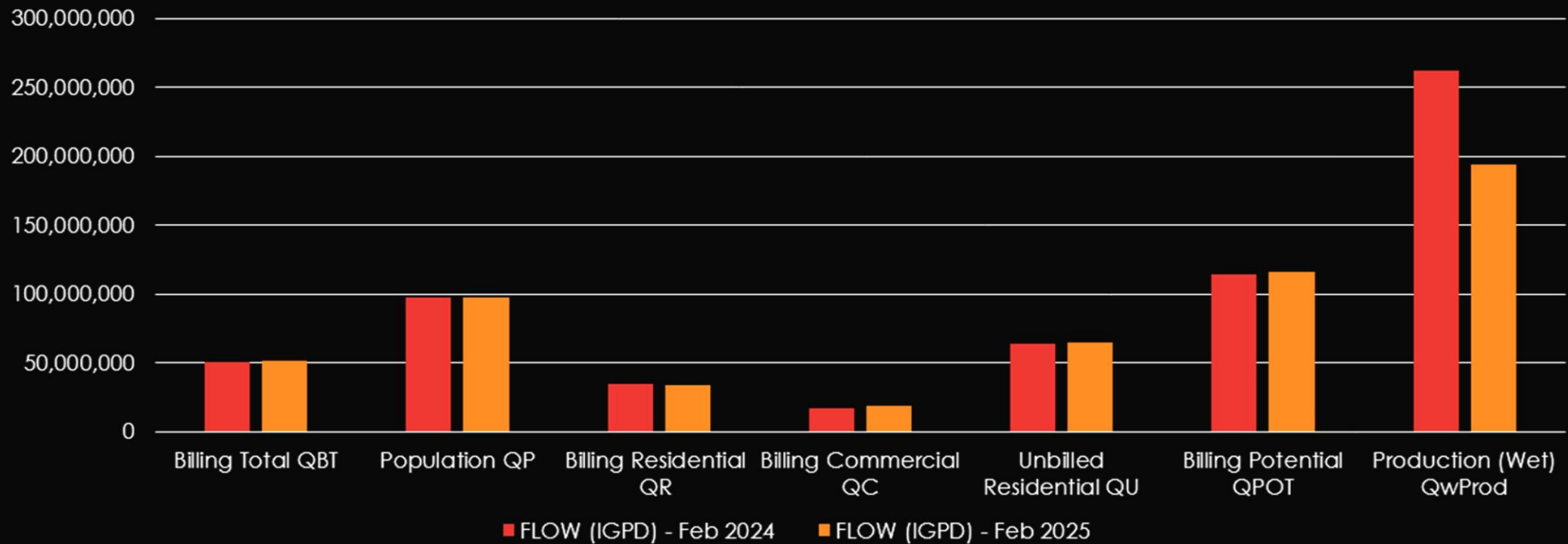


WATER SOURCES

160+
Wells
116+
River Sources
147
Springs

ISLANDWIDE WATER SUPPLY

FLOW CATEGORIES



ISSUES

Aging infrastructure

- **Pipelines over 50 years old**

Non Revenue Water

- **Financial Losses**
- **Leaks**
- **Increased Energy Costs**
- **Reduced Service Reliability**

Meteorological Drought

ISSUES – Aging infrastructure - RENEWAL

Asset Value, Revenue & OP

- J\$256B in 2023 for property, plant and equipment
- J\$40B annual revenue
- J\$45B annual operating cost

Depreciation Rate

- 2% to 25% per annum depending on the asset
- Weighed average rate is about 2.1% per annum

Useful Life

- 4 to 50 years depending on the asset
- Weighed average life is about 47 years

Expenditure

- Approximate annual expenditure needed for property, plant and equipment renewal
- J\$5.7B

Expenditure

- Approximate annual expenditure for asset upgrades
- J\$20B

Expenditure

- Total annual expenditure required
- J\$25.7B

OP: Operating Cost

ISSUES – Non Revenue Water (NRW)

Island-wide NRW
programme is being
formulated

Regional NRW
programmes are
ongoing

Targeted NRW
programmes to
commence

1. Yallahs/
Whitehorses/ Morant
2. Shaw Park/ Harrison
Town/ Parry Town
3. St. Ann's Bay/ Ocho
Rios/ Port Maria

ISSUES – Non Revenue Water (NRW)

Physical loss performance categories; guide to further action

► Category A:

- **Good;** further loss reduction may be uneconomic; careful analysis needed to identify cost effective improvements

► Category B:

- **Potential for marked improvements:** consider pressure management, better active leakage control practices, and better maintenance

► Category C:

- **Poor;** tolerable only if water is plentiful and cheap; even then intensify NRW reduction efforts

► Category D:

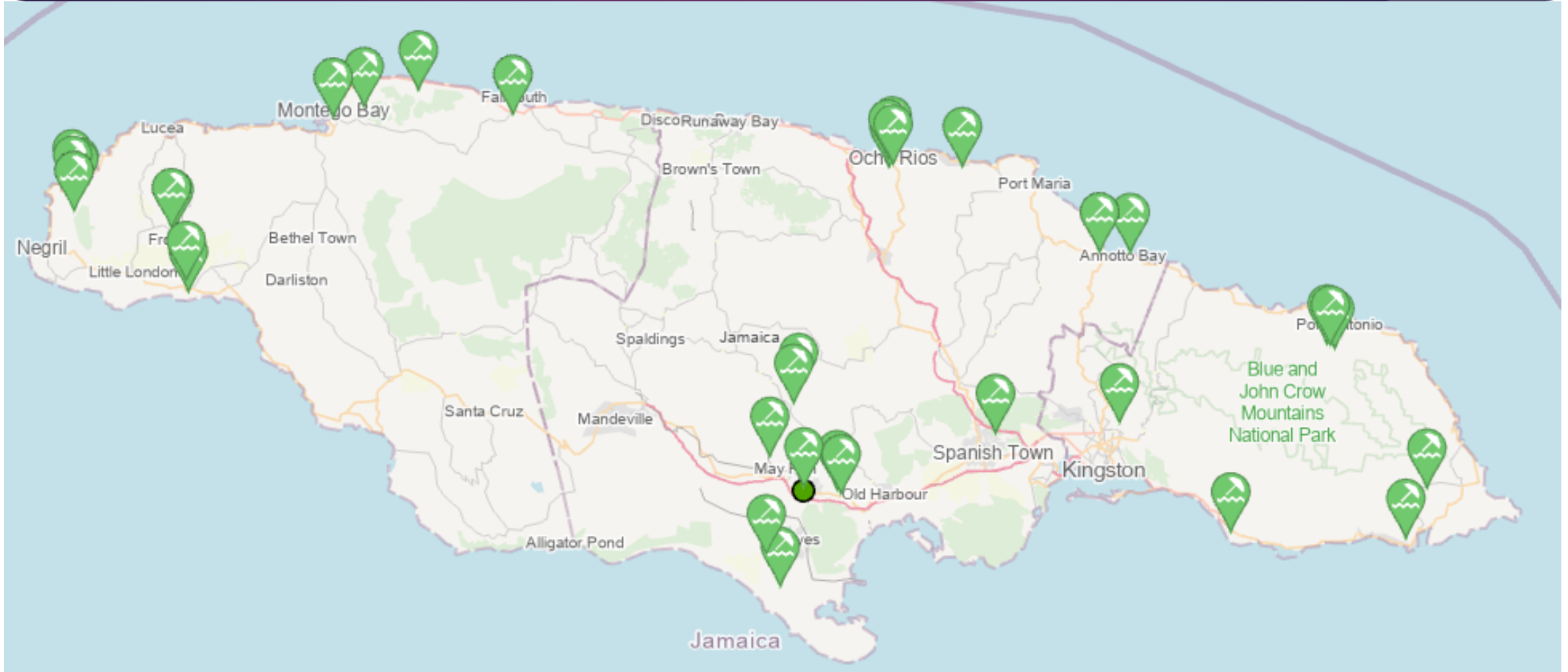
- **Terrible:** inefficient use of resources; NRW reduction programs imperative and priority

ISSUES – Non Revenue Water (NRW)

Technical Performance Category		ILI	Litres/connection/day (when the system is pressurised) at an average pressure of:				
			10 m	20 m	30 m	40 m	50 m
Developed Countries	A	1 - 2		< 50	< 75	< 100	< 125
	B	2 - 4		50-100	75-150	100-200	125-250
	C	4 - 8		100-200	150-300	200-400	250-500
	D	> 8		> 200	> 300	> 400	> 500
Developing Countries	A	1 – 4	< 50	< 100	< 150	< 200	< 250
	B	4 – 8	50-100	100-200	150-300	200-400	250-500
	C	8 - 16	100-200	200-400	300-600	400-800	500-1000
	D	> 16	> 200	> 400	> 600	> 800	> 1000

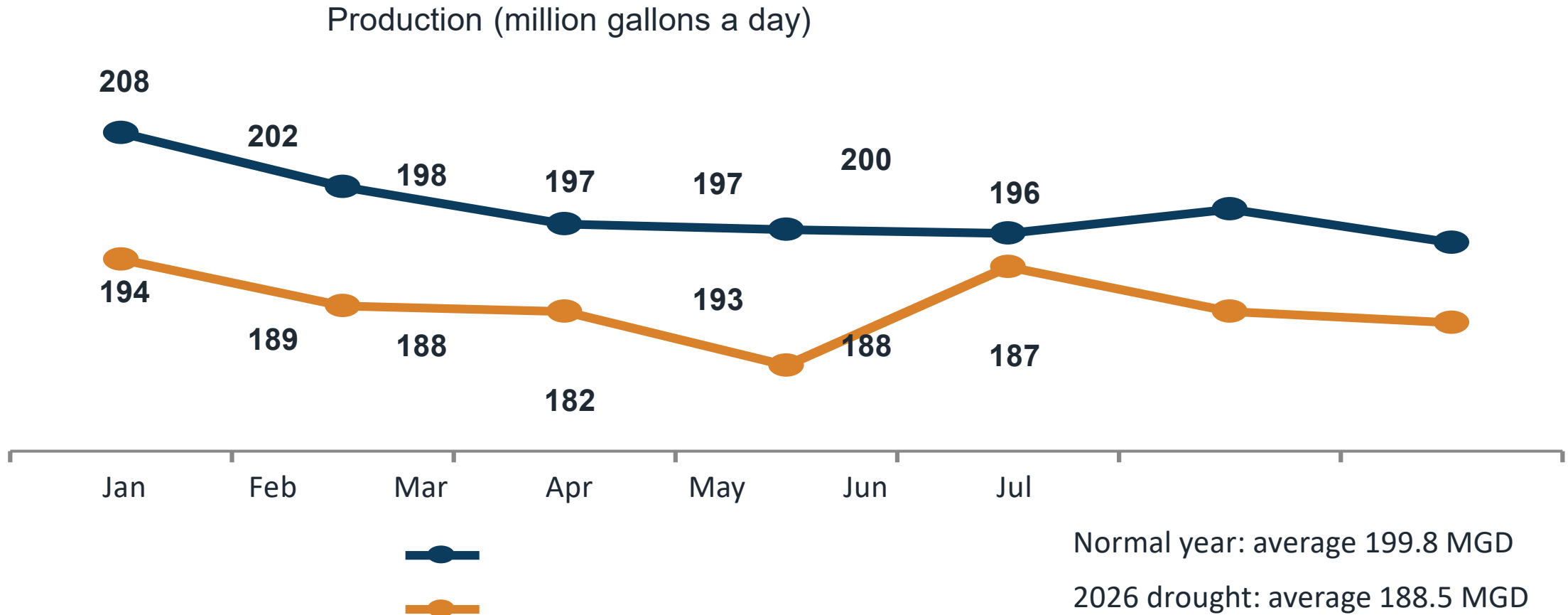
ILI: Infrastructure Leak Index

LOCATION – Regional Non Revenue Water (NRW)



Meteorological Drought – Impact on Water Supply

Average daily production, Jan–Jul 2026 Approx. 200 Million Gallons vs the same months in a normal year (2023–25 average)



Systems Monitored for Drought Conditions

Systems affected by Drought conditions – 91

Eastern Division 91 systems

Region	No. of Systems	No. of Customers	No. of Systems Impacted by Drought Conditions
KSAT	53	82,450	31
St. Catherine/ Clarendon	11	8,054	11
North East	45	26,303	43
Total	109	116,807	85

Western Division 10 systems

Region	No. of Systems	No. of Customers	No. of Systems Impacted by Drought Conditions
Manchester/ St. Elizabeth	9	6,441	1
Westmoreland / Hanover	16	13,100	3
St. James/ Trelawny	16	9,673	2
Total	41	29,214	6

Water Management Measures



**Recommissioning of
Resting Wells**



**Trucking of
water &
regulation of
supply**



**Leak
Repairs**



**Pressure
Management**



**Source
Cleaning**



**Flow
Regulation**



**Storage
Management**



**Monitoring and
Operational
Adjustments**

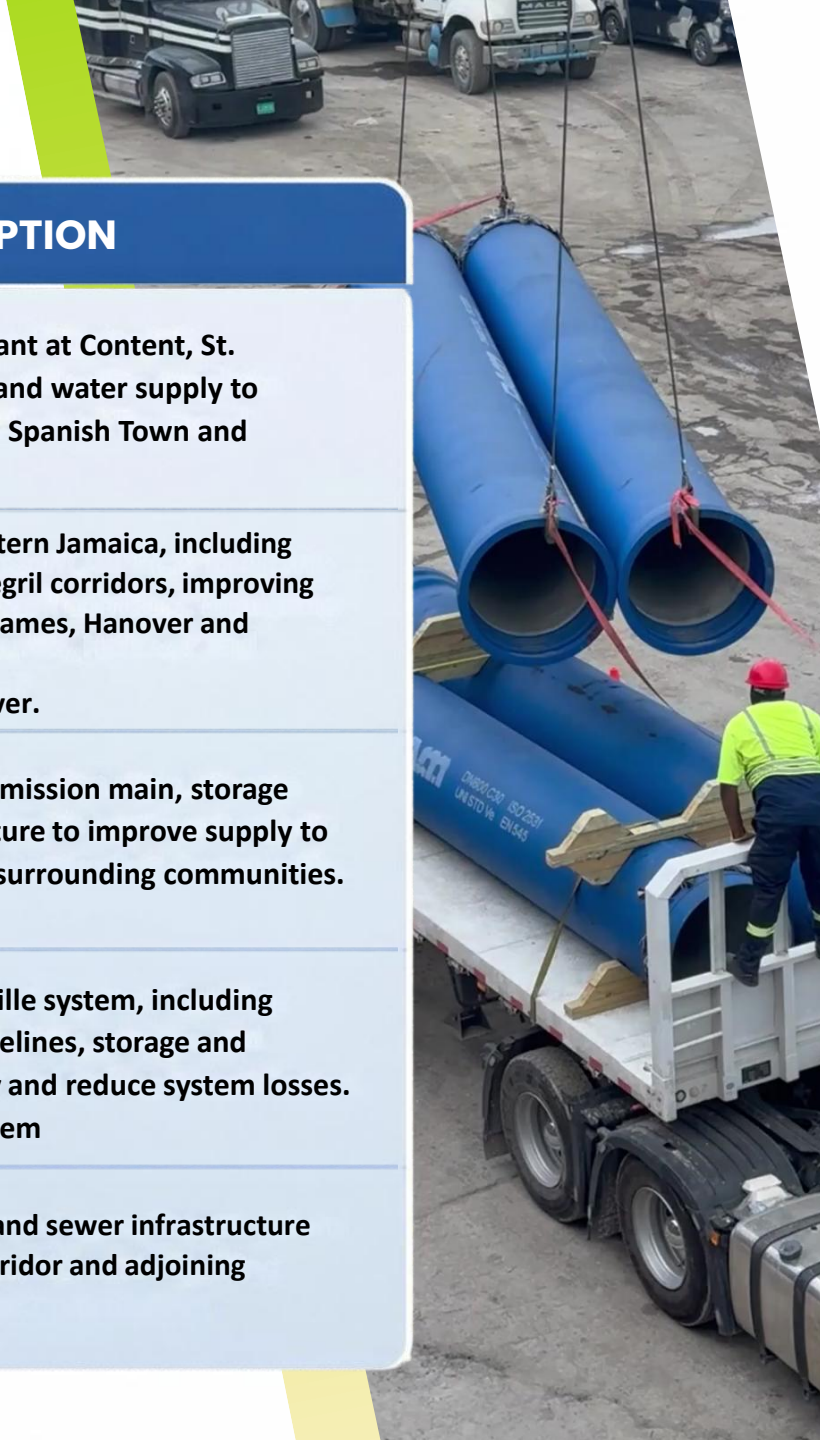


**Public Awareness through
Community Engagements
and Social Media**



Projects Underway to Improve Reliability

PROJECT	INVESTMENT	PROJECT DESCRIPTION
 RIO COBRE WATER TREATMENT PLANT	US\$92M / ~J\$14.5B	Construction of a new 15-MGD treatment plant at Content, St. Catherine, strengthening drought resilience and water supply to approximately 600,000 residents across KSA, Spanish Town and Portmore.
 WESTERN WATER RESILIENCE IMPROVEMENT PROJECT –PHASE 1	~US\$ 177M *	Major transmission-main upgrade across western Jamaica, including the Martha Brae–Montego Bay and Lucea–Negril corridors, improving reliability and resilience across Trelawny, St. James, Hanover and Westmoreland. Phase 2-3 Upgrades to Martha Brae, Great River.
 FERRY TO ROCK POND WATER SUPPLY PROJECT	~J\$1.3B	Installation of approximately 7.2 km of transmission main, storage tanks, relift stations and pumping infrastructure to improve supply to more than 26,000 residents in Red Hills and surrounding communities.
 GREATER MANDEVILLE WATER SUPPLY IMPROVEMENT PROJECT	~J\$4.5B	Multi-phase upgrade of the Greater Mandeville system, including source development, major transmission pipelines, storage and pumping infrastructure to improve reliability and reduce system losses. Moving Water from Pepper to Kingsland system
 MUNROE ROAD–WELLINGTON DRIVE WATER & SEWER WORKS	~J\$1.2B	Replacement and upgrading of critical water and sewer infrastructure along the Munroe Road–Wellington Drive corridor and adjoining sections of the KSA network.



Water Resource Authority – Identification of Potential Natural Aquifer Recharge Sites in Jamaica using GIS & Remote Sensing Techniques

Presentation at NWC on Friday October 23, 2026

Results

Aquifer Recharge Suitability Map

Legend

Aquifer Recharge Locations

- Not Suitable
- Less Suitable
- Moderately Suitable
- Suitable
- Most Suitable





SERVING YOU
In So Many Ways

Thank You