

E.J. Beardmore Dam

Fact Sheet

What is the purpose of E.J. Beardmore Dam?

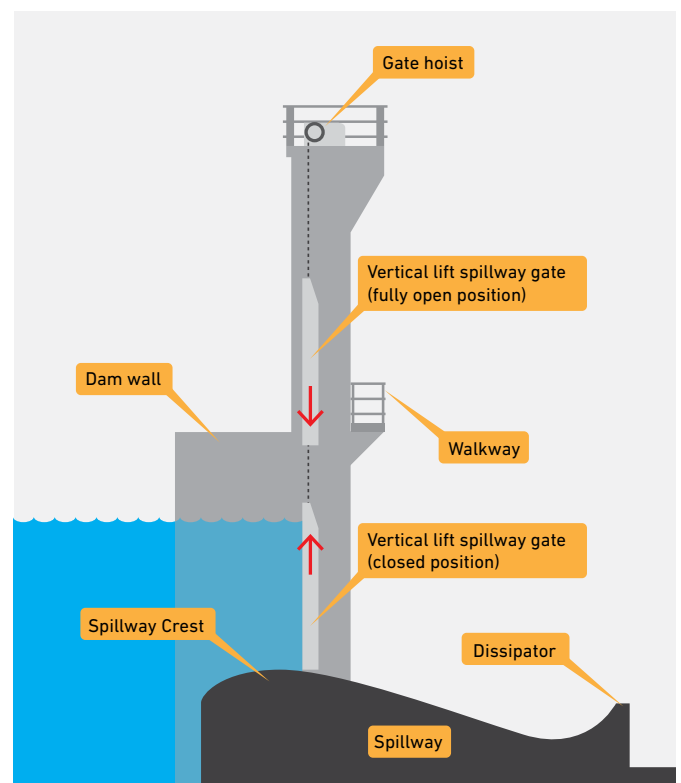
- E.J. Beardmore Dam is the major water storage for the St George Water Supply Scheme, located 21 km north of St George.
- E.J. Beardmore Dam is a water supply dam for the township of St George, irrigation of cotton, wheat, grapes, melons, peanuts and small crops as well as an abattoir and tourist accommodation.
- E.J. Beardmore Dam was not designed as a flood mitigation dam however it does have some minor attenuation capacity.

What types of flows can be expected from E.J. Beardmore Dam?

- SunWater regularly makes water releases through the dam's outlet works based on:
 - downstream demand from end users via Balonne River and Thuraggi Watercourse
 - necessity to recharge underground water supplies.
- A network of channels and drains serves land on the left bank of the Balonne River extending 32 kilometres south-east of St George.
- The channel system is supplied from Beardmore Dam, via Jack Taylor Weir, on the Balonne River and Moolabah Weir and Buckinbah Weir on Thuraggi Watercourse.
- The Bureau of Meteorology provides flood warning information for St George.

How do the dam gates work?

- The E.J. Beardmore Dam spillway gates are designed to be opened manually using a gate hoist.
- When the storage level reaches full supply level (FSL) of 207.12m AHD, the gates are progressively opened to allow excess water to pass through the dam safely.
- The gates continue to be opened as the storage continues to rise and then lower as inflows reduce.



Cross-section of the E.J. Beardmore Dam spillway looking towards the left bank

Upstream gauging stations are monitored to assess the magnitude of dam inflows and a detailed chart is used as a guide to incrementally open the gates as required to safely pass inflows through the dam.

A hoist is used to open and close the vertical lift gates.

Gate 3 is opened first, followed by gates 2 and 4, followed by gates 1 and 5, until all 12 gates are opened when flows reach 40,040ML/day. The gates continue to be opened incrementally to minimise downstream erosion until outflows match inflows and the storage level stabilises.

DAM DETAILS

WATERCOURSE

Balonne River

DAM CATCHMENT AREA

75,032km²

NEAREST TOWN

St George

STORAGE CAPACITY & LEVEL AT 100%

81,800ML, 207.12m AHD

STORAGE AREA

2,850ha

MANUAL GATE OPERATIONS LEVEL

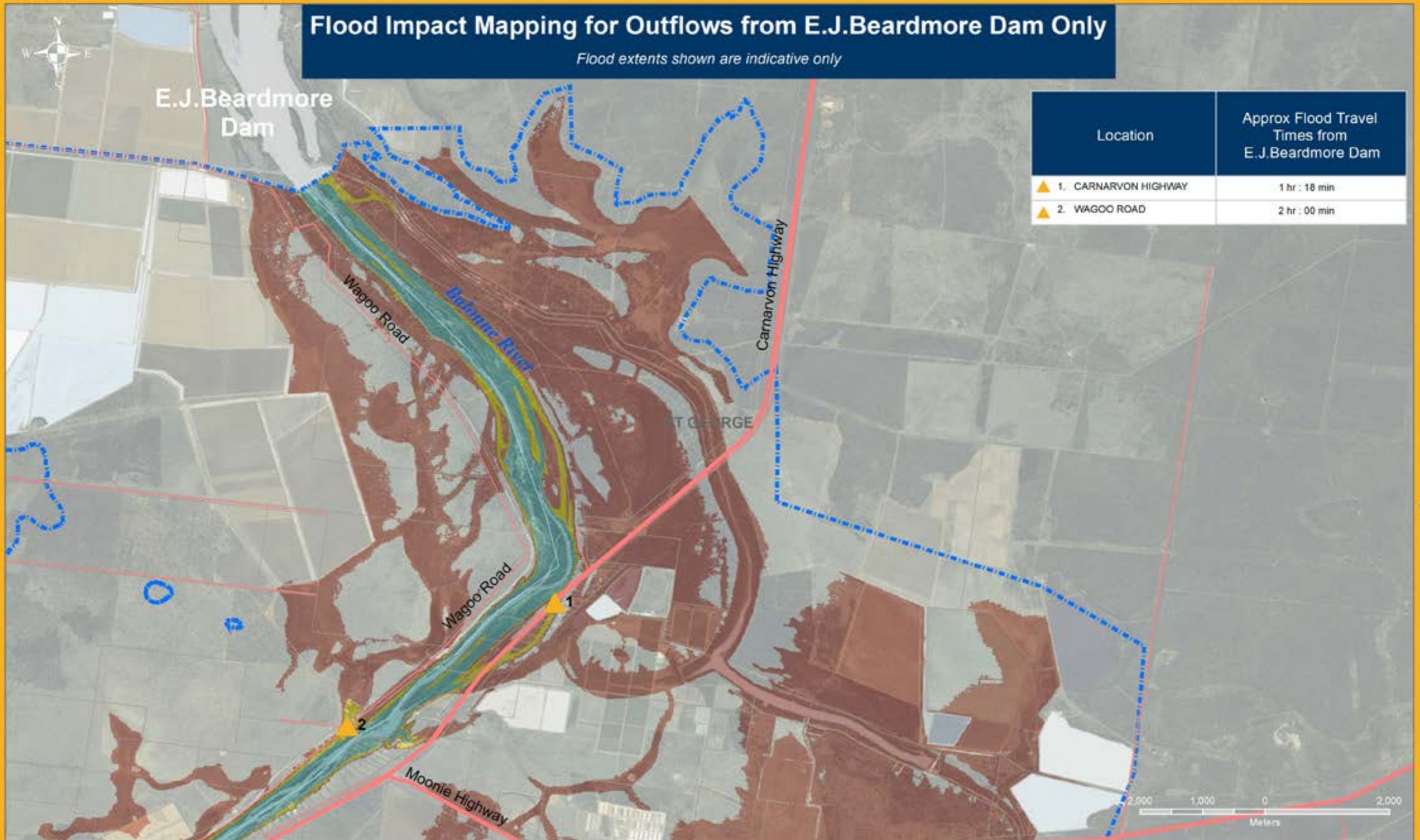
207.27m AHD

MAXIMUM DISCHARGE CAPACITY AT 100%

5,522m³/sec

Flood Impact Mapping for Outflows from E.J.Beardmore Dam Only

Flood extents shown are indicative only



Location	Approx Flood Travel Times from E.J.Beardmore Dam
1. CARNARVON HIGHWAY	1 hr : 18 min
2. WAGOO ROAD	2 hr : 00 min

Note:

- A. Flood Mapping for areas further downstream is not shown here as these areas will become more impacted by other creek and catchment inflows (not just dam outflows).
- B. Flood travel times are indicative for flow to reach the locations shown following releases from the dam. Travel times may vary with larger floods and may be significantly less than shown.
- C. Flood impacts may be experienced beyond the extent of the 'red' zone up to the Probable Maximum Flood extent (indicated on the legend).

LEGEND

- Flood depth and travel time location
- Highway
- Track
- Railway
- Property Boundary
- Suburb Boundary

Outflow Rate

- Flood extent for 1,500m³/s dam outflow
- Flood extent for 3,000m³/s dam outflow
- Flood extent for 5,000m³/s dam outflow
- Probable maximum flood extent



SunWater Flood Warning Communications About Dam Outflows

Please note that this information is complementary to the Balonne Shire Council (BSC) and the Local Disaster Management Group's (LDMG) multi-channel notifications and warnings.

Example Situation	SunWater actions	Where you can find information from SunWater	Typical messages from SunWater
PREPAREDNESS <i>High rainfall event possible, no certainty but possibility of dam outflow.</i>	<ul style="list-style-type: none"> Regular updated dam levels available on website Notify BSC of current dam level Provide general community update regarding dam levels 	<ul style="list-style-type: none"> SunWater Facebook Page Twitter @SunWaterLimited SunWater Website SunWater App 	<ul style="list-style-type: none"> To BSC: <ul style="list-style-type: none"> current dam level To general community: <ul style="list-style-type: none"> reference to BOM forecast current dam level
DAM OUTFLOWS UNDERWAY & FLOODING POSSIBLE <i>Due to high rainfall underway across catchment.</i>	<ul style="list-style-type: none"> Notify LDMG & Police Notify registered EAP downstream residents (near dam) of gate operations & that outflows have commenced Issue general community update 	<ul style="list-style-type: none"> SMS (registered EAP downstream residents near dam) SunWater Facebook Page Twitter @SunWaterLimited SunWater Website SunWater App Radio Stations 	<ul style="list-style-type: none"> To BSC, LDMG & Police: <ul style="list-style-type: none"> current dam level dam outflows have commenced To general community & registered EAP downstream residents (near dam): <ul style="list-style-type: none"> dam outflows have commenced review/enact your emergency plan/know when to evacuate
FLOODING OCCURRING OR LIKELY NEAR DAM <i>In blue, yellow &/or red flood zone. (Refer map on centre page)</i>	<ul style="list-style-type: none"> Notify LDMG & Police Notify registered EAP downstream residents (near dam) of gate operations & flooding is expected in blue, yellow &/or red zone or greater Issue general community update 	(SunWater will provide a media alert to the following radio stations) <ul style="list-style-type: none"> ABC (711 AM) ABC (107.7 FM) 4ZR (1476 AM) 	<ul style="list-style-type: none"> To BSC, LDMG & Police: <ul style="list-style-type: none"> dam outflows are occurring (including rate) downstream flooding in blue, yellow &/or red zone or greater is expected To general community & registered EAP downstream residents (near dam): <ul style="list-style-type: none"> dam outflows are occurring flooding in blue, yellow &/or red zone or greater is expected recommended action required
OTHER DAM INCIDENTS <i>E.g. major earthquake.</i>	<ul style="list-style-type: none"> Liase with State Disaster Coordination Centre to issue community-wide advice via state's emergency alert system 		<ul style="list-style-type: none"> Description of situation at dam Enact your emergency plan/move to higher ground
DAM OUTFLOWS CEASED <i>Flooding may still be underway downstream & across the catchment.</i>	<ul style="list-style-type: none"> Notify registered EAP downstream residents (near dam) of closure of gates Issue general community update as required 		<ul style="list-style-type: none"> To BSC, LDMG & Police: <ul style="list-style-type: none"> current dam level monitor dam levels on SunWater website To general community & registered EAP downstream residents (near dam): <ul style="list-style-type: none"> dam gates are closed & outflows have ceased further updates will be provided if dam gates are likely to reopen

Other sources of information

Balonne Shire Council website	www.balonne.qld.gov.au/disaster-and-emergencies
Balonne Shire Council Facebook Page	www.facebook.com/BalonneSC
Bureau of Meteorology	www.bom.gov.au
ABC	www.abc.net.au/local
State Emergency Service	www.ses.qld.gov.au
Get Ready Queensland	www.getready.qld.gov.au
Queensland Fire and Emergency Services	www.qfes.qld.gov.au
Ergon Energy	www.ergonenergy.com.au
Queensland Government Disasters & Alerts	www.qldalert.com

Contact Details

To enquire about Beardmore Dam, please phone 13 15 89 or email us via the website: www.sunwater.com.au/home/contactus

To view Beardmore Dam storage levels via the website: www.sunwater.com.au/home/water-storage-levels/ej-beardmore-dam



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