Goornong & District Drainage and Flooding Webinar

Thursday 30 April 2026

CITY OF GREATER BENDIGO

Welcome

Welcome and Acknowledgement

Independent facilitators: Martina and Maree

One hour session:

- Clarity
- Follow-through
- Direction answers to questions

Submit questions via Q & A

Introductions

Michelle Wyatt: Manager, Climate Change and Environment

The purpose of tonight:

- Provide clear updates
- Respond to questions
- Report on commitments made in Workshop 2
- Improve how we communicate with you

Ian McLauchlan: Manager Flood Recovery and Resilience

Context

The floods were huge events in the lives of our residents.

We understand you have lots of unanswered queries and requests.

We have heard your feedback.

We are sorry.

Report card. Webinar.

We are open to suggestions on how we can improve our communication.

Themes in Goornong & District

Workshop 1

- Lack of information from council and agencies – no “closing the loop”
- Approvals for ring levees
- Action on drainage, planning transparency, and prevention of inappropriate developments in hazard-prone areas.

Workshop 2 ‘top three’ challenges:

- Emergency warnings (flood) and data (inadequate, details and data)
- Infrastructure, ring levies (culverts etc.)
- Road closures (getting trapped and access)

Goornong and surrounding catchment floods

- No previous flood study or mapping of flood impacts for township or rural catchment
- Goornong Flood Study progressing to inform future planning and mitigation response
- Reported broad scale flooding across rural catchment as well as flooding through Township streets
- Potential floodwater sources:
  - Rural - Wellsford State Forest, Five Mill Creek, Crabhole Creek, Gunyah Creek moving north to Bendigo Creek
  - Urban – Immediate upstream and local catchments
- Community have flagged several Township overland/drainage paths of concern:
  - Tyler Street (roadside and overland drainage at rear of properties)
  - Pine Grove to Chute Street (existing low flow pipe and overland flow path)
  - Chute Street / Railway Place South culverts and railway outfall

Flood Recovery Report Card - Goornong and District

April 2026

Completed	To be completed	Not commenced

• **Defects** – Rectification of 96% of the 862 identified defects (see map on previous page)
• **Bagshot Hall ring levee** – Substantially complete
• **Railway Place/Midland Highway, Goornong** – Drain vegetation removal was completed
• **"Floodway" signs** – have been replaced at:
  ○ Epsom-Barnadown Road, between Lomas Road to Cashens Road
  ○ Epsom-Barnadown Road, between Oberins Road to Goornong Fosterville Road
  ○ Goornong-Fosterville Road, between Epsom-Barnadown Road to Campaspe Road
	• **Water depth marker and "Road subject to flooding" signs** – Epsom-Barnadown Road between Oberins Road and Goornong-Fosterville Road are on order and will be replaced by early May 2026
	• **Sealed road patching** – To be completed April 2026
	• **"Clearing the creek" Fact Sheet** – To be finalised and available online by June 30, 2026
	• **Goornong and District Flood Guide** – To be prepared in 2026/2027 led by SES
	• **Goornong Flood Study** – Underway and to be completed in 2026/2027. Further information on next page
	• **Goornong Structure Plan** – Underway. Draft to be completed by late 2026 for public comment. Further information on next page
	• **Goornong and District Local Community Emergency Plan** – See next page
		• **Mapping of creeks / tributaries** – To be investigated with North Central CMA
		• **Tyler Street and Pine Grove drainage networks** – Potential upgrades to be informed by the Goornong Flood Study
		• **Pethericks Road** – Table drain and Crabhole Creek interface to be reviewed following completion of the Goornong Flood Study
		• **Midland Highway culverts at Crabhole Creek** – Potential upgrades to be investigated following completion of the Goornong Flood Study and to be discussed with Department of Transport and Planning and V/Line

Actions

- Goornong Flood Study progressing to inform future planning and mitigation response expected community release September 2026
- Bagshot Hall ring levee construction 80% complete, sourcing last material to finish
- Railway Place South drainage outfall and surface drains
  - Drain clearing and reshaping – completed
  - Land tenure and future access resolved with VicTrack
- Chute Street
  - Conversion of junction pit to grated pit at Chute Street/Bagshot Street intersection – completed
- Flood signs being replaced
- No further drainage upgrades at this time
- Consideration of other agency infrastructure:
  - Crabhole Creek /Midland Highway Road and Rail crossings – DTP and VicTrack controlled structures

Actions

- Extensive road impacts
  - Repairs delivered under Disaster Relief and Recovery Arrangements (DRFA)
  - Predominantly unsealed road grading and resheeting, Drain clearing, Drainage structure reinstatement and Signage repairs

Goornong and district flood rectification works as at April 2026



Key: Completed Not Started

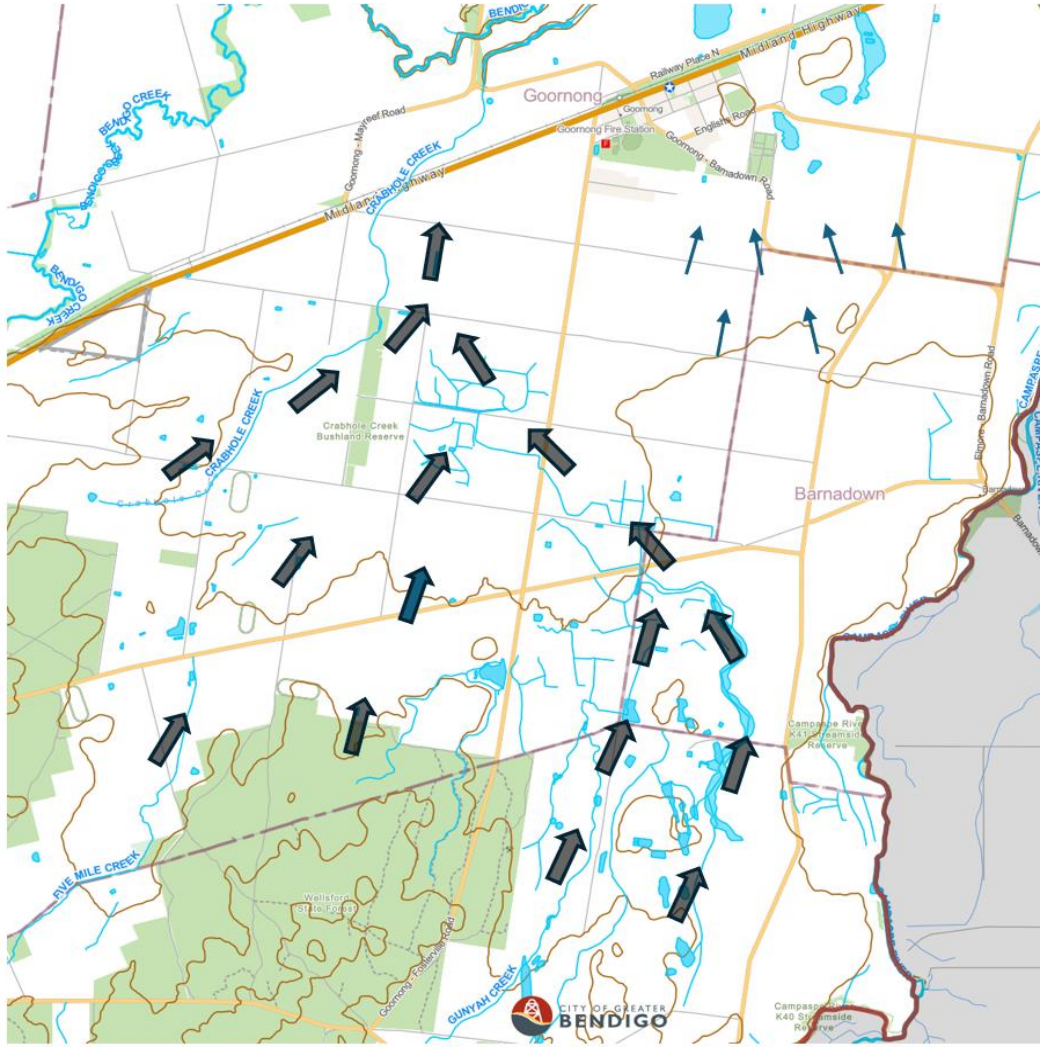
For **the Goornong district:**

- 862 works identified
- 96% of works completed
- 4% of works to be completed by the end of April 2026

These works included:

- Excavation or removal of debris
- Road and shoulder grading
- Gravel re-sheeting
- Drainage structure reconstruction
- Pothole and road repairs
- Replacing signage and guidance posts

Goornong flood event – rural catchment





Goornong AEP event rainfall equivalents

- Approximate representative rainfall amounts for various Annual Exceedance Probability (AEP) events. Flood study will modify these in accordance with climate change scenarios.

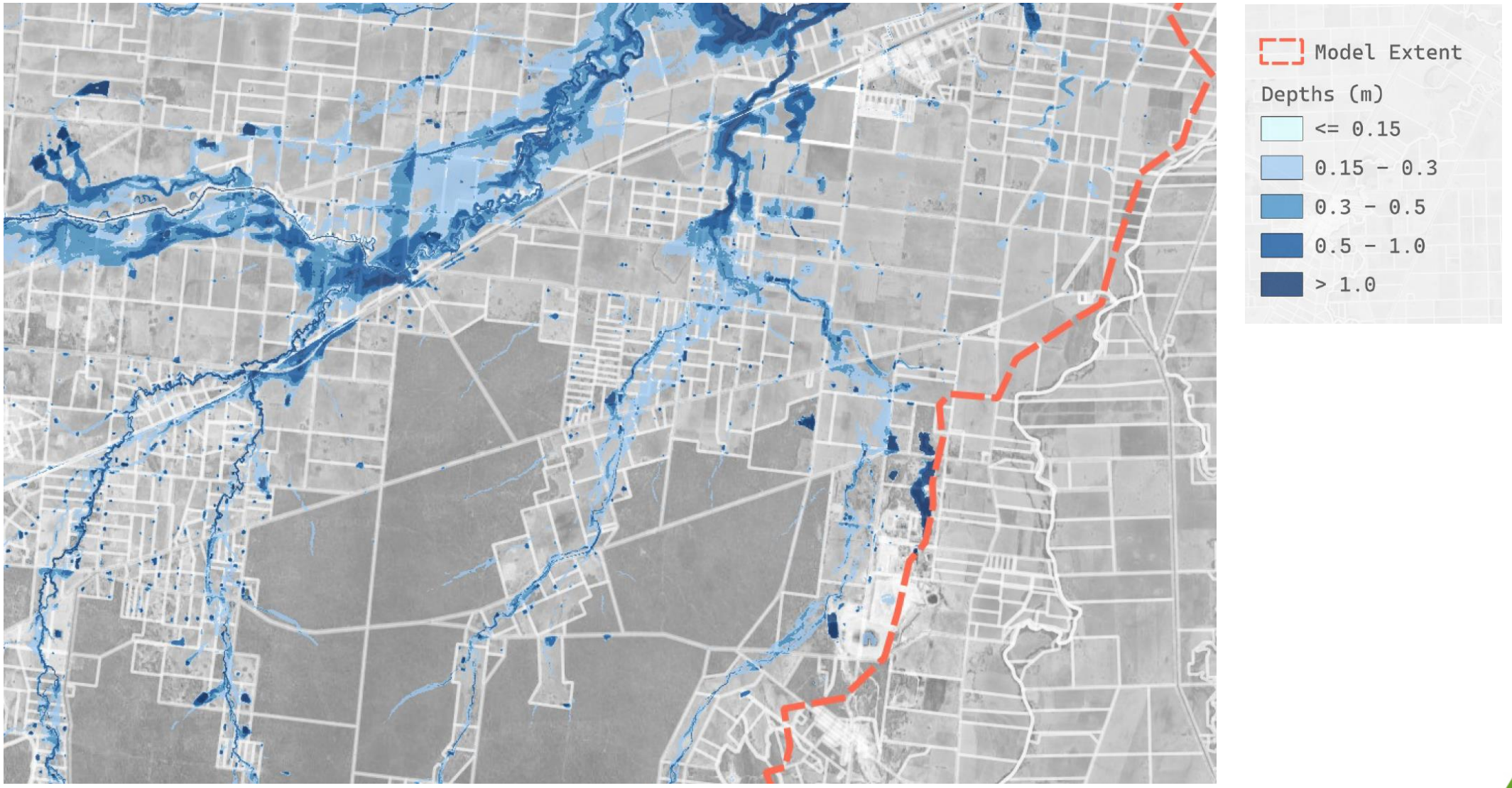
Goornong - Total Design Rainfall Depths (ARR2016)

Units: Milimetres (mm)

Duration	50% AEP	20% AEP	10% AEP	5%	1% AEP
30 min	12.9	19.2	24.0	29.1	42.7
1 hour	16.3	24.2	30.2	36.6	54.2
3 hours	23.0	33.1	40.7	48.7	70.1
6 hours	28.8	40.4	48.0	57.5	79.1
12 hours	36.2	49.7	59.1	68.6	90.2
24 hours	44.8	61.3	72.4	83.3	107.0

Event	Date	Event Size to FFA	Peak Flow (m^3/s)	Record Rank	Rainfall Duration
January 2024	8/1/2024	~ 3% AEP	126.7	3rd	~24 hours
October 2022	13/10/2022	~ 1% AEP	172.3	1st	~48 hours
February 2011	05/02/2011	~ 3% AEP	128.4	2nd	~72 hours

Goornong flooding – calibration of preliminary modelling for 2024 event



Other items

- Reported unauthorised works on waterways impacting downstream
  - Referred to NCCMA and Council planning unit for enforcement investigation (e.g. Pethricks Road)

- Private levees (ring levees)
  - Opportunity to construct private ring levees in favor of public levees
  - Likely to require planning approval, particularly in areas identified as being at flood risk
  - Need to demonstrate no adverse downstream impact via modelling
  - Discuss with NCCMA and City Planning unit
  - Guideline for approval process in draft and expected to be finalised by July 2026



Ring levee protecting farm house and private infrastructure from floodwater. *Source: North Central CMA*

- Waterway management
  - Waterway's usually either DEECA/Parks Vic or private managed land
  - City is not currently the appointed crown land manager nor has any responsibilities or rights over local waterways
  - Victorian Floodplain Management Strategy outlines what arrangements need to be established to allow Council or community intervention i.e. establishment of Water Management Scheme
  - Any clearing, desilting etc. requires various approvals, supporting flood study demonstrating need vs environment and funding.

Other items

- Flood depth markers
  - Not installed on every road which may be inundated
  - Generally limited to:
    - those roads designed to be overtopped i.e. floodways
    - Roads which experience regular inundation, even in lower intensity events e.g. 20% AEP
  - Focus on risk based assessment
    - Typical depth of inundation e.g. > 300mm
    - Velocity of flow e.g. >1 m/s
  - City can undertake risk assessment to determine need
  - Arterial Roads and Highways DTP responsibility
    - e.g. Midland Hwy, Bendigo-Murchison Rd



Other items

- Driveway culverts – landowner responsibility for maintenance and upgrade
  - Works within road reserve permit requirement
  - Typically recommend minimum 375mm where silting and blockages may be an issue (300mm absolute min)

- Urban drainage systems
  - To be designed in accordance with Australian Rainfall and Runoff Guidelines (current 2016) *(Sec 16.2 IDM)*
  - Minor residential networks generally designed to accommodate 20% AEP events (minor network) *(Sec 16.6 IDM)*
  - Major network represented by overland flow paths (e.g. roads, reserves) up to 1% AEP event *(Sec 16.17 IDM)*.
  - Designed to the standard of the day
  - Usually only upgraded at end of life i.e. when due for replacement (80+ year life) or where significant localised flood risk identified (e.g. above floor flooding)

- Drainage system maintenance
  - City undertakes periodic pit clearing (3 year cycle)
  - Concerns regarding drain maintenance can be reported – inspections and programming as required/resources permit

Time for questions

All questions raised will be captured.

Responses will be provided after tonight's session if we don't get to your question tonight.

Questions will be grouped into themes by the moderator.

A recording of this webinar and presentation will be available.

Next steps

- **Workshop 3: Community action planning**
  Bagshot Hall
  Tuesday 12 May 2026
  Supper 5:30pm, Workshop 6pm – 8pm

- **Goornong Flood Study & Goornong Structure Plan**
  Draft flood maps released for public feedback mid-2026.
  Draft Structure Plan released for public feedback late-2026.

Next steps cont.

- **Community Resilience Planning**

  Ongoing Community Resilience Officer

  Community Emergency Information Sheet to be available June 2026, led by **Goornong and District Emergency Planning Group (GDEPG)**

  Get involved - goornongdistrictepg@outlook.com

Enquiries

- **Infrastructure, drainage and planning:** flooding@bendigo.vic.gov.au
- **Emergency management and resilience:** resilienceandrecovery@bendigo.vic.gov.au
- **General enquiries:** 1300 002 642 | requests@bendigo.vic.gov.au
- **Goornong and District Emergency Planning Group:** goornongdistrictepg@outlook.com

Resources

Emergency Dashboard - https://www.bendigo.vic.gov.au/emergency

Snap Send Solve - https://www.snapsendsolve.com/

Vic Emergency App for warnings - https://emergency.vic.gov.au/respond/

Bureau of Meteorology (BoM) - https://www.bom.gov.au/

Goornong Flood Study - https://letstalkgreaterbendigo.com.au/flood-and-waterways-studies/goornong-flood-study

Goornong Structure Plan - https://letstalkgreaterbendigo.com.au/goornong-plan

Thank you